Report for Global Detroit

GlobalDETOIT

c/o New Solutions Group
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On
Nearshoring Research for Detroit-Windsor

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The information and advice in this report is for informational purposes only and constitutes general information relating to Canadian and US immigration law, policies and procedures. The information does not constitute legal or other professional advice and should not be relied upon as such.

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1. Preface

Our project has been a revealing and invigorating voyage. Our exploration has opened our eyes to Detroit's promise.

Steve Tobocman inspired us to consider fresh ideas and new perspectives based on his insightful and comprehensive examination of the impactful role immigrants have played in making Detroit great and will continue to play in the re-building and re-energizing of Metro Detroit's economy.

The excitement and promise of the New Economy Initiative for Southeast Michigan was apparent to us, along with the strong commitment of the community's leadership to make a difference at a time when Metro Detroit needs change. We are immensely grateful for their support for the project.

Our objective in this report is to contribute meaningfully to an exciting and broadly-based effort to re-ignite, re-align and re-invigorate Metro Detroit's economy.

The call for proposals was built around the thought that Detroit-based IT, engineering and R&D technology services operations might benefit from using Windsor-Essex as a location where Canadian immigration policies and programs might allow them to access additional highly skilled talent. We proposed that an even wider look be taken at policy induced differences that business might lever through having operations on both sides of the Detroit River.

Our report presents analysis, observations and recommendations which we hope integrate with what is already being done and with steps that will be adopted to move Metro Detroit's renewal forward.
2 Executive Summary

2.1 What the Report Addresses

Regional Labor Force, Demographic and Economic Base Analysis

The report commences with a broadly-based analysis of the economic structure of Metro Detroit, by undertaking an Economic Base Analysis. The global financial and economic crisis of 2008-2009 has had a major impact on the Metro Detroit economy. Updated analysis is needed even if it is still early in terms of fully determining the extent of the impact of the recession on the structure of the regional economy.

The Economic Base Analysis points to the areas that are enjoying the greatest growth in Metro Detroit. These findings update and tend to validate previous analyses that are reflected in the material that Global Detroit’s economic development partners shared with us.

Outsourcing, Nearshoring, Reshoring and Homeshoring

The second section of the report provides an in depth examination of the evolution, dynamics, competitive situation and trends of the business services/outsourcing sector where access to highly skilled foreign workers has been a prominent and controversial issue -- one that attracted the interest of Global Detroit. The discussion sheds light on the concepts of outsourcing, offshoring, nearshoring and re-shoring. Interviews with targeted companies and organizations provided important insights on the current situation in Metro Detroit. The role played by visas for highly skilled foreign workers -- notably the H-1B visa -- is assessed.

We draw special attention to what we believe are strong trends that Metro Detroit should position itself to benefit from -- reshoring and homeshoring to the United States, both in services and manufacturing. Where nearshoring to Canada may have been a major option for American companies in the first half of the last decade, the stars appear to be aligned to bring many high quality services and manufacturing jobs back to America.

Transportation, Distribution and Logistics - Detroit International Business Hub

The report singles out Transportation, Distribution and Logistics (TDL) as a sector that has the potential to grow measurably in importance in Metro Detroit/Windsor-Essex. The region already has global credentials as the world’s busiest commercial border crossing. Transportation, Distribution and Logistics is a prospective growth area identified in the Economic Base Analysis as an opportunity. The impact of the US-Canada "Beyond the Border" Action Plan, which was endorsed in December 2011 by President Obama and Prime Minister Harper, is also considered.
**The Bi-National Business Model**

As its special focus, this report examines in some detail, and from many angles, a concept that would measurably enhance Metro Detroit's and Windsor-Essex's international identity -- the opportunities for businesses to adopt a bi-national approach and seek to access the most favorable policies and programs offered in each country, including immigration.

**Canadian & US Immigration Policies**

Immigration is the prime area on which we were asked to focus, specifically the extent to which Metro Detroit-based companies might access more highly skilled foreign workers through having a sister operation in Windsor-Essex, all within the same cross-border metropolitan area. Extensive analysis of Canada's changing immigration programs is presented, in order to understand its many dimensions. Of great importance too is the ability of the temporary foreign workers based in either country to cross the border on a regular basis for legitimate business purposes such as meetings, marketing and client-interface.

**Policy-Driven Cross-Border Differences Where Choice Can Benefit Business**

Beyond immigration, we also identify a range of policy-driven differences between the two countries and how some of these might be advantageously levered by firms with a presence on both sides of the border. The areas of opportunity that are examined include:

- Government Financial Incentives for Business;
- R&D Tax Incentives and Support;
- Business/Academic Research Partnerships;
- Government Procurement;
- Private Sector Minority Procurement;
- The Defense and Homeland Security Markets;
- Health Care Markets; and

The report identifies where and how the bi-national business model could produce benefits and for what types of companies.

**2.2 Principal Conclusions & Recommendations**

**2.2.1 Metro Detroit Growth Sectors**

Our research, interviews and analyses confirm the continued movement of Metro Detroit toward a knowledge-based service economy, with strengths apparent in professional, scientific and technical services; health and social services; financial and insurance services; and the transportation, distribution and logistics sector.
1.a  Metro Detroit Growth Sectors

The key growth sectors that economic development officials in Metro Detroit should target in their economic development programs – in order of priority -- are:

- **Professional, Scientific and Technical Services** – in particular
  - Computer Systems Designs and Related Services
  - Management Consulting Services
- **Health and Social Services** – in particular
  - Hospitals – especially in the area of e-Health, digital imaging and electronic medical records
- **Financial and Insurance Services** – in particular
  - Securities Brokers and Other Financial Investment Activities
- **Transportation and Warehousing** – in particular
  - Scheduled Air Transportation (especially freight)
  - Freight Transportation Arrangement
  - Warehousing

Each of these industries has demonstrated growth in Metro Detroit and appears to have been able to withstand the economic upheaval of 2008/2009 to a greater or lesser degree. They represent the next generation of “knowledge industries” expected to become more prominent in the coming years.

This analysis reinforces many of the independent studies carried out by economic development organizations across Metro Detroit and underscores the target sectors many groups have already identified.

The demand for “highly qualified personnel” especially in engineering, computer programming and information technologies will continue and will in all likelihood be the single most important factor driving the economic growth of the region.

1.b  Windsor-Essex Economy

The economy of Windsor-Essex is considerably smaller, only about 10% of Metro Detroit’s. The structure of the Windsor-Essex regional economy carries some parallels, but has some fundamental differences compared to Metro Detroit:

- The Windsor-Essex economy is dominated by “Manufacturing” and “Accommodation and Food Services.”
- The sector for which Windsor-Essex and Metro Detroit share a common strength is the “Health Sector”.
- “Professional, Scientific & Technical Services”, “Finance & Insurance” and the other sectors of interest to Metro Detroit are significantly under-represented in Windsor-Essex although they have shown signs of growth between 2002 and 2006.

### 2.2.2 The Emergence of Reshoring and Homeshoring

This further shift towards services is occurring at a time when the United States is becoming notably more competitive and attractive globally. There is a discernable trend underway to reshore -- or bring home to the United States -- some of the services and manufacturing activities that have been outsourced in the past to foreign locations.

The emergence of reshoring is based to some extent on improved US cost competitiveness. The US dollar has moved to a lower range vis a vis the Yen and the Canadian dollar, while higher wages and inflation in China, India and other emerging economies have eroded the compelling cost advantages held by those countries. The reshoring trend is also propelled by the uncertainties of volatile exchange rates and unpredictable oil prices that impact transportation costs.

US business concerns have also focussed on the quality of offshore deliverables and products, the security of corporate intellectual property; reducing global supply chain risk (including from natural

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disasters); and linking R&D, innovation and product development more intimately with domestic project teams and product launch and production. These latter drivers lead companies to favor "homeshoring" -- that is, the assignment of work activity to US locations -- for certain activities. Alternatives to homeshoring are offshoring and nearshoring.

Several bell-weather decisions are marking the path of this trend to reshoring and homeshoring. GE chose Van Buren Township in Michigan for its information technology centre and an R&D facility. Galax.E Solutions in Detroit and Systems in Motion in Ann Arbor actively promote their homeshore roots. Other companies have chosen southern US locations. A White House Forum on Insourcing\(^1\) in January 2012 has focused considerable attention on the trend.

This makes a major initiative to identify Metro Detroit with reshoring extremely timely. Indeed, as the report was being finalized, President Obama and his administration endorsed "inshoring" and invited a dozen firms -- Galax.E Solutions among them -- to a White House event focused on the topic. Metro Detroit's strengths include an available workforce, strong post-secondary educational institutions, relatively low costs of doing business, available commercial real estate, excellent communications and transportation infrastructure, and an attractive quality of life for professionals.

At the earliest possible opportunity, Metro Detroit should host a major national conference on reshoring and homeshoring to position Detroit as a leading US hub. The conference would focus attention on the region and accelerate the growth of the Southeast Michigan information technology sector. The conference could be themed around the globalization pendulum finding a new equilibrium as it swings back to the US. An objective would be to educate national opinion leaders about the reshoring and homeshoring trends.

### Conclusions & Recommendations

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<th>2.a</th>
<th>Outsourcing, Nearshoring, Reshoring and Homeshoring</th>
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<td></td>
<td>Workforce and talent development is an overwhelming preoccupation of the outsourcing firms whom we surveyed. These firms identified people as their primary competitive advantage, and they are constantly looking for ways to upgrade employees' skills and encourage effectiveness, innovation, and responsiveness. This reinforces the wisdom that the alignment of workforce development and company needs is the centerpiece of the New Economy Initiative for Southeast Michigan led initiatives.</td>
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<td>Businesses are devoting less attention to visa programs for highly skilled foreign workers because the bureaucracy and limitations associated with these programs make them costly, complicated and less predictable than they once were. With less potential for foreign professionals, further attention should be given to developing the local workforce to meet emerging employer needs.</td>
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<td></td>
<td>The Workforce Intelligence Network (WIN) is positioned to become a key link between employers and educational institutions. Workforce development is vital to improving the availability of skilled workers ready to contribute to technology enabling companies, including outsourcing companies, software application development firms, and organizations requiring skilled technology professionals. There is a general void in mid-level resources in these fields. A WIN-driven program designed to accelerate training of entry level professionals in these fields could aggregate training programs being established by many local companies, reduce overall training costs for participating companies, and help create a more skilled technology-based workforce.</td>
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### Conclusions & Recommendations (Continued)

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<th>2.b</th>
<th>Establish an Initiative to Promote Metro Detroit as a Prime Location for the Delivery of Technology-Enabled Services in the United States</th>
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<td>The initiative to promote Metro Detroit for delivery of technology-enabled services would highlight it as a prime location for:</td>
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<td>1. offshore global service providers who seek to establish domestic (US) locations for operations and delivery centers;</td>
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<td>2. US professional, scientific, and technical services providers seeking to establish consulting operations, application development and outsourcing delivery centers;</td>
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<td>3. US companies seeking to establish new information technology centers and R&amp;D centers, particularly in the advanced manufacturing area; and</td>
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<td>4. US companies seeking to outsource manufacturing, IT services, and business processes.</td>
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<td>The Detroit Regional Chamber might be the appropriate lead for this initiative which will require collaboration and involvement from the full spectrum of economic development, innovation, workforce and community development organizations.</td>
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<th>2.c</th>
<th>Produce a Major National Conference on Reshoring &amp; Homeshoring to be Held in Metro Detroit</th>
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<td>A national conference would focus on the trend of reshoring and homeshoring of manufacturing and outsourced and captive technology-enabled services. The conference would:</td>
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<td>• serve as a convocation for advocates of bringing offshored jobs back to the US and for using US locations rather than offshore locations;</td>
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<td>• assist companies to understand o why they should “reshore” work, o what types of work they should reshore, and o how they should reshape;</td>
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<td>• help communities understand how to influence companies to bring work back to the US or not to send work offshore;</td>
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<td>• showcase Detroit’s success in this field; and</td>
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<td>• position Detroit as the primary major business center destination for reshoring and homeshoring.</td>
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<th>2.d</th>
<th>Analyze the Feasibility of Establishing a National Center for Globalization, Outsourcing, Reshoring, and Homeshoring Research on a Southeastern Michigan Campus</th>
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<td>The United States lacks solid data and documentation on outsourcing, reshoring, homeshoring and their impacts on local and global economies.</td>
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<td>A research center would aggregate data and publish scholarly reports on how globalization impacts the domestic economy (favorably and negatively) and could help establish Detroit as the center of thought leadership for globalization and outsourcing/offshoring research and its economic impacts.</td>
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#### 2.2.3 Detroit Global Business Hub

Our findings also point to world-class development potential for Metro Detroit/Windsor-Essex's transportation, distribution and logistics sector based on its multimodal potential and the opportunity afforded by the Canada-US "Beyond the Border" Agreement to establish preclearance facilities.

Detroit-Windsor has a timely opportunity, with several major signature projects pending, to embark on an early and serious effort to brand itself more fully, effectively and completely as an international business hub -- for which the report tentatively assigns the name of the "Detroit Global Business Hub". Detroit-Windsor stands above all other cross-border urban metropolitan areas in terms of international trade flows. The runner-up for commercial traffic -- Laredo/Nuevo Laredo -- has significant fewer transportation assets and is a metropolitan area with a population under a million. Another contender -- Hong Kong/Shenzhen -- is a highly populous but lacks the
cross-border infrastructure to handle a high volume of trade. In any case, Hong Kong has become a Special Administrative Region that is part of China.

The focus on transportation, distribution and logistics reflects our broader findings that there is a strong and expanding foundation in the sector from which to grow further. While Detroit/Windsor is already acknowledged as the world’s busiest international trade corridor, the prospective new projects will continue to take Metro Detroit/Windsor-Essex well beyond its historic Canada-US and NAFTA orientation. The multi-modal road, rail, water and air character of these new opportunities will benefit from the US-Canada "Beyond the Border" pre-clearance arrangements for international goods of "cleared once, accepted twice" and attract and grow global traffic to Detroit/Windsor's mid-continent hub.

The opportunity for international-oriented business to adopt a bi-national approach to their presence should be a further distinguishing component of the Detroit Global Business Hub initiative. Our examination shows that businesses can lever profitable policy-driven differences between the environments for business in Canada and the US in areas such as immigration, incentives, procurement and regulated market places such as health care, alternative energy, defence and homeland security.

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<th>Conclusions &amp; Recommendations</th>
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<tr>
<td>3.a Embark on a Major Program to Brand the Region as the &quot;Detroit Global Business Hub&quot;</td>
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<td>3.b The Detroit Global Business Hub Will Support Initiatives to Establish and Promote Metro Detroit/Windsor-Essex as a Bi-National Business Location</td>
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2.2.4 Canadian & US Immigration Policies

Our extensive review of the current immigration policies, programs and trends leads us to advise being cautious about the active promotion of a Metro Detroit/Windsor-Essex as a location for expanded access to highly skilled foreign talent at this time.

We believe however that a compliance-oriented approach to mentoring companies can be workable. To that end, we proposed the establishment of an Advisory Team of professionals to work with companies to develop the correct processes and relationships that will allow them to benefit fully from the available provisions while building productive relationships with Canadian and US officials.
On both sides of the border, there are excellent opportunities to help connect foreign students with
business in the expectation that they can remain in Canada and the US to fill the demand for people
with their skills and education. As a result of Global Detroit’s recommendations, an excellent
program, the Global Talent Retention Initiative (GTRI), has been launched on the US side.
Windsor-Essex would do well to emulate it.

Immigration policies are evolving in Canada -- and specifically in Ontario, which now has a
Provincial Nominee Program (PNP). The Canadian Citizenship and Immigration Minister continues
to signal that changes to the Canadian system can be expected, including steps to make it more
employer-driven. There are opportunities to work with the Federal and Ontario Governments to
explore how new programs -- especially provincially -- will meet or can be tailored to support
economic growth in Windsor-Essex.

## Conclusions & Recommendations

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<th>4.a</th>
<th>Exercise Caution in Advertising a Bi-National Business Model as a Means to Increase Access to Highly Skilled Foreign Workers via Canadian Immigration Programs</th>
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<td>We recommend that the promotion of Metro Detroit/Windsor-Essex as a location to have the option of dual access to highly skilled foreign workers should be approached with caution.</td>
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<td>- First, in terms of access to temporary work permits or Permanent Residence Status in Canada for highly skilled foreign workers, there is currently no one Canadian or Ontario immigration program of general application that would facilitate timely and relatively unrestricted entry of a significant number of highly skilled foreign workers.</td>
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<td>- Second, where third-country nationals from non-visa-exempt countries are involved, a highly problematic aspect of the bi-national Metro Detroit/Windsor-Essex business model will be getting visas for them in order to permit regular cross-border business travel for activities such as routine business meetings, client interface or order taking for goods or services their unit produces, or for training.</td>
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<th>4.b</th>
<th>Establish a Metro Detroit/Windsor-Essex Advisory Team of Professionals to Work with Companies on Immigration Aspects of the Bi-National Business Model</th>
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<td>We recommend that Global Detroit and its economic development partners establish a committed and qualified professional advisory team or task force on the technical aspects of immigration matters to work with businesses already in or considering a Metro Detroit/Windsor-Essex location to:</td>
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<td>- provide them with a frank introduction and assessment of the immigration-related aspects of a bi-national model;</td>
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<td>- provide specific initial counsel on how to proceed; and</td>
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<td>- provide seminars and other opportunities to get insightful and reliable information on immigration and border issues.</td>
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<td>The professional advisory team or task force will also provide valuable advice to Global Detroit and its economic partners on:</td>
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<td>- the evolution of Canadian and US immigration programs; and</td>
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<td>- the types of policy changes that should be sought to benefit the economic growth of Metro Detroit/Windsor-Essex.</td>
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<th>4.c</th>
<th>Connect Windsor-Essex Businesses with Foreign University &amp; College Students, especially in STEM disciplines, following the Southeast Michigan Model</th>
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<td>A well-focused program to bring businesses located or establishing in Windsor-Essex together with foreign university and college students at the University of Windsor and St. Clair College should be initiated and promoted, modeled on the Southeast Michigan program, Global Talent Retention Initiative of Southeast Michigan, launched with the leadership of Global Detroit. The prime disciplines to be targeted would be sciences, technology, engineering, mathematics (STEM) and management. The goal of the effort would be to encourage graduating students to remain in the Windsor-Essex region following graduation and to work with growing companies in the region.</td>
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<td>There are also other workforce development programs being pursued in Metro Detroit especially as part of the New Economy Initiative for Southeast Michigan that provide ideas and models from which Windsor-Essex could benefit.</td>
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### Conclusions & Recommendations (Continued)

| 4.d | Engage Immigrant Entrepreneurs as Potential Champions, Mentors and Investors, including Cross-Border Situations | We do not recommend a specific joint Metro Detroit/Windsor-Essex program to promote the region as a destination for entrepreneurial immigrants at this time. As a modest and appropriate starting point however, we recommend that Global Detroit convene a group of its partners to explore:
- Whether there are successful foreign-born entrepreneurs based in Metro Detroit and in Windsor-Essex who can become champions and mentors for new immigrant entrepreneurs; and
- Whether there are immigrant investors who have come to either community who, in addition to their obligations under the respective national programs, have sufficient funds and interest to also make investments across the border. |

| 4.e | Engage the Ontario Government on Ways in Which Provincial Nominee Program and Policies Can Be Modified to Support Windsor-Essex Economic Growth | We recommend that the City of Windsor and/or the Windsor-Essex Economic Development Corporation take the initiative to engage the Ontario Government to explore how an expanded Provincial Nominee Program could be tailored to generate high quality economic growth in Windsor-Essex by providing predictable access to nominations so as to attract Metro Detroit-based operations facing constraints on highly skilled workers to establish a bi-national presence across the border in Ontario. |

| 4.f | Participate actively in the follow through to the "Beyond the Border" Action Plan, Including the Planned High-Level Consultations | Global Detroit and its partner economic development organizations should take advantage of the opportunity to engage the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration in the consultations to be initiated under the "Beyond the Border" Action Plan by March 31, 2012. This initiative offers a timely opportunity to underline that border policies and procedures that reduce impediments and facilitate legitimate passage will stimulate the border region's economy. |

### 2.2.5 Policy-Driven Cross-Border Differences Where Choice Can Benefit Business

In addition to immigration, the report identifies and examines a number of policy areas -- preferential procurement, government financial incentives, business/academic partnerships, and regulated marketplaces -- where business may be able to gain some advantage by having sister operations in Metro-Detroit and in Windsor-Essex.

The bi-national business model envisages a company having dual operations in what is essentially a single metropolitan area -- allowing the company to take advantage of the most favorable policies and programs in each country.

Our detailed examination shows that the principal situations for business to lever center most notably on:
- explicit and implicit preferences in government procurement where, despite more open markets, the location of production remains an important factor;
- sectors such as health care and alternative energy where government policies significantly influence and shape the market place; and
- business/academic research partnerships, the context for which is quite different between the two countries.

In addition, our report documents the varied programs and approaches to business incentives offered by governments in the two countries. R&D tax credits and programs are an example of where there could be an advantage in being on one side of the border or the other. Being situated
in a border region enhances choice and the bi-national business model make a company more agile and quick to respond to opportunities.

The Bi-National Metro Detroit/Windsor-Essex Cross-Border Business Model
(One Metro - Two Systems)

<table>
<thead>
<tr>
<th>Potential Benefits of a Bi-National Business Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policies and Programs</td>
</tr>
<tr>
<td>Financial Incentives for Business</td>
</tr>
<tr>
<td>R&amp;D Tax Incentives &amp; Support</td>
</tr>
<tr>
<td>Business/Academic Research Partnerships</td>
</tr>
<tr>
<td>Government Procurement</td>
</tr>
<tr>
<td>Private Sector Minority Procurement</td>
</tr>
</tbody>
</table>
### Potential Benefits of a Bi-National Business Model (Continued)

<table>
<thead>
<tr>
<th>Policies and Programs</th>
<th>Benefits When a Windsor/Canadian-Based Operation Also Has a Location in Metro Detroit/United States</th>
<th>Benefits When a Metro Detroit/US-Based Operation Also Has a Location in Windsor-Essex/Canada</th>
</tr>
</thead>
</table>
| **Defense**           | - Improved access to US defense procurement on the part of Canadian defense & homeland security suppliers, especially for products purchased by TACOM LCMC and research led by TARDEC  
                         - US production circumvents US Department of Defense procurement prohibition of foreign textiles, clothing & food | - Ability for US companies to participate in the Canadian Industrial & Regional Benefit (IRB) programs which large Prime Contractors to the Canadian Military are obliged to have to ensure economic benefits flow to Canada. Especially beneficial in terms of generating IRB credits are Industry-Government-Academia Consortia involved in research |
| **Homeland Security**  | - Opportunities to participate in Michigan Security Network (MiSN) initiative that is introducing technology solutions to US Department of Homeland Security & positioning Michigan as the main Northern Border center, including the proposed Northern Border Security Test Bed | - Enhances opportunities to encourage & support collaborative projects & initiatives between Canada Border Services Agency & US Department of Homeland Security |
| **Health Care**       | - US has large, accessible, world-class health care market which is responsive to innovation  
                         - Immense US Federal government investment in R&D  
                         - World-class post-secondary institutions involved in medical research, such as University of Michigan and Wayne State University (University of Michigan received $US 430 million in Federal Health & Human Services science & engineering obligations in FY 2008, fourth highest among US universities) | - Canadian approvals for medical devices & products can reportedly be faster than with US FDA  
                         - Metro Detroit/US operations are better able, through a presence in Windsor-Essex/Ontario, to seek business in Ontario which represents 40% of the Canadian market  
                         - Success in Ontario may be a model for subsequent expansion to other countries whose markets are generally more like Canada than the US  
                         - The fact that Ontario has a "single-payer" system facilitates clinical trials  
                         - Canada’s government supported national health care system significantly reduces employee health care costs in Canada, thereby lowering employee fringe-benefit costs |
| **Alternative Energy** | - NextEnergy innovation hub in Detroit is a state-of-the-art location for companies and for technology development, positioned to be the 'go-to' place for  
                            - energy storage  
                            - LED lighting  
                            - DC energy systems | - Ontario’s Green Energy Act & Feed-In-Tariffs for solar and wind generated power mandate Ontario content requirements that encourage local manufacture and provision of services in Ontario |
2.2.6 What Businesses Can Benefit from a Bi-National Business Model

Having identified the variety of situations where the bi-national business model may offer special advantages to firms choosing Metro Detroit/Windsor-Essex, it is important to focus on the principal types of businesses that stand to benefit, so that they can be targeted and brought to appreciate the proposition and the fact that Metro Detroit and Windsor-Essex provide a unique location for them to pursue the opportunity.

Our interviews and experience tell us that there is a very low level of awareness of many of these opportunities -- even in cross-border regions themselves. In several cases, an obstacle or constraint is being turned into an opportunity. Also, the differences are driven by varied policy approaches that are founded in contrasting value systems. Though alike in many respects, Canada and the US have divergent traditions and systems of law and governance. Often, people tend to premise their thinking on the assumption that approach of others is fundamentally similar -- rather than at variance -- to their own.

The marketing and promotion of the bi-national opportunities will require well-coordinated efforts among Global Detroit and its economic partners to make the full case to companies, as firms will need to look at many aspects. Purpose-built partnerships with some of the additional central players can strength the messaging. These include research and technology transfer offices at universities and colleges; the TACOM LCMC and TARDEC Commands, and the Michigan Security Network (MiSN).

It bears underlining that Metro Detroit/Windsor-Essex is the only major cross-border metropolitan area along the US-Canada border, meaning that it is uniquely suited to the bi-national business model. The bi-national advantage can be among the key distinguishing factors as Detroit-Windsor promote the region as the Detroit Global Business Hub.

The Bi-National Metro Detroit/Windsor-Essex Cross-Border Business Model
(One Metro - Two Systems)

<table>
<thead>
<tr>
<th>Policies and Programs</th>
<th>What Businesses Can Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Procurement</td>
<td>- Windsor-Essex/Canadian-based firms that have a Metro Detroit production location can access restricted US-funded procurement such as:</td>
</tr>
<tr>
<td></td>
<td>o &quot;Buy America&quot;</td>
</tr>
<tr>
<td></td>
<td>o Urban transit, airport, marine and highway projects</td>
</tr>
<tr>
<td></td>
<td>o Lower value contracts beneath thresholds for NAFTA and WTO government procurement</td>
</tr>
<tr>
<td></td>
<td>- Metro Detroit/US-based operations with Windsor-Essex/Ontario production can access</td>
</tr>
<tr>
<td></td>
<td>o Canadian procurements below WTO GPA &amp; NAFTA thresholds</td>
</tr>
<tr>
<td></td>
<td>o Ontario urban transit projects</td>
</tr>
<tr>
<td></td>
<td>o Ontario solar and wind projects</td>
</tr>
</tbody>
</table>
### What Businesses Can Benefit from Bi-National Model? (Continued)

<table>
<thead>
<tr>
<th>Policies and Programs</th>
<th>What Businesses Can Benefit?</th>
</tr>
</thead>
</table>
| **Defense**           | - Metro Detroit/US production allows Windsor-Essex/Canadian-based defense suppliers to access the US market for:  
  - combat and tactical vehicles; trailers; material handling, fuel and water distribution and construction equipment; tactical bridging; and watercraft and rail equipment for TACOM LCMC  
  - textiles, clothing and food for US military  
  - Defense R&D aligned with TARDEC (Metro Detroit)  
  - Windsor-Essex/Canadian operations position Metro Detroit/US-based firms to access  
    - IRB offset commitments of Prime Contractors to Canadian Military  
    - Canadian Industry-Government-Academia Consortium that would earn 5 times IRB offset credits  
  - Both US and Canadian aerospace firms can benefit from Metro Detroit/Windsor-Essex talent and supplier bases interested to diversify from automotive |
| **Homeland Security** | - Metro Detroit is positioning itself a preferred location for companies supplying products and technologies of interest to the US Department of Homeland Security, especially:  
  - cyber security  
  - bio-defense  
  - border security  
  - The Northern Border Security Test Bed, being developed by the Michigan Security Network (MiSN), provides opportunities for Metro Detroit-based business, as well as partners in Windsor-Essex |
| **Health Care**       | - The Ontario market, developed from a Windsor-Essex base, can be an instructive experience for US-based health care firms intent on expanding to international markets, as many global markets are much more similar to Ontario than to the US  
  - Reportedly faster medical device approvals in Canada may encourage US suppliers to establish a base in a Canadian location such as Windsor-Essex  
  - Ontario is an attractive location for US firms undertaking clinical trials  
  - Metro Detroit is a major global centre for health care research, centred especially on the University of Michigan |
| **Alternative Energy**| - Ontario content requirements encourage the establishment of Ontario production of solar and wind generation equipment, for which Windsor-Essex is a significant location  
  - NextEnergy in Metro Detroit is a state-of-the-art innovation hub |
| **Transportation, Distribution & Logistics** | - Companies offering transportation, distribution and logistics services, support and IT infrastructure will be attracted to Metro Detroit/Windsor-Essex as the principal multi-modal preclearance location for Canada-US, NAFTA and international road, rail, air and water movements  
  - New border-related infrastructure (e.g. New International Trade Crossing) and new multi-modal transportation hubs are potential purchasers of state-of-the-art technologies and products |
| **Research-Intensive Corporate Activities** | - Research-intensive firms may benefit from having access to:  
  - More favorable Canadian R&D tax incentives  
  - US SBIR and STTR programs with their considerable financial resources  
  - Opportunities to undertake collaborative research projects with post-secondary educational institutions in two differently geared systems, including the approach to IP, extent of government involvement, levels of funding, and how funding is structured  
  - Opportunities exist with the US TARDEC Military Command and in the homeland security field in connection with the proposed Northern Border Security Test Bed |
3 Regional Labor Force, Demographic and Economic Base Analysis for Metro Detroit and Windsor-Essex

Specific strategies must be based on a fundamental understanding of what is happening in the broader regional economy. This Economic Base Analysis seeks to develop an accurate and updated picture of which sectors are performing best in Metro Detroit and are therefore prime candidates on which to focus economic development initiatives.

For this study the Ann Arbor Metropolitan Statistical area has been combined with the Metro Detroit Metropolitan Statistical Area to better reflect the service area of the study partners.

Note on Data Sources: The US Census Bureau provides comprehensive data for the 2002 and 2007 Economic Census. The information is organized using the North American Industrial Classification System or NAICS code. The NAICS code is arranged in levels from 2 digit codes (31 to 33 for Manufacturing or 44 to 45 for Retail Trade, for example) to 6 digits which narrowly define each sub-category (Example 333995 is Fluid Power Valve & Hose Fitting Manufacturing and 443130 is for Camera and Photographic Supplies Stores). At its finest level the NAICS code has approximately 1,000 classifications. At the Metropolitan Area level the Census Bureau omits data on Agriculture, Mining, Construction and Public Administration however these are not essential to our analysis.
3.1 Metro Detroit Employment Trends 2002 to 2007

The first stage of the Economic Base Analysis looks at 2002 and 2007 employment data.

**Economic Profile of Metro Detroit (+ Ann Arbor)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>0</td>
<td>8,635</td>
<td>8,635</td>
<td>1%</td>
<td>-</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>335,642</td>
<td>250,063</td>
<td>-85,579</td>
<td>15%</td>
<td>-25%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>97,958</td>
<td>94,300</td>
<td>-3,658</td>
<td>6%</td>
<td>-4%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>245,406</td>
<td>221,341</td>
<td>-24,065</td>
<td>13%</td>
<td>-10%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>50,026</td>
<td>59,435</td>
<td>9,409</td>
<td>3%</td>
<td>19%</td>
</tr>
<tr>
<td>Information</td>
<td>62,352</td>
<td>47,186</td>
<td>-15,166</td>
<td>3%</td>
<td>-24%</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>100,432</td>
<td>103,104</td>
<td>2,672</td>
<td>6%</td>
<td>-3%</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>32,992</td>
<td>32,098</td>
<td>-894</td>
<td>2%</td>
<td>-3%</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>166,730</td>
<td>180,100</td>
<td>13,370</td>
<td>11%</td>
<td>8%</td>
</tr>
<tr>
<td>Administrative and Support and Waste Management and Remediation</td>
<td>169,126</td>
<td>189,601</td>
<td>20,475</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>Educational services</td>
<td>7,379</td>
<td>7,675</td>
<td>296</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>252,258</td>
<td>276,394</td>
<td>24,136</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>35,415</td>
<td>31,008</td>
<td>-4,407</td>
<td>2%</td>
<td>-12%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>158,637</td>
<td>159,872</td>
<td>1,235</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>58,702</td>
<td>50,421</td>
<td>-8,281</td>
<td>3%</td>
<td>-14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,773,055</strong></td>
<td><strong>1,711,233</strong></td>
<td><strong>-61,822</strong></td>
<td><strong>100%</strong></td>
<td><strong>-3%</strong></td>
</tr>
</tbody>
</table>

**Employment by Industry – Metro Detroit (+ Ann Arbor) 2007**

Source: US Census Bureau

In Metro Detroit, the largest employer groups are “Health Care” and “Manufacturing” followed closely by the “Retail Sector”.

Global Detroit - Final Report
Nationally employment has been shifting from Agriculture, Manufacturing and other Producer sectors to the Service Providers. This trend is evident in Metro Detroit data. Most categories in the Services sector added jobs between 2002 and 2007, led by “Health Care” with an increase of 24,136 (up 10%), “Administrative & Support Services” with a net gain of 20,475 (a 12% increase) and “Professional, Scientific & Technical Services” with a gain of 13,370 (up 8%). On the other hand, the “Manufacturing” sector, the biggest employer in 2002, shed 85,579 jobs between 2002 and 2007, fully one quarter of its total employment.

3.2 Location Quotient Analysis

The absolute number of people employed in each sector does not necessarily provide a complete picture of the local economy.

It is instructive to look at the distribution of industry sectors in Metro Detroit compared to a wider area using a Location Quotient analysis. A Location Quotient (or LQ) is a ratio of the number of people employed in each industry as a proportion of the total employment in the region, compared to the reference area.

The three-state-region of Michigan, Ohio and Indiana was selected as the reference area for this analysis as it represents the manufacturing heartland of America and there is a degree of homogeneity in the economies of the three states. Choosing just Michigan would have represented too little variance, given that Metro Detroit represents nearly half of the total population of the entire state.

In a Location Quotient analysis:

- Where the LQ = **1.00**, the ratio of that industry’s employment in Metro Detroit is the same as that for the reference area (in this case the tri-state region of Michigan, Ohio and Indiana).

- Where the LQ > **1.00**, the ratio of employment in that industry is higher in Metro Detroit than it is for the three state reference area. A high LQ (LQ > 1.25) shows that the industry has grown larger than the local marketplace and is serving customers outside the region returning export revenue which expands the local economy. A high LQ also suggests the region may possess a “competitive advantage” for that industry.

- Where the LQ < **1.00**, the ratio of employment in that industry is less in Metro Detroit than it is for the three state reference area. When the LQ is significantly lower (LQ < 0.75) it shows that the industry is under-represented in the area and that there is “leakage” of dollars from the local economy to another marketplace. It also suggests that there are underlying factors which make the region uncompetitive for this industry.
The Location Quotient formula is as follows:

\[
LQ = \frac{E_{ij}}{E_{ij}} \times \frac{E_{ir}}{E_{jr}}
\]

Where:

- \( E_{ij} \) represents total employment in industry \( i \) in community \( j \)
- \( E_{jr} \) represents total employment in industry \( i \) in reference area \( r \)

**Location Quotient Analysis - Metro Detroit (+ Ann Arbor) 2007**

Source: US Census Bureau - Reference Area = Michigan, Ohio, Indiana

The industry sector with the greatest degree of concentration in Metro Detroit is “Professional, Scientific & Technical Services” with a very high LQ of 1.78. In part this reflects that Metro Detroit is the largest commercial centre in the three state reference area and professional services tend to congregate there.

Despite the fact that “Manufacturing” is one of the largest employers in Metro Detroit, it has the lowest LQ of all sectors (LQ of 0.77). Manufacturing tends to be principally located outside the urban area, not in urban core of Metro Detroit. Also, the low LQ for Metro Detroit attests to the strength of manufacturing across the three states reference area.

The same is true for “Health Care”. It has an LQ of 0.90 which is below the reference area norm despite the fact that Health Care and Manufacturing employ the largest number of people in Metro Detroit.
Drilling down through the classification codes to the 6 digit level will provide a more accurate picture of which specific industries are concentrated in the Metro region. A detailed analysis of several key sectors is provided in Section 3.6.

### 3.3 Shift/Share Analysis

A further step in an Economic Base Analysis is to determine which industries are growing and which are contracting, especially from an employment perspective. This can also be done using revenue data or the number of firms in each category but most analysts use employment data.

The following graph, drawn from the earlier "Economic Profile of Metro Detroit (+ Ann Arbor)", shows the Net Change in Employment for each industry sector in the Detroit Metro area (including Ann Arbor). The figures show a net loss of 61,822 jobs lost between 2002 and 2007. As identified earlier, the manufacturing sector had the most significant change losing 85,579 jobs. This occurred before the recession of 2008/2009 which exacerbated the situation. The decline in manufacturing employment across North America has been ongoing for a considerable period of time.

**Net Change in Employment 2002/2007**

Metro Detroit (incl. Ann Arbor)

Source: US Census Bureau

![Chart showing net change in employment for different sectors](chart.png)

In order to put these employment gains and losses in context however, a **Shift/Share Analysis** is applied. The analysis compares the growth or contraction of individual industries in Metro Detroit to the overall performance of the three state reference area and to the performance of each industry within that same reference area. The Shift/Share analysis takes the net change in employment for each industry and attributes portions of that net change to three distinct factors:

- **Reference Area Growth Effect** – is the economic cycle for the Tri-State Area trending up or down?
- **Industrial Mix Effect** – is the industry growing overall or is it in decline?
- **Regional Shift Effect** – what proportion of the change in employment is due to local effects?
The Regional Shift Effect is the most important number. It is an indicator for the performance of the local industry in Metro Detroit taking into account what has been happening elsewhere in the three state reference area (Michigan, Ohio and Indiana).

To illustrate, consider the Regional Effect for “Administrative and Support Services and Waste Management and Remediation” in Metro Detroit. Despite posting an absolute increase of more than 20,000 jobs in Metro Detroit, the analysis shows the sector was not keeping pace with the growth in this industry across the rest of the three state area. The result is a Regional Effect with a negative number (-4,016) for the sector.

### Shift/Share Analysis

<table>
<thead>
<tr>
<th>Industrial Sector – NAICS</th>
<th>Net Change Employment</th>
<th>Reference Area Effect</th>
<th>Industry Effect</th>
<th>Regional Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilities</td>
<td>-85,579</td>
<td>3,906</td>
<td>-49,049</td>
<td>-40,436</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-3,658</td>
<td>1,140</td>
<td>670</td>
<td>-5,468</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>-24,065</td>
<td>2,856</td>
<td>-16,340</td>
<td>-10,581</td>
</tr>
<tr>
<td>Retail trade</td>
<td>9,409</td>
<td>582</td>
<td>8,998</td>
<td>-171</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>-15,166</td>
<td>726</td>
<td>-10,058</td>
<td>-5,834</td>
</tr>
<tr>
<td>Information</td>
<td>2,672</td>
<td>1,169</td>
<td>527</td>
<td>977</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>384</td>
<td>-384</td>
<td>-894</td>
<td></td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>13,370</td>
<td>1,940</td>
<td>-11,456</td>
<td>22,885</td>
</tr>
<tr>
<td>Administrative and Support and Waste</td>
<td>20,475</td>
<td>1,968</td>
<td>22,822</td>
<td>-4,315</td>
</tr>
<tr>
<td>Educational services</td>
<td>296</td>
<td>86</td>
<td>1,138</td>
<td>-928</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>24,136</td>
<td>2,935</td>
<td>18,409</td>
<td>2,792</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>-4,407</td>
<td>412</td>
<td>125</td>
<td>-4,944</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>1,235</td>
<td>1,846</td>
<td>6,357</td>
<td>-6,968</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>-8,281</td>
<td>683</td>
<td>-5,569</td>
<td>-3,395</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>-69,563</strong></td>
<td><strong>20,633</strong></td>
<td><strong>-33,810</strong></td>
<td><strong>-57,279</strong></td>
</tr>
</tbody>
</table>

Note: The Reference Area in this calculation is the tri-state area of Michigan, Ohio and Indiana

Only three sectors in the analysis (Professional Scientific & Technical Services; Health Care; and Finance & Insurance) posted gains in both absolute and relative performance compared to the three state area with “Professional Scientific & Technical Services” far out in front of the pack.

The dramatic decline in “Manufacturing” in Metro Detroit identified earlier was softened somewhat by an even more dismal record for “Manufacturing” elsewhere in Michigan, Ohio and Indiana. A similar situation is found in the performance of the “Retail” sector.

Four sectors that actually posted gains in employment between 2002 and 2007 (Transportation and Warehousing; Administrative and Support Services; Education; and Accommodation & Food Services) did not keep pace with the growth of their sectors elsewhere in the three states and as a result ended up with negative numbers for their Regional Effect in this Shift/Share Analysis.
Metro Detroit (including Ann Arbor)
Source: US Census Bureau

The formulae for the calculation of the Shift/Share Analysis are:

1. **Reference Area Growth Effect** is calculated as follows:
   \[ RG = E_j \times g \]
   Where:
   - \( E_j \) represents the level of employment in industry \( i \) in community \( j \) in the base period (Year 1)
   - \( g \) represents the overall reference area growth rate.

2. **Industrial Mix Effect** is calculated as follows:
   \[ IM = (\text{Change in } E_r - g) \times E_j \]
   Where:
   - \( \text{Change in } E_r \) represents the growth rate for industry \( i \) in reference area \( r \), that is, the percentage change in industry \( i \) employment in the reference area \( r \) between Year 1 and Year 2.
   - \( g \) represents the overall reference area growth rate.
   - \( E_j \) represents the level of employment in industry \( i \) in community \( j \) in the base year (Year 1).

3. **Regional Shift Effect** is calculated as follows:
   \[ RS = (\text{Change in } E_j - \text{Change in } E_r) \times E_j \]
   Where:
   - \( \text{Change in } E_j \) represents the growth rate for industry \( i \) in community \( j \), that is, the percentage change in industry employment in community \( j \) between Year 1 and Year 2.
   - \( \text{Change in } E_r \) represents the growth rate for industry \( i \) in reference area \( r \), that is, the percentage change in industry \( i \) employment in reference area \( r \) between Year 1 and Year 2.
   - \( E_j \) represents the level of employment in industry \( i \) in community \( j \) in the base year (Year One).

*Source: Carvalho, E. 2002, University of Waterloo, Ontario.*
3.4 Identifying Emerging Sectors, Strong & Growing Sectors, Challenged Sectors and High Priority Retention Targets

Data from both the Location Quotient and Shift/Share Analysis can be combined to graphically portray those sectors which are:

- strong and growing from an employment perspective;
- “emerging” sectors which still have low Location Quotients but are experiencing relatively strong growth in employment and with support could become leading sectors in the local economy; and
- high priority retention targets which have high Location Quotients, but are struggling; and
- sectors facing serious challenges and which are likely beyond the influence of local efforts to sustain them.

Two versions of the graphs have been produced. One includes both the “Manufacturing” and “Professional Scientific & Technical Services” which are at either ends of the performance spectrum. The second graph excludes those two extremes so that the relative performance of other sectors can be more easily shown.

On both graphs, the size of each bubble represents “Total Employment” in the sector. The horizontal axis is the “Location Quotient”, so those bubbles on the right have a greater relative concentration than those on the left. The horizontal axis represents the “Regional Shift” from the Shift Share Analysis. The bubbles in the upper half are growing while the bubbles in the lower half are shrinking relative to the wider three state reference area.
3.5 Strategic Targeting for Metro Detroit

Based on the overall Economic Base Analysis four sectors stand out as prospective targets for Metro Detroit’s economic development initiatives:

- Professional, Scientific & Technical
- Transportation & Warehousing
- Finance & Insurance
- Health & Social Services

<table>
<thead>
<tr>
<th>NAICS CODE</th>
<th>INDUSTRY</th>
<th>LQ</th>
<th>REGIONAL EFFECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>48/49</td>
<td>Transportation &amp; Warehousing</td>
<td>1.12</td>
<td>-171</td>
</tr>
<tr>
<td>52</td>
<td>Finance &amp; Insurance</td>
<td>1.10</td>
<td>977</td>
</tr>
<tr>
<td>54</td>
<td>Professional, Scientific &amp; Technical</td>
<td>1.78</td>
<td>22,885</td>
</tr>
<tr>
<td>62</td>
<td>Health &amp; Social Services</td>
<td>0.90</td>
<td>2,792</td>
</tr>
</tbody>
</table>

- "Professional, Scientific and Technical Services" is the most exciting sector. Outsourcing of information and technical services has been a key driver in the growth of the sector to become one of the power houses of the local economy with an LQ of 1.78. The sector added 13,370 jobs in absolute terms between 2002 and 2007 however due to relatively stronger local growth in Metro Detroit the Regional Effect multiplies this impact to 22,885 jobs.

- “Transportation and Warehousing” has a reasonable level of concentration already in Metro Detroit as shown by the LQ of 1.12. It also had an absolute growth in employment of 9,409 although this was influenced by the overall growth rate of the industry within the tri-state area resulting in a Regional Effect that is a modest negative 171.
- "Finance and Insurance" also has a reasonable concentration already in Metro Detroit with an LQ of 1.10. The sector added 2,672 jobs in absolute terms however strong performance across the reference area resulted in a Regional effect of 977.

All three of these sectors are basic Industries in that they serve markets outside the local area and are therefore unrestrained in their growth by the size of the local market. As exporters they also draw money into the Metro Detroit region, strengthening the local economy.

- "Health and Social Services" is not a significant exporter but it is a powerful job creator. The Health sector is the single largest employer group in Metro Detroit with total employment of 270,000. It added 24,136 jobs between 2002 and 2007, giving it a Regional Effect of 2,792. Most observers agree that as baby boomers age and life expectancies continue to lengthen, the demand for health services will only increase in the future.

**Detailed Examination of Target Sectors**

To more clearly identify the industry subsectors driving growth in the main targeted sectors that are identified above, a further phase of the analysis drills down deeper into the NAICS classifications to profile the performance of individual industry subgroups. As well, the analysis draws on more recent Business Patterns Data for 2009. This analysis is in Appendix A.1.

### 3.6 Conclusions from the Analysis

Summarizing the findings of the economic base analysis and the closer examination of the four targeted sectors in Appendix A.1, it is recommended that economic development officials in Metro Detroit target the following sectors and subsectors for their economic development programs – in order of priority:

- **Professional, Scientific and Technical Services** – in particular
  - Computer Systems Design and Related Services
  - Management Consulting Services

- **Health and Social Services** – in particular
  - Hospitals – especially in the area of e-Health, digital imaging and electronic medical records

- **Financial and Insurance Services** – in particular
  - Securities Brokers and Other Financial Investment Activities

- **Transportation and Warehousing** – in particular
  - Scheduled Air Transportation (especially freight)
  - Freight Transportation Arrangement
  - Warehousing

Each of these industries has demonstrated growth in Metro Detroit and appears to have been able to withstand the economic upheaval of 2008/2009 to a greater or lesser degree. They represent the next generation of “knowledge industries” expected to become more prominent in the coming years.

This analysis reinforces many of the independent studies carried out by economic development organizations across Metro Detroit and underscores the target sectors many groups have already identified.

The common theme in this analysis and in various studies completed by economic development groups across Metro Detroit, including the Detroit Regional Chamber (Southeast Michigan Life
The demand for “highly qualified personnel” especially in engineering, information technologies, software development, computer programming, networking and systems design and integration will continue and will in all likelihood be the single most important factor in the economic growth of the region. Section 4 of this report, "Outsourcing: Offshoring, Nearshoring, Reshoring and Homeshoring -- A Dynamic Industry with Opportunities for the Bi-National Region", relates directly to these opportunities.

We surmise that the strength of the "Other Financial Investment Activities" area of "Financial and Insurance Services" is accounted for at least in part by the emergence of the firm, Quicken Loans, the largest online originator of mortgage loans in the US, whose activities are profiled on page 55.

The analysis needs to be reviewed from time to time as the US Census Bureau updates their economic data. It will be important to see which sectors have weathered the recession of 2008/2009 once new data is released. There may be cause to amend the targeted sectors to reflect the reality of the shifting economic base of Metro Detroit.

3.7 Comparison with Windsor-Essex

As a complement to the more detailed analysis of the Metro Detroit economy, it is useful to look at the structure and trends in the Windsor-Essex economy to establish the degree to which it is aligned, even though the latest full Canadian census data in for 2006.

The economy of Windsor-Essex is considerably smaller, only about 10% of Metro Detroit’s. Total employment in Windsor-Essex in 2006 was 165,100 compared to 1.7 million for Metro Detroit in 2007.

The structure of the Windsor-Essex regional economy carries some parallels, but has some fundamental differences compared to Metro Detroit.

The Windsor-Essex economy is dominated by “Manufacturing” and “Accommodation and Food Services.”

The “Manufacturing” sector in Windsor-Essex employed 43,700 people in 2006 representing 26.5% of the region’s total employment (83% of the manufacturing jobs are in the auto or related sectors). Since 2007 the auto sector and manufacturing in general have taken a severe beating -- not dissimilar to the US side -- with numerous plant closures and widespread layoffs.

The Location Quotient Analysis uses the Province of Ontario as a Reference Area and clearly shows that “Manufacturing” (with major companies including Ford, General Motors and Chrysler all represented in Windsor) and “Accommodation & Food Services” (led by Caesar's Casino Windsor) dominate the economic landscape of the region. Both have LQs of 1.55 and stand out as two pillars of the local economy.
The only sector for which Windsor-Essex and Metro Detroit share a common strength is the “Health Sector” which has an LQ of 1.27.

“Professional, Scientific & Technical Services”, “Finance & Insurance” and the other sectors of interest to Metro Detroit are significantly under-represented in Windsor-Essex although they have shown signs of growth as evident in the following graph showing the net change in employment between 2002 and 2006.

The Data sources used for the Windsor-Essex comparison are the Census Metropolitan Area (CMA) counts from the Statistics Canada 2001 and 2006 Census. There is an important note to the statistics for the Windsor CMA. The boundaries established for the Census Metropolitan Area by Statistics Canada do not conform to local political boundaries. The CMA excludes the communities of Leamington, Kingsville and the southern part of the Town of Essex in the County of Essex, which are predominately rural with strong agricultural roots. As a result “Agriculture” is under-represented in this graph.
Although business services generally were under-represented in the Windsor-Essex economy, between 2001 and 2006 “Transportation & Warehousing”, “Finance & Insurance” and “Professional, Scientific & Technical Services” all posted substantial gains in employment which corresponds to the Metro Detroit experience. In Windsor-Essex these sectors could be considered “emerging” sectors as the region moves forward.

In fact the WindsorEssex Economic Development Corporation (WEEDC) – a partner in the Global Detroit initiative - is pursuing a strategy targeting ten significant industries they believe have the potential to diversify and grow the regional economy. Several of these strategic targets closely parallel targets identified by Metro Detroit’s economic development organizations, in particular; Health, Professional Services, and Logistics.

**Sectors Targeted by Identified by the WEEDC**
- Advanced Manufacturing
- Health & Life Sciences
- Automotive Manufacturing
- Professional Services/Back-Office Operations
- Renewable Energy and Related Technologies
- Education
- Creative Industries/Digital Media
- Logistics/Warehousing
- Agri-Business
- Tourism

"If the Michigan economy of the future is built on a base of factories, farms and tourism we will be a low-prosperity state. The world has changed fundamentally. We either adjust to the changes or we will continue to get poorer compared to the nation.

"The alternative – Michigan 3.0 – is a Michigan concentrated in the knowledge-based sectors of the economy: health care, education, finance and insurance, professional and technical service and information. These are the fast growing and high wage sectors of the American economy today and tomorrow."

- Lou Glazer, CEO, Michigan Future

4  Outsourcing: Offshoring, Nearshoring, Reshoring and Homeshoring -- A Dynamic Industry Offering Opportunities for the Bi-National Region

Over the past 30 years, with the increasing interconnection and interdependence of global economies, different types of business activities have spread around the world as corporations sought new markets for their goods, available resources (natural, capital, and human), and generally lower costs of production.

From the end of WW II onwards, trade organizations and agreements made it possible for American transnational corporations to act as global companies, while in the 1970’s and 1980’s, American and Japanese electronics firms began to move their production facilities to lower cost locations such as Taiwan and Singapore. Other industries followed the model, chasing lower costs and increased productivity for manufacturing.

In general, companies first began moving their operations offshore to new facilities they created for their own use. Later, the practice of contracting with third party providers grew more common, as the outsourcing industry developed.

Outsourcing is a generic term used when companies contract non-critical, but essential, business processes and services to third-party vendors, either domestically or offshore.

Offshore outsourcing has emerged as a popular competitive strategy for large and small companies that believe they must perform their business processes offshore in order to survive in the domestic and international marketplace.

4.1  Origins and Growth of Technology Services Contracting

The contracting of information technology and business processes and functions by major corporations began to take hold in the late 1970’s also as large consulting firms, including H. Ross Perot’s Electronic Data Systems (EDS), and the major accounting firms, including Arthur Andersen & Co., were hired to manage internal corporate information technology operations. Other functions, such as payroll services, were also contracted out to third parties such as Automated Data Processing (ADP).

In 1984, General Motors (GM) acquired Electronic Data Systems (EDS) which had been providing long term technology services, including data processing management personnel and computing equipment to GM and other companies. EDS took control of most of GM’s IT and managed it until GM spun the organization off in 1996 while guaranteeing the new company significant revenue from GM for at least 10 years. With that “deal”, outsourcing took off in the United States as many other major corporations followed the model and contracted out their IT operations.

Along with the consolidation of the major accounting firms (with the “Big Eight” becoming the “Big Four” – PricewaterhouseCoopers, Deloitte, Ernst & Young, and KPMG) came the separation of their consulting and technology practices. For example, KPMG’s consulting practice was spun off in January, 2000, went public in February, 2001, and was renamed Bearing Point in 2002. (Bearing Point went bankrupt late in the decade.)

