

# Indirect Costs Outcomes Report

File Number P0021

## Main Contact Information

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## Statement of Account

<b>Total Indirect Costs Funds available in 2009-2010</b>	<b>A</b>	<b>\$6,375,150</b>
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## Expenditures incurred in 2009-2010

<b>Facilities</b>	<b>\$2,231,758</b>
<b>Resources</b>	<b>\$2,274,195</b>
<b>Management and Administration</b>	<b>\$1,471,589</b>
<b>Regulatory Requirements and Accreditation</b>	<b>\$272,531</b>
<b>Intellectual Property</b>	<b>\$125,077</b>
<b>Total Indirect Costs expenditures incurred in 2009-2010</b>	<b>B \$6,375,150</b>

**Outstanding Commitments** (The expenditure was incurred but the invoice was not paid in the period ending March 31, but was paid before June 30. Be sure to include the commitments in the appropriate area(s) above.)

<b>\$0</b>
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## Health Research Affiliates

For organizations with health research affiliates only: for each area of priority, indicate the actual amount of your 2009-2010 grant that was spent by your health research affiliates.

Facilities	
Resources	
Management and Administration	
Regulatory Requirements and Accreditation	
Intellectual Property	

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## Section I - Facilities

### Expenditures

#### Was your grant invested, completely or partially, in any of the following ways?

Note that A and B are not exclusive (i.e. for any given category, if you have covered both existing and new Expenditures, you would check both A or B).

Expenditure category	A) The grant covered existing expenditures	B) The grant covered new expenditures (not previously covered by grant)	C) The grant did not cover this category	In which category was the largest proportion of your 2009-2010 grant invested?
1. Renovation and maintenance of research facilities (excluding expenditures incurred to meet regulatory requirements - see Section IV)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Upgrade, operations and maintenance of equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Operating costs (custodial, security, maintenance, utilities, leasing, capital planning, insurance on research space)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Technical support for laboratories, offices and other facilities (excluding technical support for animal care - see section IV)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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## Section I - Facilities (continued)

### Impact Statement

Please explain how the expenditures made in this priority area have allowed your institution (and its health research affiliates, where applicable) to maintain and/or enhance the capacity of its research enterprise. The following questions can help guide your answer:

- what difference have your grant investments made?
- are there significant changes from the previous year?
- why are these investments vital for researchers?
- why are these expenditures vital to the university research administration?
- what would have happened if expenditures hadn't been possible?
- what are the major cost drivers in this category?
- what percentage of your O&M expenditure supports CFI-funded equipment?

Since its inception, the ICP grant has become a critical component in both enhancing and maintaining the University of Guelph's capacity for research. The ICP grant has made it possible for the University to fund the costs of growth in a number of critical support facilities related to:

Operating our research buildings: The new science complex building which includes a significant space component dedicated to federally sponsored research, including housing the Advanced Analytical Centre. This state-of-the-art building has many building support systems designs including complex continuous air-flow generation, full emergency power backup, energy efficient growth chambers, and can ensure the safe and effective operation of research activities. The ICP has enabled the University to maximize the implementation and operations of all aspects of the facility - without it we would have had to defer commissioning of portions of the research space, severely limiting our ability to compete for and conduct critical research particularly in the physical and biological sciences areas. This is only one major example of research space that we have been able to fully utilize the delivery of federally funded (and related leveraged funding from other sources) research.

Campus infrastructure in support of Research: As in previous years, a continuing challenge for the University's research program is to meet the on going demand for new, reliable and efficient utility and physical infrastructure delivery systems. The increasingly complex nature of research equipment and related operating demands of research operations have exposed the limitations of older support services. These include a number of utility and operational support services ranging from the delivery of distilled water, reliable power (electricity, natural gas), waste disposal, custodial and security services for research space. The ICP enables the University to not only maintain existing capacity but also to undertake improved services that focus on both reliability and efficient delivery. Without this infrastructure "platform" researchers would be exposed to a decline of service levels and of a more serious nature, loss or disruption of vital services. The ICP has removed this risk and encouraged research activity by providing reliable and effective facilities.

