

Economic Impact of The University of Ontario Institute of Technology (UOIT) On Durham Region & Durham Municipalities

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1. EXECUTIVE SUMMARY

Introduction & Background

The University of Ontario Institute of Technology (UOIT) is currently completing a five year business plan and is projecting steady growth in several of its programs. To accommodate this student influx, UOIT is looking at the possibility of various locations to house the facilities. Two faculties, Education and Criminology, Justice and Policy Studies, will be housed in close proximity in downtown Oshawa by 2010, with the possibility of a third faculty moving downtown in 2011. The current total enrolment of UOIT is over 6,300.

In the long term, increased student growth on the original campus and moving as many as 5,500 additional university students and faculty to downtown Oshawa will have a dramatic impact on the local economy. These people will take public transit; support local eating establishments and purchase goods and services at local retailers. In addition, some may choose to live in the immediate vicinity, thus paying rent and taxes.

This study was conducted in January through March 2010 by the consulting firm Adventus Research Inc. of Guelph, Ontario to examine the economic impact of these developments at the University of Ontario Institute of Technology (UOIT) by examining the comparative impacts of similar projects in other selected Ontario cities - in particular, Laurier Brantford (2005), and the WLU Faculty of Social Work (2004).

Methodology

The calculation of the overall economic impact of monies forecast to be spent on UOIT over 2010-2015 depends on a number of factors, which can be grouped into four principal areas. The first three (direct, indirect and induced) are *quantitative impacts, and are measurable in dollars*. The fourth area is the qualitative impacts, concentrating on improvements to various aspects of the quality of a community, and is not usually measured in dollars.

Direct impacts

These are the impacts that result from initial expenditures in the local economy (including private sector construction projects planned as a direct result of investments in the Universities):

- The costs of ongoing construction and renovation, with the associated wages and materials.
- The costs of operating expenditures.

Indirect impacts

These include the subsequent purchases by suppliers of services/materials to sustain the original initiative:

- Salaries paid or jobs created from producing supplies to be used in the construction or operation of the project.
- Spending of full-time and part-time students, faculty and staff (on and off campus).
- Spending of visitors to the institutions to attend functions on campus.

Induced impacts

These are the secondary economic effects that result when workers and suppliers in sectors stimulated by the direct and indirect expenditures spend their additional income on local consumer goods and services.

Comparisons to Other Ontario-based University Economic Impact Studies

This analysis utilized similar methodology to that developed for other studies performed on universities in Waterloo Region and the City of Brantford. While there are some small differences between Durham Region and these two other jurisdictions used for comparison purposes in this study, it was determined that these differences are relatively small and a *comparative economic impact analysis is therefore valid*.

Multipliers Used

The "multiplier" is the technical concept used in economic impact modelling that captures the extent to which the initial spending generates a magnified amount of economic activity. A multiplier of 2, for example, means that new spending of \$1 million in the community will result in \$2 million of total additional income in the community. The use of an appropriate multiplier allows for the proper estimation of the full impact of an entity or of new spending in a community. Multipliers used for this study were consistent with previous economic impact studies conducted for universities in Southern Ontario.



Results & Conclusions

The results and conclusions of this study of the economic impacts of UOIT are discussed first on a Durham Region-wide basis, and then individually for each of the eight Durham Region municipalities: Oshawa, Pickering, Whitby, Ajax, Clarington, Scugog, Uxbridge and Brock.

Durham Region



With a population of 561,258 in 2006, Durham Region has experienced rapid growth over the past 35 years, growing at a compounded annual rate of 2.8% over the 1976-2006 period. Durham Region is forecast to continue to grow at a 2.2% annualized rate through 2031, reaching a forecast population of 960,000. With the growth rate of Durham Region exceeding the Ontario provincial average over the last few decades, it has grown from 3.0% of the province's population in 1976, to 4.6% by 2006.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will total \$179-371 million (including public & private sector development). These expenditures will support a temporary increase in income in the province of \$213-441 million, of which **\$127-263 million will be retained within Durham Region.**
2. A total of 2,193-4,533 person years of employment are estimated to implement the proposed UOIT construction and/or renovation projects. Of this amount, an estimated 1,411-2,704 person years of employment, or **282-541 jobs, will be retained in Durham Region.**
3. In addition, governments will collect additional taxes at all levels. The federal government would collect \$37-77 million. The provincial government would collect \$27-56 million. **Local government would collect \$7-15 million** in fees, permits and increased revenues due to higher property values.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT are based on operating expenditures of \$679-685 million over 2010-2015. These expenditures in turn drive additional spending of \$1,133-1,144 million in the province, of which **\$903-911 million will be spent within Durham Region.**
5. In terms of jobs created, 18,963-19,148 person years of work, or an average of 3,793-3,830 jobs, will be sustained by the activities of UOIT in the province. Of this amount, 16,427-16,589 person years - an average of **3,285-3,318 jobs - will be from Durham Region.**
6. In terms of revenues collected for the levels of government, total operational impacts are estimated at \$145-146 million for the federal government, \$106-107 million for the provincial government and **\$28 million for the local government.**

Total Impacts

7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Durham Region is estimated at **\$227-272 million annually.** This is proportionally comparable to the impacts of other similar Ontario Universities - Laurier Brantford (Brantford - 2005) and the WLU Faculty of Social Work (Waterloo Region - 2004).

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Durham Region economy are as follows:

* Restaurants	\$ 7.8 - 8.9 million
* Retail food industry	\$ 22.0 - 26.5 million
* Housing & rental accommodation	\$ 39.6 - 48.0 million
* Retail clothing	\$ 13.8 - 16.2 million
* Transportation (including autos & public transit)	\$ 26.1 - 31.7 million

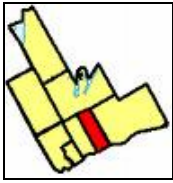


8. **Other impacts in economic status** for the citizens of Durham Region due to the ongoing presence of UOIT over 2010-2015 include the following:
- a) **The Education Premium** - An Ontario university degree holder earns on average \$561,000 more over a career than a high school graduate.
 - b) **Economic Stimulus of Higher Education** - Businesses tend to locate closer to supplies of university graduates.
 - c) **Innovation Premium** - University research and development leads to spin-off companies, usually located in proximity to the university.
 - d) **Volunteerism Premium** - University students volunteer more, producing an economic benefit estimated at \$ 2.9 million in Durham Region annually.
 - e) **Philanthropic Premium** - University graduates tend to donate more often and in larger amounts than do high school graduates. The most recent estimated benefit¹ of this was \$ 537 million in 2010 dollars.
 - f) **Student Spending** - Estimated at \$54-58 million in Durham Region annually.
 - g) **Visitor Spending** - Estimated at \$1.5-1.7 million in Durham Region annually.

¹ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*



City of Oshawa



The City of Oshawa is the largest municipality in Durham Region, with a population of 141,590 in 2006, representing 25% of Durham Region's population. Due to relatively slower forecasted growth rates of only 1.3% through 2031, Oshawa's population of 197,000 in 2031 will represent an estimated 20.5% of the population, dropping it behind Pickering to become the second-largest municipality in Durham Region.

Oshawa will comprise an estimated 23.9% of Durham Region by population in 2011. However, due to the fact that UOIT is located within the Municipality of Oshawa, although economic benefits will accrue to the Region, due to proximity, UOIT benefits will be weighted in favour of Oshawa. Adventus estimates that *Oshawa will receive a weighted average of 35% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the City of Oshawa.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Oshawa of \$45-92 million.**
2. A total of **494-946 person years of employment, or 99-189 jobs within Oshawa,** are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$13-27 million, the provincial government \$9-20 million and the **local government would collect \$2.5-5.3 million** in fees, permits and increased revenues due to higher property values in Oshawa.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$316-319 million** within Oshawa.
5. In terms of jobs created, 5,750-5,806 person years of work - an average of **1,150-1,161 jobs - will be created** within Oshawa.
6. In terms of revenues collected for the levels of government, the federal government would collect \$50 million, the provincial government \$37 million, and **the local government would collect \$9.8 million** within Oshawa.

Total Impacts

7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Oshawa is estimated at **\$79-95 million annually.**

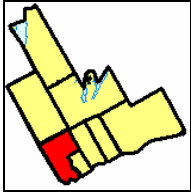
Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Oshawa economy are as follows:

* Restaurants	\$ 2.7 - 3.1 million
* Retail food industry	\$ 7.7 - 9.3 million
* Housing & rental accommodation	\$ 13.9 - 16.8 million
* Retail clothing	\$ 4.8 - 5.7 million
* Transportation (including autos & public transit)	\$ 9.1 - 11.1 million

8. The benefit to the City of Oshawa to investing \$ 2.5 million in a Downtown Oshawa UOIT Campus is \$4.2 million to the Ontario economy, of which **\$ 3.3 million would accrue mostly to the City of Oshawa.**
9. The ROI of this \$2.5 million investment to Oshawa over a two-year period would be 133%. The **annualized ROI** of the \$ 2.5 million investment by the City of Oshawa would therefore be **66.5%.**



City of Pickering



The City of Pickering is the fourth largest municipality in Durham Region as of 2006, with a population of 87,838, representing about 16% of the total population of the Region. However, Pickering, which grew at a rate of 3.9% in the 1976-2006 time period, is expected to continue growing virtually at the same pace (3.8%) through 2031, becoming the largest municipality by population in Durham Region, with a forecast 225,670 people by 2031.

Pickering will comprise an estimated 17.1% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be somewhat weighted in favour of Oshawa. Adventus estimates that *Pickering will receive a weighted average of 14.6% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the City of Pickering.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Pickering of \$19-38 million.**
2. A total of 206-395 person years of employment, or **41-79 jobs within Pickering,** are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$5-11 million, the provincial government \$4-8 million and the **local government would collect \$1.0-2.2 million** in fees, permits and increased revenues due to higher property values in Pickering.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$132-133 million** within Pickering.
5. In terms of jobs created, 2,398-2,421 person years of work - an average of **480-484 jobs - will be created** within Pickering.
6. In terms of revenues collected for the levels of government, the federal government would collect \$21 million, the provincial government \$15 million, and **the local government would collect \$4.1 million** within Pickering.

Total Impacts

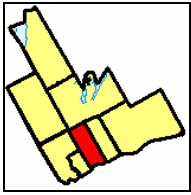
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Pickering is estimated at **\$33-40 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Pickering economy are as follows:

* Restaurants	\$ 1.1 - 1.3 million
* Retail food industry	\$ 3.2 - 3.9 million
* Housing & rental accommodation	\$ 5.8 - 7.0 million
* Retail clothing	\$ 1.9 - 2.4 million
* Transportation (including autos & public transit)	\$ 3.8 - 4.6 million



Town of Whitby



The Town of Whitby is the second-largest municipality in Durham Region as of 2006, with a population of 111,184, due to its strong average growth rate of 4.7% annually over the 1976-2006 period. Whitby's growth rate is expected to decrease to an average annual rate of 2.2% through 2031, towards a projected 2031 population of 192,860, making it Durham Region's third largest municipality by that time, after Pickering and Oshawa, with an estimated 20.1% of the Region's population.

Whitby will comprise an estimated 19.4% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Whitby will receive a weighted average of 16.6% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Town of Whitby.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Whitby of \$21-44 million.**
2. A total of 234-449 person years of employment, or **47-90 jobs within Whitby**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$6-13 million, the provincial government \$4-9 million and the **local government would collect \$1.2-2.5 million** in fees, permits and increased revenues due to higher property values in Whitby.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$150-151 million within Whitby.**
5. In terms of jobs created, 2,726-2,753 person years of work - an average of **545-551 jobs - will be created within Whitby.**
6. In terms of revenues collected for the levels of government, the federal government would collect \$24 million, the provincial government \$18 million, and the **local government would collect \$4.6 million within Whitby.**

Total Impacts

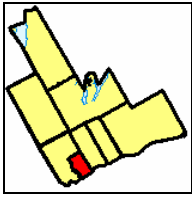
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Whitby is estimated at **\$38-45 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Whitby economy are as follows:

* Restaurants	\$ 1.3 - 1.5 million
* Retail food industry	\$ 3.6 - 4.4 million
* Housing & rental accommodation	\$ 6.6 - 8.0 million
* Retail clothing	\$ 2.3 - 2.7 million
* Transportation (including autos & public transit)	\$ 4.3 - 5.3 million



Town of Ajax



The Town of Ajax grew at the fastest rate of any Durham Region municipality in the 1976-2006 period, at an annualized rate of 5.0%, to become the third-largest municipality by population by 2006, at 90,167. However, its growth rate is forecast to drop significantly through 2031 to an annualized 1.7%, becoming Durham Region's fifth-largest municipality by 2031 with a population of 137,670 - representing 14.3% of the Region's population.

Ajax will comprise an estimated 19.4% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Ajax will receive a weighted average of 14.8% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Town of Ajax.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Ajax of \$19-39 million.**
2. A total of 209-400 person years of employment, or **42-80 jobs within Ajax**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$5-11 million, the provincial government \$4-8 million and the **local government would collect \$1.0-2.2 million** in fees, permits and increased revenues due to higher property values in Ajax.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$133-135 million within Ajax.**
5. In terms of jobs created, 2,431-2,455 person years of work - an average of **486-491 jobs - will be created within Ajax.**
6. In terms of revenues collected for the levels of government, the federal government would collect \$21 million, the provincial government \$16 million, and the **local government would collect \$4.1 million** within Ajax.

Total Impacts

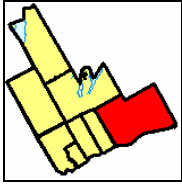
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Ajax is estimated at **\$33-40 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Ajax economy are as follows:

* Restaurants	\$ 1.2 - 1.3 million
* Retail food industry	\$ 3.2 - 3.9 million
* Housing & rental accommodation	\$ 5.9 - 7.1 million
* Retail clothing	\$ 2.0 - 2.4 million
* Transportation (including autos & public transit)	\$ 3.9 - 4.7 million



Municipality of Clarington



The Municipality of Clarington, which includes the communities of Bowmanville and Newcastle, which grew at 3.0% annually from 1976 through 2006 to become Durham Region's fifth-largest municipality with a population of 77,820, is forecast to continue to grow at nearly the same rate through 2031, growing to 140,340, and surpassing Ajax to become Durham's fourth largest municipality, with 14.6% of the Region's population.

Clarington will comprise an estimated 13.7% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Clarington will receive a weighted average of 11.7% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Municipality of Clarington.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Clarington of \$15-31 million.**
2. A total of 165-316 person years of employment, or **33-63 jobs within Clarington**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$4-9 million, the provincial government \$3-7 million and the **local government would collect \$0.8-1.8 million** in fees, permits and increased revenues due to higher property values in Clarington.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$105-107 million within Clarington.**
5. In terms of jobs created, 1,922-1,941 person years of work - an average of **384-388 jobs - will be created within Clarington.**
6. In terms of revenues collected for the levels of government, the federal government would collect \$17 million, the provincial government \$12 million, and the **local government would collect \$3.3 million within Clarington.**

Total Impacts

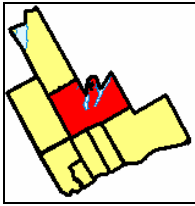
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Clarington is estimated at **\$27-32 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Clarington economy are as follows:

* Restaurants	\$ 0.9 - 1.0 million
* Retail food industry	\$ 2.6 - 3.1 million
* Housing & rental accommodation	\$ 4.6 - 5.6 million
* Retail clothing	\$ 1.6 - 1.9 million
* Transportation (including autos & public transit)	\$ 3.1 - 3.7 million



Township of Scugog



The Township of Scugog, which includes the community of Port Perry, is one of three more rural and significantly smaller (in population) municipalities in Durham Region. From 1976 through 2006, it grew at an annualized rate of 2.0% to reach a population of 21,511. It is forecast to grow at a 0.6% rate through 2031, reaching a population of 25,390, which will make it the seventh-largest municipality in Durham Region, with a 2.6% share of the population.

