# INDIRECT COSTS PROGRAM

**PROGRESS REPORT**

FOR APRIL 1, 2007, TO MARCH 31, 2008

Canada

## CONTENTS



## TABLES AND CHARTS

# 1. INDIRECT COSTS PROGRAM

### BACKGROUND

The December 2001 federal budget provided a one-time investment of $200 million to help alleviate financial pressures associated with federally supported research at universities and research hospitals. The budget also committed the government to working with the university community to find predictable, affordable and incremental ways of providing ongoing support for the indirect costs of research. The terms and conditions for the one-time payment were approved on February 7, 2002 (TB #829539).

Since the one-time payment consisted of a reimbursement of costs incurred in the past by universities and their affiliated research hospitals, performance measures were not relevant and therefore were not applied.

The 2003 federal budget provided $225 million per year through the granting councils, beginning in 2003-2004, to help fund the indirect costs associated with federally supported research at universities, colleges and research hospitals. The terms and conditions for the new permanent Indirect Costs Program (ICP) were approved on July 23, 2003 (TB #830732).

Some $20 million was added in 2004, increasing the Program's annual budget to $245 million. The 2005 budget received an additional $15 million, bringing total funds for the Indirect Costs Program to $260 million a year. A further $40 million was added in 2006, and then $15 million more in 2007-2008, bringing the Program's yearly budget close to $315 million.

### PROGRAM OBJECTIVE AND PLANNED OUTCOMES

The overall objective of the Indirect Costs Program is to help universities, colleges, hospitals and affiliated research institutes create a research environment allowing them to make best use of all federal funding for university research. This contributes to building a strong and innovative Canadian research environment that is better equipped to support world-class research. Specifically, the Program seeks to contribute to:

- the attractiveness of the Canadian research environment;
- compliance with regulatory requirements;
- knowledge transfer and commercialization; and
- ultimately to Canada's economic growth, improved quality of life, and Canadian research excellence and capacity.

### GOVERNANCE AND ADMINISTRATIVE STRUCTURE

The Indirect Costs Program is housed within the Canada Research Chairs Secretariat, which is administered by the Social Sciences and Humanities Research Council (SSHRC). SSHRC, the Natural Sciences and Engineering Research Council (NSERC), the Canadian Institutes of Health Research (CIHR), and the secretariat of the Networks of Centres of Excellence provide data on their annual funding to eligible post-secondary institutions and their affiliated hospitals and institutes. They also assist the Canada Research Chairs Secretariat in responding to requests for that data.

The Indirect Costs Program is managed by a steering committee, which is mandated to oversee the Program's management and provide advice on its general policy approach. The Steering Committee includes the chairs of SSHRC, NSERC and CIHR, as well as the Deputy Minister of Industry Canada. The Chair of SSHRC heads the Steering Committee.

#### SECRETARIAT

The Canada Research Chairs Secretariat, which reports to the Chair of SSHRC, administers the Indirect Costs Program. The Secretariat manages the Program's operation, including grants and operating budgets, and provides liaison with the universities, Industry Canada, and provincial health and education ministries. It undertakes performance measurement, evaluations and audits, and reports on Program activities to the Minister of Industry, the Treasury Board Secretariat and, ultimately, Parliament. Together with SSHRC, the Secretariat provides other administrative services, such as communications.

## 2. ACCOUNTABILITY AND EVALUATION

The Indirect Costs Program has adopted a number of approaches to address the issue of accountability: annual reporting by institutions; the review of institutional management of their indirect costs grants during the course of site visits; an internal audit scheduled for fiscal year 2008-2009; and a sixth-year summative evaluation, to be carried out in 2008-2009.

#### ANNUAL REPORTS

At the request of universities and with their collaboration, the Canadian Association of University Business Officers and the financial officers of the granting agencies have established procedures for financial reporting and control. The Program's Results-based Management and Accountability Framework (RMAF) requires participating institutions to submit a yearly report on their outcomes, including a statement of account. The information gathered through the reports is intended to account for federal funding and is a key element in the Program's performance strategy.

The outcomes report provides quantitative and qualitative information on the impact that expenditures have had in each of five priority areas: facilities, resources, management and administration, regulatory requirements and accreditation, and intellectual property. The statement of account provides a list of expenditures made possible by Program funding in each of the five areas.

Normally, institutions fill out the report form on the Indirect Costs Program website (www.indirectcosts.gc.ca). This is the Program's main communications tool, containing detailed information as well as electronic grant request and outcomes report forms. In response to the difficulties encountered with the 2006-2007 outcomes report form, changes were made for 2007-2008. Due to time constraints, the secretariat could not make the new form available online and asked institutions to submit a paper copy. Institutions receiving a grant of less than $25 000 a year are only required to complete the statement of account for their expenditures.

#### SITE VISITS

The performance monitoring visits for the Indirect Costs Program serve a twofold purpose: to substantiate performance data provided by the institution to the Secretariat, and to collect additional information on program performance. Between April 2007 and March 2008, 3 out of 19 universities with health-research affiliates were visited. In addition, site visits were carried out at one other research-intensive institution without an affiliated hospital, and at 11 mid- and small-size universities, colleges and CEGEPs. The program continued to implement the protocol for monitoring site visits to ensure that participating institutions are complying with program objectives. Two criteria were used in the selection of institutions to be visited: the risk factor and the geographic/size distribution. It was determined that the risk factor is the highest where there are third-party transfers of funds such as between a university and its affiliated research hospitals and/or health research institutes. It was also deemed important to visit institutions of various sizes and in as many provinces as possible.

#### INTERNAL AUDIT

Plans are under way to carry out an internal audit of the Program in fiscal year 2008-2009. The final determination of areas of concern or risk is being finalized.

