

McMaster Goals and Priorities

2014-2015



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SCHOOL OF MEDICINE





McMaster Goals and Priorities

McMaster University was founded in 1887 and is governed by the McMaster University Act, 1976. As a research-focused student-centred university, we serve our community and society by nurturing and supporting the fulfillment of human potential: inspiring creativity and critical thinking, promoting an enduring love of learning and the habit of inquiry, and undertaking innovative research that extends the boundaries and enhances the efficacy of knowledge. McMaster is one of only two Ontario universities and one of only four in Canada ranked among the top 100 universities in the world.

Vision Statement

To achieve international distinction for creativity, innovation and excellence.

Mission Statement

At McMaster, our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, inclusiveness, and

teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for lifelong learning. We serve the social, cultural, and economic needs of our community and our society.

Strategic Priorities

McMaster's vision, mission, and mandate statement provide the foundation for our strategic planning. President Patrick Deane's letter, *Forward with Integrity*, outlines our priorities, as well as our commitment to transformation over the next decade. At McMaster, we strive to foster the creative and intellectual potential of our students, while at the same time preparing our graduates to build successful careers. It is our firm belief that higher education, when properly conceived, can and will lead to personal fulfillment and professional success. We will continue to reimagine how best to equip our students for this success, as well as seamlessly integrate our expanding world-class research enterprise into our educational mission. Our research-focused student-centred approach to scholarship and learning, within a research-intensive university, differentiates us in

the post-secondary landscape; this approach has informed our renowned programs and underpins the way in which we define our strategic priorities.

Strategic Goals

Goal 1: Developing a distinctive, personalized, engaging, and sustainable student experience

McMaster has transformed post-secondary teaching and learning over many decades. Our signature pedagogies, such as inquiry and problem-based learning, have been incorporated into multiple programs at McMaster, and are recognized and adopted worldwide. Our goal is to build on the success of our most creative and innovative programs to provide an enriching and transformative learning experience for all students, which includes opportunities for experiential and self-directed learning, and allows for the consideration of multidisciplinary perspectives. Alongside this, McMaster is also committed to further integrating our world-class research enterprise into teaching and learning, and connecting the learning experience to our local, national, and international communities.

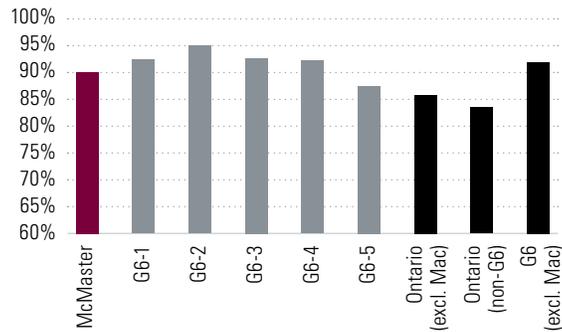
Key Initiatives

- The creation of the **McMaster Institute for Innovation and Excellence in Teaching and Learning (MIETL)** puts McMaster on track to become Canada's premier centre for evidence-based pedagogy at a research-intensive university. MIETL provides strong pedagogical and technological expertise to enable program enhancement and technology integration, as well as supporting and championing research on teaching. Through its student partnerships program, student scholars are engaged in all aspects of its work in teaching and learning.
- Across the University, undergraduate students are being offered the opportunity to engage in hands-on research, with a variety of programs offering capstone or project-based experiences, which integrate research directly into the classroom. The **McMaster Undergraduate Research Journal**, the University's first exclusively online, multidisciplinary, and doctoral reviewed undergraduate research publication, provides tangible evidence of the success of this approach.
- With Productivity and Innovation Fund (PIF) funding, McMaster is transforming the first year experience by enhancing student self-direction, incorporating the most successful elements of McMaster's current blended learning models and making them available to a greater number of students through the redesign of high enrolment courses.
- Our recently launched online Student Learning Portfolio is an essential component in a more personalized learning experience. This tool facilitates the thoughtful integration of classroom and extracurricular learning with students' personal goals.
- Our Bachelor of Health Sciences and Bachelor of Commerce Programs are being modified to include flexible scheduling and shorter course modules offered throughout all three terms. The pilot for this approach is currently being developed.
- To assist students with the transition from high school to university, a number of initiatives have recently been launched including the online Summer Orientation for Academic Readiness (SOAR) program, the McMaster Academic Planner for Science online tool, and an introductory Science course (Science 1A03), all designed to support students in making more informed choices and improve both recruitment and retention.
- We are continuing to build on our partnerships with Mohawk and other colleges to provide enhanced programming and support student mobility. The relationship between McMaster and Mohawk, arguably the strongest college-university partnership in Ontario, is exceptional amongst research-intensive universities.
- McMaster's recently released Student Mental Health and Well-Being Strategy expands and brings together existing mental health initiatives and services to provide a proactive and coordinated approach to caring for students in difficulty, improve mental health and well-being education, training and resources, and provide enhanced support to meet the changing mental health needs within the student body.