Scugog Township will comprise an estimated 3.5% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Scugog will receive a weighted average of 3.0% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Township of Scugog.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Scugog of \$4-8 million.**
2. A total of 42-81 person years of employment, or **8-16 jobs within Scugog**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$1.0-2.3 million, the provincial government \$0.8-1.7 million and the **local government would collect \$0.2-0.5 million** in fees, permits and increased revenues due to higher property values in Scugog.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$27 million** within Scugog.
5. In terms of jobs created, 493-498 person years of work - an average of **99-100 jobs - will be created** within Scugog.
6. In terms of revenues collected for the levels of government, the federal government would collect \$4.4 million, the provincial government \$3.2 million, and the **local government would collect \$0.8 million** within Scugog.

Total Impacts

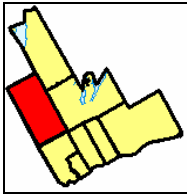
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Scugog is estimated at **\$7-8 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Scugog economy are as follows:

* Restaurants	\$ 0.2 - 0.3 million
* Retail food industry	\$ 0.7 - 0.8 million
* Housing & rental accommodation	\$ 1.2 - 1.4 million
* Retail clothing	\$ 0.4 - 0.5 million
* Transportation (including autos & public transit)	\$ 0.8 - 1.0 million



Township of Uxbridge



The Township of Uxbridge, is one of the three more rural and significantly smaller (in population) municipalities in Durham Region. From 1976 through 2006, it grew at an annualized rate of 1.9% to reach a population of 19,169. It is forecast to grow at a 1.3% rate through 2031, reaching a population of 26,965, which will make it the sixth-largest municipality in Durham Region, with a 2.8% share of the population.

Uxbridge Township will comprise an estimated 3.2% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Uxbridge will receive a weighted average of 2.7% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Township of Uxbridge.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Uxbridge of \$3.5-7.1 million.**
2. A total of 38-73 person years of employment, or **8-15 jobs within Uxbridge**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$1.0-2.1 million, the provincial government \$0.7-1.5 million and the **local government would collect \$0.2-0.4 million** in fees, permits and increased revenues due to higher property values in Uxbridge.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$24 million** within Uxbridge.
5. In terms of jobs created, 443-448 person years of work - an average of **89-90 jobs** - will be created within Uxbridge.
6. In terms of revenues collected for the levels of government, the federal government would collect \$3.9 million, the provincial government \$2.9 million, and the **local government would collect \$0.8 million** within Uxbridge.

Total Impacts

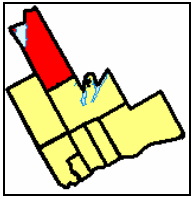
7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Uxbridge is estimated at **\$6-7 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Uxbridge economy are as follows:

* Restaurants	\$ 0.2 million
* Retail food industry	\$ 0.6 - 0.7 million
* Housing & rental accommodation	\$ 1.1 - 1.3 million
* Retail clothing	\$ 0.4 million
* Transportation (including autos & public transit)	\$ 0.7 - 0.9 million



Township of Brock



The Township of Brock, which includes the communities of Beaverton and Cannington, is one of the three more rural and significantly smaller (in population) municipalities in Durham Region. From 1976 through 2006, it grew at an annualized rate of 1.0% to reach a population of 11,979. It is forecast to grow at a 0.6% rate through 2031, reaching a population of 14,015, which will make it the seventh-largest (and smallest by population) municipality in Durham Region, with a 1.5% share of the population.

Brock Township will comprise an estimated 1.9% of Durham Region by population in 2011. However, due to proximity, UOIT benefits will be weighted somewhat in favour of Oshawa. Adventus estimates that *Brock will receive a weighted average of 1.6% of the total benefits accruing to Durham Region from UOIT from 2010-2015.*

Following is the summary of the 2010-2015 UOIT impacts to the Township of Brock.

Construction Impacts

1. The estimated construction costs for UOIT over 2010-2015 will support a temporary increase in income **within Brock of \$2.0-4.2 million.**
2. A total of 23-43 person years of employment, or **5-9 jobs within Brock**, are estimated to implement the proposed UOIT construction and/or renovation projects.
3. In addition, the federal government would collect \$0.6-0.8 million, the provincial government \$0.4-0.9 million and the **local government would collect \$0.1-0.2 million** in fees, permits and increased revenues due to higher property values in Brock.

Operating Impacts

4. The sustained economic benefits of the operations of UOIT will drive additional spending of **\$14 million** within Brock.
5. In terms of jobs created, 263-265 person years of work - an average of **53 jobs** - will be created within Brock.
6. In terms of revenues collected for the levels of government, the federal government would collect \$2.3 million, the provincial government \$1.7 million, and the **local government would collect \$0.4 million** within Brock.

Total Impacts

7. Based on the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures, student non-university spending and visitors, the total average economic impact of UOIT through 2010-2015 in Brock is estimated at **\$4 million annually.**

Within this estimate, the total **annual indirect economic impacts** of the presence of UOIT to selected sectors of the Brock economy are as follows:

* Restaurants	\$ 0.1 million
* Retail food industry	\$ 0.4 million
* Housing & rental accommodation	\$ 0.6 - 0.8 million
* Retail clothing	\$ 0.2 - 0.3 million
* Transportation (including autos & public transit)	\$ 0.4 - 0.5 million



Recommendations

The following are the recommendations of this study:

1. **That UOIT continue to work closely with the City of Oshawa to implement the expansion of the UOIT Downtown Oshawa Campus.**

It is clear from this assessment that the economic benefits to the City of Oshawa are significant and ongoing. UOIT and the City of Oshawa should also look to identify additional projects beyond 2015 where collaboration will continue to produce mutually beneficial results.

2. **That a baseline survey of the perceptions and impacts of UOIT on downtown Oshawa, City of Oshawa and Durham Region businesses and stakeholders should be conducted in the near future.**

In order to identify possible issues/problems, measure progress and confirm business trends, we recommend that a baseline survey of Oshawa business stakeholders be conducted in the near future (i.e. 2010-2011) and perhaps every 2-3 years thereafter.

3. **That UOIT should continue to focus on educating students for the human resources needs of the region.**

In order to maximize its contribution to the regional “education premium” - where university graduates earn significantly more over the course of their careers than their non-university graduate cohorts - UOIT should focus on providing programs that will contribute to meeting the expanding human resource needs of a rapidly growing Durham Region. By doing this, a significant increment of UOIT graduates will choose to seek employment locally and launch their careers in Durham Region, from which will accrue significant short and long-term benefits to the community.

4. **UOIT and Durham Region should work together to promote research opportunities.**

In this manner, UOIT can maximize its contribution to the local economy by way of the “innovation premium”, whereby UOIT-originated research and innovation spin-off, joint venture and consulting opportunities can be encouraged to remain within Durham Region, thus providing the significant long-term benefit of high-quality, high-paying local jobs. Durham Region and its municipalities can contribute to this benefit by offering progressive and business-friendly conditions for such local spin-off activities.



2. BACKGROUND & METHODOLOGY

2.1 History & Background

The University of Ontario Institute of Technology (hereafter referred to as UOIT) is currently completing a five year business plan and is projecting steady growth in several of its programs². To accommodate this influx of students, UOIT is looking at the possibility of various locations to house the facilities. Two faculties, Education and Criminology, Justice and Policy Studies, will be housed in close proximity in the Oshawa downtown by 2010, with the possibility of a third faculty moving downtown in 2011. The current total enrolment of UOIT is over 6,300.

In the long term, the increased student growth on the original campus and moving as many as 5,500 additional university students and faculty to downtown Oshawa will have a dramatic positive impact on the local economy. These people will take public transit; support the local eating establishments and purchase goods and services at local retailers. In addition, some may choose to live in the immediate vicinity, thus paying rent and taxes.

2.2 Objective

The purpose of this project to examine the economic impact of these developments at UOIT by examining the comparative impacts of similar projects in other selected Ontario cities, and based on their experience, determine the below items outlined in the scope of work:

2.3 Scope of Work

This study encompasses the following components:

1. **Comparisons to other similar sized cities showing economic and non-economic factors affected by universities.**

In the overall approach of this study, Adventus compares UOIT to similar situations and Adventus projects conducted in Kitchener (Wilfrid Laurier University) and Brantford (Laurier Brantford and Mohawk College).

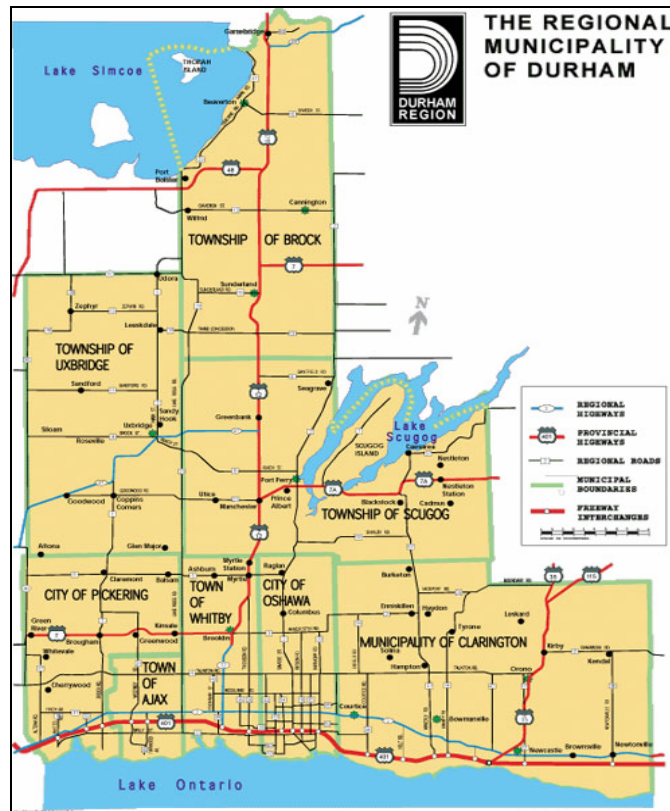
Demographic analysis for all sections of this report (except #6) compares Kitchener and Brantford information and maps them into an analysis (as listed below) including modelling and forecasting economic impacts separately for Durham Region and its eight Municipalities:

1. Durham Region - as a whole
 2. City of Oshawa
 3. City of Pickering
 4. Town of Whitby
 5. Town of Ajax
 6. Municipality of Clarington
 7. Township of Scugog
 8. Township of Uxbridge
 9. Township of Brock
2. **Implications of economic change for the Durham Region due to the creation and growth of UOIT.** For example, are businesses likely to increase or decrease, and will the service mix likely change? What is likely to be the regional "portrait" in about twenty years (i.e. 2031)? Again, Adventus took a comparative approach, utilizing the information and analysis obtained in the Brantford and Kitchener projects.

² Bordessa, R., **UOIT Business Plan 2010-2015**, January 2010

3. Estimation of the impact on the employment picture in Durham Region. For example, how many jobs have been/will be created or supported by the university and what percentage would be of Oshawa's total employed labour force? Adventus estimated the impact on local employment by reviewing similar data collected in the Brantford and Kitchener projects, and cross referencing and scaling this information against available regional demographic data.
4. Estimation of the likely impact of change in the economic status of individuals within the Region. Adventus estimated the incremental economic benefit to individuals due to the anticipated growth of UOIT.
5. Estimating how the growth will affect the university's buying power in Durham Region. (A specific analysis was done on the initial direct cash flow arising from local expenditures of the university, its faculty and staff, students and visitors). Adventus modelled the growth in the university's buying power, based on a comparative analysis of similar calculations performed in Brantford and Kitchener.
6. Estimation of the return on investment for the City of Oshawa by investing in UOIT's move downtown. Adventus estimated the economic benefit of the UOIT move downtown (through comparative analysis), and based on a percentage of the estimated costs of such a move, will calculate an estimated return on investment of such a move.
7. Recommendations are made coming out of the experience of other cities on how this information can apply to UOIT. Adventus reviewed the experiences of other population centres in similar situations (Metropolitan Brantford and Waterloo Region) to identify relevant recommendations for UOIT and Oshawa.

Figure 1: The Eight Municipalities of Durham Region



Source: Durham Regional Profile (2010)



2.4 Overview of Study Process

Orientation

The project was initiated with an orientation session with the UOIT team. The client was given the opportunity to further discuss the project, and review expectations and timelines. Also, the client was given the opportunity to suggest relevant sources of secondary information and primary interviews.

Information Collection - Secondary

The next step was to collect secondary information as necessary (i.e. information already published from other sources) as it relates to benchmarking data on the economic and social impact of the establishment of campuses of post-secondary educational institutions in cities similar to Oshawa in size and/or geographical proximity.

For a list of secondary sources reviewed and/or referenced in this study, please see the Bibliography in section 6.1.

Economic Impact Modelling

Economic impact modelling consists of benchmarking of the comparative Durham Region/UOIT data across relevant Brantford and Kitchener economic and social statistics, with the appropriate analyses and extrapolations to yield an estimate of the economic impacts of UOIT. This is primarily accomplished through standard economic impact modelling, using accepted multipliers and methodologies obtained through similar recent studies, including work performed recently by Adventus Research Inc.

For further information on the economic modelling methodology and assumptions used in this study, please see section 2.5 and 3.1.

Analysis and Reporting

All information was collected and analysed and a written report has been provided to the client within 7.5 weeks after project commissioning. Subsequent to the issuing of the report, a review meeting shall be held between Adventus and UOIT to discuss the report. During the course of the study, Adventus liaised regularly with the client.



2.5 Methodology: Economic Impact Modelling - Factors Affected by Universities

Based on this analysis and on previous work by Adventus Research on the impacts of post-secondary institutions in Brantford and Waterloo Region, we note that the following issues are relevant to the discussion of the economic and non-economic factors affected by universities.

Although a university or college is primarily an educational institution, it is also an economic entity. It hires faculty and staff, pays wages and salaries and purchases a variety of goods and services from outside of the university. The incomes earned by those employed by the university/college and those employed by suppliers to the university/college are spent (to a large extent) back in the community, creating further rounds of economic activity. As well, students and visitors create economic activity that ripples through the local economy and generates additional activity in turn.

The total economic impact of an institution is not limited to its direct expenditures. New spending always generates a series of “rounds” of economic activity, the sum total of which is greater than the initial spending amount. For instance, if a university engages in a new capital project and spends \$1 million, that amount flows to all of the inputs into the project: architectural services, services for machinery and, mainly, labour services to the people that work on the project. Those payments become, in turn, the income of those who receive it. That income gets distributed several ways. Some of it is taxed away at the source and some of it is saved. But much of it is spent on goods and services. And a small amount leaves the local community when people buy goods from outside sellers or when they travel; a process called “leakage”.

The “**multiplier**” is the technical concept that captures the extent to which the initial spending generates a magnified amount of economic activity. A multiplier of 2, for example, means that new spending of \$1 million in the community will result in \$2 million of total additional income in the community. *The use of an appropriate multiplier allows for proper estimation of the full impact of an entity or a new spending project in a community.*

A major Canadian university economic impact study was conducted by McMaster University in 1992⁴. Using an input-output model, the province-wide impacts of university spending were examined and it was found that Ontario Universities as a whole were responsible for a total of \$8.3 Billion in the provincial economy, and a total of 182,000 jobs.