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## Section II - Research Resources

### Expenditures

**Was your grant invested, completely or partially, in any of the following ways?**

Note that A and B are not exclusive (i.e. for any given category, if you have covered both existing and new expenditures, you would check both A or B).

Expenditure category	A) The grant covered existing expenditures	B) The grant covered new expenditures (not previously covered by grant)	C) The grant did not cover this category	In which category was the largest proportion of your 2009-2010 grant invested?
1. Acquisition of library holdings (journals, books, collections, periodicals, Canada National Site Licensing project, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Improvements to electronic information resources (access to databases, telecommunications systems, information technology systems, and research tools) (excluding technology to track grants and to provide financial services - see Section III)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Library operating costs and administration (custodial, security, maintenance, utilities, leasing, capital planning, staff salaries)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Insurance on research equipment and vehicles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Section II - Research Resources (continued)

### Impact Statement

Please explain how the expenditures made in this priority area have allowed your institution (and its health research affiliates, where applicable) to maintain and/or enhance the capacity of its research enterprise. The following questions can help guide your answer:

- what difference have your grant investments made?
- are there significant changes from the previous year?
- why are these investments vital for researchers?
- why are these expenditures vital to the university research administration?
- what would have happened if expenditures hadn't been possible?
- what are the major cost drivers in this category?
- what proportion of the acquisitions and operating budget of the library is covered by the Indirect Costs Program?
- do you participate in inter-institutional consortia or partnerships to assist in cost reduction in this expenditure category?

The ICP grant in this category contributes to two major elements of our research infrastructure;

- Information technologies are crucial contributors to successful research. High speed connectivity and adequate bandwidth are absolutely essential to achieving research successes, to foster collaborations, and for overall effective communications. Much of our state-of-the-art equipment generates large amounts of complex data that must be transmitted on campus and to external partners. The University supports on-going investments in this area and maintains these services for access by all of our researchers. The ICP grant has made it possible for the University to continue to enhance our capacity, security and reliability of our communications and data transfer and storage services to researchers. In the grants absence, first we could not invest in this technology and related support services and secondly, over time we would see a major deterioration of communication and data transmission and storage capacities. The effect would be a significant loss in our research ability to conduct research in a productive and cost effective manner and perhaps as importantly, to seamlessly access and distribute data and research outcomes to colleagues, students and the other organizations.
- The library remains the backbone upon which new discoveries are contextualized, and the place where researchers can remain abreast of new information arising anywhere in the world. The University's library has been able to maintain first class positioning in spite of constant inflationary challenges, as a result of the on-going investment of the ICP in maintaining research support services in the library. In the absence of this investment we would see a significant erosion of our capacity to deliver this critical element of successful research. Researchers (faculty and graduates) access to new information would become limited and difficult to retrieve placing them at a major competitive disadvantage relative to peers (both domestic and internationally). ICP is key to maintaining information resources that are vital in building our competitive position and capacity to attract and grow research activity at the University.

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## Section III - Management and Administration

### Expenditures

**Was your grant invested, completely or partially, in any of the following ways?**

Note that A and B are not exclusive (i.e. for any given category, if you have covered both existing and new expenditures, you would check both A and B).

Expenditure category	A) The grant covered existing expenditures	B) The grant covered new expenditures (not previously covered by grant)	C) The grant did not cover this category	In which category was the largest proportion of your 2009-2010 grant invested?
1. Institutional support for the completion of grant applications / research proposals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Acquisition, maintenance and/or upgrade of information systems to track grant applications, certifications, and awards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Eligible training of faculty and research personnel (excluding training to meet regulatory requirements - see Section IV)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Human resources and payroll	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Financial and audit costs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Research planning and promotion, public relations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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### Section III - Management and Administration (continued)

#### Impact Statement

Please explain how the expenditures made in this priority area have allowed your institution (and its health research affiliates, where applicable) to maintain and/or enhance the capacity of its research enterprise. The following questions can help guide your answer:

- what difference have your grant investments made?
- are there significant changes from the previous year?
- why are these investments vital for researchers?
- why are these expenditures vital to the university research administration?
- what would have happened if expenditures hadn't been possible?
- what are the major cost drivers in this category?
- do you participate in inter-institutional consortia or partnerships that assist in cost reduction in this expenditure category?

