



## **Bilan et perspectives**

**Document submitted by McGill University to the Commission de la  
culture et de l'éducation en application de la**

***Loi sur les établissements d'enseignements de niveau universitaire  
(L.R.Q., c. E-14.1)***

**June 2010**

## Table of Contents

<b><i>Bilan et perspectives en bref</i></b>	<b>4</b>
<b>A. Introduction</b>	<b>4</b>
<b>B. Achievements and Plans</b>	<b>4</b>
B1. Impact on Quebec	4
B2. Research and Interdisciplinary Initiatives	5
B3. Improving the Health of Quebecers	5
B4. Renewal of the professoriate	6
B5. Attracting, retaining and supporting top graduate students	6
B6. Enhancing the undergraduate experience	6
B7. Increasing the quality of infrastructure, services and support	7
B8. Increasing productivity and enhancing job satisfaction	7
B9. Sustainability	8
B10. Other initiatives	8
<b>C. Performance compared to other North American peer universities</b>	<b>9</b>
<b>D. Challenges Facing the Quebec University System</b>	<b>9</b>
<b>E. Conclusion</b>	<b>11</b>
<b><i>Bilan et perspectives</i></b>	<b>12</b>
<b>A. Introduction</b>	<b>12</b>
<b>B. Achievements (2007/08 to 2009/10) and Plans</b>	<b>14</b>
B1. Impact on Quebec	15
B2. Maximize the quality and impact of McGill's research and interdisciplinary initiatives	18
B3. Improving the health of Quebecers	22
B4. Renewal of the professoriate	25
B5. Attracting, retaining and supporting top graduate students	27
B6. Enhancing the undergraduate experience	29
B7. Supporting academic priorities by increasing the quality of infrastructure, services and support	33
B8. Offering opportunities for professional development for staff to increase productivity and enhance job satisfaction	35
B9. Sustainability	35
B10. Other Initiatives	38
<b>C. Performance compared to other North American peer universities</b>	<b>41</b>
1. The Times Higher Education-QS (THE-QS) World University Rankings 2009	41
2. The Shanghai Academic Ranking of World Universities (ARWU)	44
3. <i>Maclean's</i> magazine Canadian University Ranking	44
<b>D. Challenges Facing the Quebec University System</b>	<b>46</b>
D1. Improving university participation and success	47
D2. Underfunding and the urgent need for diversification of the funding base	50
D2.2 The funding base needs to be diversified	52
D3. Governance, accountability and university performance	58
<b>E. Conclusion</b>	<b>60</b>
<b>Appendix I: Key Performance Indicators</b>	<b>62</b>
<b>F. Appendix II: Guiding Principles of McGill's Master Plan</b>	<b>63</b>

**Appendix III: McGill's Sustainability Policy \_\_\_\_\_ 64**  
**(approved by Senate in April 2010 and the Board of Governors in May 2010) \_\_\_\_\_ 64**

# Bilan et perspectives en bref

*To assist the Commission in its review, we have created a shortened version of the report. Additional details and complete data are available in the full report.*

## A. Introduction

For nearly 200 years, McGill has served Quebec and its citizens. As Canada's most internationally recognized university, our global presence increases Quebec's visibility and networks on the world stage. In partnership with the Government of Quebec, McGill attracts talent and funding from around the world to Quebec.

This report provides an overview of McGill's distinct contributions to the province. In addition to outlining McGill's accomplishments since the last report to the Commission Parlementaire and our short-term goals, it provides an analysis of current issues facing the Quebec university system. The report shows how the University is preparing to maintain its position as an international research-intensive, student-centered institution for decades to come.

## B. Achievements and Plans

In our last submission to the Commission parlementaire de la culture et de l'éducation, McGill outlined the goals and academic priorities contained in our new 2006 Strategic Academic Plan. Here we report on their achievement, and our short-term plans to complete the work of the 2006 Plan. McGill has just initiated another five-year planning cycle, and is implementing a new framework of Key Performance Indicators to monitor our performance. We expect our new Strategic Academic Plan to be made public in Winter 2011.

### B1. Impact on Quebec

As we approach the 190th anniversary of our founding, McGill continues to increase our already substantial contributions to Quebec, economically, socially and culturally. A new study by SECOR Group calculates McGill's economic impact on Quebec at \$5.2 billion each year. McGill has built fruitful university-industry collaborations with companies such as Bombardier, Saputo and AstraZeneca, and in 2008-09, signed 193 research contracts, received more than \$30.3 million in industry funding, and had 159 active licenses for its technologies.

Faculty, staff and students engage with communities outside campus through numerous outreach initiatives. These include encouraging disadvantaged and aboriginal communities to pursue higher education, promoting science to high school students and working with vulnerable families. As part of the health care mandate of McGill's Faculty of Medicine and affiliated hospitals, the University's

community projects further its commitment to the wellness of Quebecers, including running Quebec's only fully mobile dental clinic to bring dental care to needy Montrealers and examining nutritional issues for Quebec seniors and aboriginal populations. McGill also boosts the cultural vibrancy of Montreal through hundreds of public lectures, more than 700 music concerts and a network of museums.

The new Principal's Task Force on Diversity, Excellence and Community Engagement is developing recommendations to further increase McGill's engagement with Quebec communities. Plans are also in the works for several initiatives to maximize innovation and partnerships with industry.

## **B2. Research and Interdisciplinary Initiatives**

McGill ranks among the very best research-intensive universities in both the Canadian and North American contexts. Within Quebec, McGill collaborates extensively on innovative research with businesses and our sister universities. McGill participated in all 66 regroupements stratégiques (FQRNT and FQRSC) and a majority of the FRSQ initiatives (16 out of 18 networks and 5 of the 11 groups) in Quebec in 2009-10, leading networks in advanced materials, telecommunications, new music technologies, alternative fuels, climate change, oral and bone health, and vision research. We recognizes that the future of research and education in a knowledge society calls for a broad perspective on urgent societal issues that brings together insights from across many disciplines. As outlined in our academic plan, we have created and expanded interdisciplinary programs and partnerships, both in teaching and research. Highlights include a new Integrated Neurosciences program, new interdisciplinary institutes in international development and in health policy, the opening of the interdisciplinary Life Sciences Complex and a significant renewal of the Alan Edwards Centre for Pain.

Our international efforts link Quebec institutions and businesses to key international research networks, raising the profile of Quebec as a knowledge-intensive society. Since 2006, we have reinvigorated our international connections with a series of visits, including participation in Premier Charest's two trade missions to India. McGill has recently forged new international partnerships with the University of Oxford, Imperial College, London, Teri University in India and the Weizmann Institute of Science in Israel. We have a leadership role in the Canada-California Strategic Innovation Partnership, an initiative of strategic importance to Quebec. Our short-term plans are to continue to increase research partnerships at home and abroad, focusing on supporting the Government's international agenda and its new research and innovation strategy.

## **B3. Improving the Health of Quebecers**

Quebec has become a world-renowned hub for life sciences and biotechnology. McGill, with its sister universities and partners in Quebec, are working to sustain and grow this vibrant asset for the citizens of Quebec. Under the province's Réseau universitaire intégré de santé (RUIS) program, the University also coordinates specialty care, medical research and education for 63 per cent of Quebec's land mass, home to 1.7 million Quebecers. McGill has launched a multi-faceted initiative to

tackle the critical shortage of family physicians. For example, we have doubled the number of students entering family medicine residencies, helped the region of Gatineau maintain an 80% retention rate of doctors and launched a master's in Family Medicine. We are a partner in the Campus santé Outaouais to increase access to health services, and have introduced a master's program for nurse-practitioners in Outaouais and Abitibi-Témiscamingue. Over the past decade, our affiliated hospitals have attracted 630 medical doctors, nearly half from outside Quebec. A new course is in development, launching July 2011, to further support qualified international medical graduates integrate into Quebec's health care system. In the future, we plan even closer collaborations with our network of affiliated hospitals through the creation of a formal McGill Academic Health Network. We will continue to enhance services to Quebecers in our RUIS territory, and to promote family medicine.

#### **B4. Renewal of the professoriate**

McGill is undergoing a renewal of its professoriate that has attracted 930 new faculty members to Quebec since 2000, nearly 60 per cent from outside Canada. To retain and support these professors, we have created 10 new endowed chairs and significantly enhanced our teaching support to help academic staff use new technologies and link research with teaching. In the coming years, we aim to hire 350 new tenure-track staff, in part funded by a retirement incentive program.

#### **B5. Attracting, retaining and supporting top graduate students**

Increasing graduate student enrolment is a top priority of McGill's 2006 Strategic Academic Plan. Graduate students represent the most highly skilled contributors to Quebec's knowledge economy, and they are more likely than undergraduate students to make their home in the region where they conduct their studies. Since 2006, we have increased graduate student enrolment by nearly 10%. To attract the best doctoral students, we have increased PhD funding by 22% (2005-2008), attaining the highest proportion of PhD candidates among Canada's 13 most research-intensive universities. New programs have been implemented to train students with career-related skills for jobs inside and outside of academia, and to enhance the quality of supervision across the university. In the near future, we aim to continue to increase graduate funding, shorten the average time for our graduate students to complete their degree to align the best disciplinary norms, and to further improve all aspects of the graduate studies environment.

#### **B6. Enhancing the undergraduate experience**

The Principal launched the Task Force on Student Life and Learning in the Spring 2005 to ensure that McGill is not only a research-intensive university, but also a student-centred one. It made recommendations in three broad areas: academic advising and mentoring, resources for students, and building a learning community. While much work remains, substantial progress has been made. The number of academic advisors increased by nearly 20% over five years. We have doubled

student aid over four years, created new international learning opportunities for students, and increased opportunities for undergraduate students to participate in innovative research. Teaching facilities have been modernized to better engage students, 1,140 new residence spaces were created, and administrative services consolidated and made more intuitive to better serve students. McGill increased undergraduate enrolment by 7% over five years and revised the admissions protocol for aboriginal students, while continuing to maintain the highest entering grades among Quebec universities for CEGEP students.

In the coming years, we will continue our focus on improving academic advising and mentoring, expanding international and research opportunities for undergraduates, increasing financial support to maintain accessibility, and enhancing administrative services. The new Principal's Task Force on Diversity, Excellence and Community Engagement, struck in Fall 2009, aims, among other things, to increase diversity and student engagement to continue to foster dynamic student life and learning.

## **B7. Increasing the quality of infrastructure, services and support**

Academic excellence cannot flourish without adequate physical resources, modern information technology systems and dedicated support services. To guide the modernization of our campus and infrastructure, McGill created a set of overarching principles for its Physical Master Plan development, targeted to create a dynamic intellectual community and academic experience, improve spaces for teaching and research and steward our historic and green spaces.

As of September 2009, nearly \$220 million of Knowledge Infrastructure Program and deferred maintenance projects were initiated to support academic priorities and improve physical safety. McGill has upgraded classrooms and teaching labs across faculties. Resources were reallocated to invest in library holdings, extend library hours and construct new collaborative study space. We have extended wireless service throughout our campuses, upgraded high performance computing facilities and expanded our online learning management system.

Our 2010-2015 Plan quinquennial d'investissements was submitted, with classroom renewal, a Neurosciences Research complex and a Biomedical/Bioengineering complex as priorities. In the near future, we will evaluate and create plans to address urgent needs to upgrade teaching laboratories, the telephone system and optical backbone network, and major teaching and administrative software.

## **B8. Increasing productivity and enhancing job satisfaction**

McGill was ranked one of Canada's Top 100 Employers in 2009 and 2010. We have created performance-driven staff development policies and incentives. Our philosophy of instilling a culture of achievement and productivity among both academic and non-academic staff is reaping results.

Our salary increases are now largely driven by merit, and we have been successful in improving both services and efficiency.

## **B9. Sustainability**

McGill is committed to implementing sustainability and environmental responsibility throughout our operations and the physical development of our campuses. For example, we have invested more than \$18 million to increase energy efficiency over the past decade and have integrated sustainable principles into all aspects of construction, including the new green Life Sciences Complex. Our governance bodies approved McGill's new Sustainability Policy in Spring 2010, to complement our existing environmental and paper use policies.

Our focus on environmental initiatives and the speed at which we are greening campus culture led McGill to be chosen one of Canada's Greenest Employers in 2009. In that same year, we opened an Office of Sustainability and McGill students voted to increase fees to create a new Sustainability Fund. We worked with the City of Montreal to create a new bicycle pathway on University Street and also partnered with them to turn McTavish Street into a pedestrian zone, complementing our new pedestrian-friendly Lower Campus. We increased our focus on environmental research and teaching, one of the eight multidisciplinary themes of the Strategic Academic Plan, and recently launched a graduate option in environmental studies and a BA & BSc in Sustainability, Science and Society.

McGill is committed to stewarding our natural resources, which make up the largest green space on the Island of Montreal, for the people of Quebec. We aim to continue to be a leader in environmental focus and stewardship, planning to further improve energy efficiency as part of our deferred maintenance projects, to reduce waste, water, energy and paper consumption.

## **B10. Other initiatives**

### *a) Diversifying our funding stream*

Campaign McGill has brought nearly \$550 million of its \$750 million goal into Quebec. Gifts from nearly 75,000 donors will help to build our endowment, which provides approximately \$35.7 million in annual revenue. This income must be spent according to donor wishes, and is largely targeted to support student aid, student services, faculties and research. As a result, less than \$1 million is available for general operating support.

### *b) Continuing to improve governance*

McGill has long been a leader in governance among Canadian universities. From 2003 to 2005, McGill undertook major reforms of its governance structures, including reducing its Board of

Governors from 74 members to 25, with a majority of members being external. New Board committees were created, including Audit, Building and Property and Human Resources bodies. We implemented new mechanisms to orient members to their responsibilities and updated our code of conduct. An extensive recruitment and succession planning initiative was undertaken to deal with a major renewal of the Board, and we have been fortunate in attracting strong, top-level candidates.

*c) Improving quality, diversity and community engagement through the new Principal's Task Force*

In the late spring of 2009, Principal Munroe-Blum launched the Principal's Task Force on Diversity, Excellence and Community Engagement. The Task Force has a broad mandate to assess our status in achieving excellence, inclusiveness and community contribution in the pursuit of our academic mission, and to propose recommendations to advance our progress at the intersection of these three critical university attributes. Following a call for submissions in Fall 2009 and extensive consultations with the community, the Task Force will issue a final report in Winter 2011.

## **C. Performance compared to other North American peer universities**

Each university rankings provides a snapshot of different aspects of performance. While each has its strengths and limitations, rankings have emerged as a key tool to measure performance and reputation, and as a tool for student recruitment. In this report, we include McGill's place in the three most recognized international and national rankings:

- For six years in a row, McGill has been the only Canadian university to rank in the top 25 of **the Times Higher Education-QS World University Rankings**. In 2009, McGill was 18<sup>th</sup> in the world – and the top public university in North America.
- In 2009, McGill placed 65<sup>th</sup> in the **Shanghai Academic Ranking of World Universities**, dropping five places from 2008.
- For five years in a row, McGill has been Canada's top medical-doctoral school in the **Maclean's magazine University Rankings**.

## **D. Challenges Facing the Quebec University System**

Since our 2006 report to the Commission Parlementaire, McGill has made numerous advances that are improving and will continue to improve the lives of Quebecers. These accomplishments would not have been possible without the strong support of the Government of Quebec. Over the past three years, McGill and the Government have collaborated on major strategic initiatives to benefit the peoples of Quebec. We thank the Government for its recent investments in McGill's new Life Sciences Complex, the MUHC's future research centre and deferred maintenance, projects that will

help build the province's intellectual and economic future. We applaud the government for the progress it has made thus far in reforming Quebec's tuition model, and for its commitment to continue this reform.

Despite this major progress over the last three years, challenges remain, both for McGill and Quebec's university system. In the full report, we provide an analysis of these challenges and suggest some solutions. We understand that the Government of Quebec, like jurisdictions across the world, has an ever-expanding range of issues to confront and strategies to implement. At the same time, we know that the Government recognizes the vital importance of internationally competitive universities to preserve our quality of life and social values in the new economy. We put forward this analysis in the hopes that it will help to define our mutual challenges, and offer our full support to the Government to help to further define and implement solutions.

The Government of Quebec has shown political courage by moving toward tuition reform, though many remain worried that higher tuition will decrease access to university. Studies have shown no correlation between tuition and enrolment, yet low tuition has been our primary incentive to increase university access. While the values reflected in this policy are noble, the mechanism is no longer effective.

In the decades since the Quiet Revolution, Quebec has made definite strides in increasing university participation and graduation rates. Yet in comparison with other national and international jurisdictions, access to and success in university remains a problem. We are in the bottom 20% of OECD countries for university graduation rates, in the middle of OECD countries for young people holding university degrees, and the bottom of Canadian provinces in terms of the percentage growth in producing university graduates. Social factors, not low tuition, are the driving force in increasing university participation.

Increasing tuition, while reinvesting a significant portion of the net new tuition into student financial aid, would help close the \$500 million funding gap between the Quebec university system and the Canadian average. While in the past, the government compensated for low tuition through more generous operating grants, Quebec now lies in the middle of Canadian provinces in terms of its general operating and special purpose/trust grants per student. If tuition and operating grants are considered together, Quebec has the lowest per-student funding in Canada. Given the Quebec's unprecedented fiscal challenges, we agree with the Government that expansion of revenues through extra-governmental sources, such as tuition and philanthropy, are imperative.