#### SIXTH-YEAR EVALUATION

According to the terms and conditions of the Program, which expire in June 2009, a summative evaluation of the Program will be carried out in 2008-2009.

## 3. ANALYZING THE PROGRAM'S IMPACT

#### GRANT IMPACT EVALUATION

Since the beginning of the program, we have stated that it is a complex process to evaluate the impact of an indirect costs grant and report that impact, not only for post-secondary institutions that received funding but also for the Program Secretariat. Funding provided by the Program, deemed essential by all institutions, covers only a portion of the actual amount of indirect costs of federally funded research. The impact of that funding is therefore not clear-cut and is spread over several years. With time, institutions have become better able to identify and describe the Program's results.

#### QUALITY OF REPORTS SUBMITTED

With those changes to the outcomes report form, the quality of information provided concerning the impact of funding from the Indirect Costs Program was improved. Not only did institutions provide detailed examples of expenditures, they also explained what difference the grant investments have made and/or what would have happened to their research capacity if the expenditures hadn't been incurred. Ergo, many institutions expressed their approval for the new form.

For 2007-2008, 122 grants were awarded to 124 eligible institutions (two colleges decided not to apply). Of the 122 institutions, only 119 submitted an outcomes report (three colleges did not submit a report and will not be eligible for funding for 2008-2009). Also, 34 institutions received a grant of less than $25 000 and had to

provide a statement of account of their expenditures only. Thus, 85 institutions submitted a detailed outcomes report.

## 4. OVERVIEW OF EXPENDITURES

### INSTITUTION CATEGORIES

To identify trends associated with expenditures of funding for indirect costs, institutions were categorized according to the amount of their grants. Table 2 gives the criteria for the categories, as well as the proportion of the Program's grants budget used by each category of institution.

**TABLE 1: PROPORTION OF GRANTS BUDGET, BY SIZE OF INSTITUTION**

| Category | Criteria | Number of institutions | Proportion of the total grants budget |
|---|---|---|---|
| Small | grant of less than $100 000 | 58 | <1% |
| Medium | grant of $100 000 to $1 million | 23 | 4% |
| Large | grant of more than $1 million | 13 | 6% |
| Research-intensive | grant of more than $1 million and additional funds | 28 | 90% |

### PROJECTED AND ACTUAL EXPENDITURES

With the help of the grant requests and the outcomes reports, we can compare projected and actual expenditures in each priority area. The following table briefly presents this information. It shows that actual expenditures did not differ significantly from projected expenditures.

The grant budget was $314 055 000 for 2007-2008. The unclaimed funds by the two colleges that did not apply for their grant, a total of $25 879, would normally be distributed amongst all institutions. Unfortunately there was an oversight - these monies were not distributed and the grant budget amounted to $314 029 121. Also, the figures from the request forms were used for both projected and actual expenditures for the three colleges that did not submit their outcomes report since they rarely differ.

**TABLE 2: PROJECTED AND ACTUAL EXPENDITURES, BY PRIORITY AREA**

| Expenditure area | Projected expenditures | Actual expenditures |
|---|---|---|
| Facilities | $111 344 343.00 | $110 853 777.35 |
| Resources | $62 520 379.00 | $57 632 803.16 |
| Management and administration | $104 433 917.00 | $106 983 219.27 |
| Regulatory requirements and accreditation | $18 894 255.00 | $22 473 645.89 |
| Intellectual property | $16 836 227.00 | $16 078 977.33 |

**USE OF GRANTS IN PRIORITY EXPENDITURE AREAS**

Overall, institutions allocate their funds to the different expenditure areas in much the same way from year to year (see table 1). The bulk of the funds were used towards expenditures pertaining to facilities and to management and administration, followed by research resources. They were lowest for regulatory requirements and intellectual property. This trend also held in 2007-2008 (see Chart 1).

However, expenditure trends vary somewhat when the size of the institutions is taken into account. Table 4 shows that, for 2007-2008, small and medium institutions allocated the bulk of their grants to the area of management and administration of their research enterprise.

**TABLE 3 : PROPORTION OF GRANTS BUDGET ALLOCATED TO EACH PRIORITY EXPENDITURE AREA, 2003-2008**

| Year | Number of institutions | Facilities | Resources | Management and adminis-tration | Regulatory requi-rements | Intellectual property |
|---|---|---|---|---|---|---|
| **03-04** | 111 | 39% | 22% | 28% | 5% | 6% |
| **04-05** | 112 | 37% | 22% | 31% | 5% | 5% |
| **05-06** | 115 | 37% | 22% | 31% | 5% | 5% |
| **06-07** | 115 | 35% | 21% | 32% | 7% | 5% |
| **07-08** | 122 | 35% | 18% | 34% | 7% | 5% |

