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INTRODUCTION

Investments in education are crucial for building our long-term innovation capacity and thus our prosperity risk is that we cut back on our investment in education in the coming years. We have done this before and need to avoid taking the wrong path again. After the recession of the mid-1990s, when federal and provincial governments had to tackle the deficit, they lowered spending on health care and education. As the fiscal pressures eased, growth in health care spending resumed, while that in education spending flat lined. One result was that, by 2000, we had fallen well behind our US counterparts in investing in education for our long-term prosperity. To be serious about competing in the creative age, we have to invest in building the skills and capabilities that will give us the advantage we need. That will come from investing more in education.

---Report on Canada, 2010, Institute for Competitiveness & Prosperity

Ontario's 2010 budget was a surprise for proponents of post-secondary education. The government's unprecedented investment in colleges and universities signals an understanding and an expectation that higher education will step up efforts to address our economic crises as institutions increase access and relevant offerings, and as Ontarians increase their participation in seeking higher education and lifelong learning. Along with this investment comes a higher degree of accountability as the Ministry of Training Colleges and Universities establishes measures of access and quality to monitor our performance within the university sector and our performance as it relates to our own strategic plans.

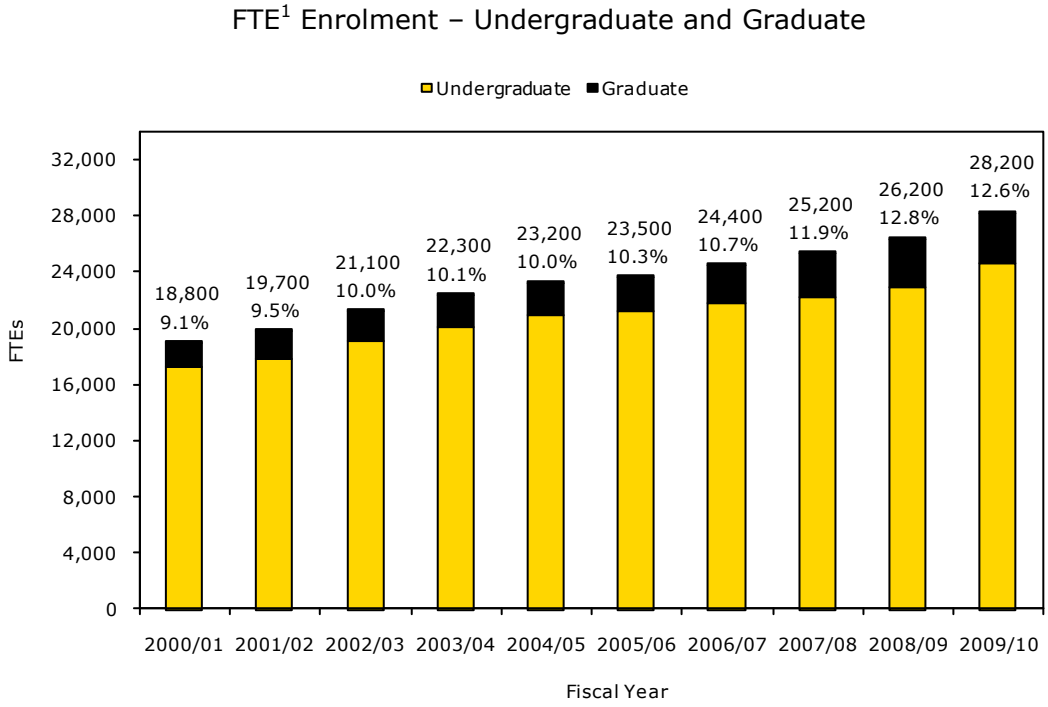
The annual Performance Indicator report delivers a series of measures that take us part of the way to increased accountability. Next steps will include reporting directly related to the sixth decade plan and specific directions and activities identified to enrich our learning environment and our impact in Ontario, Canada and across the globe. We have several notable achievements: growth in undergraduate and graduate programs at a time when we expect full funding, continued investments in the hiring of tenure and tenure stream faculty, a focus on student success that encompasses transition to post-secondary education beyond orientation week, retention strategies to address the challenges our students face, a focus on total enrolment management that will link more directly planning and resources, investment in teaching and curriculum design through the Centre for Teaching Excellence, improved access and delivery through our Centre for Extended Learning, and faculty and staff settlements that recognize the economic realities for both employer and employee.

2010 marks a period of exceptional change at Waterloo—four new academic deans, a new associate vice provost students, a new director's position in organizational change and leadership, the impact of our Provost's philosophy of collaboration, desire for a new revenue sharing model to better inform medium and long term planning, a new associate vice president communications and public affairs, and a new president. Change brings opportunities and challenges for our students, faculty and staff as we continue our pursuit of excellence, ongoing improvement and increased capacity.

OVERVIEW FOR 2010 REPORT

Now in its sixth year of publication, the Performance Indicator Report has matured, providing a reliable, well-defined set of metrics for use across campus and in the wider community. This year will mark the beginning of our progress to a more environmentally friendly approach: in 2010 we will print, for Senate and the Board of Governors, a colour copy of the overview section only, with the full report available online at http://analysis.uwaterloo.ca/docs/pi.php. In 2011, the report will be available in electronic version only. This year will also mark a change in focus from the content of the performance indicator metrics to a report on progress relative to our Sixth Decade Plan. The Performance Indicator Report will remain as a foundation set of data that can be used as a starting point for other analyses that inform our decision making and understanding and may be in future be refined to better reflect the needs of the Waterloo community.