In recent years, the Government has wisely diversified our economy into strategic knowledge sectors. However, decades of underfunding are having significant effects on the university system's ability to offer competitive salaries and support to professors and graduate students, and thus threaten Quebec's productivity and wellbeing. As other jurisdictions increase their research

investments, our universities are beginning to slip in their ability to attract competitive research dollars.

Underfunding has also created a serious deferred maintenance problem at Quebec universities. We warmly thank the Government for its substantial recent investments, which have allowed McGill to begin making vital facilities enhancements. Unfortunately, due to our large number of historic facilities, McGill still confronts urgent safety and capacity issues related to its infrastructure. McGill's average Indice de l'état des installations is 30%, three times the "critical" threshold of 10%. Increased support is essential to ensure safe and productive facilities in the next decade. In the 2010 budget, the Government announced its intention to optimize university performance as part of its objective to make Quebec universities rival the best in the world. Fostering performance in universities requires a delicate balance between accountability in use of public funds and autonomy. Recently, the Government has encroached upon the management of the Quebec university in a well-intentioned effort to ensure effective use of resources. But attempting to micromanage the affairs of universities through legislation such as Bills 38 and 100, as well as new rules and regulations, is not consistent with international best practices.

Now is the perfect moment to develop a relationship between universities and the government founded on performance. We urge the government to implement individual ententes de partenariat, a form of performance-based funding, to define high-level strategic goals for the university system and to give universities incentives to perform.

Addressing these challenges will not be an easy task, but the stakes are high. To quote Minister Bachand's April 1 speech to the Chambre de commerce du Montréal métropolitain, « Nos universités doivent pouvoir rivaliser avec les meilleures au monde. C'est ce que nous leur demanderons. » Again, we offer the Government of Quebec our full support and expertise to assist in the development and implementation of solutions.

## **E. Conclusion**

Guided by ambitious long range plans like the Principal's Task Force on Student Life and Learning and our 2006 Strategic Academic Plan, the University is putting in place measures to ensure it remains an international beacon of excellence to boost Quebec's performance in the knowledge society, advance its profile on the world stage, and improve the lives and health of Quebecers. Universities are powerful instruments to advance a jurisdiction's social, cultural and economic aspirations. We look forward to working with the Government of Quebec, our most important partner, to continue to create the means that will allow us to best serve the citizens of Quebec. We thank you for allowing us the opportunity to provide to you this update on our progress and our plans, and we hope that this report will be useful in your deliberations.

# Bilan et perspectives

## McGill University

### A. Introduction

McGill's distinctive mission guides all of our activities as a research-intensive and student-centred university: the development of our strategic plans, the choice of our funding priorities and the measurement of our performance. For nearly 200 years, McGill has served Quebec and its citizens. Today, McGill continues to benefit our city and our province, and these in turn have fundamentally shaped our character as one of the world's top ranked universities.

In a global knowledge society, McGill's unique combination of international character and local impact provide Quebec with unparalleled opportunities. We attract talent from around the world; educate highly skilled personnel; create and disseminate knowledge and service that directly benefit Quebec society, institutions and businesses; provide access to international research, health and business networks; and attract into Quebec hundreds of millions of dollars annually in research and philanthropic and tax investment. As Canada's most internationally recognized university, our global presence also increases Quebec's visibility and networks on the world stage.

Our impact on Quebec stems from McGill's distinctive character, which includes:

- Award-winning students and professors who rank with the world's best.
- A student body unique in its composition: 56% from Quebec, including more than 6,200 francophones; 25% from the rest of Canada; and 19% from more than 150 countries around the world.
- The highest proportion of doctoral students (10.4% in 2008) of any Canadian research-intensive university.
- An intensely multidisciplinary research and teaching enterprise, grounded in a deeply rooted culture of collaboration within Quebec, across Canada and internationally.
- Canada's most international university, with the highest proportion of international students among Canada's research-intensive universities and many important collaborations with distinguished international research networks, companies and institutions.
- McGill's Macdonald Campus, the only institution in Canada with an on-campus research farm, orchards, experimental field plots and a 245-hectare arboretum, thus providing a "living laboratory" to study the effects of urban encroachment on natural spaces.

As a publically-purposed university, McGill, its administration and its Board of Governors hold a deep commitment to transparency and accountability in our governance and management

processes, and to benchmarking and evaluating our performance in teaching, research and community service against the highest national and international standards. In national and international rankings, McGill has demonstrated consistent excellence, as reported in section C, below.

These national and international successes provide tangible proof of McGill's strategic use of its limited financial resources and the tough decisions it takes to sustain a commitment to excellence in teaching, research and service. This success, however, is not only hard-won, but fragile. Despite McGill's distinctive mission, character and proven track record, we remain dramatically underfunded against public peers in Canada and North America. We are one of only three universities in Quebec that have not received special mission status. We have discussed this discrepancy with government, while pointing out our significant contribution to the "reseau" through return of international and Canadian (outside of Quebec) tuition "forfaitaire" and we will shortly make a formal submission to Quebec government to propose that these inequities be addressed.

While Quebec and Canada continue to make significant investments in higher education, research and innovation, other jurisdictions have not stood still. Around the world, governments are making significant strategic investments into universities and science and are focusing on higher education and innovation policy as a top priority, in recognition of the vital roles universities play in helping regions to excel socially and economically in the knowledge society – especially during economically uncertain times.

This report to the Government of Québec, McGill's most important partner, outlines our priorities and plans, the ongoing challenges we face as a university in an increasingly competitive national and global environment, and our financial framework. In this difficult economic environment, McGill, as with the university system in general, depends on the sustained, effective support of the Government of Quebec. Both financial and strategic *marge de manoeuvre* are required, now more than ever, to ensure that McGill can continue to maximize its contributions and benefits to the province and to the citizens of Quebec.

## **B. Achievements (2007/08 to 2009/10) and Plans:**

Over the last five years, McGill has consulted broadly with our university, external communities and stakeholders to develop four guiding documents, which have been presented to McGill's Senate and Board of Governors:

- *Strengths and Aspirations*, McGill's Strategic Academic Plan
- The reports of the Principal's Task Force on Student Life and Learning, with targets to improve the student experience
- Planning and Design Principles of the Master Plan, which guide the physical development of our campuses (see Appendix II)
- The principles governing our ambitious \$750 million fundraising campaign, aligned with our top academic and strategic priorities.

In the Fall of 2009, the Principal convened a new Task Force on Diversity, Excellence and Community Engagement (see section B10.3, below), that will provide new guidance on how McGill can best accelerate excellence, inclusiveness and contribution to Quebec.

In the last submission to the Commission parlementaire de la culture et de l'éducation, McGill reported on the goals outlined in its new 2006 Strategic Academic Plan to advance our academic priorities. In this "Bilan et perspectives" section, we report on the achievement of those goals, and our plans to complete the work of the current Strategic Academic Plan.

McGill has just begun another five-year planning cycle. Starting in Spring 2010, the Provost has been leading consultations with the academic leadership and the broader McGill community, with the goal of launching a new Strategic Academic Plan in Winter 2011. As part of the planning process, multiyear priorities are being iterated and linked to our multiyear budget to ensure that the resources are aligned with priorities and performance. To complement this planning and to ensure that we can identify whether we have achieved our stated goals, McGill has built a new framework for monitoring our institutional performance, built around the concept of Key Performance Indicators (KPIs) (see Appendix I). Performance indicators are extensively and effectively used by universities throughout the world, including the United Kingdom, Italy, Australia and the United States. Further information on the KPI framework can be found in Appendix I.

A major focus of the new Strategic Academic Plan will be a renewed emphasis on McGill's professional schools. We will be examining how to balance best practices in curriculum with the demands of the market and the accreditation standards of professional orders.

As our new Strategic Academic Planning process is completed, McGill will make public its new goals with precise targets for the next five years.

## B1. Impact on Quebec

McGill is fast approaching our 190th anniversary. Over that period McGill, its students, faculty, staff alumni and our affiliated institutions have made an indelible mark on Quebec in every sphere of life. McGill continues to work to increase our already substantial contributions to Quebec and the lives of Quebecers, deepening our commitment to improving education, health, social integration and sustainable development. The university's initiatives, varied as they may be in scope and focus, work in concert toward an open, more citizen-focused and fairer Quebec society—and in doing so, help re-enforce the province's international reputation as outward-looking and committed to the principles of democracy and social justice. While all the activities stemming from our mission work for the greater good of Quebec, the following achievements and plans highlight a sample of McGill's community service to Quebec.

### Impact on Quebec: Achievements

According to a recent study by SECOR Group on McGill's economic and social contributions, the **University has an economic impact on Quebec each year of \$5.2 billion**. This amount includes:

- \$925 million : McGill's contribution to the increase in productivity in Quebec through improved human capital.
- \$3.2 billion : McGill's contribution to the increase in productivity in Quebec through the creation and dissemination of knowledge.
- \$1.0 billion: Added value created through spending by McGill University, international students who have stayed, as well as visitors the university has attracted.

To ensure our research provides maximum benefits to society, McGill is eliminating barriers to innovation among the University, other institutions and Quebec companies, building the platform for future fruitful **university-industry collaborations** and increased knowledge exchange. These partnerships leverage a resource base of talent, infrastructure and investment, driving innovation to levels unattainable by any one organization. To this end, McGill has:

- Contributed an estimated \$3.2-billion (in 2008 alone) to the development and dissemination of knowledge in Quebec, according to the recent SECOR report.
- Attracted \$334-million in funding to Quebec in 2008 (SECOR).
- Cultivated numerous collaborations between University researchers and Montreal businesses (including Bombardier Inc., Pratt and Whitney, Saputo, Inc., Canada's largest dairy producer, Hydro Quebec and pharmaceutical companies Pfizer, AstraZeneca and Topigen)
- Received more than \$30.3-million in industry funding for research contracts in 2008 (up 73% in five years)
- Signed 193 research contracts worth \$23.5 million with industry (2008-2009)

- Signed 20 licenses/options to transfer technology to industry, for a total of 159 active licenses (2008-2009). There are also 40 McGill spin-off companies currently active.
- Filed 51 patent applications and had 32 patents issued (2008-2009)
- Partnered with Quebec-based Bombardier Inc., Bell Helicopter Textron Canada and CAE Inc. to create the new J-Armand Bombardier Industrial Research Chair in Multidisciplinary Computational Fluid Dynamics, which will advance research in flow simulation dynamics that will increase aviation safety and reduce costs related to de-icing

Faculty, staff and students engage with communities outside campus through numerous **outreach initiatives**, including the following:

- Faculty of Law students encourage high-school students from disadvantaged communities to pursue post-secondary education.
- The graduate student volunteers in the “Let’s Talk Science” program encourage grade-school students to engage with science, engineering and technology, while the Winners of Wonderment (WOW): members of the Faculties of Science and Education give Canadian grade school teachers ideas for dazzling math and science demonstrations
- McGill’s First Peoples’ House counselors talk to aboriginal youth in Quebec and Ontario about their futures
- Students in the McGill School of Social Work acquire 40 per cent of their credits through field placements. Each year, some 300 students work in CLSCs, rehabilitation centres and homeless missions in Montreal and across the province
- Graduate students in the McGill School of Architecture’s Affordable Homes program design inexpensive, sustainable, aesthetically pleasing homes in declining communities.
- The non-profit, student-run, bilingual McGill Legal Information Clinic provides free legal information and referrals to Montrealers who need help.
- The Centre for Research on Children and Families conducts and disseminates research for effective programs and policies for vulnerable children and their families.
- The Urban Nature Information Service, a not-for-profit organization affiliated with McGill’s Faculty of Agricultural and Environmental Sciences, provides answers to horticultural, wildlife and green-living inquiries from callers across the province

As part of the broad teaching and health care mandates of McGill’s Faculty of Medicine and affiliated hospitals, the University’s community projects further its commitment to the **wellness** of Quebecers:

- Using Quebec’s only fully mobile dental clinic, dentistry students provide pay-what-you-can check-ups, x-rays, cleanings and fillings to needy Montrealers
- The Eating Disorders Program, based at the Douglas Mental Health University Institute, is Quebec’s largest initiative specializing in the treatment of anorexia and bulimia

- The Centre for Indigenous People’s Nutrition and Environment (CINE) addresses issues of safety, integrity and nutrition relating to traditional foods
- The Detecting Ovarian Cancer Early (DOVE) project educates doctors and the general public about the early symptoms of ovarian cancer, including the world’s first rapid access diagnostic centre
- The Health Behaviour and Emotion Lab has partnered with fitness chain Curves, giving free gym memberships to breast cancer patients to study the impact of exercise on physical and psychosocial health
- NuAge, an ongoing project of the School of Dietetics and Human Nutrition, is the first in-depth investigation into how eating habits affect Quebec’s aging population

During the summer, McGill students and faculty members organize **daytime summer camps** for Montreal youth, including the McGill Conservatory Day Camp (Schulich School of Music), the Exploration Day Camp, the McGill Summer Sports Camp and the Eagle Spirit High Performance Camp, which promotes excellence in sports and education among young indigenous people

McGill University boosts the **cultural vibrancy** of Montreal:

- The Schulich School of Music holds more than 700 concerts and events each year, many of them free to the general public.
- The university hosts hundreds of public events, such as the “Minis” lecture series, Distinguished Lecture Series, the Freaky Fridays lectures and the Lunch and Learn workshops, which are accessible to all Montrealers and visitors.
- McGill’s many museums and affiliated institutions provide rich and fun learning resources for community members of all ages:
  - Redpath Museum (ancient and modern biodiversity, minerals and anthropology collections),
  - Ecomuseum (an educational wildlife park housing more than 90 different species)
  - Lyman Entomological Museum (the second largest insect collection in Canada)
  - Rutherford Museum (exhibits the actual apparatus used by atomic energy pioneer Ernest Rutherford)
  - McCord Museum (collections featuring the social and cultural history of Montreal, Quebec and Canada)

## Impact on Quebec: Plans

Meaningful engagement with the worlds outside campus requires ongoing dialogue, constant recalibration and reassessment, and mindful attention to ever-changing needs. Among many other activities, McGill University is currently:

- Strengthening and encouraging its commitment to Quebec communities with the launch of the Principal’s Task Force on Diversity, Excellence and Community Engagement, which will recommend new concrete mechanisms for increasing local engagement

- Working with MsBiV and Innovia, two local technology investment vehicles, to realign their mandates, in order to maximize the potential for successfully bringing McGill technologies to market
- Developing several industry consortia to respond to the automotive sector needs for lightweight, electric vehicles
- Actively working with l'École de Technologie Supérieure and the City of Montreal to collaborate on a study of the potential of a "Quartier d'innovation," a dynamic knowledge ecosystem in the heart of the city devoted to furthering technological and scientific progress

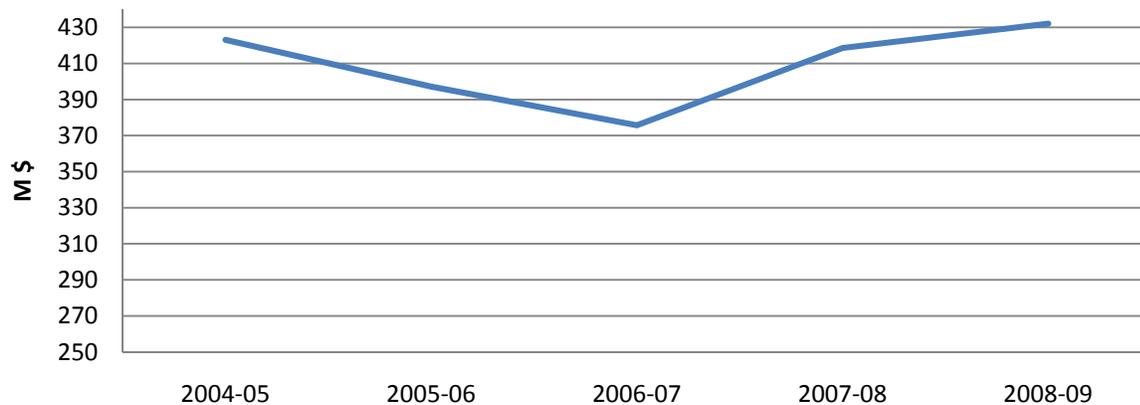
## **B2. Maximize the quality and impact of McGill's research and interdisciplinary initiatives**

McGill ranks among the very best research-intensive universities in both the Canadian and North American contexts, and enjoys a long and storied tradition of discovery. McGill's history of research partnership dates back at least as far back as the establishment of the Pulp and Paper Research Institute of Canada on the University's downtown campus in 1926 – one of the earliest examples of university-industry collaboration. Since then, McGill has internationalized, crossing borders and disciplines to build a vast network of research partnerships with governments, industry and other universities around the world. Our international efforts link Quebec institutions and business to key international research contacts, raising the profile of Quebec as a knowledge-intensive nation. Our researchers today work with some 75 major research centres and networks, covering nearly every field imaginable and making frequent and substantial contributions to our understanding of the world around us.