The ICP grant was directly responsible for increased capacity in a wide range of research services that our university faculty have come to rely upon. Services supported by the grant include the administration of grants and contracts, and activity that is core to any research intensive university. The major cost drivers in the category are personnel costs including professional and support staff that are dedicated in the Office of Research and other key central support service units as well as staff located in major college/research units across the campus.

- In the Office of Research, the grants and contracts office is able to provide assistance on proposal preparation and submission, and coordinate efforts to provide training to faculty on how to conduct federally-supported research in a manner that is compliant with federal guidelines. We have a number of staff throughout research services who track applications and awards. We have added to the complement of staff who provide these services and are able to provide dedicated support to Strategic Projects and Infrastructure Programs. The ICP grant contributes to the maintenance of this capacity. Currently we are engaged in the design of a multi-year major project to introduce on-line application and tracking of research proposals for all of our researchers which will greatly improve the efficiency and level of service to our researchers. It is an essential part of what we do, and helps us ensure that we can effectively provide services and effectively interact with our research sponsors.

- The Office of Research provides various levels of support and orientation for new and continuing faculty/researchers. This includes workshops on grant preparation, and the tri-council programs in particular. Our Research Ethics Coordinator provides a variety of programs to assist those who engage human participants in their research. The Business Development Office provides support and workshops on various aspects of partnerships and commercialization.

- The research office has an active communications team focused on dissemination of results to external audiences. We place a priority on being able to translate research discoveries into messages that the broader public can understand and appreciate.

- In the area of research financial reporting, we have expanded both the skill levels of our staff and introduced new systems with a focus on improving both reporting and control of federally funded research. We have introduced new training for our faculty to improve compliance particularly as it relates to tri-council funding and plan to introduce new on-line reporting improvements for our researchers. These investments are designed to improve the timeliness and effectiveness of our financial reporting, and improve compliance of our processes and spending with agency guidelines. Our next project is to enhance the financial report system available to researchers but simplifying the reporting of current fiscal status of their grants and including a new grant budget process that will indicate funding available/planned. These improvements will enhance both service and internal control over the use of research funds especially for our tri-council funding.

All of these enhanced services are a direct result of funding received under the ICP grant. Without it we would have to either eliminate or seriously curtail these activities, including downloading administrative responsibilities to researchers reducing their time and focus dedicated to direct research activities and outcomes. In terms of inter-institutional consortia or partnerships that assist in cost reduction in this expenditure category, while only a very small component of this category, our purchasing services activity participates in inter organizational consortia to reduce the overall costs of procurement and related services. Some examples include laboratory supplies, customs clearances and

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## Section III - Management and Administration (continued)

### Impact Statement

shipping serves and duplication, photocopying and printing services. These cooperative activities improved both procuring and services to researchers



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## Section IV - Regulatory Requirements and Accreditation

### Expenditures

**Was your grant invested, completely or partially, in any of the following ways?**

Note that A and B are not exclusive (i.e. for any given category, if you have covered both existing and new expenditures, you would check both A and B).

Expenditure category	A) The grant covered existing expenditures	B) The grant covered new expenditures (not previously covered by grant)	C) The grant did not cover this category	In which category was the largest proportion of your 2009-2010 grant invested?
1. Creation and support of regulatory bodies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Training of faculty and other research personnel in health and safety, animal care, ethics review, handling radiation and biohazards, and environmental assessments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. International accreditation costs related to research capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Upgrades to, and maintenance of facilities and equipment to meet requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Technical support for animal care, handling of dangerous substances and biohazards	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Section IV - Regulatory Requirements and Accreditation (continued)

### Impact Statement

Please explain how the expenditures made in this priority area have allowed your institution (and its health research affiliates, where applicable) to maintain and/or enhance the capacity of its research enterprise. The following questions can help guide your answer:

- what difference have your grant investments made?
- are there significant changes from the previous year?
- why are these investments vital for researchers?
- why are these expenditures vital to the university research administration?
- what would have happened if expenditures hadn't been possible?
- what are the major cost drivers in this category?
- to what extent is compliance with Canadian and international regulations required to access research funds from international sources?