**CHART 1: PROPORTION OF GRANTS BUDGET ALLOCATED TO EACH PRIORITY EXPENDITURE AREA, 2007-2008**

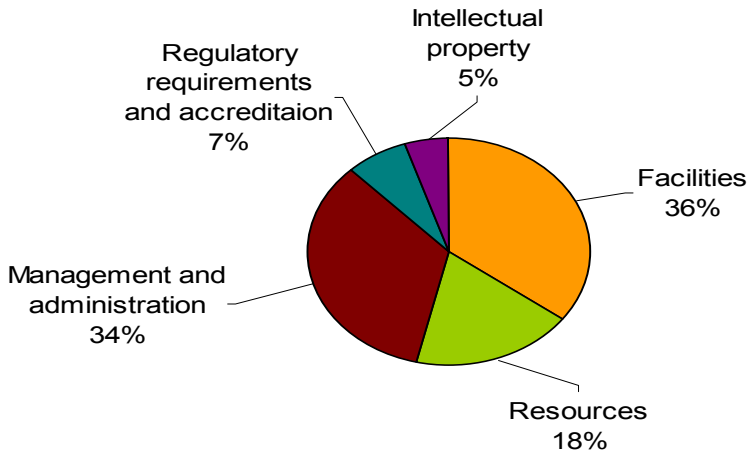

**TABLE 4: PROPORTION OF GRANTS BUDGET ALLOCATED TO PRIORITY EXPENDITURE AREAS, BY SIZE OF INSTITUTION, 2007-2008**

| Expenditure area | Small | Medium | Large | Research-intensive | Proportion of total grants budget |
|---|---|---|---|---|---|
| Facilities | 13.1% | 21.5% | 35.9% | 35.9% | **35.3%** |
| Resources | 15.5% | 28.0% | 18.3% | 18.0% | **18.3%** |
| Management and administration | 66.4% | 40.2% | 31.2% | 33.8% | **34.1%** |
| Regulatory requirements and accreditation | 3.4% | 5.4% | 9.5% | 7.1% | **7.2%** |
| Intellectual property | 1.6% | 4.8% | 5.1% | 5.2% | **5.1%** |
| **Total** | **100%** | **100%** | **100%** | **100%** | **100%** |

**AFFILIATED HEALTH RESEARCH INSTITUTES**

In 2007-2008, 17 institutions had agreements with health research hospitals and/or institutes. These agreements are required under the Program's terms and conditions to ensure that grants to institutions for indirect costs are shared equitably with their affiliated hospitals and health research institutes.

As Table 5 shows, expenditures of affiliated health research institutes represent 16.2 percent of the Program's total budget. The expenditure trends of affiliated institutes are in line with those of small and medium-sized universities and colleges; that is, the bulk of program funding is directed to the area of research facilities and the area of management and administration.

**TABLE 5: EXPENDITURES OF AFFILIATED HEALTH RESEARCH INSTITUTES, 2007-2008**

| Expenditure area | Expenditures | Proportion of total grants budget |
|---|---|---|
| Facilities | $12 895 934.00 | 4.1% |
| Resources | $5 150 990.26 | 1.6% |
| Management and administration | $20 613 007.14 | 6.6% |
| Regulatory requirements and accreditation | $7 861 651.10 | 2.5% |
| Intellectual property | $4 208 530.00 | 1.3% |
| **Total** | **$50 730 112.50** | **16.2%** |

**INVESTMENTS IN PRIORITY EXPENDITURE AREAS, BY PROVINCE/TERRITORY**

From time to time the Secretariat receives requests for information about the allocation of Program funding broken down by the provinces/territories of grantee institutions. This information appears in Table 6.

**TABLE 6: INVESTMENTS IN PRIORITY EXPENDITURE AREAS, BY PROVINCE/TERRITORY, 2007-2008**

| Province | Number of institutions | Facilities | Resources | Management and administration | Regulatory requirements | Intellectual property | TOTAL |
|---|---|---|---|---|---|---|---|
| **NF** | 1 | $706 943 (16.2%) | $367 348 (8.4%) | $1 645 360 (37.7%) | $1 355 325 (31.1%) | $289 661 (6.6%) | **$4 364 637** |
| **PE** | 2 | $300 091 (28.6%) | $109 667 (10.5%) | $358 832 (34.2%) | $163 663 15.6%) | $117 501 (11.2%) | **$1 049 754** |
| **NS** | 10 | $3 571 468 (31.3%) | $2 326 728 (20.4%) | $4 381 323 (38.4%) | $881 562 (15.6%) | $244 616 (11.2%) | **$11 405 697** |
| **NB** | 4 | $2 190 959 (44.2%) | $1 319 824 (26.6%) | $907 958 (18.3%) | $153 589 3.1%) | $387 273 (7.8%) | **$4 959 603** |
| **QC** | 31 | $29 151 540 (35.7%) | $17 333 058 (21.2%) | $25 409 406 (31.1%) | $5 095 226 (6.2%) | $4 631 952 (5.7%) | **$81 621 182** |
| **ON** | 31 | $47 052 325 (38.6%) | $21 106 747 (17.3%) | $39 167 971 (32.1%) | $7 813 553 (6.4%) | $6 911 364 (5.7%) | **$122 051 960** |
| **MB** | 6 | $3 982 304 (41.8%) | $1 572 024 (16.5%) | $2 138 145 (22.4%) | $1 522 122 (16.0%) | $316 183 (3.3%) | **$9 530 778** |
| **SK** | 3 | $1 909 165 (20.6%) | $1 631 084 (17.6%) | $4 366 838 (47.0%) | $603 601 (6.5%) | $772 093 (8.3%) | **$9 282 781** |
| **AB** | 14 | $8 292 240 (25.9%) | $3 120 340 (9.7%) | $18 641 700 (58.1%) | $1 105 914 (3.5%) | $907 833 (2.8%) | **$32 068 028** |
| **BC** | 17 | $13 669 287 (36.3%) | $8 739 673 (23.2%) | $9 949 862 (26.4%) | $3 779 292 (10.0%) | $1 500 501 (4.0%) | **$37 638 615** |
| **NU** | 1 | $30 699 (71.02%) | $6 240 (14.4%) | $6 285 (14.5%) | $0 (0%) | $0 (0%) | **$43 224** |
| **NT** | 1 | $0 (0%) | $2 455 (100%) | $0 (0%) | $0 (0%) | $0 (0%) | **$2 455** |
| **YT** | 1 | $0 (0%) | $1 069 (10.1%) | $9 539 (89.9%) | $0 (0%) | $0 (0%) | **$10 608** |

# 5. EXPENDITURE DETAILS AND IMPACTS

### OVERALL IMPACTS OF INVESTMENTS

To reiterate, the overall purpose of the Indirect Costs Program is to help colleges and universities increase their research capacity by contributing to their ability to attract and retain researchers, to comply with regulatory requirements and, finally, to transfer knowledge and commercialize research results. We first consider the overall impact that funding has had on general research capacity, as described by the institutions. We then address specifically how the Program has helped them with their ability to recruit and retain faculty. The two other planned outcomes are addressed in the following section (under regulatory requirements and accreditation and intellectual property), which presents the details of expenditures in each of the 5 priority areas and their impact.