Innovation and insights are not born of isolation. McGill recognizes that the future of research and education lies in opening the lines of communication between traditionally isolated clusters, be they departments or faculties within the University, or between us and other institutions. Multidisciplinary research results in knowledge, and solutions, in every human endeavour, and in this regard McGill is proud to be a leader, in Quebec and across the globe.

The University is working to overcome the difficulties presented by its restricted funding environment. Though we have achieved considerable success, this comes in spite of a significant disadvantage in research funding, compared with our peers in Canada and the U.S. Over the past years, McGill researchers have achieved great breakthroughs and won an impressive range of prizes and awards, but we have also lost star performers, such as internationally renowned geneticist Thomas Hudson, with other top academics considering more competitive offers. To continue to make such exceptional contributions, our scholars require sustained, internationally competitive levels of funding. In this respect, our recent performance, like Quebec's R&D performance as a whole, has been uneven.

**Figure 1 : Research Funding (\$M)  
McGill and Affiliated Hospitals**



## Research and Interdisciplinary Achievements

- Built and strengthened research collaborations in Quebec
- Professors from McGill’s Faculty of Engineering and Metals Processing Centre have collaborated in many ways with the **Université du Québec à Chicoutimi** over 30 years, including helping establish a UQAC chair in aluminum studies and jointly producing examining aspects of aluminum use or production.
- McGill participated in all 66 *regroupements stratégiques* (FQRNT and FQRSC) and a majority of the FRSQ initiatives (16 out of 18 networks and 5 of the 11 groups) in Quebec in 2009-10, with a leadership role in the following initiatives:
  - The **Regroupement québécois sur les matériaux de pointe (RQMP)** gathers sixty physicists, chemists and engineers as well as hundreds of graduate students, postdoctoral fellows and associates from four Québec universities and two other research institutes, who together form a national center of excellence devoted to advanced materials science, which has extensive applications in the engineering and biomedical sectors.
  - The **Centre de systèmes et technologies avancés en communications (SYTACom)**, which consists of 53 researchers at eight Québec universities, supports members' research activities in order to increase collaborative communications systems research in Québec, Canada, and internationally, focusing on economically important areas such as E-Commerce, Telemedicine, Security, Broadband Transmission, and Communications Software.
  - The **Centre interdisciplinaire de recherche en musique, médias et technologie (CIRMMT)** is a multi-disciplinary research group centred at the McGill’s Schulich School of Music that unites researchers and students from three Québec universities as well as musicians and industrial associates. Its research relates to the creation,

performance, recording, transmission, and reception of music, to the interplay between music and the senses, and to new technologies in science and the creative arts.

- Research at the **Alternative Fuels Laboratory** focuses on development of technologies that do not rely on fossil fuels and of models, developed using state-of-the-art diagnostic tools, for the combustion properties of alternative and sustainable (bio-derived) fuels such as methanol, ethanol, butanol, and biodiesel.
  - The **Global Environmental and Climate Change Centre (GEC3)** is a cross-disciplinary research centre bringing together over 40 researchers from six Québec universities to study processes, modelling and impact of environmental and climate change, such as the impact of human activity on extreme events such as hurricanes, floods and drought.
  - The **Network for Oral and Bone Health Research (Réseau de recherche en santé buccodentaire et osseuse)** consists of over 50 researchers interested in issues related to oral- and bone-related health, from three Québec universities, university hospitals, and research institutes. In existence for over ten years, the network's mission is to develop and disseminate knowledge that can reduce health inequalities and promote the quality of life of the province's population.
  - The **Vision Research Network/Réseau de recherche en santé de la vision (RRSV)** brings together 73 clinical and basic researchers from seven different universities. The aim of this network is to focus research efforts in the field of eye health and eyesight to improve the lives of Quebecers.
- Substantially advanced our interdisciplinary research and teaching programs, a key strength of McGill's academic culture that will help prepare Quebec the new knowledge economy:
    - Created the interdisciplinary Integrated Neurosciences Graduate program in 2009, with enrolment from 13 departments across campus
    - Spearheaded several research-intensive initiatives that unite McGill with other Canadian universities, such as the McGill World Platform for Health and Economic Convergence and the CREATE program of health care operations and information.
    - In 2007, the Louise Edwards Foundation contributed to McGill's five year-old pain centre to create the interdisciplinary Alan Edwards Centre for Research on Pain. The centre takes advantage of the University's high concentration of pain researchers and clinicians to promote research that will result in cures for chronic pain.
    - Created or expanded many new centres and facilities to support interdisciplinary research and teaching. Among the highlights are:
      - \* the opening of the new Life Sciences Complex in September 2008 to advance interdisciplinary collaboration, research and teaching, funded by Quebec grants, CFI grants, as well as private gifts
      - \* the expansion of the Brain Imaging Centre of the Montreal Neurological Institute, also funded by Quebec, the CFI and private donations

- \* the creation of the Institute for the Study of International Development and the Institute on Health and Social Policy
  - \* the creation of the Institute of Public Life of Arts and Ideas in 2009
- Created or expanded many new inter-university partnerships, including two major partnerships with the Université de Montréal: music and the brain, and peace and security.
- Attracted the CFI's largest ever infrastructure investment:
  - In 2008, the Research Institute of the McGill University Health Centre (MUHC) was awarded the Canada Foundation for Innovation's largest infrastructure investment: \$99,988,343, to be matched by the Quebec government and \$50 million from the Best Care for Life Campaign of the MUHC Foundations. This project will create and equip a new state-of-the-art medical research centre as part of the MUHC's new facilities on the Glen Campus, and represents a major infusion of money into Montreal and Quebec.
- Reinvigorated outreach efforts and international connections with a series of visits around the world:
  - Following earlier trips to strategic locations in North America and the Middle East, a small group of senior McGill leaders travelled to Beijing, Shanghai, Hong Kong, Paris, London, San Francisco, Washington, Los Angeles and New York in recent years. They met with business and community leaders, alumni and government officials to strengthen research and educational partnerships, and to assist the Quebec government in promoting its international agenda. Quebec and Canadian government officials, as well as the Centre Financier International de Montréal, have greatly assisted McGill in building these mutually beneficial relationships. In addition, McGill is collaborating with Quebec institutions and government in initiatives in India, China, the United Kingdom, France and the U.S.
- Forged strong new international partnerships that are helping to network Quebec institutions to the world:
  - Neuroscience is the dominant research cluster at McGill. The 2009 McGill-Oxford Collaboration in Neurosciences will develop and strengthen interactions in neuroscience research and training between McGill and the **University of Oxford**. Each committed \$100,000 per year for three years to support joint research activities. Similar partnerships are underway with the **Imperial College, London** and the **Neuroscience Centre in Zurich**.
  - During the Québec Mission to India in February 2010, McGill University signed a research memorandum of understanding with **India's TERI University** to promote cutting-edge research on climate change adaptation and mitigation, urban transportation and governance, and biofuels and bioresources, through activities such as student exchanges and joint research collaborations and workshops.
  - The 2007 Scientific Partnership between the Rosalind and Morris Goodman Cancer Centre and the **M.D. Moross Institute for Cancer Research (Weizmann Institute of Science, Israel)** allows for student exchanges, joint conferences and research projects, and visiting sabbaticals. It is designed to promote joint financing of creative

and high-risk/high-payoff research projects relevant to cancer and/or cancer and engineering.

- The **Canada-California Strategic Innovation Partnership (CCSIP)** is a catalyst for creating new models of collaboration, and innovation, between California, one of the most dynamic innovation engines on earth; and Canada, a leading country in university research intensity. McGill is a key player in six of the 15 bilateral projects selected from the first call for proposals. These projects will pursue novel solutions to problems in health surveillance, virtual reality, bioimaging, computing efficiency and performance, biofuels and green IT.

## Research and Interdisciplinary Plans

McGill will:

- Increase research collaborations and participation in research networks within Quebec, supporting the Government's new research and innovation strategy.
- Continue to support Quebec's international agenda, following up on its participation in Quebec government-led missions to India, helping Quebec advance its international agenda and pushing the University's cross-border collaborations even further.
  - The proposed McGill Institute for the Study of Innovation in India would provide a focal point for closer Quebec-India ties and serve as a cross-cultural hub for collaboration. The arrival of Indian luminaries in Montreal would inject new talent and ideas into the city and further consolidate McGill's position as a central hub for Canada-India relations.
- Substantially improve all aspects of the graduate studies environment, as described above in section B5, and continue to increase enrolment for research graduate programs.

## B3. Improving the health of Quebecers

Quebec has become a world-renowned hub for life sciences and biotechnology. An enormous advantage for Montreal is that it is the only Canadian city, and one of the few in North America and Europe, that boasts two faculties of medicine within its boundaries. Life sciences has been a key sector for Quebec's economic development. McGill, with its sister universities and partners in Quebec, are working to sustain and grow this vibrant asset for the citizens of Quebec. A vital contributor to Quebec education, health care, economy, research investments and discovery, McGill has been a leader in the health sciences for close to two centuries.

Health care, education and research at McGill and across its network of affiliated hospitals have an enormous impact on the Quebec population. The McGill Academic Health Network spans the McGill University Health Centre (a merger of the Royal Victoria Hospital, the Montreal General Hospital, the

Montreal Children's Hospital, the Montreal Neurological Institute and Hospital, the Montreal Chest Institute, and the Lachine Hospital & Camille-Lefebvre Pavilion) as well as the Jewish General Hospital, the Douglas Mental Health University Institute and St. Mary's Hospital Center.

Under the province's Réseau universitaire intégré de santé (RUIS) program, the University also coordinates specialty care, medical research and education for 63 per cent of Quebec's land mass, including the western Montérégie region, the central and western parts of the island of Montreal, the Outaouais, Abitibi-Témiscamingue, Nord-du-Québec, Terres-Cries-de-la-Baie-James and Nunavik. Together, these regions are home to 1.7 million Quebecers.

Over the next half century, McGill looks forward to harnessing the extraordinary discoveries in genomic science of recent decades to help transform health care and develop cures. In collaboration with the McGill Academic Health Network, its sister faculties of medicine in Quebec and partners around the world, the University is committed to uncovering the biological basis of disease, translating this research into improved and personalized patient care, reducing health care costs and training tomorrow's leaders to realize the full potential for the benefit of all of society.

## **Improving the Health of Quebecers: Achievements**

McGill has:

- **Celebrated the groundbreaking of the McGill University Health Centre Glen Campus**

The new Glen Campus will bring to Quebec a 21<sup>st</sup>-century state-of-the-art complex boasting 500 single rooms for a new order of personalized health and patient care, together with the Mountain and Lachine campuses. The site will include highly sophisticated emergency rooms for the most advanced treatment in both pediatric and adult urgent care, internationally competitive research facilities to retain and attract leading scientists from around the world, and a vastly improved, centralized academic environment to train tomorrow's leaders across the continuum of health care.

- **Launched a multi-faceted initiative to tackle the critical shortage of family physicians**

In the last eight years, McGill has more than doubled the number of students entering family medicine residencies. On the heels of the highly successful CSSS de Gatineau Family Medicine Unit, the University last year opened two new units, in Val D'Or and in Châteauguay. McGill residency programs at the CSSS de Gatineau Family Medicine Unit has helped the region maintain an 80 per cent retention rate of doctors to serve the population there.

Also in 2009, the McGill Faculty of Medicine launched a master's option in Family Medicine – the first of its kind in Canada – to help attract the best talent to this fundamental specialty. In the same year, the University established a new research chair in Family and Community Medicine at St. Mary's Hospital Center. Additional measures include increased exposure to Family Medicine across the undergraduate curriculum and a successful McGill Family Medicine Summit attended by students of all four Quebec faculties of medicine in the fall of 2009.

- **Partnered with the Campus santé Outaouais to increase access to health services**

A collaboration between McGill, the Agence de la santé et des services sociaux de l'Outaouais, the Université du Québec en Outaouais and the Centre de santé et de services sociaux de Gatineau, among others, the Campus santé Outaouais has yielded improvements in the space of only a few years, including a significant retention of physicians in this region.

- **Introduced an innovative master's program for nurse-practitioners in the regions**

In collaboration with the Université du Québec en Outaouais and the Université du Québec en Abitibi-Témiscamingue, McGill's School of Nursing is using a combination of video conferencing and other creative means to deliver a master's program for nurse-practitioners that enables them to study and remain to work in these regions.

- **Attracted 630 medical doctors to its affiliated hospitals over the past decade**, close to half of which were attracted from outside Quebec and around the world.

## **Improving the Health of Quebecers: Plans**

McGill will:

- **Continue to collaborate with its affiliated hospitals to realize synergies through the creation of a formal McGill Academic Health Network**

McGill carries out its academic mission in education, research and excellence in clinical care working closely with its affiliated teaching hospitals. With a view to building on the collective strengths of this network, plans are underway to align missions and values, identify and create opportunities to build on common institutional goals, work together to develop policies that optimize synergies and reflect a shared vision, and continually improve performance based on measurable outcomes in health care delivery, training, research and collaboration

The McGill Academic Health Network is leveraging the collective strengths of the University and affiliated institutions in a highly competitive market, to further develop the excellence and world renown of McGill medicine, and to better serve the health needs of Quebecers and all of society.

- **Enhance services provided to the 1.7 million Quebecers living in the RUIS McGill territory**

McGill and its affiliated hospitals will continue to work to bring high quality specialized health care services closer to the homes of Quebecers, while facilitating training, research and technology evaluation. Specifically, we plan to build on the RUIS McGill telehealth and local training initiatives across its territory, enhance the RUIS McGill clinical service coordination and create the necessary infrastructure to improve care to patients suffering from chronic pain.

- **Continue to promote family medicine as a critical and highly rewarding career path**

Family medicine clerkships for McGill students are now increased to eight weeks in duration, from four weeks. More family physicians are teaching in the first 18 months of medical school to expose students to this critical specialty. Family medicine will now be a longitudinal experience, and students will follow the patients throughout the year. Family physicians have been assigned multiple roles in the Faculty of Medicine, again to raise visibility. McGill will host the 2010 Family Medicine Symposium for 600 students from all four Quebec faculties of medicine, as well as from the University of Ottawa.

- **Initiate a unique “medical foundations course” to help integrate qualified international medical graduates into Quebec’s health care system**

A number of international medical graduates do not successfully qualify for post-medical school residencies. Following a request for recommendations from the Quebec government, the Faculty of Medicine, in partnership with St. Mary’s Hospital Center, proposed the development of a “medical foundations course” to help identify qualified candidates and support their integration. McGill is currently working collaboratively with the Verdun Hospital to organize this course, which will include a one-month didactic section to be held at the McGill Simulation Centre followed by one to six months in clinical rotations at St. Mary’s in Family Medicine and/or the base specialties. This new program is scheduled to be launched in July 2011.

## **B4. Renewal of the professoriate**

Academic renewal shapes and redefines institutions and academic units as departing and retiring academic staff members are replaced by new professors who contribute to leading-edge scholarship. Since 2000, McGill has welcomed more than 900 new tenure-track academic staff, resulting in a major renewal. Currently, about 150 of them are supported by Canada Research Chairs (CRC). Approximately half of McGill's tenure track faculty has been at the University for less than a decade. This dramatic generational shift creates the opportunity to

## **Renewal of the professoriate: Achievements**

- Attracted 930 new professors to McGill since 2000, the beginning of our academic renewal initiative. Nearly 60 per cent have come to Quebec from outside Canada
- Attracted more than 630 medical doctors over the past decade, nearly half from outside Quebec.
- Created 10 endowed chairs since 2006 to help attract, retain and support internationally recognized professors.
- Significantly enhanced teaching support, including an expansion of our Teaching and Learning Services unit, to help professors engage students in a range of teaching environments, in and outside of traditional classrooms. We have:
  - Developed the "Nexus" initiative to help professors better link research to undergraduate teaching, thus helping students engage with McGill's research intensive environment
  - Improved teaching technologies and trained professors in their use
- Created a new position in 2007 to support the social integration of new faculty into Montreal and help their spouses find employment

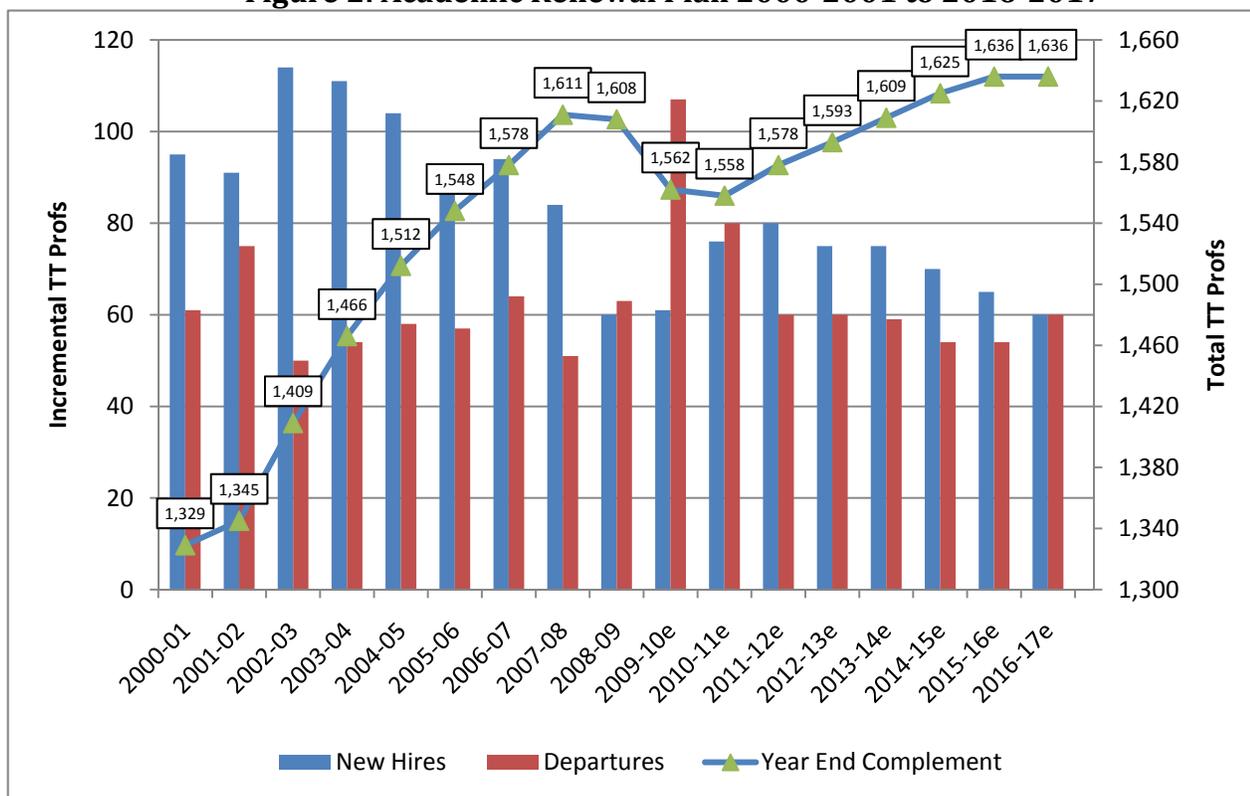
## **Renewal of the professoriate: Plans**

In order to remain internationally competitive and to give Quebec the highly qualified personnel it needs for future success, McGill must continue to attract top academic talent. We must also retain those scholars, researchers, and teachers in whom we have invested so heavily and upon whom we depend to serve Quebec and to sustain and enhance McGill's capacity and international reputation as a leading publicly-funded, research-intensive, and student-centred university.