Arthur Andersen’s business and technology consulting practices were more successful. They separated from the accounting activities in 1989 with the formation of Andersen Consulting. Andersen Consulting became Accenture in 2001 and has grown to become one of the world’s
largest consulting companies with more than 244,000 employees and annual revenues of $US 25.5 billion. Increasingly, its outsourcing services are overlapping with its consulting business. Outsourcing now accounts for 41 percent of the company’s global revenue, with 2011 growth of 13 percent. (The Arthur Andersen accounting firm, however, went out of business as a part of the Enron scandal.)

**Growth of Offshore Outsourcing**

The movement of North American-based technology firms actually started in the late 1980’s and 1990’s, when major US-based technology companies, such as Texas Instruments (1985), Hewlett Packard (1987) and Motorola (1989), along with Canada’s Nortel (1991), began to develop captive software development and IT operations in Indian cities such as Bangalore.

In the mid-late 1990’s, offshore outsourcing intensified coincident with the start of the dot.com boom (which funnelled IT talent towards Internet start-ups and created a tight market for skilled IT workers -- including coders and developers, database analysts, quality assurance specialists, and architects -- in the traditional corporate sector) and the serious threats of a technical doomsday with the year 2000 (Y2K) crisis (which required almost every company to reprogram key systems to recognize dates in the new century). Legacy systems specialists – familiar with early generation computer languages – were in short supply especially. The Y2K crisis provided many Indian companies with their first outsourcing contracts as US corporations began to shift their IT enabled business services abroad.

The demand for IT workers far surpassed the supply and some companies found that instead of hiring one engineer in the United States for $US 100,000, they could hire up to 10 engineers for the same amount of money in a developing country such as India. Indian outsourcing companies, specializing in basic functions, such as Y2K remediation, flourished, grew and developed track records and relationships with leading US-based corporations.

In the new millennium, companies recognized that, if the offshore providers were able to handle the Y2K issues and if the offshore locations could support captive operations, offshore based companies could also provide other solutions. With CEO’s under pressure to raise productivity, improve profitability, and reduce operating costs, offshore outsourcing emerged as a popular competitive strategy and offshore locations gained favor due to their significantly lower costs, particularly when measured by labor rates.

Resistance to "unknown" and emerging service providers decreased during the period, as skilled workers continued to migrate to newer entrepreneurial ventures and corporate management increased pressure for cost savings forcing companies to look to new providers for support. Indian outsourcing companies, such as Wipro, Tata Consulting Services (TCS), Infosys, Satyam, and others gained awareness, credibility, momentum, and traction in the United States during the Y2K era.

Companies began to recognize that they had options in where functions were performed and by whom. Individual functions could be done domestically (Quadrants A, C) or internationally (B, D), and they could be done in-house (A, B) or by a third party (C, D). 

Many companies started working with the new service providers by outsourcing limited functions, such as certain IT infrastructure services, including system and network management, that could be routinely performed from anywhere in the world. No one pattern was followed by all companies. Some companies outsourced domestically first, then migrated that work to offshore providers for additional cost savings (A>C>D). Others formed offshore captives which later were transferred to third parties (A>B>D), while some companies moved directly to offshore outsourcing (A>D).

The services outsourced and offshored by companies were based on individual corporate decisions. Many companies said they would outsource only activities that were not “core to their business”. But companies in the same industry considered similar activities differently. Thus, outsourcing spread in all functional directions, with an initial focus on IT systems maintenance and administration, network administration and management, and applications management.

The decision processes used by corporations differed, but there were basic common themes and criteria. Early in the growth phase, India’s powerful and well-resourced outsourcing and technology services trade association, National Association of Software and Services Companies (NASSCOM), worked closely with its member companies and the Indian government to promote outsourcing globally, and especially in the United States.
NASSCOM produced the following chart summarizing the benefits and liabilities of outsourcing. Variations of this were widely used by companies evaluating offshore outsourcing opportunities.

### Benefits and Liabilities of Outsourcing

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Potential liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Labor arbitrage (profit from labor wage differential). Offshore workers cost generally one-third to one-fifth that of U.S. workers.</td>
<td>• Lack of intellectual property - weaker data security in many developing countries (no data protection laws to ensure data security), sharing sensitive data and proprietary technology.</td>
</tr>
<tr>
<td>• Opportunity to build a global production chain.</td>
<td>• Loss of institutional knowledge.</td>
</tr>
<tr>
<td>• Labor productivity and economies of scale, efficiencies, flexibility, and streamline operations.</td>
<td>• Weakness in internal controls of 3rd party players.</td>
</tr>
<tr>
<td>• Ability to focus on core-competencies to create stronger companies.</td>
<td>• Hidden costs: staff training, redeployment costs, lost productivity during transition, temporary staff costs, cost of selecting a vendor, cost of layoffs, cultural costs, cost of managing an offshore contract.</td>
</tr>
<tr>
<td>• Greater flexibility to respond to unexpected changes in the business cycle or in the market.</td>
<td>• Loss of management control.</td>
</tr>
<tr>
<td>• Access to latest technologies, business practices, and other skills not available within the company.</td>
<td>• Dependency on political stability in the host country.</td>
</tr>
<tr>
<td>• Lower operations costs.</td>
<td>• Loss of production and customer knowledge base.</td>
</tr>
<tr>
<td>• Ability to provide around the clock services to customers.</td>
<td>• Vendor underperformance.</td>
</tr>
<tr>
<td>• Ability to convert fixed costs to variable costs. Overall cost savings can range between 20 to 60 percent. Savings from reduced costs can be translated into lower prices for consumers.</td>
<td>• Loss of flexibility.</td>
</tr>
<tr>
<td></td>
<td>• Loss of bargaining power.</td>
</tr>
<tr>
<td></td>
<td>• Quality-delivery issues.</td>
</tr>
</tbody>
</table>

Sources: Nasscom, IT PRO, CNET News, The Times of India, Hindustan Times.

Once companies believed that an outsourcing and/or offshoring strategy would be beneficial, they needed to look at the specific activity or activities that would be outsourced.

### 4.2 What Do Outsourcers Do?

The term “outsourcing” refers to how a company gets certain activities done and not to what is done. A company with a certain work activity, or sets of activities, contracts with a third party service provider to outsource that work. Almost any type of work can be outsourced if it can be described and isolated.

Observers generally break the outsourcing industry into three key sectors:
- ITO (information technology outsourcing),
- BPO (business process outsourcing), and
- KPO (knowledge process outsourcing).

There are no “official” definitions of these sectors, and boundaries vary across service providers and across industry analysts. The Duke University Center on Globalization, Governance and Competitiveness (CGGCC), has developed an elegant and detailed taxonomy which specifies the categories, services, and activities within each of the three sectors. The Duke taxonomy is incorporated into studies published by the World Bank and the InterAmerican Development Bank.
### Outsourcing Taxonomy

<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>CATEGORY</th>
<th>SERVICES</th>
<th>ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software R&amp;D</td>
<td>ERP</td>
<td>Sales and customization of Enterprise Resource Planning software and systems. A market dominated by SAP, ORACLE, the Sage Group and Microsoft Business Solutions.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applications Development</td>
<td>Software development (design, write and install applications such as a program to be run in cell phones, a program for the manufacturing and services sectors). Additionally, provision of software testing, verification and validation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applications Integration</td>
<td>Development or adaptation of software packages to integrate or connect legacy applications with modern computers, platforms and software.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desktop Management</td>
<td>Desktop Management. Outsourcing covers activities such as installing, updating and maintaining software. The support is provided online through email support, chat, and voice (on-call) support.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infrastructure Management</td>
<td>Infrastructure Management. Activities such as network administration, backup management, installation and maintenance of IT systems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IT Infrastructure Management</td>
<td>Technical support for computer networks (voice, no voice), management of system’s upgrades and maintenance of IT systems.</td>
<td></td>
</tr>
<tr>
<td>BPO</td>
<td>Finance &amp; Accounting</td>
<td>ERM (Enterprise Resource Management). Outsourcing finance services in activities such as account receivable and account payable processing, invoice processing, real-time payment auditing, collection management and processing, and real time record of transactions. Outsourcing accounting services include reconciliations, ledgerkeeping, balance, income and cash statement preparation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Procurement, Logistics and</td>
<td>ERP (Enterprise Resource Management). Achieve premium efficiency in the purchasing of goods and services. Additionally, outsourcing of supply chain management activities such as planning, controlling the flow from raw materials to final products.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supply Chain Management</td>
<td>CORE (Customer Relationship Management). Outsourcing voice (inbound and outbound) services on activities such as marketing activities, customer satisfaction, inquiry, customer retention and customer acquisition among many others.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>Training. Design and development programs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Talent Mgmt</td>
<td>Talent Management. Outsourcing in performance, compensation, work atmosphere management, and create systems of promotion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Payroll</td>
<td>Payroll. Outsourcing of payroll activities such as data maintenance, pay calculation, payroll payment, deduction and taxes and payroll accounting.</td>
<td></td>
</tr>
<tr>
<td>CRM (Customer</td>
<td>Marketing &amp; Sales</td>
<td>CRM (Customer Relationship Management). Outsourcing design and development on marketing projects. Support on inbound and outbound sales, sales order process, customer monitoring – Product life cycle support. This segment is often known as Comprehensive CRM.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contact</td>
<td>Contact. Outsourcing voice (inbound and outbound) services on activities such as marketing activities, customer satisfaction, inquiry, customer retention and customer acquisition among many others.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Call Centers</td>
<td>Call Centers. Outsourcing voice (inbound) services on customer support, business partners, or company associates.</td>
<td></td>
</tr>
<tr>
<td>KPO</td>
<td>Business Consulting, Business</td>
<td>KPO (Knowledge Process Outsourcing). Research activities and advice strategies in topics such as business opportunity assessment, market research and customer retention and growth, operations improvement or business optimization.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analytics and Market Intelligence</td>
<td>Legal Services. Outsourcing legal corporate activities such as managing contracts, leases or licenses to more specific activities such as intellectual property services, legal research and litigation support services.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Center on Globalization, Governance & Competitiveness, Duke University

In conjunction with the taxonomy above, the figure below, from a World Bank study by the CGCC researchers, captures the value chain of offshore outsourcing services.

The most basic services, and often the first that companies outsource, are technology infrastructure-related services. This stack of services is referred to as information technology outsourcing (ITO) services. ITO services can be fairly standardized, based on the systems and technologies used by the contracting company.
Companies follow many paths as they continue to outsource. There is no one model used in any business category or industry.

**Business Process Outsourcing**

The Business Process Outsourcing stack of services includes Customer Relationship Management (usually contact center-based), Enterprise Resource Management, including Finance and Accounting (F&A) and Procurement, and Human Resources.

In BPO contracts, the service provider (outsourcer) not only accepts administrative responsibility for a specific function, it also takes strategic responsibility for the execution and delivery of a complete business-critical function. In most cases, this allows the outsourcing provider to be responsible for determining how the work is done, not just by whom it is done.

Gartner, the advisory firm, has defined Business Process Outsourcing as:

". . . the delegation of one or more IT-intensive business processes to an external provider that, in turn, owns, administers and manages the selected processes based on defined and measurable performance metrics. Examples of business processes that are outsourced to an external service provider include logistics, procurement, HR, finance and accounting, customer relationship management, or other administrative or customer-facing business functions.

"BPO services are characterized by multiyear, contractual relationships, with appropriate service level agreements that deliver full business processes to the service recipient. Typically, BPO services include the delivery of the people and process workflows, as well as
the underpinning technology that supports them . . . . In all cases, the inherent risk for the business process in scope is the responsibility of the service provider, as outlined in the contract’s statement of work. This is what differentiates BPO from, for example, application outsourcing. ix

Contact centers were the first form of business process outsourcing. While contact center services required the new workforce to interact with customers or employees (usually over the phone), some business processes were completely based in electronic data – such as many finance and accounting processes – which generally involves data processing to create invoices, accept payments, or manage accounts. These activities could easily be done offshore by non-English speaking people.

Call center activities, including customer service, reservations, and order processing, were all candidates for outsourcing. In fact, call center activities for some companies had been handled by third party service providers as far back as the mid-1980’s, while other companies had established their own “captive” call center operations outside of the US, particularly in English-speaking Canada, beginning in the mid 1990’s, in a large part due to the saturation of early call center locations such as Omaha, Jacksonville, and Phoenix.

In addition, some companies found certain types of help desk services, particularly routine activities such as “password resets” could be outsourced. This helped accelerate the growth of call centers – later referred to as contact centers (when email and the Internet changed communications patterns) – in lower cost locations where English was spoken, including India and the Philippines. Activities were extremely structured, did not require agents to deviate from basic scripts, and could be processed without specific domain knowledge. Companies believed that they could train the local hires in North American practices and dialects, so as to compensate for differences in style and culture. x Many agents adopted American names.

For Finance and Accounting and other enterprise management functions, companies emerged that hired large pools of offshore workers who gathered data from either scanned or faxed documents (bills, payment forms, etc.) transmitted electronically from the home offices to the delivery centers. They entered information in global computing systems which were then accessed by home-based employees for decision making and further processing.

An industry segment emerged in human resources outsourcing through which companies took over major functions of the employment process, including payroll, benefits, recruiting, training, and other functions and replaced entire human resource departments with distant employees.

Appendix B.1 provides further descriptions and insights regarding outsourcing activities.

4.3 Internationalization

Growth of Contact Centers in Canada

Beginning in the early 1990’s, companies found that because most Canadians speak English as a primary language, share similar customs as Americans, and maintain an awareness of news and culture in the United States, they were virtually indistinguishable over the phone from Americans. Call centers grew rapidly in Ontario, the Maritime Provinces (particularly Nova Scotia and New Brunswick), and British Columbia as companies took advantage of available, lower-cost, well-educated, English-speaking pools of population in a country where until the mid-1990’s, the Canadian dollar was discounted up to 35 percent against the US dollar.
The centers that opened in Canada were sometimes corporate-owned and operated facilities, supporting the company’s reservations, sales or customer service operations and were sometimes operated by third parties, often performing the same services. Company owned operations were considered to be "captive" while third party services were outsourced. Few reliable statistics are available on the breakdown between captive and outsourced operations and on the breakdown of calls handled from the US or Canada.

As the US dollar fell against the Canadian dollar over the past few years, more call center work that had spread to Canada in search of lower costs and an English-speaking population, fled again to India and the Philippines, where an educated, English-speaking work force waited with significantly lower costs.

**Growth of Information Technology-Enabled Services**

With the experiences of Y2K and the dot.com bubble behind them, and the need to increase productivity and reduce operating costs, companies in the US began to look at offshore outsourcing options more seriously. Encouraged by the apparent success of GE, Texas Instruments and other companies which had established their own captive operations in India and began turning them over to third party providers, more and more companies tested the offshore waters.

Usually, they began by outsourcing pieces of functions, and as they grew more adept at outsourcing, and felt they were achieving success, they looked for additional parts of their business they could outsource in order to continue to reduce overhead and non-core business expenses. At that time, costs were the primary, and in many cases, the only, decision driver.

India was often the first, and only, offshore location considered. India’s comparative advantage lies in three primary areas:

1. A highly developed and successful IT sector;
2. Its reputation for low-cost but high-quality work; and
3. A large pool of highly educated, English speaking IT knowledge workers.

Initially, it was likely that work ended up in locations where the service providers already had operations delivery centers. But over time, companies, and even locations, developed expertise or reputations for handling certain types of work. Some outsourcing service providers attempted to provide “one-stop” service – handling a wide range of functions for a the same clients, while others specialized in certain areas such as human resources, finance and accounting, customer relationship management and information technology. Mega deals were the big story of the early part of the 2000’s, but soon users learned that different service providers had different strengths and that “one-stop” shopping was not necessarily the best option for quality and cost returns. “Best-in-breed” strategies followed with companies assigning pieces of work to multiple providers in different locations.

Cities across India had developed the technology infrastructure required to support services delivery and companies invested first in the Tier I locations, such as Bangalore, Mumbai, Chennai, Hyderabad, Pune, and the New Delhi National Capital Region.

However, as those locations quickly became saturated and more expensive, companies migrated to Tier II cities. According to a report by the US International Trade Commission, the cost of living in tier II cities was sometimes as much as 30 percent lower than to Tier I cities between 2003-2006.
By 2006, although Tier II lagged in terms of telecommunications services, electricity, air links, and adequate infrastructure, these cities already accounted for more than 15 percent of India’s total IT and business process outsourcing exports. Major outsourcing providers had invested outside of major cities in order to protect themselves from wage inflation and higher attrition.

In the cities, start-ups, often founded by former executives from multinational outsourcing companies and Indian companies, some with venture capital and others with the support of major Indian business groups, offered services in specific functional areas, often at lower price points than larger firms could afford. These smaller companies often focused on low-skill, routine activities that were offered on the basis of cost. Established outsourcers tended to try to move up the value chain to provide services on the basis of specialized talent.

Following that transition, and as the industry matured further, the leading Indian software services companies, including Infosys, Tata and Wipro, tried to compete by offering clients multifunctional capabilities, scalability, and reliability. In some cases, they grew their businesses through mergers and acquisitions, purchasing some of the start-up ventures to gain employees, expertise and clients.

During that period (mid-2000’s), as the costs of Indian providers rose, despite their efforts to reduce costs and to price services more aggressively, BPO providers in the Philippines began to see increased business as companies shopped for providers in even lower cost countries with good English speaking skills. Many found that Philippine customer service skills were “better” than Indian skills, and that North American callers were better satisfied by Filipino agents than Indian agents. Philippine outsourcing grew rapidly from 2005, with much of the growth coming from contact center services.

**Growth of the Indian Outsourcing Market**

The Indian outsourcing market has grown rapidly over the past decade. A recent (2010) report by Tholons, an outsourcing advisory and consulting firm specializing in location analysis, indicated that in 2009, the entire Indian outsourcing market was $47.3 billion (US), (Bangalore alone accounted for $15.9B or about 1/3 of the revenues) and employed 584,000 people. xiii

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**Growth of the Indian Outsourcing Market**

**Revenue and Headcount from 2004-2009**

![Growth of the Indian Outsourcing Market](image)

*Source: NASSCOM, STPI and Tholons Research 2010*
Another indication of the velocity of the growth of the section comes from an International Trade Commission report from 2006 which states that BPO sector employment in India had increased by 479 percent since 1999.\textsuperscript{xiv}

**Sizing the Global Offshoring Market**

While it is clear that the offshore services industry continues to grow rapidly and has substantial size, accurate sizing of the global market, including captive and outsourced services, varies widely according to the definitions and perspectives of the organization performing the sizing effort. Thus, it is necessary to look at multiple sources and make generalizations about the direction and mass of the industry.

The overall size of the global industry is quite substantial and it is growing at a strong pace, as shown in this chart created by researchers at Duke University for the World Bank.

**GLOBAL OFFSHORE SERVICES MARKET SIZE**

Estimates from published reports of commercial and non-governmental organizations (2008) from CGGC, Duke University \textsuperscript{xv}

![Table of Global Offshore Services Market Size](image-url)
The outsourcing industry has attracted many companies, from many countries, including some of the world’s largest corporations, including IBM (US), Tata (India), and Capgemini (France). Each company has arrived at outsourcing from different paths and provides different menus of services. Each operates with different business models, focuses on different services and delivers from different locations.

### Top 20 Offshore Service Providers (2008)

<table>
<thead>
<tr>
<th>#</th>
<th>Company</th>
<th>Total Sales 2008 (US$ Mil)</th>
<th>Total Employees</th>
<th>Total Services Sales 2008 (US$ Mil)</th>
<th>Main Services Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IBM – US</td>
<td>103,630</td>
<td>398,455</td>
<td>58,892</td>
<td>Consulting, IT services, application and outsourcing services</td>
</tr>
<tr>
<td>2</td>
<td>Accenture – US</td>
<td>23,171</td>
<td>177,000</td>
<td>23,171</td>
<td>Consulting, IT and outsourcing services</td>
</tr>
<tr>
<td>3</td>
<td>Electronic Data Systems Corporation (EDS, now HP Enterprise Services) – US</td>
<td>22,100</td>
<td>139,500</td>
<td>22,100</td>
<td>IT, applications and BPO services</td>
</tr>
<tr>
<td>4</td>
<td>Computer Sciences Corporation (CSC) – US</td>
<td>16,740</td>
<td>92,000</td>
<td>16,740</td>
<td>ITO (software management) BPO in CRM, supply chain management and KPO in legal matters</td>
</tr>
<tr>
<td>5</td>
<td>Capgemini – France</td>
<td>12,740</td>
<td>89,453</td>
<td>12,740</td>
<td>Consulting, IT and outsourcing services</td>
</tr>
<tr>
<td>6</td>
<td>Automatic Data Processing (ADP) – US</td>
<td>8,867</td>
<td>45,000</td>
<td>8,867</td>
<td>BPO (human resource, payroll, tax and benefits outsourcing)</td>
</tr>
<tr>
<td>7</td>
<td>Affiliated Computer Services – US</td>
<td>6,523</td>
<td>76,000</td>
<td>6,523</td>
<td>ITO and BPO in CRM and HRM, Also e-Government</td>
</tr>
<tr>
<td>8</td>
<td>Logica (Formerly LogicaCMG) – UK</td>
<td>6,577</td>
<td>39,525</td>
<td>6,320</td>
<td>Business consulting, IT and BPO services</td>
</tr>
<tr>
<td>9</td>
<td>Tata Consultancy Services – India</td>
<td>6,048</td>
<td>111,407</td>
<td>5,824</td>
<td>Consulting, IT, engineering and BPO services (includes KPO) services</td>
</tr>
<tr>
<td>10</td>
<td>Infosys Technologies – India</td>
<td>4,717</td>
<td>103,453</td>
<td>4,533</td>
<td>IT, engineering, consulting and BPO services (knowledge and legal services)</td>
</tr>
<tr>
<td>11</td>
<td>Wipro Technologies – India</td>
<td>5,645</td>
<td>98,521</td>
<td>4,234</td>
<td>Consulting, IT and BPO services</td>
</tr>
<tr>
<td>12</td>
<td>CGI Group – Canada</td>
<td>3,673</td>
<td>25,500</td>
<td>3,673</td>
<td>Consulting, IT, BPO and systems integration services</td>
</tr>
<tr>
<td>13</td>
<td>Hewitt Associates – US</td>
<td>3,228</td>
<td>23,000</td>
<td>3,228</td>
<td>Human resource consulting and outsourcing</td>
</tr>
<tr>
<td>14</td>
<td>Cognizant Technology Solutions – US</td>
<td>2,816</td>
<td>68,000</td>
<td>2,816</td>
<td>Consulting, IT and BPO services</td>
</tr>
<tr>
<td>15</td>
<td>Convergys Corporation – US</td>
<td>2,786</td>
<td>75,000</td>
<td>2,786</td>
<td>BPO (Customer Care – Call Centers)</td>
</tr>
<tr>
<td>16</td>
<td>Perot Systems – US</td>
<td>2,779</td>
<td>23,100</td>
<td>2,779</td>
<td>Consulting, IT and BPO services</td>
</tr>
<tr>
<td>17</td>
<td>Teleperformance Group – France</td>
<td>2,605</td>
<td>102,186</td>
<td>2,605</td>
<td>BPO (Customer Care – Call Centers)</td>
</tr>
<tr>
<td>18</td>
<td>SITEL – US</td>
<td>1,700</td>
<td>66,000</td>
<td>1,700</td>
<td>BPO (Customer Care – Call Centers)</td>
</tr>
<tr>
<td>19</td>
<td>Ceridian Corporation – US</td>
<td>1,695</td>
<td>8,776</td>
<td>1,695</td>
<td>Payroll services &amp; Human Resources management solutions</td>
</tr>
<tr>
<td>20</td>
<td>Genpact Ltd. – India</td>
<td>1,041</td>
<td>36,200</td>
<td>1,041</td>
<td>IT and BPO services</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>240,210</strong></td>
<td><strong>1,815,519</strong></td>
<td><strong>192,267</strong></td>
<td>-</td>
</tr>
</tbody>
</table>

Source: CCGC based on OneSource, companies’ websites and companies’ annual reports.

Five of the 2008 top 20 were Indian companies, while 12 were based in the United States. The leading Indian companies, while not all household names in the US, were all developing global footprints. While most of the companies’ employees remain in India, many of the companies have moved recently to establish significant development and delivery centers in the US and in other countries.
The Top 10 Indian offshore services providers are shown in Appendix B.2.

4.4 Business Strategies and Location Selection

Location of delivery centers is critical in outsourcing. It defines companies’ cost structures and business models. With cost the primary initial driver of outsourcing, companies looked for low-cost locations with available workforces made up of educated, technology-savvy workers. Labor arbitrage was the key to the growth of outsourcing.

Technological advancements, including the Internet and voice-over-IP communications, reduced the costs of moving data and voice around the world and enabled workers in almost any location in the world to handle many of the routine tasks associated with running a business.

India became the early preferred destination for outsourcing. The first work sent over was usually IT infrastructure-related, but because of the English language skills of most Indian college graduates, and the low wage rates, companies began moving customer service and help desk functions as well. Firms that had good initial experiences looked for additional types of work that could be offshored and outsourced in order to extend their cost savings.

Initially, labor supplies in India were able to keep up with demand, but over time, wages were driven up and attrition rates rose because of the competition for experienced workers, especially in Tier I cities. Companies looked to second tier locations for relief from the costs of competition and, in some cases, were able to reduce costs of labor and overhead by about 30 percent. However, with increased work, those locations also became overburdened and experienced similar issues.

The buyers of outsourcing services looked to their suppliers for lower cost solutions. When their options were exhausted in India, they turned to other suppliers with locations in even lower cost locations. While contact center services often went to the Philippines, pure IT services migrated to other lower cost locations including China, Vietnam, and eastern Europe. Increasingly, companies based in one of the servicing countries hedged their bets by establishing locations in other countries to leverage lower cost work forces or specially skilled labor pools.

Today, Latin America, including Brazil, Argentina and Chile, is the fastest growing destination for technology services delivery centers because of its proximity to the US and the alignment of its time zones with the US. Some African countries and smaller Latin American and Caribbean countries are also emerging as providing locations.

Strengthened Presence of Indian Outsourcers in the US

Jobs are also being created in the United States by outsourcing companies that want to operate from the US as well as their offshore bases. Indian-based outsourcing companies have created new delivery centers in the United States to handle work that the companies feel can be better done closer to their clients’ headquarters or that clients want done in the US. According to the Atlanta Business Journal:

"Wipro (NYSE: WIT) already employs about 600 in Buckhead, where it does software development and back-office work for U.S. companies that want to keep some work onshore. Customers include Fortune 1000 companies in the health-care, manufacturing, telecommunications, utilities, retail, and financial services sectors."
The company expects to double its staff by the end of 2012 in Atlanta. Atlanta was chosen by the company after a site selection analysis that short-listed three US cities. Azim Premji, CEO of Wipro Technologies told the Atlanta Journal Constitution:

"We wanted to build near-shore centers primarily populated by hiring from local colleges. Traditionally we have recruited our head-count from local colleges. We build our own culture and do our own training. We saw no reason to make an overseas exception.

"What led us to come here was not the backlash, but fundamental business principles. Companies operating locally are much better off vis-a-vis social acceptance and government contracts. Community acceptance is part of running a business."

Another leading Indian outsourcer, Tata Consulting Services (TCS), announced plans in September 2007 for a center that would eventually host more than 1,000 employees outside of Cincinnati. Government incentives helped the company finalize the selection. xix The company indicated that employees at the facility would include software engineers, computer engineers, IT consultants, pre-sales professionals and administrative support staff. xxi Tata has other regional development centers in the United States including Midland (MI), but the Cincinnati center was the first facility designed to support national operations.

4.5 H-1B Visas -- US Immigration

US H-1B visas have been a central element that is almost synonymous with outsourcing and offshoring. Long controversial, our interviews and discussions indicate that access to H-1B visas are no longer a significant preoccupation when it comes to strategies around US outsourcing operations.

About H-1B Visas

The H-1B is a non-immigrant visa for “persons in a specialty occupation” which was designed to allow firms in the US with specific skill shortages to bring skilled individuals from other countries to the US to work for temporary periods of time. If no local person can fill a desired role, the H-1B visa enables firms to recruit foreign professionals with “highly specialized knowledge”, pay them prevailing market rates for the position, and employ them in the US location.

The US Congress establishes an annual cap on the number of visas that can be issued (currently a basic allocation of 65,000). There is an additional allotment of H-1B visas for up to 20,000 foreign nationals holding a master’s or higher degree from US universities.

Employers sponsoring a visa candidate must attest that the applicant has specialized skills

<table>
<thead>
<tr>
<th>H-1B Visa Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current annual cap of H-1B visas is 65,000, but not all foreign professionals holding H-1B visa are subject to this annual cap.</td>
</tr>
<tr>
<td>1. Laws exempt up to 20,000 foreign nationals holding a master’s or higher degree from U.S. universities from the cap on H-1B visas.</td>
</tr>
<tr>
<td>2. Laws also exempt all H-1B non-immigrants who work at universities and non-profit research facilities from the cap on H-1B visas.</td>
</tr>
<tr>
<td>3. US-Chile and US-Singapore Free Trade Agreements allow up to 6,800 (1,400 for Chilean nationals and 5,400 for Singapore nationals) be set aside from the cap during each fiscal year. Unused numbers in this pool are made available for H-1B use for the next fiscal year.</td>
</tr>
</tbody>
</table>

With waivers, more than 117,000 H-1B visas were issued in 2010. More than 30,000 applicants (21%) were denied.

Annual caps are announced on the first business day of April and applications are accepted until the cap is reached.

Here are the dates when the H-1B visa cap was reached:
- FY 2006 Cap - August 10, 2005
- FY 2007 Cap - May 26, 2006
- FY 2008 Cap - April 3, 2007
- FY 2009 Cap - April 7, 2008
- FY 2010 Cap - December 21, 2009
- FY 2011 Cap - January 26, 2011
- FY 2012 Cap - November 22, 2011
and will not displace or adversely affect wages or working conditions of US workers. They must pay the employee prevailing wages for the occupation, so there is no saving with respect to wage costs.

Professionals with no previous affiliation with US-based employers can apply for the H-1B visa with sponsorship from an employer. The visa limits the employee to work only with the sponsoring (petitioning) employer for the specified time.

Annual caps are announced on the first business day of April and applications are accepted until the cap is reached, with the start date for the visa on October 1st of that year.

For FY 2008 and FY 2009, the quota of applicants was met almost immediately after the cap was announced. Since then, the cap has been reached markedly later (see box). It is presumed that this is, at least partially, due to higher persistent unemployment in the US and lower levels of domestic economic activity.

**H-1B Visas and Michigan**

In 2011, Michigan had 2,834 H-1B visa petitions, ranking it 13th, following California’s top ranking with 23,548. In terms of cities, the City of Detroit ranked 56th nationally with 311, Ann Arbor 57th with 310, Southfield 92nd at 210 and Farmington Hills 143rd with 142 visas.

Leaving aside the University of Michigan and Wayne State which led in terms of numbers of visas sponsored in Michigan, the major corporate interests (and the number of visas sponsored in 2011) were Dow Chemical (39), Chrysler Group (38), HTC Global Services (33), Fujitsu Laboratories (29), Hewlett Packard (25), IBM (24) and Infosys Technologies (24). Henry Ford Health System, CVS Pharmacy and Michigan State University were also in the top 12.

Detailed background on the principal sponsors of H-1B visas nationally and in Michigan is in Appendix B.7.

**Current Employer Views on H-1B Visas**

Advocates argue that there are clearly shortages of specifically skilled workers in the US and that American businesses are placed at a competitive disadvantage if they are not able to recruit foreign workers in what has become a globalized economy.

Some, but not all, of the companies we met with, sponsored and employed foreign workers.

All companies stated that over the past few years, it has become more difficult and expensive to hire foreign workers through the H-1B process, that rejection rates have increased, and that the predictability of the program has dropped sharply. One company said “the process makes us go through too many hoops and we aren’t assured we can get what we need, so we avoid it.”

Companies, and recruiters, are hesitant to go through the process with the result uncertain. In June, 2011, CLSA Asia-Pacific Markets, a highly respected Asian financial analysis firm that monitors the global services industry closely, reported that visa rejection rates for sponsoring Indian global services companies have reached a high of almost 40 percent from 5 percent just 18 months ago. While it is possible that there is a greater concern about workers sponsored by the Indian outsourcing companies and rejection rates may be lower for other sponsors, this indication of the increase in rejection rates gives companies cause to reduce their dependence on foreign workers at this time.
Without predictability, companies cannot accurately plan for staffing their engagements in the future and they can jeopardize their ability to delivery on commitments. As a result, the companies have reduced their reliance on H-1B visa employees and have been more aggressive in recruiting locally and domestically.

At the other end of the process, in India, global services providers based there feel their profit margins threatened by the stricter US visa policies and enforcement. These companies recognize that they need to establish locations closer to their clients in the US, that they need employees in the US to intermediate with their Indian development teams, and that they have relied in the past on H-1B visas (together with L-1 intra-company transfers) to staff their domestic US locations. According to CLSA Asia-Pacific Markets, there is increasing concern in India about the impact of tougher enforcement.

"H-1B/L-1 visas remain core to Indian IT’s onsite-offshore business model and procedural or regulatory hurdles here are bound to impact Indian Techs. With over 90% of employees in US already on L-1/H-1B visas, stricter visa procedures/regulations could force Indian Techs to hire more locals at a pace faster than they are doing right now (voluntary attempts already in progress), impacting margins and operational flexibility. Greater local hiring would not only impact the cost structure adversely, it will also reduce flexibility in managing onsite utilisation." xxv

Our interviews and the US expansion plans of Tata Consulting Services, Wipro and other India-based companies indicate that these companies are seeking to build US development centres through recruitment in the US, including university and college graduates. They will continue to value H-1B visas and intra-company transfers in order to be able to quickly move staff who are part of specific teams or have scarce skills to respond to client engagements and needs. Mobility of this type is fundamental to their business models.

The response of the larger outsourcers to current US H-1B visa situation has reduced the focus on access to such visas sufficiently that it is no longer a front-of-mind issue. As a result, there is greatly diminished opportunity to attract their interest to jurisdictions where temporary work permits may be more readily available.

On the other hand, however, given their emphasis on US recruitment, the programs of The Global Talent Retention Initiative of Southeast Michigan should be very attractive.

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**H-1B Visas - Microsoft Chooses Vancouver**

In July 2007, Microsoft announced the opening of a Vancouver, BC.

What was behind that decision and where do matters stand today?

The principal driver -- and the immediate trigger -- for Microsoft's Canadian decision was the failure of the US immigration reform package represented by the proposed Comprehensive Immigration Reform Act of 2007, including provisions to expand the availability of H-1B visas. Bill Gates appeared personally before Congress and spoke often in public during this period about the need to expand the H-1B program. In a retrospective 2009 interview with Tom Walsh of the Detroit Free Press, Microsoft CEO, Steve Ballmer, linked the Vancouver decision to the H-1B issue when he said, "We opened the lab in Vancouver because we were having trouble getting visas for the best and the brightest to come to Seattle. The Canadian government said, 'We're happy to have those people.'" xxvi
The proximity to Microsoft headquarters in the Seattle area was clearly an important consideration that favoured Vancouver over other Canadian centers such as Toronto and Waterloo. Also of considerable importance, based on personal conversations with Phil Sorgen, the then-President of Microsoft Canada, was Vancouver’s international character and its appeal as a gateway for creative talent from Asia Pacific.

When it became apparent US immigration reform would fail, Microsoft immediately contacted British Columbia officials about establishing a presence in the Vancouver area. An immediate preoccupation for Microsoft was the status of a number of individuals whose H-1B visa clock was about to run out, meaning that Microsoft wanted to move with dispatch. The British Columbia government had already been building up its Provincial Nominee Program (PNP) which allows it to nominate individuals to the Federal Government for Canadian visas. BC officials got supportive attention and timely action from Federal officials, including via the Facilitated Information Technology Worker Program, to complement what BC itself could do under the PNP. The Facilitated IT Worker Program waives the requirement for a labor market test for seven IT, digital media and computer-related occupations.

Mindful of its importance to Microsoft and the strong constellation of game development and IT firms in Vancouver, the BC Government ensured that the Federal Government kept the Facilitated Information Technology Worker Program open for British Columbia, even though it was terminated for all other provinces except Quebec on September 30, 2010. The BC exemption was in place until December 31, 2011. The BC Government has also had to handle frequent and numerous special requests from Microsoft and its employees to clarify and address special situations, address irritants and problems arising at the border, and expedite visa and document processing.

Microsoft has grown its Vancouver operations, moved from the first suburban location to a downtown location that is more appealing from a lifestyle point of view, and added a Game Development Studio. Employment is now somewhere in the area of 350 employees, of which possibly something in the order of 50 are said to be visa dependent.

What has changed since Microsoft’s 2007 Decision?

- The Canadian dollar, which had been below 90¢ to the US dollar for many years leading up to 2007, continued its rise from the 95¢ level in early July 2007 to near or above parity with the US dollar.
- Ontario now has a Provincial Nominee Program, which was not yet in place in 2007, for which Microsoft is eligible as a company that has been in business in Canada for at least 3 years with annual revenues over $Cdn 1 million.
- The Canadian Government’s Facilitated Information Technology Worker Program, waiving the requirement for a labor market test for seven IT occupations, was ended on September 30, 2010, except for BC and Quebec. The program remained open for BC until the end of 2011.
- The annual allotment of US H-1B visas has been taken up at a much slower pace. The H-1B visa cap for FY 2008 (October 2007 to September 2008), applications for which could be filed from April 1, was reached on April 3, 2007. By contrast, the FY 2012 cap, also opened for filing on April 1, was not reached until November 22, 2011.

What's Vancouver's appeal?

- Multicultural character that is attractive to highly skilled, globally-oriented talent -- a "global gateway with a diverse population" in the words of the Microsoft media release.
- "Globally envied quality of life", in Microsoft's words.
- A major global digital media center.

4.6 Assessing Locations for Outsourcing and Offshoring

The selection of location for outsourcing and offshoring is not unlike the selection of sites for any other type of business activity. Site selection basically identifies factors that influence an organization’s decision to pursue the activity, gathers comparative data on locations related to those factors, and prioritizes the factors. The location decision is usually made for individual initiatives or activities -- as some locations may be better for different types of activities. Some locations are better for ITO activities than for BPO, based on workforce issues and costs, while others may be best for KPO and not for BPO or ITO.
Factors most commonly used in conjunction with a decision to engage in offshore/outsourcing initiatives include:

- Alignment of global sourcing strategy with business objectives
- Cost savings
- Compensation costs
- Tax and regulatory costs
- Infrastructure costs (including telecoms)
- Experience and skills of the workforce
- Labor force availability
- Education of the workforce
- Language capabilities of the workforce
- Attrition rates
- Geopolitical stability
- Country infrastructure and access
- Cultural adaptability and similarities
- Proximity
- Time zones
- Exchange rate
- Security of intellectual property
- Quality of Life

Tholons, one organization which annually ranks locations for outsourcing, has designed “The Tholons Location Assessment Framework”. The Framework covers six broad categories with fifteen subcategories, with each category and subcategory having their own respective weight: The Framework is in Appendix B.

In the supply and demand graphic below, countries in green, yellow or red are now considered as locations with supply of services, while the cross-hatched countries, primarily in North America, Europe and Australia, have demand for the services.

![Supply and Demand for Offshore Services](image)


**The Global Technology Services Industry Continues to Grow**

The technology services sector continues to grow globally and domestically as companies’ dependence upon technology continues unabated. The technology services sector also continues to grow.

According to economist Andrew Bertels of Forrester Research, the outlook for the global market for business and government purchases of technology goods and services will see slowing, though still
positive growth, in 2012. Gartner’s predictions are more specific suggesting that “IT services revenue growth in 2012 will significantly lag 2011, rising 3.1% to $874 billion, according to Gartner. In 2011, IT services growth was 6.9%.”

Technology services, or the Professional, Scientific, and Technical Services (PSTS) sector, as captured by US government economic statistics, is the fastest growing sector of the Detroit regional economy. As reported in the economic base analysis section of this report, PSTS is the “most exciting” sector in the region due to the pace of its growth relative to the industry and the region and because the sector serves the global market and exports its services around the world.

4.7 Reshoring

Though outsourcing and offshoring continues to grow around the world, it appears that counter-trends are appearing which show that work that left the United States in the late 1990’s and 2000’s is beginning to return and more companies are keeping work in the US that may have gone offshore. Some companies are pulling back parts of their global supply chain and some IT and Business Process outsourcing programs have been repatriated.

A Presidential white paper prepared for the White House Forum on Insourcing in January 2012 reported:

"Over recent months, outside analysts, including the Boston Consulting Group, Accenture, and Booz & Company have examined the increasing relative attractiveness of the U.S. as a location for manufacturing. The Boston Consulting Group noted that 'the U.S. will become an increasingly attractive option, especially for products consumed in North America,' as the 'total cost of doing business' – after taking into account the productivity of U.S. workers as well as transportation, supply chain risks, and other costs – are now making production in a range of industries as economical in the United States as in other parts of the world, including China.

"While these reports have identified the emerging trend of companies bringing production back to the U.S., our analysis, official data, and examination of the behavior of particular firms support the view that investment has been growing and a new, promising trend of ‘insourcing’ is beginning to take shape. While ‘insourcing’ is often used to describe a company bringing activities back in-house, we use the term to refer to bringing activities and jobs back to the U.S. or choosing to invest in the U.S. instead of overseas. We find that these jobs are coming back to the U.S. from a wide range of locations, including advanced industrial countries and some emerging economies."

Terminology is evolving, as indicated in the White House document, but we feel the following definitions more accurately reflect the activities that the White House includes in “insourcing”:

- **Reshoring**: the repatriation of work that had previously been done offshore; and

- **Homeshoring**: the allocation of work that had been done internally by a corporation to a captive organization or third-party provider working in the United States instead of in another country (nearshore or offshore).

Reshoring and homeshoring reflects the changing dynamics of global economies, of available labor resources, wage rates, and exchange rates, while also reflecting the learnings of a decade of offshoring – that some types of work are better done closer to “home” and that labor rates are only one factor in total costs of operations.
The Midwest and the South appear to be areas where facilities are returning fastest.

**Drivers of Reshoring and Homeshoring**

Aside from the political and patriotic issues relating to reshoring and homeshoring, there are a number of quantitative and qualitative factors that appear to be driving companies to make decisions to reshore or homeshore work that had been, or could be, offshored.

**Total Costs**

Businesses operating globally have realized that they need to look at total costs -- not just direct, obvious and readily identifiable ones, but also at others that reflect risks, the total product development cycle, and less tangible factors. The most evident costs relate to transportation, inventory, transit times, custom duties, and associated financing. Major global firms have become increasingly aware of the headaches, risks and potential costs and competitive downsides associated with supply chain disruptions, complex and time-sensitive product launches that are poorly executed, difficult-to-accomplish last-minute design adjustments, quality failures, unstable exchange rates, volatile energy costs, and the punitive additional duties that can be quickly imposed in trade disputes. Extensive travel to far-flung operations not only involves costs but consumes valuable management time as does necessary oversight and project management.

**Closer Integration and Control**

Companies value tighter supply chains that allow them to react promptly to market changes and customer demands. Seamless links among customers, production and R&D are crucial to allow collaboration on product design, testing and integration. Studies have shown that innovation and proximity are closely linked. Companies want to guard core competencies.

Privacy and data security concerns arise for certain types of service offerings, such as health care and financial services, inhibiting offshoring. Legislation at the federal, state and local level also can also require any outsourcing to be done only in the US, whether for privacy or national or data security reasons, or simply to demonstrate patriotism and concern for the American economy.

**Customer Satisfaction**

Customer satisfaction continues to be a consequential issue, especially in the service sector in areas such as contact centers.

Many companies with call centers in India have found that outsourcing customer contact work to people working overnight shifts to serve US customers during their daytime working hours, who don't speak English that well and who don't understand some nuances of the language and culture well, doesn't always result in high quality service and well-satisfied customers.

Dell Computers is one company that became a celebrated case. Dell, which has a large (and regularly changing) number of internal and outsourced contact centers in the United States, Canada, and around the world, routed calls to centers based on product lines and customer types. In July 2003, when they found that Bangalore-based technical support for a high-end line of business computers was generating poor levels of customer satisfaction, and complaints, the company moved those calls to centers in Texas, Idaho, and Tennessee.
The action was widely reported as Dell closing its Indian call centers, but that was far from the reality of the situation. Dell retained centers in India at that time and only shifted the types of calls the centers handled in an effort to better service high-value customers. But Dell became the icon for poor customer service in India.

Other companies have decided to return jobs to the US for similar reasons. In early 2009, Delta Airlines, citing “years of complaints by American customers who say they sometimes have a tremendous amount of difficulty understanding the foreign telephone workers” announced they would stop sending calls to India and would stop outsourcing 4,500 jobs there. (They did not specify how many new jobs would be created in the US.)

"Richard Anderson, the airline’s chief executive, told employees ... that Delta had stopped forwarding calls to India ... and would be bringing the function back in-house in the United States. 'The customer acceptance of call centers in foreign countries is low and our customers were not shy about letting us have that feedback,' he said." xxxviii

In January 2011 Delta also shut down another offshore/nearshore contact center in Jamaica. At that time, Anderson said:

"'One of the ways to mitigate the impact of the recession is to insource work,' Anderson said. 'It provides job protection and it is consistent with what the administration wants companies to do in the U.S. today, which is to bring back work from overseas and do our best to increase employment.'"

Apple Computer is another company that chose not to execute its plans for Indian outsourcing.

"In mid-2006 Apple Computer, Inc. shelved plans to build a technical support center in Bangalore which had been expected to support 3,000 worked by 2007 supporting Macintosh computers and other Apple products. 'India isn't as inexpensive as it used to be...The turnover is high, and the competition for good people is strong.'" xxxix

Although there are not as many public examples, companies which sent IT services offshore have also brought work back. Some have found that their business cases for outsourcing relied on labor rate arbitrage but did not take sufficient account of lower productivity of outsourced workers and did not realistically account for a range of other costs, including project management, governance, and transportation that changed the magnitude of the expected savings.

In addition, some have found that burdens on home-office managers responsible for offshore operations, including the necessity of communicating with Indian managers during the Indian work day (which requires being on the phone during the overnight hours in the US) and traveling up to 24 hours to get to Indian project sites, placed additional "hidden" costs that could not be accounted for.

The Improved US Competitive Position

The relative competitive position of the US has improved markedly compared to rapidly growing emerging countries, such as China, because of higher rates of inflation in those countries. In the case of China, despite tying its currency closely to the US dollar, wage and benefit increases and inflation in China have significantly reduced China’s previously beneficial competitive position compared to the US. The recent analysis by the Boston Consulting Group (BCG) ("Made in America, Again: Why Manufacturing Will Return to the US") concludes that "within five years, the total cost
of production for many products will be only about 10 to 15 percent less in Chinese coastal cities than in some parts of the US where factories are likely to be built.”

China is improving productivity but the gains will not offset rises in compensation. BCG forecasts Chinese productivity increases will be impressive at 8.5 percent annually over the next five years, but that will be only half the pace of the rise in wages. BCG’s study says, "This relocation of global manufacturing is in its very early phases . . . . But we believe that it will become more pronounced over the next five years, especially as companies face decisions about where to add future capacity.”

The relative value of the US dollar compared to the currencies of other major developed countries has contributed to increased US cost competitiveness against these countries too. Canadian business has faced significant competitive challenges as it copes with a Canadian dollar that has moved to parity with its US counterpart. The recent strength of the Yen has prompted Japan-based automotive manufacturers to take decisions to increase North American production. The Euro has also trended higher, though Europe's recent economic difficulties have moderated the Euro's gain as compared to its highs vis a vis the US dollar in 2008, 2009 and early 2011.

Possibly, even more than simply comparing exchange rates, there is a broader desire by business to avoid exposure to exchange rate risk, given the highly volatile nature of foreign exchange markets as the global economy has struggled following the global recession. A risk-averse approach will see firms balance production (costs) and sales (revenues) in the US and major currency zones to neutralize their foreign exchange exposure.

![Relative Value of US Dollar compared to US Federal Reserve Bank's Broad Foreign Currency Index 1991 - 2011](image-url)
Control of Intellectual Property

Issues relating to intellectual property, “corporate knowledge”, and innovation are also beginning to emerge as a leading factors causing companies to rethink offshore outsourcing. Companies, including GE, have cited “intellectual property concerns” as major factors in the reshoring of work that had been done offshore. They say that their companies are concerned about losing control of key capabilities, processes, and techniques that (could) provide their firms with competitive advantage, and wanted to assure that innovations identified and developed in the course of the company’s business activities were owned by the company, and not by their third party suppliers.

A Discernable Trend to Reshoring and Homeshoring to the US

A broad and increasingly evident trend favors the repatriation of services and manufacturing back to the United States, reversing the wide disposition in the late 1990s and early and mid-2000s towards offshoring to low-cost locations such as China, India, Mexico and other emerging countries. The evidence still tends however to be largely anecdotal.

A signature example of reshoring is GE’s Van Buren Township, Michigan, facility. GE was among the original leaders in offshoring services and manufacturers. The shift in thinking came about in part due to GE’s concerns that public opinion targeted the company as a leader in outsourcing jobs and in part due to GE’s belief that it had lost control of too much of its own intellectual property and technical “know-how” by relying on contracted workers in the United States and around the world. The company wanted to do more in-house on critical initiatives and wanted its employees to have the priority skills. According to a Bloomberg report on GE’s refocusing on US jobs:

"Chief Executive Officer Jeffrey Immelt has said GE will add more than 15,000 jobs in the three years through December (2011). About 1,100 will be just outside Detroit in a center for information technology, a field emblematic of outsourcing. So far, GE has hired about 660 people in Michigan, a state that led the nation in jobless rates, making it a symbol of U.S. industrial decline.

"About 50 percent of the IT work was being done by non-GE employees,' Charlene Begley, chief information technology officer, said in an interview at the center. 'That strategy may have had its time, but there was a lot of downside. We lost a lot of the technical capabilities that we have to own.'

"Bringing more information-technology work back to GE lets the company move quickly to develop programs that respond to technology demands cropping up faster than ever." According to a Bloomberg report on GE’s refocusing on US jobs:

GE also took a decision in 2009 to move significant appliance manufacturing back to the US in its Appliance Park in Louisville. This now involves investment of $US 1 billion and 1,300 jobs. Key factors included GE’s desire to bring product design, research and development and manufacturing together, while containing supply chain costs.

GE’s CEO, Jeff Immelt, suggested in a Detroit Economic Club address in June 2009 that the US should set a goal to have manufacturing jobs account for 20 percent of total employment -- about twice the proportion then. This would represent an unprecedented turn-around if it were achieved. According to a Brookings Institute study, "Between 2000 and 2009, the nation lost 31.2 percent of its manufacturing jobs, and manufacturing fell from 13.1 percent of total employment to 9.1 percent. The renewed belief in manufacturing in the US is important because manufacturing employs 36.4% of the country’s engineers and accounts for 70% of industry funded R&D."
GE is not alone in refocusing the United States as a location for services operations. In the past year, outsourcing service providers, as well as the companies outsourcing their work to the providers, have accelerated their efforts to establish more presence in the US, due to both higher costs in their home countries, decreasing relative costs in the US, and increasing interest among clients to have their work done in the US.

One industry analyst, the Everest Group, recently (December 2011) published a report documenting that key service providers showed increasing interest in the United States in the past year. Their annual report showed that service providers answering their survey had established 13 new centers in the US in the first 3 quarters of 2011 while they had established only 13 in the entire previous year. In 2009, the same providers had established just 6 centers in the US. Of the 13 centers established in 2011, 9 were in Tier II/III cities in the US and not in major business centers.

Everest reported:

"Service providers are evaluating locations in the United States with increased interest for the purpose of setting up their onshore IT delivery centers. This is due to reasons such as focus on industry verticals that demand an onshore presence such as the public sector and health care, demand from clients to establish operations closer to their businesses, and certain state government incentives.

"However, cost pressures associated with high-cost onshore locations are driving service providers to look beyond the established business centers in the United States to tier II/III cities which offer some cost savings as well as a reasonably-sized talent pool for making the operations scalable in the long term. Further, non-traditional options such as rural sourcing and crowd sourcing are also attracting attention."

Some recent notable examples of manufacturing reshoring to the US, in addition to GE's Louisville Appliance Park decision, are instructive.
Otis Elevator Brings Back Manufacturing from Mexico

Otis Elevator, a United Technologies unit, announced in September 2011 that it is repatriating manufacturing from Nogales, Mexico, to South Carolina, reportedly saving money in the process.

Otis moved production to Mexico in 1998 for cost-oriented reasons. The shift back recognized proximity to customers, about 70 percent of whom are on the US East Coast. Also, design and engineering remained in the US when manufacturing moved to Mexico, meaning that toolmakers from Dallas and engineers in Indiana and Arizona had to travel to Mexico. Bringing these elements closer together helps the launch of new products.

NCR Brings Innovative Manufacturing Back to North America

In 2009, NCR decided to bring manufacturing it had previously outsourced back in-house and return it from Asia to Georgia in the United States in part because it found production of the most sophisticated self-serve ATM banking machines needed to be near the company’s innovation centre and customers. In-sourcing, NCR said, decreases time-to-market, improves internal collaboration, and lowers operating costs. NCR also sees its ability to work with suppliers and academic institutions facilitating training and ensuring cutting-edge manufacturing processes. The NCR assessment considered total landed costs. Approximately 870 jobs were to be created at the new Georgia site over three years.

In the automotive sector, apart from the Japanese decisions triggered by the high Yen, there is a widely-held expectation that the emerging leaders among the Chinese and Indian auto and auto parts manufacturers will place a priority on building a Detroit presence as they expand to become global players. Especially in the case of Metro Detroit, this will frequently initially take the form of design, engineering and technical centres. A few Chinese and Indian companies have already taken steps to establish an initial presence. However, we were told by well informed individuals that even those who are in the vanguard expect that a rising tide of entrants from China will only become significant over quite a number of years. Metro Detroit and Michigan economic developers have already recognized that, especially with relationship-based societies like China, cultivation of prospects needs to occur well ahead of the decision making stage. So far, immigration arrangements for executives have not been issue for those who are investing.