It was also noted that the “value - added” by universities is high in comparison with other industries, and multipliers are also high, and ranged between 2.15 and 2.4. Nevertheless, the local impacts of university expenditures are “typically consistent and significant. Their non-cyclical pattern shields the local economies and sectors dependant on these expenditures from wide swings characteristic of market-oriented economies and regions with limited economic bases.” More recently, the PricewaterhouseCoopers study conducted for the University of Waterloo in 2001 utilized an overall economic multiplier of 2.35 province-wide and 1.96 for Waterloo Region specifically.

It is also important to remember that the economic impacts of any development are almost never contained within the boundaries of a single municipality. If even one employee lives outside of the municipality, some of the economic benefits will leak beyond the municipal boundaries. For this reason, it is necessary to estimate the proportion of employment and spending that will occur within a given municipality in order to accurately represent what the impact will be.

⁴ Kubursi, A., **The Economic Impact of University Expenditures**, McMaster University, 1992



The following figure summarizes some relatively recent published economic multiplier - total GDP impact information found in recent studies. The Universities selected reflect a range of sizes and regions of institutions across Canada.

Figure 2
Sustainable Economic Impact Estimates of Some Universities across Canada & Derivation of Multipliers

University/College	University Expenditure (\$ mil/year)	Multiplier / Impact Ratio (\$ x 1\$ Expenditure)	Total GDP Impact (\$ mil/year)
University of New Brunswick	\$ 173 (00)	1.68 (Province-wide)	\$ 291
University of British Columbia	\$ 806 (98)	1.30 (Province-wide)	\$ 1046
Lakehead University	\$ 72 (98)	2.15 (Province-wide)	\$ 155
University of Windsor	\$ 139 (98)	2.15 (Province-wide)	\$ 299
University of Waterloo	\$ 314 (99)	2.34 (Province-wide)	\$ 735
		1.96 (Waterloo Region)	\$ 615
Wilfrid Laurier University	\$ 92 (98)	2.34 (Province-wide)	\$ 216
		1.96 (Waterloo Region)	\$ 180

Sources: Council of Ontario Universities Study (2001), Adventus Research

The calculation of the overall economic impact of monies forecast to be spent on UOIT over the 2010-2015 period depends on a number of factors, which can be grouped into four principal areas. The first three (direct, indirect and induced) are quantitative impacts, and are measurable in dollars. The fourth area is the qualitative impacts, concentrating on improvements to various aspects of the quality of a community, and is not usually measured in dollars.

Direct impacts

These are the impacts that result from initial expenditures in the local economy (including private sector construction projects planned as a direct result of investments in the Universities):

- ❑ The costs of ongoing construction and renovation, with the associated wages and materials.
- ❑ The costs of operating expenditures, including:
 - ❑ Salaries (faculty & support staff),
 - ❑ Goods and services.

Indirect impacts

These include the subsequent purchases by suppliers of services and materials to sustain the original initiative:

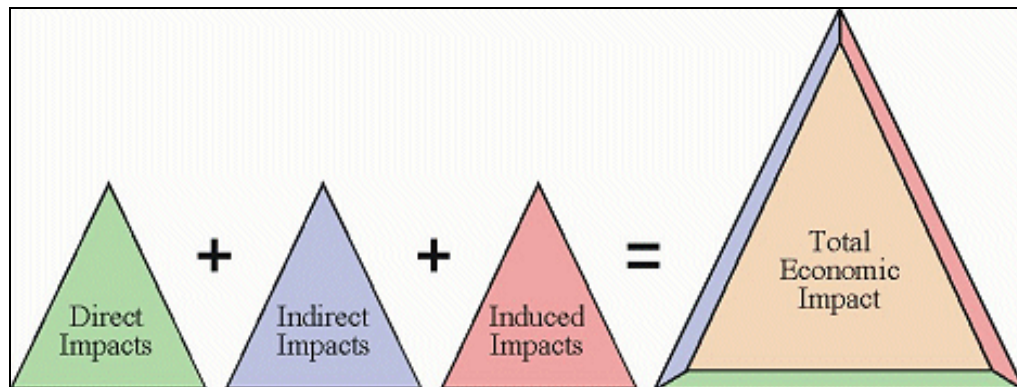
- ❑ Salaries paid or jobs created from producing the supplies to be used in the construction or operation of the project.
- ❑ Spending of full-time and part-time students, faculty and staff (on and off campus):
 - ❑ Local student activity expenditures,
 - ❑ Consumer goods,
 - ❑ Recreation,
 - ❑ Entertainment,

- Housing,
- Miscellaneous goods and services.
- Spending of visitors to the institutions to attend functions on campus:
 - Open houses, tours, conferences sponsored by professional associations, societies etc., student and/or faculty events, academic conferences, sporting and cultural events, etc.

Induced impacts

These are the secondary economic effects that result when workers and suppliers in sectors stimulated by the direct and indirect expenditures spend their additional income on local consumer goods and services:

Figure 3: Total Economic Impact



Source: Government of Ontario (2010)

Qualitative Factors

- Urban revitalization issues
 - Reclaiming derelict or declining buildings and areas,
 - Integrating new buildings with the architectural character of the downtown core,
 - Strengthening pedestrian-friendly neighbourhoods with a mix of activities within walking distance of homes,
 - Expanded entertainment facilities,
 - Buildings not suitable for commercial use that can be used as academic space.
- Business & economic growth issues
 - With respect to local business - have initiatives had impact on the growth and/or sustainability of your company?
- Social issues / Volunteerism
 - Student/staff involvement in charitable activities,
 - Increase in volunteer pool available,
 - High levels of participation in charities, fund raising events and volunteer work,
 - Community involvements, activities and donations.
- Graduate Rates
 - Student graduate rates: Example - How many 1st year students complete, withdraw, transfer out to another college or university?



In addition, following are some definitions to assist in the interpretation of the results.

Initial expenditures

- The amount of expenditures directly made by the operators of the facility.

Value Added

- The net output generated by initial expenditures, typically the sum of wages, rent, interest and profits in addition to indirect business taxes and depreciation minus subsidies.

Employment

- The total person-years in full time equivalent jobs, generated by the facility and its sustaining activities.

Taxes

- An estimate of the various taxes, including income taxes, GST, liquor, tobacco, etc., each linked with the level of government receiving it.

Imports

- The goods and services acquired from outside the province to sustain the activities of the facility and its visitors (i.e. the leakage from the province).

Multipliers

- The summary measures representing the division of the total impacts (direct, indirect and induced) by the initial expenditures.



3.0 REPORT FINDINGS

3.1 Community Profiles - An Overview Comparison

In the overall approach of this study, Adventus Research calculates and models the economic impacts of UOIT using standard economic modelling methodologies utilizing appropriate economic multipliers (see section 3.2), and also compares the impact of UOIT to previous Adventus Research projects on other Ontario-based post-secondary situations, particularly to Waterloo Region (Faculty of Social Work - 2004) and the Brantford - Census Metropolitan Area (Laurier Brantford and Mohawk College - 2005).

Therefore, to set the stage for the analysis and derive some important quantitative benchmarks for use in the regional and municipality calculations that follow in the analysis, section 3.1 of this report provides a quantitative overview of the communities of Durham Region and the communities compared in this analysis, specifically comparing UOIT/Durham Region with WLU/Waterloo Region and Laurier-Brantford/Brantford.

3.1.1 Durham Region & Municipalities

In order to map the impact of UOIT into an analysis that includes modelling and economic impact assessments separately for overall Durham Region and its eight separate municipalities, the following figure summarizes the relevant demographic data for Durham Region, and is based on the 2006 Statistics Canada Community Profiles and the 2009 Durham Regional Profile.

Figure 4
Durham Region & Its Eight Municipalities: Overall Demographic Data

Municipality	Ave. Annual Growth 1976-2006	Population in 2006	Population in 2016 (Forecast)	Population in 2031 (Forecast)	Ave. Annual Growth 2006-2031	Share of Population in 2031
City of Oshawa	0.9%	141,590	165,390	197,000	1.3%	20.5%
City of Pickering	3.9%	87,838	141,125	225,670	3.8%	23.6%
Town of Whitby	4.7%	111,184	140,625	192,860	2.2%	20.1%
Town of Ajax	5.0%	90,167	126,325	137,670	1.7%	14.3%
Municipality of Clarington	3.0%	77,820	97,050	140,340	2.4%	14.6%
Township of Scugog	2.0%	21,511	23,250	25,390	0.6%	2.6%
Township of Uxbridge	1.9%	19,169	22,545	26,965	1.3%	2.8%
Township of Brock	1.0%	11,979	12,650	14,015	0.6%	1.5%
Durham Region	2.8%	561,258	729,000	960,000	2.2%	100%

Source: Statistics Canada & Durham Regional Profile (2009)

Over the past 30 years, the total population of each municipality in Durham Region has increased by varying degrees.

The population of Ajax more than quadrupled between 1976 (20,774) and 2006 (90,167), while Whitby almost quadrupled from 28,173 (1976) to 111,184 (2006). Pickering and Clarington experienced large increases in total population between 1976 and 2006, while the northern Townships of Brock, Scugog and Uxbridge grew more modestly. Oshawa experienced the smallest percentage increase in total population over the past 30 years, but maintained the largest overall population within the Region between 1976 (107,023) and 2006 (141,590).



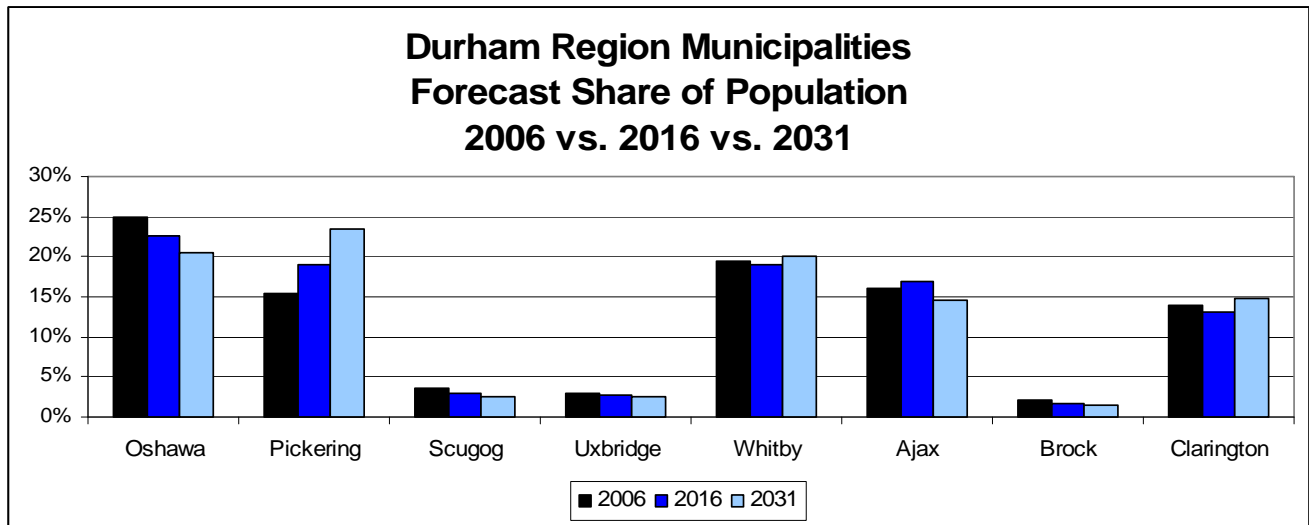
Also, it is important to note that Durham Region is growing faster than the overall population of Ontario, growing from 3.0% of the province’s population in 1976 to 4.6% by 2006.⁵

Looking forward to 2031, the overall average growth rate of Durham Region is expected to fall slightly to 2.2% annually, off from the 2.8% average of the 1976-2006 period. Pickering is expected to be the municipality forecast to have the highest rate of growth, growing at 3.8% annually, virtually the same rate as during the 1976-2006 period. On a percentage basis, Clarington is expected to have the second-highest growth rate in Durham Region, at 2.4% annually.

The following figure examines the changing share of population of Durham Region from 2006 census through the 2031 forecast, showing:

- The future growth of share of population of Pickering,
- The relative decline of share of population of Oshawa,
- The relative stability of the shares of population of Scugog, Uxbridge, Whitby, Brock and Clarington.

Figure 5



Source: Durham Regional Profile (2009)

⁵ Durham Regional Profile, page 1-6



3.1.2 Some Comparisons - Durham Region vs. Waterloo Region & Brantford

For comparison purposes, Durham Region is larger in population, faster-growing and more affluent than either Waterloo Region or the Census Metropolitan Area (CMA) of Brantford.

Durham Region is significantly more affluent (+24.7%) in terms of household income than the provincial average, whereas Waterloo Region is marginally more affluent (+6.7%), and Brantford CMA is marginally less affluent (-6.3%) than Ontario as a whole. Durham Region is also expected to grow at a much faster rate over the next 25 years (2.2% annually) than the provincial average (1.2%), and faster than either Waterloo Region (1.7%) or Brantford (1.6%).

By age, citizens of Durham Region are younger than those of Brantford or Ontario as a whole, but slightly older than those of Waterloo Region. By occupational profile, citizens of Durham Region most closely resemble that of Ontario overall, with a greater percentage of the workforce working in business services and a smaller percentage working in manufacturing than in either Waterloo Region or Brantford CMA.

Figure 6
Comparative Profiles:
Durham Region vs. Waterloo Region & Brantford CMA

	Durham Region	Waterloo Region	Metropolitan Brantford	Ontario
Population - Selected Statistics				
Median age of population - 2006	37.7	36.4	39.6	39.0
2001 Population	506,901	438,515	118,086	11,410,046
2006 Population	561,258	478,121	124,607	12,160,282
2011 Population - Forecast	644,000	548,000	138,000	13,349,100
2031 Population - Forecast	960,000	729,000	184,000	16,366,200
Annual Forecast Growth Rate: 06-31	2.2%	1.7%	1.6%	1.2%
Income - Selected Statistics				
Median Earnings - Persons 15 & over - worked full year, full time (\$ in 2005)	\$ 49,823	\$ 44,281	\$ 41,741	\$ 44,748
Median Income - All Private Households (\$ in 2005)	\$ 75,397	\$ 64,522	\$ 56,624	\$ 60,455
Education - Selected Statistics				
Total Population - 15-64	384,765	328,735	82,610	8,263,165
Population 15-64 attaining university degree - Bachelor & above	61,500 16.0%	64,520 19.6%	10,010 12.1%	1,843,455 22.3%
Labour Force - Selected Statistics				
Total labour force: 15 yrs & over - 2006	308,895	269,265	66,660	6,473,730
Business Services	58,945 19.1%	44,485 16.5%	10,915 16.4%	1,274,345 19.7%
Manufacturing	40,535 13.1%	60,375 22.4%	14,210 21.3%	899,670 13.9%
Retail	36,605 11.9%	29,450 10.9%	6,960 10.4%	720,235 11.1%
Educational Services	20,335 6.6%	20,515 7.6%	4,045 6.1%	433,485 6.7%

Sources: Statistics Canada (2010)

In summary, while there are some small differences between Durham Region and the two other jurisdictions used for comparison purposes in this study, Waterloo Region and the Brantford CMA, these differences are relatively small and a comparative economic impact analysis is therefore valid.

3.2 UOIT - Public & Private Construction & Operations Estimates: 2010-2015

Introduction

An overall quantitative economic impact analysis of UOIT follows in this section and is provided with low, medium and high estimates, in cumulative five-year format. The low and high estimates use the lowest and highest estimates for enrolment and construction. The medium estimate uses the midpoints of the high and low estimates.

Calculation of Impacts - Public & Private Construction

In order to calculate the impacts of construction, all significant construction projects must be incorporated into the analysis. The following figure outlines all current construction projects underway, planned or proposed for UOIT, including private developments. It does not include projects that are considered as complete by January 1, 2010.