- Over the next five years, we aim to hire 350 new tenure-track staff to replace retiring professors and to grow in strategic areas of strength. (See figure 2)
- Recruitment plans in 2009-10 and 2010-11 have been slowed to fund a retirement incentive program, targeted to all ranked academics above 65 years of age or older. These constitute about 15 per cent of the professorship. This plan is expected to lower annual salary costs by \$1 million and to provide further renewal in targeted areas of priority.
- Like other Quebec research universities, in the coming years, we aim to increase federal research performance, and thus our share of Canada Research Chairs and to look for philanthropic support for new endowed chairs.
- Mentorship programs will be standardized across all faculties to support younger professors and teaching loads in all faculties are currently being assessed.

- Our research services are being redesigned to better support professors and improve the success rate for grant applications.

**Figure 2: Academic Renewal Plan 2000-2001 to 2016-2017**



## B5. Attracting, retaining and supporting top graduate students

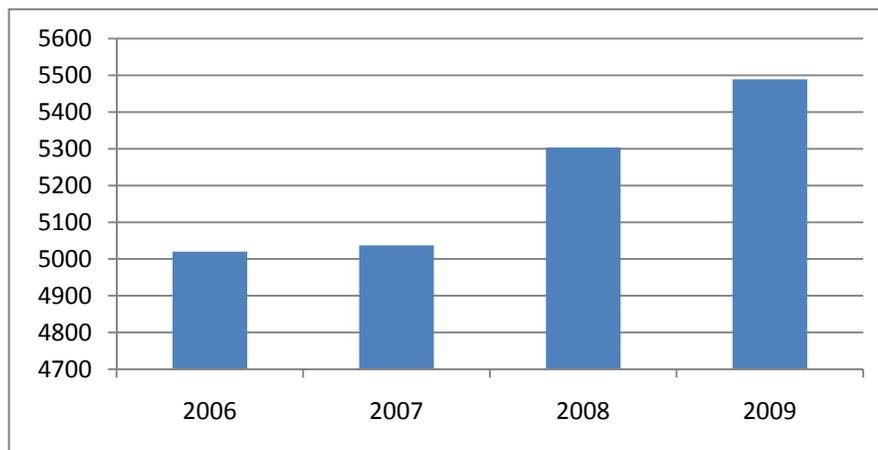
Top level research universities are defined not only by their professors and facilities but also by the caliber of their graduate programs. Graduate students are not only integral to conducting research, they are also a necessary precondition to attract top-flight academics. Moreover, graduate students represent the most highly skilled workers for Quebec’s knowledge economy, and studies have shown that they are more likely than undergraduate students to make their home in the region where they conduct their graduate studies. Their entry to the workforce provides Quebec an immediate dividend of innovation and productivity. For these reasons and consistent with its institutional mission, McGill made graduate student enrolment a top priority in its 2006 Strategic Academic Plan and will continue to do so.

### Attracting, Retaining and Support Top Graduate Students: Achievements

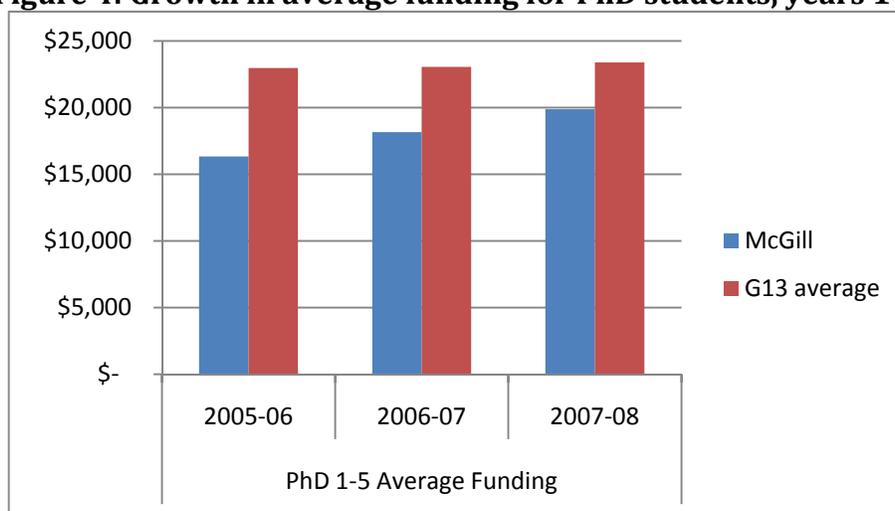
- Attained the highest proportion of PhD candidates among the G13 (Canada’s 13 most research-intensive universities)

- Graduated 399 PhDs in 2008 to increase the pool of highly skilled workers for Quebec’s labour market
- Enhanced quality of mentoring provided to graduate students by implementing a campus-wide supervision workshop series for professors
- Launched “Skillsets”, a series of professional development workshops for graduate students to sharpen communication, research, teaching, business and other skills needed for their future careers.
- Upgraded graduate student study spaces in most libraries
- Remained competitive at attracting top-level candidates vis-a-vis peer research institutions in Quebec, Canada and the US; increased enrolment of research graduate students by nearly 10% from 2006 to 2009 (see figure 3)
- Created new initiatives to improve graduate funding, especially to PhD students
  - Increased PhD funding support by 22% from 2005 to 2008 compared to an average increase of 2% at sister G13 universities (see figure 4), in great part by reallocating resources within and in the context of soliciting alumni support
  - Continuing to close the yet significant graduate student funding gap vis-a-vis peer research-intensive universities

**Figure 3: Research Graduate Students (Master’s and PhD) Enrolment Increases**



**Figure 4: Growth in average funding for PhD students, years 1-5**



### **Attracting, Retaining and Support Top Graduate Students: Plans**

- Increasing funding for graduate student support packages in line with our peer universities in Canada and North America to help Faculties attract the best students
- Providing adequate space for increased graduate student research, scholarship, and teaching;
- Assuring adequate professorial numbers for increased graduate student supervision, and continuing to enhance the quality of supervision
- Shortening times-to-completion commensurate with best disciplinary norms.
- Continuing to improve all aspects of the graduate studies environment through expanded workshops, professional development resources and a wide variety of services

## **B6. Enhancing the undergraduate experience**

Research-intensive universities are generally not renowned for the quality of their undergraduate student experience. To address this challenge, in the spring of 2005, the Principal launched her Task Force on Student Life and Learning, with a mandate to broadly examine and enhance the student experience at McGill. We aimed to ensure, to the best of our financial and management abilities, that our students have the support and opportunities they need in order to learn and grow to their fullest potential during their time at McGill.

The Task Force proposed an aspirational definition of McGill as a student-centred, research-intensive university and made recommendations in three broad areas: academic advising and mentoring; resources

for students; and building a learning community. The quality of our students' campus life and learning opportunities is a strong measure of our success, and following the Task Force's recommendations, we have launched a wide range of initiatives to ensure that McGill remains not only a research-intensive institution, but a student-centred one as well. While we have more to achieve in this regard, especially with respect to class sizes, we are making progress.

**Enhancing the undergraduate experience: Achievements**

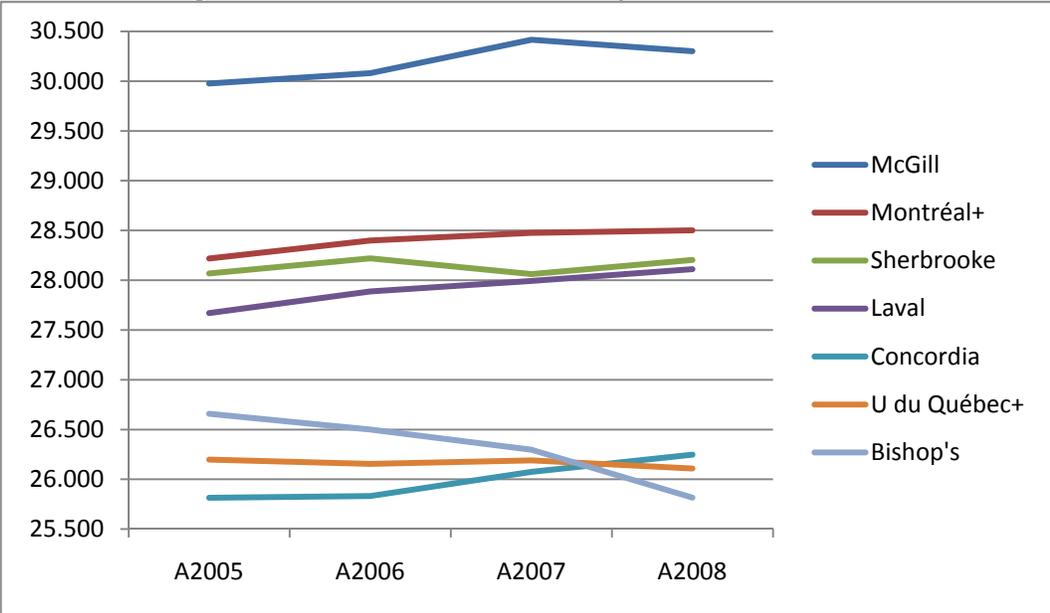
- Increased undergraduate enrolment by 7% over the past five years
- Revised the University's admissions protocol for Aboriginal students, which now takes into consideration non-traditional learning paths
- Maintained an outstanding quality of recruited students
  - Entering averages for undergraduate students consistently remain the highest in Canada, as shown in Table 1 below, and are the highest among Quebec universities for CEGEP students, as indicated by the Cote R Cumulative scores shown in Figure 5.

**Table 1: Highest average entering grades for undergraduates across Canada**

	2005	2006*	2007	2008
Average Entering Grade	89.8	89.2	89.6	89.7
Maclean's ranking in Canada	1	1	1	1

\*Since 2006, average entering grades are calculated on in-province students only.  
 Source: *Maclean's* magazine

**Figure 5: "Cote R Cumulative" by Admissions Year**



- Expanded student financial support dramatically, creating a new bursary program in 2006 to make world-class education more accessible to lower-income students, and nearly doubling student aid

over four years, from \$16.7 million to \$30.4 million, in part thanks to the reallocation of 30% of net new tuition revenues to student support. . While McGill does not yet have the means to offer student financial aid to all qualified students in need, the gap is closing, thanks to reallocation of internal resources, support from alumni and student support.

- Garnered praise from external reviewers throughout McGill's five-year Academic Program Review, who highlighted the world-class nature of our programs and students and gave particular credit for the interdisciplinarity, cross-faculty aspects, and unique approaches of numerous McGill programs
- In response to those reviews, created new general-education programs in the Faculty of Science and completely overhauled undergraduate programs in the Faculty of Agricultural and Environmental Sciences and the Schulich School of Music to better respond to student needs
- Created new international learning opportunities for students:
  - Initiated or improved a wide range of field studies programs in Africa, Panama and Barbados and overhauled our Web resources for international study
  - From 2005-2009, 33 new bilateral exchange agreements were signed with universities based on clear goals
- Increased research opportunities for undergraduate students. More than 20% of senior-year undergraduates have worked with a professor on a research project outside of course requirements, compared with an average of 17.6% at G13 universities and 12.1% among Quebec institutions.
- Modernized teaching facilities and resources:
  - Multimedia-friendly "Active Learning Classrooms" and upgraded undergraduate teaching labs help students engage with instructors and each other.
  - Wireless student-response systems (clickers) have so far enabled roughly 22,600 students to provide feedback on course material, with their responses displayed in real-time. More than 70% of students surveyed report that clicker devices help them focus, engage with the class and better understand course material.
- Created 1,140 new residence spaces through property acquisition, making McGill residences home to some 2,900 students each year
- Consolidated administrative services for students to achieve economies of scale and to better serve students. Opening in summer 2010, a new "Service Point" centre will consolidate a wide variety of student services previously offered at six different counters in four buildings, making it far easier for students to tend to administrative tasks and quickly find the information they need.
- Overhauled online resources to make it easier for students to find essential information and upgraded McGill's course evaluation system.
- Improved academic advising and mentoring and increased the number of academic advisors has increased by nearly 20% over five years.
- Improved undergraduate graduation rates from 82% in 2000 to 90.3% in 2005 – the highest rate among Quebec universities

Although we are making strides in improving the environment for student life and learning, more work remains to be done. Surveys such as the National Survey of Student Engagement (NSSE) reveal that students at large- and medium-sized universities are historically less satisfied with their student experience than students at smaller institutions, and McGill is no exception. Students say McGill performs

well in the level of academic challenge and the richness of educational experiences provided to students, with scores that in general are higher than other G13 and Quebec institutions. Overall, satisfaction levels are good, with a higher proportion of students responding favourably to the question, “If you could start over again, would you go to the same institution you are now attending.” However, we need to improve in providing more active and collaborative learning, as well as increasing student-faculty interaction. The large size of many of our undergraduate courses remains a significant challenge in this regard.

## **Enhancing the undergraduate experience: Plans**

McGill will build on the momentum inspired by the Principal’s Task Force on Student Life and Learning to further improve the student experience. Our plans include:

- Increasing further the availability and quality of academic advising and mentoring one of our top priorities, in order to foster students’ engagement with faculty and with support and administrative staff.
- Expanding the range of international learning experiences available to our students and encourage participation, by extending the successful model of the Florence study-away summer program to other regions.
- Maximizing hands-on participation in research opportunities for undergraduate students and ensure that research conducted by McGill professors actively informs the design of courses, programs, and teaching at the undergraduate level.
- Continuing to improve classrooms, teaching laboratories and pedagogy to enhance active and collaborative learning
- Improving the residential experience in all types of accommodations provided at McGill and make such accommodations more readily available to students at all levels.
- Enhancing our administrative services to students, particularly in the areas of health and food.
- Increase financial support to students by balancing the dual goals of maintaining or even increasing quality (e.g., by offering merit-based scholarships) and accessibility (e.g., by breaking down financial barriers to a university education through need-based financial aid) as we can generate new resources.
- Through a new Strategic Enrolment Plan, maintain the quality and diversity of the student population to maintain its position as the Canadian university with the highest proportion of undergraduate students from across Canada and around the globe, thus providing students from Quebec and beyond with a uniquely diverse and international university environment..

The Principal struck this fall a new Task Force on Diversity, Excellence and Community Engagement (see section B10.3, below). Among other things, it aims to further increase student engagement. As a result, we will work to bolster the quality and impact of our academic, research and teaching programs, as we aim to further build the diversity of our community.

## **B7. Supporting academic priorities by increasing the quality of infrastructure, services and support**

Academic excellence in educational programs, research activity and community service cannot flourish without adequate physical resources, modern information technology systems and dedicated support services. Since the creation of the Strategic Academic Plan in 2006, McGill has implemented a series of physical and service improvements to support the University community in the achievement of its mission.