US Presidential Focus on "Insourcing"

President Obama hosted a White House Forum on Insourcing on January 11, 2012. The Forum brought together business leaders who had brought work back to the US or kept work onshore to build awareness of the acceleration of what he called the "insourcing" trend. The White House showcased companies such as Detroit’s GalaxE Solutions, which were creating US jobs doing work that could have been offshored. In a posting about the Forum on the official White House Blog, Aneesh Chopra, the US Chief Technology Officer and head of the Office of Science and Technology Policy, wrote:

Global Detroit - Final Report
"Yet another example is GalaxE Solutions: CEO Tim Bryan shared his story about bringing IT jobs back to the United States and helping to revitalize an iconic American city by working to transform Downtown Detroit into a healthcare IT hub. GalaxE acquired three floors of a barely occupied downtown high-rise with its "Outsource to Detroit" campaign, matched by its commitment to hire 500 IT professionals within five years. And the company is on track, with more than 120 jobs filled and an additional 200 openings.

"GalaxE isn’t alone; there were an estimated 3,400 posted IT positions in the greater Detroit market as of October 2011. An American city known for technological innovation coupled with affordable real estate, a large network of research universities and community colleges, and a highly skilled workforce, Detroit is an attractive and a viable destination for IT work, as are a growing number of other communities throughout the country.

"We are a bit more excited about Detroit’s success given its participation in the White House Strong Cities, Strong Communities (SC2) initiative. OSTP has a front row seat as we’ve been working with employers in Detroit to develop IT skills training courses at local community colleges to fill thousands of job openings in this sector. Stay tuned." liii

Reshoring of jobs can help the homeland economy recover without requiring costly government programs and incentives. Reshoring is apolitical. It is not a conservative or liberal activity. It is not pro-Labor or pro-Business. It appeals to Democrats, Republicans and even Libertarians. However, the jobs that return are important to the regrowth of the industrial and technology sectors of the economy. We expect to see a continued focus on this theme by the President, especially during this election year.

4.8 Detroit is Well Suited For Technology-Enabled Services

With growth in technology services continuing and demand for US-based delivery apparently accelerating, companies from the US and from other countries are searching for domestic locations from which to deliver technology services.

While much of the activity in the US has been going to Tier II and Tier III domestic locations, including less urban/more rural parts of the country, such as Augusta, Georgia, Detroit’s unique economic circumstances position it well to receive incoming outsourcing service providers in a world-class business center environment.

Detroit’s strengths for this sector include:

- A large available (unemployed/underemployed) workforce including
  - Well-educated professionals with corporate experience
  - Graduates from strong local colleges, universities, and technical institutions
  - Workers with some level of technical skills
- Relatively low costs of doing business
  - Relatively low wages
  - A large amount of available commercial real estate, including office rentals, at reasonable prices, in and out of the city of Detroit
  - Low housing costs
  - Competitive tax structure
- An excellent communications and transportation infrastructure, including a large global air hub with direct connections to all major US cities and most international centers
• A supportive public sector with strong private (foundation) encouragement for growth
• Excellent quality of life for professionals
  o Urban – entertainment, culture, sports, and recreation
  o Suburban-High quality education, excellent communities, good transportation and housing

Companies that have moved to Detroit from outside the city, and outside the state, report that their employees are quite pleased, and even surprised, with Detroit’s quality of life and low costs of living. New housing options for young professionals have begun to make living in the city a viable option.

Access to restaurants, culture (music, art, theater, etc.), professional sports, and recreation gives Detroit a major city feel, while the low costs for housing make it affordable, and, some say, a bargain.

The growing range of technology-enabled companies based in the Detroit area is creating the critical mass and ecosystem required to support broad economic opportunity for professionals and entrepreneurs. They are able to meet other professionals to develop professional and social relationships.

The region is home to many companies which can be considered part of the Professional, Scientific and Technical Services sector. Some other major companies are in other sectors, such as financial services, but are completely enabled by technology to the point that the companies act more like technology companies than financial institutions.

For example, Quicken Loans, one of the largest employers in downtown Detroit is the largest online originator of mortgage loans in the United States and one of the top five mortgage lenders. Its entire business is built on technology, much of which is developed in-house, and its unique corporate culture is more like a Silicon Valley tech start-up than a Wall Street bank. Quicken Loans employs more than 4,000 people in Michigan and is annually rated as one of the best places to work in the United States.

Its staff includes a large information technology team and also a very large phone sales and support organization. Both teams could be outsourced or offshored, but the company considers technology and sales to be core parts of the company and prefers to “insource” both operations, which are primarily located in the downtown Detroit headquarters.

The company prides itself in its Detroit roots and on being an excellent, and progressive, employer. “We've got about 4,000-plus people we've moved down here in the last 18 months. And were going to continue to move more down here and bring in more businesses and do everything we can with a bunch of other people who've been working very hard even before we got here and try to make Detroit the comeback city of this decade,” according to Dan Gilbert, founder and chairman.

“With passionate team members crawling all over the downtown area, and even more to join in the future, we are dedicated to revitalizing the city.”

• Quicken Loans Inc. has ranked in the top 30 of FORTUNE Magazine’s “100 Best Companies to Work For” for the past eight years, ranking No. 2 in 2008.
• Quicken Loans Inc. has ranked as one of Computerworld Magazine’s “100 Best Places to Work in Technology” for the past six years, ranking No. 1 in 2005, 2006 and 2007.
Gilbert, also leads a sprawling network of companies that he or Quicken Loans has funded, acquired, or started, many of which are based in the Detroit area. His sports and entertainment companies include the Cleveland Cavaliers and the Quicken Loans arena, as well as other sports franchises, a ticketing company, and entertainment and gaming facilities.

His Detroit-based companies include a number of business and consumer-based start-ups, a locally-oriented venture capital fund designed to help “rebuild the Detroit area through entrepreneurial fire.” Most are technology-driven or enabled businesses and many have been located in Detroit, where Gilbert’s has invested in local real estate to help rejuvenate the downtown core.

As a highly rated employer, a preferred place to work, and a visible community leader, Quicken Loans recruits from the top of the employment pool. They find that they are generally able to recruit and hire the technology candidates they need, while they experience significant turnover in the sales jobs due to the pressure and demands placed upon those employees.

They have some difficulty in recruiting in experienced developers, particularly those with skills in Ruby, Objective C, HTML5 and CSS3. By recruiting from across the nation, they are generally able to meet their needs. Interestingly, in the entire company, only 10 employees have Canadian addresses and only 2 new hires in 2011 were Canadian. The company has employees from 20 different countries but has only sponsored a “couple” of H-1B professionals.

Quicken Loans is aggressive in their recruiting. In September, they held a job fair with the goal of “hiring more than 500 new team members in areas such as mortgage banking (no prior banking experience required), marketing, technology, and many more.” And in January, 2012, the company announced that it was recruiting for 300 technology positions and 500 summer interns.

By making the company a desirable place to work and creating a compelling environment for employees in downtown Detroit, Quicken Loans has demonstrated that Detroit companies can attract the necessary workforce to deliver world-class technologies and compete effectively domestically, and globally.

4.9 Common Findings from Interviews

Based on interviews with executives from 10 leading companies in the region, 13 economic development and associated agency officials, and a technology recruiting company, it is clear to us that technology related firms are excited to be in the Metro Detroit area and positive about the environments in which they work. There is positive creative energy originating in this growing sector. We think that additional growth in this segment will only expand the ecosystem which is developing and make the region more attractive for new market entrants.

There is general agreement that it is difficult to hire needed technical professional, but there is also agreement that solid recruiting can overcome this obstacle. The respondents felt that when a candidate or recruit has an open mind, or knows something about the Detroit area, and the company provides a compelling opportunity, there is a strong possibility that the candidate will be willing to accept employment in Detroit. They reported that Detroit is a desirable location for young professionals. It offers a good quality of life, reasonable costs, competitive wages, and a growing technology services sector.

They also felt that Detroit can do more to promote its benefits and opportunities in this sector. They were aware of some of the ongoing promotional efforts and felt that they were not enough to do justice to the region. Programs such as LiveWorkDetroit! help position Detroit for young professionals and college graduates as a desirable place to be and are having a positive impact.
**Pleased with Employee Quality and Capabilities**

They are pleased with the quality of their employees and comfortable with the availability of workers in the area, although all the companies are concerned about the supply of well qualified, skilled, experienced technology professionals. They have generally been able to recruit the entry level people they need, but, due to the characteristics of the consulting and outsourcing industries, their biggest challenges have been in recruiting mid-level professionals.

**Strong Feelings of Pride for Detroit**

Universally, the companies interviewed were Michigan supporters and proud to be from Michigan. Many of the corporate strategies (including GalaxE Solutions’ “Outsource to Detroit” and Systems in Motion’s “Onshore Delivery Model”) focus on being a domestic employer and highlight their local, or domestic ties.

All of the companies felt that their location was a competitive advantage and many felt strongly about being a part of the rebirth of a major American city. Some, like Quicken Loans, are more specifically “pro-Detroit”, while others are pro-Michigan or pro-US.

It is important to note that, for some of the business models, the "Made in America" message would make it difficult for the company to establish operations in Canada, no matter what advantages were available there. GE’s IT services group, for example, felt that a Windsor-Essex/Canadian option would be out of the question for them, since a key component of their strategy for developing the Van Buren Township location was to create American jobs, and there were commitments tied to government incentives. Secure-24, a data-center/hosting company, with a range of business process services and a managed services business line, felt that crossing the border would not be consistent with its strategy in Michigan.

**Lack of Mid-Level Experienced Professionals**

The lack of mid-level skilled technology professionals at this time appears to coincide with the reverse bubble of the mid-2000’s when fewer students entered computer science and related fields because they felt that there would be fewer jobs in the industry due to the offshoring and outsourcing of jobs.

As a result, 5-7 years later, there are fewer workers with 1-2 years technical services experience available to be recruited or promoted into mid-level jobs. These jobs require experienced professionals with who have worked at clients’ sites, managing small projects and engagements, and managed teams of developers and associates.

However, this problem is not unique to the Detroit area and runs across the United States. The concerns about the local labor supply are not unlike those experienced in other major urban areas and it appears that local companies have been able to grow and find the resources they need to grow. At the same time, the community and the state are responding with a number of targeted programs to attempt to increase the pool of professionals. Detroit is an attractive location to candidates from other parts of the country, such as Silicon Valley, where IT employment opportunities have grown more slowly while the cost of living has remained high.
Programs Helping to Re-populate the Labor Pool

Led by the Michigan Economic Development Corporation (MEDC) and the New Economy Initiative of Southeast Michigan, government, community and economic development organizations in Michigan have been extremely active in efforts to re-establish and rejuvenate the regional economy and re-populate the Metro Detroit labor pool. The organizations are dedicating significant resources to attacking problems that hinder the growth of the regional and local economy.

In many of the interviews we held, we were told that one of the reasons that it is difficult to recruit talented professionals to companies in the region is that many professionals who lived and worked in the Detroit area were forced to leave after losing their jobs as the local auto industry declined.

Some of the technology firms indicated that while there were skilled technical professionals who remain in the area, many of whom had worked in the auto industry in technology positions, their skill sets were not consistent with contemporary generations of software and hardware products and that their backgrounds, coming from highly bureaucratic and structured work organizations, were not compatible with smaller, entrepreneurial ventures.

Others were concerned that too many graduates of Michigan’s educational institutions left the state following their graduation because of the belief that jobs were not available. Still others talked of the difficulties encountered in recruiting foreign students who had studied at the state’s institutions.

A number of programs designed to attract people back to Michigan, to encourage students to remain in Michigan at the completion of their studies, and to retrain and retool workers have been created and are focused on helping to repopulate the pool of workers.

- MichAgain

Many people who once lived in Michigan have left the state. Some, who were born there, employed there, or educated there, left because of economic conditions and the lack of work. Others left for various reasons, but many have fond memories of their time in the state. They remember the good quality of life, strong school systems, vibrant communities, and generally low cost of living that made Michigan a good place to live and raise a family.

Those who have left the state, or who have some ties to the area, are more likely to be attracted back than those with no familiarity and, perhaps, negative images from the economic downturn.

Many interviewees told us that people who left the Detroit metropolitan area when they lost jobs related to the auto industry are anxious to come back when they find new employment opportunities in the area. Some still have family in Detroit. Others were unable to sell property and still have homes there.

MichAgain, an MEDC program originally started by Ann Arbor SPARK, aims to recruit professionals with technology and entrepreneurial backgrounds and Michigan ties to come back. MichAgain has held programs in major business centers across the United States including Silicon Valley, Boston, and Chicago and plans more in 2012 including stops in New York, Washington, Orlando and California in conjunction with major industry events.
• **LiveWorkDetroit**

To retain college and university graduates, MEDC supports LiveWorkDetroit! an innovative program which promotes Detroit to young professionals and college graduates and introduces them to leading Detroit employers through presentations by business leaders and career fairs. Recent studies, and anecdotal evidence, suggest that about 50 percent of Michigan higher education graduates leave the state after receiving their degrees.

This statistic was cited by a number of interviewees as one reason it is difficult to hire new employees in the region.

• **Shifting Gears**

There are also many experienced technology workers who remained in Michigan after the downsizing of the local auto industry. Many of these workers have strong employment backgrounds with large corporate employers and backgrounds with earlier generations of computing technologies and do not have the skills that current employers are looking for. Some are currently unemployed while others are working in other fields or underemployed.

MEDC’s Shifting Gears program is a career transition program to support professionals who want a bridge between past achievements in the “old” economy and future job opportunities in the new economy. It helps retool workers to adapt to a changing work environment and prepares them for a new career with a different type of employer, often a small entrepreneurial enterprise rather than a large, highly structured corporation.

A new offshoot of Shifting Gears has been designed to help individuals with some technical training and knowledge of software tools learn new languages, such as Drupal, which are in greater demand. **Shifting Code** has been piloted in Ann Arbor by Ann Arbor SPARK in association with MEDC and MichiganWorks!

• **Workforce Intelligence Network (WIN)**

It is important that students graduating from college be as fully prepared – with knowledge of, and perhaps, hands-on experience with, the tools, software, and languages, being used by the employer and that the gap between graduating student and contributing professional be as narrow as possible. The newly formed Workforce Intelligence Network (WIN) aims to bring the educational institutions together with the employers to guide teaching curricula and assure that the graduates have the basic skills required to accelerate their professional careers.
This is an important initiative for workforce development in the region and helps assure that institutions are fully aware of employers’ requirements. It also allows the employers a forum to keep the schools informed of emerging needs and trends so that they can plan accordingly.

- **The Global Talent Retention Initiative of Southeast Michigan (GTRI)**

Another obvious pool of potential employees is foreign students graduating from US colleges and universities. Michigan has more than 23,500 international students -- the 8th largest population of international students of any state.

Many of these students have strong science, technology, engineering and mathematics backgrounds and education. However, hiring these candidates becomes a serious issue because most require special visas from the US government to be able to remain in the country and work in the US. Cultural differences and information gaps make it difficult for some students to connect with potential employers who can sponsor them.

The Global Talent Retention Initiative of Southeast Michigan (GTRI), created following a May 2010 Global Detroit study and recently launched by the University Research Corridor (URC) with funding from the New Economy Initiative of Southeast Michigan, has been chartered to retain this talent in the region, market the region to international students in Michigan from their arrival through graduation, and help them connect with employers and navigate the immigration process.

The Initiative is developing partnerships with economic development agencies, community organizations (including LiveWorkDetroit!), professional groups (such as the American Immigration Lawyers Association), and employers to create programs and services that will be designed to encourage employers to hire international students and assist students and employers through the immigration issues associated with working in the US.

The Initiative will work through the international offices and career centers at participating institutions, to offer additional help and networking opportunities to students to get jobs in Michigan. It will try to demystify immigration and help foreign student populations understand the immigration process and understand cultural differences between the United States and their home countries, and educate employees on cultural differences.

The US immigration environment is complex and highly structured. But it incorporates programs designed to enable foreign students who graduate with advanced degrees to have the opportunity to seek out work in the US and remain in the country following their education.

The primary student visas (F-1 category) include a transition period of up to 29 months between a student’s graduation and the time the student must have an approved H-1B temporary work visa (sponsored by an employer). This period, according to GTRI, should be long enough for most students to secure employment.

The annual H-1B quota of 65,000 visas, with an additional 20,000 visas set aside for foreign students with advanced degrees from US institutions, enables students the opportunity to remain in the US.
The Global Talent Retention Initiative believes that with proper counselling, support and guidance, there are procedures and practices that students with visas can use to pursue employment and careers in the United States and improve their opportunities for employment. However, because of the complexity of the regulations and processes, as well as the cultural differences of the students involved, and potentially unfamiliar American business practices, not all go about it optimally.

GTRI hopes to be able to work with students, institutions and employers to ease the transition for foreign students and employers in order to make it easier for students to remain in Michigan and transition into a productive career.

Conclusions from Interviews

In general, employers felt that Metro Detroit was a good location for their businesses and that, with effort, they were able to recruit the quantities and types of workers that they needed, although there was difficulty, particularly in the mid-level professional category of technical/computer professionals. They felt that this category of worker is difficult to recruit anywhere in the United States and that it is not significantly harder to recruit them in Detroit. The advantages of being in Detroit – low costs of living in a quality urban environment, generally good working conditions, and a desirable location (particularly for those who have had exposure to Detroit/Michigan previously) – make it easier to target potential candidates with greater likelihood to work in Detroit.

Employers interviewed were generally aware of some or all of the four workforce-oriented promotional programs designed to attract candidates to Southeastern Michigan employers and were quite supportive of the efforts. They felt that they were beneficial and had good potential to assist them in recruiting talent. They recognize that Detroit is climbing out of a deep hole, with both Michigan’s economy, and its reputation nationally and internationally, being damaged. They expressed great pride in their city, and some expressed interest in getting more involved. They felt that the “Detroit is a technology center” message has not been heard enough. Communications about the programs needs to be maintained in order to maintain awareness of the programs and to reinforce their messages and the programs require continued support, and possible expansion (see below) in order to maintain the ability of employers in the region to attract qualified candidates.

4.10 A Proposal: Extending WIN to Accelerate Training of Newly Hired Employees

A key issue that emerged from many of our discussions with employers was that students graduating from college with computer sciences and other related degrees still needed significant employer-specific training before they were able to become productive employees. It is difficult for recent graduates with limited professional experience to enter the consulting profession and become productive employees in front line positions. Workforce development efforts in the region will be key to maintaining the region’s growth and competitive edge in the technology-enabled services sector for both professional services companies and employers in all industries whose businesses require technically skilled workers.

While it is difficult to generalize about the internal practices of technology services firms because they employ many different business models and staffing strategies, a few common themes emerged from the interviews.
Across the board, companies reported that they needed to train new employees on the specific technologies that the company specialized in, the specific software tools and hardware they relied on, the company’s business procedures and methodologies, and customer relations skills.

**An Example - Secure 24**

For example, one company, Secure-24, based in Southfield, has created a 2-year program that all new hires complete before joining a team that works directly with clients. Approximately 4 students enter the program each month. They are paid while they train, but they have little contact with clients, except when they provide certain types of low-level, telephone-based, technical support. The company’s program has three levels, with the first including 24 exams (12 major, 12 minor) on a range of topics and a requirement that students go into lab environments to do projects that are closely monitored and measured. The second involves the employee developing expertise in at least one of the key areas of the company’s services offerings.

Appendix B.5 details Secure-24’s profile and many business offerings.

The employees select their area of expertise, train in that area, and soon become assigned to a senior professional in the company (in a sort of mentorship program). They become attached to their mentor’s section and develop considerable expertise in that area as a junior team member. Over a period of time, they develop the specific skills that enable them to become a fully productive team member.

The company, throughout the process, offers both personalized training and computer-based training for its employees to help them learn the basics of the tools of their trade – the software they will become expert in, and the methodologies they will use in programming, working with clients, and leading workgroups.

**The Training Roles: Colleges and Universities vs In-House Training**

Colleges and universities can provide education in theory and principles, but cannot be expected to provide high quality training in the detailed practices of each of the particular vendors’ offerings in the complex stack of services that can be delivered by an outsourcing and hosting vendor. Thus, the company’s training programs take over where the institutions classes end.

Each service provider uses a different set of tools in its operating environments and has different practices. As a result, it would be close to impossible to provide students with “complete” education enabling them to be fully productive early in their careers.

In addition, each service provider has a slightly different business model that defines its offerings and priorities.

An outsourcing company’s business model determines where the work is done, and by whom.

Appendix B.6, “A Simple Overview of How Outsourcers Make Money” offers a high level view of some of the business models that outsourcing service providers use. This is not exhaustive, but it a company that calls itself an “outsourcer” could be supplying basic programming staff support to a client on the low end, or could be delivering turnkey integrated cloud-based solutions at the high end.

Overall, the need for outsourcers is great because there are not enough technology workers available and IT projects, which are generally short term in nature, define companies’ requirements.
Companies rely on outsourcers to provide temporary staff that they prefer not to recruit and hire as well as to deliver fully packaged solutions that the company does not have the staff capability to deliver itself.

Thus, it has become more important for the local educational institutions to work closely with the employers to attempt to prepare graduating students to meet corporate needs. The schools need to be aware of the specific skills that employers need, and they must know what the employers will need in the future in order to be able to keep their curriculums relevant.

The rapid changes in “current” technologies -- with new languages, programming tools, and testing environments emerging regularly -- makes constant communications between educators and employers more important.

The Workforce Intelligence Network (WIN), another program funded by the New Economy Initiative and designed with the support of the Michigan Economic Development Corporation’s Michigan Works program, was created to serve as the interface between employers and key educational institutions including Macomb Community College, Monroe County Community College, Mott Community College, Oakland Community College, Schoolcraft College, St. Clair Community College, Washtenaw Community College and Wayne County Community College District. It hopes to create a channel of communications between employers and workforce developers.

WIN aims to identify gaps and to work to close those gaps quickly.

**Extending WIN to Accelerate Training of Newly Hired Employees - A Proposal**

We believe that there may be a potential for extension of the WIN program to support specialized training for new hires at local technology companies. Such a program, filling gaps between college education and corporate training programs, could help to accelerate the integration of entry and lower level technology employees in the industry.

Appendix B.4, "A Proposal: Extending WIN to Accelerate Training of Newly Hired Employees," describes our vision of that concept. We believe that this is could be a very important program and one which could differentiate Southeast Michigan to employers considering locating in the area.

Although WIN, coordination, and open channels of communication between educators and employers are expected to help orient the educational programs to the needs of potential employers, there are still gaps that need to be met by additional training.

A community supported program to further prepare college graduates to be billable and successful technology professionals, somewhat like apprenticeship programs in the trades, would be a unique next step.

### 4.11 Perceptions of Canada and Thoughts on Establishing a Presence

Southeastern Michigan businesses recognize that Windsor is in another country, but they seem to have very little awareness of Canada and have thought little about how they can leverage it as a place to do business.

Most of the companies have a small number of employees who are Canadian residents and who commute to jobs in Detroit or nearby communities. Companies do not appear to recruit specifically for Canadian employees for any reason.
The companies do not appear to be aware of, or particularly concerned about, differences in policies or regulations across the border, even though some may create significant cost advantages for them. Few have considered establishing locations in nearby Canada and none were aware of government programs, like the Scientific Research and Experimental Development (SR&ED) tax credits which offer companies doing R&D (including software application development and new product development) in Canada significant tax credits (some of which can be refundable).

When asked whether they would consider moving certain types of operations across the river, some said that they would want to review such an opportunity but most said that it would probably not be something they would consider doing. Some companies felt that the amount of overhead required – some anticipated a need for parallel Canadian and American accounting, legal, and human resources representatives – would be a burden.

A primary reason for rejecting the idea was a feeling that it would be complex, costly, time consuming and potentially duplicative. They were interested in learning more about the programs and opportunities, nonetheless. Clearly, however, opportunities will need to be presented as being readily accessible.

A further consideration for some of the larger firms is the question of bifurcating the talent pool that they bring together by having both Metro Detroit and Windsor-Essex operations. Strategies of most of the outsourcers to whom we spoke emphasize team building, mentoring and training which is most effective and beneficial when a critical mass of several hundred staff are in one location. In our interviews on the Canadian side of the border, the same thinking exists in terms of current strategies, with the principal operations in Toronto and to a lesser extent Montreal, Calgary and Vancouver.

Some companies said they could reject establishing a facility in Canada because they felt that going across the border would contradict their marketing strategies of being “Made in America” and could as well raise an issue of patriotism and dedication to the Detroit area.

4.12 Detroit Needs to Leverage the "Reshoring Trend" to Position Itself as the Place to Reshore and Homeshore

It is becoming clear that 2012 is likely to be the year that “reshoring” or “homeshoring” or “insourcing” becomes a popular trend.

Until now, it has been something that US companies won’t talk about because any acknowledgement of a reshoring program could be taken as an indication that the company’s outsourcing programs did not work. Few American executives are willing to position themselves in a negative way, and suggesting that significant decisions, such as a decision to move some work offshore and eliminate jobs at home, did not work out the way they planned, would be seen by some as admitting defeat.

Yet, there appears to be a growing willingness by corporate leaders to “reconsider” their offshoring decision as “reshoring” becomes a trend and a “wise decision.”

A reshoring program may only be indicative of a company’s desire to move one or more processes home to be closer to customers, or of that company’s belief that certain work could be done better in the United States with different types of skilled workers, or of the company’s believe that the work can be done more cost effectively in the US. It does not immediately indicate that the company’s entire outsourcing strategy has been a failure and one program returning to the US
could happen at the same time as five times as much work leaves the country in the opposite direction.

Increasingly, it is being seen in a positive light and as a “good thing for companies to do” for their bottom lines and for the US.

No matter why a company decides to return work from overseas, or to specifically request that work be done in the US and not outside the country, the choice of where the work will be done determines where new jobs will be created and which local and regional economy benefits from the new jobs. Detroit needs to be sure that it is on as many “short lists” as possible when companies are considering new locations for technology-enabled businesses.

**Differentiating Detroit to Attract New Tech Enabled Business**

Detroit has a number of strengths that currently make it an excellent destination for returning workers – and these have been stated previously in this document. Its low cost, urban, large city environment is unique in the United States and its available workforce sets it apart from other cities. That workforce, in general, has some technical skills and a good work ethic.

The range of economic development, community, and organizations enthusiastically working to improve the conditions in Detroit is also unique in the United States. No other city in the US offers the combination of available real estate and workers, solid infrastructure, and quality of life for incoming workers. No other major city is as affordable, and few are as accessible. And few have the broad support of local organizations working to improve the business environment.

With these advantages and opportunities, **Detroit should be able to create a credible and compelling positioning as the leading location in the United States for companies coming back home and creating new jobs.**

We believe that Detroit is close to being in a position to launch a public relations campaign nationally and globally to demonstrate that it is “back in business” and “growing in the new economy.” That the tech services sector is the fastest growing sector in the region is good news that can be shared with the rest of the country and the world.

Few other locations in the US have been promoting themselves to global services companies as a “reshoring” destination. Those in the US that have been most visible have been Tier II and III locations, primarily rural towns and cities with a moderately-educated population and little access to major city amenities. Detroit stands out as a Tier I location primed for success in the global services industry as a reshoring and homeshoring destination.

Examples of companies that have made recent decisions to move to and grow in Detroit are becoming more plentiful. GalaxE Solutions, Systems in Motion, Quicken Loans, GE, Compuware and others can become “poster children” for the Metro Detroit region and promote the positive attributes of the growing sector.

Following the January 12, 2012 White House Forum on Insourcing, we believe that the public’s interest in “insourcing”, or homeshoring and reshoring is increasing. Companies that have been considering returning work from overseas, particularly are likely to reconsider and accelerate their decisions amidst the suddenly more favorable environment.

We believe that this is a particularly good time for Detroit to plan and execute a significant promotional campaign highlighting its growth in the technology and services sector, the advantages
of living in Detroit, and the opportunities for companies around the world to base parts of their technology services/outsourcing portfolio in Detroit.

**Leadership and Sponsorship of the Promotional Initiative**

The initiative to position the Metro Detroit/Windsor region as an international technology growth center requires a significant investment in order to reach the global audience of potential employers who could leverage the region’s assets.

The initiative needs to have significant reach into Detroit’s traditional and new economic centers of power as the effort will need recognizable spokespeople and considerable resources.

We believe that it is best positioned inside an existing organization with a strong positive reputation and substantial resources. We think that the Detroit Regional Chamber may be the optimal focus of leadership for the promotional initiative.

**Branding the Promotional Initiative**

A promotional initiative designed to position the Metro Detroit region as a center for global technology services needs to integrate messaging about the demonstrable recent growth of the sector in Detroit, the success of technology (such as Compuware), technology services (such as GalaxE, Systems in Motion, Secure-24 and Strategic Staffing Solutions), and technology-enabled businesses (such as Quicken Loans), and the rebirth of the city as a desirable place to live and work.

The messaging needs to incorporate a global perspective to attract foreign companies searching for new locations for their “offshore” delivery centers to meet the needs of their US customers. And it needs to include the patriotic “reshoring” and “homeshoring” message to US businesses that are considering returning jobs from offshore, or developing a domestic technology services hub (like GE has done).

It will be beneficial for the initiative to position Detroit as the best business location in the US for reshoring of both technology services jobs and manufacturing jobs – highlighting the available resources the region has to offer, but also echoing the region’s tremendous history of innovation and achievement in bringing together technology and manufacturing.

With a chance to retool itself with new technologies for the new economy, Detroit is on the verge of recapturing American magic by moving to the next level as a technology hub and a center of advanced manufacturing – with both sectors being cost effective and world class.

**Serving the Needs of Reshored and Homeshored Businesses**

As part of the initiative, we believe that the community must be prepared to service the needs of incoming businesses – to assure smooth transitions for companies returning work to the US or choosing the Detroit area from a pool of global locations.

Detroit must be seen as the most welcoming location in the US for companies looking for a new location – whether they are from the US or overseas. To do this, the promotional campaign must be good, but the community must be prepared to support and service the new arrivals.

Again, through the Chamber’s economic development charter, we see the Chamber taking the lead in coordinating and fronting the effort. We believe that a full range of services must be available to
incoming companies to enable them to establish their business as quickly as possible, with the least “red tape”, and the most support.

There is a wide range of support that will be necessary – some are the traditional services that economic developers offer – and others are more innovative activities – to quickly bring new employers to life in the Metro Detroit region.

Some of the activities may be championed by programs such as MichAgain, WIN, and the Global Talent Recruitment Initiative. Others need to be innovative and appealing programs that demonstrate that Michigan is going the extra mile for new employers to overcome obstacles to success.

4.13 Start with a National Conference on Reshoring and Homeshoring

We think Detroit has a unique and timely opportunity to step out in front of the rest of the country by claiming the position as the best location in the US for reshoring and homeshoring and by proclaiming leadership and expertise by hosting a national conference the topics before the end of 2012 in Detroit.

A national conference could build on the success of the White House Forum on Insourcing. It could expand the agenda to not only focus on companies that have successfully reshored or homeshored, but also on how manufacturing companies can influence their supply chains to reshore and how companies can take advantages of the changing economics of technology services offshoring and outsourcing to cost-effectively return work and jobs to the US.

As part of the effort to position Detroit as a leading hub of reshoring and homeshoring in the United States and accelerate the growth of the information technology services sector in the region, the conference would focus attention on Detroit’s recent positive success, and a component would be on helping to spread the success to other cities.

We think that a conference focused on a theme like “Rebalancing the Pendulum of Globalization” and designed to attract companies to Detroit because it offers the best combination of available resources and reasonable costs, will have broad appeal to other communities and organizations seeking to leverage the reshoring and homeshoring trends.

The program could highlight the Metro Detroit/Southeast Michigan area’s resurgence as a center for advanced manufacturing and technology services and demonstrate that some of the growth has resulted from the decision by companies to bring back work that had been sent offshore.

Detroit can be positioned as the leader in the trend and the community that best understands what is needed to attract new employers -- like GalaxE, GE, and Systems in Motion -- none of which were in Michigan three years ago and who now employ approximately 1,200 people today and have commitments to employ approximately 2,500 by the end of 2013.

Overall, the goal would be to promote reshoring and homeshoring as positive and pragmatic economic policy that creates and maintains American jobs, reinvigorates the industrial sector in the US, reduces the national trade deficit, and stimulates US economic growth.

It would be designed, however, to focus attention on the growth of the information technology services sector in the Detroit region and shed a positive light on Detroit as a leading destination for reshoring and homeshoring companies.
A desired result would be increased consideration of Detroit by companies analyzing new manufacturing or IT services operations. The conference would bring together advocates and beneficiaries to explain why reshoring and homeshoring is good for the US economy and for business. It would also help jurisdictions and companies learn how to promote and execute reshoring and homeshoring strategies.

The conference would be designed to:
- educate opinion leaders about the growing trends towards reshoring and homeshoring by documenting the growth of reshoring and homeshoring and understanding the underlying reasons it makes economic sense
- promote and accelerate the concept and its growth by making a broader constituency of economic and community developers, corporate leaders, and national media aware of the growing acceptance of reshoring and homeshoring in the business community
- influence companies to adopt reshoring and homeshoring practices
- position Detroit as a leading destination for consideration by companies executing reshoring or homeshoring strategies in both the manufacturing and information technology sectors.

The conference should be focused on:
- Increasing national awareness of the growth of reshoring and homeshoring
- Spreading the positive message of the Detroit region’s growth and rapid transition to a knowledge based, technology driven economy
- Spotlighting companies that have brought back jobs from offshore to Detroit or who seek to keep work in the US rather than offshore
- Helping companies understand the economics of reshoring/homeshoring:
  - Building the manufacturing business case of total cost of operations and shortening the supply chain;
  - Building the business case for proximity in outsourcing, IT services, and related business process services including quality, innovation, collaboration, and domain expertise;
- Educating political leaders and community organizations on the value of reshoring;
- Educating local companies on ways to influence their suppliers to reshore; and,
- Educating community organizations on what is needed to attract companies to their locations and how to assist them in the transition

Participants/speakers in the conference could include:
- Local economic and community development officials from Detroit
  - How the Tech Sector has become the fastest growing sector in Detroit's economy
  - What has happened and how technology companies have helped lead the comeback of downtown Detroit
  - The strengths of the Detroit region workforce, its availability, and skills
- Companies that have established operations in Detroit and/or brought back work
  - Testimonials from tech and tech enabled companies, such as Compuware and Quicken Loans
  - Outsourcing - GalaxE
  - Technology services - GE
  - Manufacturing – Element/Lotus (Televisions)
• Leading industry consultants and analysts who have researched and studied reshoring who can validate the trend and explain why it is happening and why it will continue to grow in importance
    ▪ Made in the USA, Again: Manufacturing Is Expected to Return to America as China’s Rising Labor Costs Erase Most Savings from Offshoring
    ▪ BCG has expressed initial interest in participating in this type of program in some way.
• Pro-jobs organizations and workforce development advocates
• Location selection experts on how companies are selecting locations for the “return”

While the conference would provide a forum for advocates of reshoring and homeshoring to extend the reach of their messaging to a broader and national audience, the “goals” of the program could be to:
• Create a national steering committee to build a diverse coalition of organizations and thought leaders to promote “reshoring” and build awareness of its value and importance
• Develop/train of a “cadre” of evangelists for the movement, including individuals who can “train” companies on the business analysis of the reshoring opportunity and who can educate local officials and advocates on how to promote “reshoring” to companies in their communities
• Encourage leading companies to influence their suppliers (manufacturing and tech) to base operations in the US.
• Establish a grass-roots network in 50 states to carry the message to local and regional organizations and members of Congress and document the growth of reshoring and its benefits.

### 4.14 Establish a National Research Center on Globalization, Offshoring and Homeshoring at One of Southeast Michigan’s Major Educational Institutions

Throughout our report, when dealing with domestic outsourcing, offshoring, reshoring, homeshoring, insourcing and other terms, we have been unable to provide substantive data and have had to rely on anecdotal evidence and limited academic research. The reason is that it simply does not exist at this time.

As Detroit attempts to regain lustre as a center of technology-enabled services and advanced manufacturing, the establishment of a research center focusing on the impact of outsourcing and offshoring on the US economy, with a focus on the benefits of reshoring and homeshoring, would be a beneficial initiative and could bring additional attention and knowledge to Detroit as a center of knowledge in this sector of the economy.

A center could provide a base for academic research as well as a central repository for data about the industry, helping scholars and practitioners better understand the dynamics of globalization.

We suggest that efforts be initiated to analyze the opportunities and potential for a research center on globalization, outsourcing, offshoring and the economy. We believe that the center should be associated with one of the major educational organizations in the region and that the facilities of the center should be located somewhere in the Detroit region. The formal announcement of the establishment of the center, and funding arrangements for it, could be made at an event in Detroit during the national conference on reshoring and outsourcing.
Smaller Cross-Border Initiatives May Be Productive and Instructive

Cross-border initiatives can take many forms, including specific niche tactical opportunities for companies to establish smaller scale cross-border operations, partnerships and joint ventures that might have the potential to lead to larger, more strategic initiatives.

For example, in our meeting with representatives of TechTown in Detroit, we learned that many of the entrepreneurs seeking assistance from the incubator/accelerator were approaching opportunities from the business concept perspective and their teams did not necessarily include software developers who could produce the necessary code for projects.

We learned that many of the entrepreneurs working with TechTown had the same problems finding technology team members that other technology-enabled companies in the region had. We also learned that students from the University of Windsor’s Odette School of Business had a relationship with TechTown through which they came to TechTown to assist entrepreneurs in writing their business plans.

When we mentioned that part of our study related to cross-border opportunities and listed research and development tax credits as a potential benefit of being in Canada, we wondered whether there was an opportunity to create a “for-profit” software development company in Windsor, staffed by graduates and possibly coops from the Odette Business School and other University of Windsor programs. The development efforts would be led by senior staff of the company (possibly the owners), who would also serve as mentors to the less experienced professionals.

The lab would have a close, and possibly exclusive, association with TechTown and would be contracted by TechTown companies to develop their software.

Over the past few years, start-ups have contracted with offshore software applications development companies to build new applications. In fact, some venture capitalists have required companies they fund to develop offshore. Having a “captive” team just across the river in Windsor would be an alternative to sending software development projects offshore in search of lower costs for development. Depending on its ownership structure, the Windsor team, as a for-profit Canadian-controlled private corporation, might qualify for Canada’s highly attractive Scientific Research and Experimental Development (SR&ED) tax credits.

Using a low-cost development team model, including recent graduates from the University, co-op students, and experienced senior staff mentors, and generating the tax credits for innovative development of new software, the company could create quality software at a low total cost while providing higher quality software with greater ease than offshore developers might.

The business and technology teams would be working in the same time zone, actually in the same metropolitan area (just across a river and a border), speaking the same language and, if necessary, meeting in person with the project team, just as Odette business “consultants” meet with their clients at TechTeam.

This model could support the software needs of TechTown start-ups and relieve their need to acquire local development resources or contract with offshore teams.

Many Detroit area organizations might prefer having local development teams to replace or complement offshore developers. The establishment of small pilot programs that can demonstrate the concept and prove its value would be one way to help other companies understand the value. Smaller programs, requiring fewer resources to start with, are more likely to be able to recruit the resources they need to ramp up and begin operations.
5 Transportation, Distribution and Logistics -- Detroit International Business Hub

The Detroit-Windsor region can lay rightful claim to being the world's busiest commercial international business corridor. The region has not succeeded, however, in achieving the wide and enduring recognition of this at a global level, in part because it has not built up, established and promoted the totality of its assets.

With major multimodal projects on the horizon, the time is ripe to embark on a major program to aggregate, assert and brand the Detroit-Windsor region as the pre-eminent international business hub in the world and to launch a well articulated promotional and marketing initiative.

5.1 "Detroit Global Business Hub"

What this major initiative will be called will need to be discussed and decided, but for purposes of this report, let's label it the "Detroit Global Business Hub". It needs to be international in character -- more than just Canada-US and NAFTA. A major attribute of several proposed signature projects is that, as multi-modal rail, road, water and air hubs, they will measurably strengthen Detroit/Windsor's external role and bring it fresh possibilities for involvement in global supply chains, supporting logistics operations, investment in state-of-the-art preclearance and distribution facilities, and other supporting infrastructure.

5.2 Projects That Can Provide Impetus

The principal stimulus for the validation and launch of the Detroit Global Business Hub would be near-term decisions to move forward on several major new projects, among them:

- New International Trade Crossing (also known as the Detroit River International Crossing)
- TranslinkeD - Development of a Southeast Michigan global freight gateway
- Detroit Region Aerotropolis
- Windsor Airport Cargo Hub
- Continental Rail Gateway (CP Rail, Borealis Infrastructure & Windsor Port Authority)

Among these are several well developed proposals whose realization needs to be pressed ahead quickly in the near term in the overall interest of securing the region's economic future. Hopefully, the Canada-US "Beyond the Border" support for preclearance can be a trigger. Others can follow.

Metro Detroit/Windsor-Essex advantages include:

- the world's busiest commercial border crossing
- multi-modal convergence opportunities for road, air, rail and water
- among the world's largest airport hubs (16th in the world by aircraft operations)
- a mid-continent location
- heart of the Great Lakes manufacturing economy, arguably the world's largest
- 24/7 customs, immigration and security capacity
- international orientation

The justification for this is apparent.

- The Economic Base Analysis earlier in the report clearly shows that the transportation, distribution and logistics is a sector of potential growth and strength for Metro Detroit/Windsor-Essex;
• Our examination of the growth and potential of the services sector indicates that Metro Detroit has the talent and skills base, the strengthening of which is a priority focus of the New Economy Initiative for Southeast Michigan;

5.3 Taking it to a New Level

Detroit/Windsor has long promoted its status as the border region with the largest flow of trade. However, it has not been nearly as purposeful, concerted or orchestrated as the opportunity and circumstance invite.

Detroit/Windsor has only a limited number of competitors for the title as the world's major cross-border urban metropolitan area, and, on the metric that counts, none handles as much commercial trade as the Detroit/Windsor region.

The runner-up for commercial traffic on the US Mexico border -- Laredo/Nuevo Laredo -- is a metropolitan area well under one million people with limited multi-modal assets. San Diego/Tijuana has a population comparable to Detroit/Windsor and significant movement across the border by people, but much less trade. Against other North American cross-border regions, Detroit/Windsor also can lay claim to important air, rail and water facilities.

Hong Kong/Shenzhen is another contender that might be raised. Both are highly populous (7 million in Hong Kong and 15 million in Shenzhen) and notable centres for international trade -- via air and sea -- but still have not established the cross-border infrastructure that favors as high a volume of direct trade between them as may ultimately be the case when Hong Kong and the mainland are more fully integrated. Which points to the other issue with any Hong Kong/Shenzhen cross-border claim -- whether it in fact remains a true cross-border region, now that Hong Kong is a Special Administrative Region that is part of China.

Stepping the Detroit/Windsor claim up to the highest level requires the business community and government to rally around several points of focus:
- aggregating and packaging the region's already considerable resources;
- making the launch and realization of major new regional initiatives the signature events that help define the new Detroit Global Business Hub;
- creating a truly bi-national business culture that builds on the advantages of being able to access policies and programs in two countries; and
- inviting and supporting the cross-border growth of companies from the other side of the border.

5.4 "Beyond the Border" - Preclearance

The steps endorsed by President Obama and Prime Minister Harper in early December 2011 as part of the US-Canada "Beyond the Border" Action Plan should advantage and materially advance the launch of proposals for the establishment and expansion of Metro Detroit/Windsor-Essex transportation, distribution and logistics facilities.

Of special note is the Action Plan's endorsement of preclearance arrangements away from the border, under the principle of "cleared once, accepted twice."
twice". This would provide for US and Canadian border officials to conduct customs and security inspections away from the border in locations better able to provide suitable processing facilities.

It has been pointed out to us that Metro Detroit and Windsor-Essex are especially well located to host such preclearance facilities as US and Canadian officials can commute to operations sited in the other country from their home-country residences in Metro Detroit and Windsor-Essex. For sites more distant from the border, arrangements will have to be made -- and extra costs incurred - - to assign officers who will be stationed in the other country.

Metro-Detroit and Windsor-Essex should identify the region as closely as they can with this initiative. In particular, the "Beyond the Border" Action Plan commits the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration to initiate stakeholder consultations by the end of March 2012. Well coordinated Metro Detroit and Windsor-Essex presentations should be made.

5.5 Creating Common Cause

We also believe that the concept of the Detroit Global Business Hub stands the best chance of creating a positive and collaborative climate on border issues and with border agencies and officials. Mounting the initiative in close collaboration with the respective US and Canadian customs, immigration and border services agencies will ensure a degree of buy-in by the US Department of Homeland Security (DHS) and the Canada Border Services Agency (CBSA). These organizations will recognize the critical importance of an efficient border to the region's economic health while they pursue their statutory responsibilities to protect national security, social and economic interests. This could help counter a seemingly enforcement-driven atmosphere at the border which is the main cautionary element that leads us to recommend against initiatives to widely advertise a bi-national presence as means to gain access to needed foreign talent.

5.6 Focus on the Metro Detroit/Windsor-Essex Interests

It is important that Detroit seize the initiative and move forward on the corridor concept rather than wait for wider multi-jurisdictional Great Lakes or Canada-US efforts to gain traction and move toward realization. In hindsight, Detroit may too often have generously taken a leadership role in Great Lakes, Midwest, or Canada-US concepts only to find that others are along for the ride rather than being ready or committed to help with the heavy lifting. The potential of these other wider efforts should not be discounted or discarded, but Detroit and its immediate geographic partners need to take their future in their own hands by moving forward on the Detroit Global Business Hub.

5.7 Promoting the Bi-National Business Model

The Detroit Global Business Hub concept fits well with and will help support initiatives to establish and promote Metro Detroit/Windsor-Essex as a bi-national metropolitan business location where, as is presented in the rest of the report, business can position itself to access the best and most attractive programs and incentives from two countries.

Detroit-Windsor should also seek to be the host of as many Canada-US and NAFTA organizations and joint research centers as make sense. Transportation, distribution and logistics is an obvious area. This will materially raise the profile and contribute to the internationalization of the metropolitan area, opening the way for it to also seek to be the site of international inter-governmental organizations and study and research centres.
Detroit Global Business Hub concept will be greatly enhanced by initiatives that seek to profile and draw upon Detroit's multinational and immigrant strengths. These include:

- Global Talent Retention Initiative of Southeast Michigan (GTRI) that will engage and retain more of the 23,000 foreign post-secondary students in Southeast Michigan;
- Develop a parallel retention program in Windsor-Essex to bring foreign university and college students and graduates together with business;
- Involvement of TiE Detroit (The Indus Entrepreneurs) and the recently formed Council of Ethnic Chambers (including the American Arab Chamber, the African Business Chamber, the African Caribbean Chamber, the Detroit Chinese Business Association, the Indo-American Chamber, the Michigan Black Chamber, the Michigan Hispanic Chamber, the Philippine Chamber and the Taiwanese Chamber of Commerce of Greater Detroit); and
- Focus on existing Metro Detroit/Windsor-Essex immigrant entrepreneurs and investors and their potential as mentors and angel investors in support of new immigrants with entrepreneurial ambitions.

5.8 Lessons from Other Cross-Border Corridor Initiatives

Global Detroit and its economic development partners should set their own pattern best suited to the circumstances and stature of the region. They can learn nonetheless from other corridor initiatives.

Some key best practices -- some of which are undoubtedly already apparent and being applied -- are:

- the initiative needs to be championed and led by the private sector and private sector organizations;
- involvement of governments is important to the creditability and profile of the effort and to securing support for policy initiatives that will favor the Detroit Global Business Hub; and
- joint cross-border effort is a powerful lever to influence policy, seek specific solutions and gain government financial support.

Bi-national organizations can be the source of solutions. The Pacific NorthWest Economic Region conceived of, and became the champion for enhanced drivers licences as an alternative to a policy of recognizing only passports, which are expensive, as identification.

The experience of corridor groups is that business's awareness is low -- even among those located close to the border -- of the neighbouring market. Connecting business people with their counterparts and qualified service providers to help them tackle new markets frequently leads to more significant involvement and engagement with payoffs in investments and business relations, creating win-win situations that could not have been foreseen.

Background on several Canada-US corridor initiatives is attached in Appendix C. This covers the Pacific NorthWest Economic Region (PNWER), Buffalo/Niagara, Quebec/New York, and the Capital Corridor. As Metro Detroit/Windsor-Essex will be aspiring to global recognition, the region needs to study international competitors and examples as well, something beyond the scope of our study.
6 Canadian and US Immigration Policies -- Current Provisions and Possible Future Directions

Both the United States and Canada have been built on immigration. However, immigration policies pursued by the two countries vary and therefore provide opportunities for potential choice and leverage by business.

Appendix D provides a comprehensive look at Canadian immigration policies and programs from a business perspective.

6.1 The Principal Questions

In terms of a visa regime that might enable additional access to highly skilled foreign workers, the fundamental and practical questions to be answered are:

- Are the likely benefits from a Canadian corporate presence sufficiently attractive and assured to justify a company with a Metro Detroit or US presence to consider adopting a bi-national model in Metro Detroit/Windsor-Essex?

- How workable is such an integrated bi-national model, with sister operations in the cross-border region seeking to work closely together -- even under common management?

- The reverse questions also need to be asked about the workability and benefits of a US presence for a Windsor-Essex or Canadian firm.

6.2 Our Assessment

Our assessment, based on our conversations and analysis, is that the promotion of Metro Detroit/Windsor-Essex as a location to have dual access to highly skilled foreign workers should be approached with caution.

1. First, in terms of access to temporary work permits or Permanent Residence Status in Canada for highly skilled foreign workers, there is currently no one Canadian or Ontario immigration program of general application that would facilitate timely and relatively unrestricted entry of a significant number of highly skilled foreign workers.

2. Second, where third-country nationals from non-visa-exempt countries are involved, a highly problematic aspect of the bi-national Metro Detroit/Windsor-Essex business model will be getting visas for them in order to permit regular cross-border business travel for activities such as routine business meetings, client interface or order taking for goods or services their unit produces, or for training. Experience suggests that some applications for short-term travel visas will be turned down, especially early in the new visa holders’ stays. Even with appropriate documentation and legitimate purposes, third-country nationals are likely to be frequently grilled at the border.

Given this situation, we recommend against any broad promotion at this time of a Windsor-Essex business presence as a means by which US-based operations that choose a Metro Detroit base can readily bring additional highly-skilled foreign workers to North America.

That caution issued however, we recommend that Global Detroit and its economic development partners establish a committed and qualified professional advisory team or task force on immigration matters to work with businesses already in or considering a Metro Detroit/Windsor-Essex location to introduce them to the unique immigration-related advantages of a bi-national
model. This same model can also help in exploiting the other opportunities highlighted in this report.

Canadian immigration policies -- both Federal and Ontario -- continue to evolve and should be monitored as changes may create opportunities. The Minister of Citizenship and Immigration -- Jason Kenney -- continues to advocate changes with the stated objective of speeding processing and making the system more responsive to the demonstrated needs of Canadian employers. The Ontario situation is addressed below (page 78).

A number of specific productive and interesting immigration-related situations can be envisaged that are worth pursuing on a case-by-case basis with the right type of careful planning and professional support:

- **Intra-Company Transfers:** Any company seeking to open a branch, subsidiary or sister operation in the other country should not encounter any impediments in getting approval for managers and some employees with "specialized knowledge", provided the individuals who will occupy the positions have previously had at least a year's demonstrated capability in a comparable position in the firm. The US and Canadian provisions in this regard are very similar.

Typically, the Intra-Company Transfer approach will be well-suited to firms that see opportunities in the other country that will be facilitated by having a physical presence there. These opportunities could be the type described elsewhere in our report. The number of positions that will be authorized to be filled by foreign workers will be helpful but not likely significant.

- **Permits for Temporary Foreign Skilled Workers:** The Canadian Federal immigration program provides for three year temporary work permits for management, professional and skilled occupations if it can be demonstrated that qualified Canadians or Permanent Residents are not available. The inability to find qualified Canadian residents for a particular position is validated by the Canadian government through a Labor Market Opinion (LMO) issued by Human Resources and Skills Development Canada/Service Canada, a process subject to fluctuation but normally taking 8 to 10 weeks.

Current evidence is, however, that the system for issuing temporary work permits is not operating predictably and optimally at present and is the source of frustration and concern by segments of the business community. Though the Labor Market Opinions (LMOs) that support issuance of a temporary work permit are being processed on an ongoing basis, extensive additional information is reported being requested, which if provided promptly entails delays of several additional weeks. As it currently stands therefore, the system cannot be confidently and widely advertised as providing a ready and assured means to access additional highly skilled foreign workers.

The principal advantages of the Canadian system for issuing temporary work permits over the US H-1B process are the absence of quotas or ceilings and the ability to apply for Labor Market Opinions (LMOs) at any time. The issues associated with obtaining the enabling LMO are defining and justifying the needed skill sets for a position and following the requisite national recruiting effort.

Actual workforce supply and demand is obviously a key factor in obtaining LMOs. The Canadian government makes its own assessments. A series of sector human resource councils, industry-led but funded partly by the Canadian government, also undertake
national and regional research. Regional workforce boards in Ontario -- such as the Workforce WindsorEssex -- and economic development agencies monitor their own local labor markets. Sometimes firms or industry groups will commission independent studies to document shortages in order to support requests for LMOs.

With the regional economy rebounding, there is a general expectation that labour markets will increasingly tighten. In Windsor-Essex, temporary work permits have reportedly been obtained recently for some highly skilled positions in the tool, die mold (TDM) industry, though the process was longer and arduous than responds to the needs on the part of many TDM firms. There is some evidence that a lack of available talent in Windsor-Essex's information and communication technology (ICT) sector has recently constrained business growth. More detailed surveys were underway in early 2012 by Workforce WindsorEssex, including with the support of the WEtech Alliance. This should be monitored. In the ICT sector, the Information and Communications Technology Council (ICTC), the national human resource sector group, will update its analysis around the end of the first quarter of 2012. The ICTC assessment in March 2011 said that recruitment challenges in Ontario would be especially difficult for leading-edge skills and for job requiring more than 5 years experience. Looking out to 2013-2016, ICTC foresaw tightening in several occupational areas as depicted below.

