

**State of the Academy 2010**  
September, 2010  
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Provost and Vice-President Academic

It has become a tradition to review the state of McMaster University's core teaching and research missions at the start of each new academic year. This document is a snapshot of McMaster University at the end of the 2009/2010 year.

*Defining Events*

The 2009/2010 academic year will be remembered for being the last year with Peter George as President and Vice Chancellor. A new President was named in October and plans set in place to celebrate the accomplishments of President George and help President Deane transition into the role. At the invitation of student groups, President George gave two "last lectures" and was feted at a Tribute Celebration: Peter George on March 23. President George's lasting impact is visible throughout campus in buildings such as MUSC, in the growth of our community, in our strong student/administration relationships and in the quality of our programs.

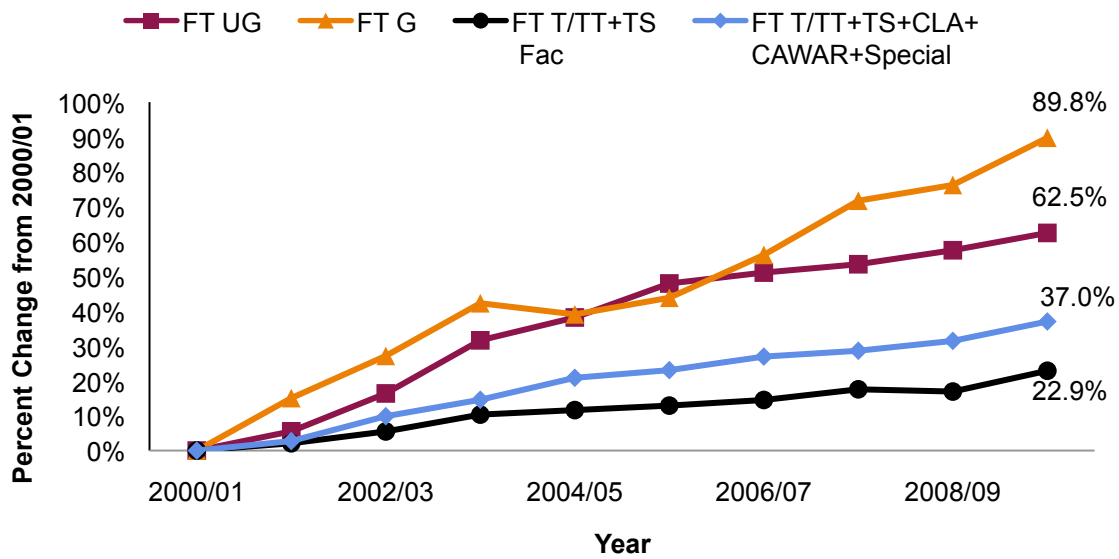
Academic year 2009/2010 also will be remembered for the conclusion to Inspiring Innovation: The Campaign for McMaster University. With a goal of \$400 million, the campaign raised over \$474 million dollars in support of university programs, research, faculty, students, and buildings. We also surpassed our goal of \$50 million in future gifts with a total of \$63.4 million in future gifts confirmed on the books. During challenging economic times we were delighted that the university had more than 36,000 donors to this campaign; 35 new endowed chairs (bringing our total to 82); and more than 19,478 donors to student awards. These results would not have been possible without the efforts of key volunteer leaders.

The past year will be recalled as well as extremely challenging in terms of financial matters. The President's Advisory Committee on the Impact of the Current Economic Situation (PACICES), chaired by Board member Dave Lazzarato, presented its recommendations including several which were adopted or implemented over the course of the year. In addition, to address the current economic situation on a provincial level, the Government of Ontario enacted the Public Sector Compensation Restraint to Protect Public Services Act, which limits compensation increases for many employees in the broader public sector.

While it is now a distant memory, academic year 2009/2010 brought the H1N1 virus to our campus. This experience allowed us to streamline our methods of handling student absences and other processes related to significant illness outbreaks.

## Campus Profile

In November, 2009 the Office of Institutional Research and Analysis produced the first complete Fact Book for McMaster University. The Fact Book presents information about the McMaster University demographics for the 2008/2009 academic year and is available at <http://www.mcmaster.ca/avpira/factbook.html>. It is intentionally constructed so that tables can be downloaded to spreadsheets. An updated Fact Book for 2009/2010 will be available in November, 2010. It will include much of the data presented here.



**Figure 1: Campus growth since the 2000/2001 academic year**

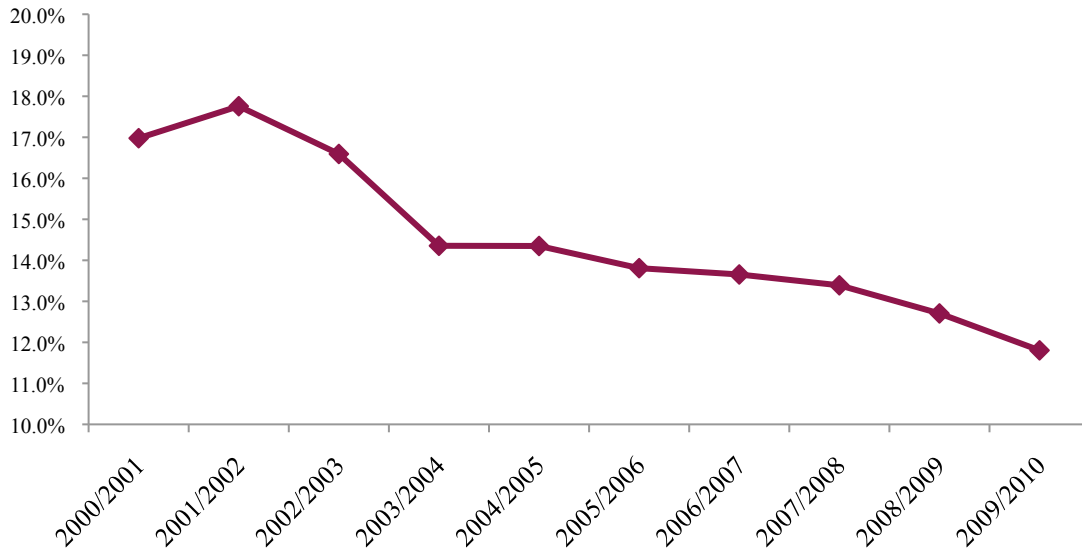
Note: Mohawk/Conestoga Nursing, Interns & Residents are excluded in FT UG

Figure 1 shows the growth of our campus academic community over the last ten years, normalized to the 2000/2001 academic year. The data for full time undergraduate students (FT UG), full time graduate students (FT G), full time tenured, tenure-track and teaching stream faculty (FT T/TT + TS Fac) and all faculty are compiled in a consistent manner with that presented for the last few years. Projections are not provided this year as there is such great uncertainty without an announced new provincial funding strategy.

### Undergraduate Students

McMaster University's undergraduate student body has grown every year since 2000, starting with a rapid climb in the double cohort years. The rise has continued in spite of controls put on first year admissions over the last three years, but this is largely because of the natural flow of students as they progress to graduation. Our official enrolment figures as of Nov 1, 2009 were 21,173 full time undergraduate students, 2834

part time undergraduate students, and 3025 full time graduate students. In the time period shown in Fig. 1, the ratio of full time undergraduates to full time faculty (excluding Sessionals) has risen from 12.4 to 14.7. International students now make up 5% of the full time undergraduates and part time students are 12% of the undergraduate community. Part time students have decreased significantly as a fraction of our student body during the past 10 years, as shown in Figure 2. This is an issue we must study over the next year to allow us to take action as necessary. Women continue to make up more than half of our population.

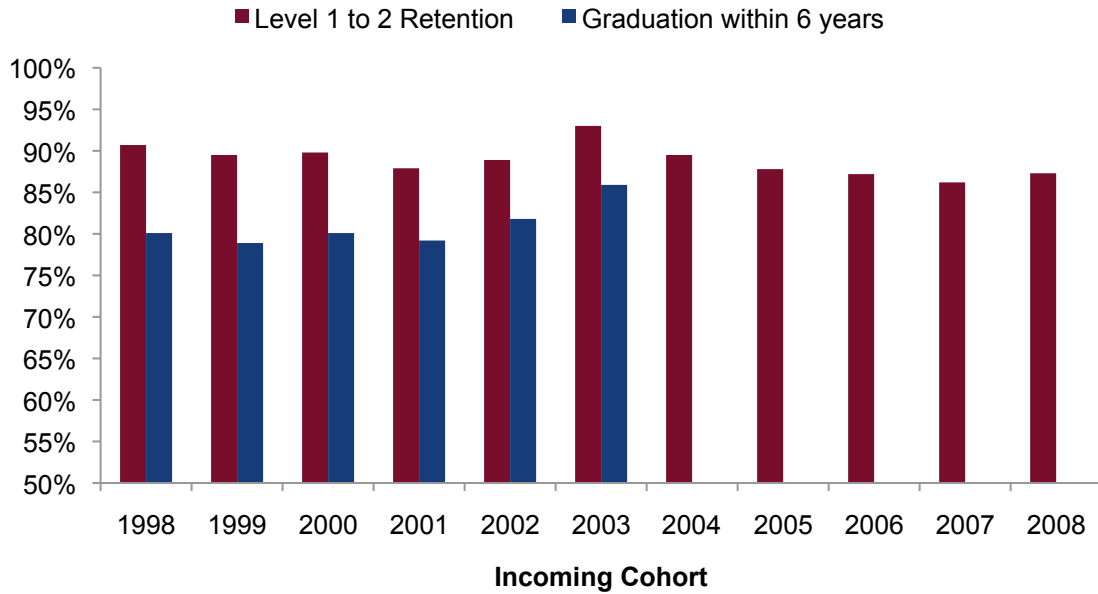


**Figure 2: Proportion of part-time students in the undergraduate community**

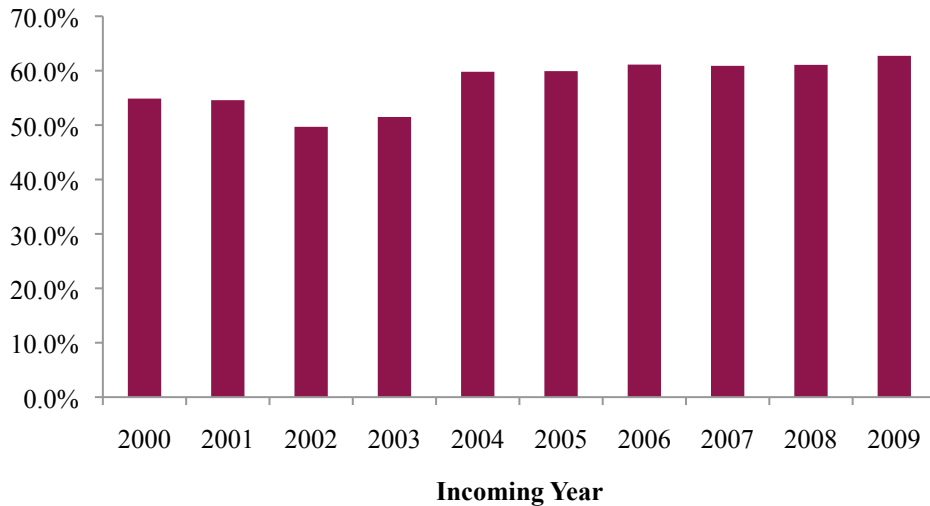
Note: as of November 1 of each year and as reported to MTCU

Compared to the average of the G13 universities, McMaster graduates more undergraduate students within 6 years (78% for G13 and 86% for McMaster, based on the 2003 cohort). This trend has held for the 6 most recent consecutive years. However, McMaster falls slightly behind our G13 peers on our retention of students between level 1 and level 2 (87% retention for McMaster and 89% average G13 retention). The retention statistic is based on the cohort of students who entered McMaster in 2008; if we go back in time to the entering year of 1998, as shown in Figure 3, we see that our retention rate between level 1 and 2 was 91%. This change warrants further study and understanding to determine if it is part of a larger trend in Canada or a symptom of an underlying problem at McMaster.

Demand for our undergraduate programs continues to attract high quality students who choose to come to McMaster, with 63% of incoming students listing McMaster as their first choice in 2009, a 2% increase from 2008 (Figure 4). Of the incoming students from Ontario high schools in the fall of 2009, 21% had admission averages at or over 90%. These high school students are mostly from the Greater Toronto and Hamilton Area school boards (68%). A small decrease of the proportion of Ontario high school students from Hamilton-Wentworth school boards from 22% in 2000 to 19% in 2009 was observed.