### **Supporting academic priorities: Achievements**

Physical infrastructure:

- Following community consultation, created nine overarching Master Plan guiding principles that provide direction to McGill's administration and to its governance bodies regarding new real estate development, space redeployment, and other similar initiatives for the next several decades. In support of McGill's mission, this Physical Master Plan will modernize both campuses, helping to create a dynamic intellectual community and academic experience, improving spaces for teaching and research and stewarding our historic and green spaces. (See Appendix II for a summary of these principles.)
- Upgraded select classrooms and undergraduate teaching labs in nearly every Faculty.
- Completed renovations in the Faculty of Law to create new seminar rooms, space for students clubs and journals, graduate student offices and new research centres.
- Initiated, as of September 2009, approximately \$220 million in deferred maintenance and Knowledge Infrastructure Program projects to be carried out over a three year period. Priority has been placed on projects that address health and safety considerations, contribute to the continuity of our operations, and have a maximum impact on the delivery of the teaching and research mission of the university.
- Launched the "Greening Lower Campus" on May 28, 2010 to create a pedestrian-friendly Downtown Campus, as free as possible of motorized vehicles. The goals are to create people-friendly spaces that encourage the sharing of ideas, improve physical safety for pedestrians and continue stewardship of McGill's green spaces for the Montreal community.
- Please see section B2, above, for information on major construction projects supporting multidisciplinary teaching and learning.

Library resources:

- Reallocated resources and recruited student support to increase library expenditures by 30% over 4 years to substantially increase service and resources; increased library attendance by 50% over 5 years
- Extended opening hours across the library system with 24-hour opening in the Humanities and Social Sciences Library at examination time.

- Renovated libraries across McGill's two campuses, including a new Cyberthèque with learning pods and space to facilitate collaboration and brainstorming
- Increased holdings of e-journals and e-books. E-journal titles have been expanded from 33,025 titles in 2006 to almost 58,000 in 2009
- Scored an A in the Globe and Mail's 2009 Canadian University Report for McGill's library and campus technology services, based on student surveys.

#### IT Services:

- Extended wireless service across all indoor and outdoor spaces on McGill, including high-speed wireless in McGill residences
- Expanded and upgraded high-performance computing facilities
- Completed a major expansion of McGill's learning management system, as well as upgraded computer facilities and software

### **Supporting academic priorities: Plans**

McGill's major infrastructure priorities from its 2010-2015 Plan quinquennial d'investissements submission include:

- Renewal of our classrooms and teaching labs to support best teaching practices and to fully prepare our students for leadership roles upon graduation. We are asking MELS to fund a strategic redevelopment of select classrooms and teaching laboratories at our downtown campus, totalling approximately \$ 22 million, of which McGill proposes to fund \$7 million.
- Establish a Neurosciences /Immunology/Pain Research Complex to be built within the current shell of the Lyman Duff building, adjacent to the Montreal Neurological Institute. Our 2009 submission to MELS estimated the project cost at \$26.8 million, over and above McGill's recent \$10.5 million investment.
- Construct a Biomedical Bioengineering/Advanced Materials/Bioinformatics Complex to strengthen teaching and research in areas key to the development of the pharmaceutical sector, health sciences, and advanced manufacturing/engineering. The estimated cost is \$140 million.
- Continue to address deferred maintenance priorities

McGill will continue to support its academic priorities by ensuring the highest quality service from its libraries, IT resources and other support areas. Other priorities and plans for services, support and infrastructure include:

- Developing a five-year needs assessment to upgrade and innovate the University's teaching laboratories
- Designing a Molecular Biology and Biotechnology Teaching Facility on Macdonald Campus, and an Advanced Light Microscopy Training Laboratory on Downtown Campus

- Planning a \$5 million capital project to upgrade McGill's Enterprise Resource Planning hardware and software, which supports the student records, course evaluation, fee billings, financial aid, admissions tracking and other crucial systems.
- Evaluating the myMcGill portal, the Gateway for many of McGill's web-based software systems, to improve usability and functionality
- Evaluating options to upgrade McGill's telephone system and optical backbone network, both of which are past their prime and will require millions in new investment to reach modern standards

## **B8. Offering opportunities for professional development for staff to increase productivity and enhance job satisfaction**

McGill is creating performance-driven innovative staff development policies based on incentives and job satisfaction. These policies are instilling a culture of achievement among both academic and non-academic staff. The result is a workplace culture that not only benefits individual employees and also improves the overall productivity of the university.

In the coming decade, effective and progressive staff development will be essential if Quebec universities are to manage the challenges posed by major demographic and organizational changes taking place in the workplace. The recent successes of McGill's performance-based staff development culture suggest one way these challenges can be met. Going forward, the university will remain committed to enhancing training and development opportunities. For that reason we find it perplexing that the Government of Quebec is requiring us to reduce our investment in staff development by 25% in the 2010-11 fiscal year.

### **Professional development: Achievements:**

- Ranked one of Canada's Top 100 Employers in 2009 and 2010
- Minimized across-the-board payroll increases in order to enhance merit-driven performance policies for both academic and non-academic staff, based on performance reviews and assessments for every employee
- Introduced new flexibility to salary scales to stay competitive in recruiting of top-tier talent
- Consolidated human resource departments to deliver improved services and longer hours of service while eliminating overtime costs
- Improved service efficiency and reduced costs through amalgamating transactional and client service function through the Human Resources Shared Services project
- Developing a competency model and services to support our compensation framework and use of our performance management tools.

## **B9. Sustainability**

McGill is working to weave sustainability through every part of its operations and culture. We recognize that the "greening" of McGill will happen as the result of each of us committing to changing the way we work, study, play and eat. Standard operations – from choice of light bulbs and showerheads to paperless procedures – and renovations – from demolition to construction – are planned with sustainability in mind and are now viewed as an opportunity to bloom green. Our environmental, sustainability and paper use policies encourage responsible use of resources and promote green purchasing practices. (Please see Appendix III for McGill's new Sustainability Policy, approved by Senate on April 28, 2010 and the Board of Governors on May 25, 2010.)

Our ultimate goal? To lead in advancing principles of sustainability and environmental responsibility in our physical development of our campuses, to incorporate these principles into our approaches to teaching, research and administration and to become a national and world leader in these areas.

### **Sustainability: Achievements:**

- Chosen in 2009 as one of Canada's Greenest Employers, earning recognition both for our many environmental initiatives and the speed at which we are greening campus culture
- Opened an Office of Sustainability in February 2009 to provide a dedicated hub for sustainability initiatives across McGill. With two full-time employees, the Office provides a locus for efforts to create a culture of sustainability across campus, and aims to be a catalyst for changing behaviour, inspiring McGill students, faculty and administrative staff to weave sustainable practices throughout their daily lives.
- Integrated sustainable principles into all aspects of construction and renovation, including deferred maintenance projects, to balancing the advancement of the University's mission with our responsibility to appropriately safeguard and enhance our environmental and physical heritage.  
For example:
  - Over the last 10 years, McGill has invested more than \$18 million in energy-efficient infrastructure.
  - The new Life Sciences Complex was planned to create a huge research impact hand-in-hand with a small environmental footprint. The Complex, which has been submitted for LEED Silver Certification, includes environmentally friendly features such as a green roof, water conservation, heat recovery and lighting efficiencies.
  - The badly needed reconstruction of the service tunnel linking the Ferrier and McConnell buildings required that the green space to the south of the James Administration Building be torn up – and gave us the chance to create another outdoor social hub, a beautiful new garden filled with trees indigenous to Montreal.
- Worked with the City of Montreal to create a bicycle pathway on University Street from Milton Avenue to de Maisonneuve Boulevard, thus promoting green transport and increasing the safety of pedestrians on campus.
- Worked with the City of Montreal to turn McTavish Street into a pedestrian friendly zone, limiting all but non-essential traffic and removing parking. This initiative is part of the Greening Lower Campus project, described above in section B7.

- Created a new Sustainability Fund in the fall of 2009, thanks to McGill students, who voted overwhelmingly in favour of a new fee of \$0.50 per credit of coursework to support it. This funding, which will be matched from other sources, will result in an overall fund of approximately \$800,000 per year in support of sustainability initiatives on McGill's campuses. Applications for funding are accepted from any member of the community who has an idea and demonstrates the ability and commitment to carry it through.
- Greened McGill's Food and Dining Services. The unit now sources its food locally as much as possible, and offers fair-trade coffee, cage-free eggs and sustainable seafood. Used cooking oil is recycled and, in season, 90 per cent of produce used is locally grown
- Received a Certificate of Excellence from the Geotourism Council of Montreal and the National Geographic Society for McGill's downtown campus.
- Created a new BA & BSc in Sustainability, Science and Society, and added a graduate option in environmental studies to programs in the Faculties of Arts, Science, Law, Medicine, and Agricultural and Environmental Studies.
- Increased our focus on environmental research and teaching as one of the eight multidisciplinary thrusts of the Strategic Academic Plan. Major centres include the following:
  - The McGill School of Environment brings together four different faculties to examine environmental problems with a multidisciplinary focus
  - The Brace Centre for Water Resources Management turns an interdisciplinary lens on conservation, drought control and other water issues
  - The Green Crop Network searches for agriculture-based ways to cut greenhouse gases and find alternative energy sources
  - The Global Environmental and Climate Change Centre integrates physical, biological and chemical processes that regulate the climate system and their socio-economic impact.
- Continued to steward our green and natural resources for the people of Quebec:
  - The Gault Nature Reserve (Mont Saint-Hilaire) is 1,000 hectares of natural primeval forests, ideal for teaching, university research and strolling
  - The 245-hectare Morgan Arboretum supports trees and shrubs from across Quebec and around the world, 30 species of mammals, 20 species of reptiles and amphibians, and more than 170 species of birds
- Steadily improved our grade in the College Sustainability Report Card, published by the Sustainable Endowments Institute. McGill received a B+ in the 2010 ranking, moving up from a C+ grade in 2007. This puts McGill in the top tier of universities in Canada and only one grade below the highest grade received by North American universities.

## **Sustainability: Plans**

McGill's plans are guided by the Sustainability policy and the principles of McGill's Physical Master Plan, and include:

- Upgrading heating and ventilation systems to improve energy efficiency as part of deferred maintenance and Knowledge Infrastructure Program improvements. In the Otto Maass Chemistry Building, the University's most energy-intensive building, for example, the upgrade is expected to

reduce energy consumption by up to 90 per cent through innovative energy efficiency measures and the capture of heat from McGill's computer servers as a source of energy for the building.

- Continuing to work with the City of Montreal and the Government of Quebec to help implement in their sustainability development strategies.
- Continuing to recognize our vital role as a steward of the largest green space on the Island of Montreal by enhancing green spaces, reducing heat islands and using native or low-maintenance species in landscaping.
- Launching information campaigns to encourage individual members of the McGill community to reduce waste (through better purchasing choices), water, energy and paper, as well as encouraging recycling.
- Putting in place across McGill's units work practices that reduce waste, water and energy.
- Launching a pilot composting project.
- Switching to energy efficient light fixtures where possible and install lights with motion sensors.
- Diverting as much construction waste as possible from landfills through recycling and reuse.

## **B10. Other Initiatives**

### **B10.1 Diversifying our funding stream through increased philanthropy and growing our endowment**

McGill University's current fundraising initiative, *Campaign McGill: History in the Making*, was publicly launched in October of 2007 with the goal of raising \$750-million to attract and retain the world's best students and faculty, to increase access to quality education, and to enhance McGill's ability to address critical global challenges. Campaign achievements as of April 30, 2010 were at just above the \$546-million mark, on the strength of gifts from more than 75,000 donors worldwide. This includes achievements totaling \$100.8 million in FY08, \$81.6 million in FY09, and \$50.8 million in FY10, as of April 30.

In 2009-10, McGill's endowment capital of approximately \$845 million, which cannot be spent, made available \$35.7 million in income to support expenses, as per the original donors' wishes. Nearly all of this available funding is restricted by donors to specific purposes, such as student aid and services (\$13.4 million), faculties and research (\$12.8 million) and recruiting and retaining top talent through endowed chairs (\$7.2million). Less than \$1 million is available for general operating support.

We will continue to work to build our endowment and philanthropic investment to diversify and stabilize our operating budget.

### **B 10.2 Continuing to improve our governance structures through ongoing reform**

McGill has long been a leader in governance among Canadian universities. Having implemented its own governance reforms in the 1930s and 1960s, McGill again was in the forefront 2003-05 by revising

dramatically, based on best practices, the composition of its Board of Governors and the rules and regulations that govern it.

Achievements:

- Reduced McGill's Board of Governors from 74 members in 2003 to 25 by 2005. The Board now includes 15 independent governors drawn from diverse sectors of civil society as well as representatives of McGill's faculty, staff and student constituencies.
- Improved the Board's operation and created a clearer delineation between governance and management. A new set of Board committees, the Audit Committee (which includes only independent members), Building and Property Committee, Committee to Advise on Social Responsibility, Executive Committee, Finance Committee, Human Resources Committee, Investment Committee and the Nominating and Governance Committees, provides even greater discipline, structure and strength to governance.
- Established mechanisms to ensure committee members are informed of all their responsibilities, including orientation sessions for new members and the distribution of written regulations.
- Updated the code of conduct, requiring each member to sign off annually that he or she has no conflict of interest, or recuse himself/herself in the case of a conflict, in order to guide Board members as they carry out their duties at and between their regular meetings.
- Undertook an extensive recruitment and succession planning initiative to deal with a major renewal of the Board's members-at-large in 2010 and 2011. A recruitment subcommittee of the Nominating and Governance Committee followed a rigorous and structured process involving the identification of the areas of expertise needed on the Board and the establishment of criteria for the selection of candidates. The Committee also engaged a professional search consultant to assist it in sourcing and reviewing prospective candidates.
- Implemented an annual evaluation survey of Board members aimed at improving Board performance.

Taken together, the reforms McGill implemented to its governance in 2005, and its recent recruitment process represent avant-garde measures among Canadian universities. McGill stands out among its peer institutions in Canada in having undertaken reforms of this scale and magnitude. As a result, the Board has been most fortunate in attracting the very best candidates who bring significant new strengths to the governance of McGill.

### **B 10.3 Improving quality, diversity and community engagement through the new Principal's Task Force.**

In the late spring of 2009, Principal Munroe-Blum launched the Principal's Task Force on Diversity, Excellence and Community Engagement. The Task Force has a broad mandate to assess our status in achieving excellence, inclusiveness and community contribution in the pursuit of our academic mission, and to propose recommendations to advance our progress at the intersection of these three critical university attributes.

Principal Munroe-Blum chairs the Task Force, which is made up of 25 members of the University, drawn mainly from our students, the academic ranks, and administrative and support staff. The membership includes a Governor and an alumnus of the University. All members of the Task Force participate in one of five working groups, focusing respectively on inclusion in recruitment and retention; engaging with diversity within the McGill community; reaching out to the broader community; excellence in programs and pedagogy; and excellence in research.

The Task Force issued a call for submissions in October, and has received over 50 submissions from associations, members of the administration and individual members of the community. During February and March, members of the Task Force met with authors of submissions, individually or in small groups organized around the themes covered in the submissions. These discussions covered a broad range of topics, including outreach to Aboriginal communities and disadvantaged communities in Montreal; mentorship as a means of retaining talented young academics from a diversity of backgrounds; programs in place in the Faculty of Medicine to support excellence in research; and reinforcing links between McGill and Francophone communities in Québec.

The Task Force aims to consult the community on draft recommendations during the fall of 2010, and to issue a final report in the winter term of 2011.

## C. Performance compared to other North American peer universities

University rankings have proliferated as universities strive to compare and improve their performance as measured against their peers. All use different sets of indicators and methodologies, with their own strengths and limitations, and so each provides a snapshot of different aspects of performance. Nonetheless, looking at performance across these rankings offers important information on an institution's performance and reputation.

In this report, we include McGill's place in the three most recognized international and national rankings: The Times Higher Education-QS World University Rankings, the Shanghai Academic Ranking of World Universities, and *Maclean's* magazine Canadian University Rankings.

### Highlights:

- For six years in a row, McGill has been the only Canadian university to rank in the top 25 of the Times Higher Education-QS World University Rankings. In 2009, McGill was 18<sup>th</sup> in the world – and the top public university in North America.
- In 2009, McGill placed 65<sup>th</sup> in the Shanghai Academic Ranking of World Universities, dropping five places from 2008.
- For five years in a row, McGill has been Canada's top medical-doctoral school in the *Maclean's* magazine university rankings.

### 1. The Times Higher Education-QS (THE-QS) World University Rankings 2009

The Times Higher Education-QS World University Rankings attempts to capture a broad range of factors influencing university performance, including academic peer and employer reviews, the percentage of international faculty and students, the student-faculty ratio, and citations per faculty. Table 2 shows the top 20 universities in the world. McGill is ranked number 18, and remains again this year the top public university in North America.