Figure 7
**UOIT - Current or Planned Significant Public & Private Construction:
2010-2015**

	Project	Public or Private	Purpose	Cost \$Millions	Year Completed	Commitment Status
1	Annual Capital Budget	Public	Multipurpose	\$ 4.00 M	2015	Committed (& Ongoing)
2	Dulemba Property	Public	Multipurpose	0.03 M	2011	Committed
3	ACE	Public	Research	53.78 M	2015	Committed
4	Energy Research Centre	Public	Multipurpose	45.40 M	2014	Committed (100% KIP funded)
5	Business & IT Building ⁶	Public	Multipurpose	40.00 M	2014	Possible (As per LTCP)
6	Health Sciences Centre	Public	Multipurpose	56.25 M	2014	Possible (As per LTCP)
7	Research Park	Public	Research	95.00 M	2015	Possible
8	Infrastructure Upgrades	Public	Multipurpose	2.00 M	2013	Committed (Sewer & power)
9	Victoria St. Urban Park	Private	Multipurpose	0.60 M	2011	Committed
10	61 Charles St.	Private	Multipurpose	25.00 M	2011	Committed
11	55 Bond St.	Private	Classrooms	10.00 M	2011	Committed
12	Genosha Research Labs	Private	Multipurpose	0.40 M	2011	Committed (lab construction)
13	Dundurn Residences	Private	Residences	32.00 M	2011	Committed
14	Genosha Hotel	Private	Residences	6.10 M	2011	Committed
Total Value: Public & Private Construction: 2010 - 2015				\$179.3-370.6 M		

Source: UOIT Planning & Budget Documents

As can be seen from the above figure, there is a relatively wide variance between the low and high construction estimates for UOIT for the 2010-2015 period. The primary reason for the variance in estimates is based on the three large proposed projects (Business & IT Building expansion, Health Sciences Centre and Research Park), which could move forward in the 2014-2015 period, but which are not committed projects at present.

⁶ Expansion plan



The UOIT direct expenditures information in figure 8 is summarized in order to model the economic impacts of a) construction and/or renovation, and b) operating expenditures of UOIT for the 2010-2015 period.

The operating expenditures (salaries and goods and services) forecast is based on the most recent budget data (2010), pro-rated to match the forecast growth in the student body (first line of figure 8), both supplied by UOIT.

Figure 8
UOIT - Direct Impacts of Construction & Operations
Estimates for 2010-2015

Item	2010/11	2011/12	2012/13	2013/14	2014/15	Spending 5 Year Total	
Student Forecast							
Undergraduate FTEs ⁷	6,615	7,539	8,477	9,368	10,087		
Graduate FTEs	576	701	844	932	1,083		
Total FTEs	7,191	8,240	9,321	10,300	11,170	Ave = 9,244	
Direct Impacts							
Construction / Renovation	Public	\$ 61.8 M	\$ 13.4 M	\$ 3 - 28 M	\$ 26-97.3M	\$ 1 - 96 M	\$ 105.2 - 296.5 M
	Private	\$ 74.1 M	\$ 0 M	\$ 0 M	\$ 0M	\$ 0 M	\$ 74.1 M
Total Forecast Expenditures - Range of Estimated Construction Costs						\$ 179.3-370.6 M	
Operating Expenditures⁸:							
Existing Infrastructure	\$99.2 M	\$113. 6 M	\$129.7 M	\$142.8 M	\$158.1 M	\$ 643.4 M	
Expansion Plans ⁹ 2010-2015	\$5.6 M	\$6.8 M	\$8.4 - 9.0M	\$7.1 - 8.8M	\$7.3- 11.5M	\$ 35.2 - 41.7 M	
Total Forecast Expenditures - Range of Estimated Operating Costs						\$ 678.6-685.1 M	

Sources: UOIT, Adventus Research estimates

As can be seen from the above figure, while the estimated costs of construction are between \$179.3 and 370.6 million (with a midpoint calculation of \$ 275.0 million), this number is only approximately half the size of the forecasted operating costs of the university over the 2010-2015 period, at between \$ 678.6 and 685.1 million.

⁷ FTE = Full-time equivalent students

⁸ From 2010-2015 UOIT Business Plan – includes staff and faculty salaries, and other documents

⁹ The upper range of expansion plans forecast is based on extrapolating the existing expansion plan operating budget based on a ratio of the additional square footage requirements for the three possible projects (Business and IT expansion, Health Science Centre and Research Park)

3.3 Economic & Employment Impacts for Durham Region

In this section, we examine the implications of economic change for Durham Region. For example, are businesses likely to increase or decrease in number, and will the service mix likely change? What is the likely portrait of the region in about 20 years (i.e. in 2031)?

We also estimate the impact on local employment in Durham Region, both in aggregate and for each of the eight municipalities. For example, how many jobs have been/will be created or supported by UOIT and what percentage would this represent of the workforce?

3.3.1 Direct, Indirect & Induced Impacts: 2010-2015 - Durham Region

Construction Impacts - Durham Region

The construction impact model calculations for UOIT in figure 9 are based on the initial estimated range of expenditures, as summarized in figure 8, of between \$ 179.3 million and \$ 370.6 million (together with a midpoint calculation of \$ 275.0 million).

They are based on multipliers used in the Laurier Brantford / Mohawk College (2005) and University of Waterloo Faculty of Social Work (2004) economic impact studies, which we determined in section 3.1.2 was valid to utilize in Durham Region. Those models in turn utilized methodology from the recent (2003) Econometric business model for the Region of Waterloo. Specifically, the multipliers used in this study are¹⁰:

- For construction impacts¹¹: Ontario multiplier = 1.19; Local multiplier = 0.71
- For ongoing operating impacts: Ontario multiplier = 1.67; Local multiplier = 1.33

Figure 9
UOIT: Construction Impacts - 2010-2015

Initial Expenditure		Ontario			Durham Region		
		Low \$ 179.3 M	Medium \$ 275.0 M	High \$ 370.6 M	Low \$ 179.3 M	Medium \$ 275.0 M	High \$ 370.6 M
Value Added	Multiplier	1.19	1.19	1.19	0.71	0.71	0.71
	Direct	\$ 83.4 M	\$ 127.9 M	\$ 172.3 M	\$ 83.4 M	\$ 127.9 M	\$ 172.3 M
	Indirect/Induced	\$ 130.0 M	\$ 199.4 M	\$ 268.7 M	\$ 43.9 M	\$ 67.4 M	\$ 90.8 M
	Total	\$ 213.4 M	\$ 327.3 M	\$ 441.0 M	\$ 127.3 M	\$ 195.3 M	\$ 263.1 M
Wages & Salaries	Direct	\$ 64.8 M	\$ 99.7 M	\$ 134.3 M	\$ 41.8 M	\$ 59.5 M	\$ 80.2 M
	Indirect/Induced	\$ 77.1 M	118.0 M	\$ 159.0 M	\$ 49.5 M	\$ 70.4 M	\$ 94.8 M
	Total	\$ 141.9 M	\$ 217.7 M	\$ 293.3 M	\$ 91.3 M	\$ 129.9 M	\$ 175.0 M
Employment (person years)	Direct	744	1,146	1,543	480	584	922
	Indirect/Induced	1,449	2,219	2,990	931	1,423	1,782
	Total	2,193	3,365	4,533	1,411	2,007	2,704
Taxes	Federal	\$ 37.2 M	\$ 57.0 M	\$ 76.8 M	\$ 18.7 M	\$ 34.0 M	\$ 45.8 M
	Provincial	\$ 27.2 M	\$ 41.6 M	\$ 56.1 M	\$ 13.7 M	\$ 24.9 M	\$ 33.5 M
	Local	\$ 7.1 M	\$ 11.0 M	\$ 14.8 M	\$ 3.6 M	\$ 6.5 M	\$ 8.8 M
	Total	\$ 71.5 M	\$ 109.6 M	\$ 147.7 M	\$ 36.0 M	\$ 65.4 M	\$ 88.1 M

Sources: Adventus Research, UOIT

¹⁰ These operating multipliers are somewhat more conservative than most, but not all, of the operating multipliers displayed in Figure 2.

¹¹ Construction impacts are estimated differently than operating impacts, and multipliers are usually significantly lower.



UOIT: Construction Impacts on the Region of Durham

As has been stated earlier in the analysis, estimated construction and renovation costs for UOIT over the 2010-2015 timeframe will likely total \$179 - 370.6 million. These expenditures will support a temporary increase in income in the province of \$213.4 - 441.0 million, of which **\$127.3 - 263.1 million** would be retained within Durham Region.

Based on an estimate of an average wage of \$87,000¹² per direct construction job and an average total wage of \$64,700¹³, a total of 2,193 - 4,533 person years of employment are estimated to implement the proposed projects. Of this amount, an estimated **1,411 - 2,704 person-years** of employment will come from Durham Region, representing a 5-year average of **282 - 541 jobs**.

In addition, the government will collect taxes at all levels. The federal government would collect \$37.2 - 76.8 million, primarily from personal income taxes and GST. The provincial government would collect \$27.2-56.1 million. Local government would collect \$7.1 - 14.8 million, in fees, permits and increased revenues due to higher property values.

In terms of employment, the 282 - 541 Durham Region direct and indirect construction and renovation-related jobs estimated to implement the proposed UOIT projects **represent approximately 0.1 - 0.2% of the estimated total Durham Region labour force of 310,690¹⁴ in 2011.**

¹² Based on Econometric model estimates of typical wages for these jobs & adjusted for inflation.

¹³ Both of these wage levels are relatively high, and would contribute to raising the overall wage levels in the area.

¹⁴ Based on **Durham Region: 2006 Regional Profile**, and extrapolated to 2011.



Operations Impacts - Durham Region

The sustainable economic impact estimate of the operations of UOIT following in figure 10 is based on staffing and operational cost data supplied by UOIT¹⁵, and is presented in cumulative five-year form.¹⁶

Figure 10
UOIT: Impacts of Operations - 2010-2015

Initial Expenditure		Ontario			Durham Region		
		Low \$ 678.6 M	Medium \$ 681.9 M	High \$ 685.1 M	Low \$ 678.6 M	Medium \$ 681.9 M	High \$ 685.1 M
Value Added	Multiplier	1.67	1.67	1.67	1.33	1.33	1.33
	Direct	\$ 590.4 M	\$ 593.3 M	\$ 596.0 M	\$ 590.4 M	\$ 593.3 M	\$ 596.0 M
	Indirect/Induced	\$ 542.9 M	\$ 545.4 M	\$ 548.1 M	\$ 312.1 M	\$ 313.6 M	\$ 315.2 M
	Total	\$ 1,133.3 M	\$ 1,138.7 M	\$ 1,144.1 M	\$ 902.5 M	\$ 906.9 M	\$ 911.2 M
Wages & Salaries	Direct	\$ 409.1 M	\$ 411.2 M	\$ 413.1 M	\$ 409.1 M	\$ 411.2 M	\$ 413.1 M
	Indirect/Induced	\$ 330.5 M	\$ 332.1 M	\$ 333.7 M	\$ 231.6 M	\$ 232.7 M	\$ 233.9 M
	Total	\$ 739.6 M	\$ 743.3 M	\$ 746.8 M	\$ 640.7 M	\$ 643.9 M	\$ 647.0 M
Employment (person years)¹⁷	Direct	10,489	10,543	10,592	10,489	10,543	10,592
	Indirect/Induced	8,474	8,515	8,556	5,938	5,966	5,997
	Total	18,963	19,058	19,148	16,427	16,509	16,589
Taxes	Federal	\$ 180.0 M	\$ 180.8 M	\$ 181.7 M	\$ 144.6 M	\$ 145.4 M	\$ 146.1 M
	Provincial	\$ 131.5 M	\$ 132.2 M	\$ 132.8 M	\$ 105.7 M	\$ 106.2 M	\$ 106.7 M
	Local	\$ 34.6 M	\$ 34.8 M	\$ 34.9 M	\$ 27.9 M	\$ 28.0 M	\$ 28.1 M
	Total	\$ 346.1 M	\$ 347.8 M	\$ 349.4 M	\$ 278.2 M	\$ 279.6 M	\$ 280.9 M

Sources: Adventus Research, UOIT

UOIT: Operational Impacts on the Region of Durham

The sustained economic benefits of the operations of UOIT are based on the direct operating expenditures of \$ 678.6 - \$ 685.1 million over the 2010 - 2015 period. This in turn drives expenditures of \$ 1,133.3 - 1,144.1 million in the Province, of which **\$ 902.5 - 911.2 million will be spent within Durham Region.**

In terms of jobs created, according to this model, an estimated 18,963 - 19,148 person-years of work, or an average of 3,793 - 3,830 jobs, will be sustained by the activities of UOIT in the province. Of this amount, 16,427 - 16,589 person-years - an average of **3,285 - 3,318 jobs** - will be from Durham Region. For the purpose of this model, the indirect and induced full-time job wages are estimated at \$ 39,000 each.

In terms of revenues derived for the levels of government within Durham Region, total operational impacts are estimated at \$ 144.6 - 146.1 million for the federal government, \$ 105.7 - 106.7 million for the provincial government, and \$ 28.0 - 28.1 million for the local government.

In terms of employment, the 3,285 - 3,318 Durham jobs estimated to be sustained by the activities of UOIT represents 1.1% of the estimated total Durham Region labour force of 310,690 in 2011.

¹⁵ UOIT Business Plan 2010-2015, page 32 & Downtown Pro-forma documents

¹⁶ Multipliers used in these calculations and others in this study are the same as those used in the 2005 Laurier Brantford study, and are considered conservative.

¹⁷ Average salary calculated at \$ 39,000

3.3.2 Direct, Indirect & Induced Impacts: 2010-2015 - By Municipality

In order to understand the complete and detailed nature of the impacts of UOIT on Durham Region, it is necessary to examine these impacts on a municipality-by-municipality basis, as follows:

Economic Impacts of UOIT - By Municipality

The following figure 11 illustrates the economic impact in the Municipalities of Durham Region due to the planned and proposed construction and renovation projects and general operations of UOIT over the 2010-2015 period.

In this model, we estimate that, on a municipality basis, the economic benefits of UOIT will accrue somewhat more significantly to the City of Oshawa than to the other municipalities of Durham Region, due to the physical location of UOIT being within the City of Oshawa itself.

**Figure 11:
Economic Impact Due to UOIT
By Municipality**

Municipality	Population in 2011	Share of Regional Population in 2011	Weighted Share of UOIT Economic Impact ²⁵	Economic Impact Due to Construction Projects of UOIT 2010-2015 (\$ Millions)	Economic Impact Due to Operations of UOIT 2010-2015 (\$ Millions)	Total Economic Impact Due to Construction & Operations of UOIT 2010-2015 (\$ Millions)
City of Oshawa	153,585	23.9%	35.0%	\$ 44.6 - 92.1	\$ 315.9 - 318.9	\$ 360.5 - 411.0
City of Pickering	110,085	17.1%	14.6%	\$ 18.6 - 38.4	\$ 131.8 - 133.0	\$ 150.4 - 171.5
Town of Whitby	124,990	19.4%	16.6%	\$ 21.1 - 43.7	\$ 149.8 - 151.3	\$ 170.9 - 195.0
Town of Ajax	111,355	17.3%	14.8%	\$ 18.8 - 38.9	\$ 133.6 - 134.9	\$ 152.4 - 173.8
Municipality of Clarington	87,980	13.7%	11.7%	\$ 14.9 - 30.8	\$ 105.6 - 106.6	\$ 120.5 - 137.4
Township of Scugog	22,585	3.5%	3.0%	\$ 3.8 - 7.9	\$ 27.1 - 27.3	\$ 30.9 - 35.2
Township of Uxbridge	20,940	3.2%	2.7%	\$ 3.4 - 7.1	\$ 24.4 - 24.6	\$ 27.8 - 31.7
Township of Brock	12,385	1.9%	1.6%	\$ 2.0 - 4.2	\$ 14.4 - 14.6	\$ 16.4 - 18.8
Durham Region Overall	643,905	100%	100%	\$ 127.2 - 263.1	\$ 902.6 - 911.2	\$1,029.8-1,174.4

Sources: UOIT, Statistics Canada, Adventus Research

²⁵ Due to the fact that UOIT is located within the Municipality of Oshawa, although economic benefits will accrue to the Region, due to proximity such benefits will be weighted in favour of Oshawa. The model calculations of this weighting are displayed in this column.