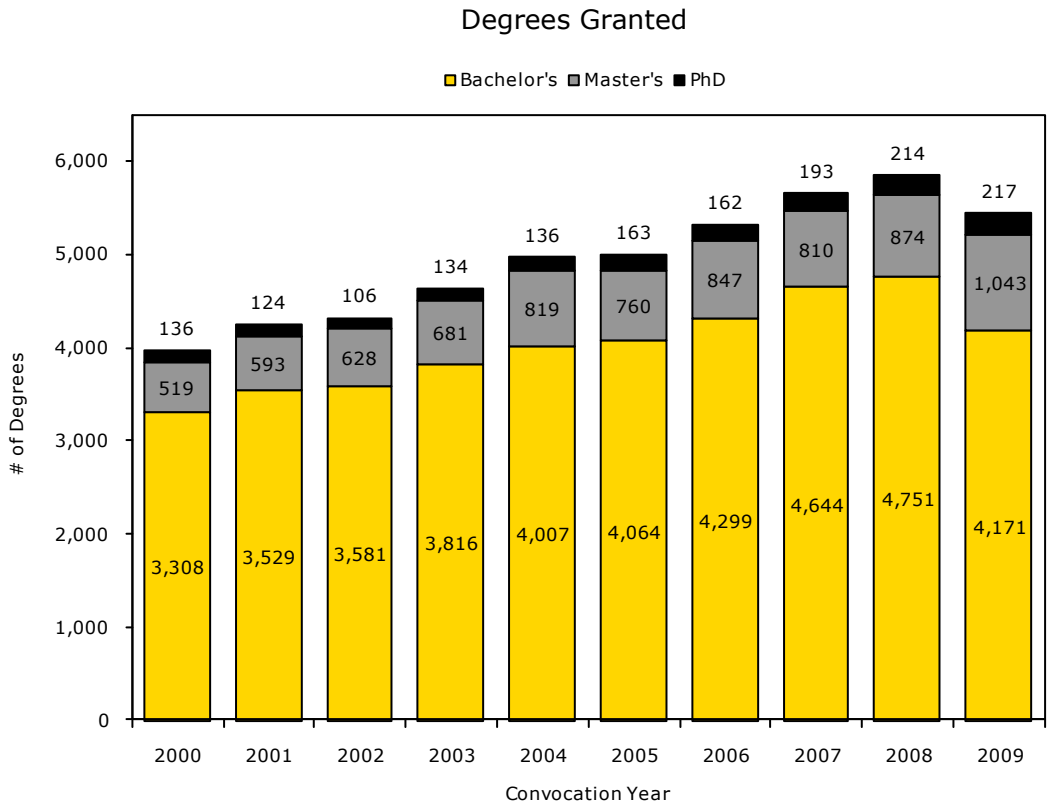
Our Students



Relevance: Sixth decade goals set a target for graduate student enrolment to be 20 per cent of the total student population.

Performance: In 2009/10, graduate enrolment represented 12.6 per cent of our student population.

[1] FTE = full-time equivalent.

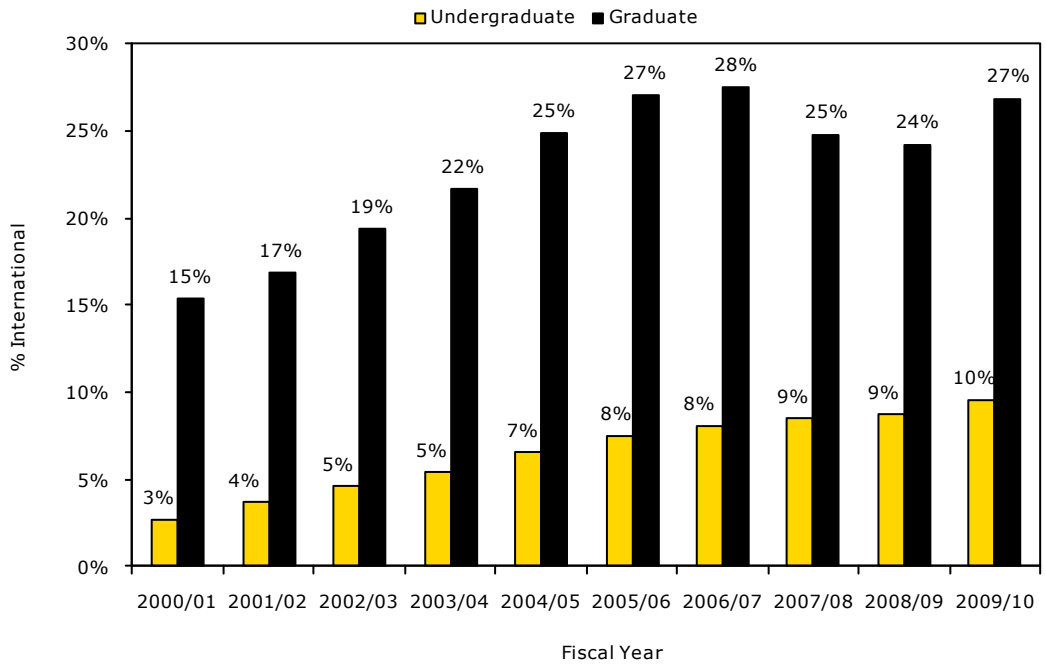


Relevance: An output measure of our academic programs and quality of students.

Performance: The decline in the 2009 undergraduate degrees granted count may be attributed to the elimination of Ontario's OAC (Grade 13) year. The effects can be seen during and immediately following the beginning of the 2002/03 cohort. It will be difficult to draw concrete conclusions until all students from the double cohort have completed their studies.

For graduate degrees granted we expect to see a steady increase, as we realize our graduate enrolment targets.