**Ontario Outlook – 2010–2016**

<table>
<thead>
<tr>
<th>Acute Excess of Supply over Demand</th>
<th>Excess of Supply over Demand</th>
<th>Skills Shortages in Many Fields</th>
<th>Excess of Demand over Supply: Pervasive Shortages</th>
<th>Acute Excess of Demand over Supply: Absolute Supply Constraints</th>
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<tbody>
<tr>
<td>A122 Computer and information systems managers</td>
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<tr>
<td>A311 Telecommunication carriers managers</td>
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<tr>
<td>C033 Electrical and electronics engineers</td>
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<tr>
<td>C047 Computer engineers (except software engineers)</td>
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<tr>
<td>C071 Information systems analysts and consultants</td>
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<tr>
<td>C072 Database analysts and data administrators</td>
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<tr>
<td>C073 Software engineers and designers</td>
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<tr>
<td>C074 Computer programmers and interactive media developers</td>
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<td>C075 Web designers and developers</td>
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<tr>
<td>C141 Electrical &amp; electronics engineering technologists &amp; technicians</td>
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<td>C181 Computer network technicians</td>
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<td>C183 Systems testing technicians</td>
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<td>F124 Broadcast technicians</td>
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From "Outlook for Human Resources in the ICT Market 2011-2016", Information Communication Technology Council, March 2011

- **Temporary NAFTA Entry for US and Canadian Citizens**: The North American Free Trade Agreement (NAFTA) facilitates temporary employment under the professional category of visas of US, Canadian and Mexican citizens in certain specified occupational categories in the other countries without consideration as to whether there are nationals of the country who are available. The occupational categories are quite specific and provide for qualifications that must be met. Those that are more generally applicable include accountants, architects, computer systems analysts, engineers, management consultants, mathematicians (including statisticians) and scientific technologists/technicians.
• **Ontario's Provincial Nominee Program**: The relatively young Ontario Provincial Nominee Program (PNP), which allows the province to nominate foreign workers for Permanent Residence in Ontario, provides a promising window if companies meet its basic criteria -- having been in business in Canada for three years, or making a new investment of at least $Cdn 3 million in Ontario.

For companies that qualify, the Ontario Provincial Nominee Program envisages existing companies being able to request one nominated foreign employee for every 3 full-time positions occupied by a Canadian or Permanent Resident, up to a maximum of 20 visa-ed positions. For new investment, nominations for permanent residence can be requested on the basis of as many as one for every new job created.

Though the Ontario PNP does not require Labor Market Opinions (LMOs), it sees the PNP compensating for situations where companies cannot find qualified staff in Ontario.

Looking to the future, the provincial role in immigration continues to expand notably and it therefore remains to be seen how the Ontario PNP may grow and evolve. In this respect, we recommend that the City of Windsor and/or the WindsorEssex Economic Development Corporation take the initiative to engage the Ontario Government to explore how an expanded Provincial Nominee Program could be tailored to generate high quality economic growth in Windsor-Essex by providing predictable access to nominations so as to attract Metro Detroit-based operations facing constraints on highly skilled workers to establish a binational presence across the border in Ontario.

More complete information on Ontario's Provincial Nominee Program is in Appendix D.3.

• **Graduating Foreign Students**: Foreign students and graduates from post-secondary educational institutions in Windsor-Essex can readily obtain work permits and, subject to relatively modest conditions, apply relatively soon for Permanent Residence in Canada. This allows Windsor-Essex-based businesses abundant opportunities to develop productive relationships with this talent source.

A well-focused program to bring businesses located or establishing in Windsor-Essex together with foreign university and college students at the University of Windsor and St. Clair College should be initiated and promoted, modeled on the Southeast Michigan program, Global Talent Retention Initiative of Southeast Michigan, launched with the leadership of Global Detroit. The prime disciplines to be targeted would be sciences, technology, engineering, mathematics and management.

Appendix D.5 discusses at more length the paths to Permanent Residence for foreign students in Canada.

• **Progression to Permanent Residence and Citizenship in Canada**: Canada generally offers a faster track to Permanent Residence than in the US. Once in Canada for a minimum period (often just two years), individuals covered by intra-company or other temporary work permit provisions can apply for Permanent Residence under the Canadian Experience Class and receive priority processing. As such, Permanent Residence should be obtained more speedily and readily than in the US.

• **Canadian Permanent Residence as an Option for US H-1B Visa Holders**: US-based companies that have Canadian operations (say, in Windsor-Essex) can, with appropriate
advance planning, develop strategies for their US-based H-1B visa holders to apply for Permanent Residence in Canada based on full-time indeterminate job offers from the Canadian operation. Lead times of 2 to 3 years are generally needed for processing, however. This dimension is covered in more depth in Appendices D.6 and D.7.

6.3 A Metro Detroit Location for Windsor-Essex and Canadian Firms

Looked at from the perspective of a Canadian-based company, especially those in Windsor-Essex, a physical presence in Metro Detroit via an office or production facility can be an advantageous base from which to fully exploit US business opportunities. The benefits include:

- a US "face" that signals commitment and shows identity with the market;
- a showroom and location to meet with US clients and prospects, that avoids them having to cross the border;
- a location from which to send literature, samples and products that have already cleared customs;
- production facilities that allow the firm to meet US government procurement requirements; and
- a base in the US for Canadian employees travelling into the US on business.

The number of Canadians who will be able to obtain US permission to work (and, if desired, reside) in the US under intra-company transfer provisions will likely be limited however. Use of TN1 NAFTA visas for accountants, engineers or computer systems analysts might modestly expand Canadian staff mobility and presence.

Canadian citizens employed by the Windsor-Essex or Canadian operation will be able to travel to the US on a short-term basis for conferences and meetings; order-taking, contract negotiation and training related to non-US goods or services; and installation, servicing or repair of commercial or industrial equipment or machinery supplied by the firm as specifically required in the purchase contract (not including construction work). Systems to train and discipline staff in immigration matters and to ensure appropriate supporting documentation will be needed to ensure the strict compliance that will gain trust from US border officials.

More detailed information on crossing the Canada-US border for business on a short-term basis is provided in Appendix D.8.

6.4 The Importance of Establishing Trust and Credibility with Immigration and Border Officials

An overriding and fundamental consideration is the necessity for a company and those holding visas to establish unquestioned credibility and trust with officials in the various government agencies that administer the immigration program and operate at the border. Any doubts or malfeasance will undercut the relationship and lead to more extensive questioning, demands for more detailed documentation, less charitable interpretations, greater likelihood of rejections, and processing delays. Based on our interviews, doubts that arise are too often a problem.

A key role for the team or task force on immigration matters will be to encourage firms they work with to follow a discipline of full compliance and a shared corporate ambition to earn and keep the trust of immigration and border officials. The members of the advisory group will all need to be expert in immigration and border issues and willing to share practical experiences and "war stories".
The work of the group would be aided by roundtables or workshops and by the development of printed or video "how to" guidance. The WindsorEssex Economic Development Corporation (WEEDC) has worked in the past with the Canada Border Services Agency to mount "Know the Rules" seminars. Events of this type could be part of the mix, but one-on-one private professional guidance is critical. A budget for the team and related activities will be required, which could extend to providing some modest fee to professional members of the advisory group for preparation of materials.

The team or task force on immigration matters should also play a role in advising Global Detroit and its partner economic development organizations on how to most effectively become involved in the consultations that the "Beyond the Border" Action Plan has committed the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration to jointly initiate by March 31, 2012. This initiative offers a timely opportunity to make the case for border procedures that would reduce impediments and facilitate legitimate passage that will stimulate the border region's economy.

6.5 Entrepreneurial Immigration

The Principal Question

To what extent are there opportunities for Metro Detroit and Windsor-Essex to promote the bi-national region as a destination for foreign entrepreneurs who see North America as a promising and potentially supportive destination for the realization of their innovative ideas?

This would build on cross-border collaboration which is already occurring -- and which there seems to be a disposition to further encourage -- which grants considerable access to resources on both sides of the Detroit River to entrepreneurs from both countries.

The Concept

The concept would be to promote the bi-national region as the destination, pointing out that there are two distinct avenues -- either the Canadian or American entrepreneurial immigration programs. Entrepreneurs who establish a presence either in Metro Detroit or in Windsor-Essex will have the advantage of being able to access resources on either side of the border. Thus, a foreign entrepreneur who comes to Windsor-Essex under the Canadian Entrepreneur Program could benefit from mentoring resources, boot-camps or networking events at, say, Tech Town or Next Energy in Detroit. By the same token, WEtech Alliance in Windsor would open doors in its programs to Detroit-based immigrant entrepreneurs who have come under US programs.

Border Challenges

The fundamental problem -- a practical one to which we have already pointed -- is that a newly or relatively newly arrived entrepreneur who is a national of a non-visa-exempt country could encounter problems -- initially at least -- in getting a visa for short-term business visits to the other country because the authorities would see her/him as a risk because s/he does not have sufficient attachment to his/her new country of residence (e.g. ownership of a residence, established place of business, demonstrable business or community connections). Over time, it is increasingly likely that this can be overcome through establishment of credibility that would merit issuance of a multi-entry visa (US B-1 or Canadian temporary residence visa). In the short-term however, it may not be possible to deliver the benefits that might have been advertised or promised.
Another consideration with respect to entrepreneurial immigration is that the Canadian programs have been at least temporarily curtailed. Pending a review of the federal entrepreneur program, CIC temporarily stopped accepting applications as of July 1, 2011. As of the same date, a cap of 700 applications for the following 12 months was established for the Federal Immigrant Investor Program.

**Recommendations Regarding Entrepreneurial Immigrants and Investors**

For these reasons, we do not recommend a specific joint Metro Detroit/Windsor-Essex program to promote the region as a destination for entrepreneurial immigrants at this time. This should not however preclude a degree of collaboration between Metro Detroit and Windsor-Essex, including involvement in specific situations involving entrepreneurial immigrants by the team or task force on immigration matters. Nor should either community be shy about drawing attention to the fact that they are border communities in a metropolitan area that is a major hub for international business. The issue is to avoid overt representations that a newly arrived foreign national will assuredly be able to benefit immediately from resources on both sides of the border.

As a modest starting point, we recommend that Global Detroit convene a group of its partners to explore:

1. Whether there are successful foreign-born entrepreneurs based in Metro Detroit and in Windsor-Essex who can become champions and mentors for new immigrant entrepreneurs?
2. Whether there are immigrant investors who have come to either community who, in addition to their obligations under the respective programs, have sufficient funds and interest to also make investments across the border?

The partner group would draw on

- Global Detroit's economic development partners;
- Technology associations and incubators (including TechTown, NextEnergy, WEtech Alliance and the Centre for Enterprise & Law at the University of Windsor); and
- Foreign chambers of commerce, possibly through the new Council of Ethnic Chambers announced in October (bringing together ten organizations, including the American Arab Chamber, the African Business Chamber, the African Caribbean Chamber, the Detroit Chinese Business Association, the Indo-American Chamber, the Michigan Black Chamber, the Michigan Hispanic Chamber, the Philippine Chamber and the Taiwanese Chamber of Commerce of Greater Detroit).

The presence of a large, vibrant and entrepreneurial Arab community on both sides of the river -- though especially in Metro Detroit, makes it a logical focal point, working with the American Arab Chamber. As well a growing and significant South Asian Indian community, also characterized by successful entrepreneurship, offer additional opportunity. TiE Detroit -- part of the highly successful group, The Indus Entrepreneurs -- commends itself as a partner.

These initiatives would represent first steps on which to build increasingly ambitious subsequent efforts.

The information and advice in this report is for informational purposes only and constitutes general information relating to Canadian and US immigration law, policies and procedures. The information does not constitute legal or other professional advice and should not be relied upon as such.
7 Policy-Driven Cross-Border Differences Where Choice Can Benefit Business

The Detroit/Windsor metropolitan region gives businesses a unique opportunity -- not present in any other part of the world -- to operate bi-nationally by having a business presence on both sides of the border in the same urban area.

Similar as the environment for doing business in the US and Canada may seem, there are significant differences between the legal and governmental systems of the two countries that are reflected in policies, programs and the market place. Provided companies are committed to a business presence in both Metro Detroit and Windsor-Essex, there are opportunities to seek the best of each country’s offerings in ways that will advantage the overall business.

We examine a number areas that -- in addition to immigration on which we have reported above -- are driven by government policies where the ability to choose may benefit a company adopting a bi-national model:

- Government Financial Incentives for Business;
- R&D Tax Incentives and Support;
- Business/Academic Research Partnerships;
- Government Procurement;
- Private Sector Minority Procurement;
- The Defense and Homeland Security Markets;
- Health Care Markets; and

Some times a company is likely to gain the most by being on one side of the border or another, as the provisions in one country are superior to the other. Other times, there may be reasons to undertake similar activity on both sides of the border as a means of opening up a wider range of possibilities. Over time, it is likely that policies and programs of assistance will change -- as new governments take office and as circumstances shift. A firm pursuing a bi-national approach in Detroit/Windsor stands to be much more agile and able to adapt more rapidly when such changes occur.

Certain sectors which stand to benefit the most can be identified -- ones such as defence, homeland security, health care and alternative energy. Research-intensive businesses, especially those who work with universities and colleges -- also stand to benefit from a wider variety of options if they operate on both sides of the border. These are obvious priorities for Metro Detroit/Windsor-Essex economic development agencies for business attraction and partnership based on the bi-national model.

7.1 Financial Incentives for Business

Government financial incentives are a critical aspect of new business attraction, business retention and expansion, job creation and upgrading, and the encouragement of innovation and R&D. Incentives are very competitive from one jurisdiction to another, with all levels of government vying to attract new investment and jobs.

The US and Canadian systems are quite different in structure, though, at the end of the day, incentive packages that lead to comparable -- if not similar -- bottom lines and outcomes can be assembled when the competitive situation demands.
Incentives are, of course, only one consideration in a company's site location and expansion decisions. It is frequently said that incentives tend to come into play as the deciding issue mainly where other factors are equal.

Despite the parallels that can be drawn between the US and Canadian approaches, the structural differences may respond better or appeal more to particular companies or situations. The availability of choice between jurisdictions as dissimilar as Michigan and Ontario may have advantages for firms that have a Metro Detroit/Windsor-Essex bi-national presence.

**Federal Government Role**

The US federal government has several significant national programs that deliver economic development funding to the local municipal level, often through partner organizations in the community. These include the programs of the Economic Development Administration (part of the Department of Commerce), the Department of Housing and Urban Development, Health and Human Services, and the US Treasury Community Development Finance Institution. While much is for community betterment, economic development and infrastructure, some funding supports programs which offer financing to business. The US Department of Energy also has significant programs to support the development of alternative energy, while the US Department of Defense interfaces extensively and actively with the defense industrial base, including funding for R&D. In the case of the Department of Commerce's Small Business Administration, the delivery of its sizable programs of loan guarantees is via banks, financial institutions and other intermediaries.

In Canada on the other hand, the Federal Government's role is somewhat more constrained, beyond the notable and substantial R&D tax credit (Scientific Research & Experimental Development - SR&ED) and the Federal Government's Small Business Financing Program that backstops lending by banks to firms with gross revenue under $Cdn 5 million.

The Canadian Government provides financial assistance for companies at the local level principally through regional development agencies. The establishment of the Federal Economic Development Agency for Southern Ontario (FedDev Ontario) in 2009 filled the last geographic gap in national coverage by these agencies. The Federal Government also provides support for Defense R&D (the Strategic Aerospace and Defence Initiative), to counter to a very modest degree the huge US investment in defense research and development. The Ontario automotive sector has also benefited from Federal (and provincial) funding in order to stay competitive with rich incentives in the US. The Canadian Government offers extensive funding for business-academic research partnerships, but the funding flows to the post-secondary educational institution.

"Entitlement" versus "Discretionary" Incentives

"Entitlement" programs tend to be more widely used in the United States than in Canada. In the case of an "entitlement" program, eligibility and benefits are defined and any company that qualifies is entitled to the benefits. Bureaucratic discretion is not a factor.

"Discretionary" programs on the other hand are subject to the discretion of the officials administering the program or in some cases ultimately their legislatures. Such programs usually have published guidelines but tend to eschew rigid rules. The flexibility that is available can often be used to respond to particular situations, conceivably to a company's benefit. On the other hand, putting discretion in the hands of the bureaucracy or politicians may create a process that is less transparent or certain.
Discretionary programs tend to be the norm in Canada, a major exception being the Canadian/Ontario R&D tax incentives.

And in Canada, the specific decisions on individual projects rarely, if ever, require specific legislative approval. Rather approvals can be granted by officials, ministers or cabinets which traditionally conduct their affairs in secrecy without public disclosure. In the US, final approval of certain incentives may require legislative action which requires a degree of public disclosure.

**Loan Guarantees**

Loan guarantee provisions have been quite widely used in the United States. The US Government's Small Business Loans are an example. The approach reflects a greater disposition on the part of governments in the US to work with and rely on private sector organizations to play a decision-making and delivery role in connection with economic development programs and assistance to small business.

In Canada, the loan guarantee mechanism is used much less frequently and from a government accounting point of view is equivalent to outright grants or direct loans. A more conservative Canadian approach requires that loan guarantees have full provisioning against liabilities, so there is no advantage in using loan guarantees from an internal budgetary point of view over direct loans or grants. US governments generally allow for partial provisioning for loan guarantee programs.

**Industrial Development Revenue Bonds**

Industrial Development Revenue Bonds are a form of tax-exempt debt used to finance private industrial facilities. Though widely used in the US, Industrial Revenue Bonds are not used in Canada.

In Michigan, municipalities apply to the Michigan Strategic Fund. If the Fund's Board approves, it issues Private Activity Bonds on the behalf of the borrower and lends the bond proceeds to the borrower.

**Local (Municipal) Financial Incentives in Ontario**

Meaningful local municipal level financial incentives are not generally available in Ontario. Since 1962, Ontario legislation has forbidden "bonusing" by municipalities. The Ontario Municipal Act [subsection 106(1)] prohibits municipalities from directly or indirectly assisting any manufacturing business or other industrial or commercial enterprise through the granting of bonuses. Prohibited actions include:

- giving or lending money or municipal property;
- leasing or selling any municipal property at below fair market value;
- guaranteeing borrowing; and
- giving a total or partial exemption from any levy, charge or fee.

This has meant that local municipal incentives, beyond the availability of some municipally developed industrial parks, are not a factor in bidding wars for new investment, as they sometimes can be in US jurisdictions.

Tax increment financing is used by local governments in Ontario for programs related to remediation or upgrading of blighted urban sites.
In March 2011, the City of Windsor expanded the tax increment financing concept further by introducing a Business Retention and Expansion Grant Program under its Community Improvement Program (CIP). This provides quite widely available tax increment financing (TIF). Subject to meeting quite broadly based criteria such as priority sectors and minimum numbers of new jobs, the program supports a new project or an expansion by making a municipal grant equivalent up to 100 percent of the municipal property tax increase created by the project for up to 10 years after project completion, effectively locking in or freezing the current property tax assessment for 10 years, despite the fact that it would be expected to increase due to the new construction.

**Comparison of Business Incentives Offered By Michigan and Ontario**

A comparison of representative business incentives offered by the State of Michigan and the Province of Ontario show that they vary in type and focus depending on the jurisdiction. The 73 state and 61 provincial programs selected (Appendix E), based on information collected in November and December 2011, offered government loans, grants, tax credits or other financial assistance directly to business with the goal of creating jobs, stimulating investment, supporting training, or encouraging innovation and R&D.

Michigan incentive programs have tended to be more heavily focussed on ones that offer support for growth and economic development, where Ontario's programs have their strongest focus on supporting start-ups and collaboration.

### Business Incentives Offered by Michigan and Ontario - A Comparison

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<th>Michigan</th>
<th>Ontario</th>
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<tr>
<td><strong>Export</strong></td>
<td>2 Tax Credit</td>
<td>3 Grant</td>
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<td></td>
<td>1 Grant</td>
<td>1 Other</td>
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<tr>
<td><strong>Commercialization</strong></td>
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<td>4 Grant</td>
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<td></td>
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<td><strong>Digital Media</strong></td>
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<td><strong>R&amp;D</strong></td>
<td>1 Tax Credit</td>
<td>3 Grant</td>
</tr>
<tr>
<td></td>
<td>1 Other</td>
<td>2 Tax Credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Other</td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td>5 Other</td>
<td>2 Grant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Tax Credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Other</td>
</tr>
<tr>
<td><strong>Start Up</strong></td>
<td>1 Loan</td>
<td>10 Grant</td>
</tr>
<tr>
<td></td>
<td>4 Tax Credit</td>
<td>1 Other</td>
</tr>
<tr>
<td></td>
<td>5 Other</td>
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</tr>
</tbody>
</table>
In addition, there are differences in the types of programs offered among the categories of loans, grants, tax credits and other. Ontario’s focus has been on grants, with over 40 grant programs available to eligible businesses, whereas Michigan’s focus has been mainly on tax credits with a particular concentration of these in the economic development area. Also, Ontario provides no business incentives that are offered solely in the form of loans, while Michigan has over 10. Moreover, Michigan has more than double the number of tax credit programs available than Ontario.

### Business Incentives Offered by Michigan and Ontario - A Comparison

![Graph comparing business incentives offered by Michigan and Ontario](image)

**TOTAL MI = 73**

**TOTAL ON = 61**

It bears mentioning that incentives for business in Michigan and Ontario are both being restructured. The new government which came to power in Michigan at the beginning of 2011 introduced important changes, while, in the case of Ontario, the government indicated in February 2012 that significant realignment of incentives for business would be made in response to the Commission on the Reform of Ontario's Public Services (known as the Drummond Report).

### Corporate Tax Rates

Provinces take a higher proportion of the corporate tax levied in Canada than states do in the United States. Businesses in Ontario file a single tax return with the Federal Government.

Overall, the composite corporate taxation rate is likely currently lower in Ontario than Michigan with recent Federal and Ontario reductions. With a combined average federal-state rate of 39.2 percent, the US has the second-highest rate in the world (after Japan, with 39.2 percent).
Choices for Businesses

In order to maximize cost advantages, a business may choose to favor either Michigan or Ontario as the location for certain aspects of operations, expansions or new investments. For example, R&D tax credits may be very important and more advantageous in one as opposed to the other. Companies that have limited cash flow or access to capital may be attracted to the availability of loans or grants, rather than tax credits, the benefits of which tend only to be realized in the future. Workforce issues may be especially important, leading a company to undertake certain production in the location where training incentives may be most advantageous. Programs offering financial assistance may support R&D cooperation with certain countries, making it attractive to concentrate that R&D on one side of the border. Sector specific incentive programs -- for example in digital media or vehicle battery technology -- may lead to concentration of that aspect in one location over another.

There are therefore a wide variety of situations that could influence a business to locate activities to maximize business incentives on one side of the border or the other.

Companies seeking to lever the most advantageous situations however need to bear in mind that they must make a meaningful commitment to a presence in both Metro Detroit and Windsor-Essex in order to benefit from programs in each. The rules associated with incentive programs seek to ensure that companies have an on-going presence and are making a meaningful economic contribution in return for the government support.

### 7.2 R&D Tax Incentives and Support

Both the US and Canadian governments -- complemented by state and provincial programs in Michigan and Ontario -- offer tax incentives to companies that conduct research and development activities.

#### Federal Tax Credits

At the federal level, R&D tax credits exist in both Canada and the US. The two national programs are comparable in their approach. However, the Canadian program is promoted as having significant benefits over its US counterpart. There are however other US programs -- including Small Business Innovation Research (SBIR) -- that may benefit Canadian companies if they are able

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<thead>
<tr>
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<th>US</th>
<th>Canada</th>
</tr>
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<tbody>
<tr>
<td>Basic Corporate Income Tax Rate</td>
<td>6% CIT (effective Jan. 1, 2012).</td>
<td>Between 15% and 35%; based on income (see endnote).</td>
</tr>
<tr>
<td></td>
<td>Between 21% and 41%</td>
<td>11.5%</td>
</tr>
<tr>
<td></td>
<td>15% (Effective Jan. 1, 2012)</td>
<td>26.5%</td>
</tr>
<tr>
<td>Small Business Corporate Income Tax Rate</td>
<td>1.8%</td>
<td>Between 15% and 35%; based on income (see endnote). Yet if eligible can apply for an income tax return.</td>
</tr>
<tr>
<td></td>
<td>Between 16.8% and 36.8%</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>11% net tax rate for “Canadian controlled private corporations”.</td>
<td>15.5%</td>
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</tbody>
</table>
to access these programs despite their restriction to SMEs that are 51% US controlled. The opportunities to leverage the incentives that may be the most beneficial provides a strong argument for pursuit of a bi-national business model in the Metro Detroit/Windsor-Essex region.

**US Research & Experimentation (R&E) Tax Credit**

The US Research and Experimentation (R&E) tax credit was introduced in 1981 and has often been modified and extended/renewed, with the exception of the one year in 1995-1996 when it lapsed.

In Tax Year 2008, 12,736 corporations claimed $US 8.3 billion in research credits and more than 64,000 individual taxpayers claimed $US 463 million in research credits.\textsuperscript{lxv}

The R&E program creates an incentive to undertake research by providing a tax credit based on qualified research expenses. Qualified research expenses eligible for the research credit generally consist of: \textsuperscript{lxvi}

1. In-house expenses for wages and supplies attributable to qualified research;
2. Certain time-sharing costs for computer use in qualified research; and
3. 65 percent of amounts paid or incurred by the taxpayer to certain other persons for qualified research conducted on the taxpayer's behalf ("contract research expenses").

Qualified research expenses include 100 percent of amounts paid or incurred by the taxpayer to an eligible small business, university, or Federal laboratory for qualified energy research.

Research does not qualify for the credit if substantially all of the activities relate to style, taste, cosmetic or seasonal design factors. In addition, research does not qualify for the credit if:

1. Conducted after the beginning of commercial production of the business component;
2. Related to the adaptation of an existing business component to a particular customer’s requirements;
3. Related to the duplication of an existing business component from a physical examination of the component itself or certain other information;
4. Related to certain efficiency surveys, management function or technique, market research, market testing, or market development, routine data collection or routine quality control; or
5. Conducted outside the United States, Puerto Rico, or any US possession.

The key criteria to qualify are:
- The research project must be undertaken for the purpose of discovering information that is technological in nature;
- The application of the research must be intended to be useful in the development of a new or improved business component of the taxpayer; and
- Substantially all of the research activities must constitute elements of a process of experimentation for functional aspects, performance, reliability, or quality of a business component.

The R&E credit is an incremental credit, for which there are a number of formulas.

As of December 31, 2011, the R&E tax credit is again up for Congressional renewal. President Obama proposed in 2010 to increase the total amount of the R&E tax credit by 20%, simplify it, making it easier and more attractive for businesses to claim it for their research investments, and make it permanent. It is claimed that this will leverage more than $US 100 billion in domestic private-sector research over the next 10 years. It will also support nearly 1 million research workers.
in the US in professions that pay higher-than-average wages seeing as the vast majority of research costs supported by the R&E credit are labour costs.

**Michigan Research and Development (R&D) Tax Credit**

The State of Michigan has a research and development tax credit that follows the Federal qualifying criteria. Beginning in the 2009 tax year, a Michigan tax-payer can claim a credit equal to 1.90 percent of R&D expenditures in Michigan during the tax year. In 2008, the rate was 1.51 percent.

**The US Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR)**

Federal funding mechanisms exist to support small businesses to stimulate technological innovation as well as to develop products with commercial merit; thereby not only promoting small businesses but also creating jobs. The US has two highly advantageous and well-resourced innovation programs -- Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) -- though eligibility is limited to US controlled (51%) small business.

From their establishment in 1982 through FY 2009, over 112,500 awards have been made totaling more than $US 26.9 billion.

SBIR and STTR have different funding requirements. SBIR allows -- but does not require -- the involvement of a non-profit research institution, while STTR requires the involvement of a non-profit research institution.

### Main Differences Between SBIR and STTR

<table>
<thead>
<tr>
<th>SBIR</th>
<th>STTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>The principal investigator must have primary employment with the small business concern (SBC)</td>
<td>Does not require the principal investigator to be primarily employed by the SBC</td>
</tr>
<tr>
<td>Encourages, but does not require the SBC to partner with a research institution</td>
<td>SBC and partnering institution are required to establish an intellectual property agreement detailing the allocation of IP rights and rights to carry out follow-on research, development or commercialization activities</td>
</tr>
<tr>
<td>Requires the SBC to perform at least 40% of the R&amp;D and the single partnering research institution to perform at least 30% of the R&amp;D</td>
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</table>

Three structured phases of the SBIR/STTR Programs:

- **Phase I.** The objective of Phase I is to establish the technical merit, feasibility, and commercial potential of the proposed R/R&D efforts and to determine the quality of performance of the small business awardee organization prior to providing further Federal support in Phase II. SBIR Phase I awards normally do not exceed $US 150,000 total costs for 6 months. STTR Phase I awards normally do not exceed $US 100,000 total costs for one year.

- **Phase II.** The objective of Phase II is to continue the R/R&D efforts initiated in Phase I. Funding is based on the results achieved in Phase I and the scientific and technical merit and commercial potential of the project proposed in Phase II. Only Phase I awardees are eligible for a Phase II award. SBIR Phase II awards normally do not exceed $US 1,000,000 total costs for 2 years. STTR Phase II awards normally do not exceed $US 750,000 total costs for 2 years.
Phase III. The objective of Phase III, where appropriate, is for the small business to pursue commercialization objectives resulting from the Phase I/II R/R&D activities. The SBIR/STTR program does not fund Phase III. In some Federal agencies, Phase III may involve follow-on non-SBIR/STTR funded R&D or production contracts for products, processes or services intended for use by the US Government.

SBIR enables US small businesses to undertake research and provides the incentive to profit from its commercialization through a competitive awards-based program. The program's goals are to
- stimulate technological innovation;
- meet federal R&D needs;
- foster and encourage participation in innovation and entrepreneurship by socially and economically disadvantaged persons; and
- increase private sector commercialization of innovations derived from Federal R&D funding.

Each year, all Federal agencies with a budget greater than $US 100 million per year are required to set aside 2.5 percent of the extramural research budget. The eleven agencies currently participating are: Department of Agriculture, Department of Commerce – National Institute of Standards and Technology, and National Oceanic and Atmospheric Administration, Department of Defence, Department of Education, Department of Energy, Department of Health and Human Services, Department of Homeland Security, Department of Transportation, Environmental Protection Agency, National Aeronautics and Space Administration, and the National Science Foundation.

Eligibility criteria for the program include:
- Organized for profit, with a place of business located in the United States;
- At least 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States, or
- At least 51 percent owned and controlled by another for-profit business concern that is at least 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States; and;
- No more than 500 employees, including affiliates.

STTR is a set-aside program to facilitate cooperative R&D between small business concerns and US research institutions – again with potential for commercialization.

The main goals of the STTR program are to
- stimulate technological innovation;
- foster technology transfer through cooperative R&D between small business and research institutions; and lastly,
- increase private sector commercialization of innovations derived from Federal R&D.

In the case of STTR, 0.3 percent of the extramural research budget for all agencies with a budget greater than $US 1 billion per year is set-aside. The five STTR participating agencies are Department of Defense, Department of Energy, Department of Health and Human Services, National Aeronautics and Space Administration, and the National Science Foundation. Each agency administers its own individual program within guidelines established by Congress.

As with SBIR, only United States small businesses are eligible to participate in the STTR program. Eligibility criteria for the program include:
- Organized for profit, with a place of business located in the United States;
- At least 51 percent owned and controlled by one or more individuals who are citizens of, or permanent resident aliens in, the United States, and;
- No more than 500 employees, including affiliates.
The non-profit research institution must also meet certain eligibility criteria:
- Located in the US; and
- Meet one of three definitions:
  - Non-profit college or university;
  - Domestic non-profit research organization; or
  - Federally funded R&D center.

Canada - Scientific Research and Experimental Development (SR&ED) Program

In Canada, the Scientific Research and Experimental Development (SR&ED) program is a federal tax incentive program to encourage Canadian businesses of all sizes and in all sectors to conduct research and development in Canada. The SR&ED program is the largest single source of federal government support for industrial research and development, amounting to nearly $Cdn 3.5 billion of foregone tax revenue in 2010. The Canadian Revenue Agency is responsible for administering the SR&ED program, while the Department of Finance is responsible for the legislation that governs it.

Canadian corporations, proprietorships, partnerships, and trusts (including subsidiaries or branches of foreign companies) can earn an investment tax credit (ITC) of 20 percent of qualified expenditures for SR&ED carried out in Canada. Canadian-controlled private corporations (CCPC) can earn a higher ITC rate of 35 percent on the first $Cdn 3 million of qualified expenditures for SR&ED carried out in Canada, and 20 percent on any excess amount.

In certain cases, the investment tax credit (ITC) may be refundable, rather than simply used to reduce taxes payable. Generally, a CCPC with a taxable income in the immediately preceding year that does not exceed the qualifying income limit may receive a portion of the ITC earned as a refund, after applying these tax credits against taxes payable. The ITC earned by a Canadian corporation that is not a CCPC is non-refundable, but may be used to reduce any taxes payable. The ITC earned by a proprietorship or certain trusts may be partially refunded after applying these tax credits against taxes payable.

SR&ED investment tax credits cover expenditures related to research and development such as wages, materials, machinery, equipment, some overhead, and SR&ED contracts. To qualify, project work must advance the understanding of scientific relations or technologies, address scientific or technological uncertainty, and incorporate a systematic investigation by qualified personnel.

Work that qualifies for SR&ED tax credits includes:
- **experimental development** to achieve technological advancement to create new materials, devices, products, or processes, or improve existing ones;
- **applied research** to advance scientific knowledge with a specific practical application in view;
- **basic research** to advance scientific knowledge without a specific practical application in view; and
- **support work** in engineering, design, operations research, mathematical analysis, computer programming, data collection, testing, or psychological research, but only if the work is commensurate with, and directly supports, the eligible experimental development, or applied or basic research.

Among the activities that are not eligible are: social science and humanities research; commercial production of a new or improved material, device, or product, or the commercial use of a new or improved process; style changes; market research or sales promotion; quality control or routine testing of materials, devices, products, or processes; routine data collection; prospecting, exploring,
or drilling for or producing minerals, petroleum, or natural gas; and development based solely on
design or routine engineering practice.

A foreign company can qualify for the Canadian SR&ED tax benefit through:
1. A Canadian subsidiary of a foreign parent, and;

First, the Canadian subsidiary can carry out qualifying SR&ED activities in Canada and, through
deducting the expenditures and claiming the 20 percent tax credit, the subsidiary can significantly
reduce or even eliminate Canadian taxes payable. The foreign parent can contract the Canadian
subsidiary to carry out the SR&ED activities on their behalf, in which case the foreign parent will
own the rights to the SR&ED, and the Canadian subsidiary can still make use of the SR&ED tax
incentive program.

Second, a foreign corporation can set up a CCPC in Canada as long as it owns 50 percent or less of
the company’s shares and the shares do not have any special rights attached to them. Traditionally,
non-residents set up CCPCs in Canada by having a Canadian investor such as a venture-capital firm
or research institution hold the remaining shares. This approach attracts the higher ITC rate and
other benefits available to a CCPC.

Foreign corporations can also benefit from the higher SR&ED credits available to a Canadian-
controlled private corporation (CCPC), albeit indirectly, by contracting R&D with a CCPC. The CCPC
will be entitled to the higher incentive and can reflect that in its pricing for the contract.

Illustration of the Federal SR&ED Program on
$Cdn 5 Million of Qualified SR&ED Expenditures

<table>
<thead>
<tr>
<th>SR&amp;ED Expenditures</th>
<th>Credit Rate</th>
<th>% Refund</th>
<th>Refundable Tax Credit (Cash Back)</th>
<th>Non-Refundable Tax Credit (Reduce Taxes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Canadian-</td>
<td>35%</td>
<td>100%</td>
<td>$1,050,000</td>
<td>-</td>
</tr>
<tr>
<td>Controlled Private</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporations</td>
<td>20%</td>
<td>40%</td>
<td>$160,000</td>
<td>$240,000</td>
</tr>
<tr>
<td>First $3 million</td>
<td>20%</td>
<td>40%</td>
<td>$160,000</td>
<td>$240,000</td>
</tr>
<tr>
<td>Remaining $2 million</td>
<td>20%</td>
<td>40%</td>
<td>$160,000</td>
<td>$240,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$1,210,000</td>
<td>$240,000</td>
</tr>
<tr>
<td>Large Public or Foreign-</td>
<td>20%</td>
<td>-</td>
<td>-</td>
<td>$600,000</td>
</tr>
<tr>
<td>Controlled Corporations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First $3 million</td>
<td>20%</td>
<td>-</td>
<td>-</td>
<td>$400,000</td>
</tr>
<tr>
<td>Remaining $2 million</td>
<td>20%</td>
<td>-</td>
<td>-</td>
<td>$400,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$1,000,000</td>
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</table>

The principal benefits claimed for the Canadian SR&ED program over its US counterpart are:
• Capital costs are claimable in Canada but not in the US. The full cost of R&D machinery and
equipment can be deducted in Canada, in addition to current expenditures.
• No limits are placed on subcontracting in Canada.
• The Canadian program is not limited to annual incremental expenditures.
• Some R&D expenses incurred abroad on Canadian R&D projects can be claimed.
• The Canadian SR&ED program does not require regular renewal by Parliament. Congress is
called upon often to extend the US program.
Ontario R&D Tax Incentives

Ontario, like most other provinces and territories in Canada, offers additional R&D tax credits that are calculated on the same basis as the Federal SR&ED program and administered by the Canada Revenue Agency through the Federal tax system.

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Summary</th>
<th>Eligibility</th>
<th>Benefit</th>
</tr>
</thead>
</table>
| Ontario Research and Development Tax Credit (ORDTC) | • The Ontario Research and Development Tax Credit (ORDTC) is a non-refundable tax credit. It is available to corporations that carry out scientific research & experimental development (SR&ED) work in Ontario.  
• The ORDTC replaced the Ontario SR&ED tax deduction for tax years ending after December 31, 2008.  
• The Canada Revenue Agency (CRA) administers the program on behalf of Ontario through the federal income tax system. | • Corporations that incur eligible expenses may claim the credit. An eligible expense must be:  
  o on account of SR&ED carried on at a permanent establishment in Ontario and  
  o a qualified expense in respect of SR&ED for purposes of the federal Investment Tax Credit. | • The ORDTC provides a 4.5 per cent tax credit based on eligible SR&ED expenses carried out in Ontario. The credit may be used to reduce corporate income tax payable. Any unused credit may be:  
  o carried back three years to tax years ending after December 31, 2008 or  
  o carried forward 20 years |
| Ontario Innovation Tax Credit (OITC)             | • The Ontario Innovation Tax Credit (OITC) is a refundable tax credit. It is available to all corporations that perform scientific research and experimental development (SR&ED) in Ontario.  
• The Canada Revenue Agency (CRA) administers the program on behalf of Ontario through the federal income tax system. | • A qualifying corporation:  
  o has a permanent establishment in Ontario  
  o carries on SR&ED in Ontario during the year and  
  o is eligible to claim the investment tax credit under section 127 of the federal Income Tax Act. | • The OITC is calculated as 10% of qualifying SR&ED expenses. Qualifying expenses are:  
  o 100% of current expenses and  
  o 40% of capital expenses  
• The maximum annual credit is $300,000. |
| Ontario Business Research Institute Tax Credit (OBRITC) | • The Ontario Business Research Institute Tax Credit (OBRITC) is a refundable tax credit. It is available to a qualifying corporation that performs scientific research and experimental development (SR&ED) in Ontario under a contract with an eligible research institute (ERI).  
• The Canada Revenue Agency (CRA) administers the program on behalf of Ontario through the federal income tax system. | • Companies are eligible to claim an Ontario business-research institute tax credit if they:  
  o carried on business in the tax year through a permanent establishment in Ontario;  
  o incurred qualified expenditures under an eligible contract with an eligible research institute; and  
  o were not exempt from tax under Part III of the Taxation Act, 2007 (Ontario) | • The OBRITC provides a 20% credit for SR&ED expenses incurred in Ontario under an eligible contract with an ERI.  
• Qualifying expenditures are capped at $20 million annually. The maximum annual credit is $4 million.  
• Small businesses may claim the OBRITC in addition to the Ontario Innovation Tax Credit. |
Ontario also offers a special tax exemption for new corporations that commercialize intellectual property developed by qualifying Canadian universities and colleges.

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Summary</th>
<th>Eligibility</th>
<th>Benefit</th>
</tr>
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<tbody>
<tr>
<td>Ontario Tax Exemption for Commercialization (OTEC)</td>
<td>• OTEC provides a ten year tax exemption for new corporations that commercialize intellectual property that is developed by qualifying Canadian universities or colleges.</td>
<td>• The exemption is available to qualifying corporations that commercialize intellectual property in priority areas such as: o bio-economy/clean technologies, o advanced health technologies and o certain telecommunications, computer and digital technologies.</td>
<td>• A qualifying corporation that is incorporated after March 24, 2008 and before March 25, 2012 is exempt from Ontario Corporate Income Tax and Corporate Minimum Tax for its first ten taxation years.</td>
</tr>
</tbody>
</table>

Canada's National Research Council's (NRC) Industrial Research Assistance Program (IRAP)

The National Research Council’s (NRC) Industrial Research Assistance Program (IRAP) is Canada’s innovation assistance program for small and medium-sized enterprises (SMEs) in information and communications technology (ICT), energy, environment, life sciences and agriculture sectors. The mandate of the program is to stimulate wealth creation for Canada through technological innovation. IRAP strives to provide support to small and medium-sized enterprises in Canada in the development and commercialization of technologies, and collaborate in initiatives within regional and national organizations that support the development and commercialization of technologies by small and medium-sized enterprises.

IRAP services are provided in 4 areas:

- **Technical and Business Advisory Services:** Industrial Technology Advisors coach clients’ projects through all stages of the innovation-commercialization process.
- **Financial Assistance:** provides non-repayable contributions to qualified firms and their innovative research and development related projects.

**Eligibility requirements:** Be a small and medium-sized enterprise in Canada, incorporated and profit-oriented, have 500 or less full-time equivalent employees, and have the objective to grow and generate profits through development and commercialization of innovative, technology-driven new or improved products, services, or processes in Canada.

- **Networking and Linkages:** through extensive networks, Industrial Technology Advisors are able to connect clients with industry experts and potential business partners.
- **Youth Employment Program:** encourages the hiring of recent graduates through funding opportunities targeted at innovative projects in research, development and the commercialization of technologies.

Through expert technical and business advice, financial assistance, access to business information, contacts, and national and international networks, the program provides customized solutions to some 10,000 SMEs annually.
7.3 Business/Academic Research Partnerships

Businesses with a presence in both Metro Detroit and Windsor-Essex may be able to find distinct advantages in working with two somewhat different national post-secondary educational environments -- not just as sources of talent, but for research partnerships.

The following are some aspects that vary depending on which side of the Canada-US border a company bases its operations.

**Intellectual Property and Technology Transfer Policies**

- **United States:** The Bayh-Dole Act and the Federal Technology Transfer Act, dealing with intellectual property rights where the US Government is involved, have the effect of establishing a high degree of homogeneity which simplifies business's dealings with universities and colleges. Where US government funding is involved however, intellectual property (IP) must be institutionally owned, the US government retains "March-in Rights", and licensees must undertake substantially all of the manufacturing in the US.

- **Canada:** Arrangements between universities and colleges are less standardized. Governments in Canada do not assert ownership rights. The diversity of the Canadian approach may make business's dealings with Canadian post-secondary institutions more complex, but it also opens the way for arrangements that may better meet certain needs that firms have and for differing and possibly more advantageous types of university IP policies, including ones that vest the IP with the inventor or creator rather than the university or college. Recipients of Canadian government funding need to show "benefit to Canada" in commercialization efforts. This is defined in general terms which can introduce a helpful degree of flexibility in interpretation.

**Financial Support**

- **United States:** The quantity, quality and variety of funding for research in the US contributes to the high standing of US institutions. US Federal government science and engineering expenditures at universities and colleges amounted to over $US 32 billion in 2009, with a further $US 3.6 billion coming from state and local government. The Department of Health and Human Services, including its National Institutes of Health, has been the dominant provider of Federal R&D funding, representing 55% ($US 18.1 billion). The National Science Foundation contributed $US 3.9 billion. The contributions from the Department of Defense were $US 3.4 billion, almost half in support of engineering R&D.

- **Canada:** Canadian governments offer what is proportionally the highest level of financial support among developed countries for research conducted in post-secondary educational institutions, usually based on validation of the project via matching private-sector support, both in cash and in-kind. In a best-case scenario, a company can lever two dollars in federal and provincial government funding for each dollar it contributes, whether in cash or in kind. In Canada, provinces like Ontario carry a more significant proportion of the funding than do US state governments.

**Examples of Business/Academic Partnerships in Windsor-Essex**

- **Chrysler and the University of Windsor** established a joint **Automotive Research and Development Center (ARDC)**, the first partnership of its kind between industry and academic in North America. Opened in May 1996, the Center arose from a study that examined how partnerships work in other countries. The university owns the building and land and conducts research of interest to the auto industry, while Chrysler provided the research infrastructure and is responsible for all operations and costs.
The Centre, totalling over 226,000 square feet, contains six road test simulator cells, a 23 bay engineering laboratory, component testing facilities, a corrosion analysis lab, a vehicle recycling lab, a large design office, a full scale automotive coating research facility, a lighting research tunnel, and a number of other smaller labs. Total investment since opening in 1996 is over $600 million.

Just over 200 University and Chrysler researchers, students, engineers and support personnel are employed at the ARDC. Since opening over 100 engineering co-op students have spent their work terms at the site while more than 20 engineering graduate students and post doctoral fellows have conducted research there. The Centre is also used by faculty as a real-life classroom for a number of engineering courses. Not only does this partnership provide unique automotive research and development opportunities, it benefits students, faculty and company engineers who work together on a wide variety of projects.

- **AUTO21** is a national collaborative business-academic research initiative supported by the Government of Canada through the Networks of Centres of Excellence Secretariat. It is coordinated out of the University of Windsor. AUTO21 brings together nearly 200 top Canadian researchers at 46 universities and partners them with 120 industry and government partners. An annual research budget of approximately $Cdn 11 million in federal and industry support fund projects within six key research themes:
  - Health, Safety and Injury Prevention
  - Societal Issues and the Future Automobile
  - Materials and Manufacturing
  - Powertrains, Fuels and Emissions
  - Design Processes
  - Intelligent Systems and Sensors

Currently, AUTO21 supports 38 research projects exploring issues that range from consumer education in the use of safety devices, to new or improved processes for design, materials and manufacturing, to advanced fuel research. Partners include US and global companies participating through a Canadian presence, including US Steel, Ford, General Motors, DuPont, Federal Mogul, Cooper Standard Automotive and Pratt & Whitney.

- A major US multinational with significant operations in Metro Detroit and in Windsor-Essex chooses to undertake certain research partnerships involving Brazil through its Windsor-Essex research facility in order to access funding provided by the International Science and Technology Partnerships Program, a $20-million, five-year Government of Canada program that funds S&T agreements with Brazil and three other countries (China, India and Israel).

### 7.4 Government Procurement

Both the US and Canadian Governments have negotiated various multilateral, trilateral and bilateral agreements designed to open up government procurement to suppliers in the other countries. Coverage is, however, far from complete. Until the recent Canada-US Agreement on Government Procurement, provincial and municipal procurement was entirely exempt in Canada. The United States has many exemptions, beginning with its Small Business Set Asides and restrictions that accompany Federal transit, aviation and highway grants.
Quite apart from the formal rules, it is widely accepted that implicit preferences for domestic supply often exists on the part of purchasing officers.

Given the lack of assured access in all areas, US and Canadian companies may sometimes find it necessary to position themselves to supply services and products from local operations in the other country, either by setting up a new facility or working with partners.

**North American Free Trade Agreement**

The North American Free Trade Agreement (NAFTA 1994) provides that, with some exceptions, offers for products in government procurement by the signatory countries (i.e. national governments) are treated on a non-discriminatory basis. In short, an offer from a Canadian firm for US Government procurement would receive equal consideration against an offer from a US firm, and vice versa.

The undertaking to provide non-discriminatory treatment only applies to contracts above a certain threshold. The dollar thresholds identified for the application of NAFTA provisions in Canada up to December 31, 2012 are:

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<tr>
<th>Entities (Federal Departments &amp; Agencies)</th>
<th>NAFTA (Canada/US)</th>
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<tbody>
<tr>
<td>• Goods Contract</td>
<td>$Cdn 27,300</td>
</tr>
<tr>
<td>• Services Contract</td>
<td>$Cdn 76,600</td>
</tr>
<tr>
<td>• Construction</td>
<td>$Cdn 9,900,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Government Enterprises (Crown Corporations)</th>
<th>NAFTA (Canada/US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Goods Contract</td>
<td>$Cdn 383,300</td>
</tr>
<tr>
<td>• Services Contract</td>
<td>$Cdn 383,300</td>
</tr>
<tr>
<td>• Construction</td>
<td>$Cdn 12,200,000</td>
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</table>

For contacting in the US, current thresholds are:

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>NAFTA (Canada/US)</th>
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</thead>
<tbody>
<tr>
<td>• Supply Contracts</td>
<td>$US 25,000</td>
</tr>
<tr>
<td>• Eligible Service Contracts</td>
<td>$US 70,079</td>
</tr>
<tr>
<td>• Construction Contracts</td>
<td>$US 9,011,318</td>
</tr>
</tbody>
</table>

When the prime contract meets or exceeds these dollar thresholds, firms based in the other country are allowed to compete on an equal footing with domestic firms, unless an exception applies.

**World Trade Organization (WTO) Agreement on Government Procurement (GPA)**

The World Trade Organization (WTO) Agreement on Government Procurement (GPA) is a legally binding agreement with the purpose of opening up as much of this business as possible to international competition. It is designed to make laws, regulations, procedures and practices regarding government procurement more transparent and to ensure they do not protect domestic products or suppliers, or discriminate against foreign products or suppliers.

Canada and the US are both signatories to the WTO GPA, which gives companies access to government procurement in other countries that have adhered to the agreement, similar to NAFTA.
In addition, the WTO GPA allows Canadians to compete equally at the **sub-federal level** in some circumstances. Canada has however not included sub-national provincial and municipal procurement as part of the WTO GPA.

Like NAFTA, the agreement applies to contracts worth more than specified threshold values. The current US dollar thresholds are: \(^{xc}\)

<table>
<thead>
<tr>
<th></th>
<th>Federal Government Entities</th>
<th>Sub-Federal Government Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goods &amp; Services</strong></td>
<td>$US 203,000</td>
<td>$US 554,000</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>$US 7,804,000</td>
<td>$US 7,804,000</td>
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</tbody>
</table>

The comparable Canadian thresholds up to December 31, 2011 are: \(^{xci}\)

<table>
<thead>
<tr>
<th></th>
<th>Federal Government Entities (Departments &amp; Agencies)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goods &amp; Services</strong></td>
<td>$Cdn 221,300</td>
</tr>
<tr>
<td><strong>Construction</strong></td>
<td>$Cdn 8,500,000</td>
</tr>
</tbody>
</table>

**February 2010 Canada-US Agreement on Government Procurement**

Recently, the US economic stimulus bill, the Recovery and Reinvestment Act, raised serious concerns on Canada's part in terms of the extent to which federally supported State and local government procurement would not be open to Canadian suppliers. In light of these problems, the Government of Canada initiated negotiations with the United States in an attempt to provide relief for Canadian exporters. Canada and the United States succeeded in reaching an Agreement on government procurement, which came into effect on February 16, 2010. This Agreement has three major components:

- Canadian provincial and territorial procurement commitments under the WTO GPA for all provinces and territories, except Nunavut, in exchange for US sub-federal GPA commitments;
- US exemptions for Canada from the Buy American provisions of the *Recovery Act* for seven programs of interest in exchange for temporary Canadian procurement commitments for construction projects for some provincial/territorial agencies not included in the WTO GPA and a number of municipalities; and
- A commitment by both governments to explore the scope for a long term government procurement agreement between Canada and the US, within the next 12 months, to deepen, on a reciprocal basis, procurement commitments beyond those in the WTO GPA and NAFTA.

The deal also includes a process for expedited consultation on future concerns related to procurement issues, such as new legislation. The Agreement does not change pre-existing rights of Canadian companies to participate in US federal government procurement, established under the NAFTA and WTO GPA.

The Ontario commitment in the Canada-US Agreement covered all its ministries and some specific government agencies. However, it exempted urban rail and urban transportation equipment, systems, components and materials and highway construction. Also, Ontario government controlled electric power entities were not among the government agencies listed.
In the US, 37 states are signatories to the WTO GPA as 'Sub-Central (Federal) Government Entities.' In these states, Canadians will now receive free trade protections under the guidelines of the WTO GPA when the prime contract value exceeds the applicable thresholds and no other declared exceptions apply.

The temporary part of the Agreement exempts Canadian companies from the Buy American requirements for a number of infrastructure projects (but not all) funded under the *Recovery Act*. The seven programs covered under the Agreement are:

1. US Department of Agriculture, Rural Utilities Services, Water and Waste Disposal Programs
2. US Department of Agriculture, Rural Housing Service, Community Facilities Program
5. US Department of Housing and Urban Development, Office of Community Planning and Planning and Development, Community Development Block Grants Recovery (CDBG-R)
6. US Department of Housing and Urban Development, Office of Public and Indian Housing, Public Housing Capital Fund
7. US Environmental Protection Agency, Clean Water and Drinking Water State Revolving Funds, for projects funded by reallocated ARRA funds where the contracts are signed after February 17, 2010

**Small Business Set-Asides**

A major US exemption from NAFTA and the WTO GPA is for procurements that are set aside for small business, Small Business Set-Asides. This has the most significant impact on Canadian companies. The non-discriminatory provisions of NAFTA do not apply, and Canadian firms cannot participate as prime contractors. However, Canadian firms still have an opportunity to participate as a subcontractor.