### RESEARCH CAPACITY

All institutions describe the Indirect Costs Program funding as essential. As one university simply states, "research cannot be carried out and cannot have an impact without adequate support in all five areas represented by the eligible expenditures categories". The link between available resources and the quantity and quality of research activity is stressed continually by institutions. The institutions also emphasize that although the funding does not presently cover the full indirect costs of research, without it, their research capacity would be severely curtailed, making them uncompetitive on the international front. As sponsored research and federal government investments in research have increased, so, too, have the overall institutional costs of research. The funding plays a critical role in sustaining the growing research endeavours of Canadian universities and colleges by allowing them to capitalize strategically on opportunities to enhance their environments.

In the case of a number of institutions, the incremental impact of the 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 redirecting its own funds away from the area covered with the grant. For 2007-2008, 68 percent of institutions state that they have redirected some of their own operating funds as a result of the Indirect Costs Program. Some of the examples given include: new construction of buildings, student support (financial support and scholarships, creation of graduate student space and facilities, allowing undergraduates to participate in research), teaching support (new faculty, improvement to existing programs, creation of new programs) and student and faculty recruitment (such as competitive start-up packages for new recruits and internal funding programs). Redirecting funds into these kinds of initiatives is deemed necessary by institutions to fully implement a strategy for meeting their mandate of developing knowledge.

### ATTRACTION AND RETENTION OF RESEARCHERS

Most institutions (88 percent) state that the Indirect Costs has contributed to the attraction and retention of high quality researchers to their institution. To that end, institutions mostly highlight investments made in facilities, while some institutions also mention expenditures in resources and management and administration. The University of British Columbia's explanation clearly illustrates the impact of funding:

**The Indirect Costs grant has provided us with the ability to attract greater research talent to the University of British Columbia, through the provision of funds to contribute to renovation and preparation of incoming researchers' laboratories. Additionally, with the provision of augmented research support (through such means as increased grant facilitation resources and technical research support), researchers' time has been decidedly more focused on direct research activities, which has the multiple benefits of supporting the securing of greater research funding, increasing the level of research output, and elevating the level of satisfaction among the research community (thereby directly impacting recruitment and retention capacity for the University). Furthermore, the investment of Indirect Costs funds into such university-wide eligible research support initiatives as the Centre for Disease Modeling gives rise to a professional, organized and well-supported research environment, further enabling recruitment and retention activities for high-quality researchers.**

Some institutions also explain that enhanced research environments not only contribute to their ability to attract researchers, but also outstanding students, research associates, technicians, management staff and faculty. When the whole research infrastructure is improved, the institution more becomes attractive for the world's best researchers.

#### DETAILS OF EXPENDITURES AND THEIR IMPACT, BY PRIORITY AREA

The outcomes report form asks intuitions to provide specific information about the details of expenditures by priority area. Each area included from four to eight categories of eligible expenditures. In each category of expenditures, institutions had to check a box, simply indicating whether they had allocated funds to that category, whether this was new spending and/or an expenditure incurred previously, and in which category it had invested most of the 2007-2008 grant funding.

The following sections give data for each priority expenditure area. The tables first show the proportion of institutions, by size, that allocated funding to the expenditure area. Then, they represent how these institutions invested their funding within the area categories. We then address the impacts of investments and include pertinent excerpts from the outcomes reports.

#### FACILITIES

- Overall, 57 percent of institutions invested program funds in research facilities. Most of the medium, large and research-intensive institutions and only a small proportion of small universities and colleges (24 percent) invested funds in this area. (see table 7).
- Operating costs were the category of expenditures in which the largest proportion of institutions (92 percent) invested, followed by renovation and maintenance of research facilities (84 percent), upgrade and maintenance of research equipment (68 percent) and, finally, technical support (65 percent). (see table 7).
- Program funds covered more ongoing expenditures than new expenditures in the area.
- All institutions said they used most of the funds for the operating costs of research facilities.

**TABLE 7: PROPORTION OF INSTITUTIONS THAT INVESTED IN FACILITIES**

| FACILITIES | Small | Medium | Large | Research-intensive | ALL |
|---|---|---|---|---|---|
| | **14/58** (24 %) | **15/23** (65 %) | **13/13** (100 %) | **28/28** (100 %) | **70/122** (57 %) |
| **CATEGORIES** | | | | | |
| Renovation and maintenance of research facilities | **6/6*** (100 %) | **10/15** (67 %) | **10/13** (77 %) | **27/28** (96 %) | **53/62** (84 %) |
| Upgrade and maintenance of research equipment | **4/6** (67 %) | **9/15** (60 %) | **7/13** (54 %) | **22/28** (79 %) | **42/62** (68 %) |
| Operating costs | **5/6** (83 %) | **12/15** (80 %) | **13/13** (100 %) | **27/28** (96 %) | **57/62** (92 %) |
| Technical support for laboratories, offices and other facilities | **3/6** (50 %) | **9/15** (60 %) | **6/13** (46 %) | **22/28** (70 %) | **40/62** (65 %) |

**IMPACT OF INVESTMENTS IN RESEARCH FACILITIES**

Providing a working environment conducive to the successful development and implementation of researchers' projects is crucial for universities and colleges. With well maintained facilities, researchers are able to concentrate on their work, on building collaborations and on training the next generation of scientists. Research evolves rapidly and for many universities, having state-of-the-art facilities and equipment, and qualified technicians available are fundamental for innovative and cutting-edge research. These are all major factors in an institutions' ability to recruit and retain the world's best scientists, thus keeping top research talent in Canada. In turn, having productive research teams on site that are able to innovate creates the momentum needed to attract funding to support their efforts.