**Figure 3: Undergraduate retention and graduation rates**  
Data Source: CSRDE



**Figure 4: Proportion of incoming students with McMaster as first choice**  
Data Source: 2000 to 2008 from OUAC; 2009 from internal.  
Note: both 101 and 105 registrants are included.

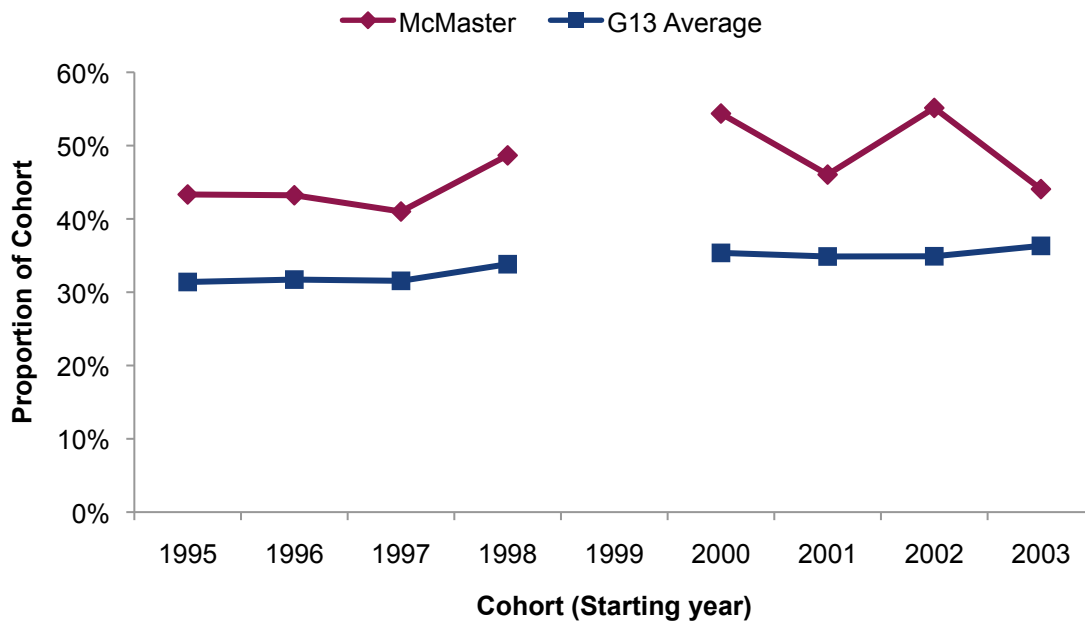
### Graduate Students

The fastest growing segment of our campus continues to be the graduate students. This is largely due to an alignment of provincial and McMaster University goals to grow this population. We are on track to achieve the target graduate student growth allocated by MTCU and have modified internal budget allocations to ensure adequate support for new students. We enrolled over 1275 new students, an increase of 14.7% over last year.

Our official enrolment figures as of Nov 1, 2009 were 3,025 full time graduate students, and 671 part-time graduate students in more than 100 graduate programs. Although the final numbers will not be available until November, we saw considerable increases in the domestic and international application and admission and registration rates in 2010, suggesting healthy growth continuing in the coming year.

This growth in our graduate programs has meant that, in spite of the significant growth at the undergraduate level, the ratio of full time graduate students to full time undergraduate students has risen from 13.45% in 2000/2001 to 15.72% in 2009/2010. In that same time, the ratio of full time graduate students to tenured, tenure-track and teaching stream faculty has risen from about 2.5 to roughly 4.

Our doctoral programs continue to perform well in terms of graduating our PhD students (Figure 5); there were over 200 PhD defenses this past year, an increase of almost 8% over last year. McMaster remains above the G13 average for the five-year graduate rate, although this measure decreased for the 2003 cohort from the previous cohort (44% vs 55%). About 34% of the doctoral students were still registered after 5 years for the 2003 cohort, a 10% increase from the 2002 cohort.



**Figure 5: Percentage of Doctoral students graduating within 5 years of starting**

Note: Data is from G13 data exchange. 1999 cohort data not available.

The continued high quality of our graduate students is seen in their ability to attract competitive scholarship funding. Over the past year the School of Graduate Studies has overseen more than 1655 graduate scholarship applications, netting over \$12 million in external scholarship funding. This is in addition to allocating approximately \$10 million in internal scholarship funding to graduate programs and almost \$15 million in internal competitive awards derived from endowed funds. Of notable interest,

McMaster students received 8 of the inaugural Vanier Canada Graduate Scholarships – nearly 5% of the awards nationwide, the second highest number awarded to a university in Ontario.

The past year saw a new emphasis on graduate student life and research training, including the creation within the School of Graduate Studies (SGS) of an Assistant Dean, Graduate Student Life and Research Training and the Office of Postdoctoral Affairs and Research Training (OPART). SGS partnered with the Graduate Students Association to provide awards celebrating graduate student excellence, and to run the first ever University-wide graduate student welcome event. SGS also partnered with MITACS and with Theatre Aquarius to provide numerous professional development programs for graduate students and postdoctoral fellows, complementing the discipline specific training students and PDFs receive in their home departments. OPART also oversaw events in support of undergraduate research.

### Faculty

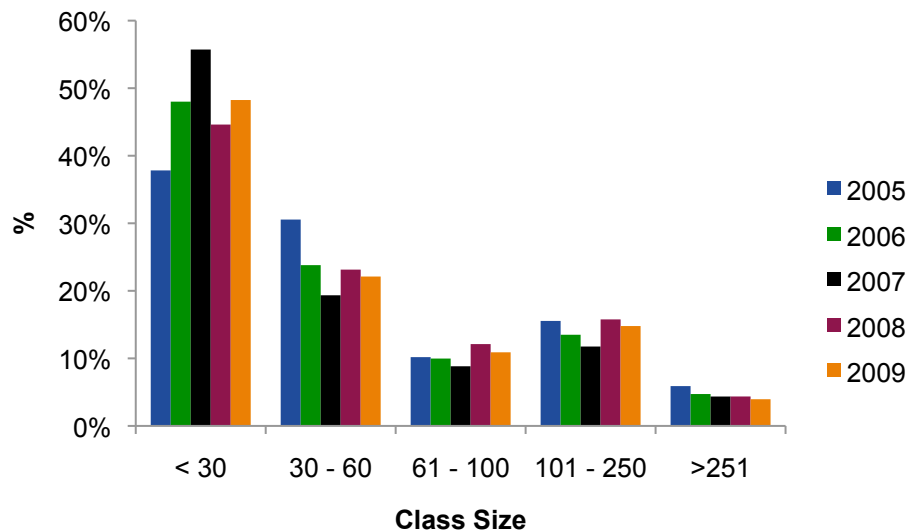
The McMaster University faculty cohort has grown appreciably over the past ten years. On October 1 of 2009, McMaster had 1,306 full-time faculty members, including tenured and tenure-track, teaching stream, contract-limited appointments (CLAs), continuing appointments without academic review (CAWAR), and Special appointments. This shows a growth in headcount of 37% from 2000 and an increase of 4% from October 1, 2008.

New full time hires who have joined McMaster in the 2010/2011 academic year as of August 15, 2010 include 18 tenured and tenure-track faculty, 8 teaching stream faculty, 11 CLAs, 23 Special Appointments and 2 CAWAR in Health Sciences. These appointments are listed in Appendix A. As of June 30, 2010, retirements and resignations from our core faculty complement (tenured, tenure-track, teaching stream, special, and CAWAR; does not include CLA) number 36, so the hiring of the past year increases the core faculty by 15. This increase is significant given that it happens in an atmosphere of increasingly difficult financial support. It was achieved through the extremely hard work of Deans, who have either established new sources of revenue for their Faculty or have introduced cost saving measures, including, reducing their reliance on Sessional faculty instructors consistent with the faculty renewal plan first introduced in the 2008.

During the 2009/2010 academic year 45 faculty members were promoted to Associate Professor with tenure or CAWAR and 26 promoted to Professor. In addition, tenure, permanence, or CAWAR was awarded to 16 Associate Professors. A list of our newly promoted faculty can be found in Appendix A.

Due to budgetary constraints, a number of our peers have restricted or eliminated small classes. By contrast, as shown in Figure 6, last year the percentage of undergraduate classes with 30 or fewer students accounted for nearly half of all of our classes (48%). There is also a steady trend of decreasing large classes with over 250 students. The McMaster Campus Capacity Study showed that our class size is a good

match to our classroom capacities. However, further research is needed to explore the optimized class size for available teaching resources under budgeting constraint.



**Figure 6: Distribution of Undergraduate Class size from 2005 to 2009**

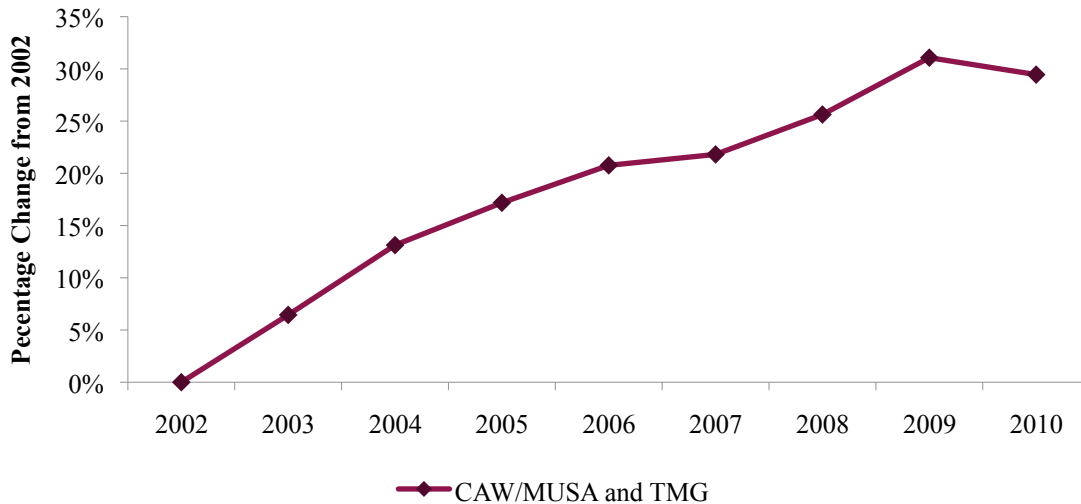
Note: based on CUDO methodology; Intro Psych class excluded from 2007 to 2009 due to its form of delivery; 2008 and 2009 data are preliminary.

## Staff

Table 1 provides the staff headcount by employee classification as of July 2010, while Figure 7 shows the cumulative change in the CAW and TMG groups from 2002.

Employee Group	Count
Clinical Scholars, Research Associates (Academic) and Postdoctoral Fellows	316
McMaster University Staff (CAW Local 555, Unit 1)	2,170
Parking and Transit (CAW Local 555, Unit 2)	17
Operations and Maintenance (SEIU Local 2)	235
Machinists (SEIU Local 2)	2
Hospitality Services (SEIU Local 2)	124
Operating Engineers (IUOE)	11
Security (CAW Local 555, Unit 4)	17
The Management Group (TMG)	542
Sessional Lecturers (CUPE Local 3906, Unit 2)	NA
Teaching Assistants (CUPE Local 3906, Unit 1)	2531
<b>TOTAL</b>	<b>6109</b>

**Table 1: McMaster University head count by employee category**



**Figure 7: Percentage change in the number of staff**

Note 1: Based on Primary Assignment - Includes FT / NFT / Perm / Not Perm. As of July each year.

Note 2: Excludes employees who have been on LTD for greater than 2 years as at July 1 2010, or those with pre-retirement or termination arrangements.

As noted, staff numbers in the University have grown significantly since 2002 but slightly decreased over the last year. We do expect to experience a further small decline in staff numbers into 2010/11 as departments look to find ways to balance their budgets. These staffing decisions are made thoughtfully and carefully, with impacts minimized wherever possible. As we remain focused on our core functions of teaching and research, service and support areas will be most directly affected by these staffing changes.

### *Teaching and Learning Enterprise*

McMaster University is the premier research-intensive, student-centered university of Canada. Our concentration on discovery permeates our teaching as well as our research. Our focus on students has made us the university in Ontario with the best student leader/administration relationships. We are world renowned for our work on pedagogies that enhance learning and particularly for linking discovery and learning.

This year, among our peers (large universities) we ranked in the top three in the Globe and Mail student survey in areas where we have traditionally done well: most satisfied students, quality of education, quality of teaching, student services, food services, recreation and athletics, buildings and facilities, campus atmosphere, and career preparation. Ironically we simultaneously rank second in campus technology and dead last in ease of course registration. Our Libraries are ranked fourth among our peers. Our problem areas, clearly noted from this student survey, include technology, course registration, course availability, class size, environmental commitment, and faculty/student interaction.