Key Outcomes

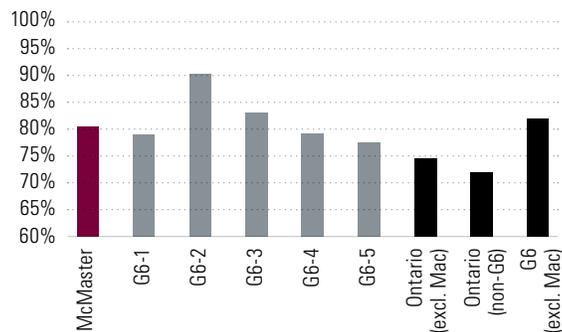
- McMaster students enjoy high retention and graduation rates; according to the most recent Maclean's rankings, McMaster's graduation rate is the third highest in the country.
- We measure the experience of our students through the National Survey of Student Engagement (NSSE) and the Canadian Graduate and Professional Student Survey (CGPSS). McMaster consistently ranks higher than the Ontario average in the categories of academic challenge, active and collaborative learning environments, enriching educational experiences, and supportive campus environment.
- In 2014-2015, McMaster enrolled 950 credit transfer students from 20 Ontario universities and 20 Ontario colleges of applied arts and technology. We have agreements in place with a variety of universities and colleges.
- Almost every Faculty at McMaster has a partnership program with Mohawk. In 2014-2015, more than 2,600 students were enrolled in a collaborative program, which include diverse pathways, such as integrated high school entry degree programs, degree-completion programs for college graduates, and elective programming for McMaster students. A request for a new collaborative program, Bachelor of Applied Science in Human Behaviour, has recently been submitted.
- MIETL is already demonstrating success in collaboration with the Program for Educational and Research Development in the Faculty of Health Sciences, which has had a profound influence on evidence-based medical education, nationally and internationally. Our aim is to continue to apply and evaluate the efficacy of diverse pedagogical approaches – from online delivery to flipped classrooms.
- The Learning Portfolio has continued to see growth. In 2014-2015, there were 7,421 users, an increase of 76 per cent over 2013-2014. The number of items created by these users (which include artifacts, reflections, presentations, and collections) also saw a very large increase of 147 per cent, from 43,538 to 107,724.

Undergraduate First Year to Second Year Retention Rate, Fall 2014



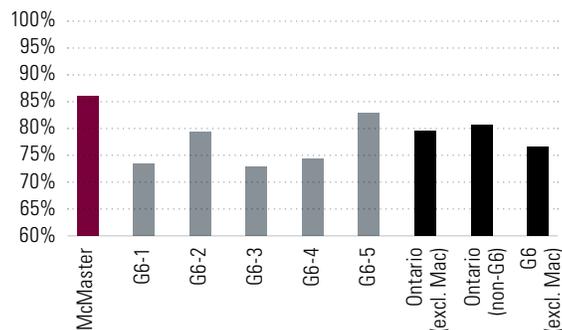
Note 1: Retention rates are based on first-time, full-time undergraduate students who commenced their studies in the previous year and have continued to study at the same institution in the reporting year.
 Note 2: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: CSRDE (Consortium for Student Retention Data Exchange)