International Students as % of their Respective Populations

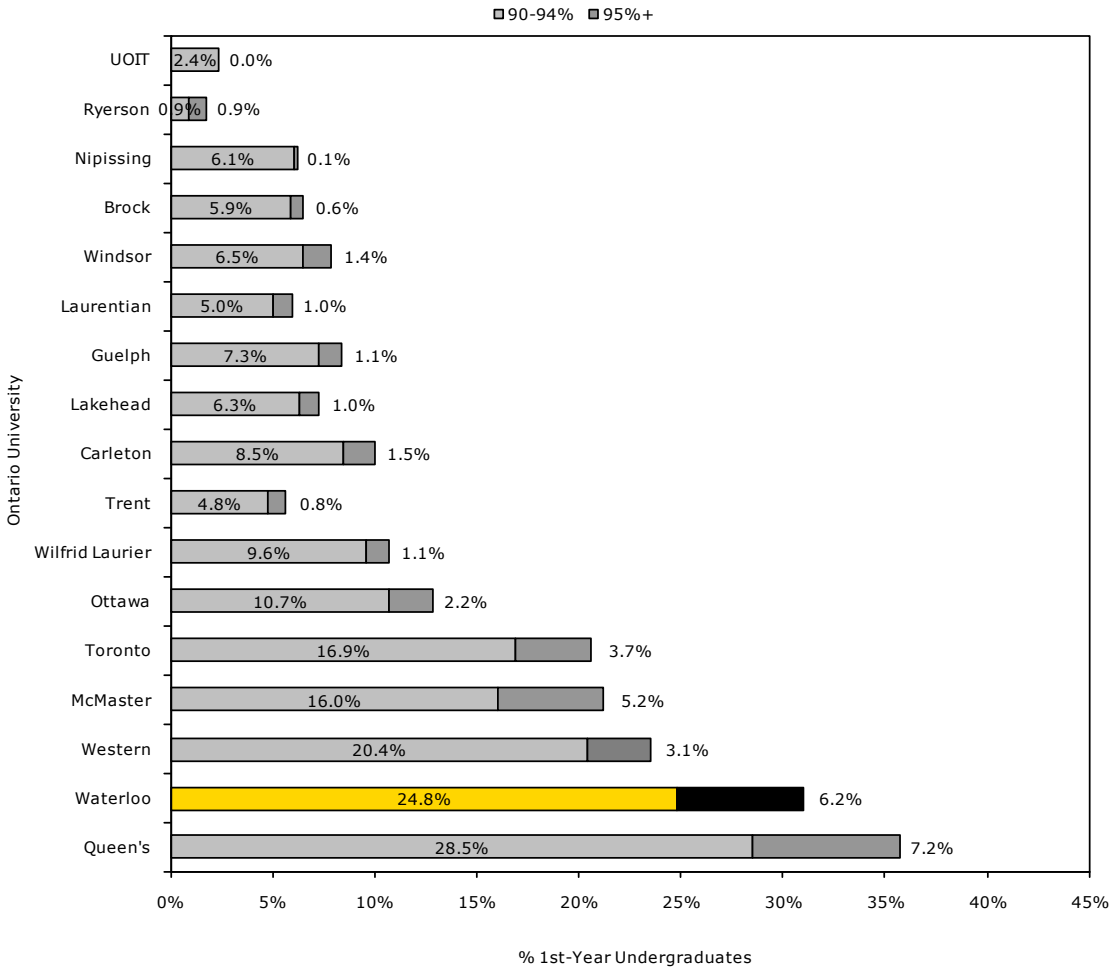


Relevance: Internationalization is a cornerstone of our Sixth Decade Plan. Our goal is that international students will represent 20 per cent of our undergraduate student population and 30 per cent of our graduate student population.

Performance: In 2009/10 we see an increase in both undergraduate and graduate international populations. Undergraduate international percentage has increased up to 10 per cent while graduate increased to 27 per cent getting us back on track to our goal of having 30 per cent of our population as graduates.

Internationalization at UW includes the experience gained through study abroad and exchange opportunities and international co-op work terms. In 2009/10, over 250 Waterloo students participated in an international exchange or study abroad experience.

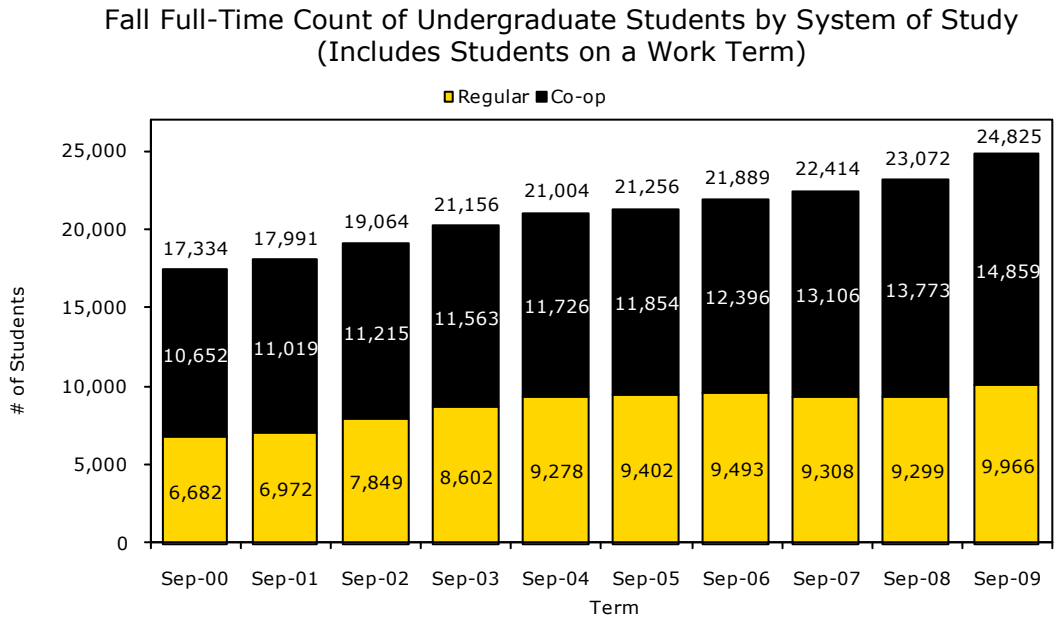
Entering Averages of 90%+ as Compared to Ontario Universities
Fall 2008[2]



Relevance: We strive to be among the top three institutions in Canada attracting first-year students with entering average grades of 90 per cent plus.

Performance: In prior years we have used the Maclean's survey as a source for entering grade average data, which allowed us to collect results for our G13 peers. That data source is no longer available for all of our G13 peers. We now present the Ontario system, which shows Waterloo second to Queen's in the percentage of students with entering averages of 90 per cent or higher.

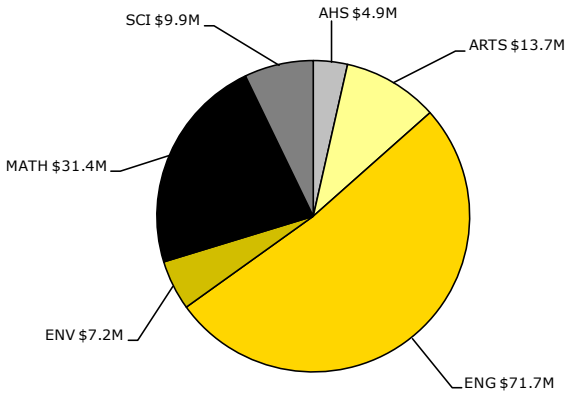
[2] 2008 is the most recent data available from Common University Data Ontario (CUDO) for the 2010 report.



Relevance: The University of Waterloo will maintain its position as the leading co-operative education university in the world.

Performance: The percentage of students registered in undergraduate co-operative education programs has remained steady at 60 per cent in Fall 2009. In Fall 2009, we see an eight per cent increase in our total fall full-time count, with little change to our regular stream programs and an eight per cent increase in our co-operative programs over Fall 2008.

Total Earnings by Students on Co-op Work Term 2009/10[3]
$139,000,000



Relevance: Guarantee to meet the financial needs of ALL qualified Canadian students through a combination of scholarships, research internships, student loans, and co-op jobs.

Performance: In 2009/10 co-op students earned $139 million compared to $142 million in 2008/09. This decline is a result of an increase in the number of students in junior and intermediate level co-op jobs (the result of recent year's enrolment spikes) and the impact of the economic down turn.