**Table 2: Top 20 Universities - 2009 THE - QS World University Rankings | \* = tie**

Rank	Institution	Academic Peer Review (40%)	Employer Review (10%)	Int'l Staff (5%)	Int'l Students (5%)	Staff per Student (20%)	Citations per Staff (20%)	Overall Score
1	Harvard University	100	100	85	78	98	100	100
2	University of Cambridge	100	100	98	96	100	89	99.6
3	Yale University	100	99	85	77	100	94	99.1
4	University College London	98	99	96	99	100	90	99
5*	Imperial College London	100	100	98	100	100	80	97.8
5*	University of Oxford	100	100	96	97	100	80	97.8
7	University of Chicago	100	99	77	83	97	88	96.8
8	Princeton	100	96	89	81	82	100	96.6
9	Massachusetts Institute of Technology	100	100	31	95	89	100	96.1
10	California Institute of Technology	99	72	100	89	87	100	95.9
11	Columbia University	100	99	28	89	97	92	95.6
12	University of Pennsylvania	96	99	82	60	85	98	94.2
13	Johns Hopkins University	98	79	28	71	100	99	94.1
14	Duke University	95	97	29	62	100	93	92.9
15	Cornell University	100	99	28	73	85	94	92.5
16	Stanford University	100	100	25	96	71	100	92.2
17	Australian National University	100	91	99	92	75	74	90.5
<b>18</b>	<b>McGill University</b>	<b>100</b>	<b>97</b>	<b>67</b>	<b>95</b>	<b>92</b>	<b>61</b>	<b>90.4</b>
19	University of Michigan	99	99	57	52	85	81	89.9
20*	University of Edinburgh	97	99	93	86	84	65	89.3
20*	ETH Zurich (Swiss Federal Institute of Technology)	97	80	100	94	55	99	89.3

**Table 3: THE-QS World Rankings of Canadian Universities, Six-Year Comparison | \* = tie**

Institution	2005	2006	2007	2008	2009
<b>McGill</b>	<b>24</b>	<b>21</b>	<b>12</b>	<b>20</b>	<b>18</b>
Toronto	29	27	45	41	29
UBC	38	50 *	33 *	34 *	40
Alberta	149	133 *	97 *	74	59
Montréal	132	181	93 *	91*	107
Waterloo	159 *	204 *	112 *	129	113
Queen's	261	176	88	117 *	118
McMaster	184	155	108	117 *	143
Calgary		266 *	166 *	170 *	149 *
Western	191	215 *	126 *	159	151 *
Simon Fraser		282 *	139	164	196*
Dalhousie			221 *	197 *	
<b>Total Canadian Schools in Top 200</b>	<b>8</b>	<b>7</b>	<b>11</b>	<b>12</b>	<b>11</b>

**Table 4: Subject Rankings - McGill's World Rank | \* = tie**

Subject	2007	2008	2009
Arts & Humanities	12	13	14
Life Sciences & Biomedicine	10	10	10
Natural Sciences	26	22	26
Social Sciences	12	14*	17
Technology (Engineering/IT)	27	18	20

**Table 5: Subject Rankings - McGill's North American Public Rank**

Subject	2007	2008	2009
Arts & Humanities	3	4	4
Life Sciences & Biomedicine	2	3	2
Natural Sciences	7	5	5
Social Sciences	2	4	5
Technology (Engineering/IT)	7	5	6

**Table 6: Subject Rankings - McGill's Canadian Rank**

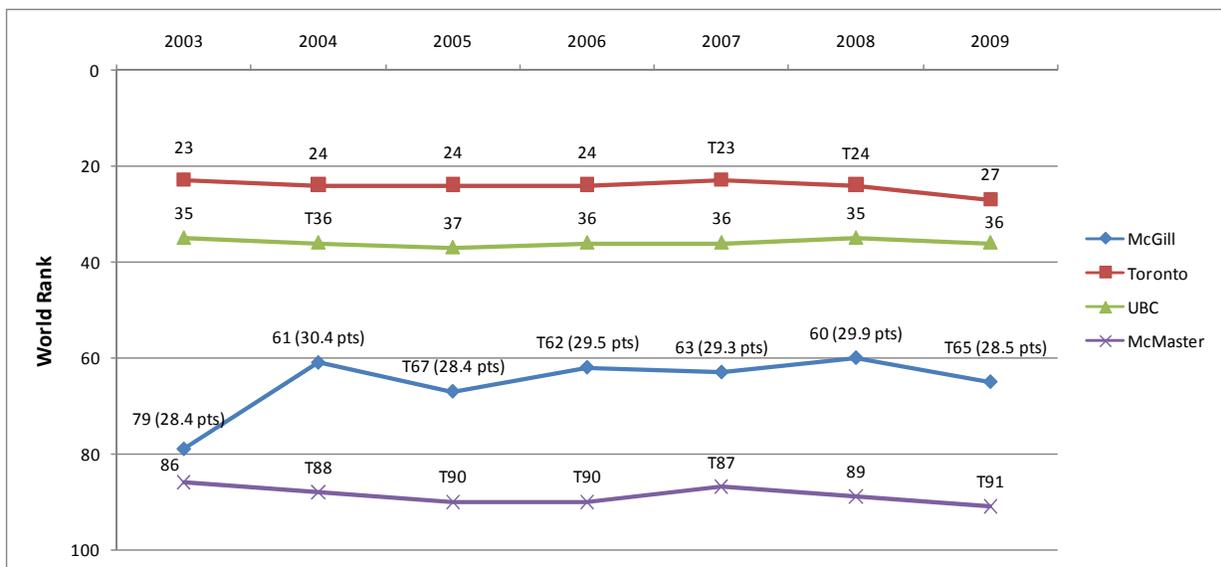
Subject	2007	2008	2009
Arts & Humanities	2	2	2
Life Sciences & Biomedicine	1	1	1
Natural Sciences	2	3	3
Social Sciences	1	2	3
Technology (Engineering/IT)	2	2	3

## 2. The Shanghai Academic Ranking of World Universities (ARWU)

The Shanghai ARWU focuses strongly on research performance, including the number of Nobel Prizes and Fields Medals won by alumni and academic staff and research performance. For Canadian institutions, the ARWU does not adjust for size for certain indicators, thus favouring larger universities. McGill is considered a medium-sized Canadian university.

In 2009, McGill's world rank dropped from 60<sup>th</sup> to 65<sup>th</sup> (tied) but remained 3<sup>rd</sup> in Canada behind Toronto (tied at 27<sup>th</sup>) and UBC (36<sup>th</sup>).

**Figure 6: World ranks of Canadian universities in the Shanghai ARWU Top 100**



## 3. Maclean's magazine Canadian University Ranking

*Maclean's* magazine Canadian University Rankings separates Canadian universities into three broad categories, based on differing missions:

- Medical-doctoral universities
- Comprehensive universities
- Primarily undergraduate universities

In the medical-doctoral category, McGill ranked number 1 again in 2009, despite placing ninth in terms of per-student operating budget.

**Table 7: 2008 and 2009 Maclean's rankings, selected Medical-Doctoral universities**

Category	Medical Doctoral Rank												
	Weight	McGill		Toronto		Queen's		UBC		Alberta		Montreal	
		2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
<b>Overall Ranking</b>	100%	1	1	2*	2	2*	3	4	4	5	5	13	13*
<b>Students &amp; Classes</b>													
Student Awards	10%	1	1	5	5	2	2	3	3	6	6*	11	11
Student/Faculty Ratio	10%	5	5	14	14	12	11	3*	4	10	12	13	13
<b>Faculty</b>													
Awards Per Full-Time Faculty	6%	2	2	3	3	1	1	4	4	5	5	7	8
Social Sciences & Humanities Grants	6%	1	1	4	2	9	9	2	3	6*	7	3	6
Medical/Science Grants	6%	4	3	1	1	3	4	5	6	6	5	7	7
<b>Resources</b>													
Total Research Dollars	6%	5	4	1	1	4	6	9	8	2	2	7	5
Operating Budget	6%	9	9	8	11	1	1	11	10	5	4	14	13
<b>Student Support</b>													
Scholarships & Bursaries (% of Budget)	6.5%	3	3	7	6	2	2	9*	10	6	7	8	12
Student Services (% of Budget)	6.5%	11*	12	7	9	9	11	10	15	15	13	13	14
<b>Library</b>													
Library Expenses	5%	4*	3	1	1	8*	10	13	15	4*	5	8*	8*
Library Acquisitions	5%	10	10*	7	10*	5	4	2	2	12	13	13	15
Library Holdings Per Student	4%	8	8	5	5	1	1	4	4	2	2	15	15
Total Library Holdings	1%	7	7	1	1	4	4	3	3	2	2	9	9
<b>Reputation</b>													
Reputational Survey	22%	1	1	4	3	6	6	3	4	2	2	10	13
Indicates increase in rank													
Indicates decrease in rank													

## D. Challenges Facing the Quebec University System

Since the date of our last report to the Commission Parlementaire, the Government of Quebec and McGill have partnered on major strategic initiatives to benefit the peoples of Quebec. We would like to thank the Government for its substantial financial support in advancing projects such as the new Life Sciences Complex, which opened with the help of a \$41 million funding grant from Quebec, and the future creation of a state-of-the-art research centre as part of the MUHC's new Glen Campus, for which the government has pledged \$100 million. Together, these major complexes are reinforcing the position of Montreal and Quebec as a leading hub of biomedical research.

The Knowledge Infrastructure Program is another example of how McGill and the Government of Quebec are working together to improve our overall economic and social well-being. The Government's contribution has provided badly needed funds to upgrade facilities at McGill in areas of vital importance to both McGill and Quebec, such as chemistry, engineering and medicine. Funding for major "backbone" infrastructure, including updating HVAC and electrical systems, has been difficult to obtain, but without it we would be unable to provide facilities capable of attracting some of the world's best researchers .

We also warmly thank Minister Courchesne and the Government for the decision in 2007 to bring its grant to McGill in line with the government's 2000 university funding policy, thus ending the "McGill adjustment." Under this policy, McGill should have received an immediate \$16 million increase in 2000, but a decision was made to gradually phase the increase in over 15 years.

Real progress has been made on policy initiatives as well. Through minor increases to tuition and the deregulation of tuition for international students in select disciplines, the Government is working to reform an outmoded tuition regime. Allowing individual universities to keep the tuition charged to international students will also give incentives to universities to recruit, thus adding to Quebec's international reach and attracting valuable new talent to our province. In addition, McGill and the Government of Quebec are cooperating on the international stage to an unprecedented degree. For instance, a delegation from McGill accompanied the Government on trade missions to India in both 2006 and 2010.

Despite this major progress over the last three years, challenges remain, both for McGill and Quebec's university system. Here we provide an analysis of these challenges and suggest some solutions. We understand that the Government of Quebec, like jurisdictions across the world, has an ever-expanding range of issues to confront and strategies to implement. At the same time, we know that the Government recognizes the vital importance of internationally competitive universities to preserve our quality of life and social values in the new economy. We put forward this analysis in the hopes that it will help to define our mutual challenges, and offer our full support to the Government to help to further define and implement solutions. The gains of recent years may be

lost if McGill and all Quebec universities do not receive adequate resources to consolidate its position as a leading force for knowledge, research and business in Quebec.

## **D1. Improving university participation and success**

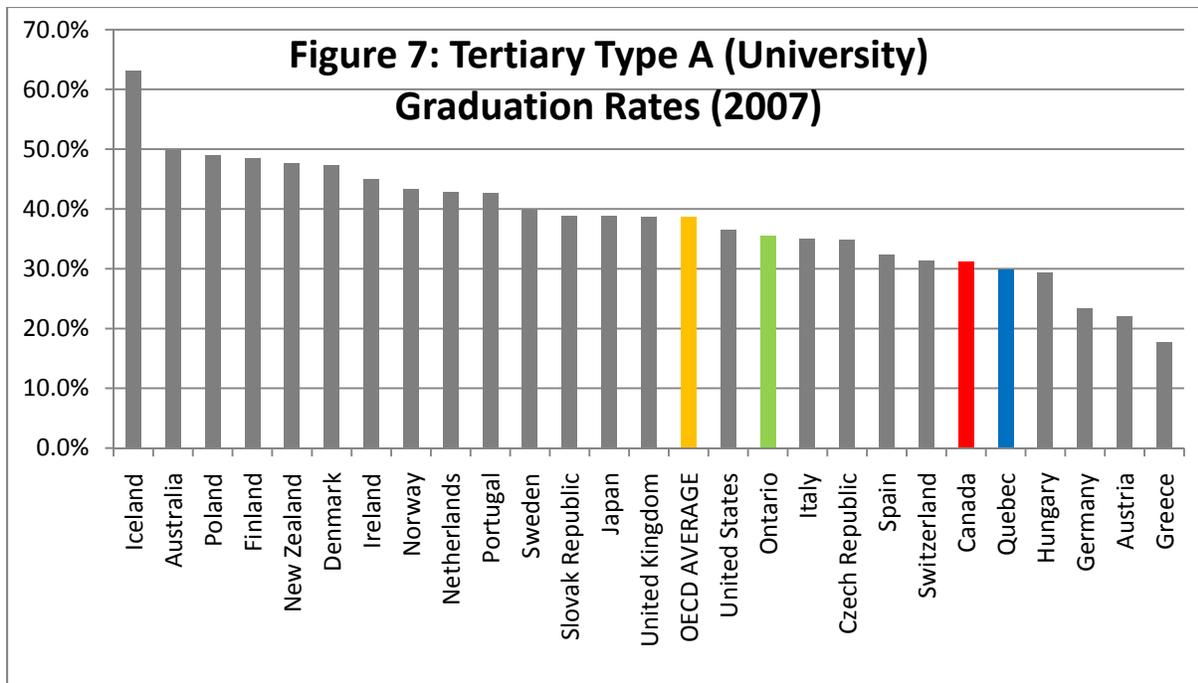
The crucial importance of highly skilled university graduates to a region's economic performance and social wellbeing is thoroughly established. Quebec urgently needs a university system that will rank in performance among the best in the world. Both the preservation of our social values and our future prosperity depend on it. We agree absolutely with Finance Minister Raymond Bachand's statement in his April 1 speech to the Chambre de Commerce du Montréal metropolitan, "La performance des universités est le socle de notre développement à long terme."

To succeed in our globalized world, nations are working to increase the percentage of the population who hold a university degree. In the decades since the Quiet Revolution, Quebec has made significant strides in increasing participation and graduation rates. But other jurisdictions, nationally and internationally, are leaping ahead.

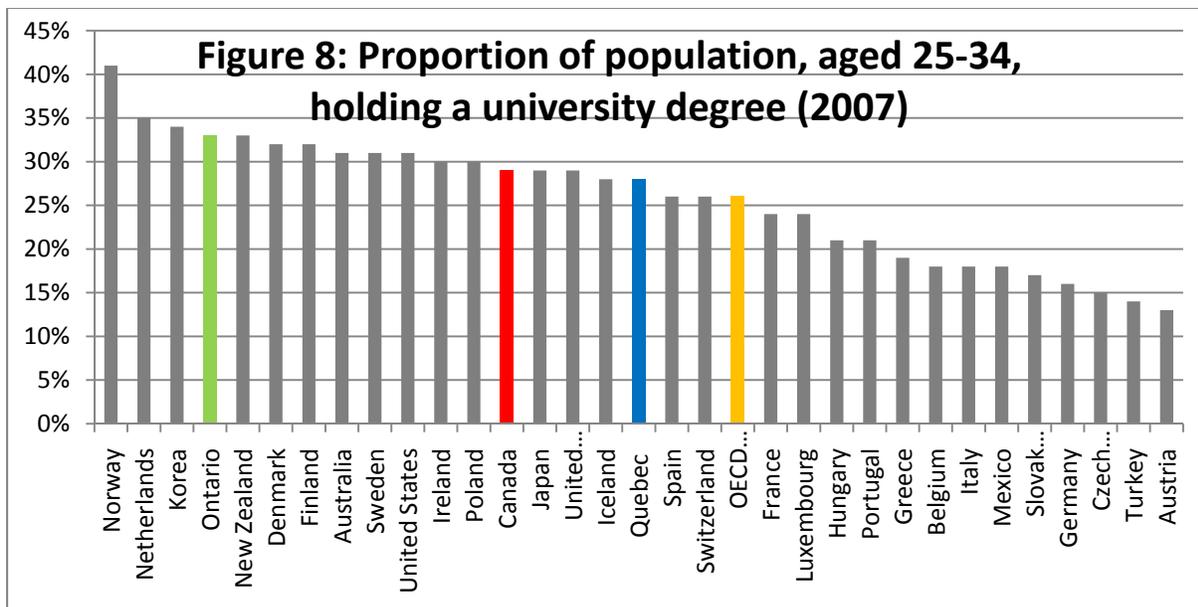
Quebec's graduation rate, while just below the Canadian average, lies near the bottom of the 24 OECD countries reporting data in this area. Quebec places 5<sup>th</sup> last (Figure 7) <sup>1</sup>.

---

<sup>1</sup> The OECD term "tertiary type A" corresponds in Quebec to university-level education, as opposed to tertiary type B programs, which refer to college and CEGEP-level education. For Canada, the graduation rate given is for 2006, unlike the other countries, who reported 2007 data. Source: Statistics Canada, *Education Indicators in Canada: An International Perspective*, 2009.