Undergraduate Eight Year Graduation Rate - 2013



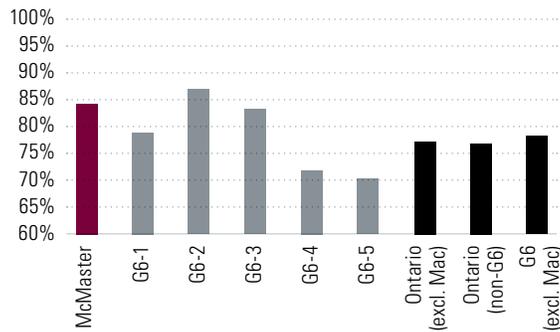
Note 1: The university graduation rate is calculated through the selection of all first year, new to the institution, undergraduate students from the Fall enrolment file 8 years prior, who received a bachelor or first professional degree.
 Note 2: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: University Statistical Enrolment Report and Degrees Awarded submissions to MTCU

NSSE - Entire Educational Experience Rated as Excellent or Good - 2014



Note 1: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: National Survey of Student Engagement (NSSE)

NSSE - Would you start over at the same institution, Rated as Definitely Yes, or Probably Yes - 2014



Note 1: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities). Source: National Survey of Student Engagement (NSSE)

Goal 2: Enhancing the connections between McMaster and the communities we serve, locally, provincially, nationally, and around the globe.

McMaster is committed to public service, and has demonstrated throughout its history that outstanding academic work can be an extraordinary force for the good of human beings and society at large. Our focus is on fostering ongoing collaboration between the University and community partners to enable us to better understand and consider the issues identified as priorities by local and global communities and to integrate this work fully and meaningfully into the work of the academy. In addition to this societally-focused research, teaching, and service, McMaster also supports the broader community through our work to foster a diverse campus community and create enhanced pathways and improved access and supports for underrepresented groups, including Indigenous students, Crown Wards, and First Generation students.

Key Initiatives

- In September 2013, McMaster formed the Network for Community-Campus Partnerships to facilitate the achievement of the University's community engagement goals by bringing together community involved representatives from across the university to develop a common vision of mutually-beneficial community-campus partnerships. The Network recently
- launched a strategic planning process intended to inform the development of a 2016-2020 strategic plan for community engagement.
- We are building on our strong partnership with Six Nations Polytechnic to assist Indigenous learners seeking a university degree to transition to McMaster, as well as supporting an Indigenous Knowledge Centre that is quickly becoming a regional hub for research. Additional programming, including a new honours program in Indigenous Studies, has been developed by the Faculty of Social Sciences, an Indigenous Undergraduate Summer Research Scholars Program, designed to give Indigenous learners a glimpse of life as a graduate student researcher, has been launched, and an Indigenous Students Centre has been incorporated into the design of L.R. Wilson Hall.
- The McMaster Discovery Program, currently in its fifth year, offers free, non-credit, university-style courses to Hamilton residents who were previously prevented by economic, social, medical or other barriers from gaining access to post-secondary education.
- The McMaster Children and Youth University (MCYU) is dedicated to the educational engagement of young people and their families in the greater Hamilton area, using a variety of inquiry-based lectures and hands-on community-based workshops. The overall goal is to demonstrate the valuable contributions of young people to knowledge development, and to present university education as a viable option for those who may not previously have considered it.
- A coordinated strategy for internationalization is being developed that will include a bridging program for students entering McMaster from overseas. The goal is to foster the integration of international students within our community, while encouraging all our students to embrace their roles as global citizens.
- The McMaster Library is piloting a program with provincial partners to digitize and deposit course materials into a shared repository for students with disabilities across the province.
- A number of programs designed to build pathways for high school students and support the participation of at-risk youth are underway, including the engineering and

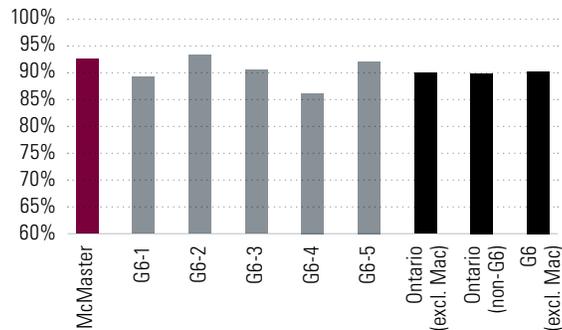
science-based Venture Camps Program, and the new life-mapping course introduced by the Faculty of Social Sciences.