A comprehensive review of co-operative education and career services done in 2005 and a review of the employment process completed in 2006 led the Department of Co-operative Education and Career Services (CECS) to create a strategic framework for co-op renewal encompassing the recommendations of both reviews.

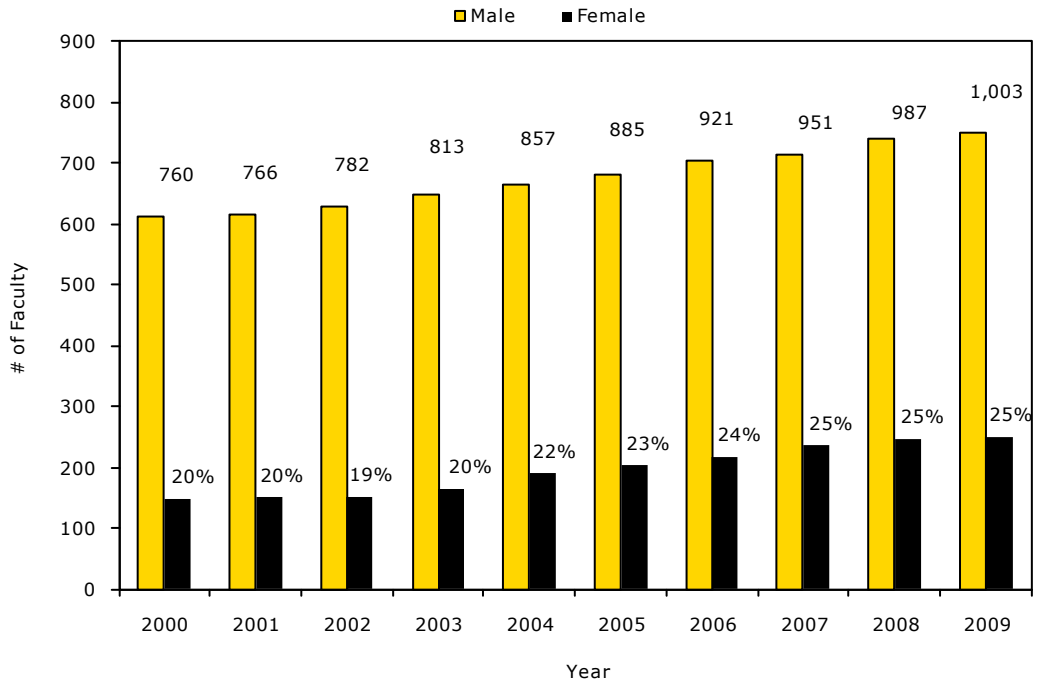
Significant progress has been made in all areas of the framework, notably:

- Recruitment of the senior leadership team, including two new directors for employment relations, and the start of a segmented employer relations approach focussing on employers who consistently hire large number of students from multiple Faculties.
- Implementation of a new marketing and business development strategy to develop and harvest opportunities with employers new to Waterloo co-op.
- The introduction, in Spring 2010, of the new information technology system, WaterlooWorks, to a limited audience of architecture students and employers. Full implementation is anticipated in 2011.
- The addition of 20 new or amended academic programs to the employment requirement portfolio.
- Achieving the status of delivery agent for Industry Canada's Small Business Internship Program. This program has been an unqualified success for both employers and students
- The development of performance metrics to measure the effectiveness of the renewal strategies focussing on student employment.

[3] AHS = Applied Health Sciences; ENG = Engineering; ENV = Environment; SCI = Science.

Our Faculty

Count of Full-Time Faculty by Gender and Percentage Female[4]

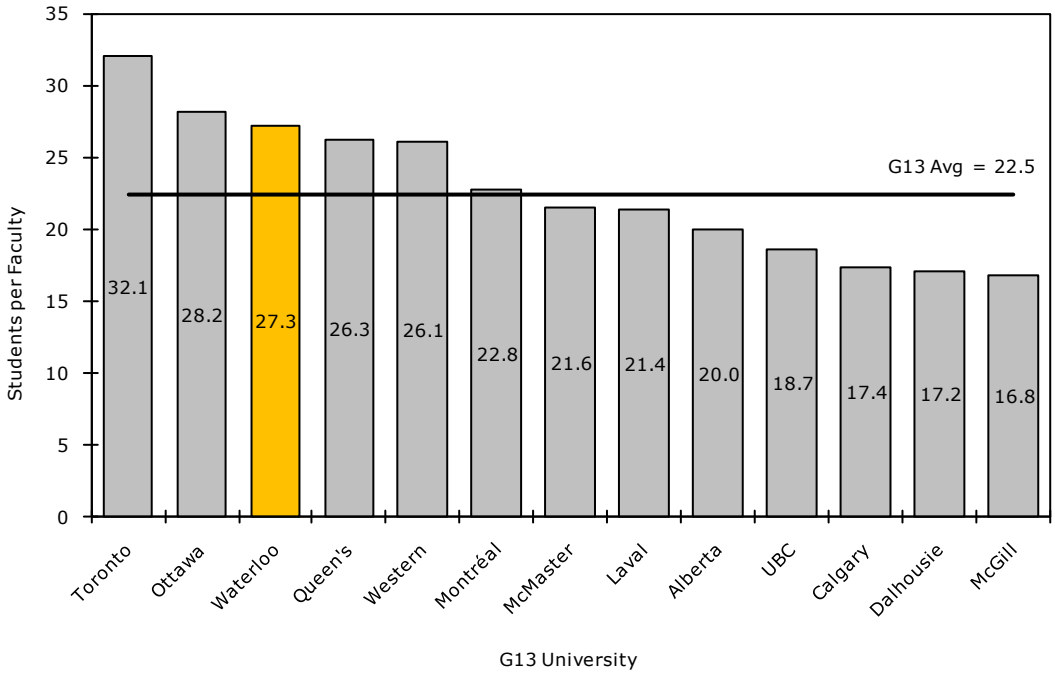


Relevance: Our sixth decade goals include a target of at least 1,000 full-time faculty members by 2017.

Performance: We have experienced a steady increase in the number of full-time faculty over the past several years. With 1,003 in 2009, we have exceeded our target for 2017. However, our goal for our faculty: student ratio of 20:1 remains a challenge due to our increasing undergraduate and graduate populations.

[4] Source: Stats Canada UCASS (University and College Academic Staff System) – As of October 1st of each survey year.