It is important to note that most of the problem areas identified in the Globe and Mail survey are areas in which we are working to bring about major improvements. We are committed to the implementation of new information technology systems that will dramatically improve course registration and course availability. Also, our environmental commitment has become more vibrant and visible through the establishment of our Office of Sustainability, which issued its first annual report to the Board of Governors this year <http://www.mcmaster.ca/sustainability/>. As this report outlines, McMaster has made good progress, becoming the second university in Canada to implement a campus-wide ban on single-use plastic bags, establishing opportunities for students to earn course credits through sustainability internships, conducting a campus-wide carbon inventory, expanding our capacity to recycle a wider range of plastics, and installing a secure bike storage facility on campus. However, problems with class sizes are likely to get modestly worse as we focus on core faculty hiring instead of part-time instructors. The student/faculty interaction area remains a challenge whose influencing factors are not understood.

A significant change within Student Affairs was the creation of the Student Success Centre (<http://studentsuccess.mcmaster.ca/>). The centre is the amalgamation of the former Career Services, First Year Experience Office and Office of Service Learning and Civic Engagement. The centre will be a one-stop shop for students looking to get engaged in university life.

A key issue over 2009/2010 has been the migration of our learning management system (LMS). At the end of the 2008/2009 academic year we were using retired LMS software from a company that had been acquired. After an initial disastrous start with one LMS system, we have begun migration to Desire2Learn. The advantages of this LMS for McMaster are a proven ability to handle the high intensity of usage we experience, a willingness to host our system off site, the existence of important features in the LMS that we might choose to use, and the close proximity of the company to Hamilton.

In the 2009/2010 academic year, McMaster University approved five new graduate programs, which accepted their first cohorts of students this year. The new Master's of Science program in Global Health provides a unique, interdisciplinary and international perspective on health, with specialized fields in globalization and development, global health management, and global diseases. The program is a unique partnership between faculty in Health Sciences and Business, and working in collaboration with Maastricht University in the Netherlands. The Master's of Health Management is another collaboration between Health Science and Business. Students will enroll on a part-time basis, working primarily through on-line methods, with a short-term residency; this format will allow students to remain engaged in their current positions as regulated health professionals, while increasing their knowledge and skills to be able to advance in the increasingly complex field of health management and administration. The School of Business also saw the approval of a new full-cost recovery graduate diploma program in Management Studies, which will provide a new offering in the range of executive education programs at DeGroot School of Business. A fourth new program

was approved in the Faculty of Humanities: Gender Studies and Feminist Research. The program will offer a free standing, interdisciplinary Master's of Arts, as well as a graduate diploma that will complement the PhD earned by students who are conducting research in the areas of gender studies and feminist research in a wide range of disciplines across the University. Finally, McMaster approved an innovative program called "Water without Borders." This program enables students who are doing research on a wide range of water-related topics across all six Faculties to complement their McMaster graduate degree with on-site, international experience and additional training from the United Nations University Institute for Water, Environment and Health (UNU-INWEH) staff, culminating in an additional diploma granted by UNU-INWEH.

In the 2009/2010 academic year, McMaster made several changes to its undergraduate program offerings. The B.A. programs in Gerontology and in Health Studies were phased out to make room for a new B. A. in Health, Aging and Society. An Honours B. Sc. in Geography and Environmental Sciences was introduced to meet an increasing demand by students for programs focusing on sustainability. Conversely, the B. Sc. in Computational Biology was closed due to the low student demand for the program. In addition, enhancements were made to existing programs, including the introduction of a co-op version of the Honours B. Sc. in Chemical Biology program and the addition of Chemical Biology to the list of combined Arts and Science programs that are available to students.

Educational milestones were celebrated in 2009-10 by the Bachelor of Health Sciences (B.H.Sc.) Program and the School of Rehabilitation Science. The B.H.Sc. program marked its 10<sup>th</sup> anniversary, while the SRS celebrated 20 years of excellence during the 2009-10 academic year.

Educational space renewal was significant in 2009/2010. Work began on our two Knowledge Infrastructure Program projects: the Centre for Spinal Cord Injury Education, Research and Rehabilitation and the Centre for Cancer Education, Research and Rehabilitation, and upgrades to McMaster's Nuclear Reactor and Nuclear Research Building. Both of these projects have important educational components and expand space for student laboratories. Additionally, new rehearsal space for Theatre and Film students was created in Building T13, and the fourth floor of Mills Library was renovated to form the Lyons New Media Centre, an innovative home for digital media work including instructional space for several courses. The Ron Joyce Centre was completed and MBA students are taking their first classes in the facility this term. Student advising space in the Humanities was also expanded and upgraded to better accommodate needs.

Academic year 2009/2010 also included significant expansion for our medical students. The Michael G. DeGroote School of Medicine signed a \$4-million agreement with Brock University in 2009. The partnership will see the Niagara Regional Campus move to a permanent home within the Niagara Health and Bioscience Research Complex, currently under construction on the Brock campus in St. Catharines. The move is scheduled to take place in 2011. The Waterloo Regional Campus (WRC) of the Michael G. DeGroote School of Medicine has moved into its permanent home on the University

of Waterloo's Downtown Kitchener Health Sciences Campus. A grand opening celebration was held in April 2010. A month later, the WRC graduated its first class of physicians during spring convocation ceremonies. In May 2010, the Halton McMaster Family Health Centre officially opened its doors as a community-based family practice teaching unit which will provide care for Halton residents while training new doctors and other health sciences professionals of McMaster University. The Burlington-based centre is the result of collaboration between four community physicians, McMaster University, the City of Burlington and Halton Region. In November 2009, Norfolk General Hospital became an official teaching site for the Faculty of Health Sciences.

The University Library continued to rise in the The Chronicle of Higher Education's Almanac for Higher Education, which placed McMaster University Libraries at 88<sup>th</sup> among the top 113 North American research libraries, an increase from 94<sup>th</sup> place the previous year and up from 102<sup>nd</sup> in 2006. The University Library continues to improve the quality of its collections. Serial titles received increased from 53,584 titles in 2008 to 69,488 titles in 2009. A number of new databases were added including Mass Observation and an expansion of Eighteenth Century Journals. Archival holdings continue to increase as well with the addition of notable collections including the Jackie Washington and Boris Brott archives. The University Library became home to the Lyons New Media Centre and the Bertrand Russell Centre, both of which will be reopened in newly renovated spaces this fall. In 2009 the University Library received a pledge of \$2.5 million from the Sherman Foundation. The gift is the largest single gift in the library's history and represents one of the largest gifts in the current campaign. The funds will be used in support of the Library's work on digitization of holdings and innovative digital media approaches to library issues.

The McMaster Museum of Art continues to rank as one of the top three (of forty) university-affiliated institutions in Canada. In 2009/2010 some outstanding initiatives of the Museum include: an innovative Visual Literacy Course for Residents in the Family Medicine Program; a digitization project with a unique online interactive component that enables visitor-creation; and a partnership role with the McMaster Archaeological Sciences Institute in their development of new methods and techniques for the analysis of archaeological materials. As well, in the 2009/2010 academic year, the Museum continued to produce a changing roster of exhibition projects that provided a public forum for research at McMaster as well as to support environmental sustainability and inclusiveness initiatives at the University.

Over the last two years, there has been significant effort to develop a new process for review of academic programs in Ontario. The work has resulted in an approved quality assurance framework that is to go into operation starting with the 2011/2012 academic year. The framework establishes the Ontario Universities Council on Quality Assurance (OUCQA) as an independent organization that audits institutional periodic reviews of academic programs (both undergraduate and graduate) and conducts reviews of new academic programs. The framework also requires that each institution develop its own institutional quality assurance process (IQAP) which must receive OUCQA approval. Overall, the new framework permits greater institutional autonomy, allows for integration of undergraduate and graduate program reviews into departmental reviews,

and enables expedited processes. It is hoped that the decisions of OUCQA will be adopted by MTCU, in much the same way the Ontario Council of Graduate Studies reviews are currently accepted by the Ministry.

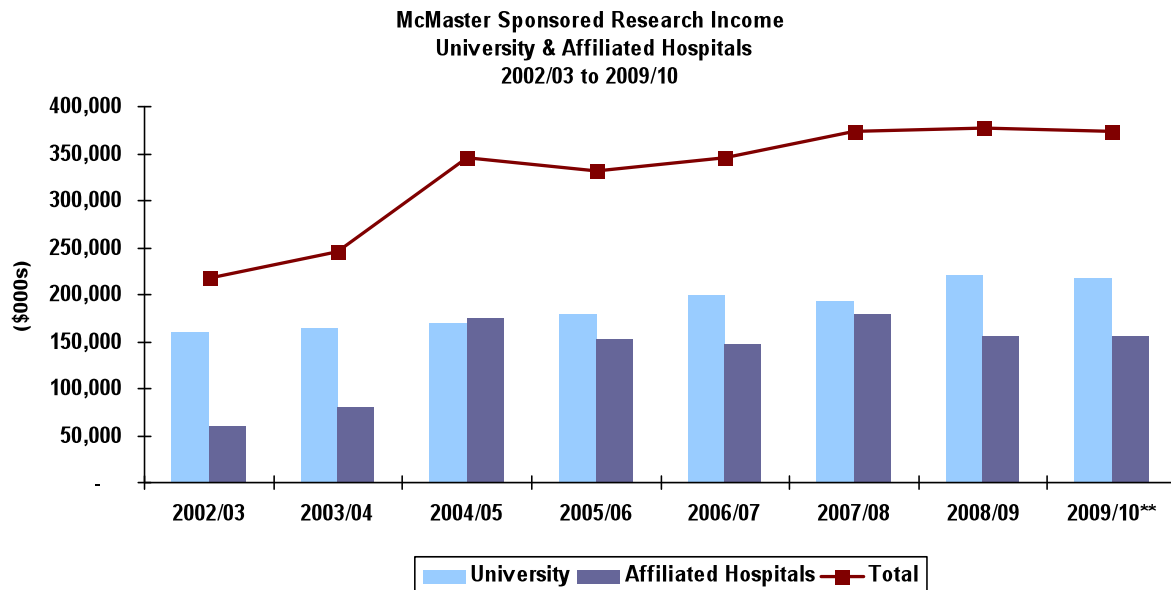
The creation of a new quality assurance framework requires us to develop our IQAP. Unique to the new framework is the recognition of institutional variations in how to approach quality assurance. As we work to establish McMaster’s IQAP this coming year, we have an opportunity to answer fundamental questions about what we value in academic programs, how we will choose to review them, and how our governance structure might best accommodate these reviews.

The accomplishments of our faculty members in the education sphere are also impressive. Appendix B lists many of the education awards received by our faculty, students and staff in 2009/2010.

*Research Enterprise*

McMaster’s research excellence continues to be recognized upon the world stage. Although it is not possible to record every success in this document, the following is highlights some of McMaster’s outstanding achievements over the past year.

ReSearch Infosource Inc. released its 2009 list of Canada’s top research universities and McMaster has again been named one of the country’s best. In terms of research intensity, a measure of research income per full-time faculty member – McMaster placed 2<sup>nd</sup> in Canada. In total, the University averaged \$312,800 per faculty member, far above the national average of \$165,000.