Institutions explain that investments of program funds in expenditures related to operating their research buildings and spaces ensure the maintenance of high-quality research environments. As stated above, most of the funds invested in facilities were put towards the operating costs of research spaces. Many institutions explain that operating costs, such as heating and lighting, are very expensive and are escalating. The Program's funds help institutions cope with the strain of operating expenditures.

* Note that of the 58 small institutions, 14 allotted funds to facilities and only 6 of them had to produce a detailed version of the report. The proportion, for small institutions, has been calculated on the basis of the number of detailed reports submitted, not the number of institutions that invested in this area.

**The York Institute for Health Research, the Lamarsh Centre for Research on Violence & Conflict Resolution and the Milton and Ethel Harris Research Initiative all received new research space reclaimed from former classroom and dance studio spaces. These new research spaces allowed for the consolidation of the three units on the same floor of one building. This consolidation allows for the sharing of some administrative services to use resources more effectively. The close proximity encourages collaboration between researchers and graduate students, which may allow for new research proposal submissions that will increase university research income, a key priority in York's strategic plans.**

**York University, Ontario**

**The investments in indirect research activities are critical for our new and on-going programs of research. It is also true, however, that research is no longer conducted in the same way as it was many decades ago when many of our facilities came on board. The Indirect Costs Program continues to play a critical role in allowing the institution to manage the indirect investments needed to allow our facilities to be upgraded to standards enabling us to receive new technologies and new programs of research.**

**McGill University, Quebec**

**Technical support for the research equipment is especially important to the Faculty of Science. Having in-house support means fewer delays when equipment breaks down. Many of the experiments in departments such as chemistry and biology are time-sensitive; valuable research time would be lost if we had to wait to have equipment serviced externally, in addition to the cost of a failed or interrupted experiment. Custodial support is vital in all areas of the research facilities, not only for safety reasons but also to ensure a non-distracting work environment.**

**Wilfrid Laurier University, Ontario**

**The Indirect Costs grant allows us to maintain our research facility in top working order, and provide technical support and resources to our researchers. The Intersections Digital Studios, as the most visible component of our research offering, has helped create opportunities for our current faculty and attract new, very high level researchers. Our new hires frequently mention the IDS as a contributing factor to their decision to come to Emily Carr University.**

**Emily Carr University, British Columbia**

**RESOURCES**

- Overall, 74 percent of institutions invested Program funds in research resources. Most of the medium, large and research-intensive institutions and a little more than half of the small proportion of small universities and colleges (55 percent) invested funds in this area. (see table 8).
- Acquisition of library holdings were the category of expenditures in which the largest proportion of institutions (93 percent) invested, followed closely by improvements to electronic information resources (90 percent), library operating costs (53 percent) and, finally, insurance on research equipment (26 percent). (see table 8).
- Program funds covered more ongoing expenditures than new expenditures in the area.
- All institutions said they used most of the funds for the acquisition of library holdings.

**TABLE 8: PROPORTION OF INSTITUTIONS THAT INVESTED IN RESOURCES**

| RESOURCES | Small | Medium | Large | Research-intensive | ALL |
|---|---|---|---|---|---|
| | **32/58** (55 %) | **18/23** (78 %) | **13/13** (100 %) | **27/28** (96 %) | **90/122** (74 %) |
| **CATEGORIES** | | | | | |
| Acquisition of library holdings | **8/10*** (80 %) | **16/18** (89 %) | **12/13** (92 %) | **27/27** (100 %) | **63/68** (93 %) |
| Improvements to electronic information resources | **10/10** (100 %) | **14/18** (78 %) | **8/13** (62 %) | **24/27** (89 %) | **61/68** (90 %) |
| Library operating costs and administration | **5/10** (50 %) | **8/18** (44 %) | **3/13** (23 %) | **20/27** (74 %) | **36/68** (53 %) |
| Insurance on research equipment and vehicles | **1/10** (10 %) | **5/18** (28 %) | **5/13** (39 %) | **7/27** (26 %) | **18/68** (26 %) |

**IMPACT OF INVESTMENTS IN RESEARCH RESOURCES**

Of the funds allocated to resources, the largest proportion was invested in the acquisition of library holdings. As research is driven by information, providing access to up-to-date paper and electronic research material is critical to the success of research programs. Institutions say that the lack of a current and relevant library collection, as well as a fully functioning library and staff, would become an impediment to research and innovation. Many institutions also add that without the resources on site, they would have to rely on interlibrary loans which would not only be timely for researchers and staff (resulting in a decrease of research productivity), but would significantly contribute negatively to institutional costs.

Improvements to electronic information resources are also of capital importance for research capacity. Institutions have indicated that providing researchers with access to the latest information and communication technologies allows for more effective use of researchers' time and the flexibility to access materials as required from remote locations. Some institutions also state that investments in this area contribute to better collaborations amongst researchers and to their ability to recruit and retain faculty.

**Collaboration between scientists is vital to productivity and discovery. At U of T's Institute for Work & Health, ICP funds were used to purchase TrailStat!, a web-based software system that enables researchers and reviewers to collaborate with on-site and distant researchers in a timely and cost-effective manner. Not having this software would make the process of having multiple researchers reviewing papers and extracting data at different sites across the country extremely time-consuming and prone to error. The software enables researchers from different disciplines and locations to collaborate, leading to a stronger product. This collaboration would simply not be possible without ICP funding.**

**University of Toronto, Ontario**

* Note that of the 58 small institutions, 32 allotted funds to resources and only 10 of them had to produce a detailed version of the report. The proportion, for small institutions, has been calculated on the basis of the number of detailed reports submitted by institutions that invested in this area.