Jobs Created Due to UOIT - By Municipality

The following figure 12 illustrates the jobs created in the Municipalities of Durham Region due to the planned and proposed construction and renovation projects and general operations of UOIT over the 2010-2015 period.

**Figure 12:
Jobs Created in Durham Region Due to UOIT
By Municipality**

Municipality	Population in 2011	Share of Regional Population in 2011	Weighted Share of UOIT Economic Impact ²⁶	Jobs Created Due to <u>Construction</u> Projects of UOIT (2010-2015)	Jobs Created Due to <u>Operations</u> of UOIT (2010-2015)	Total Jobs Created Due to <u>Construction & Operations</u> of UOIT (2010-2015)
City of Oshawa	153,585	23.9%	35.0%	98 - 189	1,150 - 1,161	1,248 - 1,350
City of Pickering	110,085	17.1%	14.6%	41 - 79	480 - 484	521 - 563
Town of Whitby	124,990	19.4%	16.6%	47 - 90	544 - 551	591 - 641
Town of Ajax	111,355	17.3%	14.8%	42 - 80	486 - 491	528 - 571
Municipality of Clarington	87,980	13.7%	11.7%	33 - 63	384 - 388	417 - 451
Township of Scugog	22,585	3.5%	3.0%	8 - 16	99 - 100	107 - 116
Township of Uxbridge	20,940	3.2%	2.7%	8 - 15	89 - 90	97 - 105
Township of Brock	12,385	1.9%	1.6%	5 - 9	53	58 - 62
Durham Region Overall	643,905	100%	100%	282 - 541	3,285 - 3,318	3,567 - 3,859

Sources: UOIT, Statistics Canada, Adventus Research

From the previous two figures, it can be seen that although over one-third of the total economic impact and job creation due to UOIT will be accrued to Oshawa directly over the 2010-2015 period, all Durham Region municipalities will in fact receive a significant economic benefit, with almost two-thirds of the Durham Region economic impact of UOIT accruing to the seven Municipalities of Pickering, Whitby, Ajax, Clarington, Scugog, Uxbridge and Brock.

²⁶ Due to the fact that UOIT is located within the Municipality of Oshawa, although economic benefits will accrue to the Region, due to proximity such benefits will be weighted in favour of Oshawa. The model calculations of this weighting are displayed in this column.



3.4 Likely Impact on Economic Status of Individuals in Durham Region & Municipalities

Introduction

In this section, we examine what the likely impacts of change of economic status of individuals within the region will be due to UOIT. Much of the discussion in this section of the report will be qualitative in nature.

Apart from the direct and indirect economic benefits outlined in earlier sections of this report, there are other economic benefits that accrue to a local community based on the presence of a local university and/or college campus. As a starting point, a recently completed study by the Canada Millennium Scholarship Foundation²⁷ indicated that although those with a university degree comprise only 22% of the population, they contribute 41% of all income taxes paid, and receive only 14% of all government transfers. This section will specifically outline some of these impacts.

The Education Premium - The Private & Public Payback of a University Degree

Obtaining one or more university degrees is a good investment from the individuals' point of view. In other words, the higher earnings associated with a university degree more than offset the individual's contribution to their education.

According to the Council of Ontario Universities Study (2001)²⁸, over the average working lifetime of a person (approximately 45 years), the holder of a bachelor's degree will earn, before tax, an average of \$ 561,000 more in 2010 dollars²⁹ than an individual who has graduated from high school (an average of \$ 12,460 annually). The difference for the holder of a master's doctorate degree is even higher than that of the bachelor's degree holder. According to the study authors, this will result in an after-tax disposable income increment of \$ 390,200 in 2010 dollars.

Clearly, if even only a small increment of graduates of UOIT chose to seek employment locally and begin their careers in Durham Region, there are obvious significant short and long-term benefits to the community based on this education premium. These individuals will have significantly more disposable income over the course of their careers, a large portion of which will be spent in their immediate community.

These incremental earnings also have a powerful ripple effect. The Council of Ontario Universities' study³⁰ provides estimates of job creation from the incremental earnings and expenditures of university graduates. To summarize, the jobs created or sustained each year as a result of incremental expenditures by university graduates is greater than the number of jobs created or sustained each year as a result of the direct expenditures of the university system itself.

²⁷ Berger, Motte, Parkin Ed: **The Price of Knowledge**, Canada Millennium Scholarship Foundation, 2009

²⁸ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*, Pg. 28

²⁹ According to the Statistics Canada, the Consumer Price Index (CPI), which stood at 100 in 2002, was at 115.1 in January 2010.

³⁰ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*, P. 32-33



The Economic Stimulus of Higher Education

The presence of university/college graduates in a community also stimulates economic activity by attracting businesses seeking to capitalize on the availability of its graduates.

In addition, a study conducted on the status of education in Waterloo Region recently determined that the supply of a skilled and motivated labour force is the principal determinant of economic prosperity in the region.³¹ Individuals with a post-secondary degree are essential for the region's export-oriented, knowledge-based economy.

The "accreditation" role of the university/college potentially has the greatest impact. The signals provided to potential employers regarding certain qualities (e.g. ability to accomplish long-term objectives, ability to deal with administrative issues, attainment of a certain level of social skills, etc.) are quite valuable. Without post-secondary designations, the cost to local business of screening candidates would be significantly higher.

The Innovation Premium - Economic Benefits of R & D & Spin off Companies

Estimating the economic impact associated with research and innovation emerging from colleges and universities is one of the most difficult factors to measure when attempting to capture the real rate of return on higher education.

Economic activity, which has its origins in university-based innovation, may show up in a variety of ways. Some examples include: consulting activities by faculty members, new companies created as "spin-offs" from the original research, joint ventures between university faculty and off-campus partners, and licensing of innovations to existing firms. Knowledge transfer also takes place as a result of individuals with innovative ideas and capabilities, moving from a university environment to a commercial setting where their ideas can be incorporated into product development. The most frequent technology transfer agent is the university graduate.

For comparison to a larger institution and the innovation premium, an analysis of the 1999 operating and capital expenditures of 30 University of Waterloo spin-off companies conducted for the PricewaterhouseCoopers study³² determined that more than \$ 910 million in economic activity was generated within the province, and more than \$ 660 million for Waterloo Region.

With respect to research and innovation, UOIT was designed from the outset to be a research-intensive university, and its track record of success demonstrates that commitment. By 2008-2009, UOIT researchers had secured over \$8.1 million in external funding. As a result of this focus, UOIT was named one of Canada's top 50 research-intensive universities in both 2008 and 2009. In the *MacLean's* 2009 ranking, UOIT placed first in Social Sciences and Humanities research grants in the primarily undergraduate sector, and an increasing source of research funding (14% in 2008-2009) has been secured from industrial partners, including General Motors of Canada, Toyota North America, Atomic Energy of Canada, IBM, Ontario Power generation and many others.³³

³¹ Smith, L., (1997), **Regional Municipality of Waterloo: Education in Waterloo**, Essential Economics Corporation

³² PricewaterhouseCoopers (2001), **University of Waterloo: Regional Economic Benefits Study**, *U. of Waterloo*, pg. 30

³³ UOIT Business Plan: 2010-2015, page 15



In terms of research infrastructure, research-oriented facilities are being built on the UOIT campus where some of the world's most innovative products may be created and tested. UOIT research-oriented infrastructure includes:

- Automotive Centre of Excellence (ACE) Nearly \$100 million investment
- Energy Research Centre (ERC) \$ 45.4 million investment
- UOIT Research Park \$ 95 million investment planned

The Volunteerism Premium - Additional Volunteer Hours

Data from the National Survey on Giving, Volunteering and Participating³⁴ reveals that while the total number of volunteer hours for an individual university graduate are less than that of a high school graduate (139 compared to 177), the participation rate is higher (49% compared to 29%). Therefore, the total number of volunteer hours is greater for the university group. If one assigns a modest hourly value to this additional volunteer contribution (Ontario minimum wage: \$9.50 per hour), this yields an incremental economic value to Ontario university volunteerism of about \$ 244 million in 2010 dollars. Given that UOIT has about 1.2% of the enrolment of Ontario universities in 2010, this amounts to a regional benefit of \$ 2.9 million annually (in dollar equivalents).

According to the Council of Ontario Universities, the types of organizations that most benefit from volunteer work are recreational and social clubs (31% of all volunteer hours), social service organizations (20%), religious organizations (15%), health organizations (14%) and educational and research organizations (4%). The "other" category receives 16% of all volunteer hours.

The Philanthropic Premium

According to a study by the Ontario Council of Universities³⁵, university graduates donate to charitable institutions more frequently and at a significantly higher level than do high school graduates.

Although the quantitative information is dated (1998), the study indicated that university graduates donated \$ 420 million more than the equivalent donations would have been if they would have been high school graduates. Adjusted for inflation, this amounts to \$ 537 million in 2010 dollars.

Student Spending

Student spending is another factor that impacts the economic status of individuals in Durham Region, and is discussed in detail in section 3.4. Many economic impact studies for individual universities include the estimated value of student spending in the host jurisdiction as one of the components of economic impact.³⁶ However, tuition fees and other ancillary costs are usually omitted, since they would be included on the revenue side of the calculations and would therefore be expended by the institution.

Except for expenditures such as textbooks and other educational supplies, a young person will have roughly equivalent living expenses whether or not they attend university. Therefore, most analyses do not factor personal student expenditures into calculations for returns to the province for higher education. The exception to this would be out-of-province students. However, on a more local level, there is a clear incremental economic impact to a region, when students from outside of the region enrol at a centre, or when a faculty is relocated to another centre.

³⁴ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*, pg. 36

³⁵ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*, pg. 35

³⁶ Enterprise Canada Research (2000), **The Economic Impact of Ontario's Universities**, *The Council of Ontario Universities*, p. 16-17



Visitor Spending

Visitor spending is another factor that impacts the economic status of individuals in Durham Region, and was discussed in detail in section 3.4.

In summary, the following figure briefly summarizes some of the likely impacts in economic status of UOIT on the citizens of Durham Region:

Figure 13
Some Likely Impacts of UOIT on Economic Status of Individuals in Durham Region & Municipalities

Factor	Benefit to Region & Municipalities
Education Premium	<ul style="list-style-type: none"> o An Ontario university degree holder earns on average \$561,000 more over a career than a high school graduate.
Economic Stimulus of Higher Education	<ul style="list-style-type: none"> o Businesses tend to locate closer to supplies of university graduates.
Innovation Premium	<ul style="list-style-type: none"> o Research and development leads to spin-off companies, usually located in proximity to the university.
Volunteerism Premium	<ul style="list-style-type: none"> o University students volunteer more, producing an economic benefit estimated at \$ 2.9 million in Durham Region annually.
Philanthropic Premium	<ul style="list-style-type: none"> o University graduates tend to donate more often and in larger amounts than do high school graduates. o Estimated (1998) at \$ 537 province-wide in 2010 dollars.
Student Spending	<ul style="list-style-type: none"> o Estimated at \$ 54 - 58 million in Durham Region annually (see Section 3.6).
Visitor Spending	<ul style="list-style-type: none"> o Estimated at \$ 1.5-1.7 million in Durham Region annually (see Section 3.6).

3.5 How Growth will Affect UOIT’s Buying Power

In this section, we will examine how the growth of UOIT will affect the university’s buying power in Durham Region and its municipalities. A specific analysis is performed on the initial direct cash flow arising from local expenditures of the university, its faculty and staff, students and visitors.

3.5.1 How Growth will Affect UOIT’s Buying Power: Durham Region

The following figure 14 reviews the average estimated annual direct and indirect impacts of operations, students and visitors of UOIT over the 2010 - 2015 period, with low, medium and high estimates. The figures following (15-18) detail the base data and modelling assumptions used to calculate the estimates following in figure 14.

Figure 14
Review of Major Estimated Indirect Impacts of UOIT
Average Annual Impacts to Durham Region: 2010-2015

Average Annual Impacts	Summary of Spending Details	Indirect Impacts (\$ Millions)		
		Low	Medium	High
Full Time & Part Time Faculty & Staff	Restaurants	\$ 830,000	\$ 865,000	\$ 900,000
	Food	7,750,000	8,070,000	8,400,000
	Housing	14,940,000	15,570,000	16,200,000
	Clothing	3,870,000	4,040,000	4,200,000
	Transportation	10,140,000	10,570,000	11,000,000
	Other	17,420,000	18,160,000	18,900,000
	Total Faculty & Staff Spending		\$ 54,950,000	\$ 57,275,000
Students	Restaurants	\$ 4,140,000	\$ 4,320,000	\$ 4,500,000
	Food	6,530,000	6,820,000	7,100,000
	Housing	10,030,000	10,460,000	10,900,000
	Clothing	5,340,000	5,570,000	5,800,000
	Transportation	6,440,000	6,720,000	7,000,000
	Other	21,440,000	22,370,000	23,300,000
	Total Non-University Student Spending		\$ 53,920,000	\$ 56,260,000
Construction Related Jobs	Restaurants	\$ 366,000	\$ 534,000	\$ 703,000
	Food	2,293,000	3,341,000	4,398,000
	Housing	4,433,000	6,460,000	8,504,000
	Clothing	1,142,000	1,664,000	2,191,000
	Transportation	3,023,000	4,406,000	5,799,000
	Other	6,988,000	10,186,000	13,407,000
	Total Construction Job Spending		\$ 18,245,000	\$ 26,591,000
Visitors	Restaurants	\$ 544,500	\$ 568,200	591,900
	Other Retail Spending	573,200	598,100	623,000
	Hotel Accommodations	429,900	448,600	467,000
	Total Visitor Spending	\$ 1,547,600	\$ 1,614,900	\$ 1,681,900
Totals	Restaurants	\$ 5,880,500	\$ 6,287,200	\$ 6,694,900
	Food	16,573,000	18,231,000	19,898,000
	Housing	29,832,900	32,938,600	36,071,000
	Clothing	10,352,000	11,274,000	12,191,000
	Transportation	19,603,000	21,696,000	23,799,000
	Other	46,421,200	50,716,100	56,230,000
	Total Spending: All major sources		\$ 128,662,600	\$ 141,740,900

Sources: UOIT, Adventus Research estimates

Indirect Impacts: Faculty and Staff

With respect to UOIT faculty and staff expenditures, the primary analytical factor that needs to be considered is what percentage of the faculty is based locally in the Region of Durham. Most expenditures, with the exception of some day time expenditures like restaurants, will be made locally only by those faculty based in the region. Also, as in some other studies of this type, taxes, EI and CPP premiums are deemed to be outflows from the local region as well.