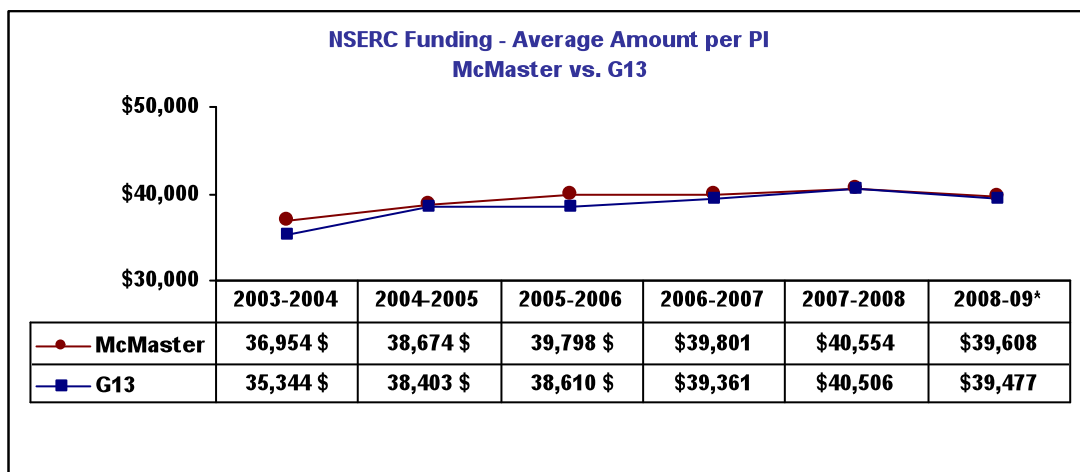
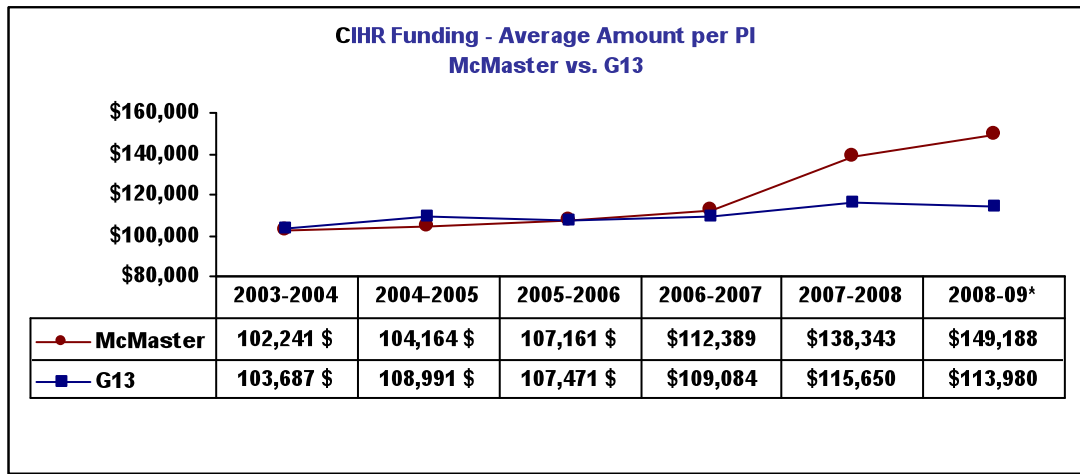
**Figure 8: McMaster Sponsored Research Income (thousand dollars).**

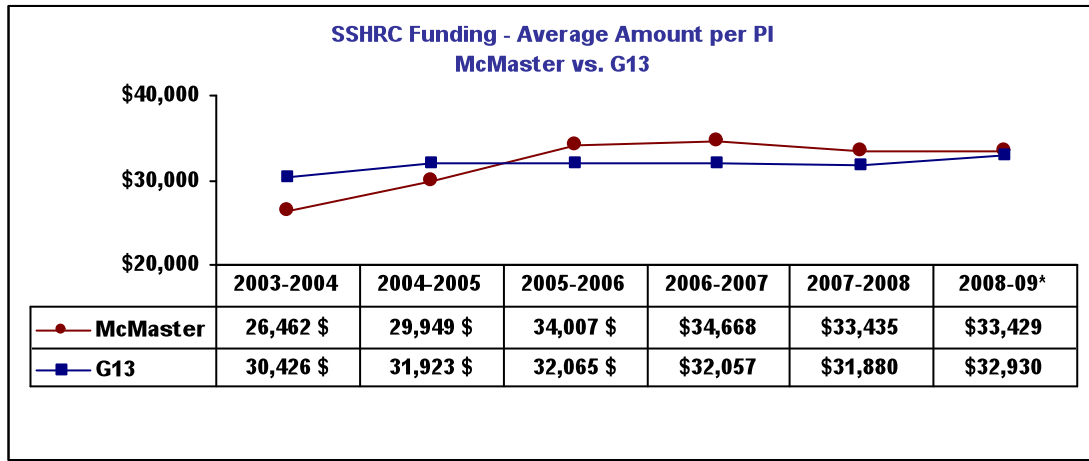
Source: 2002/03 to 2008/09 – Canadian Association of University Business Officers (CAUBO)

\*\*2009/10 – McMaster Financial Services – estimated at August, 2010

McMaster's research funding has shown remarkable growth over the past years. Our total sponsored research income for 2009/10 is estimated to be approximately \$374 million, which includes \$155.9 million awarded to McMaster faculty for health research at the University's academic partner hospitals. As shown in Figure 8 above, our total research income in 2008/09 reflects an increase of 39.3% since 2002/03 excluding affiliated hospitals, and 73.1% including affiliated hospitals.

McMaster's 2009/10 Federal Tri-Council total funding has surpassed \$90 million, reflecting a remarkable growth of approximately 80% over 2002/03. In addition to providing core funding for McMaster researchers, Tri-Council funding also forms the basis upon which allocations are made to other federal programs, including CRC and indirect costs. Over the most recent few years, McMaster's *Average Amount per PI* has exceeded the G13 average for all three Federal Councils, as shown in Figure 9 below:





**Figure 9: Federal research council funding per principal investigator for CIHR, NSERC and SSHRC**

Source: Federal Research Councils Data Analysis - Institutional level funding: 2008-09 update. G13 Data Exchange, August 2010.

Note: \*2008/09 data is preliminary; data excludes CRCs, NCEs; includes affiliates

Competition results for NSERC Discovery and SSHRC Standard Research Grants were announced in April, 2010 and McMaster faculty members were awarded almost \$14 million. For the NSERC Discovery program, McMaster’s success rate of 70% surpassed the national success rate of 58%, and the average award to McMaster researchers not only increased from awards made last year but also exceeded the national average by 12%. In the SSHRC Standard Research Grants competition, funding was provided to 31 McMaster researchers, 10 of whom are new scholars, representing an increase of approximately 63% over the previous year. McMaster’s success rate of 53% in this competition represents unprecedented success.

In the September 2009 and March 2010 CIHR Basic Operating Grant competitions, McMaster received over \$19 million in funding. McMaster success rates for these competitions were 16.1% and 14.1% respectively, trailing the national rates of 18.3% and 17.5%. A highlight in the CIHR Team Grant competition was McMaster’s award of \$1.4 million, for research in collaboration with researchers in Finland.

McMaster’s Stem Cell and Cancer Research Institute, directed by Dr. Mick Bhatia, was awarded \$11.5 million from the Ontario Ministry of Research and Innovation (OMRI) to lead a world-class initiative to develop new stem cell-based therapies. Dr. Bhatia received the award for the *Ontario Consortium for Regeneration-Inducing Therapeutics (OCRiT)*. The collaborative initiative will integrate robotics and high-performance computing to create an automated stem cell platform to identify new drugs capable of inducing stem cells in one’s own body to repair damaged tissues. This is the largest of 19 awards made across Ontario. The funding is from the Ontario Research Fund as part of its Global Leadership Round in Genomics and Life Sciences research grant competition (GL<sup>2</sup>).

Dr. Ali Emadi, a leading U.S. developer of electric powertrain technology, has been awarded the Canada Excellence Research Chair (CERC) in Hybrid Powertrain and

will relocate to McMaster University. This CERC represents one of 19 new CERC awards across Canada and will receive \$10 million in federal funding over seven years. McMaster has been assembling a critical mass of expertise for developing the next generation of lightweight, energy-efficient vehicles and is on its way to having the greatest concentration of powertrain research anywhere in the country. Dr. Emadi's appointment will be integral in attracting like-minded researchers and entrepreneurs, and his experience in spinning off start-up companies will be invaluable to the community. Dr. Emadi will also become director of the McMaster Institute for Automotive Research Tehnology (MacAUTO), encompassing 75 researchers in engineering, science, business and other faculties involved in initiatives valued at over \$100 million in programs and infrastructure.

NSERC awarded \$5 million to Dr. Rafael Kleiman for the establishment of the NSERC Photovoltaic Innovation Network to be based at McMaster University. The Network aims to raise the status of solar photovoltaics (PV) as a renewable energy option in Canada by accelerating research and development and commercializing the outcomes. PV cells convert light from the broad solar spectrum directly to electricity, with the energy conversion efficiency and cost (in \$/W) being the most important device metrics. The proposed collaborative and multi-disciplinary research program has the specific objectives of increasing the device conversion efficiency and/or reducing the device cost to make a large-scale PV deployment more competitive against electricity generation from fossil fuels.

Hamilton's role as a leading centre in cardiac, vascular and stroke research was amplified in March 2010 with the grand opening of the David Braley Cardiac, Vascular and Stroke Research Institute at the Hamilton General Hospital site. The research institute brings together two world-renowned research teams led by Salim Yusuf and Jeffrey Weitz.

This year also saw the expansion of the McMaster Health Forum, a centre dedicated to improving health outcomes through collective problem solving and led by John Lavis. The Health Forum renovated space in Mills Library, providing it with state-of-the-art facilities for real and virtual gatherings of the world's leading experts to focus on some of the most complex problems facing health care today.

McMaster was the recipient of two NSERC Collaborative Research and Training Experience (CREATE) awards, providing \$1.65 million each, to lead the way in two highly-specialized and fast-growing fields: *Molecular Imaging Probes* and *Photovoltaics*. The CREATE *Molecular Imaging Probes* program will be led by Dr. John Valliant in collaboration with the Cross Cancer Institute at the University of Alberta and a host of internationally-recognized researchers. Students and post-doctoral fellows will have the opportunity to work in multi-disciplinary research teams to develop the next generation of imaging probes from medical isotopes. Molecular imaging probes are used to detect cancer and infection earlier than is currently possible and assist in selecting the best course of treatment and monitoring response. Dr. John Preston will lead the CREATE program in *Photovoltaics*, collaborating with renowned McMaster researchers

as well as those from the Universities of Toronto and Waterloo. The program will train the next generation of engineers and scientists in the most advanced concepts for the conversion of sunlight to electricity. The *Photovoltaics* program will additionally provide the Canadian Photovoltaic manufacturing sector with the highly-qualified personnel it needs to be internationally competitive.

McMaster has received a \$1 million Community-University Research Alliance (CURA) award. The funding is from SSHRC and, with partner contributions, will provide approximately \$2.5 million. The award was made to Dr. Wayne Lewchuk to study poverty and employment precarity, or the growth of jobs that are precarious and have low wages, few benefits and lack of collective representation.

Ten Early Researcher Awards (ERAs) were awarded to McMaster, totaling \$1.4 million. McMaster's ERA success rate was 59%, well above the provincial success rate of approximately 33%. The ERA awards are funded by the Ontario Ministry of Research and Innovation (OMRI) to assist promising, recently-appointed Ontario researchers build their research teams of undergraduates, graduate students, post-doctoral fellows, research assistants, associates, and technicians. The goal of the program is to improve Ontario's ability to attract and retain the best and brightest research talent.

New Canada Research Chairs were awarded to Guillaume Paré, Katherine Cuff and Megan Brickley. CFI Leaders Opportunity Fund grants were awarded to Dawn Bowdish, Michael Farquharson, Christoph Fusch, Thomas Hawke, Manel Jordana, Nathan Magarvey, Michael Noseworthy, Guillaume Paré, Robert Pelton, Maikel Rheinstädter, Judith Shedden and Greg Wohl. In addition, Troy Farncombe, Devashish Pujari, and Peter Szatmari played key roles in ORF Research Excellence awards led by other institutions.

McMaster University faculty, staff and students routinely receive research accolades throughout the year. Many of these for the 2009/2010 academic year are listed in Appendix B. Appendix C lists a selection of new research grants approved or philanthropically-funded over this year.

This academic year has been an important one for McMaster Innovation Park (MIP). The red brick building at 175 Longwood Road South, now known as the Atrium, was opened in October. The CANMET building at MIP is well underway and scheduled to be completed in the Fall, 2010. Additionally, plans have been approved for a Family Medicine building at MIP. Plans are also on the drawing board for renovation of the Warehouse Building to accommodate our growing automotive research.

### International Affairs

McMaster University continues to have many international activities on-going including a wide range of educational and research collaborations. In 2009/2010 McMaster entered into a conversation with the Dongguan University of Technology in the Guangdong Province of China regarding the possible creation of a co-located McMaster campus. This discussion was predicated on a report in 2008/09 identifying the

Pearl River Delta of southern China as a place that is rapidly growing and significantly underserved in education. Dongguan is a city of about eight million people with a single university accommodating roughly 10,000 students at this time. Discussions about the feasibility and desirability of such a McMaster campus in China continue.

As mentioned in last year's State of the Academy, the International Affairs Committee Chaired by Associate Vice-President Andrea Baumann, released a report and the *McMaster University International Compendium: Achieving international distinction for creativity, innovation and excellence*. The Compendium has garnered significant praise and an updated version is planned for 2011. The Compendium may be found at [fhs.mcmaster.ca/globalhealthoffice/](http://fhs.mcmaster.ca/globalhealthoffice/).

Because our international graduate students have fewer opportunities to apply for provincially and federally funded scholarships, the School of Graduate Studies created a new internal award to recognize and celebrate the excellence of our international students. This year, for the first time, twenty-two of these \$10,000 International Excellence awards were provided to top international graduate students across all six Faculties.