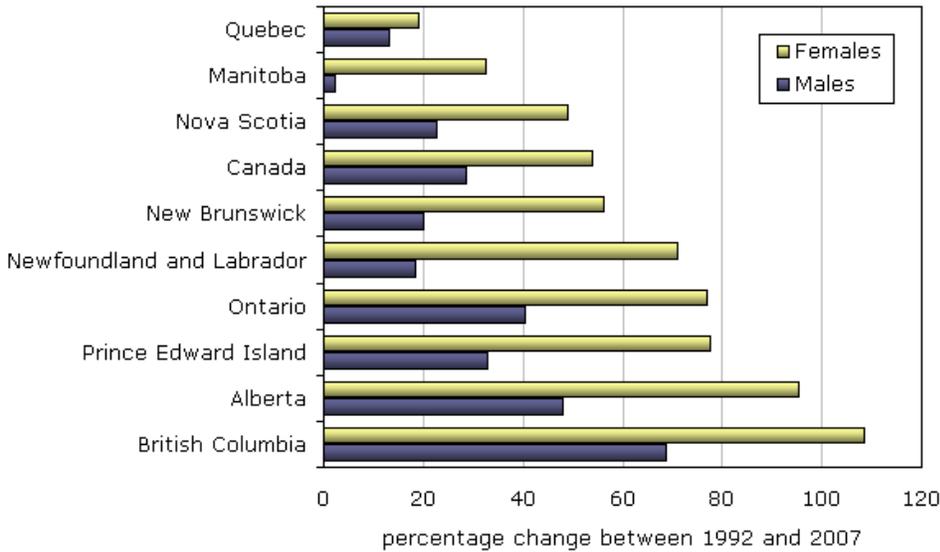
Quebec now sits squarely in the middle of OECD countries and below the Canadian average in the proportion of 25-to-34 year-olds who hold a university degree (figure 8) <sup>2</sup>.



<sup>2</sup> Source: Statistics Canada, *Education Indicators in Canada: An International Perspective*, 2009. Data for Canada and Quebec is for the year 2006.

The percentage increase in Quebec’s numbers of university graduates is also extremely low compared to other provinces. In Figure 9, below, Quebec sits last for females and second-last for males from 1992-2007. This is alarming because, given the low proportion of our population with university degrees, this means that we are not yet on a trajectory to perform effectively.

**Figure 9: Percentage change in the number of university graduates, 1992-2007<sup>3</sup>**



What does this mean? Despite decades of progress, we are not keeping up, nationally or internationally, in terms of training the highly skilled workers needed to support our social values in the new economy. We are in the bottom 20% of OECD countries for graduation rates, in the middle of the pack for young people holding university degrees, and are last or near last in terms of the percentage growth in producing university graduates.

Quebec faces a significant challenge. We must take steps to increase access, build quality and expand services at Quebec universities to help students succeed and to improve graduation rates. Low tuition has been our primary incentive to increase university participation, and thus build a skilled workforce. The facts suggest that while the values reflected in this policy are noble, the mechanism is no longer effective.

<sup>3</sup> Source: Statistics Canada, Trends in University Graduation. <http://www.statcan.gc.ca/pub/81-004-x/2009005/article/11050-eng.htm>

## D2. Underfunding and the urgent need for diversification of the funding base

### D2.1 Quebec Universities: At a Critical Juncture

The Government of Quebec has shown vision and political courage by moving toward tuition reform and other initiatives that will permit universities to diversify their revenue streams. The funding gap between Quebec universities and the Canadian average now stands at more than \$500 million annually. This funding shortfall imperils the province's ability to compete in the knowledge-based industries that define our modern society.

Minister Bachand's recent commitment to a new tuition regime in 2012, though it will generate considerable discussion, is a necessary move. We understand that the government faces unprecedented fiscal challenges. The government alone cannot afford to close the underfunding gap, or to continue to grow the support for student aid and services needed to ensure that quality, accessibility and successful degree completion rates are achieved. In introducing these long awaited measures, it will be essential, of course, to ensure that any new revenue streams for universities are not offset by reductions in existing government support.

The nature of the funding gap can be explained as follows. In the past, Quebec's grants to universities were more generous than grants in other provinces, to compensate for its low tuition. This is no longer the case. As Table 8 shows, below, Quebec now lies somewhere in the middle in terms of its general operating and special purpose/trust grants per student. These general operating funds pay for teaching staff and educational programs, academic support services, library, student services, administration and other general operating services, but exclude sponsored research grants and contracts.<sup>4</sup> When income from the provincial grant and student contributions (tuition/fees) are combined (Figure 9), Quebec has the lowest per-student funding in Canada.

---

<sup>4</sup> In its 2009 Education Indicators, MELS reports that Quebec's per-student total spending is higher than that of Ontario or Atlantic Canada. This includes research spending as well as monies spent to service the interest on debt. The figures presented in this report to the Commission Parlementaire, based on McGill's analysis, show instead the **income** coming into the university system from government and students for the education of students and general operations of universities, rather than **spending** on all types of activities. (Spending also includes income from borrowed funds, and so does not portray as clear a picture of the university system's financial health.) An analysis of the level of operating grants, particularly combined with tuition, is used here to provide an accurate snapshot of core support.

**Table 8: General Operating and Special Purpose & Trust Grants from Provincial Government per FTE**

	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	Rank
SASKATCHEWAN <sup>5</sup>	\$9,705	\$10,685	\$18,854	\$20,727	\$22,356	1
NEWFOUNDLAND AND LABRADOR	\$14,583	\$14,395	\$15,320	\$17,057	\$19,764	2
ALBERTA	\$10,054	\$10,712	\$12,116	\$13,510	\$15,090	3
BRITISH COLUMBIA	\$13,473	\$13,782	\$13,915	\$13,327	\$14,306	4
PRINCE EDWARD ISLAND	\$10,352	\$10,082	\$11,200	\$11,731	\$13,493	5
<b>QUEBEC</b>	<b>\$10,603</b>	<b>\$10,838</b>	<b>\$10,761</b>	<b>\$11,555</b>	<b>\$11,751</b>	<b>6</b>
MANITOBA	\$9,705	\$9,619	\$9,944	\$10,394	\$10,821	7
REST OF CANADA -- AVERAGE	\$8,487	\$8,769	\$9,652	\$10,382	\$10,819	--
NEW BRUNSWICK	\$7,396	\$7,871	\$8,115	\$9,206	\$9,596	8
ONTARIO	\$7,011	\$7,214	\$7,964	\$8,814	\$8,728	9
NOVA SCOTIA	\$6,140	\$6,380	\$6,792	\$7,433	\$8,425	10

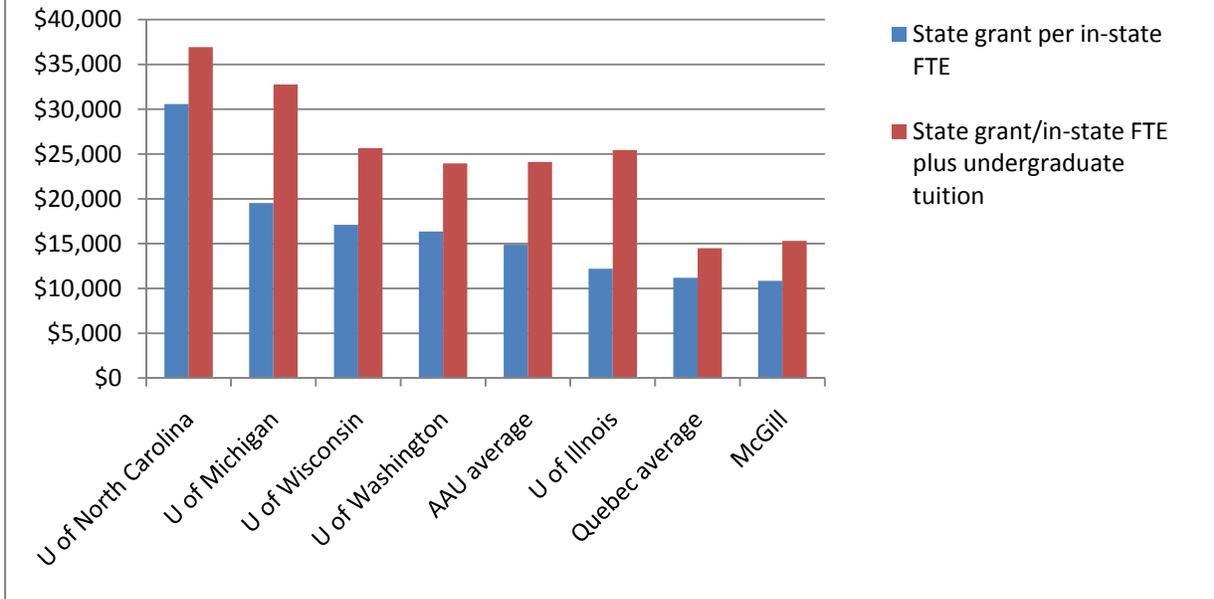
**Table 9: General Operating and Special Purpose & Trust from Provincial Government Students (Tuition and Fees) per FTE**

Province	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	Rank
SASKATCHEWAN	\$14,681	\$16,160	\$27,830	\$29,799	\$31,359	1
NEWFOUNDLAND AND LABRADOR	\$18,923	\$18,645	\$19,619	\$21,388	\$24,322	2
BRITISH COLUMBIA	\$21,583	\$22,734	\$22,319	\$21,953	\$23,060	3
ALBERTA	\$15,699	\$16,445	\$18,124	\$19,610	\$21,301	4
PRINCE EDWARD ISLAND	\$15,897	\$16,015	\$17,637	\$18,324	\$19,993	5
<b>REST OF CANADA -- AVERAGE</b>	<b>\$14,827</b>	<b>\$15,359</b>	<b>\$16,411</b>	<b>\$17,461</b>	<b>\$18,127</b>	-
NOVA SCOTIA	\$12,986	\$13,914	\$14,622	\$15,598	\$16,479	6
NEW BRUNSWICK	\$12,866	\$13,721	\$14,195	\$15,691	\$16,240	7
ONTARIO	\$13,503	\$13,807	\$14,620	\$15,886	\$16,162	8
MANITOBA	\$13,820	\$13,801	\$14,414	\$14,998	\$15,206	9
<b>QUEBEC</b>	<b>\$13,458</b>	<b>\$13,787</b>	<b>\$13,758</b>	<b>\$14,730</b>	<b>\$15,189</b>	<b>10</b>

Figure 10 shows per-student for McGill University and other Quebec universities compared to other North-American public universities found in the THE-QS World University Rankings. Again, the per-student financing in Quebec lags far behind our North-American peers.

<sup>5</sup> FTE figures for Saskatchewan since 2005 do not include the University of Regina, thus inflating the per-student average grant.

**Figure 10: Comparison of state operating funding and tuition (per FTE in-state student) for select U.S. public universities, QC and McGill (2007-08)**



## D2.2 The funding base needs to be diversified

### Tuition Reform

As acknowledged in the recent budget, tuition reform must be a cornerstone of any new funding model for Quebec universities. The current tuition regime, which subsidizes affluent students while underfunding the poor and universities in general, is clearly unsustainable in a Quebec ambitious to educate, compete and thrive in the knowledge economy. Fortunately, the problem is now apparent to the government and policy makers who have responded by proposing initiatives that point the way towards comprehensive reform. An end to the tuition freeze and the introduction of new flexibility in regard to international students are among the most promising of these initiatives.

The undergraduate tuition rate of \$1,968 is the lowest in Canada and has been maintained at that rate to promote a worthy ideal: accessibility to education. Unfortunately, the current tuition policy is not achieving this goal. Studies have shown no correlation between tuition and enrolment, which table 10, below, demonstrates within Canada. Consider that Quebec's university participation rate was only 20% from 2003-04 to 2005-06, a figure that places it near the bottom in the country. In comparison, Nova Scotia, with Canada's highest tuition fees, had the highest enrolment rate at 28%.

**Table 10: Correlation of participation in university education, population 18-24 years, by region, 2003-2004 to 2005-2006 (percent) to average tuition 2003-04 to 2005-06, by province**

Province	University Participation rate	Rank: Participation (highest =1)	Rank: tuition costs (cheapest = 1)	Average tuition (2003-04 to 2004-05)
NL	28%	1*	2	\$2,681
PEI	28%	1*	4	\$4,505
NS	28%	1*	10	\$6,111
NB	26%	5*	6	\$4,868
QC	20%	9	1	\$1,938
ON	27%	4	7	\$4,977
MB	26%	5*	3	\$3,312
SK	24%	7	9	\$5,060
AB	17%	10	8	\$4,993
BC	21%	8	5	\$4,688

Source: HRSDC via StatCan Labour Force Survey

Studies by Claude Montmarquette and other authorities help explain why low tuition has not led to increased accessibility<sup>6</sup>. Their work shows that current tuition policies are actually regressive because they use the taxes of lower-income families to subsidize the education of more affluent families whose children are far more likely to attend university. Studies also reveal that access to university is determined not by tuition rates but by a complex series of factors that include educational background and the role of parents.

Tuition reform, already a pressing issue, is now an urgent priority as universities are less able to depend on cash-strapped governments for support. We applaud the courage of the Government of Quebec for already taking steps to change this. To ensure equity and accessibility are fostered, tuition increases must be accompanied by integrated mechanisms to support low-income students. McGill's policy is, and has been, to set aside 30 per cent of net new tuition increases back into

---

<sup>6</sup> See, for example, Groupe de travail sur la tarification des services publics. *Mieux tarifer pour mieux vivre ensemble*. (Gouvernement du Québec, 2008); Commission on Tuition Fees and Accessibility to Post-secondary Education in Manitoba. *Report to the Minister of Manitoba Advanced Education and Literacy* (2009); Canadian Council on Learning. *Post-secondary Education in Canada: Meeting Our Needs?* (Canadian Council on Learning, 2009). I Marc Frenette. *Why Are Youth from Lower-income Families Less Likely to Attend University? Evidence from Academic Abilities, Parental Influences, and Financial Constraints* (Ottawa: Statistics Canada Analytical Studies Branch Research Paper Series 295, 2007); Canadian Millennium Scholarship Foundation. *The Price of Knowledge: access and student finance in Canada* (Canadian Millennium Scholarship Foundation, 2007).

student aid. A policy of universities and governments, both, earmarking a proportion of tuition increases towards student financial aid will provide a necessary means to improve access and will at the same time strengthen universities' overall fiscal stability and quality.

It is imperative that, on a general basis, tuition increases not be used to diminish the support to universities of the Government of Quebec. The underfunding problem will require contributions from all who benefit from an educated citizenry: students and their families, governments, employers and philanthropy. It is essential we progress with next steps if Quebec universities are to be able to provide both access and excellence to students in the future. Tuition reform will help accomplish both. This is a leadership moment for the Government of Quebec to set the dynamic for success.

### **New Incentives for Philanthropy**

Philanthropy also plays a crucial role in diversifying revenue streams to universities, as has been shown in many modern jurisdictions. Quebec has a modest philanthropy matching but nowhere but not anywhere as ambitious as we see in other jurisdictions. Quebec has the lowest per-capita donations of any province in Canada, and new government incentives to encourage giving are vital to promoting a new culture of philanthropy in the province, benefitting all Québec universities and hospitals. Many other jurisdictions including Ontario are using this strategy successfully. The Ontario government has had several matching philanthropic programs targeted to student support with great success for every region, especially those small regional universities which could otherwise have never built an endowment. The UK government recently launched a £200 million (CDN \$300 million) matching fund program, running from 2008-2011, to increase donations to the higher education sector.

### **B2.3 Effects of underfunding**

In recent years, the government has strategically diversified our economy into knowledge sectors – a very wise move, considering Quebec's more nimble recovery from the global financial crisis compared to regions like Ontario reliant on old-economy manufacturing. The demands of a globalized and increasingly competitive world as well as Quebec's unique demographics now call for a Quebec university system with exceptional performance, rather than decent value for the money. If we can build a North American and world-wide reputation as an innovative and economically viable jurisdiction as well as one that is replete with creativity and cultural and life-style amenities, we could truly realize our destiny as one of the most successful jurisdictions in the world.

We continue to face challenges. Our GDP remains among the lowest in North America, for example. Given our current level of debt, we will not be able to support our generous social programs as well

as generate the economic performance that we need without an outstanding university system? Our universities be able to recruit and retain the top talent we need to be competitive. Salaries for professors in Quebec remain lower, on average, than in the rest of Canada. In addition, the average funding provided to graduate students at Quebec's three most research-intensive universities (McGill, Université de Montréal and Université Laval) lags behind Canada's other top universities. Outstanding prospective students and professors are showing with their feet that compensation levels and the reputation of an institution are key in deciding where they will vest their futures.

Where once, in our modern history, Quebec was a Canadian powerhouse in research, this status, too, is vulnerable. The underfunding of Quebec's universities is poised to have significant negative effects on research performance and our ability to maintain safe facilities appropriate for 21<sup>st</sup>-century research and teaching, as explained below.