Key Outcomes

- In 2014-2015, McMaster welcomed over 4,000 full-time first-generation students (representing about 13 per cent of McMaster students), almost 500 (two per cent) Indigenous learners (First Nations, Métis, and Inuit) and 926 (four per cent) students with disabilities. McMaster continually strives to improve access to underrepresented students.
- Working with community partners, McMaster's Crown Wards program, which creates educational pathways for Crown Wards, and offers tuition-free university education, has grown significantly from 35 Crown Wards in 2009 to 265 in 2013.
- McMaster's students have been successful in finding employment, both within the local economy and further afield; of those students graduating with a bachelor or first professional degree in 2012, 90.4 per cent had found employment within six months and 90.36 per cent within two years (source: Ministry of Training, Colleges and Universities' 2014 Ontario University Graduate Survey).
- McMaster is a significant source of employment within our community. With approximately 7,800 full-time faculty and staff, we are one of the largest employers in the greater Hamilton area.
- McMaster expanded its presence in the community by opening the David Braley Health Sciences Centre, which will provide patient care and clinical services to 15,000 residents of our city, as well as education and community-based experiential learning opportunities to 4,000 students, and by launching the Action Research Commons Hamilton (The ARCH), a collaborative work and meeting space for students, scholars, area residents and others engaged in conducting community-based research.
- Programming designed to introduce undergraduate students to community-engaged scholarship has been developed, and a level 2 course, Foundations of Community Engagement, was launched in September 2015.

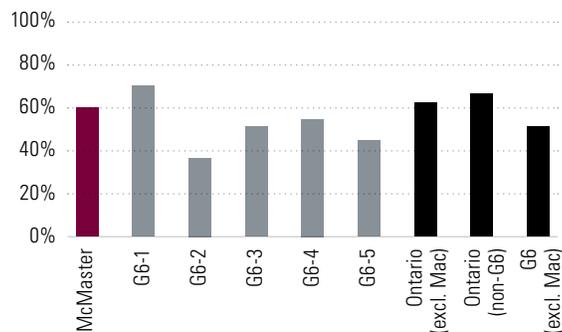
- The 2014 McMaster International Compendium provides a snapshot of McMaster's global activities, spanning all six Faculties and engaging faculty, staff and students at all levels. It highlights 300 projects and more than 1,250 international partnerships taking place in 139 countries.

Graduate Employment Rate, 6 months post-graduation, 2014



Note 1: Graduate Employment Rate is the number of graduates of bachelors or first professional degree programs expressed as a percentage of the labour force after graduation.
 Note 2: The table above displays the results of the Ministry of Training, Colleges and Universities' Ontario University Graduate Survey on the employment outcomes of undergraduate students who graduated 2 years before the year displayed.
 Note 3: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: Ontario University Graduate Survey (OUGS)

Students Receiving OSAP as a Percentage of Total Enrolment 2014-2015



Note 1: Total full-time OSAP awards at institution based on academic year-end data (OSAP academic year starts August 1, with academic year-end data available at end of August in the following year)/Total Fall operating grant eligible headcount enrolment enrolled at institution (based on November 1st reporting).
 Note 2: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: OSAP and University Statistical Enrolment Report.

Goal 3: Strengthening the excellence of our research and our graduate education and training, while seeking opportunities to integrate research more purposefully into our academic mission

McMaster is a globally competitive research-intensive University and excels at interdisciplinary and collaborative research, working with industrial, government, and community partners, as well as other academic institutions around the globe. Our research reflects current and emerging social and economic issues of relevance to our local and global communities and has impact across a wide range of disciplines and issues. We intend to build on our track record in technology transfer and entrepreneurship to provide opportunities for commercialization to our faculty and students and bridge the gap between research and commercial application. Committed to engaging students at all levels in research activities, we strive to integrate research and teaching across our programming in creative ways. Our graduate training is central to sustaining our research intensity and we are committed to equipping graduate students in all programs with the practical skills and experiential knowledge that will enable them to translate their academic achievements into success after graduation.