In 2009/2010 the Office of International Affairs focused on expanding existing and creating new opportunities for research collaboration including opportunities for graduate education. Strategic partnerships were formalized in Italy, China, India, Russia and Uganda bringing our active student exchange agreements to over 48 countries including a number of multi-country agreements. Although partnerships grew in the last year, the number of McMaster students participating in these exchanges has been stagnant. Efforts are underway to expand graduate level exchanges in strategic locations.

McMaster had significant success this past year in the recruitment of graduate students funded through the China Scholarship Council (CSC) program. On the 40th anniversary of diplomatic relations between Canada and China, McMaster signed an agreement which provides CSC funding for Chinese students enrolling in McMaster's PhD programs, as well as funding for a limited number of Master's level students and for visiting students and postdoctoral fellows. The agreement with CSC also provides funding for McMaster's graduate students to spend time studying in China. The results in this initial year already are quite promising, with a 30% increase in the numbers of Chinese students accepting McMaster's offers of admission, and 8 CSC funded students enrolling in McMaster's graduate programs, bringing nearly \$500,000 in financial support from the CSC.

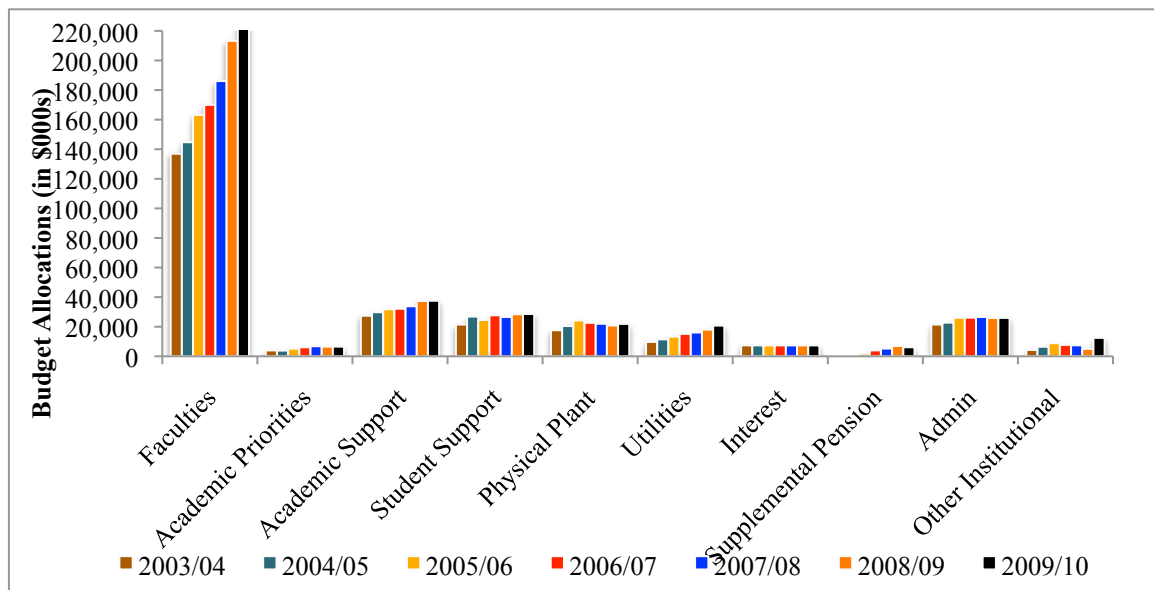
In 2009/2010, McMaster became a founding partner of the Transborder Research University Network (TRUN) that includes the University of Buffalo, University of Rochester, Syracuse University, Cornell University, University at Albany, and Rochester Institute of Technology. Similarly McMaster University has partnered with the University of California Los Angeles (UCLA), to form an interdisciplinary team of scientists, clinicians and graduate students who are combining their expertise and

resources and launching a bilateral research consortium to develop low-cost and minimally invasive diagnostic and therapeutic devices for improved cancer detection.

McMaster participated in bi-lateral missions led by the Premier’s office to India, China, and Israel and the West Bank to strengthen research and graduate training. A number of mobility programs were established in 2009/2010 in Engineering, Social Sciences and Humanities including agreements with the Beijing Language and Culture University (BLCU), the University of Science and Technology Beijing (USTB), Nankai University and Shanghai Jaiotong University. Additionally, the Confucius Institute has established Chinese language programs and expanded its outreach initiatives.

### *Budget*

The consolidated budget of McMaster University normally is approved by the Board of Governors at their June meeting. It is available at the following website: <http://www.mcmaster.ca/bms/pdf/consbud10.pdf> . Here we are concerned with the annual operating budget of the university as these are the funds that support the vast majority of our academic operations. Figure 10 shows a graph of the operating budget allocations by major category and year since 2003/04. The vast majority of the operating funds are directed to our Faculties, with a total that now exceeds the sum of all other categories by nearly a factor of one and a half. Further, the allocation to the Faculties has risen quickly, reflective of the increases in the number of faculty and in salaries and benefits. A few other budget categories have had allocations that are essentially flat or slightly reduced over the last four years, including student support, physical plant and interest. The remaining categories have risen modestly in the same time period.

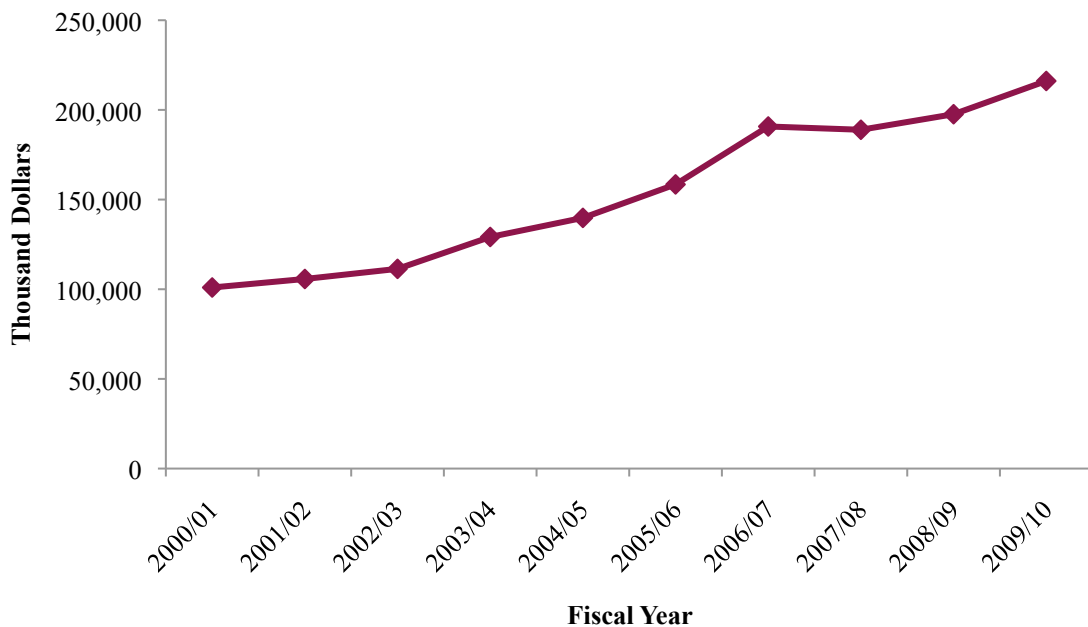


**Figure 10: Budget Allocations by Area (thousand dollars)**

In the Ontario budget announced in March 2010, the government made clear that post-secondary education was a key priority and invested in new student spaces. In

addition, the province rolled money associated with undergraduate growth into McMaster's base operating grant, a welcome step to ensure the funding of our current enrollment levels. The provincial operational funding has been increasing over the past 10 years (Figure 11). However, the increased funding is often tied to new initiatives or targeted purposes and does not address inflation. Receiving increasingly more targeted funding does not allow the university to address inflationary pressures, and herein lies the challenge with the current framework for government funding.

Overall, McMaster University's financial situation is similar to its sister institutions in Ontario. The costs of delivering a top quality academic program continue to rise faster than our grants from the Province and our increases in tuition, making it necessary to set priorities and to cut corners where possible. Additionally, the universities in Ontario that have defined benefit pension plans, such as McMaster, have a large accumulated pension deficit as determined using accepted accounting methods. The legal requirements to close the gap on such deficits looms large ahead of us, although pension relief legislation announced in August has the potential to prevent the problem from causing further, large-scale degradation of our operations. Given the very difficult financial outlook, the President last year formed a committee to advise on actions that might help resolve these pressing issues.



**Figure 11: Operational provincial grants for the past 10 years**

Note: From University Financial Report

PACICES was established in January, 2009 and produced a final report in February, 2010. The report along with a letter of introduction by President George may be found at [www.mcmaster.ca/opr/html/discover\\_mcmaster/presidents\\_message/pacices.html](http://www.mcmaster.ca/opr/html/discover_mcmaster/presidents_message/pacices.html). Recommendations in PACICES are directed at strategic planning, government

relations, internal leadership, and operations. Many of the recommendations have been implemented already or are in the process of being implemented. However, it is important to note that PACICES did not identify a means to rapidly turn around the financial fortunes of McMaster University. Work will continue for the foreseeable future to stabilize our budget while minimizing the impact on our quality.

In 2009/2010 the Alternative Budget Model Task Force released a report advocating a transition of our internal budget allocations to an activity-based model able to promote greater transparency and accountability and to aid in strategic planning at the unit level while encouraging innovation in our core mission areas. This report is available at <http://www.mcmaster.ca/vpacademic/documents/bmtfreport.pdf>. Subsequently, the task force has moved into phase 2 of its work, which is led by Dr. Khaled Hassanein, Associate Professor of Business. During phase 2, the task force is determining metrics that will be used for revenue and cost distribution to units. With the help of an executive advisory committee, the task force is resolving longstanding issues such as how to deal with courses that one Faculty offers primarily for students enrolled in another Faculty. Upon completion of the budget model development in the coming year, the work will enter a third phase in which tools and training are developed, and the new model used to shadow our current model.

### *Planning*

In general, universities are organizations with broadly distributed authority and units enjoy considerable autonomy. This can make institutional planning a rather difficult process. Our recent approach to strategic planning and implementation has looked at specific pieces of our mission (e.g. teaching and learning and international activities) and addressed particularly important or difficult issues. In 2009/2010, we began to pull these pieces together into a consistent strategy that drives decisions.

Our current strategic plan, *Refining Directions*, was adopted by the Board of Governors in 2003 and reaffirmed in 2008. In the 2008/2009 academic year a Refining Directions Implementation Plan Committee was struck to develop an implementation framework for further progress on the goals of Refining Directions. The Committee issued a report in the Fall of this year which is available at the following website: [www.mcmaster.ca/vpacademic/documents/RDIPCReport1007.pdf](http://www.mcmaster.ca/vpacademic/documents/RDIPCReport1007.pdf). This report lists roughly 100 specific action items to promote the *Refining Directions* goals, grouped into categories such as education, research, and building an inclusive community. These action items resulted from a review and refinement of the detailed implementation plans developed following adoption of the original *Refining Directions*. Reactions from the campus community were sought and discussions held to identify the priorities for action. The resulting eight priorities for action were reviewed by the University Planning Committee and are listed in Appendix D. Several of these are already the subject of significant work by previously established task forces and committees. Others identify gaps in our current efforts.

In the coming academic year the Implementation Plan Committee will develop detailed plans for each of the priority goals including specific actions, timelines, deliverables, champions, and resources. Given the current financial situation, it is likely that we will not address all of these objectives simultaneously, but rather emphasize the most critical campus-wide priorities aligned with our mission as a research-intensive student-centered institution. This work represents a means of engaging the campus community in focused actions to move us ever closer to our goals.

In 2009/2010 we also embarked on a capacity planning process designed to help us identify the current capacity of our campus and our needs under different future student enrolment scenarios. This work, being led internally by AVP Karen Menard, has already proven helpful in identifying pinch points related to classroom utilization and will guide future resource allocation and actions. The Capacity Plan will be the topic of an open house in the fall and a final report will be issued subsequently. The Capacity Plan links directly to strategic enrolment planning and to the priority goals of *Refining Direction* implementation by providing a physical space framework in which to consider implications of various actions.

### *Technology*

Among the largest challenges at McMaster University are those posed by our antiquated and failing information systems. We are the only university among our G13 peers which has not adopted an enterprise-wide technology solution (i.e. an ERP type of system) and we pay for this neglect of our systems with processes that are manual and complicated rather than automated and transparent to the user.