### **Decline in Funding = Decline in Research Performance at Quebec Universities**

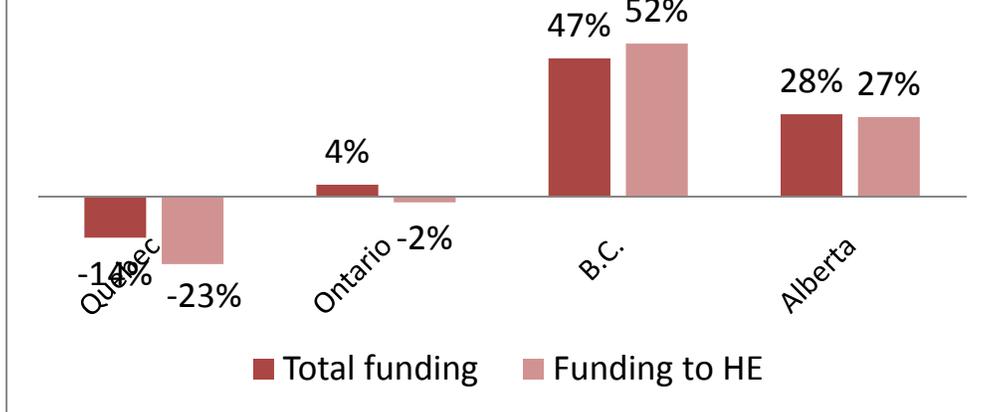
Today, Quebec is beginning to slip in attracting competitive research dollars as Ontario and other jurisdictions make major strategic investments in their own research institutions. Not only does this reduce the actual provincial funding available to researchers in Quebec, it also reduces the ability to leverage federal and other funding to bring into Quebec.

Overall, Québec universities are seeing a steady decline in the research dollars they attract and their performance in peer-reviewed competitions. This situation has produced an overall decline in R&D. In 2002 and 2003, the Québec government led Canadian provinces in gross investments in R&D. Since 2003, the trend has dramatically reversed. Compared to the baseline year of 2003, Québec funding for all R&D had decreased by 14% in 2007, while funding in Ontario, Alberta and British Columbia had increased by 4%, 28% and 47% respectively. Ontario, Alberta and British Columbia have now overtaken Quebec in gross R&D investments.

The picture for higher education is even more dire as a result of decreased funding in both overall R&D funding and the portion of it allocated to higher education. This means R&D funding for higher education in Quebec has dropped by a total of 23% in 2007 as compared to 2003. During this time, provincial investments in R&D actually grew by 27% in Alberta and 52% in BC.

Figure 11 depicts the slide in Quebec's R&D funding.

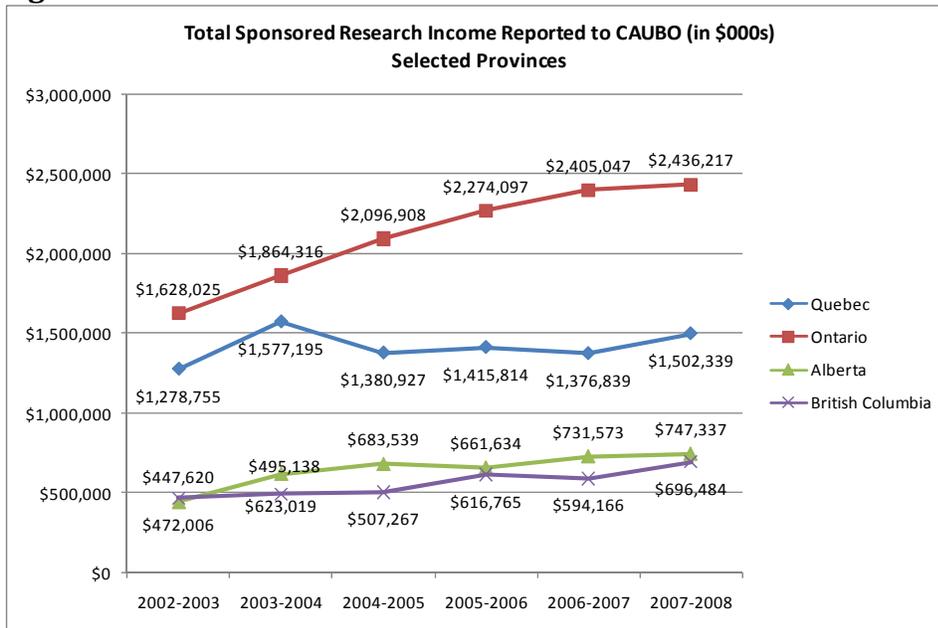
**Figure 11: Change in total R&D funding and R&D funding to Higher Education between 2003 and 2007**



(Source: McGill University based on Stats Can data)

This decline in investment means Quebec universities cannot compete when trying to obtain matching investment dollars from the federal government and other sources. There has already been a decline in sponsored research income at Quebec universities. Simply put, Québec is not taking advantage of all the Federal research dollars available to us, as other jurisdictions in Canada and other modern federated regions such as the U.S. are doing. Figure 12, below, demonstrates that research income at universities in Quebec’s competitor jurisdictions is rising steadily, while research income at Quebec’s universities has stagnated. Ontario, in particular, continues to make substantial investments in university research.

**Figure 12**



Source: McGill University based on data reported by universities to the Canadian Association of University Business Offices (CAUBO)

If we are to be innovative in ways that count in the 21 century, it is imperative for Quebec to support world-class research and its performing research institutions.

### **Big steps forward on deferred maintenance; big challenges remain**

We are enormously grateful to the Government of Quebec for its significant investments to improve our huge deferred maintenance problem through initiatives like the Plan quebecois des infrastructure and the Knowledge Infrastructure Program. These initiatives have allowed McGill to begin making important enhancements on a wide variety of facilities.. Such improvements are extremely significant but they are for now just a beginning. McGill remains confronted by a list of urgent safety and capacity issues related to its infrastructure. Ongoing support is essential to ensure safe and productive research and teaching facilities in the next decade.

McGill’s large number of historic facilities present a unique challenge. They are expensive to maintain and, as such, require a level of funding that goes beyond the norm for institutions with modern facilities. As a result of this funding shortfall, McGill has repeatedly had to defer essential maintenance. In March 2009, our entretien différé accumulé (EDA) was estimated at \$622M for MELS-funded buildings alone, fully 39% of the total EDA for Quebec universities.

Despite the very substantial federal and provincial investment, the situation for many buildings is still near crisis level. Damaged or closed facilities impede teaching and research. At the same time,

the decayed physical structure of the campus threatens our historic properties and the safety of students, staff and visitors. This is confirmed by industry norms such as the Indice de l'état des installations (IEI) used by la Ville de Montreal and Travaux Publics Canada. McGill's *average* IEI is 30%, three times the "critical" threshold of 10%. Many of its individual buildings far exceed this, with IEI's of 45%, 54% or even 67%. To reduce our IEI to an acceptable level of 5% over 15 years, we conservatively estimate that an investment of \$90 million per year in Years 1 to 3 is required to address the most pressing infrastructure problems, and an additional \$60 million in Years 4 to 15 is required to gradually reduce the deferred maintenance inventory to an acceptable level. The creation of a special grant, equivalent to that of the other similar research-intensive universities and the retention of student fees would allow us to address this significant problem.

The problem will not be solved unless annual capital funding is increased to prevent the ongoing accumulation of deferred maintenance or other significant resources are available. For example, it is widely accepted that, at minimum, 1.5% of the replacement value of property should be invested each year on infrastructure for major maintenance repairs and capital renewal. This translates into a need to invest approximately \$32 million per year in capital funding (in today's dollars) at McGill to prevent further deferred maintenance accumulation, which is \$17 million more than the current capital funding available.

### **D3. Governance, accountability and university performance**

In the 2010 budget, the Government of Quebec announced its intension to review "la performance et l'efficience du réseau d'enseignement universitaire en matière d'enseignement, de recherche et de gestion." Speaking to the Chambre de Commerce de Montreal on April 1, Minister Bachand elaborated "Nous fixerons avec elles [nos universités] des objectifs de performance et de productivité" in order to build a university system rivaling the best in the world. We applaud the Government's desire to optimize university performance to benefit Quebecers, now and in the future.

Determining the best relationship between government and universities in order to foster performance is about creating a delicate balance. On the one hand, government must ensure public funds are spent effectively and transparently. On the other hand, the best university systems in the world are clearly autonomous, and countries like France are rushing to make all universities more autonomous to boost performance in the knowledge economy. Achieving accountability, autonomy and, by extension, the maximum benefit to Quebec, is possible, but requires the right mechanisms.

Ever since the UQAM episode, government has been intruding into the management and governance of the Québec university system through new regulations and legislation. It is, no doubt, a well-intentioned attempt to ensure accountability, performance and effective use of resources – goals we entirely support. But evidence shows that the mechanisms the government is using –

attempting to micromanage the affairs of universities through legislation such as Bills 38 and 100, as well as a series of new rules and regulations -- will not achieve the desired outcome.

As Ben Jongbloed from the Center for Higher Education Policy Studies points out, the “growing complexity of our society” makes it “impossible for government to monitor and centrally steer the activities of managers and students in higher education institutions.” Many countries in the European Union, including France and Germany, have realized that government micromanagement hurts performance, as it does not allow institutions to develop the culture of entrepreneurship, independence and accountability needed in the 21<sup>st</sup> century.

More centralized management of universities also threatens the greatest educational legacies of the Quiet Revolution: the wonderful diversity of Quebec’s university system. Québec universities vary greatly in terms of their missions, the societal roles they play, their traditions, history, the make-up of their student bodies, human resource approaches and revenue sources. In the push to modernize higher education across Europe, the European Commission strongly emphasizes the need to avoid homogeneity:

Europe needs universities **able to build on their own strengths and differentiate their activities on the basis of these strengths.** While all institutions share certain common values and tasks, not all need the same balance between education and research, the same approach to research and research training, or the same mix of services and academic disciplines.

By definition, blunt instruments like legislation, which apply the same mechanisms to all institutions regardless of their individual identity, create cookie-cutter systems that are not respectful of the specificity of each institution or effective in achieving the targeted goals. Despite its worthy and legitimate aspirations, the proposed rules may create a swamp of paperwork that will produce bureaucracy rather than accountability. This threatens to introduce new expenses and a culture of micro-management at both universities and within the government. No one gains when uniform procedures are imposed without regard to the very real differences on the ground.

Now is the perfect moment to develop a relationship between universities and the government founded on performance and objectives, as Minister Bachand has called for, and not enmeshed in rules and regulations. Government plays its role best by establishing a policy framework rather than focusing on procedures and inputs. As is underlined by the Australian Labour Party “...focus on the quality of educational outcomes, rather than interfering in the internal management of universities with excessive controls on inputs and processes.”

Performance-based funding, of which ententes de partenariat are one variety, links financial resources to the achievement of defined strategic goals, such as increasing accessibility to university or fostering world-class research in areas of key importance to Quebec. In effect, it gives incentives for institutions to focus on more on outputs and less on inputs..

Individual ententes de partenariat between each university and the government would include:

- developing a limited number of clear performance-based indicators that take into account the expectations for all Québec universities, appropriate indicators for universities with similar missions [e.g. research-based, regional, etc.], and individual, mission-specific goals particular to a university's particular strengths and societal role.
- transitioning to performance-based funding for certain aspects of the funding agreement between universities and the government
- achieving consensus on clear mutually agreeable expectations regarding the governance, financial management and reporting requirements of universities

The World Bank states that “...tying the distribution of funds to institutions or students to performance measures can make a real difference in the ability of tertiary systems to achieve the goals of improved equity, quality, and efficiency.” At least twelve EU countries and some U.S. states link some funding to ententes de partenariat.

We urge the government to adopt an approach that is focused on achieving goals and objectives rather than initiatives that are focused on rules, procedures and inputs.

Addressing these challenges will not be an easy task, but the stakes are high. To quote Minister Bachand's April 1 speech to the Chambre de commerce du Montréal métropolitain, « Nos universités doivent pouvoir rivaliser avec les meilleures au monde. C'est ce que nous leur demanderons. » Again, we offer the Government of Quebec our full support and expertise to assist in the development and implementation of solutions.

## **E. Conclusion**

McGill is undergoing a period of profound innovation and renewal. Guided by ambitious long range plans like the Principal's Task Force on Student Life and Learning and our 2006 Strategic Academic Plan, the University is putting in place measures to ensure it remains an international beacon of excellence to improve Quebec's performance in the knowledge society and advance its profile on the world stage. The measures we are undertaking touch on everything from student resources to renewal of the professoriate to modernizing the physical structure of the campus.

As described in this report, the Government of Quebec has been McGill's most important partner throughout this process. Working together, it has been possible to combine the funding support from the government with McGill's prowess as internationally renowned research institution in order to better all of Quebec society. The benefits of this partnership are not abstract. They touch directly on the health and prosperity of Quebecers in the form of research, health care and the

training of graduate students, as well as through attracting skilled personnel to our centres of academic excellence.

Quebec is now competing with other jurisdictions in a “knowledge economy”. McGill is currently training the students who will participate in it and lead it. The ideal relationship between universities and government are symbiotic ones. Universities can be powerful tools in advancing a jurisdiction’s social, cultural and economic aspirations. Governments can provide universities with some of the tools to fully realize their potential. When this relationship works well the combination is unbeatable. That is our hope as we know it is yours.

We thank you for allowing us the opportunity to provide to you this update on our progress and our plans. We hope that this report will be useful in your deliberations.

## Appendix I: Key Performance Indicators

As part of the strategic planning process, the executive team, under the leadership of the Principal, identified 12 KPIs grouped into six themes:

- **Students**
  - Undergraduate and professional students
  - Graduate students and postdoctoral fellows
- **Talent**
  - Academic staff
  - Administrative and support staff
- **Research and Innovation**
  - Research performance and strategic partnerships
  - McGill Academic Health Network
- **Resources**
  - Financial management
  - Physical infrastructure
- **International Profile**
  - Internationalization of students and research
- **Service and Reputation**
  - Outreach
  - Alumni relations
  - Development

These KPIs will be the core of a 'Performance Report' that will serve as both an internal management, as well as a public accountability tool. McGill will also use KPIs to report to internal governing bodies, such as the Board of Governors and Senate.

## F. Appendix II: Guiding Principles of McGill's Master Plan

After an extensive consultation process and public forums with the McGill and greater Montreal communities, the University has adopted a document stating McGill's Planning and Design Principles of the Master Plan (see [Physical Master Plan Principles Report](http://www.mcgill.ca/files/masterplan/McGillPrinciplesReport.pdf), found at <http://www.mcgill.ca/files/masterplan/McGillPrinciplesReport.pdf>). This document was adopted by McGill's Senate and Board of Governors in the spring of 2008.

In support of our mission, McGill's development will be guided by 47 planning principles and 90 planning objectives organized under the following thematic areas:

1. Facilitate a dynamic intellectual community through interdisciplinary collaboration across all fields of study and research.
2. In concert with the Academic Plan, growth will be accommodated in strategic areas.
3. Reinforce the special and identifying qualities of each campus.
4. Invest in facilities which support excellence in research, teaching and learning, and which foster the close relationship between these activities.
5. Support a rich academic experience through investment in student, administrative and support services.
6. Conserve and build upon the strengths of the University's existing built heritage.
7. Support the achievement of excellence through the provision of appropriate facilities and infrastructure.
8. Improve the access both to and within the campuses.
9. Develop and maintain the landscape open spaces of the campuses:
  - to reveal and strengthen the special and identifying qualities of the University's places;
  - to tie together the various parts of the campuses, both physically and thematically;
  - to provide safer, more useable and more beautiful campus spaces; and
  - to follow exemplary standards of environmental sustainability at the stage of implementation and in the continued operations and management.

## **Appendix III: McGill's Sustainability Policy (approved by Senate in April 2010 and the Board of Governors in May 2010)**

McGill University aspires to achieve the highest possible standards of sustainability on its campuses and in its day-to-day activities through its academic practices, in its facilities and their operations, and by its outreach to the broader community. We strive to be a leader in research and education, creating and communicating the knowledge required for humans to live sustainably at the local, regional and global scales. We will meet or exceed in our operations governmental standards of sustainability for educational institutions and the norms of sustainability achieved by our comparator universities. Our goal is to become an institutional model of sustainability for society as we pursue our academic mission and play a positive and proactive role in communicating the rationale and need to develop and implement sustainable practices in the broader community.

To this end, McGill University will:

- Undertake the activities and operations of the University in a manner that strikes an appropriate balance between the needs and aspirations of current and future generations of the McGill and broader communities;
- Foster inquiry into sustainability through teaching, research and the university experience;
- Share knowledge to stimulate innovation, raise awareness and ensure effective participation of the McGill community in the implementation of sustainable practices;
- Encourage economic efficiencies in the University's operations that are consistent with social equity and respect for the environment;
- Promote a healthy, safe and productive work and learning environment for the McGill community;
- Advance individual and collective efforts and accountabilities throughout the McGill community to make sustainability a priority in the life of the University;
- Identify and conserve the cultural and natural heritage of McGill University, including properties, buildings, landscapes, traditions and knowledge, taking their intrinsic rarity and fragility into account; and
- Minimize the use and consumption of energy and material resources in recognition of the finite capacity of the biosphere to accommodate human activities.

Among other initiatives undertaken in support of this Policy, the University will:

- Consider activities carried out by or on behalf of the University in light of their life cycle, including their economic, environmental and social footprints;
- Establish sustainability indicators to enable accountability, to communicate specific goals, and to monitor and report on progress;

- Prepare and regularly update a sustainability plan with specific goals and objectives; and
- Report annually on progress to the McGill community.