**The electronic journals and databases are the basis for research support at Acadia and without access to them, our researchers would lose ground in their ability to conduct university level research, work with their colleagues at other institutions and the university would find it almost impossible to recruit faculty or maintain a viable research program.**

**Acadia University, Nova Scotia**

**The acquisition of dissertations and thesis' have allowed our university researchers access to the most current unpublished resources in the academic fields that our university's unique programming offers. For example, with the funds provided from this program, our university has acquired over 600 dissertations dealing substantially with indigenous people's issues. These areas would include land claims, treaty rights and indigenous languages among others. Due to the specific areas of indigenous study, these unique dissertations are invaluable to the research conducted by our faculty and students. If these funds were not provided we would not be able to support research in this area which we very strongly feel would be a loss or at least dilution of our unique identity and special purpose.**

**First Nations University of Canada, Saskatchewan**

**MANAGEMENT AND ADMINISTRATION**

- Overall, 86 percent of institutions invested Program funds in management and administration. All of the medium, large and research-intensive institutions (100 percent) and a 70 percent of small universities and colleges invested funds in this area. (see table 9).
- Institutional support for the completion of grant applications and research proposals (89 percent) and human resources and payroll (88 percent) were the categories of expenditures in which the largest proportion of institutions invested, followed by research planning and promotion and public relations (73 percent), financial and audit costs (69 percent), training of research personnel and faculty (55 percent) and, finally, acquisition, maintenance and upgrading of systems used to track funding applications (45 percent). (see table 9).
- Program funds covered more ongoing expenditures than new expenditures in the area.
- Research intensive and small institutions reported that they spend most of their funds on human resources and payroll; Medium and large-sized institutions spent most of their funds on institutional support for the completion of grant applications and research proposals.

**TABLE 9: PROPORTION OF INSTITUTIONS THAT INVESTED IN MANAGEMENT AND ADMINISTRATION**

| MANAGEMENT AND ADMINISTRATION | Small | Medium | Large | Research-intensive | ALL |
|---|---|---|---|---|---|
| | **41/58** (71 %) | **23/23** (100 %) | **13/13** (100 %) | **28/28** (100 %) | **105/122** (86 %) |
| **CATEGORIES** | | | | | |
| Institutional support for the completion of grant applications and research proposals | **14/20*** (70 %) | **21/23** (91 %) | **13/13** (100 %) | **27/28** (96 %) | **75/84** (89 %) |
| Acquisition, maintenance and upgrading of information systems used to track grant applications, certifications and awards | **7/20** (35 %) | **8/23** (35 %) | **3/13** (23 %) | **20/28** (71 %) | **38/84** (45 %) |
| Eligible training of faculty and research personnel | **8/20** (40 %) | **13/23** (56 %) | **6/13** (46 %) | **19/28** (68 %) | **46/84** (55 %) |
| Human resources and payroll | **16/20** (80 %) | **19/23** (83 %) | **12/13** (92 %) | **27/28** (96 %) | **74/84** (88 %) |
| Financial and audit costs | **5/20** (25 %) | **13/23** (56 %) | **13/13** (100 %) | **26/28** (93 %) | **57/84** (69 %) |
| Research planning and promotion, and public relations | **12/20** (60 %) | **14/23** (61 %) | **7/13** (54 %) | **28/28** (100 %) | **61/84** (73 %) |

**IMPACT OF INVESTMENTS IN MANAGEMENT AND ADMINISTRATION**

Having a dedicated management team and adequate administrative support is described as vital for research productivity, as it allows researchers to maximize their time on research. Institutions report that the absence of Program funds would result not only in decreased research productivity, but also in the number of grant applications and awards, the quality of research and the knowledge transfer activities. Having a supportive research administration is also linked with recruitment and retention of faculty, as it makes for a less stressful and more attractive workplace.

Institutions that invested in management and administration report that most of the funds were spent on two expenditure categories: institutional support for the completion of grant applications and research proposals, and human resources and payroll. Many institutions state that research administration is becoming more complex and that reporting and accountabilities at all levels are increasing, which makes it necessity to have professional staff available to advise and support researchers.

* Note that of the 58 small institutions, 41 allotted funds to management and administration and only 20 of them had to produce a detailed version of the report. For small institutions, the proportion has been calculated on the basis of the number of detailed reports submitted by institutions that invested in this area.

**Given the increased complexity of the research funding environment, a greater investment in support services is warranted. In the absence of ICP funding, not only will this not have happened, the staffing and services will need to be downsized and diminished. The forecast is that this will have a detrimental effect on the morale and motivation of the research community, will be perceived as a lack of institutional commitment to the research enterprise and ultimately result in researchers seeking and pursuing other employment opportunities.**

**McMaster University, Ontario**

**Increasing research success, both in terms of volume of research and of research intensity, combined with a more active promotion of research activities and successes, have helped the University of Ottawa position itself as a leading research-intensive university in Canada. This directly supports our fund raising campaigns and facilitates the work of attracting donors and sponsors needed to support our research activities and to support major construction projects.**

**University of Ottawa, Ontario**

**These investments are essential to research administrators because they allow them to create and maintain the administrative environment needed to conduct research. The École de technologie supérieure received a federal grant to cover part of these expenses. If these investments were to cease, the École would be forced to reduce its administrative support to researchers. Moreover, it would take longer to process applications and satisfy researchers' requirements, the risk of errors in financial and ethical controls would be increased, the success rate would be lower, etc. As a result, professors' research performance as a whole would be negatively impacted. To continue to maintain a steady level of quality administrative support under these circumstances would require a reduction in the volume of research. However, such a solution would proved particularly ill-fated in the context of knowledge economy and innovation.**