The following figure 15 thus estimates local indirect benefits to the community accruing from faculty spending in the region:

Figure 15
UOIT - Indirect Impacts of Faculty & Staff: 2010-2015
Base Data & Assumptions

Base Data / Assumption	Data - Staff Impacts		
	Low	Medium	High
Faculty Full-Time Equivalents (FTEs) ³⁷ Average annual low, medium and high estimates 2010-2015	474	494	514
Staff Full-Time Equivalents (FTEs) Average annual low, medium and high estimates 2010-2015	474	494	514
Wages/Salaries: Annual Total 5-Year Average ³⁸	\$ 65,360,000	\$68,120,000	\$ 70,875,000
Percentage of Faculty located in Durham Region	72%		
Percentage of Staff located in Durham Region	84%		
Modelling Estimates			
Restaurants - 2.5 visits/week @ \$10 each for faculty & staff (8 months)	\$ 830,000	\$ 865,000	\$ 900,000
Food - Average 2010 Durham - per household = \$ 8,130 ³⁹	\$ 7,750,000	\$ 8,070,000	\$ 8,400,000
Shelter - Average 2010 Durham - per household = \$ 15,720 ⁴⁰	\$ 14,940,000	\$ 15,570,000	\$ 16,200,000
Clothing - Average 2010 Durham - per household = \$ 4,050	\$ 3,870,000	\$ 4,040,000	\$ 4,200,000
Transportation -Average 2010 Durham-per household = \$ 10,720	\$ 10,140,000	\$ 10,570,000	\$ 11,000,000
Other (including health, personal care, recreation, taxes)	\$ 17,420,000	\$ 18,160,000	\$ 18,900,000
Total Expenditures from Local Faculty/Staff⁴¹	\$ 54,950,000	\$ 57,275,000	\$ 59,600,000

Sources: UOIT, Statistics Canada, Adventus Research estimates

³⁷ Consisting of core, complimentary, definite-term and part-time faculty.

³⁸ Source: UOIT: Blended average, staff and faculty

³⁹ Statistics Canada: All household expenditure statistics except shelter are for Toronto CMA 2008 and adjusted for inflation. This assumes that each faculty member represents a primary family income. Calculations are for local faculty/staff only.

⁴⁰ **Durham Regional Profile**, page 3-19, adjusted for inflation

⁴¹ Local wages are based on 72% of faculty and 84% of staff being local

Indirect Impacts: Students (Non-University Expenditures)

If UOIT did not exist, most full-time students would attend other universities and take their spending with them. It is only the student's non-university spending that is relevant to the matter of local area impact. The student's university expenditures on tuition fees, parking, room and board in university residences, etc. are part of the university's income and have already been counted.

Figure 16
UOIT - Indirect Impacts of Students: 2010-2015
Base Data & Assumptions

Base Data & Assumptions	Data		
Average number of FTE students - Undergraduate and graduate: 2010-2015 (Low, Medium, High)	8,504 ⁴²	8,874	9,244
Percentage of students: at home in Durham / Commuting to & from GTA / in residence / off-campus rental accommodation	25%	25%	13% 37%
Commuter student spending in local economy - including clothing, restaurants, entertainment ⁴³	\$ 3,240 over 8 months \$ 12/day		
Local student spending in local economy - including clothing, restaurants, entertainment ⁴⁴	\$ 5,400 over 8 months \$ 22/day		
Students in Residence spending in local economy - including clothing, restaurants, entertainment	\$ 4,800 over 8 months \$ 20/day		
Students in non-university rental accommodation: spending in local economy - including clothing, restaurants, entertainment	\$ 9,600 over 8 months \$ 40/day		
Total average annual student spending = # students x ((% commuter)(\$ spent by commuter students) + (% local)(\$ spent by local students) + (% residence)(\$ spent by residence students) + (% renting)(\$ spent by renting students))	\$ 53,920,000	\$ 56,260,000	\$ 58,600,000
Estimates⁴⁵			
Restaurant Spending (2 times/week \$7 each x 8 months)	\$ 4,140,000	\$ 4,320,000	\$ 4,500,000
Food - Percentage of average Durham Spending = 12.2%	\$ 6,530,000	\$ 6,820,000	\$ 7,100,000
Clothing - 10% of total (Average Durham spending = 5%)	\$ 5,340,000	\$ 5,570,000	\$ 5,800,000
Housing - 37% of students off-campus @ 400/month	\$ 10,030,000	\$ 10,460,000	\$ 10,900,000
Transportation - Average spending = 12%	\$ 6,440,000	\$ 6,720,000	\$ 7,000,000
Other	\$ 21,440,000	\$ 22,370,000	\$ 23,300,000
Total	\$53,920,000	\$56,260,000	\$58,600,000

Sources: UOIT, Statistics Canada, Adventus Research

⁴² From **UOIT Business Plan**, page 24

⁴³ Adventus Research estimates, based on a 60% of spending of a local student in the local economy

⁴⁴ Source: Adventus Research: From Laurier Brantford study (originally from Statistics Canada), adjusted for inflation

⁴⁵ Source: Adventus Research: From Laurier Brantford study (originally from Statistics Canada), adjusted for inflation



Indirect Impacts: Construction Job Expenditures

The following figure models the expenditures created within Durham Region annually by the 282-541 construction jobs that will be created to implement the proposed projects.

Figure 17
UOIT - Indirect Impacts of Construction Jobs: 2010-2015
Base Data & Assumptions

Base Data / Assumption	Data - Construction Jobs		
	Low	Medium	High
Construction Jobs / Ave. per year Average annual low, medium & high estimates 2010-2015	282	411	541
Wages/Salaries: Annual Total 5-Year Average ⁴⁶	\$ 18,245,000	\$26,591,000	\$ 35,002,000
Modelling Estimates			
Restaurants - 2.5 visits/week @ \$10 each (12 months)	\$ 366,000	\$ 534,000	\$ 703,000
Food - Average 2010 Durham - per household = \$ 8,130 ⁴⁷	\$ 2,293,000	\$ 3,341,000	\$ 4,398,000
Shelter - Average 2010 Durham - per household = \$ 15,720 ⁴⁸	\$ 4,433,000	\$ 6,460,000	\$ 8,504,000
Clothing - Average 2010 Durham - per household = \$ 4,050	\$ 1,142,000	\$ 1,664,000	\$ 2,191,000
Transportation -Average 2010 Durham-per household = \$ 10,720	\$ 3,023,000	\$ 4,406,000	\$ 5,799,000
Other (including health, personal care, recreation, taxes)	\$ 6,988,000	\$ 10,186,000	\$ 13,407,000
Total Expenditures from Construction-related personnel	\$ 18,245,000	\$ 26,591,000	\$ 35,002,000

The economic impact of these jobs is relatively temporary (in comparison to the economic impacts of operating expenditures - which presumably will be ongoing beyond the 2010-2015 period), and will effectively cease shortly after the planned construction projects, upon which these impact estimates are made, are completed.

⁴⁶ Based on an estimated average total wage of \$ 64,700 (pg 17)

⁴⁷ Statistics Canada: All household expenditure statistics except shelter are for Toronto CMA 2008 and adjusted for inflation. This assumes that each faculty member represents a primary family income. Calculations are for local faculty/staff only.

⁴⁸ **Durham Regional Profile**, page 3-19, adjusted for inflation



Indirect Impacts: Visitors

Universities attract out-of-town students and other out-of-town visitors for attractions that include sporting events, theatrical, music or arts presentations, conferences and public lectures. As a comparative example of a smaller university, the Nipissing University study⁴⁹ concludes the 2001 visitor spending level was approximately \$ 475,000. This figure includes spending in local restaurants, bars, entertainment venues, convenience and grocery stores, as well as shopping at malls and department stores. Similarly, an estimate of visitor spending at Simon Fraser University⁵⁰ produced an estimate of \$ 748,000 annually.

Visitors to UOIT

UOIT hosts open houses, conferences and formal/informal tours of the campus on a regular basis, of which some 2009 baseline data is available. Also, we have conservatively estimated informal and unorganized visitors for all purposes to the UOIT campus for various meetings, seminars, cultural/athletic/other programs as well.

Based on some spending assumptions consistent with other Ontario university impact studies, figure 18 summarizes estimated annual average visitor spending for the 2010-2015 period, based on low, medium and high estimates.

Figure 18
UOIT - Indirect Impact of Visitors: 2010-2015: Base Data & Assumptions

Base Data Parameters	Data		
	Low	Medium	High
2009 - 2010 Student Population (FTE's)			6,041 people
2009 - 2010 Open House and Tours			4,250 people
2009 - 2010 - Unorganized and informal visitors (100 per day)			36,500 people
2009 - 2010 ratio of total visitors/year to students			6.74 to 1
Average number of FTEs: 2010-2015 Low, medium, high	8,504	8,874	9,244
Low, medium, high annual visitor average (Average FTEs x 6.74)	57,320	59,810	62,300
Modelling Assumptions			
Percentage of visitors overnight (\$ 75/night & 2 meals @ \$ 20)			10%
Percentage of visitors that stay for at least 1 meal			75%
Average price per meal per visitor			\$ 10
Average other spending per visitor (incl. gas, parking, goods)			\$ 10
Total visitor restaurant spending: Low, medium, high	\$ 544,500	\$ 568,200	\$ 591,900
Total visitor other spending: Low, medium, high	\$ 573,200	\$ 598,100	\$ 623,000
Total visitor accommodation spending: Low, medium, high	\$ 429,900	\$ 448,600	\$ 467,000
Total Annual Visitor Spending: Low, Medium, High est.	\$ 1,547,600	\$ 1,614,900	\$ 1,681,900

Sources: UOIT, Adventus Research

From the assumptions in the preceding figure, we estimate the impact of visitors to Durham Region to be in the range of \$ 1,547,600 to \$ 1,681,900. Given that the nature of visitors is to centre their visits on campus and the immediate campus vicinity, we estimate that, on a municipality basis, most of the UOIT visitor impact will be in Oshawa.

⁴⁹ Sarlo, Chris A. (2001), **Economic Impact of Nipissing University: October, 2001**, *Nipissing University*, pg. 7

⁵⁰ Chan, L., (2000), **The Economic Impact of Simon Fraser University on the Greater Vancouver Regional District**, *Simon Fraser University – Office of Analytical Studies*, pg. 6

3.5.2 How Growth will Affect UOIT's Buying Power: By Durham Municipality

Figure 19 shows the breakdown, by municipality, of how the planned growth of UOIT will affect the university's buying power in Durham Region and its municipalities, including the annual direct cash flow through the 2010- 2015 period, arising from local expenditures of the university, its faculty and staff, students and visitors.⁵¹

It should be noted that in regard to the modelled visitor impacts, that given that the nature of visitors is to centre their visits on campus and the immediate campus vicinity, we estimate that, on a municipality basis, most of the UOIT visitor impact will be in Oshawa.

Figure 19
UOIT's Buying Power in Durham Region: By Municipality
Average Annual Impacts: 2010-2015

Municipality	Population in 2011 % of Durham Weighted % of Economic Impact ⁵²	Category	Total Annual Faculty Spending (Millions)	Total Annual Non-University Student Spending (Millions)	Total Annual Construction Related (Millions)	Total Annual UOIT Visitor Spending (Millions)	Total Annual Spending/ University Buying Power (Millions)	
City of Oshawa	153,585 23.9% 35.0%	Restaurants	\$ 0.3 - 0.3 M	\$ 1.5 - 1.6 M	\$ 0.1 - 0.2 M	\$ 0.5-0.6 M	\$ 2.4 - 2.7 M	
		Food	2.7 - 2.9 M	2.3 - 2.5 M	0.8 - 1.5 M		5.8 - 7.0 M	
		Housing	5.2 - 5.7 M	3.5 - 3.8 M	1.5 - 3.0 M		0.4-0.5 M	10.6 - 12.9 M
		Clothing	1.4 - 1.5 M	1.9 - 2.0 M	0.4 - 0.8 M		3.6 - 4.3 M	
		Transportation	3.5 - 3.9 M	2.3 - 2.5 M	1.1 - 2.0 M		6.9 - 8.3 M	
		Other	6.1 - 6.6 M	7.5 - 8.2 M	2.4 - 4.7 M		0.6-0.6 M	16.6 - 19.9 M
		Total	\$19.2-20.9 M	\$18.9-20.5 M	\$ 6.4-12.3 M		\$1.5-1.7 M	\$45.9-55.3 M
City of Pickering	110,085 17.1% 14.6%	Restaurants	\$ 0.1 - 0.1 M	\$ 0.6 - 0.7 M	\$ 0.1 - 0.1 M		\$ 0.9 - 1.0 M	
		Food	1.1 - 1.2 M	1.0 - 1.0 M	0.3 - 0.6 M		2.4 - 2.9 M	
		Housing	2.2 - 2.4 M	1.5 - 1.6 M	0.6 - 1.2 M		4.4 - 5.3 M	
		Clothing	0.6 - 0.6 M	0.8 - 0.8 M	0.2 - 0.3 M		1.5 - 1.8 M	
		Transportation	1.5 - 1.6 M	0.9 - 1.0 M	0.6 - 1.2 M		2.9 - 3.5 M	
		Other	2.5 - 2.8 M	3.1 - 3.4 M	1.0 - 2.0 M		6.8 - 8.1 M	
		Total	\$ 8.0 - 8.7 M	\$ 7.9 - 8.6 M	\$ 2.6 - 5.1 M			\$18.8-22.6 M
Town of Whitby	124,990 19.4% 16.6%	Restaurants	\$ 0.1 - 0.1 M	\$ 0.7 - 0.7 M	\$ 0.1 - 0.1 M		\$ 1.0 - 1.1 M	
		Food	1.3 - 1.4 M	1.1 - 1.2 M	0.4 - 0.7 M		2.8 - 3.3 M	
		Housing	2.5 - 2.7 M	1.7 - 1.8 M	0.7 - 1.4 M		5.0 - 6.0 M	
		Clothing	0.6 - 0.7 M	0.9 - 1.0 M	0.2 - 0.4 M		1.7 - 2.0 M	
		Transportation	1.7 - 1.8 M	1.1 - 1.2 M	0.5 - 1.0 M		3.3 - 4.0 M	
		Other	2.9 - 3.1 M	3.6 - 3.9 M	1.2 - 2.2 M		7.7 - 9.2 M	
		Total	\$ 9.1 - 9.9 M	\$ 8.9 - 9.7 M	\$ 3.0 - 5.8 M			\$21.4-25.7 M
Town of Ajax	111,355 17.3% 14.8%	Restaurants	\$ 0.1 - 0.1 M	\$ 0.6 - 0.7 M	\$ 0.1 - 0.1 M		\$ 0.9 - 1.0 M	
		Food	1.1 - 1.2 M	1.0 - 1.1 M	0.3 - 0.7 M		2.5 - 2.9 M	
		Housing	2.2 - 2.4 M	1.5 - 1.6 M	0.6 - 1.3 M		4.4 - 5.3 M	
		Clothing	0.6 - 0.6 M	0.8 - 0.9 M	0.2 - 0.3 M		1.5 - 1.8 M	
		Transportation	1.5 - 1.6 M	1.0 - 1.0 M	0.4 - 0.9 M		2.9 - 3.5 M	
		Other	2.6 - 2.8 M	3.2 - 3.4 M	1.0 - 2.0 M		6.9 - 8.2 M	
		Total	\$ 8.1 - 8.8 M	\$ 8.0 - 8.7 M	\$ 2.7 - 5.2 M			\$19.0-22.9 M

⁵¹ Numbers may not add up due to rounding

⁵² Due to the fact that UOIT is located within the Municipality of Oshawa, although economic benefits will accrue to the Region, due to proximity such benefits will be weighted in favour of Oshawa. The model calculations of this weighting are displayed in this column.