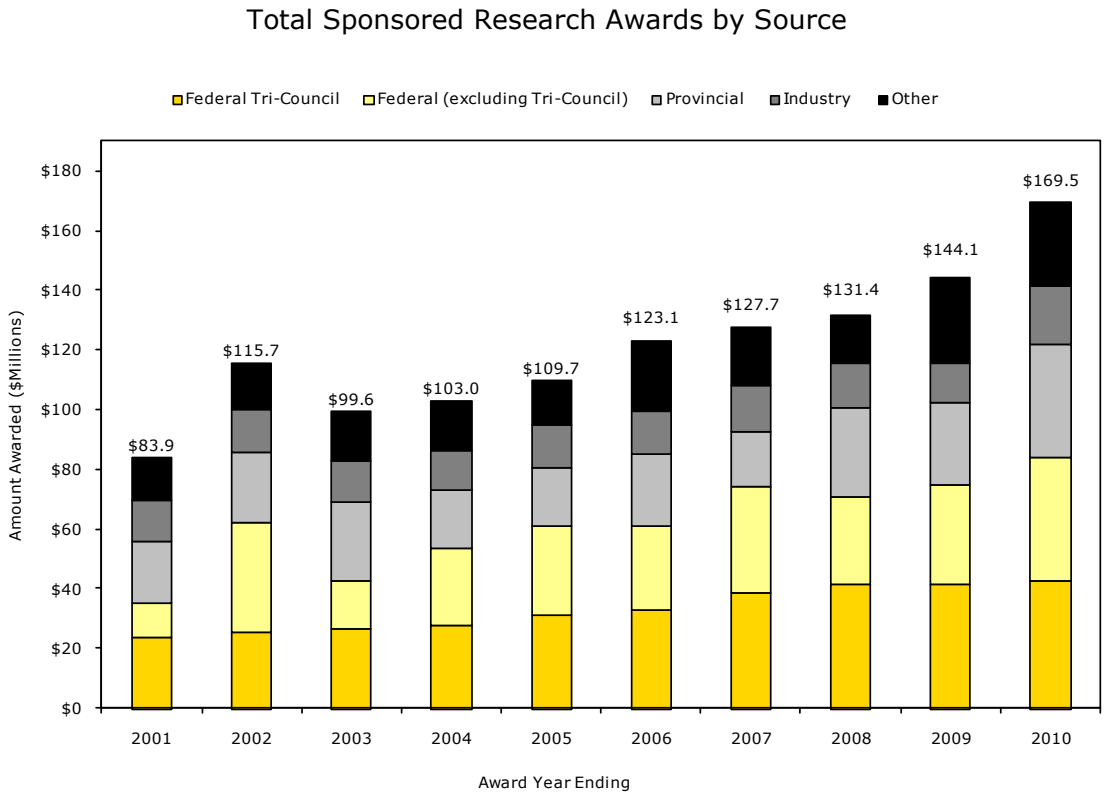
Full-Time Student to Full-Time Tenure and Tenure-Stream Faculty Ratio as Compared to G13 Universities 2008/09



Relevance: Sixth decade goal aims to reduce the student to faculty ratio to 20:1. It is widely held that a lower ratio leads to improved instruction and a better student classroom experience.

Performance: In 2008/09 Waterloo had the third highest ratio of full-time undergraduate and graduate students to full-time tenure and tenure-stream faculty among our G13 Data Exchange peers staying consistent with 2007/08; this position changed from fourth highest in 2006/07 and 2005/06.

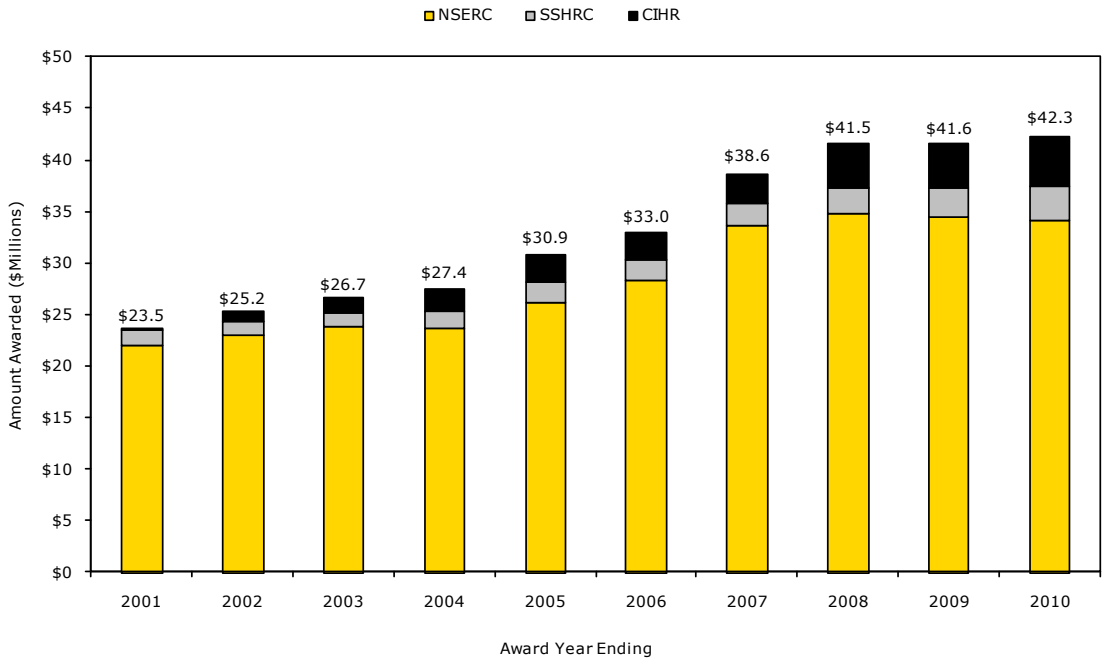
Our Research



Relevance: Increase research awards to 50 per cent of the operating revenue from the current level of 30 per cent.

Performance: Our 2009/10 research awards represents about 34 per cent of our 2009/10 operating revenue.

Federal Tri-Council Research Awards 2001-2010[5]



Relevance: NSERC grants—to be among the top three institutions in Canada; SSHRC grants—to be among the top 10 institutions in Canada; to quadruple CIHR grants—to $12.5 million.

Performance: Relative to the G13, in the period 2005 to 2010, we ranked sixth in percentage increase in research awards from the NSERC granting council. In 2009/10, we ranked fifth in absolute dollars awarded (see Figure 3.2.H and 3.2.K in the research section).