**École de technologie supérieure, Québec**

**REGULATORY REQUIREMENTS AND ACCREDITATION**

- Overall, 53 percent of institutions invested Program funds in regulatory requirements. Most of the medium, large and research-intensive institutions invested funds in this area, whereas only a small proportion of small universities and colleges (12 percent) made this investment (see table 10).
- Training of faculty and other research personnel in animal care, ethics review, radiation and biohazards handling, and environmental assessments was the category of expenditures in which the largest proportion of institutions (84 percent) invested, followed closely by the creation and support of regulatory bodies (79 percent), technical support for animal care (69 percent), upgrades to research facilities and equipment to meet regulatory requirements (43 percent) and, finally, international accreditation costs related to research capacity (7 percent). (see table 10).
- Program funds covered more ongoing expenditures than new expenditures in the area.
- All institutions said they used most of the funds for the creation and support of regulatory bodies.

**TABLE 10: PROPORTION OF INSTITUTIONS THAT INVESTED IN REGULATORY REQUIREMENTS AND ACCREDITATION**

| REGULATORY REQUIREMENTS AND ACCREDITATION | Small | Medium | Large | Research-intensive | ALL |
|---|---|---|---|---|---|
| | **7/58** (12 %) | **17/23** (74 %) | **13/13** (100 %) | **26/28** (93 %) | **65/122** (53 %) |
| **CATEGORIES** | | | | | |
| Creation and support of regulatory bodies | **4/5*** (80 %) | **14/17** (82 %) | **9/13** (69 %) | **21/26** (81 %) | **48/61** (79 %) |
| Training of faculty and other research personnel in animal care, ethics review, radiation and biohazards handling, and environmental assessments | **2/5** (40 %) | **14/17** (82 %) | **9/13** (69 %) | **26/26** (100 %) | **51/61** (84 %) |
| International accreditation costs related to research capacity | **0/5** (0 %) | **1/17** (6 %) | **0/13** (0 %) | **3/26** (12 %) | **4/61** (7 %) |
| Upgrades to research facilities and equipment to meet regulatory requirements | **1/5** (20 %) | **1/17** (6 %) | **5/13** (39 %) | **19/26** (73 %) | **26/61** (43 %) |
| Technical support for animal care | **2/5** (40 %) | **8/17** (47 %) | **10/13** (77 %) | **22/26** (85 %) | **42/61** (69 %) |

**IMPACT OF INVESTMENTS IN REGULATORY REQUIREMENTS AND ADMINISTRATION**

Contributing to institutions' ability to comply with regulatory requirements is one of the Program's objectives in order to provide a safe and secure research environment. Ensuring that research is conducted according to regulatory and ethical standards is an important aspect of research administration and many institutions state that as the desire for greater accountability with new legislations and standards continues to increase, the costs rise as well. Many institutions also report that without the Indirect Costs funding, they would be unable to meet regulatory requirements, which would seriously impede their research activity, productivity and ultimately, quality. Thus, most of the funds invested in this area were allocated to the creation and support of regulatory bodies.

**These regulatory requirements and accreditation investments have ensured that Brock is compliant with federal funding agency requirements, has been able to create a culture of research safety, has improved the REB review process, and has complied with the CCAC animal care requirements. Without this investment in Brock's regulatory requirements and accreditation the University would have difficulty in meeting its obligations to maintain a safe and secure working environment. Brock's researchers would find a much greater burden imposed on them to develop and maintain laboratory safety policies, and they would see a steep increase in the time it takes to receive ethics clearance for their research work.**

**Brock University, Ontario**

* Note that of the 58 small institutions, 7 allotted funds to regulatory requirements and accreditation and only 5 of them had to produce a detailed version of the report. For small institutions, the proportion has been calculated on the basis of the number of detailed reports submitted by institutions that invested in this area.

**Last year the REB handled approximately 231 applications for certification of research involving human participants, a 70% increase over the last 5 years. The increase in applications and tracking of certified research has greatly increased the administrative burden of the REB. It is highly likely that the administrative support for the REB will have to be further increase in coming years. Without the IPC grant to help support the REB Secretary, the University's ability to comply with the Tri-Council Policy Statement on the Ethical Conduct for Research Involving Humans would likely be highly compromised and certainly would limit our ability to increase our research activity in research involving human participants.**

**Saint Mary's University, Nova Scotia**

**In 2007/08, a need was identified for greater stability and consistency in the role of the human ethics function. As a result, a portion of Indirect Costs funding was re-directed to an Ethics Officer position. This position has enabled our institution to provide a permanent position required for the ethics component and a permanent home for ethics-related documentation and tracking database. The ongoing nature of the Ethics Officer position raises the level of professionalism provided to our researchers. Without the Indirect Costs funding, this arrangement would not have been possible and we would have continued to have rotating ethics officers (faculty members) from various departments, resulting in a loss of consistency.**

**Vancouver Island University, British Columbia (Previously Malaspina)**

**INTELLECTUAL PROPERTY**

- Overall, 52 percent of institutions invested Program funds in intellectual property. Most of the medium, large and research-intensive institutions invested funds in this area, whereas only a small proportion of small universities and colleges (14 percent) made this investment (see table 11).
- Creation, expansion or maintenance of a technology transfer office or similar function was the category of expenditures in which the largest proportion of institutions (77 percent) invested, followed by administration of agreements and partnerships with industry (66 percent), administration of patent applications for inventions (56 percent), support for technology licensing (54 percent), outreach activities (26 percent) and marketing of teaching materials, scientific photo libraries, survey instruments, statistical packages, data sets and databases, software, computer models and other tools (26 percent) and, finally, development of incubators (13 percent). (see table 11).
- Program funds covered more ongoing expenditures than new expenditures in the area.
- All institutions said they used most of the funds for the creation, expansion or maintenance of a technology transfer office or similar function.