In 2009/2010, CIO John Kearney led the development of a new strategic plan for information technology at McMaster. The Vision 2020 report, approved by the Board of Governors in June, 2010, may be found at the following website: [http://www.mcmaster.ca/uts/staff/johnkearney/uts\\_strategy.html#fragment-13](http://www.mcmaster.ca/uts/staff/johnkearney/uts_strategy.html#fragment-13). This report identifies five strategic directions: systems renewal and data integration, a renewed focus on service delivery, infrastructure modernization and simplification, a hybrid model based on cooperation, and risk mitigation practices. In the next several years, the focus of UTS will be on achieving this vision. Processes have been established to control the new projects that UTS accepts in order to allow this major initiative to move forward.

The first phase of technology redevelopment at McMaster University will focus on student information, financial and research accounting systems. Through significant institutional resourcing, we intend to migrate to a campus-wide, commercial ERP system that will enable us to simplify our processes and work more efficiently and effectively. Simultaneously, we will rationalize our institutional databases to prevent data conflicts and enable reporting processes. This work will require a minimum of five years and should result in processes that are simplified and more robust. It is clear that this is a first step to enable us to improve the student experience on campus, to partner more effectively, to comply with various reporting and accountability measures, and to reduce manual processes to an absolute minimum.

## *Human Resources*

Academic year 2009/2010 presented a series of interesting human resource challenges and opportunities. McMaster University has 12 bargaining units, meaning the University is almost always in negotiation. This year began with negotiations with CUPE teaching assistants, a group that mounted a one-week strike in October prior to a settlement vote. Negotiations with CAW, representing our administrative and technical support staff, also extended into the fall, with the matter of pension benefits for new hires who are members of the unit submitted to interest arbitration. In the spring of 2010, the McMaster University Librarians voted to withdraw from MUFA and certify with CAUT as MUALA. First contract negotiations are ongoing with MUALA. The largest bargaining unit in terms of financial resources is MUFA, and they will be in negotiation for a new contract in the coming year.

Complicating the employment and labour relations scene was the passage of the Public Sector Compensation Restraint to Protect Public Services Act retroactively effective on March 24, 2010. This legislation froze the compensation structure for employees at McMaster who are not represented by a bargaining agent for a period of two years and the government set corresponding expectations for a compensation freeze for unionized employees when their current contracts are renewed. Further, the Ministry of Finance requested in mid July that universities pause all negotiations while the government organized round table discussions. These actions highlight the serious financial problems the Province is facing and their impact on the university sector in Ontario. They effectively reduce the flexibility of the institution in dealing with employment and labour issues.

The University has committed to improving efficiency and effectiveness of its processes around HR and payroll transactions. Substantial progress was made this year, as the payroll function was merged within Human Resources. In addition, the creation of the HR Service Centre and related process changes are being designed to provide ease of use for faculty, staff and administrators. This will be accomplished through the implementation of paperless transaction processes with automated approval workflow and provide for employee and manager self-service through portal technology. A comprehensive list of the work done to date, the initiatives in progress and the benefits to be achieved can be found at [www.workingatmcmaster.ca/process-reengineering/](http://www.workingatmcmaster.ca/process-reengineering/).

McMaster continues to be committed to providing and maintaining a healthy and safe working and learning environment for the entire campus community. The University's 22 Joint Health and Safety Committees along with the Central Joint Health and Safety Committee met on a regular basis this year to pro-actively address safety issues. Our employee health, wellness and recognition programs continue to be well regarded and attended. More than 500 employees took part in the 2010 Get MActive Challenge, encouraging teams to participate in a variety of healthy living challenges and activities. A new Workplace Violence Policy also was adopted that will help identify potential risks of violence in the workplace.

A total of 196 recipients were recognized with Years of Service Awards ranging in service from 15-40 years and an additional 73 recipients entered McMaster's Quarter Century Club. With the help of our volunteer committees, the annual Children's Party and United Way campaigns were amazing successes. The McMaster United Way workplace campaign raised \$251,964 for the United Way of Greater Hamilton and Burlington, surpassing its target by 12%.

There was a substantial increase in disability awareness across campus, as we implemented the requirements of the Customer Service Standard of the *Accessibility for Ontarians with Disabilities Act* (AODA). The McMaster Accessibility Council, whose mandate is to ensure the University's adherence to AODA standards, provided leadership and direction as an accessibility awareness program was launched and the new Accessibility Policy was developed and adopted. In fulfillment of the requirements under the AODA's Customer Service Standard, all university employees were required to undergo online training on providing accessible services to all members of the McMaster community. McMaster became the first University in Ontario to require AODA training of all graduate students, in recognition of McMaster's commitment to supporting an inclusive community and providing our graduate students with professional training that will be critical for them as they move forward in their varied, chosen professions.

During academic year 2009/2010 the Office of Human Rights & Equity Services undertook a preliminary audit of the atmosphere in the DeGroot School of Business focusing on faculty members and administration. After it identified current and long-standing issues potentially leading to dysfunction in DSB, the President invoked the Group Conflict and Anti-Discrimination Policies and established the President's Advisory Committee on the DeGroot School of Business (PACDSB), while investigation of individual complaints continues.

The President's Advisory Committee on Building an Inclusive Community (PACBIC) works toward achieving the goal of inclusion on campus and has been involved in advancing awareness on campus equity and diversity issues. PACBIC was successful in initiating a new "Statement on Building an Inclusive Community with a Shared Purpose" which was approved by the Senate and Board of Governors. This document defines what is meant by inclusive and identifies three goals towards which the entire McMaster community can aspire: Respect, Collaboration and Diversity.

PACBIC also reaffirmed its commitment to increasing inclusion of Aboriginal peoples on campus as its first priority. Making Indigenous/Aboriginal issues a priority accords with McMaster's mission to serve 'the social, cultural, and economic needs of our community' – a community that includes Six Nations and a large Aboriginal population both on and off reserve. A clear institutional commitment and plan has been articulated by PACBIC in order for McMaster to demonstrate leadership in this area by continuing to forge alliances with the Indigenous Studies Program and the President's Committee on Indigenous Issues. In keeping with this commitment, the School of Graduate Studies established the Harvey Longboat Graduate Scholarship for First Nation,

Inuit, and Métis Students, in honour of the late Six Nations educator and Cayuga Chief, who was instrumental in establishing McMaster's Indigenous Studies program.

PACBIC also continued with the objectives of its seven working groups to implement PACBIC's priorities and engage stakeholders in its ongoing equity work. The working groups are as follows: Priorities & Planning, Access & Accommodation, Communications & Visibility, Employment Equity, Interfaith Issues, Human Rights Audit, and PACBIC Dialogues.

Dean of Science, John Capone, was reappointed to a second term in 2009/2010. Roger Couldrey was hired as the Vice-President Administration after a national search. Roger Trull announced that he would retire from McMaster in April, 2011. President George retired in June, and President Patrick Deane assumed the Presidency on July 1.

McMaster University recognizes its role as one of the biggest employers in the City of Hamilton. Large numbers of our community volunteer their time and expertise in service of causes and people in Hamilton, Halton, Ontario, and Canada. Appendix B provides a partial list of internal and external service awards.

### *Conclusion*

Academic year 2009/2010 was marked by a series of challenges and opportunities. New academic programs were established and student demand for our programs continued to be high. Research breakthroughs continued unabated in all areas of our campus and our faculty, staff and students attracted prestigious research, teaching and service awards. Strategic planning efforts served to more consistently link our budget priorities and our actions to our goals. The long process of renewing our technological systems was begun.

While we were able to balance the operating budget for the year, financial pressures remain the most concerning issue for the future. Inadequate funding will permeate every aspect of our operation unless we are able to stabilize the future budgets through elimination of structural deficits and a provincial program of pension deficit payment relief.

## Appendix A – New Core Faculty Hires, Tenure/Promotion

The following tables are a comprehensive list of new appointments and promotions, independent of funding source. Several of these appointments, particularly in the Faculty of Health Sciences, are funded primarily externally rather than from internal funds.

<b>APPOINTMENTS (FULL-TIME) 2010-2011</b>		
<b>(tenure, CAWAR, tenure-track, special, teaching-track and contractually limited)</b>		
<b>FACULTY OF ENGINEERING</b>	<b>Department</b>	<b>Rank</b>
Ali Emadi	Mechanical Engineering	Professor
Thomas Adams II	Chemical Engineering	Assistant Professor
Emily Cranston	Chemical Engineering	Assistant Professor
Chi Tang	Bachelor of Technology Program	Assistant Professor
<b>FACULTY OF HUMANITIES</b>	<b>Department</b>	<b>Rank</b>
Victor Kuperman	Linguistics and Languages	Assistant Professor
Nikolai Penner	Linguistics and Languages	Assistant Professor
Wendy Schrobilgen	Linguistics and Languages	Assistant Professor
Rick Monture	English & Cultural Studies	Assistant Professor
Patrick Deane	English and Cultural Studies	Professor
Elzbieta Grodek	French	Assistant Professor
Peter Cockett	School of the Arts	Assistant Professor
David Gerry	School of the Arts	Lecturer
Briana Palmer	School of the Arts	Assistant Professor
Andrew Mitchell	School of the Arts	Assistant Professor
Martin Beckmann	Classics	Assistant Professor
Colin Salter	Peace Studies	Assistant Professor
Timothy Pearson	History	Assistant Professor
<b>FACULTY OF SCIENCE</b>	<b>Department</b>	<b>Rank</b>
Benjamin M. Bolker	Mathematics and Statistics & Biology	Professor
Duncan O'Dell	Physics and Astronomy	Assistant Professor
Hao Peng	Medical Physics and Applied Radiation Sciences	Assistant Professor
<b>FACULTY OF SOCIAL SCIENCES</b>	<b>Department</b>	<b>Rank</b>
Stephanie Premji	Labour Studies	Assistant Professor
Katherine Boothe	Political Science	Assistant Professor
Stephen McBride	Political Science	Professor
Arthur Sweetman	Economics	Professor
Sandra Preston	Social Work	Assistant Professor
<b>FACULTY OF HEALTH SCIENCES</b>	<b>Department</b>	<b>Rank</b>
David Meyre	Clinical Epidemiology and Biostatistics	Associate Professor
Keyna Bracken	Family Medicine	Assistant Professor
Ainsley Moore	Family Medicine	Assistant Professor
Margaret Ackerman	Medicine	Associate Professor
Rebecca Amer	Medicine	Assistant Professor
Kjetil Ask	Medicine	Assistant Professor
Manoela Braga	Medicine	Assistant Professor

Smith Halder	Medicine	Assistant Professor
Jennie Johnstone	Medicine	Assistant Professor
Nader Khalidi	Medicine	Associate Professor
Khurram Khan	Medicine	Assistant Professor
Rebecca Mallin	Medicine	Assistant Professor
Timothy O'Shea	Medicine	Assistant Professor
Marco Puglia	Medicine	Assistant Professor
Jon-David Schwalm	Medicine	Assistant Professor
Marcel Tunks	Medicine	Assistant Professor
Rahim Valani	Medicine	Assistant Professor
Marilyn Ballantyne	Nursing	Assistant Professor
Sandra Carroll	Nursing	Assistant Professor
Eileen Hanna	Nursing	Assistant Professor
Peter Helli	Nursing	Assistant Professor
Tracey Jewiss	Nursing	Assistant Professor
Diana Sherifali	Nursing	Assistant Professor
Nicholas Leyland	Obstetrics and Gynecology	Professor
Beth Murray-Davis	Obstetrics and Gynecology	Assistant Professor
Darren Bridgewater	Pathology & Molecular Medicine	Assistant Professor
Sourabh Dutta	Pathology & Molecular Medicine	Associate Professor
Vidhya Nair	Pathology & Molecular Medicine	Assistant Professor
Michael Pickup	Pathology & Molecular Medicine	Assistant Professor
Emma Wyatt	Pathology & Molecular Medicine	Assistant Professor
M. Constantine Samaan	Pediatrics	Assistant Professor
Emma Wyatt	Pediatrics	Assistant Professor
Rebecca Gewurtz	Rehabilitation Science	Assistant Professor
Joyce Tryssenaar	Rehabilitation Science	Associate Professor
Jonathan McLean	Surgery	Assistant Professor

<b>TENURE and PROMOTIONS</b>	
<b>Effective July 1, 2010</b>	
<b>CAWAR and Promotion to Associate Professor</b>	
<b>FACULTY OF HEALTH SCIENCES</b>	
Jean-Eric Tarride	CE&B
Sebastian Ribas	Medicine
Omid Salehian	Medicine
Frances Tse	Medicine
Sarah McDonald	Obstetrics and Gynecology
Bindi Dhesy-Thind	Oncology
Tony Chetty	Pathology & Molecular Medicine
Jean-Claude Cutz	Pathology & Molecular Medicine
Waliul Khan	Pathology & Molecular Medicine
Cheryl Main	Pathology & Molecular Medicine
Krishna Anchala	Pediatrics
Christina Grant	Pediatrics
Lennox Huang	Pediatrics
Ronit Mesterman	Pediatrics