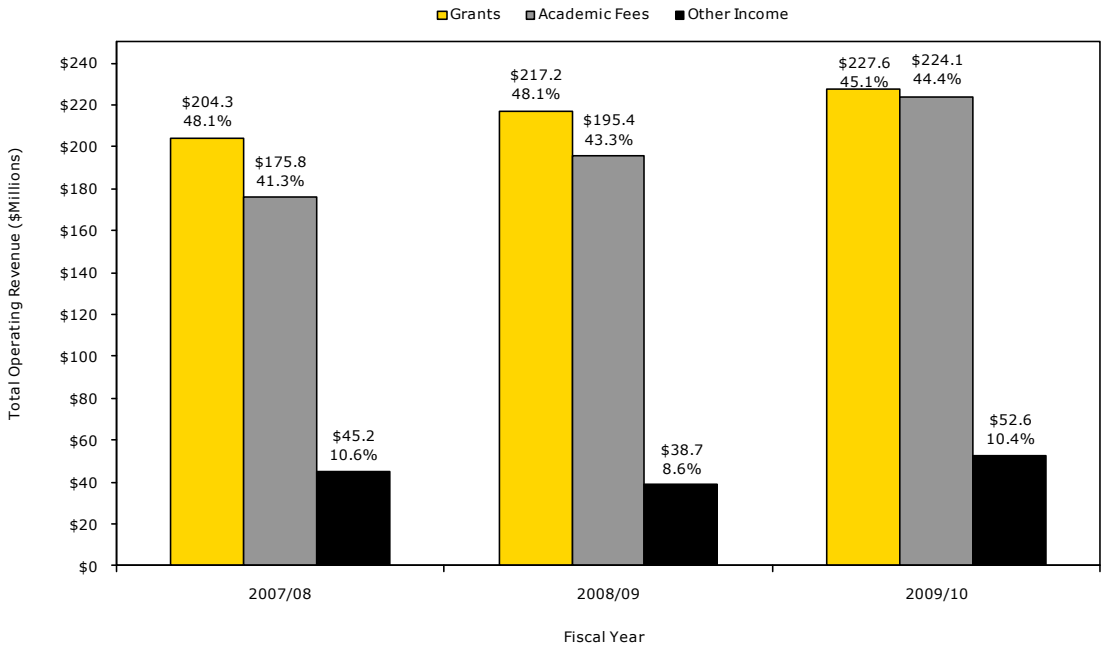
Relative to the G13, in the period 2005 to 2010, we ranked first in percentage increase in research awards from the SSHRC granting council. In 2009/10, we ranked twelfth in absolute dollars awarded (see Figure 3.2.I and 3.2.L in the research section).

Relative to the G13, in the period 2005 to 2010, we ranked first in percentage increase in research awards from the CIHR granting council. In 2009/10 our absolute dollars awarded was $5.5 million (see Figure 3.2.J and 3.2.M in the research section).

[5] NSERC = Natural Sciences and Engineering Research Council; SSHRC = Social Sciences and Humanities Research Council; CIHR = Canadian Institutes of Health Research.

Our Resources

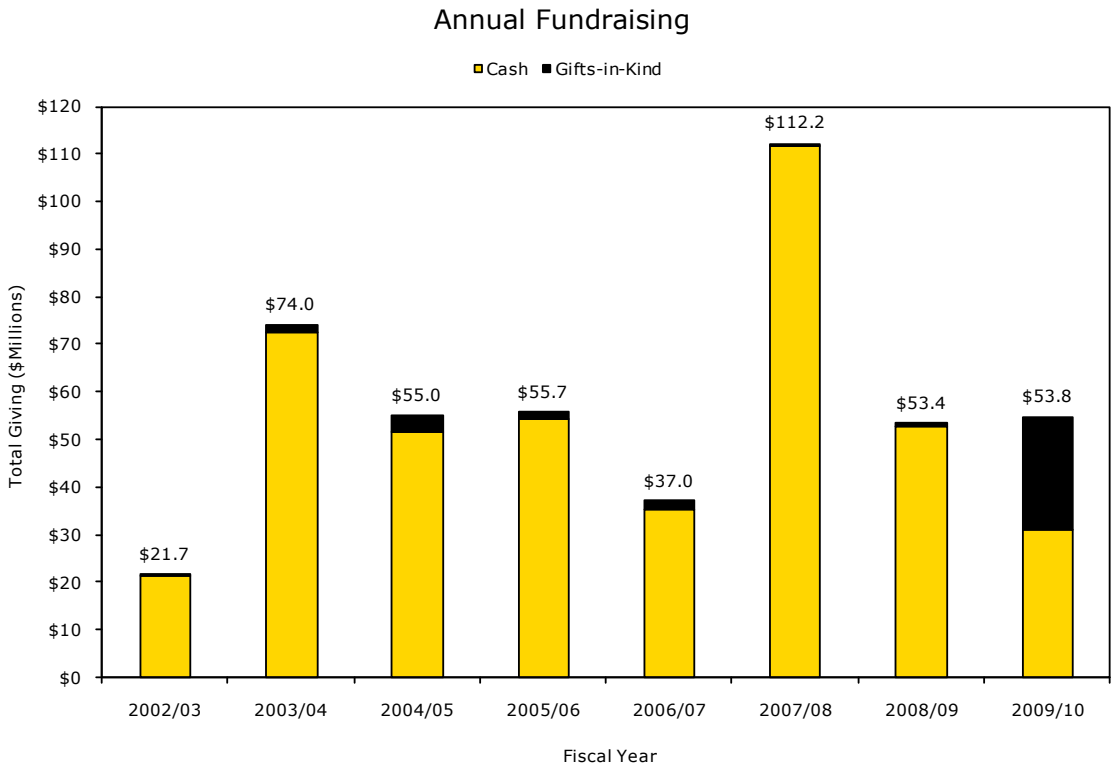
Operating Revenue by Source[6]



Relevance: Waterloo will have incremental resources to support its pursuit of academic excellence.

Performance: In 2009/10, our operating revenue increased to about $504 million, up from $451 million in 2008/09, an increase of approximately twelve per cent.

[6] Grants are comprised mainly of Ministry of Training, Colleges and Universities operating grants; other income includes items such as external sales of goods and services (by academic and academic support units), investment income and application fees. 2008/09 numbers are subject to Board approval.



Relevance: Sixth decade goal aims to raise annual funds of 20 per cent of the operating budget. Cumulative funds raised by Campaign Waterloo, by 2017, are to exceed one billion dollars.

Performance: Annual funds raised in 2009/10 amounted to $53.8 million, representing 11 per cent of the operating revenue. In 2009/10, the cumulative campaign results stood at $568 million, 162 per cent of the 2007 campaign goal and 55 per cent of the 2017 goal. The 2009/10 large jump in gifts in kind is attributed to 2 large gifts (GE Energy and Oracle Corporation Canada Inc.) received by the Faculty of Environment.