The University has many research programs that are subject to regulatory oversight (eg. biohazards, transgenics, environmental guidelines). In addition, some of our research capacity contributes to our ability to meet standards of accreditation, particularly with respect to animal care services in our veterinary college. Like all veterinary schools, the Ontario Veterinary College requires accreditation by professional bodies for it to offer full services. The ICP support that goes toward animal care at the University of Guelph plays an important role in helping us to meet the required standards. This past year we used a small portion of the ICP grant (nearly 4%) to help support key staff positions dedicated to regulatory matters and risk management, including a Director, Risk Management. This is enabling us to place a greater emphasis on environmental health and safety issues associated with research, on identification of research activities that have regulatory compliance needs, and on animal care services.

All of these efforts are helping us to minimize risk to researchers and to the University, and helping us to ensure that research funds are used only on projects that meet regulatory and other compliance guidelines.

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## Section V - Intellectual Property

### Expenditures

**Was your grant invested, completely or partially, in any of the following ways?**

Note that A and B are not exclusive (i.e. for any given category, if you have covered both existing and new expenditures, you would check both A and B).

Expenditure category	A) The grant covered existing expenditures	B) The grant covered new expenditures (not previously covered by grant)	C) The grant did not cover this category	In which category was the largest proportion of your 2009-2010 grant invested?
1. Creation, expansion, or sustenance of a technology transfer office or similar function	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Administration of invention patent applications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Support for technology licensing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Administration of agreements and partnerships with industry	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Administration of agreements and partnerships with the public sector (federal, provincial, municipal governments; including health, education, and social services)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Section V - Intellectual Property (continued)

### Impact Statement

Please explain how the expenditures made in this priority area have allowed your institution (and its health research affiliates, where applicable) to maintain and/or enhance the capacity of its research enterprise. The following questions can help guide your answer:

- what difference have your grant investments made?
- are there significant changes from the previous year?
- why are these investments vital for researchers?
- why are these expenditures vital to the university research administration?
- what would have happened if expenditures hadn't been possible?
- what are the major cost drivers in this category?

The University places a very high priority on maximizing the benefits of its research for society, and actively promotes the commercialization of research outcomes. To this end we have located our Business Development Office within our Research Park, we have worked with all levels of government to ensure we are engaged in commercialization efforts, and we are engaged with other universities to find strategies to broaden the commercialization pipeline that links discoveries to outcomes for society through a collaborative Intellectual Management Program (e.g. C4). The ICP grant supports the Business Development Office and provides staff who are focused on working with faculty to generate inventions disclosures, on seeking patent protection when necessary (provisional patenting), on negotiating licensing agreements, and on working with third parties to facilitate the creation of spin-off companies. With respect to invention disclosures alone Staff within the Business Development Office of the university place a focus on ensuring that inventions are protected by the filing the provisional patents. Ensuring that this process operates effectively, and that inventors and research sponsors are kept apprised of the process, is a crucial activity within the office. The significant increase in invention disclosure over the last 5 years in particular is a reflection of how much greater the interest is in looking at opportunities to capture the potential of our research to make a difference in society. Without ICP funds it would not be possible to provide the necessary support at the earliest stages of commercialization (i.e. disclosure and provisional patent protection).

The Business Development Office provides an important link to industry and 3rd party partners which is a critical area of activity and often leads to valuable partnerships and collaborations that had not necessarily existed. Where partnerships or collaborations had existed we have been able to enhance the value of these relationships through negotiated IP arrangements or additional investments in research including the establishment of Industrial Research Chairs.

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## Section VI - Overall Impacts

We strongly recommend that the Vice-President of research (or equivalent) answer the following questions pertaining to the overall impacts of the Indirect Costs grant.

### 1. Attraction and retention of researchers

Has the Indirect Costs grant contributed to the attraction and retention of high-quality researchers at your institution?

Yes  No

If "yes", please provide an explanation.