Tapas Mondal	Pediatrics
Rajesh Ramandachandran Nair	Pediatrics
Kavita Dhamanaskar	Radiology
Troy Farncombe	Radiology
Shucui Jiang	Surgery
Edward Kachur	Surgery
Peter Lovrics	Surgery
Edward Matsumoto	Surgery
Kevin Piercey	Surgery
Leyo Ruo	Surgery
<b>CAWAR</b>	
<b>FACULTY OF HEALTH SCIENCES</b>	
Peter Gross	Medicine
Andrew Don-Wauchope	Pathology & Molecular Medicine
Anne Klassen	Pediatrics
Chumei Li	Pediatrics
Zeev Maizlin	Radiology
<b>Permanence</b>	
<b>FACULTY OF ENGINEERING</b>	
Thomas Doyle	Electrical & Computer Engineering
<b>FACULTY OF HEALTH SCIENCES</b>	
Lynda Bentley-Poole	School of Nursing
Michelle Drummond-Young	School of Nursing
Yvonne Lawlor	School of Nursing
Vian Mohialdin	Pathology & Molecular Medicine
Ari Shali	Pathology & Molecular Medicine
<b>FACULTY OF SCIENCE</b>	
Walter Peace	Geography & Earth Sciences
Susan Vajoczki	Geography & Earth Sciences
<b>FACULTY OF SOCIAL SCIENCES</b>	
Anju Joshi	Health, Aging & Society
<b>Tenure and Promotion to Associate Professor</b>	
<b>FACULTY OF BUSINESS</b>	
Emad Mohammed	Accounting & Fin. Mgmt Services
<b>FACULTY OF ENGINEERING</b>	
Prashat Mhaskar	Chemical Engineering
Wael El-Dakhkhni	Civil Engineering
Aleksandar Jeremic	Electrical & Computer Engineering
Michael Noseworthy	Electrical & Computer Engineering
Ravi Selvaganapathy	Mechanical Engineering
<b>FACULTY OF HUMANITIES</b>	
Chandrima Chakraborty	English & Cultural Studies
Tracy McDonald	History
Angela Sheng	School of the Arts
<b>FACULTY OF HEALTH SCIENCES</b>	
Alba Guarne	Biochemistry & Biomedical Sciences
Brian Lichty	Pathology & Molecular Medicine
Sharon Kaasalainen	School of Nursing

<b>FACULTY OF SCIENCE</b>	
Jonathan Dushoff	Biology
Ben Evans	Biology
Bhagwati Gupta	Biology
Xu-Dong Zhu	Biology
Gianni Parise	Kinesiology & Med. Phys.
Paul Faure	Psychology, Neuroscience & Beh.
<b>FACULTY OF SOCIAL SCIENCES</b>	
Lana Wylie	Political Science
Mirna Carranza	Social Work
<b>Permanence and Promotion to Associate Professor</b>	
<b>FACULTY OF HEALTH SCIENCES</b>	
Michelle MacDonald	Biochemistry & Biomedical Sciences
<b>Tenure</b>	
<b>FACULTY OF ENGINEERING</b>	
James Cotton	Mechanical Engineering
Jan Modersitzki	Computing and Software
<b>Promotion to Professor</b>	
<b>FACULTY OF BUSINESS</b>	
Milena Head	Information Systems
<b>FACULTY OF ENGINEERING</b>	
Antoine Deza	Computing and Software
Douglas Down	Computing and Software
Dmitri Malakhov	Materials Science & Engineering
<b>FACULTY OF HEALTH SCIENCES</b>	
Yingfu Li	Biochemistry & Biomedical Sciences & Chemistry
Lori Burrows	Biochemistry & Biomedical Sciences
Julia Abelson	Clinical Epidemiology and Biostatistics
Maureen Meade	Clinical Epidemiology and Biostatistics
Micheline Gagnon	Medicine
Nancy Heddle	Medicine
Mark Inman	Medicine
Wendy Sword	Nursing
Laurie Elit	Obstetrics & Gynecology
Harold Reiter	Oncology
Stephen Sagar	Oncology
Michael van Ameringen	Psychiatry and Behavioural Neurosciences
Joy MacDermid	Rehabilitation Science
Cheryl Missiuna	Rehabilitation Science
Brian Cameron	Surgery
Jorge DeMaria	Surgery
Andre Lamy	Surgery
<b>FACULTY OF SCIENCE</b>	
Douglas Boreham	Medical Physics & Applied Radiation Science
Kari Dalnoki-Veress	Physics & Astronomy
Dmitry Pelinovsky	Math & Stats
Eduard Reinhardt	Geography & Earth Sciences
<b>FACULTY OF SOCIAL SCIENCES</b>	

**Appendix B – Selected Awards**Research/Professional Awards

<b>Award Name</b>	<b>Recipient</b>
2010 AIST Charles W. Briggs Award for Best Paper	Gord Irons Ken Coley
2010 Inter-American Photochemical Society Award in Photochemistry	Willie Leigh
2010 Orthopaedic Research and Education Clinical Research Award	Mohit Bhandari
2010 Prize in Theoretical and Mathematical Physics (Canadian Association of Physicists)	Cliff Burgess
Alfred P. Sloan Foundation Research Fellowship	Paul Ayers
2009 ArcelorMittal Dofasco award	Gary Purdy
Association for Iron & Steel Technology (AIST), Energy and Control Technology Division, 2010 Computer Applications Award for Best Paper	Gord Irons
Beals Award (Canadian Astronomical Society)	Bill Harris
Burrill Award (Association of American Geographers)	Antonio Paez
Canada Research Chair in Bioarcheology of Human Disease	Megan Brickley
Canada Research Chair in Genetic and Molecular Epidemiology	Guillaume Paré
Canada Research Chair in Public Economic Theory	Katherine Cuff
Canada's Top 40 Under 40	John Valliant
Canadian Historical Association Journal Award for the best article published in the 2009 edition of the <i>Journal of the Canadian Historical Association</i>	Michael Gavreau
Centre for Facilities Research (CFaR) Research Award	Tony Cupido
Chevalier (Knight) de la Légion d'honneur (the National Order of the Legion of Honor)	Yves Bréchet
CIHR Researcher of the Year in Health Services and Systems and Population Health	Michael Boyle
Completed his 38 <sup>th</sup> volume, the last volume of his life's work, <i>Le Siècle des Lumières</i> , an extensive compendium of bibliographical references of 18 <sup>th</sup> Century texts published between 1680 -1789	Pierre Conlon
Don Pether Chair in Engineering and Management	David Potter
Early Researcher Awards	Sung-Sik Lee Jun Chen Todd Hoare Wael El-Dakhkhni Ravi Selvaganapathy Michael Tait Hatem Zurob Katholiki Georgiades Peter Kavsak Shirya Rashid

Faculty of Engineering Research Achievement Award – Applause and Accolades	Sarah Dickson
Fellow (American Physical Society)	Ben Evans
Fellow of the Royal Society of Canada	Marie Elliot
	Bhagwati Gupta
	Duncan O'Dell
	Valerie Taylor
	Robert Pelton
Fellows of Canadian Academy of Engineering	Don Sprung
	David Wilkinson
	Richard Harris
	Deborah Cook
	Shiping Zhu
	David Wilkinson
	John Weaver
	Peter Szatmari
	Joseph Rose
	Juliet Daniel
	David Embury
	Christoph Fusch
	Richard Hunt
	Nancy Doubleday
	Max Wong
	<u>Raymond Findlay</u>
	Andrea Baumann
	Khaled Hassanein
	Milena Head
	Laura Parker
	Amelia De Falco
	Michael Kiang
	Benson Honig
	Nick Bontis
	Michael Gauvreau
	Walter Craig
	Alex Sévigny
	Gianluigi Botton
	Mark Tarnopolsky
	Joseph Kim
	John MacGregor
	Simon Haykin
	Doug Welch
	Jamal Deen

NSERC Synergy Award for Innovation	Chris Swartz
O. Harold Warwick Prize	Ronald Barr
Ontario Research Chair in Health Human Resources	Arthur Sweetman
Order of Canada	Brian Haynes
ORION Leadership Award	Mehran Anvari
Research to Excellence Award, DeGroot School of Business	Milena Head
Research to Practice Award, DeGroot School of Business	Christopher Bart
Second place prize in the NSERC Innovation Challenge Awards	Wei Chen
Senator William McMaster Chair in Canadian Literature and Culture	Lorraine York
Senator William McMaster Chair in Cognitive Neuroscience of Language	John Connolly
Shortlisted for the Sir John A Macdonald prize, for the best book in Canadian history	H. V. Nelles
Teasdale-Corti Humanitarian Award (Royal College of Physicians and Surgeons of Canada)	M. Evenden
Technology Achievement Award (Indo-Canada Chamber of Commerce )	Stephen Foster
Women of Discovery Earth Award	Jamal Deen
	Susan Dudley

### Teaching Awards

<b>Award Name</b>	<b>Recipient</b>
2010 Political Science Association for Teaching Excellence	Marshall Beier
2010 President's Award for Course or Resource Design	Science Media Lab
	Joe Kim, lead
2010 President's Award for Excellence in Teaching	Ann Herring
Ari Shali Teaching Award	Alan Neville
Excellence in Education Award presented (Industry-Education Council of Hamilton)	Art Heidebrecht
John C. Sibley Award	Karl Stobbe
Lois Ross Award for Service to Residents (Canadian Association of Internes and Residents)	Karen Saperson
MSU Teaching Award in Arts and Science category	Alan Chen
President's Award for Excellence in Educational Leadership	Alan Neville
President's Award for Excellence in Graduate Supervision	Susie O'Brien
	Martin Gibala
President's Award for Exemplary National Leadership in Academic Medicine (Association of Faculties of Medicine of Canada)	Alan Neville

### Service Awards

<b>Award Name</b>	<b>Recipient</b>
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1st Prize - National Program Award - Canadian Association of University Continuing Education (CAUCE)	CALM
2009 Smart Commute Employer of the Year	McMaster University
2010 Clean Air Commute winner in category	McMaster University
2010 Distinguished Service Award for Ontario (Canadian Association of Social Workers)	Sally Palmer
2010 President's Award for Excellence in Service	Meghan Burchell
2010 Women of Distinction Award in the health and wellness category	Jean Clinton
Attainment of Certified Management Consultant designation (Institute of Certified Management Consultants of Ontario)	Jorma Larton
Award for Contributions by Non-Academic Staff (GSA)	Lina Liu
CAUBO Quality and Productivity Award - National First Prize - Certificate in Advanced Leadership & Management (CALM)	CALM
CAUBO Quality and Productivity Award - Ontario Regional Award - Sustainable Solutions to Trash	CALM Team
CAUBO Quality and Productivity Award Honourable Mention - A 'PAY NOW ' option for improved student service	CALM TEam
Distinguished Service Award (Graduate Student Honour Society)	Wasib Muhammad
Exceptional Service Award (International Animal Behaviour Society)	Bennett (Jeff) Galef
Image of Distinction Honours, 2009 Nikon Small World Photomicrography	Doug Culley
Inductees into the Hamilton Gallery of Distinction	Basanti Majumdar Carolyn Milne Doug Culley
McMaster Engineering Society Faculty Appreciation Award	Doug Culley
Named one of Canada's top 10 most influential Hispanic Canadians (Hispanic Business Association)	Carlos Morillo
President's Award for Outstanding Service in 2009	Paul Gatt
President's Special Achievement Award for Outstanding Service in 2009	Omar Danta Barb Eftekhari Grace Ferracuti, Alicia McGregor Shirley Verhage
Reverend John C. Holland Award for Business/Professional Achievement	Alezandre Dauphin
Silver Canadian Award for Training Excellence (Canadian Society for Training & Development (CSTD))	CALM
Veronika Czerneda Staff Award, Faculty of Engineering	Ed McCaffery

### Student Awards

<b>Award Name</b>	<b>Recipient</b>
2009-2010 CAGS/UMI Distinguished Dissertation Award	Andrew Griffin
2009-2010 International Excellence Awards	Bahareh Sayyar Rahulkumaf Gandhi

2009-2010 Philomathia Foundation Fellowship  
2010 Student Award (Native Research Network)  
Bedford Medal Winner  
Engineering Graduate Student Award

Excellence in Communicating Graduate Research (Engineering Dean)

First place in 2010 Canadian Engineering Competition in the  
Engineering Communication category  
Frederick Banting and Charles Best Canada Graduate Scholarship  
Governor General's Academic Gold Medal  
Graduate Dean's Award for Excellence in Communicating Graduate  
Research