Municipality	Population in 2011 % of Durham Weighted % of Economic Impact ⁵²	Category	Total Annual Faculty Spending (Millions)	Total Annual Non-University Student Spending (Millions)	Total Annual Construction Related (Millions)	Total Annual UOIT Visitor Spending (Millions)	Total Annual Spending/ University Buying Power (Millions)
Municipality of Clarington	87,980 13.7% 11.7%	Restaurants	\$ 0.1 - 0.1 M	\$ 0.5 - 0.5 M	\$ 0.0 - 0.1 M		\$ 0.7 - 0.8 M
		Food	0.9 - 1.0 M	0.7 - 0.8 M	0.3 - 0.5 M		1.9 - 2.3 M
		Housing	1.7 - 1.9 M	1.2 - 1.3 M	0.5 - 1.0 M		3.5 - 4.2 M
		Clothing	0.5 - 0.5 M	0.6 - 0.7 M	0.1 - 0.3 M		1.2 - 1.4 M
		Transportation	1.2 - 1.3 M	0.8 - 0.8 M	0.4 - 0.7 M		2.3 - 2.8 M
		Other	2.0 - 2.2 M	2.5 - 2.7 M	0.8 - 1.6 M		5.4 - 6.5 M
		Total		\$ 6.4 - 7.0 M	\$ 6.3 - 6.9 M	\$ 2.1 - 4.1 M	
Township of Scugog	22,585 3.5% 3.0%	Restaurants	\$ 0.0 - 0.0 M	\$ 0.1 - 0.1 M	\$ 0.0 - 0.0 M		\$ 0.2 - 0.2 M
		Food	0.2 - 0.3 M	0.2 - 0.2 M	0.1 - 0.1 M		0.5 - 0.6 M
		Housing	0.4 - 0.5 M	0.3 - 0.3 M	0.1 - 0.3 M		0.9 - 1.1 M
		Clothing	0.1 - 0.1 M	0.2 - 0.2 M	0.0 - 0.1 M		0.3 - 0.3 M
		Transportation	0.3 - 0.3 M	0.2 - 0.2 M	0.1 - 0.2 M		0.6 - 0.7 M
		Other	0.5 - 0.6 M	0.6 - 0.7 M	0.2 - 0.4 M		1.4 - 1.7 M
		Total		\$ 1.6 - 1.8 M	\$ 1.6 - 1.8 M	\$ 0.5 - 1.1 M	
Township of Uxbridge	20,940 3.2% 2.7%	Restaurants	\$ 0.0 - 0.0 M	\$ 0.1 - 0.1 M	\$ 0.0 - 0.0 M		\$ 0.2 - 0.2 M
		Food	0.2 - 0.2 M	0.2 - 0.2 M	0.1 - 0.1 M		0.4 - 0.5 M
		Housing	0.3 - 0.4 M	0.3 - 0.3 M	0.1 - 0.2 M		0.8 - 1.0 M
		Clothing	0.1 - 0.1 M	0.1 - 0.2 M	0.0 - 0.1 M		0.3 - 0.3 M
		Transportation	0.3 - 0.3 M	0.2 - 0.2 M	0.1 - 0.2 M		0.5 - 0.6 M
		Other	0.5 - 0.5 M	0.6 - 0.6 M	0.2 - 0.4 M		1.3 - 1.5 M
		Total		\$ 1.5 - 1.6 M	\$ 1.5 - 1.6 M	\$ 0.5 - 0.9 M	
Township of Brock	12,385 1.9% 1.6%	Restaurants	\$ 0.0 - 0.0 M	\$ 0.1 - 0.1 M	\$ 0.0 - 0.0 M		\$ 0.1 - 0.1 M
		Food	0.1 - 0.1 M	0.1 - 0.1 M	0.0 - 0.1 M		0.3 - 0.3 M
		Housing	0.2 - 0.3 M	0.2 - 0.2 M	0.1 - 0.1 M		0.5 - 0.6 M
		Clothing	0.1 - 0.1 M	0.1 - 0.1 M	0.0 - 0.0 M		0.2 - 0.2 M
		Transportation	0.2 - 0.2 M	0.1 - 0.1 M	0.0 - 0.1 M		0.3 - 0.4 M
		Other	0.3 - 0.3 M	0.3 - 0.4 M	0.1 - 0.2 M		0.7 - 0.9 M
		Total		\$ 0.9 - 1.0 M	\$ 0.9 - 0.9 M	\$ 0.3 - 0.6 M	
Durham Region Overall	643,905 100% 100%	Restaurants	\$ 0.8 - 0.9 M	\$ 4.1 - 4.5 M	\$ 0.4 - 0.7 M	\$ 0.5-0.6 M	\$ 5.9 - 6.7 M
		Food	7.8 - 8.4 M	6.5 - 7.1 M	2.3 - 4.4 M		16.6 - 19.9 M
		Housing	14.9 - 16.2 M	10.0- 10.9 M	4.4 - 8.5 M	0.4 - 0.5 M	29.8 - 36.0 M
		Clothing	3.9 - 4.2 M	5.3 - 5.8 M	1.1 - 2.2 M		10.4 - 12.2 M
		Transportation	10.1 - 11.0 M	6.4 - 7.0 M	3.0 - 5.8 M		19.6 - 23.8 M
		Other	17.4 - 18.9 M	21.4 - 23.3 M	7.0 - 13.4 M	0.6 - 0.6 M	46.4 - 55.6 M
		Total		\$54.9-59.6 M	\$53.9-58.6 M	\$18.2-35.0 M	\$1.5-1.7 M

Sources: UOIT, Statistics Canada, Adventus Research

The modelling in the preceding figure of the economic impacts in the various Durham Region municipalities displays the calculations before multipliers. The municipal impacts including multipliers are displayed in the municipal economic impact profiles located in the Executive Summary.



3.6 Return on Investment for City of Oshawa by Investing in UOIT's Move Downtown

Introduction

In this section, we will estimate the economic benefit of UOIT's move into downtown Oshawa (through comparative analysis), and based on a percentage of the estimated costs of such a move, we will calculate an estimated return on investment.

Background

A relatively recent study entitled Inner City Economic Revitalization⁵³, which surveyed 20 universities and 100 economic development professionals across the U.S., summarized the six fundamental university activities that, with minor adjustments by community, can be directed in ways to benefit a given urban community, as follows:

Figure 20
University Activities & Resources that can be
Harnessed to Benefit a Community

University Activity	Current Situation	Opportunity
Purchasing	<ul style="list-style-type: none"> ❑ Almost 50% of annual operating budgets go to purchasing of goods and services. 	<ul style="list-style-type: none"> ❑ Redirecting even a small percentage of purchasing to local vendors has major impact on city business activity.
Employer	<ul style="list-style-type: none"> ❑ Universities employ 2% of North American workforce. ❑ 65% of those jobs are in urban institutions. ❑ Two-thirds are administrative and accessible to a less-skilled workforce. 	<ul style="list-style-type: none"> ❑ Development programs to increase residents' competitiveness in accessing university jobs. ❑ University HR departments can work with local community groups to make better hiring decisions.
Real Estate Developer	<ul style="list-style-type: none"> ❑ Urban core universities have over \$ 150 billion in book value assets in North America. 	<ul style="list-style-type: none"> ❑ Universities can anchor local revitalization.
Incubator	<ul style="list-style-type: none"> ❑ Of 800 incubators in North America, 20% are associated with universities. ❑ 70% of university-associated incubators are technology focused. 	<ul style="list-style-type: none"> ❑ Supported by local government, universities can be catalysts for job growth.
Business Advisor	<ul style="list-style-type: none"> ❑ 40% of fastest growing companies in North America take advantage of university-based advisory services. 	<ul style="list-style-type: none"> ❑ Few business advisory programs focus on downtown core companies or issues.
Workforce Developer	<ul style="list-style-type: none"> ❑ Universities are in the business of creating tomorrow's workforce. 	<ul style="list-style-type: none"> ❑ Universities can benefit significantly from workforce development programs, improving the local economy while strengthening their relationship with local businesses.

Source: Amirkanian, A. & Habiby, A., Inner City Economic Revitalization (2003)

⁵³ Amirkanian, A. & Habiby, A., **Inner City Economic Revitalization** (2003)



In its study for the relocation of the Wilfrid Laurier University Faculty of Social Work (2004), Adventus Research assembled a list of comparative insights, drawn from similar experiences in the founding of Laurier Brantford and the relocation of the University of Waterloo - School of Architecture to downtown Cambridge, as below:

Figure 21
Comparative Analysis: Key Issues
WLU Move to Downtown Brantford (Starting in 1998) &
UW Move to Downtown Cambridge (Starting in 2004)

Issue	Laurier Brantford	UW School of Architecture	Insights
Recognizing the Opportunity	<ul style="list-style-type: none"> An anchor educational institution was seen as instrumental to the revitalization of the downtown city core 	<ul style="list-style-type: none"> Initially, the need to relocate the school was seen as a local Waterloo opportunity 	<ul style="list-style-type: none"> <i>Establishment of new facilities are fastest with strong initial support from both institution and host community</i>
Recipient Community Support	<ul style="list-style-type: none"> Very strong at all levels 	<ul style="list-style-type: none"> Very strong at all levels 	<ul style="list-style-type: none"> <i>An obvious prerequisite for success</i>
University Support	<ul style="list-style-type: none"> Initially strong, even though original plans called for a green field site Grew even stronger as the university became a full partner in downtown revitalization 	<ul style="list-style-type: none"> Solid support from university, especially from the School Director 	<ul style="list-style-type: none"> <i>Strong school support at all levels is a prerequisite for success</i> <i>School support increases after the school becomes a member of the local community</i>
Student Support	<ul style="list-style-type: none"> Strong and growing, especially from the local community Applications in 2003 up 500% from 1998 	<ul style="list-style-type: none"> Somewhat reserved, but supportive Concerned about relocation issues and remaining a part of the UW community 	<ul style="list-style-type: none"> <i>Student body in Brantford is new and local, so support is naturally stronger</i>
Growth Plans	<ul style="list-style-type: none"> Ambitious, growing student body by 200%, to 800 students by 2008 	<ul style="list-style-type: none"> Medium range growth envisaged 	<ul style="list-style-type: none"> <i>It is logical that a base investment would expand in the future</i>
Educational Alliances	<ul style="list-style-type: none"> With Mohawk College and Nipissing University 	<ul style="list-style-type: none"> With Conestoga College 	<ul style="list-style-type: none"> <i>Partnerships with established and local education providers strengthens the offering</i>
Spin-off Business Development	<ul style="list-style-type: none"> \$ 5.1 million in property investment in the core by the summer of 2003 	<ul style="list-style-type: none"> Anticipated and encouraged by all parties, but too early in process to be noticeable 	<ul style="list-style-type: none"> <i>A strong reason in both cases for the downtown locations</i>
Unresolved Issues	<ul style="list-style-type: none"> Nothing significant, except perhaps the ongoing availability of infrastructure and funds to fuel further expansion 	<ul style="list-style-type: none"> Nothing significant 	<ul style="list-style-type: none"> <i>Both initiatives cleared the major hurdles for their respective stages of development</i>



Benefit to the City of Oshawa in Investing in Downtown UOIT Campus

The sum of \$ 2.5 million has been requested of the City of Oshawa by UOIT to assist in its establishment of "a significant campus by 2015, with an estimated student and staff population of over 5,000 people"⁵⁴. The \$ 2.5 million requested would be in addition to the funds allocated by UOIT itself to the establishment of a downtown Oshawa campus.

For the purposes of calculating the Return on Investment (ROI) to the City of Oshawa of such an investment, first we must calculate the economic impact of the \$ 2.5 million investment.

This is accomplished in the figure below as part of a comparative analysis, utilizing previous similar cases such as the WLU Faculty of Social Work in downtown Kitchener. The right-most column is the economic impact of the proposed City of Oshawa investment, based on similar assumptions to the other cases.

Figure 22
Calculation of the Economic Impact Using Comparative Analysis
UOIT vs. WLU Faculty of Social Work

Operating Expenses		WLU Faculty of Social Work: City of Kitchener (2004)		UOIT Downtown Campus City of Oshawa Contribution (Proposed 2010-2012)	
		\$ 2,477,000		\$ 2,500,000	
		Ontario	Local	Ontario	Local
Value Added	Multiplier	1.67	1.33	1.67	1.33
	Direct	\$ 2.164 M	\$ 2.164 M	\$2.185 M	\$2.185 M
	Indirect & Induced	\$ 1.974 M	\$ 1.130 M	\$1.990 M	\$1.140 M
	Total	\$ 4.138 M	\$ 3.294 M	\$4.175 M	\$3.325 M
Wages & Salaries	Direct ⁵⁵	\$ 2.301 M	\$ 2.301 M	\$2.322 M	\$2.322 M
	Indirect & Induced ⁵⁶	\$ 1.254 M	\$ 0.733 M	\$1.265 M	\$0.740 M
	Total	\$ 3.555 M	\$ 3.034 M	\$3.587 M	\$3.062 M
Employment (person years)	Direct	29	29	28	28
	Indirect & Induced	42	24	36	21
	Total	71	53	64	49
Taxes	Federal	\$ 0.737 M	\$ 0.629 M	\$0.744 M	\$0.635 M
	Provincial	\$ 0.415 M	\$ 0.323 M	\$0.419 M	\$0.326 M
	Local	\$ 0.068 M	\$ 0.036 M	\$0.068 M	\$0.036 M
	Total	\$ 1.220 M	\$ 0.988 M	\$1.231 M	\$0.997 M

Sources: Adventus Research, Econometric Research Ltd.

The benefit to the City of Oshawa to investing \$ 2.5 million in a Downtown Oshawa UOIT Campus is therefore \$4.2 million to the Ontario economy, of which \$ 3.3 million would accrue mostly to the City of Oshawa.

⁵⁴ UOIT, **Business Plan 2010-2015**, pg 21

⁵⁵ Direct jobs created estimated at \$ 79,300 each in WLU examples and \$ 83,000 for UOIT – Blended Full-time UOIT faculty rate

⁵⁶ Indirect full-time jobs estimated at \$30,000 each in WLU examples and \$35,000 for UOIT



Estimation of ROI (Return on Investment) - Timing of Economic Benefits

In order to obtain a calculation of the ROI for the City of Oshawa for its proposed \$ 2.5 million investment, we need to understand the timing of the economic impact of the initial \$ 2.5 million expenditure.

If we assume that a given investment is made at the start of Year 1, then we estimate that the direct and most of the indirect impacts will be felt within Year 1, and a significant portion of the induced impacts as well. We estimate that up to 75% of all indirect and induced impacts would normally accrue by the end of Year 1, with 100% of all impacts felt by the mid-year point of Year 2.

In the case of the proposed City of Oshawa investment, given the economic impact timing as stated above, and the economic impact calculations preceding in figure 22, the following chart illustrates the expected ROI.

Figure 23
Cash Flow & ROI Calculation
\$2.5 Million Investment
City of Oshawa in UOIT

	Year 1	Year 2
Dollar Return on \$ 2.5 million Investment	\$ 2.185 million = 100% Direct \$ 0.855 million = 75% Indirect & Induced Total = \$ 3.040 million	Remaining 25% Indirect and Induced Total = \$ 0.285 million
ROI	121.6%	11.4%

The ROI over a two-year period in this case is 133%.

The **annualized ROI** of the \$ 2.5 million investment by the City of Oshawa would therefore be **66.5%**.

ROI would be higher if one includes the benefits accrued to regions outside the local area (as per figure 22). This return of return has not been adjusted for taxes.