1. Enhanced service and support to faculty: The University of Guelph has placed a significant emphasis on "building the front end" to enhance the level of service and support to faculty in the development of their research programs. Since 2007-08 the Associate Vice-President Research Service position has been oriented towards both academic and administrative leadership to the enhancement of research enterprise. As a result of a review of the Office of Research several new positions were established including general administrative support. A Manager of Strategic Projects and Infrastructure Programs was created and filled (May 2008). A full-time administrative assistant was also added to the Office of Research. In 2010 we plan to continue adding resources in the Office of Research to assist researchers in grant applications and improve the oversight related to tri-council oversight (and compliance).

2. Associate Deans for Research have been added for each of the Colleges through support in part provided by the Office of the Vice-President Research. Two Research Managers are also in place in the College of Arts and College of Social and Applied Human Sciences. These positions are critical in the mentoring of new faculty and provide a level of focused support at the College level.

3. Interface between the Colleges and the Office of Research: A collaborative and coordinated effort to support faculty occurs through the Research Services Council which provides an interface between the colleges and the Office of Research. The RSC strategies for the recruitment and retention of researchers are explored through the ability to maintain leadership in research as a result of the level of support and services provided by the University.

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## Section VI - Overall Impacts

### 2. Attraction of additional funding

Has the Indirect Costs grant contributed directly to your institution's ability to attract additional funding to support the research environment?

Yes  No

If "yes", please provide an explanation.

1. Enhanced Service and Support to Faculty: this occurs as indicated in the responses above through additional staffing who are available to support faculty initiatives. This level of support exists within the Office of Research and at the College level through either the Associate Deans or Research Managers. In 2008, the University was the recipient of two new NSERC Strategic Network Grants within the Ontario Agricultural College. Our success in CFI is in part attributed to the support we are able to provide.
2. Communication: Improving our internal communication strategy through the Director of Communications in the Office of Research and in the development of improved information management are contributing significantly to the University's ability to inform researchers on a timely basis of opportunities, initiative, and the status of their research funds. The latter initiative is taking place over a 3 year period in collaboration with the Chief Information Officer and Central Computing Services.
3. Other Investments: The Office of Research has provided targeted administrative support in the development of large multi-year and multi-partner proposals. The establishment of Project Managers who report through the Office of Research has been a significant benefit to large research programs and their ability to attract further funding and to better manage the resources. In 2007-08 a Project Manager was hired to assist with 2 large projects and administrative support was provided to two strategic network proposals. We continue to emphasize this with the growth of our large projects and have 3 new Project Managers on board.

### 3. Redirection of funds

In the case of a number of institutions, the incremental impact of the Indirect Costs Program includes not only the results of investing the grant itself, but also the results of the other investments the institution is able to make by re-directing its own funds away from the areas covered with the grant. These impacts may be in the area of research support or also in the institution's renewed ability to meet the other aspects of its mandate.

Has your institution redirected some of its own operating funds as a result of the Indirect Costs Program?

Yes  No

If "yes", please provide an explanation.

The ICP along with overhead and indirect costs associated with other government and with private sector funds invested in research at the University of Guelph do not fully address the total indirect costs associated with the research enterprise across our campuses. It has not been possible with the level of ICP funds received at this time to redirect funds in a significant way to meet other aspects of our mandate

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## Section VI - Overall Impacts

### 4. Other overall impacts

If the Indirect Costs Program has had other overall impacts on your institution, which were not listed in the previous questions, please provide details.

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### Section VII - Your comments

Describe any problem you have experienced with the Indirect Costs Program, suggest improvements to the program, or highlight particular successes of the program at your institution.

The indirect costs program is a critical program and one in which recognition is given to the total costs associated with a research enterprise at a research intensive institution such as the University of Guelph. Continued emphasis must be given to raising the level of support to reflect more accurately the 40% overhead or indirect cost associated with the research and the increasing costs associated with the research on University campuses.

More importantly a uniform and consistent policy and commitment to the support of indirect costs across all federally funded research programs and contributions to research and development activities at universities is needed. The inconsistency and lack of recognition of the total costs associated with research in various ministries and departments provides considerable challenges and ability to working collaboratively with our federal partners.