A US “small business” is defined by the Small Business Administration (SBA) as the either in terms of the average number of employees (<100 - <1,500) over the past 12 months, or the average annual receipts (<$US 0.75M - <$US 35.5M) over the past three years. xcii

There are also procurement thresholds for small business set-asides. Procurements over $US 3,000 and under $US 100,000 are automatically set aside for small business unless the Contracting Officer determines that there is no reasonable expectation of obtaining competitive offers from small businesses. The respective thresholds for nuclear, biological, chemical, or radiological defence and certain contingency operations are $US 15,000 and $US 250,000. xciii

In addition, when a procurement contract is expected to exceed the simplified acquisition threshold ($US 100,000), US Contracting Officers must follow the "Rule of Two." Simply put, if the Contracting Officer expects at least two responsible small businesses to submit offers at fair market prices, the procurement is set aside for small business. This is called a "total set aside." If a small business is not capable of performing the entire contract, consideration may be given to setting aside part of the requirement. This is called a "partial set aside." If the Contracting Officer does not expect two or more small business offers, the procurement is not set aside, and the non-discriminatory provisions of NAFTA could apply, whereby Canadians may be able to compete equally.
Buy America

The Buy American Act of 1933 applies to all US federal government agency purchases of goods valued over the micro purchase threshold, but does not apply to services. Under the Act, all goods procured for public use (articles, materials, or supplies) must be produced in the US, and must be manufactured from US materials.

Many states and municipalities include similar geographic production requirements in their procurements. Many other contracting preferences are variations based on the Act. However, Canadian suppliers are largely exempt from these requirements as a result of US international commitments under the NAFTA Chapter 10 and the WTO GPA.  

Other "Buy America" Provisions

In addition to the Buy America Act, several US laws impose requirements to purchase US goods.  
- Grants provided by the Federal Transit Administration require final assembly and 60 percent US content in rolling stock and 100 percent content on items other than rolling stock (subject only to waiver if the US product would increase the price by more than 25 percent).
- Grants provided by the Federal Aviation Administration require 60 percent US content and final assembly in the US (subject only to waiver if, at the prime contract level, the US product would increase the price between the grantee and the prime contractor by more than 25 percent).
- Grants from the Federal Highway Administration largely prohibit permanently incorporated products made of iron or steel.
- The Byrnes-Tollefson Amendment prohibits purchase of non-US ships and boats.
- The Berry Amendment prohibits purchase of non-US textiles, food and clothing by the US Department of Defense.

These grant programs, and associated procurement, are not covered by NAFTA or the WTO GPA, and limit the ability of Canadian suppliers to participate.

Other Exemptions

The US Federal Acquisition Regulations (FAR) also specify a number of exceptions. According to FAR 25.4 other exceptions include: acquisition of arms, ammunition, or war materials, or purchases indispensable for national security or for national defence purposes; acquisitions of end products for resale; acquisitions from Federal Prison Industries, and purchase from certified workshops that employ blind and severely disabled.  

7.5 Private Sector Minority Procurement

The United States and Canada both have minority supplier councils that seek to encourage and facilitate major private sector procurement from minority suppliers. The councils certify suppliers and assist in linking them with the larger companies who are council members. Full recognition of each other's certification means that Canadian and US firms can qualify as minority suppliers, even though they do not have a presence in the other country.

These councils do not have any jurisdiction in public sector procurement.
**National Minority Supplier Development Council**

Certification of minority suppliers is undertaken in the US by the National Minority Supplier Development Council (NMSDC) (www.nmsdc.org) and in Canada by the Canadian Aboriginal and Minority Supplier Council (CAMSC) (www.camsc.ca).

National Minority Supplier Development Council (NMSDC) was established in 1972 and is a link between 3,500 corporations in the US and 16,000 minority businesses with a view to increasing procurement and business opportunities for minority businesses. NMSDC certifies minority businesses that are owned, operated and controlled by US citizens with at least 25 percent Asian, Black, Hispanic and Native American ancestry.

The amount of purchases by NMSDC corporate members from minority businesses was estimated at $US 101.1 billion in 2009. Currently, according NMSDC minorities represent 34 percent of the US population, but minority business represent only 21 percent of total businesses, 7 percent of gross receipts, and 3 percent of total corporate purchases. xcvii

**Canadian Aboriginal and Minority Supplier Council**

The Canadian counterpart -- the Canadian Aboriginal and Minority Supplier Council (CAMSC) -- was created relatively recently. CAMSC uses a "visible" minority definition, referencing the definition that the Canadian Government uses (i.e. Blacks, Chinese, Filipinos, Japanese, Koreans, Latin Americans, Pacific Islanders, South Asians, and West Asians/Arabs). xcviii This means that a few additional ethnic origins qualify as compared to the NMSDC definition, such as Arab, Iranian and Afghan. A CAMSC certified business can be owned by either a Canadian or US citizen. CAMSC follows the same certification procedures as NMSDC. The NMSCD-CAMSC reciprocity agreement provides for full mutual recognition of certification.

According to CAMSC, in the six years since its establishment, aboriginal and minority suppliers have secured more than $Cdn 240 million in direct contract awards form CAMSC corporate members and tens of millions more in tier two opportunities through prime suppliers. xcix

The reciprocal recognition of certification alleviates the need for Canadian or American minority suppliers to establish subsidiaries in the other country in an effort to meet private sector minority procurement guidelines.

**7.6 Defense and Homeland Security**

Defense procurement policies in both the US and Canada can often favour national suppliers to a significant degree and therefore incent companies to set up supply capability locally in the respective countries. Establishment of sister operations in Metro Detroit/Windsor-Essex would offer worthwhile efficiencies.

**Metro Detroit Area Defense Procurement**

Michigan, especially Metro Detroit, possesses a significant constellation of defense contractors, centred to a great extent on the **US Army’s TACOM Life Cycle Management Command (LCMC)** headquarters in Warren.
TACOM LCMC's mission is to develop, acquire, field and sustain soldier and ground systems for the warfighter through the integration of effective and timely acquisition, logistics and cutting-edge technology. The Command, which had an annual budget of $US 30 billion in FY 2008, has additional operations in six other US locations. TACOM LCMC's product lines in Warren include combat and tactical vehicles; trailers; material handling, fuel and water distribution and construction equipment; tactical bridging; and watercraft and rail. TACOM equipment is owned by 150 Allied countries and represents over 70 percent of the military's equipment and systems. Also, the Tank-Automotive Research, Development and Engineering Center (TARDEC) is co-located with TACOM in Warren and is the nation’s premier laboratory for advanced automotive military technology.

Companies in the 10 county Southeast Michigan region were awarded more than $US 3.4 billion in Department of Defense prime contracts in 2010, accounting for over 77.2 percent of all defense contracts in Michigan, according to the Detroit Regional Chamber. The Detroit Regional Chamber website provides breakdowns of prime contracts by county and top contract categories.

Among the prominent TACOM LCMC related suppliers are BAE Systems and General Dynamics:

- **BAE Systems** is a global defense and security company with approximately 100,000 employees worldwide delivering a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and support services. As the second largest global defense company based on 2010 revenue, its subsidiary **Systems Product Group** is located in Central Lake, Michigan, rapidly becoming the single-source provider of security solutions used domestically and internationally by military, law enforcement, security and corrections personnel, as well as government agencies, multinational corporations and individuals. As well, **BAE System's Land and Armaments** located in Stirling Heights and Troy, Michigan, provides design, development, production, through-life support and upgrade of armoured combat vehicles, tactical wheeled vehicles, naval guns, missile launchers, artillery systems, munitions as well as military and law enforcement products.

- **General Dynamics** (GD) is a market leader in business aviation; land and expeditionary combat systems, armaments and munitions; shipbuilding and marine systems; and mission-critical information systems and technology. Customers include all branches of the US military services and the Department of Defense; many US civilian federal agencies; non-US governments, through exports and businesses located in other countries; and commercial customers.

General Dynamics has subsidiaries located in Michigan, including **GD Land Systems** in Sterling Heights, providing a full spectrum of land and amphibious combat systems, subsystems and components worldwide. Also, **GD Advanced Information Systems** is located in Ypsilanti, Michigan, working in partnership with US intelligence, maritime and
homeland security communities, to deliver end-to-end mission solutions in systems integration, development, deployment and operations support.

A major General Dynamics product associated with TACOM LCMC is the Stryker light armored vehicle, the lead production for which is at General Dynamics Land Systems in London, Ontario. The presence of the General Dynamics facility in London has spawned the development of a cluster of armored vehicle sub-suppliers.

<table>
<thead>
<tr>
<th>Major Companies</th>
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<tr>
<td>AAR Manufacturing Inc.</td>
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<td>Adaptive Manufacturing Solutions</td>
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<td>Adaptive Materials Inc.</td>
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<tr>
<td>Advance Turning &amp; Mfg. Products</td>
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<tr>
<td>ArvinMeritor</td>
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<td>Assembly &amp; Test Worldwide Inc.</td>
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<td>Azentek</td>
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<tr>
<td>Badenoch LLC</td>
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<tr>
<td>BAE Systems</td>
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<td>Barnes group Inc.</td>
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<tr>
<td>Blevins Screw Products Inc.</td>
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<td>Burtek Inc.</td>
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<td>Control-Tec LLC</td>
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Procurement Technical Assistance Centers (PTAC) are not-for-profit operations funded by the Defense Logistics Agency (DLA), the Michigan Economic Development Corporation (MEDC) and local funding partners. PTAC ensures a broad base of capable suppliers for the defense industry and other agencies, thereby increasing competition, which supports better products and services at lower costs. PTACs of Michigan offer marketing, technical consulting and training to businesses in the state, specifically: Orientation to the Procurement System, Linking Local Companies to Federal and State Government Agencies, Bid Match for Government Solicitations, Training Seminars and Conferences, Contracting Opportunities, Subcontracting Opportunities, Government Specifications, Bid History and Contract Award Results and, Bid Package Assistance.

**Metro Detroit Aerospace Sector**

The aerospace sector, which has a significant involvement with defense, is viewed both in Metro Detroit and Windsor-Essex as representing a major opportunity for manufacturing diversification especially for companies dependent on automotive business.

The Michigan Aerospace Manufacturers Association (MAMA) was created to address the lack of available aerospace industry capacity by involving Michigan’s already available manufacturing capacity, advanced technology and expertise. Automotive suppliers can diversify their customer bases to include the aerospace industry, for instance shifting from dealing with steel to high-grade alloys such as aluminum and titanium. For many companies, it also requires new certifications, such
as AS9100 which is the aerospace equivalent to the ISO certification required of automotive suppliers. cv

In 2008, the aerospace product and parts manufacturing sector in Detroit provided 1,948 jobs from 28 businesses. cv In 2009, the Aerospace Engines cluster in Detroit-Warren-Livonia increased by an astonishing +182 percent. cv In 2011, a $US 35 billion contract was awarded to Boeing to build nearly 200 giant refuelling tankers for the US Air Force, an opportunity that is expected to be an economic windfall for aerospace suppliers.

Opportunities for Windsor-Essex Companies

TACOM LCMC, TARDEC and the extensive Metro Detroit defense supply-base presents major opportunities for Canadian companies, especially those who enjoy the proximity of Windsor-Essex base of operations. The potential for Canadian firms may be enhanced through a presence in Metro Detroit or partnerships with Metro Detroit firms. Automotive-related technologies and capabilities -- a Windsor-Essex strength -- are especially relevant.

While the 1956 Canada-US Defense Production Agreement has provided a positive tone by acknowledging Canada as part of the defense industrial base of the US, the Agreement does not waive Congressionally legislated restrictions for Canadian firms, such as the following:

- small business set-asides;
- food, clothing and fibers (Berry Amendment) (see below);
- acquisition and refit of vessels (Byrnes-Tollefson); and
- special provisions in annual US defense authorizations.

The US Congress often restricts the use of funding, and occasionally these impediments benefit Canadian producers. For example, Congress limits acquisition of the following items to either US or Canadian sources:

- chemical weapons antidotes;
- air circuit breakers for naval vessels;
- totally enclosed lifeboats;
- ball and roller bearings;
- vessel propellers;
- busses; and
- armor plate.

A specific example of US Government legislation that mandates final manufacture in the US is the Berry Amendment (10 U.S.C. 25533a). It restricts the US Department of Defense to US sources of supply for most purchases of food, clothing and textile products, including tents and canvas products. cv This effectively precludes Canadian manufacturers from supplying food and clothing products to the US Department of Defense if their final manufacture occurs in Canada. To comply with the requirement, Canadian firms are compelled to establish operations in the US. Metro Detroit could be an attractive location.

An example of a Canadian-based firm that established operations in Michigan to comply with the Berry Amendment is GMA Cover Corporation of Guelph, Ontario (www.gmacover.com), which has operations in Port Huron, Michigan. GMA supplies products such as concealment (ultra light-weight camouflage net systems), aerial delivery, flexible fuel and water storage, vehicle soft-top systems and tactical soft shelters, primarily for the US Department of Defense. Indeed, as part of GMA's 2011 acquisition by a US private equity firm specializing in the defense sector, a corporate restructuring of GMA has moved the company's legal headquarters to the US, with the stated
reason on the part of the Canadian founder being that this "will materially improve (GMA's) ability to expand (its) access in the U.S. defense market." ox

The Canadian Consulate General in Detroit dedicates effort to assisting Canadian companies develop business with TACOM LCMC and TARDEC.

**The Canadian Defense Sector and Procurement Policies**

Canada is among the top 15 military spenders in the world and the 6th largest spender among the 28 members of NATO.

Canadian military spending is now higher than it has been in more than 60 years -- higher than it was during the Cold War, and higher than at any time since the end of the Second World War. ox This expenditure figure is estimated to be roughly $Cdn 21.185 billion in fiscal year 2009 to 2010, a 9.6 percent increase over the year (2008 to 2009). This figure translates into roughly 1.3 percent of GDP in Canada. By comparison, the US spends 4.0 percent of its GDP on military expenditures and the NATO average is at 2.6 percent. This comparison leads some critics to suggest that Canada is 'not living up to their burden-sharing responsibilities.' oxii

**Canadian Industrial and Regional Benefits (IRB) Program**

Canada has pursued an Industrial and Regional Benefits (IRB) program to ensure economic benefits flow to Canada as a consequence of major Canadian military procurements.

The Industrial and Regional Benefits (IRB) program mandates that, for all Defense procurements for over $Cdn 100 million issued by the Canadian Government, foreign contractors must place an equivalent amount of business activities in Canada, thereby providing high value-added long-term benefits to the Canadian economy. The IRB obligation is a contractual sub-component of the overall government procurement contract.

The IRB policy provides companies located in Canada with the opportunity to develop and competitively sell their innovative products and services to the large-scale global aerospace and defense companies with IRB obligations. This can give firms in Canada an edge over other global suppliers and help them secure valued positions in large-scale defense contractor supply chains; positions which can then be maintained as these large defense primes look to make additional sales into other global defense markets, thereby bringing long-term benefit to the Canadian defense industry.

Canada currently has more than 60 defense and security procurements that are subject to the IRB policy, representing more than $Cdn 20 billion in IRB obligations. The IRB portfolio is comprised of 2000 transactions and 700 distinct recipients.

It should also be noted that the IRB government intervention program is deemed necessary to protect and promote Canada's smaller-scale Canadian defense industry. Specifically, proponents of the IRB approach have noted that Canada's small defence market "cannot be self-sufficient across the entire Defence sector. [As such] Canada should identify key industrial capabilities (those with
Seven IRB policy enhancements were announced in September 2009 in order to provide greater flexibility and to produce better outcomes. These improvements were suggested by Canadian industry when consulted regarding the IRB policy.

1. **Phase-In 60% Requirement over 2 years**
   - **Objective:** to provide suitable time to Primes to identify and negotiate the high-value-added business transactions typical of the Aerospace and Defense sector.
   - **Implementation:** successful Prime Contractors required to identify 30% of their IRBs in Year 1 and 30% of their IRBs in Year 2 of the contract.

2. **Incentivize the Creation of Public-Private Consortia**
   - **Objective:** leverage broad scope of publicly funded R&D capabilities in Canada and provides foundation for centres of excellence.
   - **Implementation:** 5x multiplier on a Prime’s cash investment in a public-private consortium, and matching 5x multiplier on Canadian industry cash investment that includes a public research institution.

3. **Improve Canadian Participation in Global Value Chains (GVC)**
   - **Objective:** encourage Primes to add Canadian suppliers to their GVCs.
   - **Implementation:** Credit Canadian work done on similar strategic international platforms against Direct IRB requirements. Industry Canada (IC) to include mandatory levels of Direct/GVC IRB requirements for procurement projects.

4. **Strategic Plans from Prime Contractors**
   - **Objective:** leverages corporate-wide IRB obligations to develop strategic, larger-scale business opportunities.
   - **Implementation:** Primes with major IRB obligations required to submit Strategic Plans to Industry Canada (IC) describing corporate plans for Canada.

5. **Banking of IRB Transactions**
   - **Objective:** provide potential and current primes with increased flexibility to place work in Canada in the absence of a specific procurement project.
   - **Implementation:** potential Primes are able to bank 15% of their bid price in advance of potential procurement project; and current prime contractors are able to bank overachievement on a current IRB obligation up 10% of the IRB obligation, up to a maximum of $100 million. Banked transactions depreciate over 5 year period in IRB bank.

6. **Enhanced Priority Technology List**
   - **Objective:** ensure alignment of IRB obligations and Canadian industry to meet Department of National Defence’s (DND’s) future critical technology requirements.
   - **Implementation:** 5% of IRB obligation need to be fulfilled with activities aligned with the Enhanced Priority Technology List.

7. **SME Investment Framework to encourage firm-level R&D and Commercialization**
   - **Objective:** will seek to provide Canadian SMEs with access to technical, business expertise and financial support.
   - **Implementation:** policy change is significant challenge to implement given its complexity.

**Opportunities for Metro Detroit Companies**

The Canadian operations of US or global companies can participate with Prime Contractors to provide the Canadian business opportunities that will help the Primes fulfill their commitments under the Industrial and Regional Benefits (IRB) program. The ownership structure of a Canadian company is not a consideration; rather, the IRB policy looks to the quality of the longer-term
technological and economic benefits that will flow to Canada. Metro Detroit companies with appropriate technologies could therefore benefit from establishing production in Windsor-Essex or elsewhere in Canada.

Metro Detroit firms could also examine the benefits of participating under the IRB policy in Canadian Industry-Government-Academia Consortia to develop next-generation technologies and services in aerospace, defense and related sectors. These consortia (mentioned in Point 2 above) will benefit from a five times multiplier for IRBs as a means to motivate Prime Contractors to provide cash investments and other value-added contributions (for example, equipment donations, advanced technical training, certifications, etc.) related to participation in public-private consortia. To be eligible, a consortium will require participation of a Prime Contractor with an IRB obligation, one or more Canadian private-sector participants, and one or more post-secondary or public sector research institutions. The combined total investment from foreign sources shall not exceed fifty percent of the consortia value. An IRB credit equal to the total of the cash investment by the Prime Contractor, plus up to matching investment from Canadian industry, will be awarded to establish an initial value. A 5X multiplier will then be applied to that initial value. Potential academic collaborators would include the University of Windsor and St. Clair College.

Windsor-Essex Aerospace Sector

As is the case with Michigan, Windsor-Essex has targeted aerospace as a priority for diversification of its significant manufacturing base. Initiatives include a new maintenance, overhaul and repair (MRO) facility at Windsor Airport and the development of enhanced and strengthened aerospace programs and research facilities at the University of Windsor and St. Clair College.

Michigan and Homeland Security Opportunities

Major initiatives in Michigan, led by the Michigan Security Network (MiSN) (www.michigansecuritynetwork.com)\(^\text{cxiv}\), are seeking to position Michigan with its unique geographic position on the Northern border and its industrial and technology asset base as a key partner with the US Department of Homeland Security (DHS) in developing products and technologies critical to enhanced homeland security.

Research undertaken for MiSN estimates that the size of the Homeland Security Market is $US 113 billion per year, with the US portion representing about $US 60 billion of addressable spending (FY 2009) that may be captured by the private sector. The most significant segments of the US addressable market are cyber security (27%), critical infrastructure protection (22%), border security (16%), emergency preparation & response (13%), CBRN (Chemical, Biological, Radiological & Nuclear/Bio-Defence) (10%), critical transportation protection (7%), and intelligence and domestic counter terrorism (5%). The key opportunities in terms of growth and Michigan's capabilities are identified as cyber security, bio-defence and border security.

As MiSN points out, Michigan is at the heart of northern border activity, with the largest trade flow between two partners; more than 700 miles of shared border with Canada; major rail, highway and water transport infrastructure; leading research universities; more than 350 transportation-related R&D facilities and a $US 14 billion auto industry R&D spend; and an at-times-harsh and challenging northern climate. Michigan is also well positioned as the location for collaborative research, development and testing with DHS's Canadian counterparts (especially the Canada Border Services Agency), based on the close relations and extensive level of inter-governmental collaboration that already exists in the Metro Detroit/Windsor-Essex cross-border corridor.
A proposal for a Northern Border Security Test Bed has been developed by the Michigan Security Network. This would be a virtual facility drawing on existing capability and opportunistic establishment of additional facilities. To facilitate joint efforts, trials and testing, the concept could include facilities and partners in Ontario, ideally in Windsor-Essex.

A key principal behind the Canada-US "Beyond the Border" initiative is that opportunities should be sought and pursued for the US and Canada to develop common approaches to jointly enhancing the security of the two countries. This should further stimulate interest on the part the US Department of Homeland Security (DHS) and the Canada Border Services Agency (CBSA) and other agencies with border, security and anti-terrorism roles to seek out specific areas of collaboration.

With the leadership shown by MiSN and its members, Canadian companies should be attracted to establish a presence in Metro Detroit to participate more fully in the opportunities which will be spawned in the homeland security space by MiSN. To the degree that the "Beyond the Border" initiative promotes shared or parallel procurement of a single solution, it will be important for suppliers to engage and ensure they are satisfying the requirements of both the US and the Canadian agencies.

MiSN is also focused on ensuring that state-of-the-art products and technologies are incorporated into new border infrastructure, such as the proposed New International Trade Crossing (also known as the Detroit River International Crossing), meaning that there is a Metro Detroit-based champion for companies that have established global product leadership but are looking for projects where their technology can be showcased.

### 7.7 Health Care

Health care is an area of distinct public policy difference between Canada and the US. Canada has long had a universal government-supported health care system, whereas the US system is principally private-sector driven.

Different systems often invite different business development strategies which frequently are best pursued by having an identifiable presence in each market -- a scenario that is suited to the bi-national Metro Detroit/Windsor-Essex model.

#### How Metro Detroit-Based Health Care Firms Can Benefit from a Windsor-Essex Presence

In Canada, health-care is primarily a provincial responsibility and Ontario is the largest Canadian jurisdiction. Total health expenditures in Canada were $Cdn 182.1 billion in 2009.\(^\text{cxv}\) This represents 11.9 percent of Canada's GDP, which is below the comparable US share of GDP. About 70 percent of Canada's national health spending is by the public sector (government and government agencies).

Health expenditures in Ontario were $Cdn 71.8 billion in 2009, or just under 40 percent of the national total. Expenditures by the private sector (private health insurers and households) accounted for 31.5 percent of spending in Ontario, a figure marginally higher than other provinces. The extent to which health care services are delivered privately in Canada -- as opposed to who pays the bills -- is considerably higher than the 31.5 percent share of expenditures for the services. A former president of the Canadian Medical Association, Dr. Albert Schumacher, estimates that 75 percent of health-care services are delivered privately, though they are funded extensively by the public sector.\(^\text{cxvi}\)
What are some of the benefits to a US-oriented firm of seeking out the Ontario market?

1. Success in Ontario may be a model -- or at least provide useful lessons -- for subsequent expansion to other international markets. The Canadian approach to health care is closer to the policies of many other advanced countries, especially in Europe. The Ontario market is close at hand, English speaking, and influenced at least to some degree by developments in the US. Like the other international jurisdictions with a dominant payer, Ontario’s involves a very large and potentially stable buyer. This is potential lucrative. Gaining access to that single purchaser however can be challenging as the bureaucracy can sometimes be difficult to penetrate. Buyers may tend to be more risk-averse and more inclined to favor longer-term contacts with larger, well-established suppliers. Even if not explicitly provided for, there can be an implicit tendency to favour suppliers with a local presence.

2. Approvals for medical devices and products can reportedly often currently be obtained more quickly in Canada than in the US, leading some US suppliers to establish a Canadian presence to speed time to market. The experience gained through Canadian approvals can also be levered for European markets. Another regulatory-related advantage of a Windsor-Essex or Canadian location is that the US FDA must give a minimum of 24 hours notice of any international plant inspection, whereas in the US it can be done at any time without advance notice.

3. Canada -- especially Ontario -- is considered an ideal location for clinical trials. The single-payer model facilitates trials which are regarded as highly cost effective. Ontario also has a multi-national population. At any one time, over 5,000 clinical trials are underway in Ontario.

Some US health providers have come into the Ontario market to offer medical services at full cost outside the government-supported health care system. An example is the Cleveland Clinic’s Toronto operation which is focused on executive health, sports health and lifestyle management. Access to US facilities also appeals to Canadians who can afford it who want to avoid long wait times or who wish to access advanced or specialized care not readily available in Canada. The geographic proximity for people in Windsor-Essex to high-quality facilities in Detroit obviously negates the need for any comparable Windsor-Essex presence on the part of Metro Detroit providers.

Of special note and wider impact in terms of overall costs of doing business in Canada, is that businesses establishing in Canada benefit from considerably lower employee health costs because of the availability of tax supported health care. The effect is to lower fringe benefit costs, usually markedly, as compared to the US.

Employer Health Costs for a Typical Firm
Typical firm defined as having approximately 99 employees
Source: MMK Consulting, 2009

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs</td>
<td>867</td>
<td>286</td>
</tr>
</tbody>
</table>

Global Detroit - Final Report
How Windsor-Essex/Canadian-Based Health Care Firms Can Benefit from a Metro Detroit Presence

The United States is without question the pre-eminent global health care market -- large, diverse, accessible and on the leading-edge of global pharmaceutical and medical research and technologies.

The US health care market is immense, with the estimated expenditures of $US 2.7 trillion in 2011, projected to rise to $US 3.6 trillion in 2016. The main components in 2011 were hospital care (about $US 831.5 billion), physician and clinical services ($US 537.4 billion), prescription drugs ($US 276.6 billion), nursing home and home health ($US 221.9 billion), and dental care ($US 105.5 billion).

Metro Detroit offers an attractive base for a Windsor-Essex or Canadian firm looking to capitalize on US opportunities. As identified in our Economic Base Analysis, the Health and Social Services sector is the largest employee group in Metro Detroit (270,000 people). Among highly regarded Metro Detroit hospitals, the University of Michigan Hospitals and Health Centers in Ann Arbor ranks in the top 15 on the widely quoted US News And World Report national Honor Roll of Best Hospitals 2011-12. The University of Michigan is one of the major US health care research institutions. University of Michigan's campus are the fourth largest recipients of Federal academic science and engineering obligations from the US Department of Health and Human Services for FY 2008, amounting to $US 430 million.

7.8 Alternative Energy

The development of the alternative energy sector has been explicitly incented by governments, especially in Ontario under the 2009 Green Energy Act. The Government role in promoting the development of clean energy frequently requires companies to consider whether to manufacture locally in order to comply with explicit procurement requirements or to access fully the partnership arrangements open to locally based companies. In response to Ontario's provincial content requirements, a cross-border bi-national Metro Detroit/Windsor-Essex model has been adopted by at least one company -- United Solar, a subsidiary of Energy Conversion Devices of Auburn Hills. This may be an example that others can emulate in order to position themselves to fully exploit the Michigan and Ontario markets.

Michigan’s Alternative Energy Policies and Opportunities

Michigan’s Renewable Portfolio Standard (RPS) enacted in 2008 requires that 10 percent of the utilities’ electricity supply come from renewable energy sources by 2015.

Michigan is an optimal location for wind generation, according to the Detroit Regional Chamber. In addition, the Michigan climate is conducive to solar technologies considering that the state’s average sunshine per day is 4.5 hours (in comparison to Florida’s 5 hour day but in a hotter climate where solar panels lose efficiency). With an established industrial manufacturing base, Metro Detroit is home to a number of supply chains that can be targeted to diversify into solar and wind industries.

Detroit’s Clean Tech Economy

Recent analysis by the Brookings Institution of clean-tech in the Detroit Metropolitan Area positions alternative energy developments in the broader context of the clean economy. The Detroit
Metropolitan Area is already showing growth in the clean-tech industry with over 20,000 jobs or 1.2 percent of all jobs in the region. The 5,582 jobs added between 2003 and 2010 represent a growth rate of 4.7 percent annually. Importantly, the median wage for jobs in Detroit’s clean economy is higher than the median for all jobs in Detroit: $US 45,642 in ‘green’ jobs by comparison with the median of $US 41,437.

The largest segments of the Detroit Metropolitan Area’s clean economy as of 2010 include:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Jobs in 2010</th>
<th>Job Change 2003-2010</th>
<th>Annual Average Job Change 2003-2010 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management and Treatment</td>
<td>6,127</td>
<td>+ 1,530</td>
<td>+ 4.2%</td>
</tr>
<tr>
<td>Public Mass Transit</td>
<td>2,002</td>
<td>+ 361</td>
<td>+ 2.9%</td>
</tr>
<tr>
<td>Recycling and Reuse</td>
<td>1,932</td>
<td>+ 285</td>
<td>+ 2.3%</td>
</tr>
<tr>
<td>Electric Vehicle Technologies</td>
<td>1,535</td>
<td>+ 1,385</td>
<td>+ 39.4%</td>
</tr>
<tr>
<td>Professional Environmental Services</td>
<td>1,359</td>
<td>+ 460</td>
<td>+ 6.1%</td>
</tr>
</tbody>
</table>

The fastest growing segments of the Detroit Metropolitan Area’s clean economy comprise:

<table>
<thead>
<tr>
<th>Segment</th>
<th>Jobs in 2010</th>
<th>Job Change 2003-2010</th>
<th>Annual Average Job Change 2003-2010 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Vehicle Technologies</td>
<td>1,535</td>
<td>+ 1,385</td>
<td>+ 39.4%</td>
</tr>
<tr>
<td>Lighting</td>
<td>53</td>
<td>+ 41</td>
<td>+ 23.6%</td>
</tr>
<tr>
<td>Solar Photovoltaic</td>
<td>964</td>
<td>+ 743</td>
<td>+ 23.4%</td>
</tr>
<tr>
<td>Battery Technologies</td>
<td>434</td>
<td>+ 240</td>
<td>+ 12.2%</td>
</tr>
<tr>
<td>Organic Food and Farming</td>
<td>487</td>
<td>+ 258</td>
<td>+ 11.4%</td>
</tr>
</tbody>
</table>

**Innovation: NextEnergy**

NextEnergy is Metro Detroit’s focal point for innovation and technology leadership for alternative energies. Founded in 2002 and located physically opposite TechTown near Wayne State University, NextEnergy is an alternative energy innovation hub, focused on the development of alternative energy technologies, businesses and industries, through technology development and demonstration, venture development and public sector leadership. This covers smart grid, energy storage, vehicle electrification, renewable (wind, solar and bio-fuels), energy efficiency and power electronics (especially DC).

NextEnergy has recently been awarded $US 2.1 million as one of twenty winners of the $US 37 million Jobs and Innovation Accelerator Challenge, a US Department of Commerce competition launched in May 2011 and announced in September 2011 to promote the advancement of 20 high-growth, regional industry clusters in the US. The project has a workforce focus with training, including at the technician level and internships/co-op.

Seven companies associated with NextEnergy are developing energy storage. Solid-state, energy saving LED lighting is also an area of strength. DC energy systems which bypass the need for AC-DC conversion are also a point of focus at NextEnergy. A leader in the DC energy field, Nextek, is one of NextEnergy’s earliest tenants and now its largest tenant (http://www.nextenergy.org/industrysuccess-NEtenant-more.html). Federal government funding has supported smart meter development.
Many of these technologies will have application in Ontario. As such, there should be scope for cross-border strategies to bring them to Ontario and for Ontario companies to consider NextEnergy as a potential partner as they look to the US market. NextEnergy is also ideally positioned to become the "go to" place for energy technology for Metro Detroit/Windsor-Essex. This should be explored.

**Ontario's Green Energy Act, Feed-In-Tariffs, and Business Opportunities**

The Ontario Government introduced North America's first comprehensive guaranteed Feed-In-Tariff (FIT) structure through the passage of its Green Energy Act in May 2009. The program offers guaranteed incentive prices under long-term contracts for solar photovoltaic, wind, biomass, biogas, landfill gas, and waterpower energy. In order to benefit from the FIT rates for wind and solar however, project developers must meet minimum Ontario content requirements. This has stimulated significant investment by manufacturers to establish production in Ontario, including in Windsor-Essex, making the alternative energy sector attractive in terms of applying the bi-national operating model.

Ontario forecasts that by 2018, 10,700 megawatts of renewable power from wind, solar and bio-energy will have been brought online.\(^{cxxiv}\) Looking ahead further, Ontario is committed to increasing wind, solar and bio-energy from less than one per cent of generation capacity in 2003 to almost 13 per cent by 2030, an increase of over 400 per cent.\(^{cxxv}\)

The Feed-In-Tariff (FIT) ranges from 10.3 cents (Cdn) per kilowatt-hour (¢/kWh) for landfill gas projects larger than 10 MW to 80.2 ¢/kWh for residential solar rooftop projects 10 kW or smaller.\(^{cxxvi}\) The length of the FIT contracts is 20 years, except for waterpower which is for forty years. The higher rates for alternative power are built into the overall pricing structure for power and thereby are ultimately met by consumers, rather than a direct government subsidy. Ontario’s FIT Program is modeled after programs in Germany and France.

As provided in the legislation, the FIT rates were undergoing the first review by the Ontario Power Authority at the end of 2011 with announcement of revised regime expected by the end of the first quarter of 2012.

In order to benefit from the FIT rates, projects must meet Ontario content requirements of 60 percent for solar and 50 percent for wind.\(^{cxxvii}\)

Over $Cdn 26 billion of private investment has been committed to Ontario since launching the Green Energy Act in 2009, according to a December 2011 presentation by the Ontario Minister of Energy.\(^{cxxviii}\) Associated with this are over 20,000 clean energy jobs, with the province said to be on track to meet a target of 50,000 clean energy jobs by the end of 2012.

Since 2009, more than 30 businesses have announced they are setting up or expanding plants in Ontario to manufacture equipment for the solar and wind industries.\(^{cxxix}\) The largest single commitment is Cdn $7 billion in investment by South Korea's Samsung C&T Corp.

The Ontario content provisions have been challenged in the World Trade Organization (WTO) by Japan and the European Union as being discriminatory. The action is proceeding but it could be toward the end of 2012 or early 2013 before a WTO panel decision is rendered. An appeal of that decision could put off a final WTO decision for a further 18 months.\(^{cxxx}\)

Detroit can take advantage of its proximity to Windsor-Essex, a region which has given a high priority to attracting new solar and wind equipment suppliers.
A 2011 Windsor-Essex investment by United Solar Ovonic (a subsidiary of Energy Conversion Devices) of Auburn Hills -- the world's largest producer of flexible, thin-film solar panels -- in a new plant in LaSalle in Essex County, could be an example of the type of bi-national Metro Detroit/Windsor-Essex facility that might be replicated by others in Metro Detroit in the alternative energy field. The 7,000 square meter manufacturing facility was originally projected to employ up to 80 people and is expected to involve investments of approximately US$ 4 million. At the May 2011 launch, Jay Knoll, Interim President of Energy Conversion Devices said, "United Solar is excited to celebrate the expansion of our manufacturing base across the Detroit River into the Windsor-Essex region. . . We believe in the potential for solar energy in Ontario and look forward to many years of success in this market."  

Subsequently, on February 14, 2012, the parent, Energy Conversion Devices (ECD), as well as its subsidiaries, entered US Chapter 11 bankruptcy protection. ECD said that it took the action to facilitate a sale of the United Solar Ovonic LLC (USO) business in a manner that will enable USO to be competitive and viable for the long-run. The intent is that USO will continue to operate during the bankruptcy and sale process.

Other examples of new manufacturing facilities in the alternative energy field in Windsor-Essex include a Samsung wind tower manufacturing plant that will bring 700 jobs, and manufacturing facilities by Siliken (solar), OYA Solar, Sun Solar Technology and Schletter.

8 Next Steps

8.1 Establish an Initiative to Promote Metro Detroit as a Primary US Location for the Delivery of Technology-Enabled Services
(Recommendations 2.a and 2.b)

Metro Detroit needs to build on the growth of the professional, scientific and technical sector, and on its emerging reputation as a center for reshoring and homeshoring to establish its position as a primary US location for the delivery of technology-enabled services. This positioning should be designed:

- To attract employers from the United States and around the world to establish delivery and operations centers in the region to offer services domestically and globally; and,
- To encourage companies contracting work to a third party to select service providers with centers in Metro Detroit or to encourage their providers to locate in Metro Detroit.

As a part of this initiative, the region needs to aggressively brand and market itself as a location for technology-enabled service providers, technology companies and advanced manufacturers and other companies which rely on technology to deliver their services or create their products.

The initiative needs to have global breadth, reaching major service providers in offshore locations who are searching for US locations from which to service their North American clients, while also reaching both US service providers and their clients and prospective clients to encourage both groups to consider Metro Detroit.

The initiative, ideally, would incorporate multiplatform outreach including:

1. Traditional public relations;
2. Advertising;
3. Sponsorship/participation in some of the key industry programs and conferences;
4. Social media/Internet - Facebook, and Twitter and web pages; and
5. Direct outreach to companies and their advisors.
The foundation of the messaging needs to be the high quality technically skilled workforce which exists in the region, along with its relatively low costs, and exceptional quality of life in a major American business center. Detroit can position itself as at Tier I location at Tier II prices, competitive with nearshore and offshore locations but capable of higher delivery quality.

A focus on available workforce and continuing talent development would be the cornerstone of the region’s efforts to attract new technology-enabled service providers. Programs and innovations designed to assist employers succeed in the competitive environment would enhance the region’s ability to differentiate itself and attract new employers.

The Workforce Intelligence Network (WIN) is positioned to become a positive factor in the investment attraction process. By providing a key link between employers and educational institutions, WIN identifies areas where gaps exist between the specific skill requirements of employers and the skills that students seeking employment are learning at major educational institutions in the region. WIN provides major employers with access to member institutions and helps keep the schools aware of the skill requirements of employers.

The linkage between the institutions and the employers helps to drive the development of curricula aimed at providing a pool of potential employees with the desired core skills necessary for success in the technology professions. At this time, there are not enough skilled mid-level professionals (2-5 years experience) due to a reverse employment bubble in the industry in the mid-2000’s.

The general void in mid-level resources in these fields has forced many employers to create in-house training programs to accelerate the creation of productive mid-level staffs. Many of these programs are training new hires on the same basic skills that are required for success in the industry. Training programs are costly and resource intensive, especially in smaller companies.

A WIN-driven program designed to accelerate training of entry level professionals in these fields could aggregate training programs being established by many local companies, reduce overall training costs for participating companies, and help create a more skilled technology-based workforce. The program would look for areas of overlap in existing programs and create a common curriculum for these employees that develops foundation skills for new hires in technology services companies.

More specific training programs, for company-specific skills and tools, would still be required, but the availability of shared training for core curriculum components, could reduce overall training costs and accelerate time to productivity, while providing ancillary benefits -- and perhaps profits -- to the organization operating the training programs.

If such a leading edge program were implemented in the region, it would demonstrate the regional commitment to the industry and to assisting new employers. It is likely that the program would become a differentiating factor in location selection process for companies considering the area.

The regional focus on workforce development would then become a part of the branding and positioning of Detroit for this (and perhaps other) sectors. (Appendix B.4 has information on this proposal.)

This initiative needs to be started immediately in order to leverage the wave of interest and enthusiasm generated by the recent White House Forum which showcased Detroit and the growing political importance of the "insourcing" issue. Without quick action, Detroit stands to lose an
unprecedented opportunity to take a quantum leap forward due to the national attention garnered by the White House forum.

Detroit’s competitive advantages, including its available workforce, competitive cost structures, major urban qualities and amenities, available low cost real estate and rental property, and compelling infrastructure (including a global air hub), make it unique among major US business centers. Other cities or regions cannot create cost-competitive work forces, downtown office space for service providers or accessible manufacturing facilities in the quantity and quality that Detroit can.

Metro Detroit’s strengths in the technology-enabled services market become increasingly clear as additional attention is concentrated on the region, but the information is not yet generally available and widely understood.

In many ways, the Detroit region may already have a “fortress” position in this emerging market and may be in a position to capture a significant share of the new jobs which can be created. The region needs to aggressively advertise its capabilities and actively promote them in order to take advantage of the emerging trends towards reshoring and homeshoring.

The initiative needs to have a marketing component to it, but the promotion and branding must have complementary servicing capabilities strong enough to deliver on the marketing promises. Regional support organizations must be ready to assure smooth transitions for arriving companies and be able to help quickly integrate new arrivals into the ecosystem which makes Detroit unique and compelling.

8.2 National Reshoring and Homeshoring Conference
(Recommendation 2.c)

The recommendation that invites the most urgent action is the national Reshoring and Homeshoring conference proposed for Metro Detroit. The Conference would be a major project undertake by the community to launch its broader branding and promotion initiative.

The Conference would pick up where the White House Forum left off in shaping the national agenda on reshoring and homeshoring. It would help to coalesce the forces needed to accelerate the creation of new US jobs brought back by companies and placed in the US to take advantages of the changing cost structures and productivity factors. Advocates of homeshoring and reshoring – including community, business, manufacturing, labor, and environmental organizations – would learn what it takes to educate local and national companies on the benefits of locating their operations in the US. Companies that have “reshored” work could discuss their stories, but more importantly, could detail how they evaluated the business case to reshore. Local service providers could explain their competitive advantages so that reshoring advocates, industry associations, and consultants could advise constituent companies on the advantages of locating in the US.

The national conference would spotlight what has attracted companies to Detroit and highlight their success and the growth of the professional, scientific, and technology services sector in the region. Although it would be designed to help other communities learn how Detroit has succeeded in attracting new businesses and growing the sector, a goal of the conference would be to make it easier for additional companies to make the decision to reshore or homeshore, and it would focus attention on Detroit as the best place in the US for companies to bring work back to from offshore.

The timing of this conference is crucial. Planning must begin almost immediately in order to preclude other locations from taking Detroit’s leadership opportunity due to first mover advantage.
No other US location received as much positive publicity relating to reshoring and homeshoring as Detroit did as a result of the White House program. The momentum should not be lost by delays in taking the next steps.

The W2N2 Partnership stands ready to assist organizations in Detroit in planning, programming, and promoting a national conference that could take place by the middle of this year.

8.3 National Center for Globalization, Outsourcing, Reshoring and Homeshoring (Recommendation 2.d)

There is currently a void in statistical information and academic research about reshoring and homeshoring and the impacts that globalization has had on the US economy. To respond to this need, one possible outcome of a national conference on Reshoring and Homeshoring that would take place in Detroit could be the announcement of the establishment of a National Center for Globalization, Outsourcing, Reshoring and Homeshoring based on one of the major campuses in Southeastern Michigan. Without aggregated data, and structured learnings about the experiences of both communities and corporations, lessons cannot be easily shared across the country.

We feel that as part of Metro Detroit’s efforts to brand itself as a global business hub and as a preferred destination for global service providers and technology-enabled businesses, the establishment and funding of a National Center could further place Detroit in the forefront of thought leadership and research in the area and guarantee Detroit “a place at the table” whenever related topics are discussed.

The academic research and statistical analysis could also become the foundation of practical applications of the research. The Center could create programs to teach local and national advocates about the advantages of homeshoring and reshoring and work with civic and corporate leaders to encourage the application of the business practices. Consistent with the “technology-enabled” themes – courses could be delivered online or in-person and would focus on demonstrating the social and economic benefits of reshoring and homeshoring in the new economy.

8.4 Detroit Global Business Hub (Recommendations 3.a and 3.b)

The Metro Detroit/Windsor-Essex economic development leadership needs to assess moving forward with a major initiative to brand Detroit/Windsor as the world’s pre-eminent international business hub. Preparations need to commence soon so that it can be launched in a timely way once decisions have been taken to proceed with one or more of the major signature multimodal initiatives. Leadership rests with the Detroit Regional Chamber and its TranslinkeD initiative, but will require a broad and inclusive model to fully harness and deploy cross-border resources and energy.

Private sector initiative is the key, but the research leading up to the development of the governance model should look closely at the mechanisms have proven successful in gaining appropriate government support and involvement, including in parallel events such as summits hosted by the Michigan Governor and/or the Premier of Ontario.

The structure needs to be inclusive of US and Canadian immigration, customs and border entities and officials as a pan-regional initiative of this type stands to invite the creation of a positive and facilitative climate that will contribute to regional economic success. Common cause and productive relationships with officials are pivotal to progress on the bi-national business model concept.
It will be necessary to monitor other regional economic initiatives. The most recent is the Great Lakes Partnership Council proposed in "The Vital Commons" report prepared by the Mowat Centre at the University of Toronto as a follow through to the June 2011 Great Lakes-St. Lawrence Region Summit in Windsor and Detroit. The Great Lakes Manufacturing Council, led out of the Detroit Regional Chamber, is a further entity of importance.

We have also recommended that Metro Detroit/Windsor-Essex seek to be the host to Canada-US, NAFTA and international organizations and research centers.

8.5 Immigration
(Recommendations 4.a through 4.f)

We have recommended a cautious approach when it comes to promoting a bi-national business model as a means to increase access to highly skilled foreign workers via Canadian immigration programs. This is because patterns of success need to be established by looking at prospective situations on a case-by-case basis to ensure the right expectations and a highly informed and professional approach. Current information on how policies are being applied is vital, as well as knowledge of the evolution of new policies. Development of highly compliant environment on the part of a company is a vital element of building the trust of immigration and border officials.

To this end, Global Detroit and its economic development partners need to take early steps to create an immigration and border advisory team or task force of 5 to 10 professionals of high standing who are prepared to ensure that suitable companies obtain clear and insightful advice about:

- the extent to which and how Canadian immigration programs, including the Ontario Provincial Nominee Program, can help an facility in Windsor-Essex meet operational requirements for intra-company transfers and the hiring of highly skilled foreign workers;
- facilitating and ensuring compliance for legitimate short-term border movements (in both directions) by employees, in terms of company meetings, training, sales calls and client interface;
- establishing seminars, roundtables and other effective events to reliably explore and inform companies and prospective investors on all relevant immigration and border issues and best practices; and
- developing reference materials that will aid understanding and compliance.

Near-term actions are needed to develop detailed positions on immigration and border issues with a view to action on two principal fronts:

- well coordinated and impactful presentations for the stakeholder consultations by the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration which the "Beyond the Border" Action Plan committed them to initiate by the end of March 2012; and
- exploration by the City of Windsor and/or the WindsorEssex Economic Development Corporation of future directions for the Ontario Provincial Nominee Program (PNP) with a view to having the program or pilots tailored to be responsive to opportunities and needs in the cross-border region.

Several things should be monitored:

- The labor force market analysis being undertaken by Workforce WindsorEssex, in order to gain further insights into labor force supply and demand in key areas where a company with a Windsor-Essex base might think that Labor Market Opinions (LMOs);
• Steps which the "Beyond the Border" Action Plan committed US and Canadian officials to take, generally by the end of June 2012, to facilitate the conduct of cross-border business.

Global Detroit and its economic development partners should also explore the ways in which a successful immigrant entrepreneurs and investors can play a constructive role as mentors, advisors and champions for new immigrant entrepreneurs. These individuals can provide valuable advice regarding programs to cultivate the interest of entrepreneurs interested to consider either Metro Detroit or Windsor-Essex. The American Arab Chamber of Commerce is also understood to have plans to establish a multi-tenant facility for early stage companies that could be a key focal point.

The City of Windsor and/or the WindsorEssex Economic Development Commission (WEEDC) have an opportunity to initiate a well-focused program to bring businesses located or establishing in Windsor-Essex together with foreign university and college students at the University of Windsor and St. Clair College, modelled on the Global Talent Retention Initiative of Southeast Michigan (GTRI), launched with the leadership of Global Detroit. The prime targets would be students in sciences, technology, engineering, mathematics (STEM) and management. As documented in the report, Canadian immigration policies facilitate the employment of foreign students and graduates and open the way for them to become Permanent Residents in a relatively short space of time. They represent an important pool of well trained and highly skilled talent.

Other workforce development programs in Southeast Michigan, including those launched under the New Economy Initiative for Southeast Michigan, may also provide some best practices that could be adapted in Windsor-Essex.

8.6 Policy-Driven Bi-National Business Opportunities
(Recommendation 3.b)

Taking the areas of bi-national business opportunity identified by the report, Global Detroit's economic development partners should seek a consensus on tasking among themselves in order to scope out and agree upon:

• arranging events and reciprocal access that will deliver high quality information and contact with decision makers, through situations such as:
  o cross-border seminars or briefings on specific opportunities in the other country related to military procurement (in the US with TACOM LCMC and TARDEC and in Canada on the Industrial and Regional Benefits program);
  o a Michigan Security Network (MiSN) briefing for potential interested Canadians regarding US homeland security requirements and plans for the Northern Border Security Test Bed; and
  o specific seminars, roundtables, tours and other avenues that will expose opportunities and funding arrangements for research partnerships with the other country's universities and colleges.

• how and by whom the main bi-national opportunities can be brought into existing and planned targeted investment prospecting and business expansion and retention initiatives (For example, Macomb County/Automation Alley appear to the main leads on defense. Are there investment prospects whose interest in Metro Detroit could be advanced by realizing that the ability to establish in Windsor-Essex could assist in accessing Canadian procurement? Working with WEEDC, what companies in Windsor-Essex will benefit from access to information and events about TACOM LCMC and TARDEC opportunities and procurement policies. What are the reciprocal situations vis a vis Canadian IRB programs?)

• means to train staff and develop informational and marketing collateral that defines the opportunities.
The creation of "soft landing" shared-office facilities on both sides of the border in Metro Detroit and Windsor-Essex bears examination, though the immigration implications need to be fully understood and carefully defined.

Canadian and US government officials, including the Canadian Consulate General in Detroit, should be interested and prepared to take a role.

It bears underlining that our interviews and research show that there is a lack of awareness of these many policy-driven differences and how they can be turned into opportunities. There is therefore a considerable challenge ahead, but hopefully with substantial pay-off for the cross-border region.

8.7 Summary of Main Conclusions and Recommendations

<table>
<thead>
<tr>
<th>Principal Conclusions &amp; Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.a Metro Detroit Growth Sectors</strong></td>
</tr>
<tr>
<td>The key growth sectors that economic development officials in Metro Detroit should target in their economic development programs – in order of priority -- are:</td>
</tr>
<tr>
<td>• Professional, Scientific and Technical Services – in particular</td>
</tr>
<tr>
<td>o Computer Systems Designs and Related Services</td>
</tr>
<tr>
<td>o Management Consulting Services</td>
</tr>
<tr>
<td>• Health and Social Services – in particular</td>
</tr>
<tr>
<td>o Hospitals – especially in the area of e-Health, digital imaging and electronic medical records</td>
</tr>
<tr>
<td>• Financial and Insurance Services – in particular</td>
</tr>
<tr>
<td>o Securities Brokers and Other Financial Investment Activities</td>
</tr>
<tr>
<td>• Transportation and Warehousing – in particular</td>
</tr>
<tr>
<td>o Scheduled Air Transportation (especially freight)</td>
</tr>
<tr>
<td>o Freight Transportation Arrangement</td>
</tr>
<tr>
<td>o Warehousing</td>
</tr>
<tr>
<td>Each of these industries has demonstrated growth in Metro Detroit and appears to have been able to withstand the economic upheaval of 2008/2009 to a greater or lesser degree. They represent the next generation of “knowledge industries” expected to become more prominent in the coming years.</td>
</tr>
<tr>
<td>This analysis reinforces many of the independent studies carried out by economic development organizations across Metro Detroit and underscores the target sectors many groups have already identified.</td>
</tr>
<tr>
<td>The demand for “highly qualified personnel” especially in engineering, computer programming and information technologies will continue and will in all likelihood be the single most important factor driving the economic growth of the region.</td>
</tr>
</tbody>
</table>

| **1.b Windsor-Essex Economy** |
| The economy of Windsor-Essex is considerably smaller, only about 10% of Metro Detroit’s. The structure of the Windsor-Essex regional economy carries some parallels, but has some fundamental differences compared to Metro Detroit |
| • The Windsor-Essex economy is dominated by “Manufacturing” and “Accommodation and Food Services.” |
| • The sector for which Windsor-Essex and Metro Detroit share a common strength is the “Health Sector”. |
| • “Professional, Scientific & Technical Services”, “Finance & Insurance” and the other sectors of interest to Metro Detroit are significantly under-represented in Windsor-Essex although they have shown signs of growth between 2002 and 2006. |
### Principal Conclusions & Recommendations (Continued)

#### 2.a Outsourcing, Nearshoring, Reshoring and Homeshoring

Workforce and talent development is an overwhelming preoccupation of the outsourcing firms whom we surveyed. These firms identified people as their primary competitive advantage, and they are constantly looking for ways to upgrade employees' skills and encourage effectiveness, innovation, and responsiveness. This reinforces the wisdom that the alignment of workforce development and company needs is the centerpiece of the New Economy Initiative for Southeast Michigan led initiatives.

Businesses are devoting less attention to visa programs for highly skilled foreign workers because the bureaucracy and limitations associated with these programs make them costly, complicated and less predictable than they once were. With less potential for foreign professionals, further attention should be given to developing the local workforce to meet emerging employer needs.