Key Initiatives

- McMaster continues to lead interdisciplinary research collaborations that span institutions, such as the Canadian Longitudinal Study on Aging, as well as the Allergen and Centre for Probe Development and Commercialization Networks of Centres of Excellence.
- McMaster is committed to developing and expanding its research enterprise and operates a range of world-class research laboratories, including the McMaster Nuclear Reactor, one of the world's largest suppliers of the medical radioisotope iodine-125 which is used for the treatment of prostate cancer; the McMaster Automotive Resource Centre (MARC) which brings together both the private and public sectors to develop, design, and test hybrid vehicle technology; the Population Health Research Institute (PHRI), a collaborative initiative with Hamilton Health Sciences, which is Canada's premiere global health research institute and a world leader in large clinical trials and population studies; the Labarge Optimal Aging Initiative, which has supported 14 research projects over the last three years, building upon McMaster's research strength in optimal aging and promoting access to reliable information for older adults through the McMaster Optimal Aging Portal; and the Michael G. DeGroot Institute for Infectious Disease Research, which is training the next generations of infectious disease researchers and clinicians.
- McMaster is focused on supporting commercialization and enhancing entrepreneurial activities and has implemented a number of programs, including The Forge Downtown, which together with partners Innovation Factory and Mohawk College, will support the growth of tech-related businesses; the McMaster Social Innovation Lab (MSIL), a student-run idea incubator that allows students from across all disciplines to work on implementing their ideas; and McMaster Innovation Park, which provides a collaborative space for start-ups, researchers and students to co-locate, connect, and transform ideas from vision to commercial reality.
- We are focused on increasing graduate enrolment and are introducing new graduate programs to meet Ontario's higher education and training needs, such as the Masters of Biomedical Discovery and Commercialization program, which will equip students with practical research skills and strong business acumen, the Masters of Public Health, and new PhD programs in Health Studies and Gerontology.
- McMaster is also engaged in breaking down the boundaries between disciplines; the graduate eHealth program, a collaboration between the Faculties of Health Sciences, Engineering and Business, is just one example of successful interdisciplinary programming that delivers a unique and highly relevant educational experience to graduate students.
- McMaster led the PIF funded collaboration of Ontario's research-intensive universities which developed the MyGradSkills.ca website, which provides free online professional skills training for graduate students with topics ranging from the

art of entrepreneurship to teaching and learning, and academic and professional communications.

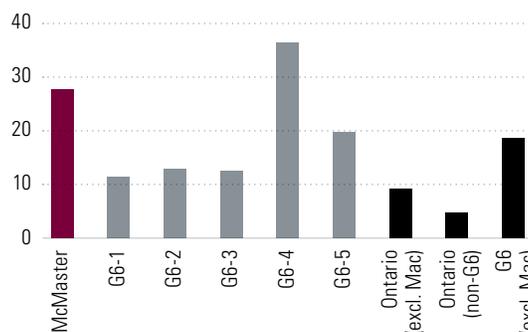
- We are also working through initiatives such as Spectrum, an extracurricular program designed to encourage, develop, and support all McMaster entrepreneurs, including students at all levels of learning, to provide career planning assistance and support with commercial applications and activities.

Key Outcomes

- Since 2005, McMaster has consistently ranked second in the province for research intensity. We are one of only two Ontario universities consistently ranked among the top 100 universities in the world and one of only four in the country.
- Our research impact – using the H-index to measure the quantity and quality of McMaster research publications – indicates we are well above the average in Ontario and among our U15 peers.
- McMaster is number two in the province in the amount of research funding from industrial sources, receiving \$68M in 2013-2014. McMaster was also the second-highest recipient of Tri-Council funding in the province, receiving \$96M in 2014-2015.
- McMaster is home to 69 Canada Research Chairs (CRCs), 76 endowed chairs, 12 endowed professorships, one Canada Excellence Research Chair (CERC) and six Natural Sciences and Engineering Research Council (NSERC) industrial research chairs. The University also has more than 62 research centres and institutes.
- McMaster has the highest average total Tri-Council funding allocation per principal investigator (\$77,834 in 2014-2015) of Ontario’s research-intensive universities. From 2003 to 2013 (most recent data), our research intensity grew by 9 per cent to approximately \$234,500 per full-time faculty member.
- The number of graduate student applications from BIU-eligible students almost doubled (from about 2,850 to approximately 5,700) between 2007-08 and 2014-2015, in part because of our international reputation for excellence.