4.0 CONCLUSIONS

4.1 UOIT Economic Impact Summary: 2010-2015: Durham Region

Figure 24 below summarizes the direct spending as well as the total economic impact of UOIT on the Durham Region economy by category for the 2010-2015 period, using low, medium and high capital construction, operating and indirect estimates.⁵⁷

Figure 24
Forecast Annual Average Economic Impact of UOIT
On Durham Region: 2010-2015

Category	Direct Spending			Multi-plier	Total Annual Economic Impact		
	Low	Medium	High		Low	Medium	High
Capital Construction	\$ 35.9 M	\$ 55.0 M	\$ 74.1 M	0.71	\$ 25.5 M	\$ 39.1 M	\$ 52.6 M
Operating - General & Admin.	\$ 41.4 M	\$ 43.2 M	\$ 45.0 M	1.33	\$ 55.1 M	\$ 57.5 M	\$ 59.9 M
Net Wages to Faculty & Staff	\$ 54.9 M	\$ 57.3 M	\$ 59.6 M	1.33	\$ 73.0 M	\$ 76.2 M	\$ 79.3 M
Student Non-university Spending	\$ 53.9 M	\$ 56.3 M	\$ 58.6 M	1.33	\$ 71.7 M	\$ 74.9 M	\$ 77.9 M
Visitor Spending	\$ 1.5 M	\$ 1.6 M	\$ 1.7 M	1.33	\$ 2.0 M	\$ 2.1 M	\$ 2.3 M
Total	\$ 187.6 M	\$ 213.4 M	\$ 239.0 M		\$ 227.3 M	\$ 249.8 M	\$ 272.0 M

UOIT: Summary of All Economic Impacts of UOIT from 2010-2015:

Based on all the information provided regarding forecasts for student enrolment, faculty and staff expenditures, capital expenditures and visitors, the total average economic impact of UOIT through the 2010-2015 time period in Durham Region is estimated at \$ 227 - 272 million annually.⁵⁸

Within this estimate, the total annual economic impact of the presence of UOIT to the local Durham Region economy in some of the larger categories is estimated as follows:

* Restaurants	\$ 7.8 - 8.9 million
* Retail food industry	\$ 22.0 - 26.5 million
* Housing and rental accommodation	\$ 39.6 - 48.0 million
* Retail clothing	\$ 13.8 - 16.2 million
* Transportation	\$ 26.1 - 31.7 million

This is an estimate of the total economic impact of UOIT on the economy of the Region of Durham, and is also an assessment of the loss of economic activity that would occur if UOIT did not exist.

Over the five-year period of 2010 to 2015, the expenditure of between \$ 857.9 - 1,055.7 million on UOIT operations and planned construction and renovation projects over the 2010-2015 period is estimated to produce an overall economic impact of \$ 1,135 - \$ 1,360 million over that period.

⁵⁷ It should be noted that the impacts of student non-university spending noted in section 3.6.1 and summarized here are an additional indirect economic impact not noted in the model calculations in section 3.4.1.

⁵⁸ While this number may appear large, it should be remembered that this includes all direct and indirect impacts, including the indirect impact of student housing costs off-campus.



4.2 UOIT Economic Impact Summary: 2010-2015: By Municipality

Figure 25 below summarizes the direct spending as well as the total economic impact of UOIT on the Durham Region economy, by municipality, for the 2010-2015 period, using low, medium and high capital construction, operating and indirect estimates:

Figure 25
Forecast Annual Average Economic Impact of UOIT
On Durham Region: By Municipality: 2010-2015

Region	Weighted Economic Impact % (2010-2015)	Overall Annual Economic Impact		
		Low	Medium	High
Oshawa	35.0%	\$ 79,550,000	\$ 87,430,000	\$ 95,200,000
Pickering	14.6%	33,180,000	36,470,000	39,710,000
Whitby	16.6%	37,730,000	41,470,000	45,150,000
Ajax	14.8%	33,640,000	36,970,000	40,260,000
Clarington	11.7%	26,590,000	29,230,000	31,820,000
Scugog	3.0%	6,820,000	7,490,000	8,160,000
Uxbridge	2.7%	6,130,000	6,750,000	7,340,000
Brock	1.6%	3,630,000	4,000,000	4,350,000
Durham Region	100%	\$ 227,270,000	\$ 249,810,000	\$ 271,990,000

In conclusion, Adventus Research estimates that all Municipalities in Durham Region will benefit from the economic impact of UOIT proportionally to their population, with the exception of Oshawa whose benefits are enhanced by its immediate proximity to UOIT.



5.0 RECOMMENDATIONS

1. That UOIT continue to work closely with the City of Oshawa to implement the expansion of the UOIT Downtown Oshawa Campus.

It is clear from this assessment that the economic benefits to the City of Oshawa are significant and ongoing. UOIT and the City of Oshawa should also look to identify additional projects beyond 2015 where collaboration will continue to produce mutually-beneficial results.

2. That a baseline survey of the perceptions and impacts of UOIT on downtown Oshawa, City of Oshawa and Durham Region businesses and stakeholders be conducted in the near future.

In order to identify possible issues/problems, measure progress and confirm business trends, we recommend that a baseline survey be conducted in the near future (i.e. 2010-2011) and perhaps every 2-3 years thereafter.

3. That UOIT should continue to focus on educating students for the human resources needs of the region.

In order to maximize its contribution to the regional “education premium” - where university graduates earn significantly more over the course of their careers than their non-university graduate cohorts - UOIT should focus on providing programs that will contribute to meeting the expanding human resource needs of a rapidly growing Durham Region. By doing this, a significant increment of UOIT graduates will choose to seek employment locally and launch their careers in Durham Region, from which will accrue significant short and long-term benefits to the community.

4. UOIT and Durham Region should work together to promote research opportunities.

In this manner, UOIT can maximize its contribution to the local economy by way of the “innovation premium”, whereby UOIT-originated research and innovation spin-off, joint venture and consulting opportunities can be encouraged to remain within Durham Region, thus providing the significant long-term benefit of high-quality, high-paying local jobs. Durham Region and its municipalities can contribute to this benefit by offering progressive and business-friendly conditions for such local spin-off activities.



6.0 APPENDICES

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6.2 Brief Summary of Brantford & Kitchener Economic Impact Studies

Given that this study is a comparative analysis based on studies conducted previously looking at the impacts of university campuses on the cities of Brantford and Kitchener, it is useful to review the relevant results of these two studies in this section.

6.2.1 City of Brantford - Impact of Laurier Brantford & Mohawk College (2005)

A) Introduction and Background

This report was commissioned by the Grand Valley Educational Society to examine the impacts of Laurier Brantford and Mohawk College campuses in Brantford on the downtown of Brantford, the City of Brantford, Brant County and its communities. This report included the following:

- a) A *historical review* of the state of the economy in Brantford in the years leading up to the establishment of Laurier Brantford in 1998.
- b) A *baseline assessment survey* of the current economic and social impacts of Laurier Brantford on the City of Brantford and its downtown core.
- c) *Economic impact modelling* of the impacts of anticipated construction/renovation and ongoing operations of Laurier Brantford and Mohawk College over the next 5 years - 2006-2010. This analysis includes an estimation of the direct, indirect and induced impacts over this period.
- d) A *qualitative discussion* of various issues of relevance to the impact of Laurier Brantford and Mohawk College on the downtown and the City of Brantford, including urban revitalization, business issues, economic growth issues, social issues, volunteerism and graduate rates.

B) Results and Conclusions

Future Economic Impacts of Post-Secondary Institutions on Brantford - Construction Impacts

1. Estimated construction costs for Laurier Brantford and Mohawk College over 2006-2010 were estimated to likely total in the range of \$6.5- 24.2 million (including public and private sector development). These expenditures will support a *temporary increase in income in the province of \$8-29 million, of which \$5-17 million would be retained within the City of Brantford and Brant County region.*
2. A total of 65 - 243 person years of employment were estimated to implement the proposed construction and/or renovation projects. Of this amount, *an estimated 39 - 145 person-years will come from City of Brantford/Brant County region.*
3. In addition, government would collect additional taxes at all levels. The federal government would collect \$1.3 - 5.0 million, primarily from personal income taxes and GST. The provincial government would collect \$1.0 - 3.7 million. *Local government would collect \$0.4 - 1.0 million in fees, permits and increased revenues due to higher property values.*

Future Economic Impact of Laurier Brantford on Brantford - Operating Impacts

4. The sustained economic benefits of the operations of Laurier Brantford were based on operating expenditures of \$28-34 million over 2006-2010. These expenditures in turn would drive additional spending of \$47-57 million in the Province, *of which \$37-45 million will be spent within the Region.* (Not including student non-university (i.e. off campus rent, etc.) and visitor spending).
5. In terms of jobs created, according to this model, 881-1,063 person-years of work, or an average of 176 to 213 jobs, would be sustained by the activities of Laurier Brantford in the province. *Of this amount, 763 - 940 person years (an average of 153 - 188 jobs annually) will be from the local area.*



- 6. In terms of revenues derived for the levels of government, total operational impacts were estimated at \$8.1-9.8 million for the federal government, \$5.4-6.5 million for the provincial government *and \$1.1-1.3 million for the local government.*
- 7. Based on all the information provided regarding forecasts for student enrolment, faculty and staff expenditures, operating expenses, capital expenditures, student non-university spending and visitors, the total average economic impact of Laurier Brantford through the 2006-2010 time period is estimated at *between \$ 20 million and \$27 million annually.* (This is comparable to the economic impacts of other similar Ontario universities).

Within this estimate, the total annual indirect economic impacts of the presence of Laurier Brantford to selected sectors of the local Brantford economy is estimated as follows:

* Restaurants	\$1.1 - 1.5 million
* Retail food industry	\$1.7 - 2.4 million
* Housing and rental accommodation	\$4.2 - 5.6 million
* Retail clothing	\$1.2 - 1.6 million
* Transportation (including autos & public transit)	\$1.8 - 2.4 million

Future Economic Impact of Mohawk College on Brantford - Operating Impacts

- 8. The sustained economic benefits of the operations of Mohawk College were based on the direct operating expenditures of \$44-51 million over 2006-2010. This in turn drives additional expenditures of \$73-86 million in the Province, *of which \$58-68 million will be spent within the Region.* (Not including student non-university (i.e. off campus rent, etc.) and visitor spending).
- 9. In terms of jobs created, according to this model, 1,336-1,600 person-years of work, or an average of 267-320 jobs annually, would be sustained by the activities of Mohawk College in the province. *Of this amount, 1,182-1,385 person years (an average of 236 - 277 jobs annually) will be from the local area.*
- 10. In terms of revenues derived for the levels of government, total operational impacts were estimated at \$12.3 - 14.9 million for the federal government, \$8.2 - 9.4 million for the provincial government *and \$1.8 - 2.1 million for the local government.*
- 11. Based on all the information provided regarding forecasts for student enrolment, faculty and staff expenditures, operating expenses, capital expenditures, student non-university spending and visitors, the total average economic impact of Mohawk College through the 2006-2010 time period was estimated at *between \$ 19 million and \$22 million annually.*

Within this estimate, the total annual average indirect economic impacts of the presence of Mohawk College to selected sectors of the local Brantford economy is estimated as follows:

* Restaurants	\$0.9 - 1.0 million
* Retail food industry	\$1.4 - 1.6 million
* Housing and rental accommodation	\$3.2 - 3.7 million
* Retail clothing	\$0.9 - 1.1 million
* Transportation (including autos & public transit)	\$1.3 - 1.6 million



6.2.2 City of Kitchener - Impact of Laurier School of Social Work (2004)

In 2004, the City of Kitchener was engaged in discussions with Wilfrid Laurier University aimed at exploring the feasibility of relocating WLU's School of Social Work into the St. Jerome's College Building, adjacent to Kitchener City Hall and vacant since 1990. The proposed costs of such a move included the purchase of the building and necessary renovations by the City of Kitchener.

In order to perform its necessary due diligence, the City of Kitchener required information demonstrating the economic and social impact of similar past initiatives in other centres in North America, with the appropriate comparisons and analysis. Following are the relevant conclusions and recommendations of this study.

Conclusions

1. The proposed relocation of the WLU School of Social Work should result in an estimated incremental economic benefit to the City of Kitchener of \$1.48 million annually.
2. In terms of the payback on the initial investment, based on estimated relocation costs of approximately \$6.0 million, the cost of relocation will be balanced by incremental revenue derived from economic benefits within approximately 4 years.
3. In terms of construction impacts, the estimated renovation expenditures will support a temporary increase in income in the Province of \$5.4 million, of which \$3.2 million will be retained by the local area (Waterloo Region). An estimated 73 person-years of employment are estimated from the proposed renovations, 40 of which would come from the local area. Wages and salaries would increase by \$3.6 million in the Province and \$2.3 million in the local area.
4. In terms of sustainable economic impacts, the School of Social Work drives annual expenditures of \$4.1 million in the Province and \$3.3 million in the local area. An estimated \$306,000 in mostly incremental annual revenues will be realized from spending in downtown Kitchener-based restaurants. In terms of job creation, an estimated 71 full-time jobs will be sustained in the Province, of which 53 are from the local area.
5. Direct city investment in such ventures significantly impacts ultimate success. Examination of two local case studies of the establishment of local university campuses shows that direct financial support by both cities (\$8.9 million by Cambridge and \$10 million by Brantford) was a key element in successfully launching both initiatives.
6. In addition to the direct economic benefits to the City of Kitchener of the proposed relocation of the WLU School of Social Work, there are a number of indirect economic benefits as well.
 - a) An "education premium", which would be the result of the incremental income that locally based university graduates of the program would spend in the community.
 - b) An "economic stimulus of higher education" would result from the presence of a university campus in the community attracting businesses seeking to capitalize student availability.
 - c) Student spending, estimated at about \$8,000 per capita to the local economy, would shift significantly to Kitchener with the proposed relocation.
 - d) Visitor spending of visitors associated with the School of Social Work, would likely shift primarily to the City of Kitchener.
 - e) The "volunteerism premium", the benefit of which is currently centred in Waterloo, would also shift significantly to Kitchener.
 - f) The "innovation premium", which captures the indirect benefit of R&D spin-offs into the community, would be of lesser significance.



7. The study also found that there are a large number of direct and indirect benefits associated with the proposed relocation of the School into the historic building of St. Jerome's College, in downtown Kitchener.
 - a) The rehabilitation of older buildings is generally less expensive, uses more local resources, and creates more local jobs than new construction.
 - b) Irreplaceable quality exists in the fabric and architecture of older buildings.
 - c) Preserving older buildings allows greater activity in the City core, in concert with the major strategic initiatives of the City of Kitchener.
 - d) Retaining older buildings allows a city to remain visually richer and socially more diversified.
 - e) Using the existing structure would minimize the addition of public infrastructure to service the facility.
 - f) Re-using historic buildings instead of creating new construction minimizes the creation of construction waste, which accounts for one-quarter of all landfill on average.
 - g) Vacant and underused land is brought back as a tax-generating asset for the community.
 - h) Historic preservation promotes neighbourhood stability.
 - i) Property values increase in historic neighbourhoods.
8. The decision to propose housing the WLU School of Social Work in the old St. Jerome's College building is clearly an innovative use of historic space, and would be poised to provide the benefits of the most environmentally sensitive relocation option. It is also the most economically sound relocation option as well, maximizing the number of jobs created during the renovation phase.
9. In order to build on the benefits of downtown revitalization, universities and cities must work more closely together. Cities can take the initiative in the following areas:
 - a) By incorporating universities into both their short-term and long-term economic development strategies.
 - b) By convening university presidents and business leaders regularly to identify and further economic development partnerships and opportunities.
 - c) By establishing a university liaison office to advance collaboration and economic development.
10. The proposed relocation of the WLU School of Social Work represents a significant strategic initiative that will allow the City of Kitchener to more fully participate in the economic and downtown revitalization benefits of a closer city-university relationship in the future.
11. Social work in particular represents a source of research and expertise that is of special relevance to the needs of a downtown core. For example, very few business advisory services focus on inner-city companies or the inner-city business environment. The School of Social Work is ideally suited to focus on exactly these important "downtown" issues.
12. In terms of the effect of the establishment of a university campus upon the city's prestige and reputation, this study found that businesses are attracted to cities that have university campuses. In addition, it found that personal safety and the overall quality of life in those cities improves in a measurable way as well.
13. The reputation of the City of Kitchener will be enhanced with the proposed relocation of the WLU School of Social Work.