The Workforce Intelligence Network (WIN) is positioned to become a key link between employers and educational institutions. Workforce development is vital to improving the availability of skilled workers ready to contribute to technology enabling companies, including outsourcing companies, software application development firms, and organizations requiring skilled technology professionals. There is a general void in mid-level resources in these fields. A WIN-driven program designed to accelerate training of entry level professionals in these fields could aggregate training programs being established by many local companies, reduce overall training costs for participating companies, and help create a more skilled technology-based workforce.

#### 2.b Establish an Initiative to Promote Metro Detroit as a Prime Location for the Delivery of Technology-Enabled Services United States

The initiative would promote Metro Detroit as a location for:

1. offshore global service providers who seek to establish domestic (US) locations for operations and delivery centers;  
2. US professional, scientific, and technical services providers seeking to establish consulting operations, application development and outsourcing delivery centers;  
3. US companies seeking to establish new information technology centers and R&D centers, particularly in the advanced manufacturing area; and  
4. US companies seeking to outsource manufacturing, IT services, and business processes.

The Detroit Regional Chamber might be the appropriate lead for this initiative which will require collaboration and involvement from the full spectrum of economic development, innovation, workforce and community development organizations.

#### 2.c Produce a Major National Conference on Reshoring & Homeshoring to be Held in Metro Detroit

A national conference would focus on the trend of reshoring and homeshoring of manufacturing and outsourced and captive technology-enabled services. The conference would:

- serve as a convocation for advocates of bringing offshored jobs back to the US and for using US locations rather than offshore locations;  
- assist companies to understand  
  - why they should “reshore” work,  
  - what types of work they should reshore, and  
  - how they should reshore;  
- help communities understand how to influence companies to bring work back to the US or not to send work offshore;  
- showcase Detroit’s success in this field; and  
- position Detroit as the primary major business center destination for reshoring and homeshoring.
### Principal Conclusions & Recommendations (Continued)

<table>
<thead>
<tr>
<th>2.d</th>
<th>Analyze the Feasibility of Establishing a National Center for Globalization, Outsourcing, Reshoring, and Homeshoring Research on a Southeastern Michigan Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The United States lacks solid data and documentation on outsourcing, reshoring, homeshoring and their impacts on local and global economies. A research center would aggregate data and publish scholarly reports on how globalization impacts the domestic economy (favorably and negatively) and could help establish Detroit as the center of thought leadership for globalization and outsourcing/offshoring research and its economic impacts.</td>
</tr>
</tbody>
</table>

| 3.a | Embark on a Major Program to Brand the Region as the "Detroit Global Business Hub" |
|     | The time is ripe for Detroit-Windsor to embark on a major program to aggregate, assert and brand the Detroit-Windsor region as the pre-eminent international business hub in the world and to launch a well articulated promotional initiative. To put wind in the sails, it should be based on early decisions to move forward definitively on one or more of the New International Trade Crossing, the development of a Southeast Michigan global freight gateway, Windsor Airport Cargo Hub, the Detroit Region Aerotropolis and the Continental Rail Gateway. The "Beyond the Border" Action Plan's endorsement of pre-clearance arrangements away from the border, under the principle of "cleared once, accepted twice" should materially advance the launch some of these proposals. The concept of the Detroit Global Business Hub stands the best chance of creating a positive and collaborative climate on border issues and with border agencies and officials. |

| 3.b | The Detroit Global Business Hub Will Support Initiatives to Establish and Promote Metro Detroit/Windsor-Essex as a Bi-National Business Location |
|     | The Detroit Global Business Hub concept fits well with and will help support initiatives to establish and promote Metro Detroit/Windsor-Essex as a bi-national metropolitan business location where, as is presented in the report, business can position itself to access the best and most attractive programs and incentives from two countries. |

<p>| 4.a | Exercise Caution in Advertising a Bi-National Business Model as a Means to Increase Access to Highly Skilled Foreign Workers via Canadian Immigration Programs |
|     | We recommend that the promotion of Metro Detroit/Windsor-Essex as a location to have the option of dual access to highly skilled foreign workers should be approached with caution. |
|     | • First, in terms of access to temporary work permits or Permanent Residence Status in Canada for highly skilled foreign workers, there is currently no one Canadian or Ontario immigration program of general application that would facilitate timely and relatively unrestricted entry of a significant number of highly skilled foreign workers. |
|     | • Second, where third-country nationals from non-visa-exempt countries are involved, a highly problematic aspect of the bi-national Metro Detroit/Windsor-Essex business model will be getting visas for them in order to permit regular cross-border business travel for activities such as routine business meetings, client interface or order taking for goods or services their unit produces, or for training. |</p>
<table>
<thead>
<tr>
<th>4.b</th>
<th>Establish a Metro Detroit/Windsor-Essex Advisory Team of Professionals to Work with Companies on Immigration Aspects of the Bi-National Business Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We recommend that Global Detroit and its economic development partners establish a committed and qualified professional advisory team or task force on the technical aspects of immigration matters to work with businesses already in or considering a Metro Detroit/Windsor-Essex location to</strong></td>
<td></td>
</tr>
<tr>
<td>• provide them with a frank introduction and assessment of the immigration-related aspects of a bi-national model;</td>
<td></td>
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<tr>
<td>• provide specific initial counsel on how to proceed; and</td>
<td></td>
</tr>
<tr>
<td>• provide seminars and other opportunities to get insightful and reliable information on immigration and border issues.</td>
<td></td>
</tr>
<tr>
<td>The professional advisory team or task force will also provide valuable advice to Global Detroit and its economic partners on</td>
<td></td>
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<tr>
<td>• the evolution of Canadian and US immigration programs; and</td>
<td></td>
</tr>
<tr>
<td>• the types of policy changes that should be sought to benefit the economic growth of Metro Detroit/Windsor-Essex.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.c</th>
<th>Connect Windsor-Essex Businesses with Foreign University &amp; College Students, especially in STEM disciplines, following the Southeast Michigan Model</th>
</tr>
</thead>
</table>
| **A well-focused program to bring businesses located or establishing in Windsor-Essex together with foreign university and college students at the University of Windsor and St. Clair College should be initiated and promoted, modeled on the Southeast Michigan program, Global Talent Retention Initiative of Southeast Michigan, launched with the leadership of Global Detroit. The prime disciplines to be targeted would be sciences, technology, engineering, mathematics (STEM) and management. The goal of the effort would be to encourage graduating students to remain in the Windsor-Essex region following graduation and to work with growing companies in the region.**

There are also other workforce development programs being pursued in Metro Detroit especially as part of the New Economy Initiative for Southeast Michigan that provide ideas and models from which Windsor-Essex could benefit.

<table>
<thead>
<tr>
<th>4.d</th>
<th>Engage Immigrant Entrepreneurs as Potential Champions, Mentors and Investors, including Cross-Border Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We do not recommend a specific joint Metro Detroit/Windsor-Essex program to promote the region as a destination for entrepreneurial immigrants. As a modest and appropriate starting point, we recommend that Global Detroit convene a group of its partners to explore:</strong></td>
<td></td>
</tr>
<tr>
<td>• Whether there are successful foreign-born entrepreneurs based in Metro Detroit and in Windsor-Essex who can become champions and mentors for new immigrant entrepreneurs</td>
<td></td>
</tr>
<tr>
<td>• Whether there are immigrant investors who have come to either community who, in addition to their obligations under the respective national programs, have sufficient funds and interest to also make investments across the border</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.e</th>
<th>Engage the Ontario Government on Ways in Which Provincial Nominee Program and Policies Can Be Modified to Support Windsor-Essex Economic Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>We recommend that the City of Windsor and/or the Windsor Essex Economic Development Corporation take the initiative to engage the Ontario Government to explore how an expanded Provincial Nominee Program could be tailored to generate high quality economic growth in Windsor- Essex by providing predictable access to nominations so as to attract Metro Detroit-based operations facing constraints on highly skilled workers to establish a bi-national presence across the border in Ontario.</strong></td>
<td></td>
</tr>
<tr>
<td>4.f</td>
<td>Participate actively in the follow through to the &quot;Beyond the Border&quot; Action Plan, Including the Planned High-Level Consultations</td>
</tr>
</tbody>
</table>
APPENDIX A

Regional Labor Force, Demographic and Economic Base Analysis for Metro Detroit and Windsor-Essex

Appendix A.1

Detailed Examination of Target Sectors

To more clearly identify the industry subsectors driving growth in the main targeted sectors in Metro Detroit, a further phase of the analysis drills down deeper into the NAICS classifications to profile the performance of individual industry subgroups. As well, the analysis draws on more recent Business Patterns Data for 2009.

The examination looks at several data points:
- Number of Establishments in each subset
- Total Revenues reported by the US Census Bureau
- Number of Employees in each subset

The data sources are the US Economic Census data for 2002 and 2007 as well as the Business Pattern Data for 2009. The Business Pattern Data is derived from a different database and therefore should not be used as a direct comparable but the data is similar to the Economic Census and provides an indication of what is happening, if not a precise measure.

The other caveat about the use of the Business Patterns Data is that it falls in the trough of the 2008/2009 recession and therefore is not a good indicator of normal growth and decline of the industry.

As the data sets become finer and finer (to the six digit NAICS) there is an increasing instance of data suppression employed by the Census Bureau to avoid revealing private data when there are a limited number of companies operating in a subset.

Profile of Transportation and Warehousing Services Sector

Logistics is a priority for economic development in the Metro Detroit area for good reason. Overall, it is enjoying strong growth in the region despite the downturn in manufacturing.

The sector generated in excess of $11 billion in revenues (2007) and added over 9,000 jobs between 2002 and 2007 (from 47,151 in 2002 to 56,160 in 2007), an impressive 19% increase in 5 years.

The Business Pattern Data (BPD) for 2009 shows some decline in overall employment in the sector after 2007 due to the recession, with total employment in 2009 of 51,049, down 9% from the 56,160 reported in the 2007 Economic Census.

There are nine major groups not counting the US Postal Services within NAICS code 48/49, each one having a number of subsets.

Among the nine major sub-categories, data suppression affects the examination of several of these three digit NAICS groups, notably "Air and Water Transportation Sectors", "Transit Services", "Pipeline" and "Scenic Transportation Services".
Air Transportation Services
The Air Transportation Sector has the largest share of 2007 revenues. These stood at $5.1 billion or 46% of the total of $11.1 billion in revenue for the entire Transportation and Warehousing Sector. Additionally, air transport accounted for 21% of the sector’s employment (12,006 in 2007). The lion’s share of this is Scheduled Air Transportation (both passenger and freight) which employed 11,303 in 2007 with revenues of $4.9 billion. Data suppression limits the depth of analysis which is unfortunate especially given its size and importance.

Truck Transportation Services
Measured by numbers of establishments and employment, the largest subgroup in the Transportation and Warehousing Sector is Truck Transportation services. Revenues were strong for the trucking sector, rising 22% from $2.5 billion in 2002 to $3.1 billion in 2007. Over the same period however, employment went from 18,153 to 17,143, a drop of 5.5%. The BPD data shows a continued decline in employment in 2009 dropping to 14,337.

Support Activities for Transportation
One group, Freight Transportation Arrangement, stands out among the subset included in Support Activities for Transportation, despite incomplete data. Revenues grew 63% between 2002 and 2007 (from $485 million to $796 million) and employment jumped by 1,991 from 3,253 in 2002 to 5,164 in 2007. The BPD data suggests that employment fell back a little to 4,563 in 2009. This subsector is likely driven by outsourcing of logistics management and by advances in computerized tracking and routing software employing on-board GPS, wireless communications and new mapping services.

Courier Services
Revenues for Courier Services increased from $672 million in 2002 to $873 million in 2007, while employment declined by 3,353 or 37% (from 8,918 in 2002 to 5,565 in 2007). The BPD data suggests that employment levels may have stabilized at 5,342 in 2009.

Warehousing and Storage Services
Warehousing has held steady through the 2002 to 2009 period. There were an estimated 189 establishments in 2009 according to the BPD. The Census shows revenue growing from $207 million in 2002 to $385 million in 2007, or 86% over the five year period. Moreover, employment has been steady - rising by 13 between 2002 and 2007 to employ 8,324 people. The BPD data suggests it continues to hold steady with employment standing at 8,492 in 2009.

The following tables show the data on "Transportation and Warehousing" at the three digit NAICS code. The complete six digit profile is included in the appendix.
## Establishment Counts

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry description</th>
<th>2002 Number of Establishments</th>
<th>2007 Number of Establishments</th>
<th>2002/2007 Net Change</th>
<th>BPD 2009 Number of Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>48/49</td>
<td>Transportation &amp; warehousing</td>
<td>2,309</td>
<td>2,594</td>
<td>285</td>
<td>2,412</td>
</tr>
<tr>
<td>481</td>
<td>Air transportation</td>
<td>45</td>
<td>57</td>
<td>12</td>
<td>49</td>
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<tr>
<td>483</td>
<td>Water transportation</td>
<td>11</td>
<td>7</td>
<td>-4</td>
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<tr>
<td>484</td>
<td>Truck transportation</td>
<td>1,246</td>
<td>1,447</td>
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<tr>
<td>486</td>
<td>Pipeline transportation</td>
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<td>15</td>
<td>-3</td>
<td>8</td>
</tr>
<tr>
<td>487</td>
<td>Scenic &amp; sightseeing transportation</td>
<td>13</td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>488</td>
<td>Support activities for transportation</td>
<td>497</td>
<td></td>
<td></td>
<td>565</td>
</tr>
<tr>
<td>492</td>
<td>Couriers &amp; messengers</td>
<td>138</td>
<td>131</td>
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<tr>
<td>493</td>
<td>Warehousing &amp; storage</td>
<td>182</td>
<td>177</td>
<td>-5</td>
<td>189</td>
</tr>
</tbody>
</table>

## Revenue

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry description</th>
<th>2002 Revenue ($1,000)</th>
<th>2007 Revenue ($1,000)</th>
<th>2002/2007 Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>48/49</td>
<td>Transportation &amp; warehousing</td>
<td>$11,175,070</td>
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<td>481</td>
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<td>Water transportation</td>
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<tr>
<td>484</td>
<td>Truck transportation</td>
<td>$2,592,586</td>
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<td>Pipeline transportation</td>
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<td>487</td>
<td>Scenic &amp; sightseeing transportation</td>
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<td>Support activities for transportation</td>
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<td>Warehousing &amp; storage</td>
<td>$207,392</td>
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Employment

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<th></th>
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<tbody>
<tr>
<td>48/49</td>
<td>Transportation &amp; warehousing</td>
<td>47,151</td>
<td>56,160</td>
<td>9,009</td>
<td>51,049</td>
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<td>481</td>
<td>Air transportation</td>
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<td>483</td>
<td>Water transportation</td>
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<td>484</td>
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<td>18,153</td>
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<td>487</td>
<td>Scenic &amp; sightseeing transportation</td>
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<td>493</td>
<td>Warehousing &amp; storage</td>
<td>8,311</td>
<td>8,324</td>
<td>13</td>
<td>8,492</td>
</tr>
</tbody>
</table>

Profile of Finance and Insurance Services Sector

The Business Pattern Data (BPD) for 2009 shows the erosion in the sector since 2007 due to the recession. Total employment in 2009 is 80,420, down 18% from the 98,284 reported in the 2007 Economic Census. Within the financial services sector there are three major groups not counting the US Central Bank.

Credit Intermediation & Related Services (Banking)
The Credit Intermediation sector has three subsectors:

- **Depository Credit** (Commercial Banking, Savings Banks and Credit Unions)
  "Commercial Banking" and "Savings Banks" lost employment between 2002 and 2007 (3,480 and 34 respectively) with only "Credit Unions" posting an increase (251). The BPD suggests that there was a continued attrition in Commercial and Savings Banks. Total employment in 2009 was 16,038 for Commercial Banking down from 18,972 in 2007, while Credit Unions held steady in 2009 (total employment 4,519 up from 4,504 in 2007). No data is available for Savings Banks for 2009.

- **Non-depository Credit** (Sales Financingl, Consumer Lending and Real Estate Credit)
  Although revenue for "Sales Financing" services rose 67% from $8.3 billion to $13.9 billion between 2002 and 2007, employment dropped 17% from 7,778 to 6,424 during the same time period. The BPD suggests the subsector has stabilized with employment at 6,156 in 2009. On the other hand, "Real Estate Credit" employment levels rose 35% from 6,143 to 8,307 between 2002 and 2007 on a growth in revenues of 27% from $1.2 billion to $1.6 billion. The BPD data suggests that employment in 2009 for the "Real Estate Credit" services has been cut in half with 4,042 employees in 2009. This perfectly describes the Mortgage Crisis experienced in the US.

- **Activities Related to Credit** (Mortgage Brokers and Financial Transaction Processing)
  The size of the "Mortgage Brokerage" and "Transaction Processing" subsectors is very small with fewer than 1,000 people in each subgroup (888 employed in Mortgage Brokerages and 797 in Transaction Processing in 2009)
**Securities Intermediation & Related Service**
Between 2002 and 2007 there was modest growth in the Securities Industry with an additional 119 firms. In 2007, the sector generated $2 billion in revenue and employed 6,791 people. The BPD shows continued growth in the sector with 7,738 employed in 2009.

**Insurance Carriers & Related Activities**
Between 2002 and 2007 the sector grew by 5% from 40,116 employees to 42,179. The 2009 BPD data shows a dramatic retraction to 34,608.

## Establishment Counts

<table>
<thead>
<tr>
<th>NAICS Industry Description</th>
<th>2002 Number Establish</th>
<th>2007 Number Establish</th>
<th>02/07 Net Change</th>
<th>BPD 2009 Number Establish</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 Finance &amp; insurance</td>
<td>6197</td>
<td>7018</td>
<td>821</td>
<td>6439</td>
</tr>
<tr>
<td>521 Monetary authorities - central bank</td>
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<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>522 Credit intermediation &amp; related activities</td>
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<tr>
<td>523 Securities intermediation &amp; related activities</td>
<td>880</td>
<td>999</td>
<td>119</td>
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<tr>
<td>524 Insurance carriers &amp; related activities</td>
<td>2,415</td>
<td>2,667</td>
<td>252</td>
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</table>

## Revenue

<table>
<thead>
<tr>
<th>NAICS Industry Description</th>
<th>2002 Total Revenue ($1,000)</th>
<th>2007 Total Revenue ($1,000)</th>
<th>02/07 Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 Finance &amp; insurance</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>521 Monetary authorities - central bank</td>
<td>$429,411</td>
<td>$387,242</td>
<td>-$42,169</td>
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<tr>
<td>522 Credit intermediation &amp; related activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>523 Securities intermediation &amp; related activities</td>
<td>$2,072,904</td>
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<td></td>
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<tr>
<td>524 Insurance carriers &amp; related activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Employment

<table>
<thead>
<tr>
<th>NAICS Industry Description</th>
<th>2002 Total Employ</th>
<th>2007 Total Employ</th>
<th>02/07 Net Change</th>
<th>BPD 2009 Total Employ</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 Finance &amp; insurance</td>
<td>97,739</td>
<td>98,420</td>
<td>681</td>
<td>80,284</td>
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<tr>
<td>521 Monetary authorities - central bank</td>
<td>350</td>
<td>166</td>
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<td>522 Credit intermediation &amp; related activities</td>
<td>50,138</td>
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<td>37,808</td>
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<td>523 Securities intermediation &amp; related activities</td>
<td>6,791</td>
<td>7,738</td>
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</tr>
<tr>
<td>524 Insurance carriers &amp; related activities</td>
<td>40,116</td>
<td>42,179</td>
<td>2,063</td>
<td>34,608</td>
</tr>
</tbody>
</table>
Profile of Professional, Scientific & Technical Services Sector

Overall, the Business Pattern Data (BPD) for 2009 shows the erosion in the Professional, Scientific & Technical Services sector since 2007 due to the recession. Total employment in 2009 was 155,805, down 6% from the 165,451 reported in the 2007 Economic Census.

Architectural & Engineering Services
The largest three digit NAICS subgroup among Professional, Scientific & Technical Services based on employment is “Architectural & Engineering Services”. In 2007, the subsector employed 25% of the people in NAICS 54 and accounted for 20% of total revenues. Between 2002 and 2007 the subsector declined significantly with employment dropping more the 25% from 55,944 to 45,210 despite the fact that revenues held steady (declining 0.3%). The Business Pattern Data (BPD) shows employment continuing to drop in 2009 to 35,090, a further 8.5% decline.

Accounting, Tax Preparation, Bookkeeping & Payroll Services
The second largest subgroup is “Accounting, Tax Preparation and Bookkeeping & Payroll Services” with 16.8% of total employment for NAICS 54, although accounting for only 10.8% of revenues. There was virtually no change in employment between 2002 and 2007 (27,460 in 2002 to 27,942 in 2007 – a 0.2% increase) although the BPD shows that employment dropped in 2009 to 22,692, a decline of more than 8%. This sector is not a primary target for economic development but it provides important element of support -- often specialized.

Computer Systems Design & Related Services
The third largest subgroup by employment and one of keen interest to this study because it is an exportable service is “Computer Systems Design & Related Services” with 13.2% of employment and 17.1% of revenues in the Professional, Scientific & Technical Services sector. It posted a 5% increase in employment (1,125) between 2002 and 2007 bringing total employment to 21,946. Total revenues rose 27% to $3.5 billion during the same period. The Business Pattern Data suggests that the subsector has been fairly recession proof, reporting a modest decline of less than 1% in 2009 to 21,111 employees.

The Subsector is broken down into four groups: % of Total 2007 Employment
   o Custom Computer Programming Services 44%
   o Computer Systems Design Services 28%
   o Computer Facilities Management Services 19%
   o Other Computer Related Services 7%

   “Custom Computer Programming” accounts for nearly half the jobs in the subsector and according to employment figures from the BPD for 2009 has continued to grow through the recession growing from 9,727 jobs in 2007 to 9,955 in 2009, an increase of 2.3%. Revenue growth between 2002 and 2007 was $393 million going from approximately $1.09 billion to $1.45 billion.

   “Computer Systems Design” lost ground between 2002 and 2007 going from 6,700 to 6,308, a drop of 5.8%, although revenue rose $223 million from approximately $1 billion to $1.2 billion.
"Computer Facilities Management Services" is a much smaller component of this subsector (revenue in 2007 was $516 million although it posted impressive employment gains between 2002 and 2007 rising from 3,094 in 2002 to 4,314 in 2007 an increase of 39%. The 2009 BPD however shows that employment within the group contracted with the recession to 3,804 (down 11%).

"Other Computer Related Services" includes establishments providing computer disaster recovery services or software installation services. It is a very small component of the sector representing only $287 million in revenue and 1,679 jobs in 2007 however the BPD shows that total employment rose in 2009 to 1,809, an increase of 7.7%.

Management, Scientific, & Technical Consulting Services
Consulting companies are another category of special interest for while they tend to cluster where the clients are located they have the capacity to export and many consulting companies have a national or international practice.

Employment in this subsector dropped precipitously between 2002 and 2007 according to the US Economic Census which showed employment dropped from 18,870 in 2002 to 15,108 in 2007 – a drop of 20%. Nonetheless, revenue rose 28% from $2.35 Billion in 2002 to $3.01 Billion in 2007. The BPD shows that employment recovered in 2009 despite the recession to 16,435, an increase of 8.7%.

A deeper examination of the employment trends in this subsector showed that the employment losses in this subsector were led by a drop of 3,268 jobs from 5,335 in 2002 to 2,067 in 2007 (a decline 61%) reported in "Human Resources & Executive Search Consulting". This number is suspect and should be used with caution. The BPD reports employment in 2009 for this category of 3,831.

The subsector consists of three broad groups of consulting with a further breakdown in one of them:

- Management Consulting Services % of Total 07 Employment
  - Administrative & General Management Consulting 44%
  - Human Resources & Executive Search Consulting 14%
  - Marketing Consulting 12%
  - Process, Physical Distribution & Logistics Consulting 21%
  - Other Management Consulting Services 1%
- Environmental Consulting Services 5%
- Other Scientific & Technical Consulting Services 4%

"Administrative & General Management Consulting" is the largest category of consulting company in the Metro area employing 6,690 in 2007, down 12% from 7,598 in 2002, despite a 31% increase in revenue from $1.02 Billion in 2002 to $1.34 Billion in 2007.

"Human Resources & Executive Search Consulting" employment data is suspect. The 2007 revenue at $288 million is modest compared to the Management Consulting Category which is five times higher. The BPD data shows employment in 2009 at 3,831.

"Marketing Consulting Services" has posted a modest decline in both employment and the number of establishments. The number of establishments declined from 438 in 2002 to 405 in 2007 representing a 7.5% drop. The BPD suggests a further decline.
through the recession to an estimated 364 firms. The subsector shed 632 jobs (2,669 to 2,037) between 2002 and 2007 but according to BPD has recovered slightly to an employment level of 2,407.

- "Process, Physical Distribution and Logistics Consulting Services" is a sector of interest as Logistics has been targeted as a growth sector elsewhere in the study. This subsector represents consultants to the Logistics industry. Unfortunately data for this sector has been suppressed due to the relative small number of establishments (163 firms) however BPD data suggests that employment in 2009 stood at 4,004.

- "Environmental Consulting" revenues nearly doubled between 2002 and 2007 rising $51,977 to $116,063 in 2007. Similarly employment rose from 705 in 2002 to 915 in 2007, although the 2009 BPD data suggests that employment has settled back to the 730 level since the recession. Despite the fact this sector is very small it represents a sector to target as the demand for environmental consulting services is expected to expand in the coming years.

Other Consulting Services
Data for the remaining subsectors, "Scientific Research and Development"; "Advertising" and "Other Professional Services" has been heavily suppressed. The largest of these, "Advertising", employs more than 10,000 people according to the BPD for 2009 with revenues of just over $1 billion. This may be driven by the marketing programs of the automotive industry.

The level of data suppression employed by the Census Bureau affected the examination of the other sub-groups, "Legal Services", "Drafting" and "Building Inspection Services", "Specialized Design Services", "Research and Development", "Public and Media Relations" and some "Other Professional Services".

Establishment Counts

<table>
<thead>
<tr>
<th>Summary Table</th>
<th>2002 Number Establish</th>
<th>2007 Number Establish</th>
<th>02/07 Net Change</th>
<th>BPD 2009 Number Establish</th>
</tr>
</thead>
<tbody>
<tr>
<td>541</td>
<td>Professional, scientific &amp; technical services</td>
<td>14,360</td>
<td>13,113</td>
<td>-1,247</td>
</tr>
<tr>
<td>5411</td>
<td>Legal Services</td>
<td>3,053</td>
<td>2,856</td>
<td>-197</td>
</tr>
<tr>
<td>5412</td>
<td>Accounting, tax prep, bookkeeping &amp; payroll</td>
<td>2,277</td>
<td>2,156</td>
<td>-121</td>
</tr>
<tr>
<td>5413</td>
<td>Architectural, engineering, &amp; related services</td>
<td>2,260</td>
<td>2,043</td>
<td>-217</td>
</tr>
<tr>
<td>5414</td>
<td>Specialized design services</td>
<td>487</td>
<td>438</td>
<td>-49</td>
</tr>
<tr>
<td>5415</td>
<td>Computer systems design &amp; related services</td>
<td>2,062</td>
<td>1,853</td>
<td>-209</td>
</tr>
<tr>
<td>5416</td>
<td>Mgmt, scientific, &amp; technical consulting</td>
<td>2,095</td>
<td>1,870</td>
<td>-225</td>
</tr>
<tr>
<td>5417</td>
<td>Scientific research &amp; development services</td>
<td>311</td>
<td>226</td>
<td>-85</td>
</tr>
<tr>
<td>5418</td>
<td>Advertising &amp; related services</td>
<td>237</td>
<td>195</td>
<td>-42</td>
</tr>
<tr>
<td>5419</td>
<td>Other professional, scientific, &amp; technical</td>
<td>1,228</td>
<td>1,126</td>
<td>-102</td>
</tr>
</tbody>
</table>
Revenue

<table>
<thead>
<tr>
<th>Summary Table</th>
<th>2002 Total Revenue ($1,000)</th>
<th>2007 Total Revenue ($1,000)</th>
<th>02/07 Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>541 Professional, scientific &amp; technical services</td>
<td></td>
<td>$22,444,429</td>
<td></td>
</tr>
<tr>
<td>541 Legal Services</td>
<td>$2,536,898</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5412 Accounting, tax prep, bookkeeping &amp; payroll</td>
<td>$1,990,815</td>
<td>$2,376,340</td>
<td>385,525</td>
</tr>
<tr>
<td>5413 Architectural, engineering, &amp; related services</td>
<td>$4,342,420</td>
<td>$4,649,892</td>
<td>307,472</td>
</tr>
<tr>
<td>5414 Specialized design services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5415 Computer systems design &amp; related services</td>
<td>$3,033,362</td>
<td>$3,887,834</td>
<td>854,472</td>
</tr>
<tr>
<td>5416 Mgmt, scientific, &amp; technical consulting</td>
<td>$2,494,553</td>
<td>$3,179,614</td>
<td>685,061</td>
</tr>
<tr>
<td>5417 Scientific research &amp; development services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5418 Advertising &amp; related services</td>
<td>$1,567,059</td>
<td>$1,093,660</td>
<td>-473,399</td>
</tr>
<tr>
<td>5419 Other professional, scientific, &amp; technical</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Employment

<table>
<thead>
<tr>
<th>Summary Table</th>
<th>2002 Total Employ</th>
<th>2007 Total Employ</th>
<th>02/07 Net Change</th>
<th>BPD 2009 Total Employ</th>
</tr>
</thead>
<tbody>
<tr>
<td>541 Professional, scientific, &amp; technical services</td>
<td>166,730</td>
<td>180,100</td>
<td>13,370</td>
<td>168,584</td>
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<tr>
<td>5411 Legal services</td>
<td>17,886</td>
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<td></td>
<td>17,766</td>
</tr>
<tr>
<td>5412 Accounting, tax prep, bookkeeping &amp; payroll</td>
<td>28,659</td>
<td>29,236</td>
<td>577</td>
<td>23,793</td>
</tr>
<tr>
<td>5413 Architectural, engineering, &amp; related services</td>
<td>59,747</td>
<td>45,339</td>
<td>-14,408</td>
<td>38,601</td>
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<tr>
<td>5414 Specialized design services</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5415 Computer systems design &amp; related services</td>
<td>22,945</td>
<td>23,847</td>
<td>902</td>
<td>23,095</td>
</tr>
<tr>
<td>5416 Mgmt, scientific, &amp; technical consulting</td>
<td>19,867</td>
<td>16,062</td>
<td>-3,805</td>
<td>17,429</td>
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<tr>
<td>5417 Scientific research &amp; development services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5418 Advertising &amp; related services</td>
<td>10,582</td>
<td>6,059</td>
<td>-4,523</td>
<td>10,077</td>
</tr>
<tr>
<td>5419 Other professional, scientific, &amp; technical</td>
<td></td>
<td></td>
<td></td>
<td>8,777</td>
</tr>
</tbody>
</table>

Profile of Health and Social Services Sector

**Ambulatory Health Services**

This major group within the Health and Social Services sector includes offices of individual physicians, dentists, optometrists, and other health care providers. It also includes outpatient care centres, dialysis centres, outpatient mental health centres, laboratories, home health services and ambulance services. It is a large subgroup with total employment in 2007 of 93,633, up 10,193 from 2002 when it was 83,440. Revenues were $10 billion in 2007, up from $8 billion in 2002. The Business Pattern Data (BPD) shows employment continuing to grow into 2009 to 105,982, a further increase of 13% in 2 years.
Hospitals
2007 data on Hospital revenue and employment has been suppressed. However in 2002 revenues for hospitals totalled $8.9 billion and the sector employed 90,974 people in Metro Detroit. If Ambulatory Care Physicians accounted for $2.3 billion of the overall growth in Health Revenues between 2002 and 2007, it would be a fair assumption that Hospitals accounted for a large share of the remaining $4.9 billion and a large share of the 12,000 jobs growth in Health not accounted for by Ambulatory Services and Nursing Homes.

Nursing & Residential Care Facilities
Nursing homes are also a fast growing segment of the health system responsible for $2.5 billion in revenues in 2007 (up from $1.9 billion in 2002) and for providing employment to 45,576 people (up 5% from 43,393 in 2002). The Business Pattern Data suggests that the subsector continues to grow with 47,191 people employed in 2009.

Social Services
Because social services are predominately delivered by government agencies we have very little Census data available to us, other than a note from the BPD that the sector employed 29,136 people in 2009.

Number of Establishments

<table>
<thead>
<tr>
<th>Summary Table</th>
<th>2002 Number Establishments</th>
<th>2007 Number establishments</th>
<th>2002/2007 Net Change</th>
<th>BPD 2009 Number Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 Health care &amp; social assistance</td>
<td>12,154</td>
<td>13,185</td>
<td>1,031</td>
<td>13,322</td>
</tr>
<tr>
<td>621 Ambulatory health care services</td>
<td>8,502</td>
<td>9,574</td>
<td>1,072</td>
<td>9,699</td>
</tr>
<tr>
<td>622 Hospitals</td>
<td>64</td>
<td>67</td>
<td>3</td>
<td>79</td>
</tr>
<tr>
<td>623 Nursing &amp; residential care facilities</td>
<td>1,557</td>
<td>1,515</td>
<td>-42</td>
<td>1,523</td>
</tr>
<tr>
<td>624 Social assistance</td>
<td>2,031</td>
<td>2,029</td>
<td>-2</td>
<td>2,021</td>
</tr>
</tbody>
</table>

Revenue

<table>
<thead>
<tr>
<th>Summary Table</th>
<th>2002 Revenue ($1,000)</th>
<th>2007 Revenue ($1,000)</th>
<th>2002/2007 Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 Health care &amp; social assistance</td>
<td>$20,964,188</td>
<td>$28,201,111</td>
<td>$7,236,923</td>
</tr>
<tr>
<td>621 Ambulatory health care services</td>
<td>$8,064,781</td>
<td>$10,429,988</td>
<td>$2,365,207</td>
</tr>
<tr>
<td>622 Hospitals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>623 Nursing &amp; residential care facilities</td>
<td>$1,940,300</td>
<td>$2,500,749</td>
<td>$560,449</td>
</tr>
<tr>
<td>624 Social assistance</td>
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</table>
### Employment

<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>62 Health care &amp; social assistance</td>
<td>252,258</td>
<td>276,394</td>
<td>24,136</td>
<td>282,304</td>
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<tr>
<td>621 Ambulatory health care services</td>
<td>83,440</td>
<td>93,633</td>
<td>10,193</td>
<td>105,982</td>
</tr>
<tr>
<td>622 Hospitals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>623 Nursing &amp; residential care facilities</td>
<td>43,396</td>
<td>45,576</td>
<td>2,180</td>
<td>47,131</td>
</tr>
<tr>
<td>624 Social assistance</td>
<td></td>
<td></td>
<td></td>
<td>29,136</td>
</tr>
</tbody>
</table>

### Job Quality – a Comparison

The quality of jobs being created in the community has become a source of concern to many. The loss of high paying manufacturing jobs is only barely offset by the growth of call centres and jobs in the hospitality sector which have been on the rise in the Metro Detroit. One measure of the quality of employment is the average wage paid in the industry.

The "Professional Scientific & Technical Services" sectors is one of the highest paying of the NAICS categories so it contributes significantly to offsetting the loss of high paying manufacturing jobs in the local economy. The average wage in the "Finance and Insurance" matches that paid in "Manufacturing".

Although physicians and other professionals in the "Health" sector are well compensated, the lower wages paid to nurses and hospital cleaning staff tends to push down the average wage for this sector.

The average wage in the "Transportation & Warehousing" sector is higher than for "Health" but not as high as "Manufacturing".
<table>
<thead>
<tr>
<th>2007 NAICS code</th>
<th>Industry description</th>
<th>2007 Annual Payroll ($1,000)</th>
<th>2007 Number of employees</th>
<th>Average Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Utilities</td>
<td>$638,687</td>
<td>8,635</td>
<td>$73,965</td>
</tr>
<tr>
<td>31-33</td>
<td>Manufacturing</td>
<td>$13,174,340</td>
<td>234,520</td>
<td>$56,176</td>
</tr>
<tr>
<td>42</td>
<td>Wholesale trade</td>
<td>$5,301,862</td>
<td>90,203</td>
<td>$58,777</td>
</tr>
<tr>
<td>44-45</td>
<td>Retail trade</td>
<td>$4,590,640</td>
<td>204,938</td>
<td>$22,400</td>
</tr>
<tr>
<td>48-49</td>
<td>Transportation and warehousing</td>
<td>$2,594,221</td>
<td>56,160</td>
<td>$46,193</td>
</tr>
<tr>
<td>51</td>
<td>Information</td>
<td>$2,642,703</td>
<td>41,199</td>
<td>$64,145</td>
</tr>
<tr>
<td>52</td>
<td>Finance and insurance</td>
<td>$5,589,747</td>
<td>98,420</td>
<td>$56,795</td>
</tr>
<tr>
<td>53</td>
<td>Real estate and rental and leasing</td>
<td>$1,012,837</td>
<td>29,503</td>
<td>$34,330</td>
</tr>
<tr>
<td>54</td>
<td>Professional, scientific, and technical services</td>
<td>$11,285,786</td>
<td>165,451</td>
<td>$68,212</td>
</tr>
<tr>
<td>56</td>
<td>Admin., Support &amp; Waste Management</td>
<td>$5,595,555</td>
<td>176,331</td>
<td>$31,733</td>
</tr>
<tr>
<td>61</td>
<td>Educational services</td>
<td>$186,745</td>
<td>6,925</td>
<td>$26,967</td>
</tr>
<tr>
<td>62</td>
<td>Health care and social assistance</td>
<td>$10,037,063</td>
<td>241,649</td>
<td>$41,536</td>
</tr>
<tr>
<td>71</td>
<td>Arts, entertainment, and recreation</td>
<td>$1,023,853</td>
<td>28,732</td>
<td>$35,635</td>
</tr>
<tr>
<td>72</td>
<td>Accommodation and food services</td>
<td>$1,975,965</td>
<td>146,138</td>
<td>$13,521</td>
</tr>
<tr>
<td>81</td>
<td>Other services (except public administration)</td>
<td>$1,259,078</td>
<td>46,504</td>
<td>$27,075</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$66,909,082</strong></td>
<td><strong>1,575,308</strong></td>
<td><strong>$42,474</strong></td>
</tr>
</tbody>
</table>

Source: US Census Bureau - Economic Census 2007

Red Highlighting is just for emphasis.
### Appendix A.2

#### Profile of NAICS Code 48/49 - Transportation & Warehousing Services 2002 to 2009

**Metro Detroit (Note - There is no Data for Ann Arbor)**


**NAICS Industry description**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4811</td>
<td>Scheduled air transportation</td>
<td>18</td>
<td>30</td>
<td>12</td>
<td>29</td>
<td>$4,941,554</td>
<td>11,303</td>
<td>J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48111</td>
<td>Scheduled passenger air transportation</td>
<td>11</td>
<td>24</td>
<td>13</td>
<td>24</td>
<td>$14,583</td>
<td>52</td>
<td>j</td>
<td>j</td>
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</tr>
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### Note

- There is no Data for Ann Arbor
Appendix A.3

Profile of NAICS Code 52 - Finance & Insurance Services 2002 to 2009

Metro Detroit (Note - There is no NAICS 52 Data for Ann Arbor)


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Note - There is no NAICS 52 Data for Ann Arbor
### Appendix A.4

#### Profile of NAICS Code 54 - Professional, Scientific & Technical Services 2002 to 2009

**Metro Detroit + Ann Arbor MSA**


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**NAICS Industry Description**

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**D: Withheld to avoid disclosing data for individual companies; data are included in higher level totals.**

---

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## Profile of NAICS Code 62 - Health Care & Social Assistance Services 2002 to 2009

**Metro Detroit & Ann Arbor MSA**

Source: U.S. Census Bureau 2002 and 2007 Economic Census & 2008 Business Patterns Data

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<td>6235 Permanent retirement community care</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>5,000</td>
<td>5,000</td>
<td>0</td>
<td>1,250</td>
<td>1,250</td>
<td>0</td>
</tr>
<tr>
<td>624 Social assistance</td>
<td>2,131</td>
<td>2,520</td>
<td>389</td>
<td>191,655</td>
<td>223,820</td>
<td>32,165</td>
<td>6,738</td>
<td>9,275</td>
<td>2,537</td>
</tr>
<tr>
<td>6241 Child day care services</td>
<td>187</td>
<td>187</td>
<td>0</td>
<td>5,000</td>
<td>5,000</td>
<td>0</td>
<td>1,050</td>
<td>1,050</td>
<td>0</td>
</tr>
<tr>
<td>6242 Child care services</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>6243 Temporary shelters</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>6244 Private household work</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>6245 Private household work</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>6246 Private household work</td>
<td>20</td>
<td>20</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>0</td>
</tr>
</tbody>
</table>
APPENDIX B

Appendix B.1

Description of Activities in the Offshore Services Industry (From CGGC)\textsuperscript{234v}

Information Technology Outsourcing (ITO)

- **Software R&D**

  Software R&D includes application development tools, new design, programming languages and models for business architects and embedded software development, performance engineering, enterprise mobility and Information virtualization projects.

- **IT Consulting**

  Includes services like Information Risk Management, Infrastructure Services, IT Process and Service Management, IT Strategy and Governance, Master Data Management, Performance Engineering Solutions, and Quality Assurance and Testing, which help in transforming enterprises by aligning IT strategy and priorities to their business objectives.

- **ITO in Software**

  - **ERP (Enterprise Resource Planning) Development**
    
    The development of information systems to support all processes in a given company. Most offshore services companies provide a wide portfolio of services around sales and customization of ERP (Enterprise Resource Planning) software and systems. ERP software and systems development is a market dominated by SAP, ORACLE, The Sage Group and Microsoft Business Solutions.

  - **Application Development**

    Software or application development including design, programming and installation of applications. These applications are applied in almost all industries from telecommunications to manufacturing. Additionally, firms in this segment provide software testing, verification and validation services, to verify the adequate performance of software and systems.

    Note: Although software is a component of IT infrastructure outsourcing companies differentiate IT Infrastructure Services from Software Services.

  - **Applications Integration**

    Development and deployment of applications integration tools (developing software packages to integrate or connect legacy applications with modern computers and software).

    Modernization and optimization are the main objectives of this market, the outsourcing of legacy applications also considers the complete retirement of old applications. The main activities covered in these services range from maintenance and support of old applications and migration of the information developed in such systems to new applications.
- **Desktop Management**

  Desktop Management Outsourcing covers activities such as installing-updating and maintaining software. The support is provided online through email support, chat, and voice (on-call) support.

- **ITO in Infrastructure**

  - **Infrastructure Management**

    The goal of IT Infrastructure Management is to maximize the efficiency of IT systems within an organization, enhance the flow of information and to plan and develop updating efforts in order to keep the efficiency in line with technological changes and the new demands of the company.

    Note: Hardware maintenance comprises activities such as predictive and corrective maintenance of information equipment and network devices. The nature of the activity requires physical presence of the service provider. This activity is generally outsourced but not offshored.

  - **Network Management Outsourcing**

    Network support involves keeping the network operating efficiently, network monitoring, correcting any possible or present threat for the system and network upgrading. The assistance is provided by online monitoring, voice and no-voice support.

    WLAN outsourcing (Wireless Local Area Network): Today large companies outsource the design, installation and management of their information networks and broadcasting. Instead of learning and managing the complexity of company’s information broadcast systems, today companies outsource these activities to specialized companies.

  - **Applications Management**

    Application management consists of activities such as controlling security (managing firewalls against spam, viruses and spying), data administration (data center management and enterprise server management) protecting firm’s information from outsiders through 24/7 monitoring, providing content management (managing, storage and retrieving information for clients), supplying application migration, deploying and managing software applications on a network.

**Business Process Outsourcing (BPO)**

- **Enterprise Resource Management (ERM)**

  This is the provision of operational business processes, often known as back office processes. This segment encompasses a wide range of activities performed within the operational area of an organization. Some services are generic and are offered across a broad range of companies, while others are very specific for each vertical industry.

  - **Comprehensive Finance & Accounting**

    The finance and accounting segment includes an extensive portfolio of services. The most common financial services are accounts receivable and accounts payable processing - invoice processing, real-time payment auditing, collection management and processing and real time transaction recording. In accounting, activities include reconciliations, ledger keeping and balancing, income and cash statement preparation.
**Procurement – Logistics, Supply Chain Management**

These services focus on increasing efficiency in the purchasing of goods and services. Procurement includes the acquisition of raw materials and supplies at the right moment, in the right quantity, with the adequate quality and in the right place. Outsourcing companies achieve economies of scale by concentrating similar supply needs of their clients.

Supply Chain Management activities include planning and controlling the flow from raw materials to final products. The outsourcing industry has developed very specific solutions on logistics for inventory management, purchasing and transportation. Supply Chain Management services and solutions is a growth industry and will soon be distinguished from the Enterprise Resource Planning segment of the BPO industry.

Other services provided in this segment include shop floor control and programming, production flow control, cost control management software, product lifecycle management and constraints management. These services are directly subcontracted or optimized-through-software processes implementation.

**Content and Document Management**

Automation of papers, intensive work flow and document management systems. Complementary, content management includes the translation of documents, brochures and company web pages as well as constant updating.

Content management services allow companies to customize activities such as marketing and communication with customers to match each cultural setting.

**Human Resource Management (HRM)**

**Talent Management Services (Training and Comprehensive Human Resources)**

Outsourcing HR performance, compensation, work atmosphere management, evaluation and improvement of employee relations and creation of advancement systems. Other services include relocation of personnel (Global Mobility), health and welfare management as well as designing training and development programs.

**Payroll and Benefit Administration**

Payroll activities including data maintenance, pay calculation, payroll payment, deductions, taxes and payroll accounting. Some companies provide both domestic and international payroll processing.

Outsourcing payroll activities companies lower costs and increase efficiencies while meeting compliance regulations, the payroll management is deployed in the delivery centers and centrally administered in the companies' headquarters, achieving economies of scale.

Finally benefit administration comprises activities such as healthcare and retirement counseling, as well as retirement management.
- **Recruiting**
  
  Outsourcing of activities such as sourcing resumes, screening, scheduling interviews, and selecting personnel. The capacity to develop a pool of talented human resources reduces costs and speed candidate delivery.

- **Customer Relationship Management (CRM)**

  - **Comprehensive CRM (Marketing & Sales)**
    
    Design and development of marketing projects, support on inbound and outbound sales, sales order process, customer monitoring and product life cycle support. Comprehensive CRM goes beyond simple tele-marketing activities to provide customer data analysis and marketing strategy design.

  - **Contact Centers**
    
    Voice (inbound and outbound by telephone, chat and email) activities such as marketing activities, customer satisfaction inquiry, customer retention and customer acquisition.

  - **Call Centers**
    
    Outsourcing voice (inbound) services on customer support, business partners, or company associates.

    Note for Vertical BPO services typical offshored activities in specific industries are back office processes on core banking, card processing, mortgage origination, billing for telecom, life insurance closed book, health care Revenue Cycle Management, teleradiology outsourcing and North America health care insurance.

- **Knowledge Process Outsourcing (KPO)**

  - **Business Consulting, Business Analytics and Market Intelligence**
    
    This segment comprises the development of research activities and advice strategies in topics such as business opportunity assessment, market research and customer retention and growth, operations improvement or business optimization.

    Business Analytics include services such as restructuring processes and business, corporate-organization strategy. This includes process improvement including the application of Six Sigma processes.

    March Intelligence includes market research analysis, market segmentation and customer behavior predictive analysis.

    Specific Advanced Activities Outsourcing niches are capital markets, finance and accounting support, and legal advice. All of them exist to provide specialized and specific services to individual industries.

  - **Legal Services**
    
    Legal Services include legal activities at the corporate level such as managing contracts, leases or licenses as well as more specific activities such as intellectual property services or litigation support services.
## Appendix B.2

### Top 10 Indian Offshore Services Providers

<table>
<thead>
<tr>
<th>Company</th>
<th>Sales 2008 ($US Mil)</th>
<th>Employees 2008</th>
<th>Total Services Sales 2008 ($US Mil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tata Consultancy Services (TCS)</td>
<td>6,048</td>
<td>111,407</td>
<td>5,824</td>
</tr>
<tr>
<td>Infosys Technologies</td>
<td>4,717</td>
<td>105,453</td>
<td>4,533</td>
</tr>
<tr>
<td>Wipro Technologies</td>
<td>5,645</td>
<td>98,521</td>
<td>4,234</td>
</tr>
<tr>
<td>HCL Technologies</td>
<td>1,879</td>
<td>54,026</td>
<td>1,879</td>
</tr>
<tr>
<td>Genpact Ltd.</td>
<td>1,041</td>
<td>36,200</td>
<td>1,041</td>
</tr>
<tr>
<td>Tech Mahindra</td>
<td>963</td>
<td>24,972</td>
<td>963</td>
</tr>
<tr>
<td>Patni Computer Systems</td>
<td>746</td>
<td>14,894</td>
<td>746</td>
</tr>
<tr>
<td>WNS Global Services (India)</td>
<td>539</td>
<td>21,494</td>
<td>539</td>
</tr>
<tr>
<td>Mphasis Ltd. (A Hewlett Packard Company)</td>
<td>455</td>
<td>28,795</td>
<td>416</td>
</tr>
<tr>
<td>Polaris Software Lab Limited</td>
<td>300</td>
<td>9,238</td>
<td>300</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>22,923</strong></td>
<td><strong>520,443</strong></td>
<td><strong>21,604</strong></td>
</tr>
</tbody>
</table>

Source: CGGC based on OneSource, NASSCOM, companies’ websites and companies’ annual reports.
### Appendix B.3

**Tholons Site Location Assessment Framework**

The Tholons Location Assessment Framework covers six broad categories with fifteen subcategories, with each category and subcategory having their own respective weight:

<table>
<thead>
<tr>
<th>Scale &amp; Quality</th>
<th>Cost</th>
<th>Business Catalyst</th>
<th>Infrastructure</th>
<th>Risk Profile</th>
<th>Quality of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Pool</td>
<td>Cost of Operations</td>
<td>Government Benefits/Incentives</td>
<td>Connectivity</td>
<td>Commercial Risk</td>
<td>Social Infrastructure (Hospitals, Educational Institutions, etc.)</td>
</tr>
<tr>
<td>Skills Output</td>
<td>Cost of Training</td>
<td>Competitive Landscape</td>
<td>Bandwidth Availability</td>
<td>Political Risk</td>
<td>Non-work Culture</td>
</tr>
<tr>
<td>Graduate Output</td>
<td>Cost of Real Estate</td>
<td>Untapped Labor Pool</td>
<td>Transportation</td>
<td>Natural Risk</td>
<td>Availability of Recreation/Leisure Activities</td>
</tr>
<tr>
<td></td>
<td>Cost of Bandwidth</td>
<td>Employment Profile</td>
<td></td>
<td>Social Risk</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost of Living</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost of Other Infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills and Scalability</th>
<th>Savings</th>
<th>Business Environment</th>
<th>Operational Environment</th>
<th>Business Risk</th>
<th>Non-Business Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The combination of these parameters results in correlations of the cities to their respective service niche. For example, considerations in the workforce extend from scalability to employability of workforce. Cities with an abundance of Spanish-proficient speakers will have a greater value proposition for delivering voice-based services to the US Hispanic market. Likewise, cities with a high percentage of engineering graduates may be better equipped to venture into the engineering services outsourcing space.
Appendix B.4

A Proposal: Extending WIN to Accelerate Training of Newly Hired Employees

Our research found that many of the growing technology services companies in Southeastern Michigan are attempting to overcome the lack of available mid-level professional developers, software testers, architects and business analysts, have developed their own internal training programs. It is likely that there is considerable overlap in the content that each of the “academies” is teaching and that much of that material is “non-proprietary” in nature.

It is clear that there are gaps between the “education” a student receives from a college or university computer science program and the “training” needed for the graduate to become a productive software, database, or networking professional.

We believe that there may be common components of the training programs that many of the companies are delivering to their new hires that could be done more cost-effectively by a centralized training provider. There may be a role for WIN, or another organization, to provide these common elements in an entrepreneurial, but cost-effective manner for local technology companies.

WIN, or a new provider, could identify the non-proprietary common elements and offer to deliver that training from a central location that all companies could take advantage of in a cooperative manner, reducing the costs to employers and allowing them to focus on their core activities.

Internal corporate training programs would still be needed to prepare employees for working with the company’s specific tools, procedures, and methodologies.

In discussing the apparent gap with representatives from TechTown, the concept struck a chord, as TechTown has delivered training in the past. It was suggested that rather than having a governmental entity fund and support the training program envisioned, there might be a role for TechTown to take the concept to local entrepreneurs with experience and interest in education and training who might create a business to deliver this type of training.

TechTown’s approach to start-ups focuses on filling gaps in products, services and offerings available in Detroit. TechTown’s advisors sometimes are able to identify opportunities to meet specific needs in the local community and to match the commercial opportunities with existing management teams.

They hope to use this model to create new businesses to serve local markets with pent up demand, providing opportunities for immediate consumption of the companies’ offerings. The model can work with consumer and business-to-business offerings.

To this end, they felt that there might be an opportunity for the WIN program to spur the creation of a new training program that would provide a number of basic foundations needed by growing technology companies in the region.
Our research identified a number of companies which have created their own internal corporate training. We think there is likely to be enough overlap in non-proprietary subjects among the programs that a centralized “academy” could be developed, supported in part by “tuition” charged to each company.

This could be a for-profit training academy with competitive pricing for students from eligible companies, a non-profit cooperative, or a government or community supported program designed to provide an additional layer of education and/or training to individuals who have already been hired by a local employer.

The curriculum for the program could be designed in conjunction with the employers providing students for the program to meet their basic needs.

This type of program, whether a commercial initiative or a non-profit entity spawned by WIN in some way, could reduce the overhead costs of establishing separate low volume training programs in each company and accelerate the progress of students toward productivity. The companies would pay “tuition” for enrolled students but, because of economies of scale, the cost would be less than company-administered programs.