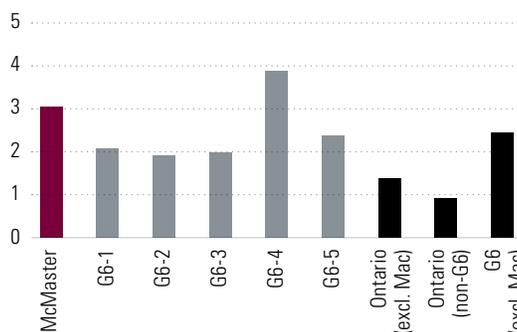
- McMaster students have won 45 Vanier awards, which places us second in the province for the total number of awards, and first in the province in terms of awards-per-student.
- McMaster is a leader in technology licensing with around 400 active licenses, generating approximately \$5.8 million annually (2011-2013 Cumulative Adjusted Gross Income).
- McMaster Innovation Park has fostered almost 120 student-led start-up companies over the last three years.

**Citations per Full-Time Faculty
2008-2009 to 2012-2013 (5 year total)**



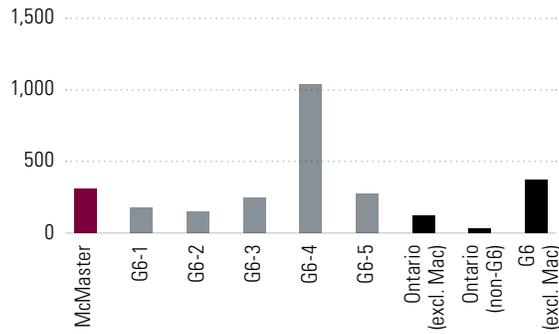
Note 1: Total number of citations in academic journals annually by institution divided by full-time faculty.
 Note 2: 2012-2013 is latest comparable data available.
 Note 3: G6-1 to G6-5 represent McMaster’s Ontario peers who are members of the U15 (Canada’s 15 research-intensive universities).
 Source: Thomson Reuters InCites and CUDO

**Publications per Full-Time Faculty
2008-2009 to 2012-2013 (5 year total)**



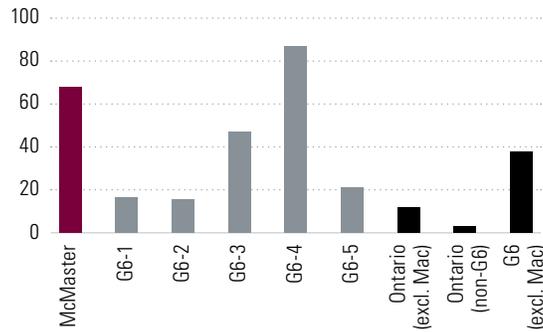
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Total Sponsored Research Income (\$000,000) 2013-2014



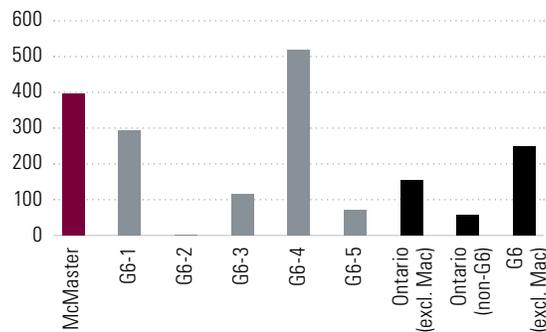
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 Source: Canadian Association of University Business Officers (CAUBO)

Research Funding from Industrial Sources (\$000,000) 2013-2014



Note 1: 2013-2014 is the latest comparable data available.
 Note 2: Research Funding from Industrial Sources includes sponsored research from business enterprises, as defined by the Canadian Association of University Business Officers (CAUBO).
 Note 3: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: Canadian Association of University Business Officers (CAUBO)

Cumulative Active Licenses 2013



Note 1: G6-1 to G6-5 represent McMaster's Ontario peers who are members of the U15 (Canada's 15 research-intensive universities).
 Source: Association of University Technology Managers (AUTM), Canadian Licensing Activity Survey