Graduate Dean's Award for Graduate Student Knowledge Translation  
& Innovation

Reza Yousefi Nooraie  
Adalberto Loyola Sanchez  
Yi Gan  
Azin Behdadi  
Noa Reich  
Kathleen Mulligan  
Fabio Shecaira  
Fatma Teke  
Cara Tigue  
Yaara Lancet  
Yongshan He  
Salman Bawa  
Jacob Enk  
Ismael Traore  
Yifei Huang  
Kristian Thorlund  
Yu Chung  
Soumaya Zlitni  
Rory Woods  
Anand Senguttuvan  
Gregory Wiebe  
Bonnie Freeman  
Matthew Poon  
Lina Liu  
Florence Rosato  
Tarek Sadek  
J. P. Talon  
Terry Wagg  
Munir Eldescouki  
Hassan Morsy  
Olesya Peshko  
Alireza Shoa  
Mohammed Swillam  
Kevin Ng  
Nafisa Kanji  
Jacob Morgan  
Kevin Mumford  
Munir Eldescouki  
Hassan Morsy  
Olesya Peshko  
Alireza Shoa  
Michelle Sidor  
Kevin Ng  
Mohammed Swillam  
Juliana Tricta

Graduate Student Teaching Assistant Excellence Awards, Engineering	Paul Heerema
GSA Honour Society (A Distinguished Service Award)	Michael Willand
GSA Teaching Assistant Excellence Award	Michelle Cadieux
	Wasib Muhammad
	Erin Aspenlieder
	Michael Willand
	Carlos Zepeda-Velazquez
Honor M Awards	Andrew Richardson
	Suparna Sharma
	Michelle Lanteigne
MAPS Centennial Award	Mary Madeline Landry
MAPS Gwen George Award	Elaine Marion
MAPS Martin W. Johns Award	Candace Waterkamp
Mary Keyes Award for Outstanding Leadership and Service to McMaster	Michelle Donnelly
Michael G. DeGroot Fellowship Awards	Jonathan Schertzer
	Erin Westman
MSU Merit Scholarships	Heather Fisher
	Matt Wright
	Asfand Minhas
MTT Alive video competition winners	Christoph Larndorfer
	Reinhard Peer
Reuben Trane Scholarship (American Society of Heating, Refrigerating and Air-Conditioning Engineering)	Ben Oliver
Theresa Quigley Award of Excellence for Graduate Student Leadership in Athletics	Gloria Spirou
Third in Innovate North America Altera Design Contest	Khaled Chebaro
	Lucas Dobrowolski
	Yaser Jafar
	Charles Wah
Troitsky Bridge Building Competition winners	Darren Bewick
	Matthew Turner
	Brandon Kadoski
	Zane Charas
	Daniel Perri
	Neil Isenegger
Vale Inco Undergraduate Scholarship (Canadian Engineering Memorial Foundation)	Kyla Fisher
Vanier Canada Graduate Scholarships	Nikol Piskuric
	Kate Mulligan
	Nghi Phan
	Vladimir Miskovic
	Derek Chu
	Suzanne Osborne
	Beata Batorowicz
	Sandra Josephine Bortolin

## Miscellaneous

Hamilton Urban Design Award for Architectural Excellence – awarded to ETB  
Architectural Merit Awards Trophy, Concrete Canada –awarded to ETB  
2010 Building Design Award of the Ontario Library Association – awarded to the McMaster  
University's Health Sciences Library and McCallum Sather Architects.  
Winning design for the new interactive sculptural table in the Lobby of Togo Salmon Hall –  
Jeremy Forsyth.

## Appendix C – Highlights of Major Research Grants and Contracts

Many of these initiatives include funding from institutional and private sector sources. For the purposes of the listings below, however, the dollars shown are limited to that provided by the named funding body.

- *ReSearch Infosource, Inc.* released its 2009 list of Canada's top research universities and McMaster has again been named one of the country's best. In terms of research intensity, a measure of research income per full-time faculty member – McMaster placed 2<sup>nd</sup> in Canada. In total, the University averaged \$312,800 per faculty member, far above the national average of \$165,000.
- McMaster's total sponsored research income for 2009/10 is estimated to be \$374M, which includes \$155.9M awarded to McMaster faculty for health research at the University's academic partner hospitals in Hamilton.
- McMaster received \$53.4M from Canadian Institutes of Health Research (CIHR), \$30.4M from Natural Sciences and Engineering Research Council (NSERC), and \$7.3M from Social Sciences and Humanities Research Council (SSHRC).
- McMaster received \$23.5M through a CIHR Major Strategic Initiative grant to support Phase III of the Canadian Longitudinal Study on Aging, led by McMaster's Parminder Raina in collaboration with Christina Wolfson, McGill University, Susan Kirkland, Dalhousie University, and a multi-disciplinary research team comprised of more than 160 researchers from 26 universities across Canada.
- McMaster received \$18.3M from the New Initiatives Fund, Canada Foundation for Innovation (CFI) and Ontario Research Fund (ORF) to establish a Centre for Advanced Nuclear Systems, led by John Luxat.
- McMaster received \$15.1M through the New Initiatives Fund, CFI and ORF for the Canadian Longitudinal Study on Aging to conduct high-impact population health research to investigate the complexities of the aging process, led by Parminder Raina.
- McMaster received \$14.4M for the Biointerfaces Institute through the New Initiatives Fund, CFI and ORF, led by John Brennan.
- McMaster's Stem Cell and Cancer Research Institute, directed by Mick Bhatia, received \$11.5M from the Ontario Ministry of Research and Innovation. The funding is from the Ontario Research Fund – Research

Excellence (ORF-RE) as part of its Global Leadership Round in Genomics and Life Sciences (GL<sup>2</sup>).

- McMaster received \$10.2M through the Leading Edge Fund, CFI and ORF to further work in developing a clean sustainable energy supply in the Canada Laboratory for Advanced Photovoltaic Research, led by Rafael Kleiman.
- \$10M was awarded to Mark Loeb from the US National Institutes of Health to conduct a large scale international study on the genetic variations which predispose people to the dengue infection.
- \$10M was awarded to McMaster for a Canada Excellence Research Chair (CERC) in Hybrid Powertrain to support the research of Ali Emadi.
- A research team co-led by Peter Szatmari, a professor of psychiatry and behavioural neurosciences, has been awarded an \$8.9M grant from the provincial government to investigate the genetic basis of autism spectrum disorder.
- McMaster received \$6.9M for the Centre for Safety-Critical Software Certification from Ontario Research Foundation – Research Excellence (ORF-RE), led by Tom Maibaum.
- McMaster received \$5.3M from the New Initiatives Fund, CFI and the ORF for the Materials and Manufacturing for Light Weight Automotive Structures and Advanced Occupant Protection. The project is led by Waterloo University and the McMaster lead is Joseph McDermid.
- \$5M was awarded to McMaster from NSERC for the establishment of the NSERC Photovoltaic Innovation Network, led by Rafael Kleiman.
- McMaster received \$5M through the NSERC Strategic Grant to support The 20/20: NSERC Ophthalmic Materials Network (20/20 Network) led by Heather Sheardown.
- McMaster received \$4.7M through the Leading Edge Fund, CFI and ORF to establish a unique Neuroscience of Auditory Interaction Lab to study hearing and communication scientifically in various environments, led by Laurel Trainor.
- McMaster received \$4.6M from the New Initiatives Fund, CFI and ORF to establish the McMaster Intense Positron Beam Facility led by Peter Mascher.

- \$3.6M was awarded to McMaster from the Ontario Ministry of Research and Innovation (OMRI) for a new Ontario Regional Biotherapeutics program (ORBIT). This funding reflects support from the Ontario Institute of Cancer Research (OICR). Jonathan Bramson is primary investigator at McMaster, with Ottawa Hospital Research Institute as the lead institution.
- \$3.5M was awarded to McMaster from the Ontario Research Fund – Research Excellence (ORF-RE) for the work of Elizabeth Weretilnyk to improve the sustainability of crops.
- More than \$3.4M was awarded to the School of Rehabilitation Science to continue a program that support internationally educated occupational therapists as they transition into practice in Canada.
- McMaster received \$2.3M through the New Initiatives Fund from CFI and ORF for Aubrey Cannon. The project is led by the University of Western Ontario.
- \$2M was awarded to McMaster from CIHR to establish the Centre for Research Development in Gender, Mental Health and Violence Across the Lifespan, led by Harriet MacMillan.
- NSERC Collaborative Research and Training Experience (CREATE) – McMaster received two awards valued at \$1.65M each to lead programs in two highly-specialized and fast-growing fields: Molecular Imaging Probes (John Valliant) and Photovoltaics (John Preston).
- McMaster received ten Early Researchers Awards (ERA) totaling \$1.4M . McMaster's ERA success rate was 59% (provincial success rate approximately 33%).
- McMaster received a \$1.4M Team Grant from CIHR, wherein McMaster will be collaborating with researchers from Finland. The project will be led by Louis Schmidt and reflects support from the Institute of Neurosciences, Mental Health and Addiction (INMHA) and the Institute of Human Development, Child and Youth Health (IHDCYH).
- McMaster received \$1M for a Community-University Research Alliance (CURA) award. The funding is from SSHRC which, with partner contributions, will provide approximately \$2.5M. Wayne Lewchuk serves as the principal investigator for this effort.
- McMaster received \$517K for G-Scale: Gaming Scalability Environment through the Leaders Opportunity Fund, CFI and ORF for a project led by Jacques Carette.

- McMaster received \$500K to help establish a Laboratory for Bone Adaptation and Biomechanics from the Leaders Opportunity Fund, CFI for the work of Gregory Wohl.
- McMaster received \$470K for modification to the motion simulator from the Leaders Opportunity Fund, CFI and ORF for Martin von Mohrenschildt, Judith Shedden and Scott Watter.
- McMaster received \$310K from the Leaders Opportunity Fund, CFI and ORF for Extreme Dynamic Load Simulator work by Wael El-Dakhkhni.
- McMaster received \$278K from SSC-CANMET, SSHRC, and Tantalus in continuing support of Dean Mountain's work.
- McMaster received \$244K from CRCP and SSHRC in continuing support of the work of Rick Hackett.
- McMaster was awarded \$212K from the Leaders Opportunity Fund, CFI ORF in support of Infrastructure the Canada Research Chair in Interfacial Technologies held by Robert Pelton.
- McMaster received \$158K from CIHR, SSHRC and NSERC to continue the support of the work of Norm Archer.
- In the 2009 NSERC Discovery Accelerator Supplement competition, Tim Davidson, Yingfu Li, Christine Wilson and Sue Becker received \$120K each. In the 2010 competition, Hendrik Poinar, Michael O'Donnell, Cecile Fradin and Hatem Zurob received awards at \$120K each.
- McMaster received \$120K for Non-Invasive Imaging from the Leaders Opportunity Fund, CFI and ORF for Michael Noseworthy.
- McMaster received \$14.9K in support from the Canada-Latin America and the Caribbean Research Exchange Grants program to support the work of Mirna Carranza.
- In CIHR Operating Grant Competitions (September 2009 and March 2010), McMaster received 27 awards with three of these awards in excess of \$1M each.
- In NSERC Discovery Grant competitions, McMaster received 75 awards in 2009 and 64 awards in 2010.
- In SSHRC Standard Research Grant competitions, McMaster received 19 awards in 2009 and 31 awards in 2010.

## Appendix D – Refining Directions Priority Goals

The Refining Directions Implementation Plan Committee (RDIPC) is pleased to present a set of top priorities for action to implement the institutional strategic plan, Refining Directions. The items listed below are seen as necessary conditions for moving the institution forward. Further, they speak to our current areas of excellence and expand these to new areas. In discussing these priorities we recognize it will be important to consider:

- Short term versus long term goals
- Critical needs versus desires for improvement
- Maintenance of leadership in an area versus new areas of effort
- Low resource versus high resource action items.

The priorities defined for further consideration are as follows:

Education - *Create interactive and engaging instructional environments and support a diversity of pedagogical strategies for students with different learning needs.*

Research - *Engage in planning that identifies specific strategic priorities, develops incentive to reward those priorities, and identifies appropriate resources to support them, including funding, staffing and space.*

Building an Inclusive Community - *Create models for enhancing inclusion on campus and provide structural support for implementing them.*

Government Relations - *Develop and implement an integrated government relations strategy.*

Graduate Student Experience - *Expand the range of professional development programs and services.*

International Strategy - *Develop and implement an integrated international activities strategy.*

Information Technology - *Create a robust technology infrastructure.*

Budget - *Develop and implement a new budget model for internal budget allocations, and support this model with appropriate tools and training.*