If an organization were to be developed and deployed in Michigan to support technology services companies in their internal training programs with a curriculum of technology-oriented courses more vocational than those offered by traditional universities and colleges, it could become a part of Detroit’s message that the community supports the expanding technology services ecosystem and is committed to helping local companies grow and succeed.
Appendix B.5

Anatomy of an Outsourcing Company – Secure-24, Southfield, Michigan

To demonstrate the complexity of one outsourcing company and the variety of products and services it offers its clients.

Secure-24, Southfield, Michigan

A member of the Inc. 500 in 2007, 2008, and 2009, the company provides business critical information security, IT outsourcing services and managed hosting services for enterprise-level applications.

The company offers clients a range of services including:

- IT outsourcing services – managed systems and networks
- Business critical web applications
- Business critical application hosting services
- Business process solutions
  - Example: accounts payable which includes receiving and scanning bills, entering them in a workflow for approval, invoice management, approval and entry into an SAP (an enterprise resource planning) system, and payment

(These services are listed in order of increasing complexity and value-add from basic services to complete solutions.)

The company operates redundant large scale data centers in Michigan and Arizona which both have fail-safe backup systems and power supplies. Data is mirrored in both locations and systems or applications using data from one center can move to the other center almost instantaneously upon failure. The data centers run a wide range of applications and services, including companies’ websites, ATM banking networks, and government databases.

The company also creates applications for its clients and manages a variety of their business processes, including accounts payable processes which receive bills, manages the accounting workflow, integrates with payment processes, and updates enterprise resource planning (ERP) systems, such as SAP - which is often considered the DNA of a company, since it houses most of the company’s critical operating information and controls many of its key systems.

Secure-24 hosts some of its clients’ ERP systems and is agnostic about whether they use SAP or ORACLE products, despite the fact that each company’s ERP works quite differently and requires completely unique training.
To deliver its range of services and offerings, the company needs experts in a variety of areas -

Each listed area in this stack requires significant knowledge and experience to assure business critical quality of delivery. Each area incorporates unique vendors, software packages, and in some cases, hardware.

In the core stack are the 8 primary offerings that the company delivers to its clients. The shells outside the core – Security, Compliance, and Availability – are required to be able to deliver the offerings in the core at the level of performance that the customers expect and require, but are not standalone offerings.
Appendix B.6

A Simple Overview of How Outsourcers Make Money

Outsourcing companies make money in many different ways. Basically, they hire workers to meet other companies’ needs for temporary staff and alternatives to hired staff. They eliminate a company’s need to recruit and make an employment commitment and investment to an individual in favor of short term contracts defined by time (hours worked) or deliverables (work product).

The Outsourcing Business Models chart below describes some of the different ways an outsourcing company might deploy resources to generate revenue. Some companies might use different terms to describe the revenue generating offering and some companies may have different variations of the offerings.

Companies usually use more than one of the models to make up their portfolio. And this chart is representative, but not exhaustive, of the services that are offered.

<table>
<thead>
<tr>
<th>Business Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Shop</td>
<td>Company recruits and delivers qualified technology workers for short term contract work</td>
</tr>
<tr>
<td>Staff Augmentation</td>
<td>Company places technology worker – who may be a long term employee of the service provider – on a project for a specific period of time.</td>
</tr>
<tr>
<td>Onsite Development</td>
<td>A team of employees of the service provider works primarily at the location of the company and may create applications, products or integrated solutions.</td>
</tr>
<tr>
<td>Offsite/Local Development</td>
<td>A team of employees of the service provider works primarily outside of the company’s location but not outside of the country.</td>
</tr>
<tr>
<td>Joint Development</td>
<td>A team is comprised of providers’ employees and company employees and works on a project together.</td>
</tr>
<tr>
<td>Managed Services</td>
<td>The service provider’s team manages managing a system, application, or network (often on the company site) for a fee</td>
</tr>
<tr>
<td>Cloud Services</td>
<td>The service provider hosts and manages an application or service for a company that resides “in the network” but not necessarily in any one location or data center. Resources may be shared by many users with fees often based on the amount of capacity used, the number of transactions, or another way of measuring direct usage</td>
</tr>
</tbody>
</table>
It is hard to know what a company means when they claim that they are an *outsourced service provider*. Some recruit and deliver individuals with a certain skill in common coding and have nothing to do with the actual work deliverable.

At the other end, some deliver complex technology solutions architected for high performance and intense security at an enterprise-level integrating multiple applications operating in various locations around the world.

The breadth of models and the range of different types of services offered or delivered demonstrate why it is hard to know what a company means when they call themselves an “outsourcing” company. It also suggests why outsourcing service providers are dedicated to hiring high quality experienced workers.
Appendix B.7

H1-B Visa Data

Source for all data:

http://www.myvisajobs.com/H1B_Visa.aspx

1. Top 50 National H-1B Visa Sponsors, Number of Petitions, Average Salary
3. 2011 H-1B Visa Report - Top 15 by Work State & Selected Top Work Cities
4. National H-1B Visa Report - Top 40 Job Titles
5. National H-1B Visa Distribution -- Top 100 Companies
6. H-1B Visa Petitions, 2010, Michigan, Final Status of 2,836 Applications
# Appendix B.7.1

## Top 50 National H-1B Visa Sponsors, 2011

<table>
<thead>
<tr>
<th>Rank</th>
<th>H1B Visa Sponsor</th>
<th>H1B Visa Petitions</th>
<th>Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Microsoft</td>
<td>2,505</td>
<td>$96,497</td>
</tr>
<tr>
<td>2</td>
<td>IBM</td>
<td>1,263</td>
<td>$80,908</td>
</tr>
<tr>
<td>3</td>
<td>Infosys Technologies</td>
<td>1,058</td>
<td>$69,563</td>
</tr>
<tr>
<td>4</td>
<td>Deloitte Consulting</td>
<td>887</td>
<td>$93,786</td>
</tr>
<tr>
<td>5</td>
<td>Fujitsu Laboratories OF America</td>
<td>747</td>
<td>$82,663</td>
</tr>
<tr>
<td>6</td>
<td>Cognizant Technology Solutions</td>
<td>645</td>
<td>$65,481</td>
</tr>
<tr>
<td>7</td>
<td>Patni Americas</td>
<td>540</td>
<td>$61,381</td>
</tr>
<tr>
<td>8</td>
<td>CVS Pharmacy</td>
<td>499</td>
<td>$114,839</td>
</tr>
<tr>
<td>9</td>
<td>Qualcomm</td>
<td>472</td>
<td>$99,588</td>
</tr>
<tr>
<td>10</td>
<td>Larsen Toubro Infotech</td>
<td>418</td>
<td>$62,642</td>
</tr>
<tr>
<td>11</td>
<td>Intel</td>
<td>404</td>
<td>$95,714</td>
</tr>
<tr>
<td>12</td>
<td>Wipro</td>
<td>403</td>
<td>$74,146</td>
</tr>
<tr>
<td>13</td>
<td>Goldman Sachs</td>
<td>387</td>
<td>$102,590</td>
</tr>
<tr>
<td>14</td>
<td>Oracle</td>
<td>376</td>
<td>$104,080</td>
</tr>
<tr>
<td>15</td>
<td>Barclays Capital</td>
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<td>$102,881</td>
</tr>
<tr>
<td>16</td>
<td>Google</td>
<td>355</td>
<td>$103,129</td>
</tr>
<tr>
<td>17</td>
<td>Hewlett Packard</td>
<td>340</td>
<td>$99,344</td>
</tr>
<tr>
<td>18</td>
<td>National Institutes Of Health, Hhs</td>
<td>338</td>
<td>$73,492</td>
</tr>
<tr>
<td>19</td>
<td>UST Global</td>
<td>317</td>
<td>$60,323</td>
</tr>
<tr>
<td>20</td>
<td>Tata Consultancy Services</td>
<td>311</td>
<td>$64,386</td>
</tr>
<tr>
<td>21</td>
<td>Yahoo</td>
<td>308</td>
<td>$105,112</td>
</tr>
<tr>
<td>22</td>
<td>Ernst Young</td>
<td>303</td>
<td>$91,615</td>
</tr>
<tr>
<td>23</td>
<td>JPMorgan Chase</td>
<td>293</td>
<td>$103,537</td>
</tr>
<tr>
<td>24</td>
<td>Management Health Systems</td>
<td>276</td>
<td>$59,804</td>
</tr>
<tr>
<td>25</td>
<td>Satyam Computer Services</td>
<td>265</td>
<td>$76,806</td>
</tr>
<tr>
<td>26</td>
<td>Amazon com</td>
<td>255</td>
<td>$99,459</td>
</tr>
<tr>
<td>27</td>
<td>Motorola</td>
<td>249</td>
<td>$95,861</td>
</tr>
<tr>
<td>28</td>
<td>Rite Aid</td>
<td>245</td>
<td>$96,676</td>
</tr>
<tr>
<td>29</td>
<td>Marlabs</td>
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| 50   | CSC Covansys                            | 164                | $87,262
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### 2011 H-1B Visa Report
#### Top 15 By Work State

<table>
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<tr>
<th>Rank</th>
<th>Work State</th>
<th>H-1B Visa Petitions</th>
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<td>Massachusetts</td>
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#### Selected Top Work Cities

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</table>
This chart shows the distribution of H-1B Visa certifications among the top 100 companies (defined by the number of visa petitions certified per company). The industry categorization is unofficial as only the company names are provided with the data.

It shows that companies in the education, finance, and health/med categories received fewer visas (per company) than technology companies. Technology service providers (consultants, applications and solutions providers, and outsourcers) received the most visas and had an average number of visas per company, while technology companies (hardware and software vendors) received more visas, on average, than other industries.

It should be pointed out, however, that in many cases, technology companies and service providers cannot be accurately differentiated, since manufacturers such as IBM or HP are also large service providers.
This chart shows the disposition of the 2,836 H-1B visa petitions received in 2010 from employers in Michigan.

The table below lists job titles and employers from Michigan receiving certifications in 2010.
Appendix C

Appendix C.1

Pacific NorthWest Economic Region (PNWER)

PNWER is viewed as the model for bi-national cooperation as a success story for driving global economic competitiveness. With over $US 1 trillion in gross regional product PNWER is one of the fastest growing regions of North America, and is a gateway for China and East Asia. In fact, if PNWER were a separate country, it would rank 13th in total GDP (2007). The PNWER model is one where government is the leader, which provides an ability to coordinate multiple regional actors that sometimes have discordant interests around a guiding macro-level regional vision. According to a recent study on regional models conducted by Mowat Centre at the University of Toronto: “Another advantage is the stability, longevity and legitimacy stemming from the legislated mandates and permanent administrative structures of government agencies implementing collaboration.”

The organization was set up by parliamentarians and business groups. PNWER was able to officially integrate the governments of these provinces and states as members of the organization.

Financial support in 2010 is derived from dues from member states, federal and state/provincial grants ($35,000 per year; territories pay $7,000; with the exception of Montana who pays $21,000 per year) and contracts and private sector contributions (vary by company and amount). As of September 30, 2010 PNWER’s total income was $1,428,363 and total expenses $1,472,173.

Key PNWER Achievements

- Enhanced drivers licence is used as personal identification for border crossings at major crossing areas at the U.S. – Canada border.
  - Western Hemisphere Travel Initiative – PNWER recognizing that the passport requirements were going to diminish business and relationships across borders. Thus PNWER led the charge for a delay of full implementation. This gave time to develop things like enhanced drivers licences, which PNWER was also at the forefront.

- 2010 Olympic Regional Coordination council to develop coordination of efforts between Pacific Northwest states/provinces, and relevant organizations to develop and execute a regional business plan for the 2010 Olympics and other relevant tourism initiatives.

- Bi-national Energy Planning Council was funded by the US Department of Energy providing $US 325,000 in 2005. Led by PNWER Legislative Energy Chair Task Force, the group worked regionally to develop solutions to future energy demand and transmission congestion.

PNWER’s 2010 Working Groups and Action Items

Indicative of the wide range of issues which PNWER addresses during the course of a year are the following action items that PNWER Working Groups were addressing during 2010, according the PNWER 2010 Annual Report.
**Agriculture/Cross-border Livestock Health**

Provides opportunities for state and provincial veterinarians; government; animal health experts; and industry to enhance relationships and build networks between state and provincial jurisdictions, exchange information on animal health issues and concerns, develop a common understanding of disease policies, and exchange information on emergency response to emerging and foreign animal disease.

- Expedite rule making process to restore trade of sheep and goats to the US and allow for transit of Canadian sheep and goats through US
- Address the speed of non-negative animal disease test results reported across the border so as to not negatively affect cross-border trade (border interruption).
- Develop a mutual recognition of zoning and regionalization in both countries. Investigate status of this between USDA and CFIA?
- Sharing of best practices. Encourage the development of a North American template for crisis or incident management and encourage commodity organizations to include emergency preparedness and response management in their organizational structure.
- Explore opportunities too share supplies and expertise across the border with an emphasis on USDA/CFIA
- Invite and engage the industry supply chain (processing) to participate in discussions on communication and recovery.

**Border Issues**

PNWER recognizes that legitimate cross-border mobility is vital to the economic well-being and safety of American and Canadian citizens.

- PNWER should capitalize on momentum from the 2010 Olympics and continue to strengthen efforts to integrate border stakeholder groups, especially from the interior region in the border coordination council.
- Work with DHS in the development of specific policy goals in the creation of the northern border strategy.
- Work with CBSA and DHS to examine the US regulation that requires re-screening of checked baggage originating in Canadian Airports and arriving in US ports.
- PNWER supports the permanent operation of the 2nd daily Amtrak train and calls on the government of Canada by Sept. 30, 2010, to permanently waive the inspection fee under the cost recovery pilot program of CBSA and continue to work with Amtrak, WSDOT, CBP, CBSA on the expansion of pre-clearance procedures at Pacific Central Station in Vancouver.

**Disaster Resilience**

This working group helps direct the activities of the PNWER Center for Regional Disaster Resilience (CRDR).

- Strengthen and expand regional collaboration utilizing PNEMA, the PNW Partnership for Regional Infrastructure Security and Resilience, the PNW Border Health Alliance, and other mechanisms.
- Provide a forum to discuss and harmonize cross-border roles and responsibilities to improve preparedness, response and recovery for all-hazards incidents and disasters.
- Work toward developing a crossborder information sharing process focusing initially on health and safety-related data that can be expanded to other types of information needed for infrastructure protection and disaster resilience.
Energy I

The Energy I Working Group brings together key industry leaders from both countries to examine supply and demand issues, transmission, permitting across multiple jurisdictions, and other issues that must be addressed to secure efficient, reliable, low cost and environmentally safe energy supply for our future.

- Increase cooperation amongst regulatory bodies by Inviting regulatory agencies to meet with policy makers at the Winter PNWER meeting, November 17-20 to address an agenda that includes a discussion amongst PUCs regarding:
  - Cost of integration, balancing, firming, and capacity of renewable (cost allocation)
  - How they make their decisions within the context of other regulatory decisions made throughout the region
  - Obstacles they are concerned about or suggestions for new legislative solutions.
- Request a breakout session involving policy makers and regulators at the NARUC annual meeting in February, 2011
- Invite NREL and NIPPC, and IPPBC to have a dialogue about a Renewable Energy Exchange at the PNWER Winter meeting
- Initiate a dialogue within the PNWER region on what mutual benefits the region has in energy transactions with CA
- Invite CA entities to a subsequent meeting based on conclusions of the meeting cited above
- Develop a list of impediments to holistic and efficient regional transmission systems with input from PNWER jurisdictions and entities
- Global energy demand is expected to continue to grow, creating significant new export opportunities for energy products in the PNWER region.
- Bringing energy to market – whether by pipeline, rail, through transmission lines and a western power grid – is an important aspect of seizing economic development opportunities.
- PNWER members agree on the importance of increasing opportunities for North American trade in clean energy. This requires enhanced eastwest/north-south infrastructure to meet future national and global energy demand across North America. PNWER members commit to cooperate on energy supply and import and export initiatives between Canada and the United States. This will be part of our agenda for the DC and Ottawa capital visits
- Assemble data sets from each jurisdiction to compare the regulatory costs per kilometer (average cost per interconnection and length of time.)
- Complete a study examining the carbon footprint of a jurisdiction/area per unit of GDP
- Support the continuation of the Legislative Energy Horizon Institute
- Partner with the University of Regina to hold a CCS meeting in the fall of 2010

Energy II

The Energy II Working Group identifies emerging and renewable energy technologies and addresses related policy issues

- PNWER should support the development of the Legislative Energy Horizon Institute as a sustainable PNWER Program, and implement plans for the second class for 2011-2012
- PNWER should survey energy groups in the region to gauge interest in having individual meetings at a single site twice per year to save travel dollars for regulators, and to consolidate meetings so principal energy legislators could participate at one location. This would facilitate a collaborative regional list of shared issues and possible goals to address them.
- The PNWER Energy Group would like to continue to address the following issues in this context:
  - What needs to be communicated to California
- Focus on dynamic capacity and renewable integration across region.
- Develop economic goals for developing smart grid technologies on the ground & do better job of coordinating an export strategy

Environment

The Environment Working Group promotes coordinated research, development and marketing of environmental technologies and services.

- Encourage PNWER members, especially Legislators, to share accurate information regarding the Oil Sands with their colleagues and Constituents

Health Care:

The Health Care Working Group addresses cross-border health issues, health and business issues, health technologies, and other issues related to the challenges to health care in the region.

- Create a newsletter focusing on Mental Health in the Workplace: available for handout and post on web.
- Develop a PNWER Mental Health Resources Guide (Canada and US) on current research, evidence of effective programs, tools and policy options for jurisdictions to addressing mental health and addictions in the workplace.
- Archived Video-cast of presentations from Mental Health and Addictions in the Workplace Symposium will be made available for broader dissemination (September, 2010).
- Hold a meeting of health evidence centres and key decision makers and industry in association with the 2011 Portland PNWER meeting.
- PNWER encourages all jurisdictions to sign the MOU to create the Pacific Northwest Border Health Alliance. (Status: All jurisdictions have signed except for Alberta and Montana.)

Invasive Species

The Invasive Species Working Group addresses the regional economic and environmental impact of invasive species and promotes regional collaboration and sharing of best practices.

- Send a letter to all federal legislators from PNWER member states regarding prevention of Source Point Contamination at Lake Meade and follow up on the letter sent last year to Secretary Salazar
- Draft a letter of Support from the PNWER executive Board to be used for support of grants for regional invasive programs
- Distribute the Oregon Invasive Species Economic Impact assessment and recommend similar assessments be done by all member jurisdictions in order to obtain a regional picture of Invasive Species Economic impact
- Maintain an active year-round invasive species group, including quarterly webinars to increase regional collaboration and information sharing.

Innovation

The competitive landscape of the global economy, coupled with worldwide environmental challenges, is creating unprecedented demand for scientific discovery and application. The Pacific Northwest region must channel the strengths of its many separate resources into a collaborative, comprehensive effort that maximizes the economic benefits of regional innovation.
- Have a session at the Winter Meeting on Identifying Barriers to Regional Innovation Collaboration
- Generate a map of Regional Innovation Clusters throughout the PNWER Region.
- Additional Action Items from the Economic Leadership Forum:
  - Working group will work with PNWER to explore funding sources to develop an inventory of clean energy clusters in terms of region’s innovation assets.

**Sustainable Development**

Identifies best practices for environmental sustainability to improve the quality of life in the region as well as foster sustainable economic development.

- Seek support of the public and private sector to query state and provincial data and Produce an Inventory/Overview of renewable energy projects of one mega-watt or greater underway on a regional basis by jurisdiction
- Produce an inventory/matrix of projects/programs in the region that are providing economic incentives for the development of sustainable technologies
- Initiate a workshop at the 2011 Summit or before that can develop consistent measurement standards and terminology for defining success in the areas of sustainable development amongst different user groups

**Tourism**

Tourism is one of the largest pieces of the region’s economy. Through the Tourism Working Group, participants can share best practices and challenges, while learning of innovative new ways to bring tourists into the region through marketing, policy making, and more.

- The Tourism working group will work with a core team of initial stakeholders to broaden the involvement of the tourism sector in the Annual Summit
- The tourism working group should consider a session on integration of cultural tourism into the 2011 Summit, including the possibility of a culturally oriented Policy tour

**Transportation**

Focuses on the infrastructure of our major corridors and gateways, with a special interest on border infrastructure. Brings together public and private, state/provincial and federal officials to address key issues of transportation management, including new technologies to address the increased flow of goods and services through our ports and across our borders.

- Popularity of the Amtrak Cascades and the international exposure received by the region during the 2010 Winter Olympic Games opened the door for new tourism opportunities.
- PNWER supports the permanent operation of the 2nd daily Amtrak train and calls on the government of Canada by Sept. 30, 2010, to permanently waive the inspection fee under the cost recovery pilot program of CBSA and continue to work with Amtrak, WSDOT, CBP, CBSA on the expansion of preclearance procedures at Pacific Central Station in Vancouver
- The Transportation working group will hold a session at the PNWER Winter Meeting to discuss opportunities for integration of transportation and energy infrastructure development in the Cascade Corridor (Vancouver, BC to Eugene, OR). The Oregon and Washington legislative Transportation committees will be invited to participate as well as British Columbia transportation leaders.
- The Transportation working group recommends the examination of the relationship between trade corridors and increasing exports. (The Van Horne Institute is undergoing research on this topic.)
- Additional Action items from the Economic Leadership Forum
- PNWER should support ongoing efforts for a preliminary engineering and financial study for high speed rail operation between Nisqually and Vancouver, WA including analysis of a third track
- The Transportation Working Group recommends that PNWER explore a University consortium joint research project to address how rail right of ways could be used for smart grid and telecom expansion.
- PNWER should write to US Secretary LaHood to call for release of already appropriated hi-speed rail funding and that funds under the program that have been returned should be considered to augment WA and OR’s submitted requests for funding.

Women in Natural Resources

- Make the Women in Natural Resources session an annual event during the PNWER Summit

Water Policy

The Water Policy Working Group is beginning a dialogue to address important regional water issues such as the renegotiation of the Columbia River Treaty.

- Recommends that PNWER pursue a national level keynote speaker to address PNWER delegates during a plenary session at the Portland Summit on important water issues impacting our regional economy and environment.
- Provide a forum to continue the dialogue on important regional issues around the Columbia river treaty with potential topics such as:
  - Environmental management,
  - water storage,
  - community and tribal issues,
  - critical infrastructure impacts,
  - scientific data on climate change
  - projections, snow pack, invasive species, etc.
  - other interests of the Pacific Northwest.

Workforce/Northern Development

The Workforce/Northern Development Working Group is identifying the 1) barriers to addressing labor shortages, 2) the key stakeholders, and 3) specific actions that can be implemented to alleviate these shortages. How can we train and retrain the skilled workforce that will be needed to fuel the growth of tomorrow? Where are the best practices of industry/government cooperation? How can we ensure greater professional mobility in terms of licensing requirements, as many projects cross multiple jurisdictions?

- Pursuant to PNWER’s 2006 resolution calling on all PNWER jurisdiction licensing bodies for engineers to adopt policies or present amendments to their respective legislative bodies to waive the requirement for satisfaction of prescriptive credentials in education and examination if the applicant meets specific criteria adopted by each jurisdiction. PNWER urges all US jurisdictions to adopt this in time for a major announcement during the PNWER 2011 Summit in Portland, Oregon.
<table>
<thead>
<tr>
<th>Overview</th>
<th>PNWER</th>
<th>Buffalo-Niagara</th>
<th>Quebec-New York</th>
<th>The Capital Corridor</th>
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</table>
| **Background on US-Canada Cross-Border Corridors** | The Pacific NorthWest Economic Region is a statutory, non-partisan, non-profit, bi-national, public/private partnership in North America advocating for state, provincial and territorial regional issues, utilising its regional influence with federal decision-makers in Ottawa and Washington. PNWER is a comprehensive political institution designed to promote economic development and trade abroad and within the border-spanning region. www.pnwer.org | The Binational Alliance is a non-profit, membership based organization with a mandate to eliminate barriers to collaborative cross-border relations between Canada and the US. The Niagara Bi-national Region Economic Roundtable was a unique public-private international economic alliance of business and municipal leaders formed in the wake of the NY-Ontario Economic Summit in June 2001 to study opportunities for growth, obstacles to vibrancy, and mechanisms for enhancing and sustaining economic vitality. Headed by the then CEOs of Dofasco and Rich Foods, it reported in 2003. | Quebec – New York Corridor Coalition has committed to the development of the full potential of the common economic region.  
- Private-sector driven  
- Biennial Summits Between Quebec Premier & NY Governor  
- Spearheaded by Plattsburgh-North Country Chamber which sees Plattsburgh as "Montreal's US Suburb" | The Capital Corridor is an integrated bi-national corridor initiative from Ottawa to Washington DC (500 miles) to  
- promote the Thousand Islands Bridge route  
- build cross-border business, economic & tourism collaboration, and  
- lobby on Canada-US border issues www.thecapitalcorridor.com |

Canada: B.C., Alberta, Yukon, Saskatchewan, and NWT | U.S.: Buffalo, New York  
Canada: Niagara Falls, Ontario | U.S.: New York  
Canada: Quebec | Ottawa to Washington DC  
HQ: Alexandra Bay, NY |

| Significance/Context | With over $US 1 trillion in gross regional product PNWER is one of the fastest growing regions of North America, and is a gateway for China and East Asia. In fact, if PNWER were a separate country, it would rank 13th in total GDP (2007). | Within a day's drive of over half the Canadian and US populations – over 150 million customers and a total of nearly $15 trillion (USD) in yearly personal income. Home to more than 3 million people, one of the most attractive tourism destinations, and one of the top number of annual crossings and volume of traded goods passing through it. | • 132 million people within one days shipping time representing over $US 1.7 trillion in personal income.  
• New York State is the primary international market for Quebec, which ships over $7.6 billion worth of goods yearly to the state – 14% of its total exports to the US  
• Canadian impact on Plattsburgh & Clinton County (NY) is $US 1.8 billion with 80,000 (15% of workforce) employed by 180+ Canadian affiliated companies | The Capital Corridor  
• Anchors two of the world’s power centers, Ottawa and Washington D.C.  
• Features regions of high tech as well as traditional manufacturing and service industries.  
• Posses efficient transportation networks  
• Contains the highly efficient Thousand Islands border crossing |
<table>
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<tr>
<th>Established</th>
<th>PNWER</th>
<th>Buffalo-Niagara</th>
<th>Quebec-New York</th>
<th>The Capital Corridor</th>
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<tr>
<td>Established in 1991 by parliamentarians and business groups.</td>
<td>The Binational Alliance started with informal collaboration centred on tourism in 2000. It has broadened its membership base and programming, changing its name in 2010 to the Bilateral Economic and Tourism Alliance, now shortened to the Bilateral Alliance. The Roundtable was established in June 2001 by an American and Canadian group of business and political leaders.</td>
<td>Established in 2001 with an agreement between the Federation of Quebec Chambers of Commerce and the Plattsburgh-North Country Chamber of Commerce and both state/provincial governments.</td>
<td>Launched in 2007 at initiative of Thousand Islands Bridge Corporation</td>
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</table>

**Key Stakeholders**

- Premiers, governors, legislators, counties, economic development commissions, industry associations and private sector members.
- The membership of the Bilateral Alliance includes the private-sector, academic institutions and the public sector.
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**Key Priorities**

- Agriculture; Arctic caucus; Cross-border livestock health; Border issues; Security & disaster resilience; Energy I (transmission); Energy II (renewable energy); Health care; Innovation; Invasive species; Sustainable Development; Trade and economic development; Transportation; Tourism; Water policy; Workforce development.
- Buffalo-Niagara Region’s infrastructure and border crossings; and the development of strong trade, tourism, investment and cultural relationships.
- Efficient US-Canada Border
- Improved road, rail and air transportation
- Cross-border business linkages
- Quebec-Albany Nano-Tech Agreement
- Clean Energy
- Tourism
- Sports
- Energy
- Leverage the strengths of the stakeholders; foster public/private partnerships; heighten awareness, support the flow of information, goods and people; facilitate a positive and timely exchange of information among stakeholders along the corridor; identify common goals and interests.
# Background on US-Canada Cross-Border Corridors (Continued)

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>PNWER</th>
<th>Buffalo-Niagara</th>
<th>Quebec-New York</th>
<th>The Capital Corridor</th>
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<tr>
<td>- Enhanced drivers licence is used as personal identification for border crossings at major crossing areas at the US–Canada border (in response to the Western Hemisphere Travel Initiative which would diminish business and relationships across borders).</td>
<td>- Comprehensive assessment of the Niagara border crossing addressing changes that have taken place at the border over the past 10 years.</td>
<td>- Successfully pushed for optimized flow at the Champlain border crossing as a Port of Excellence, reducing wait time for Amtrak passengers.</td>
<td>- Annual conferences spotlighting cross-border collaboration in areas such as R&amp;D (alternative energy), and between military bases.</td>
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<tr>
<td>- 2010 Olympic Regional Coordination council to develop coordination of efforts between PNW states/provinces, and relevant organizations to develop and execute a regional business plan for the 2010 Olympics and other relevant tourism initiatives.</td>
<td>- The Binational Alliance organizes an annual Summit.</td>
<td>- Lobbying for US High Speed Rail Funding and shorter border wait time for Amtrak passengers.</td>
<td>- Extensive lobbying on Canada-US border issues especially in Washington DC.</td>
<td></td>
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<tr>
<td>- Bi-national Energy Planning Council was funded by the US Department of Energy providing $US 325,000 in 2005. Led by PNWER Legislative Energy Chair Task Force, the group worked regionally to develop solutions to future energy demand and transmission congestion.</td>
<td>- BTA funding comes from a variety of sources: annual memberships, sponsorships of programs and annual initiatives, government project funding, foundation and co-op partners, and revenues generated through services provided to members. Ratio is approximately 25% private and 75% government and foundation funding.</td>
<td>Stated weakness of the Corridor is a lack of basic funding support.</td>
<td>- Notable Canadian investments in Plattsburgh-North Country, such as Bombardier Subway Car Assembly, drive by US procurement preferences.</td>
<td></td>
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<tr>
<td>- &quot;Red Carpet Team&quot; in Plattsburgh to introduce Quebec firms to US market and provide advice and partnering</td>
<td></td>
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## Financial support

| Financial support | Derived from dues from member states, federal and state/provincial grants ($35,000 per year; territories pay $7,000; with the exception of Montana who pays $21,000 per year) and contracts and private sector contributions (vary by company and amount). As of September 30, 2010 PNWER’s total income was $1,428,363 and total expenses $1,472,173. | BTA funding comes from a variety of sources: annual memberships, sponsorships of programs and annual initiatives, government project funding, foundation and co-op partners, and revenues generated through services provided to members. Ratio is approximately 25% private and 75% government and foundation funding. | Stated weakness of the Corridor is a lack of basic funding support. | Funded by the founders of the initiative: The Thousand Islands Bridge Authority and the Federal Bridge Corporation, Ltd. Both committed to providing $200,000 ($100,000 in each of its first two years) in start-up capital. |
APPENDIX D

Appendix D.1

Understanding Canadian Immigration Policies and Programs -- An Overview for Business

Both Canada and the US are immigrant countries whose economic success, prosperity, spirit of entrepreneurship and high standards of living are attributable to the drive that new immigrants impart.

Absent new immigration, both countries face near-term demographic constraints in terms of workforce growth. The newcomers will soon contribute virtually all of the growth in the labor force in both Canada and the US. The challenge of attracting needed skills comes at a time of growing international competition for talent. Many emerging economies that have traditionally been sources that the US and Canada have tapped are enjoying rapid growth and improved economic prospects that make emigration less attractive to their nationals. People in these countries that are young, highly skilled, well-educated and prepared to consider emigrating have many options. The US and Canada need to respond nimbly and aggressively or risk being left behind in the war for the best and brightest.

Differences

Similar as the US and Canadian models may seem, there are underlying differences which significantly influence the respective immigration regimes -- and the resulting opportunities and game plans for business.

1. "Melting Pot" versus "Multiculturalism": The US has been characterized as a melting pot, whereas Canada has accepted, even embraced multiculturalism. The US has long been a beacon of freedom, enterprise, opportunity and strength that invites newcomers to aspire to become Americans. In Canada on the other hand, diversity has been a social and political goal espoused and promoted by successive Canadian governments because of widespread popular support for the concept. Hyphenated Canadianism is the norm.

2. Differing Forms of Government: The US system of government tends to give Congress a more direct role in the fashioning of immigration policies and legislation than Canada's Cabinet system accords parliamentarians. Congress and the US public have a more apparent opportunity for input. The end result in the US is generally more prescriptive legislation that spells out requirements in more detail. Canada's system provides the Cabinet with the lead role in presenting legislation, backed by a high degree of party discipline. Typically, Canadian legislation focuses somewhat more on establishing a framework and broader principles, leaving more of the detail to responsible Cabinet Ministers and the officials who serve them. This provides a degree of latitude and discretion to officials that can sometime allow policy flexibility and adjustments in the face of changing circumstances. By way of example, the US immigration system invokes quotas, whereas Canada's officials set annual administrative targets for planning purposes.

3. Political Complexities of Illegal Immigration in the US: The common US border with Mexico and its coastal adjacency to Cuba and the Caribbean have exposed the US to extensive and pervasive illegal immigration that has complicated US immigration policy formulation. The
resolution of the legacy of illegal immigration presents tensions that bedevil the development of grand political bargains for immigration reform, while also inviting an enforcement bias that has spread to numerous state legislatures in the past two years. Canada's geographic position has spared it from having as significant a presence of illegals, though the present Canadian government has recently introduced steps to protect the present system against abuse.

4. Economic Immigration Versus Family Reunification and Refugees: Since 1993, Canada's system has been more consciously geared toward attracting economic immigrants for permanent settlement than has been the case in the US. Until very recently, Canada's approach was based principally on a longer term view that sought new immigrants judged to be well suited to making an economic contribution, based on a point scale covering work experience, education, age, adaptability, and fluency in the official languages. The existence of a prior job offer was not central to the process.

Send Us Your Educated Masses
Percent of Permanent Resident Visas Granted on the Basis of Skills & Employment

- 15% in the U.S.
- 45% in the U.K.
- 67% in Canada
- 68% in Australia

From Bloomberg Businessweek, May 23-29, 2011
Sources: Migration Policy Institute; UK, Australian and Canadian Immigration Agencies; US Census

5. In Canada, Immigration is a Shared Federal-Provincial Responsibility: In the Constitution Act, 1867, immigration is a jurisdiction that is shared between the federal and provincial governments. The Federal government can legislate with respect to aliens, unemployment insurance and criminal law, while provinces have responsibility for civil rights, including employment, health care, education and housing. Quebec has long played a prominent front-line role in immigration selection. Other provinces have become involved mostly over the last ten years, with the role growing markedly in the last five.

Immigration Intake in Canada and the US

In 2009, 36.7 million people or 12 percent of the US population were foreign-born, while the 2006 Canadian census showed that 6.2 million people residing in Canada were born outside of Canada, representing nearly 20 percent of the population. Among the major immigrant-receiving countries, Canada and the United States rank second and third after Australia in terms of the proportion of the their populations represented by people born outside the country.
Canada has an annual intake of new permanent residents that is proportionally well in excess of double the US rate. Canada welcomed 280,681 Permanent Residents in 2010, the largest number in 50 years. The number of legal permanent residents arriving in the US during the same year was 1,042,625.  

**Recent Policy Developments and the Current Policy Environment**

US immigration policy appears all but gridlocked in the wake of the failed attempt in 2007 to fashion a compromise through the Comprehensive Immigration Reform Bill.

In both the US and Canada, trends appear to emphasize enforcement that will ensure security and greater overall compliance.

Canadian immigration policies are now going through a considerable evolution -- the full implications of which remain to be fully defined.

The current Canadian Conservative Government has sought, since taking office in 2006, to rectify a number of challenges in Canada's immigration system:

1. The main program catering to long-term economic immigration intake, the Foreign Skilled Worker Program (FSWP), developed a huge processing backlog over many years -- approaching 900,000 applicants -- which judicial decisions limited the government's discretion in dealing with.

2. The use of Temporary Work Permits was significantly expanded recently to address shortages of workers, including unskilled workers, especially in the boom period prior to the 2008-2009 global economic decline.

3. Over the last decade arrivals as Permanent Residents, selected under the points system used in the Foreign Skilled Worker Program (FSWP), were on average finding it more difficult than their predecessors to obtain work commensurate with their qualifications, while the gap in earnings between immigrants and comparably educated Canadians was widening.

A key break with the past was the passage in 2008 of revisions to the Federal Immigration and Refugee Protection Act. The new Act delegates substantial additional powers to the Minister of Citizenship and Immigration to reduce backlogs and speed up processing of applications. Subsequent actions by the government have included:

- restricting new applications to the Foreign Skilled Worker Program (FSWP), the principal program for skills-evaluated economic immigrants, to a finite number within a short list of about 30 occupations decreed by the Minister;
- introducing a new Canadian Experience Class (CEC) program that makes it easier for highly skilled temporary foreign workers and foreign post-secondary students already in Canada to apply for expedited Permanent Residence status;
- expanding Provincial Nominee Programs (PNP), under which the provinces can nominate individuals for priority processing for Permanent Residence based on their own assessment of needs, subject only to Federal clearances on health, criminality and security grounds;
- increasing scrutiny to ensure genuine job offers and fair wages under the Temporary Foreign Worker Program;

"About a quarter of a million immigrants landed in Canada (in 2011). Undoubtedly many struggled to get a footing in their new country. Nonetheless, Canada remains the only Western country where large-scale immigration remains perceived by the general population as a public good.

"In most other Western countries, from the U.S. to Sweden, from Spain to Germany, immigration is contentious, divisive and, in some places (the Netherlands, Sweden, Denmark, France and Finland, among others), has given rise to anti-ethnic political movements. In Canada, by contrast, no party opposes immigration; in fact, they fight to be perceived as the most pro-immigration."

Jeffrey Simpson, Columnist
Globe and Mail, "Year In Review"
December 24, 2011
• ending the Facilitated Information Technology Worker program introduced in 1996 which exempted seven IT-related occupations from labor market tests, except in British Columbia and Quebec; and

• issuing an advisory that heightens scrutiny of the "specialized knowledge" category for intra-company transfers.

### Immigrant Arrivals in Canada under Provincial Nominee Programs & to Quebec As a Share of Arrivals of All Economic Immigrants

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Economic Immigrants</th>
<th>PNP Landings</th>
<th>PNP Landings as % of Economic Immigrants</th>
<th>Quebec Landings</th>
<th>PNP &amp; Que Landings as % of Economic Immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>121,055</td>
<td>4,418</td>
<td>3.6%</td>
<td>*</td>
<td>--</td>
</tr>
<tr>
<td>2004</td>
<td>133,746</td>
<td>6,248</td>
<td>4.7%</td>
<td>*</td>
<td>--</td>
</tr>
<tr>
<td>2005</td>
<td>156,310</td>
<td>8,047</td>
<td>5.1%</td>
<td>*</td>
<td>--</td>
</tr>
<tr>
<td>2006</td>
<td>138,257</td>
<td>13,336</td>
<td>9.6%</td>
<td>*</td>
<td>--</td>
</tr>
<tr>
<td>2007</td>
<td>131,248</td>
<td>17,095</td>
<td>13.2%</td>
<td>*</td>
<td>--</td>
</tr>
<tr>
<td>2008</td>
<td>149,072</td>
<td>22,418</td>
<td>15.0%</td>
<td>26,772</td>
<td>33.0%</td>
</tr>
<tr>
<td>2009</td>
<td>153,498</td>
<td>30,378</td>
<td>19.8%</td>
<td>33,027</td>
<td>41.3%</td>
</tr>
<tr>
<td>2010</td>
<td>186,913</td>
<td>36,428</td>
<td>19.5%</td>
<td>36,729</td>
<td>39.1%</td>
</tr>
</tbody>
</table>

* Prior to 2008 records were not broken out for Quebec in Citizenship and Immigration Canada (CIC) Annual Plans
** High Admission Range


The "Beyond the Border" Action Plan

A recent important milestone in Canada-US border relations was the announcement on December 7, 2011, by President Obama and Prime Minister Harper of the comprehensive "Beyond the Border" Action Plan. The fundamental concept behind the Action Plan is to enhance bilateral collaboration, especially at the perimeter of the two countries, in order to reduce the need for scrutiny at the shared Canada-US border. This has major implications for the handling of goods, including pre-clearance arrangements, which are dealt with elsewhere in the report.

In terms of the movement of people including for business, the main elements are:

• agreement to implement full exit-entry tracking at the Canada-US border, avoiding duplication by recognizing one country's entry data as exit data for the other;

• enhance facilities and benefits to speed passage by members of trusted traveller programs, such as NEXUS;

• implementation by Canada over the next four years of an Electronic Travel Authorization (eTA) mirroring the USA ESTA program to provide advance screening of all non-US visa-exempt foreign nationals;

• provision by the respective border service agencies, mainly in the first half of 2012, of enhanced administrative guidance, policies, redress and training on business traveller issues, including adjudication of employment and related petitions and issues around maintenance and repair of industrial machinery;

• initiation of stakeholder consultations, by March 31, 2012, by the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration with the objective of identifying and assessing ways to facilitate and improve cross-border and bi-national processes.

The "Beyond the Border" Action Plan also addresses investment in border infrastructure, additional sharing of information, and harmonization of systems.
The "Beyond the Border" Action Plan comes at a time when business has been increasingly critical over hassles and uncertainty associated with business-related movement both ways between the two countries. Of particular concern recently, for example, have been the obstacles raised by the Canada Border Services Agency (CBSA) related to installation, servicing and maintenance of equipment by technical staff of US equipment providers. The "Beyond the Border" provisions in the section, "Facilitating the conduct of cross-border business," seek to respond to this criticism by committing US Customs and Border Protection (CBP) and the Canada Border Services Agency (CBSA) to review current administrative processes and provide enhance administrative guidance, policies, redress and training, for the most part prior to June 30, 2012. As well, the US Secretary of Homeland Security and the Canadian Minister of Citizenship and Immigration are also to jointly initiate stakeholder consultations by the end of March 2012.

These actions will be critical in defining the way forward. They will indicate whether there is a preparedness to show flexibility and be facilitative, or whether the underlying objective is to ensure that rules are defined and strictly adhered to. The response from the Canadian and US official will determine whether these steps will do anything to facilitate the movement of people with legitimate business interests, beyond simply expounding existing policies. The result may be fuller explanation of requirements with still greater bureaucratic processes imposed to satisfy them. On the other hand, officials from the two sides may respond in ways that show they have heeded the pleas for flexibility, predictability, and reasonableness. Full implementation of the shared entry-exit system also risks slowing border crossing without full investment in systems and infrastructure. The concern is that the overall tone is one of enforcement and compliance, rather than discretion and judicious application of judgment.

Availability of Canadian Visas for Windsor-Essex Affiliates of Businesses Based in Metro Detroit

Initial Entry for Work in Canada

What are the principal avenues for a Metro Detroit based operation -- finding it difficult to get all the talent it needs on the US side, or wanting to have a presence in Windsor-Essex -- to access Canadian visas for highly skilled foreign workers for a sister operation in Windsor-Essex?

1. **Intra-Company Transfer**: The most accessible and frequently used visas are for intra-company transfer. Canada and the US have similar -- though not identical -- approaches. These cover management plus positions which require "specialized knowledge". These visas are not subject to any quota or ceiling and do not require a Labor Market Opinion (LMO) (establish the unavailability of qualified Canadians or Permanent Residents for the job). However to show the proposed incumbents are qualified, they must have spent a total of one year sometime in the previous three years occupying a similar position with a corporately-related foreign entity. A relatively generous maximum length of stay in Canada is normally permitted (7 years for managers and 5 years for those with specialized knowledge). In the wake of the termination of the Facilitated IT Worker program in September 2010, the Canadian government has issued new guidance on "specialized knowledge" to ensure that it does not become an alternative avenue for justifying visas.

2. **Temporary Work Permits**: Labor Market Opinions (LMOs) to support the issuance of Temporary Work Permits can be applied for by a company with a Canadian presence (or a commitment to establish one) where it can show that no suitably skilled or qualified Canadian or Permanent Resident is available to fill a position, thereby justifying the issuance of a Labor Market Opinion (LMO) by Human Resources and Skills Development Canada/Service Canada.
Standard processing times for an LMO should be about 8 to 10 weeks, but has recently been slowing and becoming less predictable.

Companies in Windsor-Essex do not appear to be obtaining LMOs in a timely way. We were not made aware of a pattern of consistent and timely approvals for LMOs for Temporary Work Permits recently in Windsor-Essex. By way of example, the availability of highly skilled and specialized talent in the tool, die and mold sector is said to be very tight, but there appears to be only one instance where LMOs have been granted and only after a lengthy period (9 to 12 months), delays many companies in the sector find is not aligned with the need to staff positions immediately when a contract is obtained.

Up until September 30, 2010, it should be noted, the Facilitated Information Technology Worker program exempted seven IT-related occupations from a requirement for LMOs. The program was ended, except for BC and Quebec where the provincial governments have asked that the exemption be maintained.

**NAFTA and some of Canada's other recent Free Trade Agreements** provide for the prompt issuance of Temporary Work Permits without the necessity of an LMO in specified occupation for nationals of the FTA signatory countries. The Chile FTA is very similar to NAFTA in its broader scope. FTAs with Panama, Columbia and Peru have a much more limited list of occupations.

3. **Ontario Provincial Nominee Program**: Ontario's Provincial Nominee Program is the most recent of an expanded suite of provincial programs.

Ontario was authorized by the Federal government to nominate 1,000 individuals in 2011, a level which it said it would meet by year-end. A similar number has been indicated for 2012. This Ontario Level is significantly lower than each of the Western provinces and less than the combined total for the four Atlantic provinces. In 2011, Manitoba's and Alberta's levels were 5,000 each, with Saskatchewan at 4,000 and BC at 3,500.

The Ontario PNP is employer driven. To qualify, firms must have been in business in Canada for at least three years or, in the case of new firms, be making an investment of at least $Cdn 3 million. These restriction would seem to limit the applicability of the Ontario PNP for a Metro Detroit-based company. If a company is already active in Canada, there is likely to be less need for or interest in an additional location in Windsor-Essex. For a new business, the investment threshold is high if it is a service business and/or will be leasing premises.

The established employers must have:
- a minimum of $Cdn 1 million in Canadian gross revenue for the most recent fiscal year if located in the GTA, or $Cdn 500,000 if outside the GTA; and
- a minimum of five permanent full-time employees if offices are in the GTA, or three if outside the GTA.
For new investors, in addition to the $Cdn 3 million threshold, the new venture must create at least five net new jobs in Ontario for Canadians or Permanent Residents.

Once the company qualifies, it can apply for approval of immigration for foreign nationals as Permanent Residents on the following basis:

- applications can be made for one visa position for every 5 full-time employees (Canadians or Permanent Residents already in Canada), if in the GTA, or one for 3 outside the GTA;\(^{\text{V}}\);
- the maximum number of positions that the Ontario Ministry of Citizenship and Immigration (MCI) will normally approve is 20, with case-by-case review beyond 20, and no limit for the "health and education sectors";\(^{\text{VI}}\);
- the positions must be permanent and full-time and be in occupational categories at the 0, A or B level in the National Occupation Classification (NOC) (i.e. managerial, professional or skilled occupation); and
- the positions must pay prevailing wage levels, except for international students who can be paid entry-level wages.

Once approved, the employers can recruit

- individuals from outside Canada, or temporary foreign workers or visitors already legally in Canada, who have two years relevant full-time work experience during the past five years; or
- international students who have graduated from a full-time program in the previous two years, having completed at least half of their studies at a publicly-funded Canadian college or university.\(^{\text{VII}}\) Students from one-year post-graduate degree and certificate programs are also eligible.

There is no "point system" or requirement for a Labor Market Opinion (LMO) but the literature on the PNP says it "is designed in part to assist employers who are having difficulty recruiting qualified, skilled workers in Ontario.\(^{\text{VIII}}\) As well, it notes "priority processing will be given to employers who tried to recruit Ontarians before applying to the program."\(^{\text{IX}}\)

The Ontario Government has two processing targets, each within 90 days, for

- Employer application package; and
- Nominee application packages.

Provincial nominees get high priority processing by Citizenship and Immigration Canada (CIC). Though the time frame depends on the situation at an Embassy or Consulate outside Canada this is typically in the range of 12 months. Once successful Ontario provincial nominees have applied to the Federal Government for Permanent Residence, the Ontario government supports requests for temporary work permits to get them working in Ontario quickly.

**Foreign Students in Canada and Ontario**

Companies have abundant opportunities to establish productive relationships with foreign students studying at and graduating from Canadian universities and colleges.

**Canadian immigration programs** proactively facilitate work opportunities for foreign students graduating from all Canadian universities and colleges. The visas are applied for by students, not companies. An initial Temporary Work Permit will be valid for three years and has no restriction as to the type of work or employer. Entry-level wages may be paid, rather than the more frequently applied benchmark that compensation be at average levels for the occupation in the geographic area.
The **Ontario Provincial Nominee Program** has even more favourable conditions for graduating students. International Masters and PhD students graduating from a publicly-funded Ontario university can apply to the Ontario government to be nominated for Permanent Residence status without a job offer. The condition for an international Masters graduate are more extensive than for a PhD counterpart, including for example language proficiency testing and minimum savings/income levels. Applicants will be given a work permit facilitation letter by the provincial government if they have a written job offer, or, otherwise, on a case-by-case basis only.

**Ability to Transition from Temporary to Permanent Residence Status and Then to Canadian Citizenship**

Current Canadian immigration policies are based on the premise that after a period (generally within two years) foreign workers and students who are in Canada have likely had the opportunity to demonstrate whether they have the work experience and/or education to justify granting Permanent Residency. The process will be greatly facilitated by an offer of full-time indeterminate employment.

**Canadian Experience Class (CEC):** The main program that will expedite Permanent Residency is the Canadian Experience Class (CEC) program which provides that:

- A holder of a Temporary Work Permit legally working in Canada in a management, professional or skilled occupation (NOC 0, A or B) (including those on intra-company transfers) can apply for Permanent Residency after two years and be accorded high priority processing (currently about 12-14 months).
- A foreign graduate from a Canadian university or college who has completed at least a two year program can apply for Permanent Residency after one year in a management, professional or skilled occupation (NOC 0, A or B).

The points system used for the Foreign Skilled Worker Program does not come into play. There are no quotas or limitations. Indeed, the Canadian government has publicly signalled that it wishes to see significantly more qualified people apply.

**Foreign Skilled Worker Program:** Instead of applying to the CEC program, a person temporarily working in Canada can also apply for Permanent Residence under the Foreign Skilled Worker Program provided that they have a full-time indeterminate job offer. While the application could be made immediately after arrival in Canada to take a temporary position, processing under the Foreign Skilled Worker Program is currently more lengthy (about 24-30 months) and would require the applicant to obtain the minimum number of points on the points scale.

The **Ontario Provincial Nominee Program** could provide a faster route to Permanent Residency for students with a job offer who have graduated from Ontario public universities or colleges. Also, if a worker's company is approved for the Ontario PNP that may be an alternative avenue to access Permanent Residency.

**Obtaining Canadian Citizenship:** The route to Canadian citizenship is relatively prompt. Once individuals have achieved Permanent Residency status in Canada they can generally apply for Canadian citizenship when they have three years physical presence in Canada as a Permanent Resident in the previous four years. In the US, most adult legal permanent residents are eligible to apply for US Citizenship after five years of lawful permanent residency in the US (or three years for spouses of US citizens) and successful completion of required English, civics and history tests.
Canada has markedly higher citizenship rate (the proportion of immigrants who are citizens) than the United States. The rate in Canada was 79 percent in 2006, compared to 46 percent in the United States. cxi

Ease of Intra-Company Movement Across the US-Canada Border

The most problematic aspect of the cross-border bi-national business model is likely to be the constraints encountered at the border on the ease of frequent travel of employees between the two sister operations and for meetings with clients.

Movement across the Canada-US border by third-country nationals (i.e. individuals who do not hold Canadian or American citizenship) can require visas or advance electronic registration.

- The US requires an advance electronic security clearance for short-term business or pleasure visits by individuals from visa-waiver countries (see Appendix XX) under its ESTA program (Electronic System for Travel Authorization). (The Canada-US "Beyond the Border" Action Plan commits Canada to implement an Electronic Travel Authorization [eTA] over the next four years mirroring the USA ESTA to improve screening of all visa-exempt foreign nationals.)
- Third-country nationals who are not visa-exempt must have a visa for short-term business visits to the other country for situations such as business meetings, client interface or order-taking for foreign goods, or for training. If issued, these visas are usually multiple entry. The US or Canadian officials authorizing these visas seek to satisfy themselves that the applicant has a sufficiently significant attachment to the country of residence that they will not choose to stay on. Doubts are relatively easily raised when an individual has only recently arrive in his/her new country of residence, does not own property and may not yet have family and community involvement.

As indicated below, there are limitations on the nature of the business that can be conducted during cross-border business visits. Canadian and US border officials are inherently suspicious that these boundaries may be exceeded and that a business visitor may cross the line. The frequency of travel, however legitimate it may be, may heighten the doubt about intent. The counter to this is to ensure a disciplined and compliant approach, including having employees be well informed and in possession of supporting documentation.
The following business activities are permitted in Canada by short-term visitors from visa exempt countries and from other countries by holders of a temporary residence visa (i.e. visitor's visa):

- Attend meetings, conference, conventions or trade fairs
- Engage in discussions
- Undertake sales calls, including taking orders for foreign-made products or services
- Provide after-sales service (as contracted for at the time of sale of foreign products)
- Undertake training (in-house or by a supplier of foreign products or services that have been purchased)

A Canadian Temporary Work Permit is required however for:

- Hands-on production or servicing of goods and services
- Engaging in management or supervisory activities

Entry to the US may be granted on a short-term temporary basis to business people from Canada, visa-waiver countries registered via ESTA, and holders of a US Business Visa (B-1) for:

- Attendance at conferences, meetings, trade shows or business events
- Order-taking & negotiating contracts for non-US goods or services
- Exposition and trade show employees of foreign exhibitors at international fairs
- Installing, servicing or repairing foreign-made commercial or industrial equipment or machinery sold by non-US company to a US buyer as specifically required in purchase contract (not including construction work, except supervision or training of US workers to perform construction)
- Independent research
- Lecturing or speaking (with restrictions as to expenses and honorarium)
- Surveying potential sites for business
- Training (not designed primarily to provide employment, with payment limited to expenses related to traveler's stay)

Visas are frequently multiple-entry.