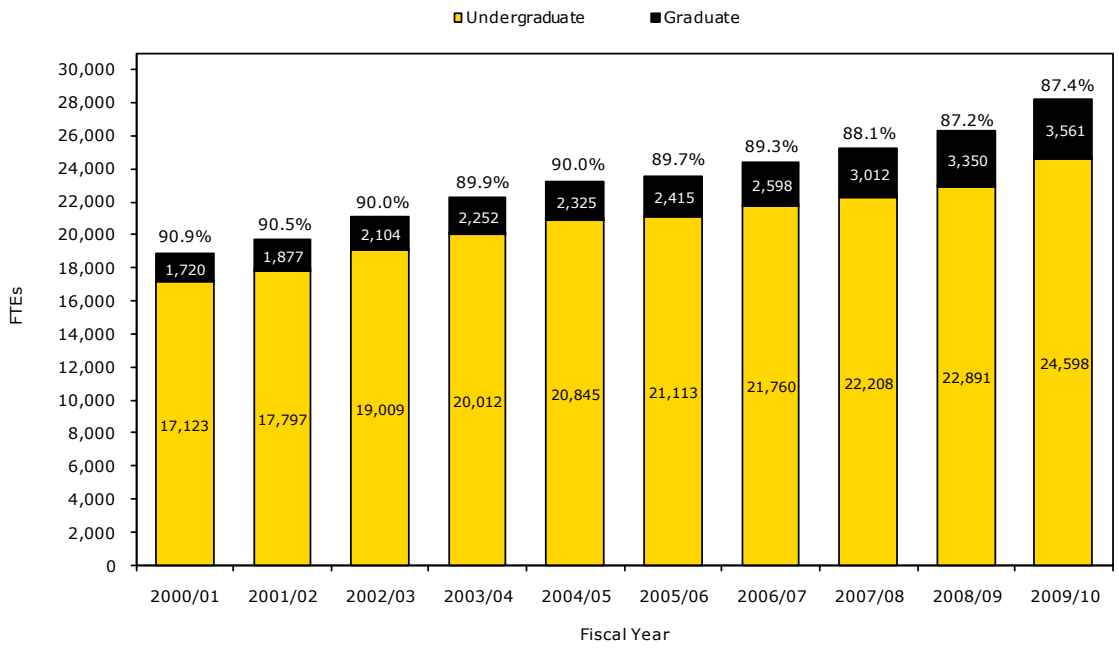
Annual fundraising achievements measure overall performance of advancement activities across the entire University and are important indicators of how well we are doing to raise private-sector gifts. The graph above shows a rise in private-sector giving to the University from 2002/03 to 2009/10, with dramatic leaps in 2003/04 and 2007/08. These leaps can be partially accounted for by several significant pacesetter gifts.

1. UNDERGRADUATE STUDIES

The University's vision for our sixth decade supports a proactive approach to innovative undergraduate education, including strategic management of our undergraduate enrolment, continued focus on relevance and excellence in co-operative education, global engagement, improved student-faculty ratio, and the recruitment, and retention of excellent students. We believe in the value of covering the scope of higher education from quality undergraduate programs to much needed innovative graduate and professional education.

1.1. Enrolment

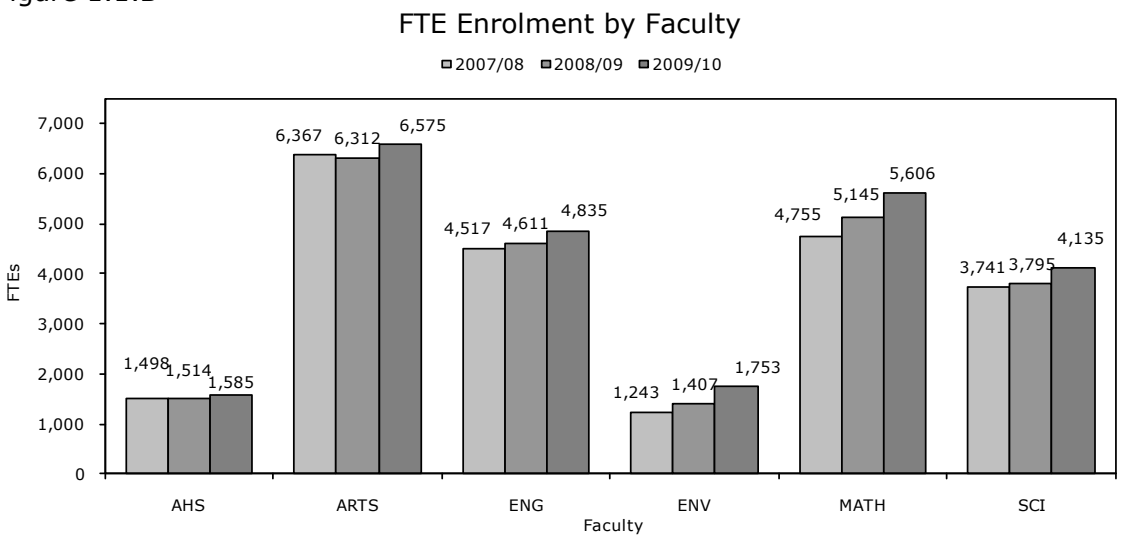
Figure 1.1.A[7]



For most schools with only a regular system of study—where students register in the fall and winter terms—the count of fall, full-time students is the best method to measure the size of their student population. At UW, because of co-op, we count students in two ways: annual full-time equivalent students (FTEs), and term counts of students. In an academic year, full-time undergraduate students usually register for two terms; co-op students, depending on their program, will register for one or two terms and will be on work term for the remaining terms. When we count annual FTEs our goal is to measure the size of our on-campus student population and to represent each student once. Since a full-time undergraduate student usually registers for two terms, we count them as .5 FTE in each term; part-time enrolment is converted to FTEs by dividing the total annual (three terms) courses taken by 10, the expected annual number of courses for a full-time student.