**TABLE 11: PROPORTION OF INSTITUTIONS THAT INVESTED IN INTELLECTUAL PROPERTY**

| INTELLECTUAL PROPERTY | Small | Medium | Large | Research-intensive | ALL |
|---|---|---|---|---|---|
| | **8/58** (14 %) | **15/23** (65 %) | **13/13** (100 %) | **27/28** (96 %) | **63/122** (52 %) |
| **CATEGORIES** | | | | | |
| Creation, expansion or maintenance of a technology transfer office or similar function | **4/6*** (67 %) | **10/15** (67 %) | **9/13** (69 %) | **24/27** (89 %) | **47/61** (77 %) |
| Administration of patent applications for inventions | **0/6** (0 %) | **8/15** (53 %) | **5/13** (39 %) | **21/27** (78 %) | **34/61** (56 %) |
| Support for technology licensing | **1/6** (17 %) | **4/15** (27 %) | **7/13** (54 %) | **21/27** (78 %) | **33/61** (54 %) |
| Administration of agreements and partnerships with industry | **3/6** (50 %) | **9/15** (60 %) | **7/13** (54 %) | **21/27** (78 %) | **40/61** (66 %) |
| Development of incubators | **0/6** (0 %) | **1/15** (7 %) | **0/13** (0 %) | **7/27** (26 %) | **8/61** (13 %) |
| Support for the creation of spin-off companies | **0/6** (0 %) | **0/15** (0 %) | **4/13** (31%) | **12/27** (44 %) | **16/61** (26 %) |
| Outreach activities undertaken to transfer knowledge through venues not eligible for funding under other federal programs | **2/6** (33 %) | **3/15** (20 %) | **1/13** (8 %) | **10/27** (37 %) | **16/61** (26 %) |
| Marketing of teaching materials, scientific photo libraries, survey instruments, statistical packages, data sets and databases, software, computer models and other tools | **0/6** (0 %) | **1/15** (7 %) | **1/13** (8 %) | **6/27** (22 %) | **8/61** (13 %) |

**IMPACT OF INVESTMENTS IN INTELLECTUAL PROPERTY**

Program funding plays an important role in knowledge transfer and commercialization activities, as many institutions give concrete examples of these investments and their impact. As the University of Western Ontario explains, "without the ability to effectively transfer technology to market, many great innovations derived at our universities and research institutes would never see light of day, thus limiting their potential effectiveness to the world". Although the allocation to intellectual property is the smallest for most universities, the impacts are described as significant and far reaching. Most of the funds invested in this area are allocated to the creation, expansion or maintenance of a technology transfer office. The protection and management of intellectual property enables researchers

* Note that of the 58 small institutions, 8 allotted funds to facilities and only 6 of them had to produce a detailed version of the report. For small institutions, the proportion has been calculated on the basis of the number of detailed reports submitted by institutions that invested in this area.

to advance their research towards commercialization. Partnerships with industry are created, which often results in the attraction of additional funding from the private sector. Outreach activities are also often underlined by institutions as being important in conveying the value of research to the wider community and enhancing institutions' visibility and prestige.

**The Université Laval aims to promote the use of knowledge to develop a flourishing national economy and to enhance the quality of life of Canadians. As a result, in 2007-2008, the university put in place an infrastructure to add value to research enterprises serving the scientific community, in the form of its Bureau de liaison entreprises-universités (BLEU). The allocation of a federal grant allowed the Université Laval to analyze the commercial potential of its research results, to elaborate on plans to add value to research, and to establish structured financing strategies. These actions help the university to demonstrate to financial or industrial partners its new interest in technologies used to that end.**

**Université Laval, Québec**

**An active and effective knowledge transfer program requires a long term investment to nurture promising developments, act on opportunities, create partnerships, and build an entrepreneurial culture and expertise. The Indirect Costs Program enables us to maintain and support the teams and activities charged with these responsibilities. Without this program, we simply could not afford to sustain the level of investment required to operate an effective intellectual property management program and to fully participate in the innovation agenda and our ability to translate basic discoveries into socio-economic benefits to the Canadian population would be severely curtailed.**

**University of Ottawa, Ontario**

**Increasing research capacity has required further development in a number of institutional policy areas. Funds in this category were employed in the creation of an institutional commercialization policy and an inter-institutional agreement with the Industry Liaison and Innovation (ILI) Office at Dalhousie University regarding the commercialization of research. Policy development surrounding intellectual property and commercialization would not have sufficiently advanced in the absence of support from the Indirect Costs of Research Program.**

**Nova Scotia College of Art and Design, Nova Scotia**

## 6. CONCLUSION

Institutions have once again related the importance of the Indirect Costs Program by highlighting the positive impact that investments have on their research activities. Many institutions also state that without the Indirect Costs Program, their research capacity would certainly diminish. With funding invested primarily in maintaining or enhancing research facilities and in the management and administration of their research enterprise, most institutions have stated that program funds help with their ability to attract and retain faculty, to comply with regulatory requirements and to transfer knowledge and commercialize their research results. Accordingly, we can conclude that the funding generally helps to maintain or increase the research capacity of these institutions.

Although certainly beneficial in supporting research, the funding is described by some institutions as not providing the level of subsidization needed to maintain research facilities and services. Many research intensive and large institutions estimate that current indirect costs far exceed the allocation of funds for this

purpose. Some medium-sized and small institutions stressed that they are comfortable with the Program structure — and even the allocation formula for adjusting funding levels according to the size of institution. These institutions said that the amounts received are indispensable for building their research capacity.

All in all, institutions consistently said that funding from the Indirect Costs Program is indispensable to research development within Canadian colleges and universities, helping to ensure that they will be in a better position to become not only national, but international leaders in many competitive research areas.