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.

Canada-US trusted traveller programs -- such as NEXUS -- which offer the promise of speedier processing are open only to US and Canadian citizens and properly documented Permanent Residents, provided in both cases that they have been permanent residents of Canada and/or the US continuously for the previous 3 years.
### Appendix D.2

**Selected Canadian Immigration Categories and Programs of Potential Interest to Business**

**Summary Quick Reference Chart**

<table>
<thead>
<tr>
<th>Category or Program</th>
<th>Description</th>
<th>Estimated Processing Times</th>
<th>Attractive Features</th>
<th>Potentially Problematic Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-Company Transfer Work Permits</td>
<td>- Facilitates the intra-company movement of uniquely qualified individuals to staff certain positions in Canadian offices, specifically o Management (Work Permits for up to 7 years); and o Employees with &quot;specialized knowledge&quot; (Work Permits for up to 5 years) o A Labor Market Opinion (LMO) is not required. o Application is direct to CIC (Citizenship &amp; Immigration Canada), CBSA (Canadian Border Services Agency) (at Border), or Canadian Embassy or Consulate</td>
<td></td>
<td>- No quotas</td>
<td>- Individuals must have spent a total of one year in previous three years occupying similar position (designed to attest to fact that person has demonstrated qualifications with a corporately-related foreign entity)</td>
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<td>- No requirement for Labor Market Opinion (LMO)</td>
<td>- Must fill a position within the Canadian entity</td>
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<td>- Relatively generous potential length of stay (7 and 5 years maximum)</td>
<td>- Must report to management of the Canadian entity</td>
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<td>- A foreign national with managerial responsibilities could concurrently hold work permits for both Canada &amp; the US (allowing him/her to oversee both Detroit &amp; Windsor offices)</td>
<td>- The Canadian Government has tightened guidance on approval of &quot;specialized knowledge&quot; in the wake of the termination of the Facilitate IT Worker program</td>
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<td>- Application for permanent residence in Canada accompanied by a full-time indeterminate job could likely be processed within the 5 &amp; 7 year terms of Work Permits</td>
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<td>- Holder of US H-1B visa could be a candidate for a Canadian Intra-Company Transfer work permit as manager or employee with &quot;specialized knowledge&quot; after one year with a corporately-related entity in US (allowing him/her to meet qualification of occupying similar position for one year in the last three)</td>
<td></td>
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<tr>
<td>Category or Program</td>
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</table>
| Temporary Work Permits | • Applications supported by a company with a presence in Canada  
• Commonly issued for the full 3 year maximum  
• Requires prior Labor Market Opinion (LMO) to be applied for by the company/employer (i.e. no skilled/qualified Canadian or permanent resident available to fill the position)  
• For renewal after 3 years, new Labor Market Opinion (LMO) required (No explicit limit on renewals for management and professional [NOC O & A] but 4 year total maximum for skilled workers [NOC B])  
• Pay must be at average level of compensation in geographic area for the occupation | • LMO processing time currently 8 to 10 weeks but can fluctuate | • Designed to respond to unavailability of highly skilled workers  
• Application can be made at any time  
• Generally no explicit caps or quotas  
• Work Permits usually valid for maximum 3 years  
• No limit on how many times renewal can occur for positions in the management and professional (NOC O & A) occupations, though a new LMO must be obtained each time  
• During the 3 year validity of a Work Permit, an application for permanent residence in Canada accompanied by a full-time indeterminate job offer could likely be processed | • Recent tendency to greater scrutiny by Canadian officials  
• Company applying must be committed to Windsor (or Canadian) presence independently of any access to Temporary Work Permits  
• Must pay average going wage for occupational category in the area  
• LMOs are processed in Toronto -- not Windsor -- opening question of extent to which local knowledge comes into play  
• Need to undertake full LMO process again to renew  
• Care must be taken to word offer to employee to provide for performance increases, otherwise notable increase in pay may invite Canadian officials to request new LMO on premise that higher salary might attract more qualified Canadians |
| Temporary Work Permit - Canadian Free Trade Agreements with Labor Mobility Provisions | • Principal free trade & economic agreements having special (but varied) provisions for labor mobility are NAFTA (US & Mexico), Chile, Panama, Peru and Columbia.  
• For the professions and occupations listed, no Labor Market Opinion (LMO) is required  
• Valid for up to 3 years, but renewable so long as stay is temporary | • Readily granted at the border for non-visa countries and at Canadian Embassies where visas are required (i.e. Mexico, Chile, Panama, Peru and Columbia) | • Some sample occupations in NAFTA (subject to educational or professional qualifications) are:  
  ○ Accountants  
  ○ Architects  
  ○ Computer Systems Analysts  
  ○ Engineers  
  ○ Management Consultants  
  ○ Mathematicians (including Statisticians)  
  ○ Scientific Technologists/Technicians | • Occupational coverage is limited except for NAFTA and the FTA with Chile. |
<table>
<thead>
<tr>
<th>Category or Program</th>
<th>Description</th>
<th>Estimated Processing Times</th>
<th>Attractive Features</th>
<th>Potentially Problematic Aspects</th>
</tr>
</thead>
</table>
| Temporary Work Permit - Post Graduation Work Permit | • Available to foreign students who graduate from a Canadian post-secondary educational institution  
• Generally valid for up to 3 years with no restrictions on type of work or employer  
• If application has been made or there is an intent to apply for permanent (landed) immigration status, the Post Graduate Work Permit can be extended with a relaxed Labor Market Opinion (LMO) and an exemption from LMO advertising | • No restrictions on what type of employment, employer or location under a Post Graduation Work Permit | • After 1 year’s full-time (or equivalent) work experience in managerial, professional or skilled occupations (NOC 0, A or B), work permit holder can apply for permanent residence in Canada under Canadian Experience Class  
• Entry-level wages may be paid |  |

- Entry-level wages may be paid
<table>
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<th>Attractive Features</th>
<th>Potentially Problematic Aspects</th>
</tr>
</thead>
</table>
| Foreign Skilled Worker | • Traditionally, the principal national level Canadian immigration program for those seeking permanent (landed) immigration status for themselves & their direct family members (US Green Card equivalent)  
  • Requires a personal application, and must involve a person:  
  o with an offer of a validated job offer (Arranged Employment Opinion); or  
  o with a Temporary Work Permit with an offer of full-time indeterminate employment; or  
  o applying in an occupation on the Ministerial list of occupations (without a job offer)  
  • Applicants must get minimum number of total points (currently 67 out of 100) based on categories such as fluency in English and French (24), education (25), work experience (21), age (10), adaptability (10) & arranged employment (10)  
  • Canadian Government currently restricts general applications to 10,000 in current 12 month period, with maximum of 500 in each of a stated list of occupations. The restrictions were adopted because of large backlog of applications. In addition applications are accepted from people  
  o with validated job offers (Arranged Employment Opinion); and  
  o already in Canada on Temporary Work Permits | • About 14 (high priority) to 30 months (low priority) currently, depending on priority accorded to category | • Program expresses Canada’s continued desire to ensure inflow of well qualified talent  
  • Validated job offers currently ensure application will be considered (in addition to occupations on the list), though those with job offers are not given special priority in processing (i.e. currently about 24 - 30 months processing time)  
  • Presence in Canada on a Temporary Work Permit with an offer of full-time indeterminate employment also qualifies application for consideration, though again currently without special priority | • The relative importance of the Foreign Skilled Worker category as a window for immigration has declined, while the intake under the Temporary Worker and Provincial Nominee Programs has grown more proportionally  
  • Priorities for processing can change and do not always seem rational  
  • From employer’s point of view, once a person has permanent (landed) immigration status, the employee is a free agent able to work anywhere in Canada for any employer |
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</tr>
</thead>
</table>
| Canadian Experience Class - Temporary Work Permit Holder | • Holder of a Temporary Work Permit can apply for permanent (landed) immigration to Canada after 2 years of full-time (or equivalent) skilled work on a Work Permit in Canada in managerial, professional or skilled occupations (NOC 0, A and B)                                                                                       | • About 12-14 months currently                                                                 | • More expedited processing than the Foreign Skilled Worker Program  
• Unlike the Foreign Skilled Worker Program, the CEC is not based on the points systems, but rather looks at the work experience or what type of education the applicant already has  
• From employer’s point of view, once a person has permanent (landed) immigration status they are free to work anywhere in Canada for any employer                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                        |
| Canadian Experience Class - Foreign Students | • A foreign graduate from a Canadian university or college (at least a 2 year program) can apply after 1 year of post-graduation full-time (or equivalent) skilled work experience in managerial, professional & skilled occupations (NOC 0, A & B), gained as a holder of a Post-Graduate Work Permit                                                                                       | • About 12-14 months currently                                                                 | • Unlike the Foreign Skilled Worker Program, the CEC is not based on the points systems, but rather looks at the work experience or what type of education the applicant already has  
• Visa provisions for students provide ample opportunity while they are studying and subsequently working under temporary work permits for companies to develop relationships with foreign students that can lead to permanent employment and permanent (landed) immigration status in Canada                                                                                      |                                                                                                                                                                                                                                                        |
<table>
<thead>
<tr>
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<th>Estimated Processing Times</th>
<th>Attractive Features</th>
<th>Potentially Problematic Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial Nominee Programs (PNP)</td>
<td>• The Federal Government has given provinces latitude to nominate immigrants of their choosing, whose entry is subject to Federal screening only on health, criminality &amp; security grounds. The provincial allocations have been growing notably. • Ontario was one of the last provinces &amp; territories to reach an agreement with the Federal Government (Nov 2005). Its program is expected to grow and evolve further, driven to a significant extent on providing economic benefit for the province. • Under the present Ontario program, qualified companies must register and then may submit applications for visas in the management, professional &amp; skilled occupations (NOC 0, A &amp; B). Outside the Greater Toronto Area (GTA), companies must have had a business presence for 3 years in Canada, minimum gross revenue of $500,000, 3 or more employees, or invest at least $3 million in a new business.</td>
<td>• About 12 months currently for processing by the Canadian Government as provincial nominees are accorded high priority • Ontario's processing targets for approval of employers and approval of nominee application forms are 90 days in each case • Current Ontario PNP guidelines envisage a maximum of 20 visas per company (no cap for health &amp; education sectors)</td>
<td>• Permitted ratios of visas to Ontario employees appear relatively generous (up to one visa for every 3 Ontario employees). The ratio for areas outside the Greater Toronto Area (GTA) -- like Windsor-Essex -- are more favorable (1:3 versus 1:5 in the GTA) • Individuals nominated for Permanent Residency will normally be recommended by the province for a temporary work permit pending processing of the Permanent Resident visa by the Federal authorities • PNP's are playing a more important role in immigration levels. The Ontario government may need to adapt &amp; expand its programs to ensure a needed flow of immigrant talent to Ontario. Possibly, there may be room for new programs or pilots that will contribute to economic growth in the province</td>
<td>• Companies that have not had a presence in Canada for 3 or more years, who do not have at least $500,000 gross revenue, or whose new investment in Ontario is less than $3 million may not qualify • Employees who will benefit from visas must have two years experience at that level over the past 3 years • Ontario will fully utilize its 2011 allocation of 1,000 nominations. The Federal government has indicated a similar level for 2012, suggesting that any further growth may require establishment by Ontario of some priorities</td>
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</tbody>
</table>

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.
Appendix D.3

Background on
Ontario Provincial Nominee Program - "Opportunities Ontario"
Ontario Ministry of Citizenship and Immigration (MCI)

The Ontario Provincial Nominee Program is managed by the Ministry of Citizenship and Immigration (MCI) and called "Opportunities Ontario" (http://www.ontarioimmigration.ca/en/pnp/index.htm). The program enables Ontario to nominate people for Permanent Residence status and have the application fast-tracked by Citizenship and Immigration Canada (CIC), subject only to CIC clearance against health, security and criminality criteria.

"An Employer-Driven Program"

The Employers category covers firms that have been in business in Canada (not just in Ontario) for at least three years. To qualify, these employers must also have
- a minimum of $1 million in Canadian gross revenue for the most recent fiscal year if located in the GTA, or $500,000 if outside the GTA; and
- a minimum of five permanent full-time employees if offices are in the GTA, or three if outside the GTA.

Once the company qualifies, it can apply for approval of immigration for foreign nationals as Permanent Residents on the following basis:
- applications can be made for one visa position for every 5 full-time employees (Canadians or Permanent Residents already in Canada), if in the GTA, or one for every 3 outside the GTA;
- the maximum number of positions that MCI will normally approve is 20, with case-by-case review beyond 20, and no limit for the "health and education sectors";
- the positions must be permanent and full-time and be in occupation categories at the O, A or B level in the National Occupation Classification (NOC) (i.e. managerial, professional or skilled occupations); and
- the positions must pay prevailing wage levels, except for international students who can be paid entry-level wages.

The following chart illustrates these ratios

<table>
<thead>
<tr>
<th>Number of positions employers may request</th>
<th>Number of Full-time Employees (Employers inside the GTA)</th>
<th>Number of Full-time Employees (Employers outside the GTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>3</td>
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<tr>
<td>5</td>
<td>25</td>
<td>15</td>
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<td>10</td>
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<tr>
<td>15</td>
<td>75</td>
<td>45</td>
</tr>
<tr>
<td>20</td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

Once approved, the employers can recruit
- individuals from outside Canada, or temporary foreign workers or visitors already legally in Canada, who have two years relevant full-time work experience during the past five years; or
- international students who have graduated from a full-time program in the previous two years, having completed at least half of their studies at a publicly-funded Canadian college.

1 According to the Ministry, the "health care sector usually is confined to bodies providing health services to Ontarians (e.g., hospitals, clinics)."

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or university. Students from one-year post-graduate degree and certificate programs are also eligible.

There is no "points system" or requirement for a Labour Market Opinion (LMO) but the literature on the program says, it "is designed in part to assist employers who are having difficulty recruiting qualified, skilled workers in Ontario." As well, it notes "Priority processing will be given to employers who tried to recruit Ontarians before applying to the program."

The Ontario Government has two processing targets, each within 90 days, for

- Employer application package; and
- Nominee application packages.

Provincial nominees get high priority processing by CIC. Though this depends on the situation at an Embassy or Consulate outside Canada this is typically in the range of 12 months.

**Investor Category**

The Investor category covers both a company making a new investment or individuals playing an active on-going management role who are involved in a new business investment in Ontario. New investments in expansions are eligible.

In all cases, the investment in the project must be $3 million or more and create at least five net new jobs in Ontario for Canadians or Permanent Residents. In the case of the individuals, it could involve several investors working together on a project, provided each is taking at least one-third of the equity or $1 million whichever is the lesser. (The terms of such an investment cannot include a redemption option.)

The investment must be endorsed by the Deputy Minister of an appropriate Ontario Ministry. Roughly 50 to 60 percent come from the Ministry of Economic Development & Innovation. Others are from Ministry of Agriculture, Food and Rural Affairs (OMAFRA) Tourism, Ministry of Northern Development and Mines and the Ministry of Transportation.

In the Investor category, the positions requested must also be permanent full time positions at prevailing wages in NOC O, A or B occupations (i.e. managerial, professional or skilled occupations). Beyond the minimum threshold of the five net new jobs created, nominations for Permanent Residence can be requested on the basis of as many as one for every one new job created in Ontario for Canadians or Permanent Residents. For example,

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2 The Federal Government requires one year's full-time or equivalent work experience under a temporary work permit at the NOC O, A or B level (management, professional or skilled) before entertaining an application for Permanent Residence under the Canadian Experience Class.


<table>
<thead>
<tr>
<th>Number of net nominee positions investors can request</th>
<th>Number of net jobs created in Ontario for Canadians or Permanent Residents</th>
<th>Total number of net jobs created as a result of the investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>8</td>
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<td>5</td>
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<td>14</td>
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<td>10</td>
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<td>15</td>
<td>19</td>
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<td>20</td>
<td>24</td>
<td>44</td>
</tr>
<tr>
<td>25</td>
<td>29+</td>
<td>54+</td>
</tr>
</tbody>
</table>

**Interim Temporary Work Permits**

Once successful Ontario provincial nominees have applied to the Federal Government for Permanent Residence, the Ontario government supports requests for temporary work permits to get them working in Ontario quickly.

**International Students Without Job Offers**

In the student category, international Masters and PhD students graduating from a publicly-funded Ontario university can apply to the Ontario Government to be nominated for Permanent Residence status without a job offer. The conditions for an international Masters graduate are more extensive than for a PhD counterpart, including for example language proficiency testing and minimum savings/income levels. Applicants will be given a work permit facilitation letter by the provincial government only on a case-by-case basis or if they have a written job offer.

**Fees**

Ontario fees, ranging from $1,500 to $3,500 are applicable in addition to any Federal Government fees.

**Current Levels**

The Ontario Government has an allocation from the Federal Government of 1,000 visas for 2011. These will be fully utilized, sometime prior to the year end. According to Ilia Burtman, the Federal Government has indicated that the number available to Ontario in 2012 will be the same. In 2010, Ontario processed 836. The level started at 500.

**Contact**

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Ontario Ministry of Citizenship & Immigration  
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Toronto, Ontario M7A 2R9  
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www.ontarioimmigration.ca
Appendix D.4
Potential Canadian Immigration Strategies for Augmenting Highly Skilled Staff

TEMPORARY STATUS — PERMANENT IMMIGRATION

Intra-Company Transfer, either
- Management, or
- "Specialized Knowledge"

Temporary Work Permit
- Usually valid for 3 years
- With limited exceptions, Labor Market Opinion (LMO) is required indicating that no skilled/qualified Canadians or Permanent Residents available to fill the position

Post Graduation Work Permit
- Typically eligible for a 3 year Work Permit subsequent to graduation

Canadian Experience Class
- Can apply after 2 years authorized work in Canada
- Processing time currently about 12-14 months

Foreign Skilled Worker
- Processing time currently about 24 - 30 months, as applications based on job offers are currently lower priority

Provincial Nominee Program
- Company must be eligible and registered
- Processing time currently about 12 months, as Provincial Nominees receive high priority from Canadian Government

Apply for Permanent Immigration to Canada based on a Canadian job offer

CANADIAN CITIZENSHIP: Individuals who hold permanent residence status in Canada can generally apply for Canadian citizenship after 3 years physical presence in Canada in the previous 4 years.

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.
Appendix D.5

Potential to Develop University and College Talent Pipelines in Canada

Visa arrangements with foreign students in Canada can be managed strategically so that companies can develop lasting relationships with undergraduate and Masters and PhD students that lead to long term employment relationships.

During Study: Foreign students with valid study permits can obtain Off Campus Work Permits which permit 20 hours work while studying and full time employment during breaks.

Post Graduation Work Permit: A foreign student graduating from a Canadian University or College can obtain a Post Graduation Work Permit that is generally valid for three years with no restriction on the type of work or employer. This can be extended under a "relaxed" Labor Market Opinion (LMO) from Human Resources and Skill Development Canada/Service Canada (HRSDC/SC) for those who have made or intend to make appropriate application for permanent residence.

Application for Permanent Residence:
- Canadian Experience Class (CEC): Application under the Canadian Experience Class (CEC) can be made once the foreign graduate has one year's full-time (or equivalent) work experience in management, professional and skilled occupations (NOC 0, A & B). Processing times under the Canadian Experience Class, where the applications are accorded high priority, are currently about 14 months.
- The Ontario Provincial Nominee Program does not require that international students have one year work experience, so application can be made immediately. Processing times by the Canadian Government are similar to CEC (i.e. also high priority)

Student Populations
- In Windsor-Essex, the number of foreign students present on December 1, 2010, was 1,149, a number less than in the previous four years (1,511 in 2006; 1,563 in 2007; 1,548 in 2008; and 1,275 in 2009)
- In Sarnia, the total number of foreign students on December 1, 2010, was 323, up from the previous year. The number in London in 2010 was 4,365, a population that has increased each year since 2006
- Toronto has the largest foreign student population in Canada -- 50,146 in 2010

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.
Appendix D.6

Some Options for US H-1B Visa Holders Resident in US to Obtain Status in Canada

For US or multi-national companies with a longer term point of view, the following strategies can transition holders of US temporary H-1B visas into a sister Canadian (Windsor) operation.

- **Situation**: Wait times to obtain a US Green Card can be lengthy and may make it difficult for holders of temporary work permits -- for example, H-1B visas -- to achieve permanent status in the US within the term of their temporary status.

- **Strategy Number One**: Have US H-1B visa holders apply immediately on arrival in the US for permanent immigration to Canada based on a job offer from the Canadian affiliate. Possible avenues are
  1. Federal Skilled Worker Program, with current processing times of about 24 - 30 months;
  2. Ontario Provincial Nominee Program, if sister company making the job offer qualifies and applies, with current processing times of about 12 months.

- **Strategy Number Two**: Transfer US H-1B visa holder to Canada under an Intra-Company Transfer, either as
  1. a manager or
  2. a person with "specialized knowledge".

  The US H-1B visa holder will need to spend a year in the corporately-related US operation to obtain the one year in three years experience in a position that shows they qualify as either of the above.

  Once in Canada with a Work Permit under an Intra-Company Transfer, the individual could apply (as in Strategy Number One) for permanent immigration status.

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Appendix D.7

Some Options for US H-1B Visa Holders Resident in US to Obtain Status in Canada

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.
Appendix D.8

Potential Restrictions on Canada-US Cross-Border Movement of Third-Country Nationals

Movement across the Canada-US Border by third-country nationals (i.e. individuals who do not hold Canadian or American citizenship) who are legitimate temporary or permanent residents of Canada or the US can require visas or advance electronic registration. There are limitations on the nature of the business that can be conducted during the cross-border visit.

Eligibility for NEXUS Cards

NEXUS Cards, which facilitate cross-border travel, are available not only to US and Canadian citizens, but also to properly documented third-country nationals, provided in both cases that they have been permanent residents of Canada and/or the US continuously for the last 3 years. Third-country nationals applying for a NEXUS card must provide a valid Permanent Residence Card. In the case of those resident in Canada, a Record of Landing is an option.

Mexicans Require Visas But Benefit from NAFTA Provisions

Entry by Mexicans to Canada or the US for business purposes is facilitated by NAFTA provisions covering Temporary Entry for Business Persons and applicable to citizens of the signatory three countries. However, Mexicans require visas to enter both Canada and the US.

Provision in Other Canadian and American Free Trade Agreements for Temporary Entry for Business Persons

Canada and the US have a growing number of Free Trade Agreements with other countries. Some but not all of these have provisions for Temporary Entry of Business Persons which facilitate the temporary entry of certain occupations from those countries.

In the case of Canada, the Canada-Chile Free Trade Agreement provisions are very similar to NAFTA. Canada’s FTAs with Panama, Columbia and Peru, which have a common model, have provisions for temporary entry and specify certain occupations.

When it comes to the US, FTAs with Chile and Singapore have similarly structured sections covering Temporary Entry for Business Persons, though the list of specific occupations for Chile and Singapore is much shorter than in NAFTA.

Canadian and American Visa Waiver Programs

Canada and the United States have visa-waiver programs for visits by nationals of certain countries.
- The US visa-waiver program covers 36 countries. Most Western European countries are covered, along with Japan, South Korea, Singapore, Brunei, Australia, New Zealand and selected Eastern European countries (e.g. Hungary, Czech Republic, Slovakia, Slovenia, Estonia, Latvia, and Lithuania).
- Canada waves visas for some 50 countries. The list is similar to the US but also includes some Caribbean and African countries.
The US requires an advance electronic security clearance for arrivals for business or pleasure visits of 90 days or less of individuals from visa-waiver countries under its ESTA program (Electronic System for Travel Authorization). Nationals of these countries register online in order to obtain an approved travel authorization. This is generally valid for two years at a time or earlier if the passport expires. (The Canada-US "Beyond the Border" Action Plan released on December 7, 2011, by President Obama and Prime Minister Harper commits Canada to implement over the next four years an Electronic Travel Authorization [eTA] mirroring the USA ESTA to improve screening of all visa-exempt foreign nationals.)

**Business Activities that are Permitted During Short-Term Visits**

The following outlines the types of business activities that can be undertaken in Canada and the US, as the case may be, by a business person visiting temporarily whose salary or income comes from a company or entity in their country of residence and who can demonstrate that they will be returning to their country of residence.

<table>
<thead>
<tr>
<th>INTO CANADA&lt;sup&gt;clxv&lt;/sup&gt;</th>
<th>INTO US</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The following business activities are permitted in Canada by short-term visitors from visa exempt countries and from other countries by holders of a temporary residence visa (i.e. visitor’s visa):</strong></td>
<td><strong>Entry to the US may be granted on a short-term temporary basis to business people from Canada, visa-waiver countries registered via ESTA, and holders of a US Business Visa (B-1)&lt;sup&gt;clxvi&lt;/sup&gt; for:</strong></td>
</tr>
<tr>
<td>• Attend meetings, conference, conventions or trade fairs</td>
<td>• Attendance at conferences, meetings, trade shows or business events</td>
</tr>
<tr>
<td>• Engage in discussions</td>
<td>• Order-taking &amp; negotiating contracts for non-US goods or services</td>
</tr>
<tr>
<td>• Undertake sales calls, including taking orders for foreign-made products or services</td>
<td>• Exposition and trade show employees of foreign exhibitors at international fairs</td>
</tr>
<tr>
<td>• Provide after-sales service (as contracted for at the time of sale of foreign products)</td>
<td>• Installing, servicing or repairing foreign-made commercial or industrial equipment or machinery sold by non-US company to a US buyer as specifically required in purchase contract (not including construction work, except supervision or training of US workers to perform construction)</td>
</tr>
<tr>
<td>• Undertake training (in-house or by a supplier of foreign products or services that have been purchased)</td>
<td>• Independent research</td>
</tr>
<tr>
<td><strong>A Canadian Temporary Work Permit is required however for:</strong></td>
<td>• Lecturing or speaking (with restrictions as to expenses and honorarium)</td>
</tr>
<tr>
<td>• Hands-on production or servicing of goods and services</td>
<td>• Surveying potential sites for business</td>
</tr>
<tr>
<td>• Engaging in management or supervisory activities</td>
<td>• Training (not designed primarily to provide employment, with payment limited to expenses related to traveler’s stay)</td>
</tr>
</tbody>
</table>

Visas are frequently multiple-entry.

Note: This is a greatly simplified summary provided for informational purposes only. The information does not constitute legal advice or other professional advice and should not be relied upon as such.
Appendix D.9

US and Canadian Visa Waiver Programs

United States Visa Waiver Program

<table>
<thead>
<tr>
<th>Andorra*</th>
<th>Australia*</th>
<th>Austria*</th>
<th>Belgium*</th>
<th>Brunei*</th>
<th>Czech Republic</th>
<th>Denmark*</th>
<th>Estonia*</th>
<th>Finland*</th>
<th>France*</th>
<th>Germany*</th>
<th>Greece*</th>
<th>Hungary*</th>
<th>Iceland*</th>
<th>Ireland*</th>
<th>Italy*</th>
<th>Japan*</th>
<th>Latvia*</th>
<th>Liechtenstein*</th>
<th>Lithuania*</th>
<th>Luxembourg*</th>
<th>Monaco*</th>
<th>Netherlands*</th>
<th>New Zealand*</th>
<th>Norway*</th>
<th>Portugal*</th>
<th>Republic of Malta*</th>
<th>San Marino*</th>
<th>Singapore*</th>
<th>Slovakia*</th>
<th>Slovenia*</th>
<th>South Korea*</th>
<th>Spain*</th>
<th>Sweden*</th>
<th>Switzerland*</th>
<th>United Kingdom*</th>
</tr>
</thead>
</table>


Citizens of Countries That Do Not Require a Visa to Visit Canada

| Andorra* | Antigua & Barbuda | Austria* | Bahamas | Barbados | Belgium* | Botswana | Brunei* | Croatia | Cyprus | Denmark* | Estonia* | Finland* | France* | Germany* | Greece* | Hungary* | Iceland* | Ireland* | Israel (National Passport only) | Italy* | Japan* | Korea (South)* | Latvia* | Liechtenstein* | Lithuania* | Luxembourg* | Monaco* | Namibia | Netherlands* | New Zealand* | Norway* | Papua New Guinea | Portugal* | St. Kitts & Nevis | St. Lucia | St. Vincent | Solomon Islands | Spain* | Swaziland | Sweden* | Switzerland* | Western Samoa | British Citizens & British Overseas Citizens re-admissible to the UK* |


* Visas waived in both Canada and US

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### APPENDIX E

**Appendix E.1**

#### Policy-Driven Cross-Border Differences Where Choice Can Benefit Business

**Representative Programs of Financial Assistance for Business**
**Offered by the State of Michigan and the Province of Ontario**

<table>
<thead>
<tr>
<th>Loan, Grant, Tax Credit, Other</th>
<th>Michigan/Detroit</th>
<th>Ontario/Windsor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Export</strong></td>
<td>Centers of Energy Excellence Program</td>
<td>OMDC Export Fund</td>
</tr>
<tr>
<td></td>
<td>Michigan NextEnergy Authority</td>
<td>Export Market Access</td>
</tr>
<tr>
<td></td>
<td>Border County Incentive</td>
<td>Ontario Exporters Fund</td>
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<tr>
<td></td>
<td></td>
<td>New Exporters to Border States Program for Ontario</td>
</tr>
<tr>
<td><strong>Commercialization</strong></td>
<td>Commercial Redevelopment Act</td>
<td>Technology Development Fund</td>
</tr>
<tr>
<td></td>
<td>Commercial Rehabilitation Act</td>
<td>Ontario Centres of Excellences</td>
</tr>
<tr>
<td></td>
<td>Michigan Commercialization Initiative</td>
<td>Commercialization Programs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emerging Technology Program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ontario Tax Exemption for Commercialization</td>
</tr>
<tr>
<td><strong>Digital Media</strong></td>
<td>2012 Film and Digital Medial Incentive</td>
<td>OMDC Interactive Digital Media Fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OMDC Export Fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ODMC Ontario Interactive Digital Media Tax Credit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer Animation and Special Effects Tax Credit</td>
</tr>
<tr>
<td><strong>Automotive</strong></td>
<td>Advanced Vehicle Battery Manufacturer Tax Credit</td>
<td>Automotive Innovation Fund</td>
</tr>
<tr>
<td></td>
<td>Hybrid Electric Vehicle R&amp;D Tax Credit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alternative Fuel and Vehicle Research, Development, and Manufacturing Tax Credit</td>
<td></td>
</tr>
<tr>
<td><strong>ICT/High Tech</strong></td>
<td>High-Tech and High-wage Tax Credits (Michigan Economic Growth Authority)</td>
<td>Emerging Technologies Fund</td>
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<td></td>
<td>Michigan SmartZone Network</td>
<td>Emerging Technology Program</td>
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<tr>
<td></td>
<td>Emerging Technologies Fund</td>
<td>SMART Program</td>
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<tr>
<td></td>
<td>Tech Transfer Talent Network</td>
<td>Ontario Emerging Technologies Fund</td>
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<tr>
<td></td>
<td>Michigan Initiative for Innovation &amp; Entrepreneurship</td>
<td>Premier's Catalyst Awards</td>
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<td>Loan, Grant, Tax Credit, Other</td>
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<td>Ontario/Windsor</td>
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<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td><strong>Growth/Economic Development</strong></td>
<td><strong>(General Support, Not Specific to Sectors)</strong></td>
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<tr>
<td><strong>Business Improvement District (BID/PSD/BIZ)</strong></td>
<td>Ontario Emerging Technologies Fund</td>
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<tr>
<td>Capital Access Program</td>
<td>International Strategic Opportunities Program</td>
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<td>Michigan Collateral Support Program</td>
<td>Eastern Ontario Development Fund</td>
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<td>Michigan Loan Participation Program</td>
<td>High Performance New Construction</td>
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<td>SBA Certified Development Company Loans</td>
<td>Eastern Ontario Development Fund</td>
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<td>Small Business Administration Loan Programs</td>
<td>Employer Signing Bonus</td>
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<td>Detroit Industrial Revolving Loan Fund</td>
<td>Ontario Innovation Tax Credit</td>
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<td>Housing Office Retail development Program</td>
<td>Brownfields Financial Tax Incentive Program</td>
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<td>Small Business Loan Transactions</td>
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<td>CEED MicroLoan</td>
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<td>Green Fund Loan</td>
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<td>Business Improvement District (BID/PSD/BIZ)</td>
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<td>Brownfield Tax Incentive</td>
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<td>Industrial Property Tax Abatement</td>
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<td>Local Development Financing Act</td>
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<td>Standard and Rural Job Creation Tax Credits</td>
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<td>Commercial Redevelopment Act</td>
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<td>Commercial Rehabilitation Act</td>
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<td>Obsolete Property Rehabilitation Act</td>
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<td>Michigan-Headquartered Large Retailers Credit</td>
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<td>Commercial Rehabilitation Exemption</td>
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<td>Small-Company Internship Award</td>
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<td>Workers Compensation Cost Control Service</td>
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<td>Venture Michigan Fund</td>
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<td>Corridor Improvement Authority</td>
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<td><strong>Procurement</strong></td>
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<td>Defence Contracting Michigan Business Tax Credits</td>
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<td>Procurement Technical Assistance Centers</td>
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<td><strong>Collaboration</strong></td>
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<td>Champions of Innovation</td>
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<td>International Strategic Opportunities Program</td>
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<td>Ontario Co-Operative Education Tax Credit</td>
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<td>Ontario Business Research Institute Tax Credit</td>
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<td>Ontario Centres of Excellence Research Programs</td>
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<td>Loan, Grant, Tax Credit, Other</td>
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<td>Ontario/Windsor</td>
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<tr>
<td><strong>R&amp;D</strong></td>
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<td>MEGA Research Credit</td>
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<td>Ontario's Alternative Renewable Fuels 'Plus' Research and Development Fund</td>
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<td>Small-Company Innovation Program</td>
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<td>Consultation Education Training Services</td>
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<td>Michigan Small Business and Technology Development Center</td>
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<td>Apprenticeship Training Tax Credit</td>
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<td>Small-Company Internship Award</td>
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<td>Co-operative Education Tax Credit</td>
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<td><strong>Start Up</strong></td>
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<tr>
<td>Small Business Detroit MicroLoan</td>
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<td>Innovation Demonstration Fund</td>
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<td>Commercial Redevelopment Act</td>
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<td>Ontario Emerging Technologies Fund</td>
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<tr>
<td>Commercial Rehabilitation Act</td>
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<td>International Strategic Opportunities Program</td>
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<td>Small Business Tax Credit</td>
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<td>Export Market Access</td>
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<tr>
<td>Brownfield Tax Incentive</td>
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<td>Investment Accelerator Fund</td>
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<tr>
<td>Michigan SmartZone Network</td>
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<td>Market Rediness</td>
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<td>Michigan Pre-Seed Capital Fund</td>
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<td>Champions of Innovation</td>
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<td>Venture Michigan Fund</td>
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<td>Lead to Win</td>
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<tr>
<td>InvestMichigan! Fund</td>
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<td>FedDev - Technology Development Program</td>
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<td>Pure Michigan Business Connect</td>
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<td>Eastern Ontario Development Fund</td>
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<tr>
<td><strong>Start Up</strong></td>
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<td><strong>Business Advisory Services</strong></td>
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</tbody>
</table>
Appendix F

List of People Interviewed (Alphabetically by Organization)

Ahmad Chebbani  
Chairman Board of Directors  
American Arab Chamber of Commerce  
12740 W. Warren Avenue, Suite 300,  
Dearborn, Michigan 48126  
achebbani@americanarab.com  
Phone 313-945-1700  
www.AmericanArab.com

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American Arab Chamber of Commerce  
12740 W. Warren Avenue, Suite 300,  
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Cell 313-510-7916  
www.AmericanArab.com

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Direct 734.527.9176  
Cell 734.678.8939  
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Vice President  
Business Development  
Ann Arbor Spark  
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Ann Arbor, MI 48104  
Luke@AnnArborUSA.org  
(734) 527-9176

George Albert Opitz  
President  
brightwing.  
431 Stephenson Highway  
Troy, MI 48083  
george@gobrightwing.com  
(248) 585-4750

John C. Austin  
Non-Resident Senior Fellow, Great Lakes Economic Initiative  
Metropolitan Policy Program at BROOKINGS  
Ann Arbor, MI  
jcaustin@umich.edu  
(734) 763-0071

(Jeff) Zijian Zhao  
Special Assistant to the Chairman & CEO  
Global Director, Corporate Communications  
BWI Group (京西重工)  
3100 Research Blvd., STE 240  
Kettering, OH 45420  
Tel: (937) 475-0620  
Office: (937) 455-5126  
Skype: andusjeff  
Alternative email: jeffzhao.bwi@gmail.com

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Executive Director, Automotive Committee  
China General Chamber of Commerce USA  
1301 W. Long Lake Road, Suite 190  
Troy, Michigan 48098  
Phone 313-574-9509  
Raymond@cgccusa.org  
www.cgccusa.org

Denise Knoblock (Starr)  
Computerware  
Denise.Starr@compuware.com

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Consulate General of Canada  
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www.detroit.gc.ca

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David.Weiner@international.gc.ca  
www.detroit.gc.ca

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www.detroit.gc.ca

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anne.cascadden@international.gc.ca  
www.detroit.gc.ca

Matt Marchand  
Director of Government Affairs  
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mmarchand16@cogeco.ca  
www.crgateway.com

Ben Erulkar  
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www.detroitchamber.com
APPENDIX G

Project Team

A uniquely qualified team of US and Canadian consultants was assembled for the project.

John D. Tennant  
Managing Partner  
W2N2 Partnership  
30 Duke Street West, Suite 1010  
Kitchener, Waterloo Region, Ontario, Canada  N2H 3W5  
www.w2n2.ca

John Tennant is a former Canadian Consul General in Detroit (1998-2002), who has a comprehensive understanding of Canada-US relations and cross-border issues, especially in the Metro Detroit/Windsor-Essex region, heightened by his involvement and leadership in addressing the complications and consequences of the tragic 9/11 events. During his Detroit assignment, John was associated, among many things, with a Canadian initiative to attract H-1B visa holders to Canada. Subsequently, as CEO of the public-private regional economic development partnership for Ontario’s Waterloo Region (Canada’s Technology Triangle Inc), John dealt with senior executives of many global firms on site location decisions, including nearshoring, with firms such as Google, Microsoft, CGI Group, India’s Tata Group and Toyota. John was also involved in Waterloo Region initiatives around the settlement and integration of skilled immigrants.

Eric Hochstein  
Managing Director  
Highstone Associates, Inc  
536 Fox Glove Lane, Barrington, IL 60010

Eric Hochstein is a Chicago-based outsourcing expert who between 2003 and 2010 was the Ontario Government’s lead in the United States in the attraction of technology and shared services operations to Ontario. Eric helped popularize the term “nearshoring” during that period at investment attraction presentations and seminars he gave throughout the US, and more recently as a Contributing Editor to the Nearshore Americas website. Eric is a former member of the legislative staff of US Senator Carl Levin.

Matt Fischer, Ec.D.  
President  
Matthew Fischer and Associates Inc  
16 / 575 McGarrell Place  
London, Ontario, Canada  N6G 5L3

Matthew Fischer, a former CEO of the Windsor Essex Development Commission (2007-2008), is among Canada’s most respected and experienced economic development professionals. Matt has consulted widely and is an expert in community economic matters and in regional economic analysis that spotlights strengths, weakness and trends based on Economic Base Analysis.
Dave and Marc Watters are President and Director of Research & Operations respectively of the Ottawa-based Global Advantage Consulting Group which is a pre-eminent corporate and government consulting firm, focused primarily on policy analysis, new technology, innovation, R&D and commercialization. Global Advantage Consulting has the most complete data base of programs of financial assistance offered by Canadian governments, GFunds Online, and a profound understanding of other policy-driven initiatives that can favor business location decisions, especially related to technology and innovation (see Appendix B). Global Advantage Consulting’s primary product is to identify, analyze and map complex institutions systems/networks of stakeholders who share a common objective and want to work together in partnerships and alliances to achieve that objective (Examples are in Appendix E).

Harry Goslett
Partner
Corporate Immigration Law Firm
357 Bay Street, Suite 404
Toronto, Ontario, Canada M5H 2T7
http://www.cimmigrationlaw.com

Harry Goslett, Partner, Corporate Immigration Law Firm, Toronto, is highly knowledgeable and experienced regarding immigration law, regulations and practice. Harry, together with another of his partners, is the co-author of the "Annotated Immigration and Refugee Protection Act of Canada," a respected standard reference source published by Carswell, part of the Thomson Reuters group.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>Boston Consulting Group (<a href="http://www.bcg.com">www.bcg.com</a>)</td>
</tr>
<tr>
<td>BPO</td>
<td>Business Process Outsourcing</td>
</tr>
<tr>
<td>CBSA</td>
<td>Canada Border Services Agency</td>
</tr>
<tr>
<td>CGGC</td>
<td>Center on Globalization, Governance and Competitiveness at Duke University</td>
</tr>
<tr>
<td>CCPC</td>
<td>Canadian Controlled Private Corporation</td>
</tr>
<tr>
<td>CIC</td>
<td>Citizenship and Immigration Canada</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>DHS</td>
<td>US Department of Homeland Security</td>
</tr>
<tr>
<td>DRIC</td>
<td>Detroit River International Crossing, also known in Michigan as the New International Trade Crossing</td>
</tr>
<tr>
<td>GTRI</td>
<td>Global Talent Retention Initiative for Southeast Michigan</td>
</tr>
<tr>
<td>H-1B</td>
<td>A non-immigrant US visa that allows companies to temporarily employ foreign workers in specialty occupations</td>
</tr>
<tr>
<td>ICTC</td>
<td>Information and Communication Technology Council (formerly the Software Human Resources Council)</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual Property</td>
</tr>
<tr>
<td>IRAP</td>
<td>Industrial Research Assistance Program, offered in Canada</td>
</tr>
<tr>
<td>IRB</td>
<td>Industrial and Regional Benefits, a Canadian government program requiring major foreign defense contractors to generate offsetting high value added business activity within Canadian industry.</td>
</tr>
<tr>
<td>ITO</td>
<td>Information Technology Outsourcing</td>
</tr>
<tr>
<td>KPO</td>
<td>Knowledge Process Outsourcing</td>
</tr>
<tr>
<td>L-1</td>
<td>A non-immigrant US visa that allows companies to transfer someone employed by the company with certain skills and experience to a US-based position that is similar to the one the person held outside the United States.</td>
</tr>
<tr>
<td>LMO</td>
<td>Labor Market Opinion, issued in Canada by Human Resources and Skills Development Canada/Service Canada to acknowledge the unavailability of qualified Canadians or Permanent Residents for a position, thereby providing justification for issuance of a Temporary Work Permit</td>
</tr>
<tr>
<td>LQ</td>
<td>Location Quotient</td>
</tr>
<tr>
<td>MCI</td>
<td>(Ontario) Ministry of Citizenship and Immigration</td>
</tr>
<tr>
<td>MEDC</td>
<td>Michigan Economic Development Corporation</td>
</tr>
<tr>
<td>Metro Detroit</td>
<td>In this report, Metro Detroit is defined unless otherwise noted as the Detroit Metropolitan Statistical Area plus the Ann Arbor Statistical Area. The former comprises Wayne, Oakland, Macomb, St. Clair, Lapeer and Livingston Counties, while the Ann Arbor MSA incorporates Washtenaw County.</td>
</tr>
<tr>
<td>MiSN</td>
<td>Michigan Security Network (<a href="http://www.michigansecuritynetwork.com">www.michigansecuritynetwork.com</a>)</td>
</tr>
<tr>
<td>NAFTA</td>
<td>North American Free Trade Agreement, the signatories of which are Canada, United States and Mexico</td>
</tr>
<tr>
<td>NASSCOM</td>
<td>National Association of Software and Services Companies (Based in India but with Chapters in many countries)</td>
</tr>
<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
</tr>
<tr>
<td>NEI</td>
<td>New Economy Initiative for Southeast Michigan</td>
</tr>
<tr>
<td>Acronym (short)</td>
<td>Full Description</td>
</tr>
<tr>
<td>----------------</td>
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<tr>
<td>NOC</td>
<td>National Occupational Classification (Canada) (<a href="http://www5.hrsdc.gc.ca/noc/english/noc/2006/AboutNOC.aspx">link</a>)</td>
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<tr>
<td>NRC</td>
<td>National Research Council (Canada)</td>
</tr>
<tr>
<td>NSERC</td>
<td>Natural Sciences and Engineering Research Council of Canada</td>
</tr>
<tr>
<td>PNP</td>
<td>Provincial Nominee Program</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and development</td>
</tr>
<tr>
<td>R&amp;E</td>
<td>Research &amp; Experimentation tax incentive, offered in the US</td>
</tr>
<tr>
<td>SBIR</td>
<td>Small Business Innovation Research</td>
</tr>
<tr>
<td>SR&amp;ED</td>
<td>Scientific Research &amp; Experimental Development tax incentive, offered in Canada (<a href="http://www.cra-arc.gc.ca/sred/">link</a>)</td>
</tr>
<tr>
<td>STEM</td>
<td>Science, Technology, Engineering and Mathematics</td>
</tr>
<tr>
<td>STTR</td>
<td>Small Business Technology Transfer</td>
</tr>
<tr>
<td>TARDEC</td>
<td>Tank-Automotive Research, Development and Engineering Center, co-located with TACOM LCMC</td>
</tr>
<tr>
<td>TDL</td>
<td>Transportation, Distribution and Logistics</td>
</tr>
<tr>
<td>TDM</td>
<td>Tool, Die and Mold</td>
</tr>
<tr>
<td>TiE</td>
<td>The Indus Entrepreneurs (<a href="www.tie.org">link</a>)</td>
</tr>
<tr>
<td>WEEDC</td>
<td>WindsorEssex Economic Development Corporation</td>
</tr>
<tr>
<td>WIN</td>
<td>Workforce Intelligence Network</td>
</tr>
<tr>
<td>Windsor-Essex</td>
<td>The Data sources used for the Windsor-Essex comparison are the Census Metropolitan Area (CMA) counts from the Statistics Canada 2001 and 2006 Census. There is an important note to the statistics for the Windsor CMA. The boundaries established for the Census Metropolitan Area by Statistics Canada do not conform to local political boundaries. The CMA excludes the communities of Leamington, Kingsville and the southern part of the Town of Essex in the County of Essex, which are predominately rural with strong agricultural roots.</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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<tr>
<td>WTO GPA</td>
<td>World Trade Organization Agreement on Government Procurement</td>
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</tbody>
</table>
APPENDIX I

Endnotes

i The White House defined “insourcing” to incorporate both reshoring of existing offshore work and the homeshoring of new captive and third party activities.


iv In the 1970s and 1980s, entire batches of students from the top technical institutes in India used to migrate to the Americas or Europe. This created a large presence of Indian professionals in these firms and the Indian Diaspora promoted the belief in Indian talent and India amongst the decision makers. These factors prompted the first few to take a trip to Bangalore; they were not only surprised with the technology know-how of the professionals in the city but also with the excellent climate that the city offered throughout the year. (From The Bangalore Story: Becoming the Outsourcing Capital of the World)

v If companies had divisions and affiliates that performed the same functions, such as finance & accounting, another component of the sourcing decision, which was often made before the decision to outsource or offshore was whether to centralize similar functions in the same company or to keep them distributed across the business units. Often, the cycle of decisions went Centralize>Outsource>Offshore, with each decision reducing costs and changing business processes.


ix http://www.gartner.com/technology/it-glossary/, Gartner IT Definitions and Glossary

x While “help desk” and “customer service” may appear to be interchangeable, help desk generally refers to internal support services provided for corporate employees while customer service usually refers to external support for users of a company’s products or services. Both types of activities were increasingly sent offshore during the 2000’s.

xi Information Technology-Enabled Services (ITES) is a term describing the sector that is preferred by the Indian trade association NASSCOM.


xvi One of the five, Genpact, was formed initially by GE, a pioneer in the offshore business model, around 1997 as a captive service provider (GE Capital International Services). That company was, for a time around

xvii The growth of China's outsourcing industry has multiple drivers. US companies have looked to China to technical services, but not voice-based services because of language issues. However, China's contact centers have grown due to an increase in business from other Asian countries, including Japan and Korea.

xviii The growth of emerging outsourcing (and captive) locations, particularly Latin American countries such as Brazil, Chile and Argentina, is driven by parallel factors. Many companies, particularly from North America, are searching for closer (Nearshore) locations to serve their US services requirements as offshore costs have increased and their business units have looked for cost effective, but nearby locations. At the same time, with strong economic growth in Latin America, their local subsidiaries are growing, straining internal corporate resources, and offering new outsourcing opportunities.


xx According to the Cincinnati Business Courier, the Ohio Department of Development offered Tata an incentive package worth $15.5 million in September, 2007. Tata will receive a 90 percent tax credit for eight years, but will have to maintain the operation in Ohio for 16 years. In October, 2007, the development office awarded the firm a $2.5 million Rapid Outreach Grant to help pay for the building and its renovation, set to cost $7 million.

xxi Tata to open center in Clermont County, Business Courier, Staff Reporters

The Bangalore Story: Becoming the Outsourcing Capital of the World, April 2010

xxii HTC declined an invitation to be interviewed for this study.

xxiii Interview with Mathias Horst, Co-Founder, Secure-24, on November 10, 2011.


xxvii The occupations are Senior Animation Effects Editor (NOC 9990.1); Embedded Systems Software Designer (NOC 9990.2); MIS Software Designer (NOC 9990.3); Multimedia Software Developer (NOC 9990.4); Software Developer—Services (NOC 9990.5); Software Products Developer (NOC 9990.6); and Telecommunications Software Designer (NOC 9990.7).


Accessed on 28 December 2011. Vancouver has also ranked #1 in the Economist Intelligence Unit Most Liveable City ranking in 2007, a position it has now maintained for five consecutive years.

xxxii The Vancouver Economic Commission claims "Vancouver has one of the top video game clusters in the world, with presence from major publishers including EA (Electronic Arts), Nintendo, THQ, Vivendi/Activision, Disney and Microsoft." (http://www.vancouvereconomic.com/page/digital-media). Accessed on 28 December 2011.


India: Why Apple Walked Away. Plans for an Indian tech support center have been scrapped. Business Week, June, 19, 2006 retrieved at http://www.businessweek.com/magazine/content/06_25/b3989058.htm


Interview with Kim Bankston, GE Corporate – Site Leader, by phone with Eric Hochstein, December 15, 2011


Immelt, it should be noted, is the chairman of the US Council on Jobs and Competitiveness, President Obama's outside panel of economic advisers.


Global Location Insights: December 2011 - Perspectives on Tier II/III Cities of the United States as Locations for IT Services Delivery (Prospectus only), retrieved January 7, 2012 at http://research.everестgrp.com/Product/11624

Global Location Insights: December 2011 - Perspectives on Tier II/III Cities of the United States as Locations for IT Services Delivery (Prospectus only), retrieved January 6 at http://research.everestgrp.com/Product/11624


Phone interview with Amy Cell, senior vice president, talent enhancement, Michigan Economic Development Corporation, on December 5, 2011


Interview with Athena Trentin, Global Talent Retention Initiative of Southeast Michigan, on December 13, 2011

The Initiative has 7 partner universities – University of Michigan, Michigan State University, Wayne State University, UM Dearborn, Eastern Michigan University, Lawrence Tech, Oakland Community College.

A list of sector human resources councils, members of the Alliance of Sector Councils can be found at http://www.councils.org/sector-councils/list-of-canadas-sector-councils/. Accessed on 21 February 2012.


Information and Communications Technology Council, "Outlook for Human Resources in the ICT Labour Market, 2011-2016", March 2011


AUTO21 website www.auto21.ca


"2010 Winter Olympics/Tourism," PNWER
http://www.pnwerarchive.org/ProgramAreas/MajorProgramAreas/2010WinterOlympicsTourism/tabid/152/Def
ault.aspx

"The Niagara Border: 10 years after 9/11," The Binational Alliance (2011) at 
.pdf. Deloitte November 2011 Presentation is at http://www.btapartners.com/documents/BETA-


"Binational Tourism Alliance Strategic Plan 2008," The Binational Alliance at 


"A Strategy and Organizational Approach to Develop and Promote a Trade and Tourism Corridor," The 
Capital Corridor (2006) at http://www.brockville.com/index.cfm?ID=72&Download=(1%5B%2257B%26%2CQ-0+%0A& f=123

Delphine Nakache and Paula J. Kinoshita, Institute for Research on Public Policy, "The Canadian 
Temporary Foreign Worker Program: Do Short-Term Economic Needs Prevail over Human Rights Concerns?," 

28 December 2011.


Charles M. Beach, Alan G. Green, and Christopher Worsoick, C.D. Howe Institute, "Toward Improving 
Canada's Skilled Immigration Policy: An Evaluation Approach," October 2011, page 23 (Immigrants as a 
percent of population in 2005: Australia 20.3%; Canada 18.9%; US 12.9%; Germany 12.3%; France 10.7%; 
United Kingdom 9.1%; and Italy 4.3%)


The media release and a link to the Action Plans are at http://www.borderactionplan-

The following chart illustrates these ratios

| Number of positions employers may request | Number of Full-time Employees (Employers 
inside the GTA) | Number of Full-time Employees (Employers 
outside the GTA) |
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<td>15</td>
<td>75</td>
<td>45</td>
</tr>
<tr>
<td>20</td>
<td>100</td>
<td>60</td>
</tr>
</tbody>
</table>

According to Ontario Ministry of Citizenship and Immigration officials, the "health care sector usually is 
confined to bodies providing health services to Ontarians (e.g. hospitals, clinics)."

The Federal government requires on year's full-time or equivalent work experience under a temporary 
work permit at the NOC 0, A or B level (management, professional or skilled) before entertaining an 
application for Permanent Residence under the Canadian Experience Class.

Ontario Ministry of Citizenship and Immigration website 
2011.