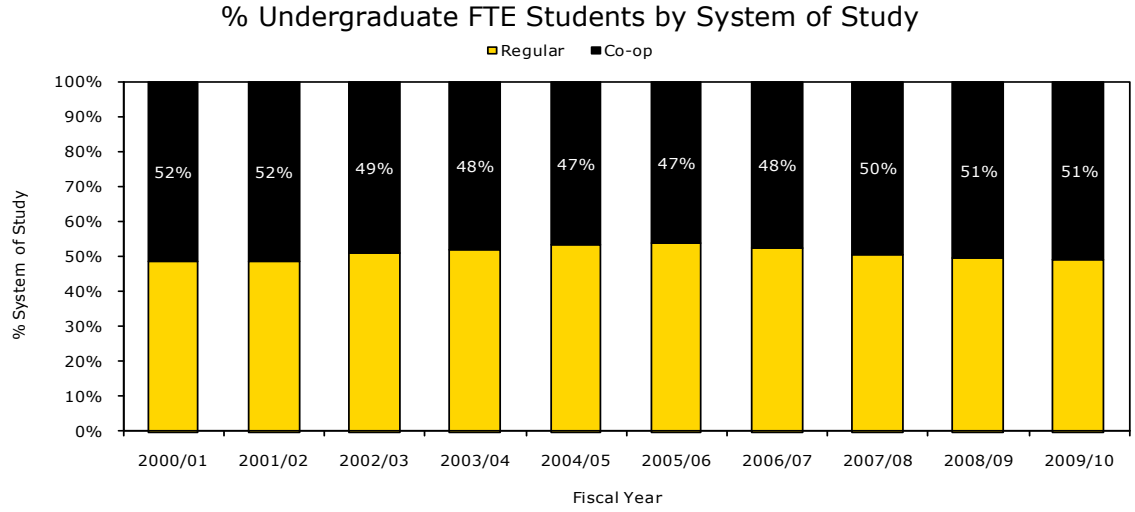
[7] Percentage of undergraduate FTE students displayed.

Figure 1.1.B[8]



When we count students in the fall term, we also include those in our co-operative education programs who are off-campus on a work term. Since co-op students are not always registered for two academic terms in a year, our annual FTE count is lower than our count of fall full-time students. As of 2008[9], when counting co-op students on a work term, we include those students who were unable to find a job. Figure 1.1.C to Figure 1.1.E show the distribution, over time by Faculty, of co-op and regular students.

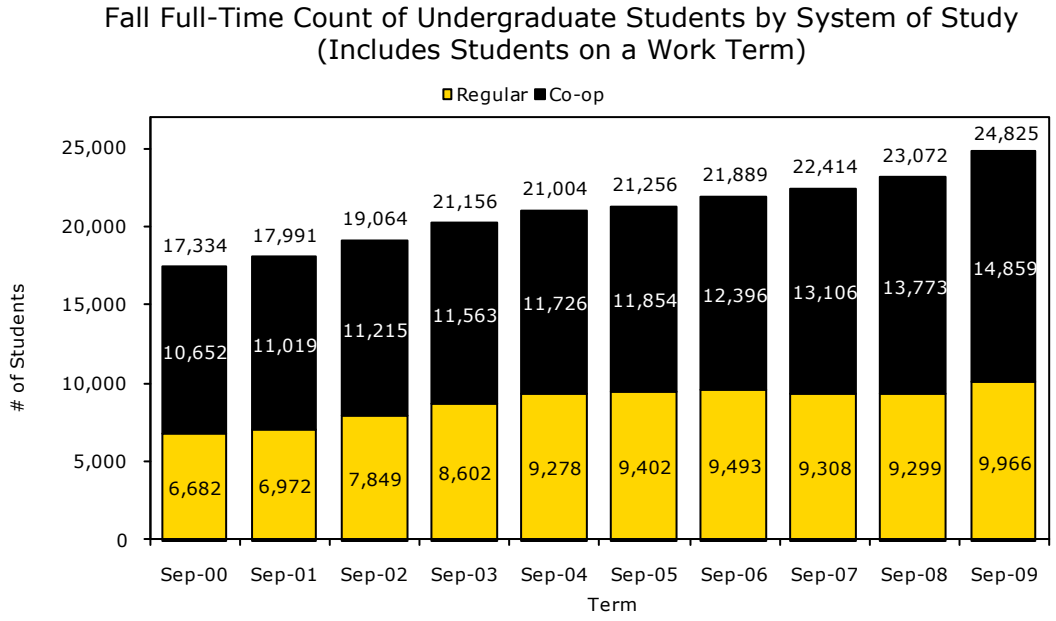
Figure 1.1.C



[8] Software Engineering is offered jointly by the Faculties of Engineering and Mathematics and enrolment is split evenly between these two faculties. Computing and Financial Management is offered jointly by the Faculties of Arts and Mathematics and enrolment is split between these two Faculties. The Renison BSW program, which had 88 students in 2007/08, 107 in 2008/09 and 110 in 2009/10, is not shown.

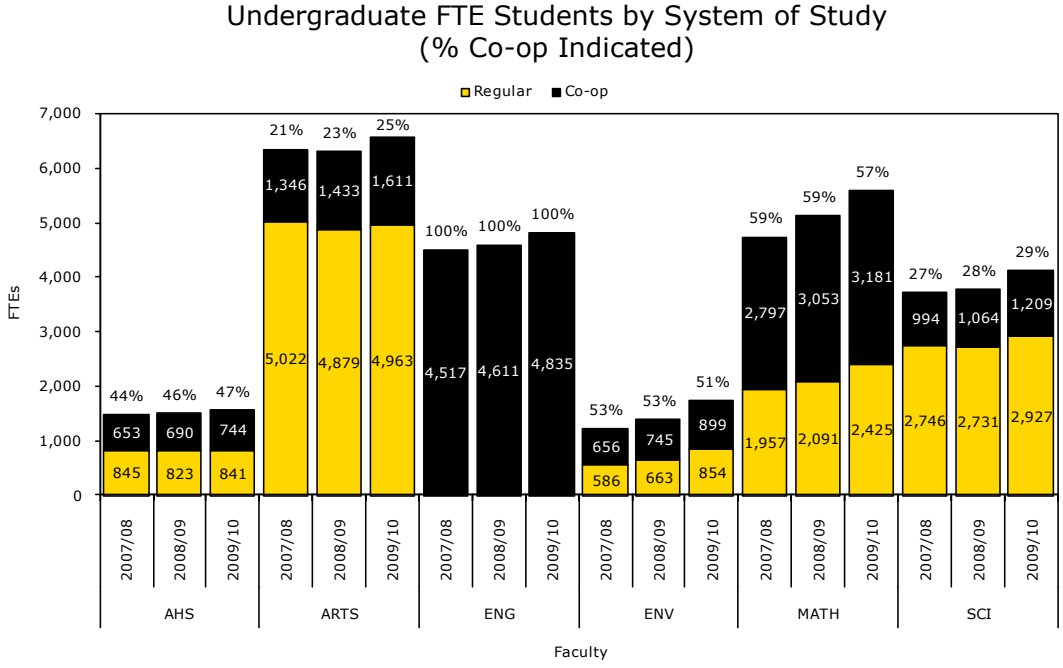
[9] Co-op work term information was corrected back to the 2001/02 fiscal year when it was made available using the new PeopleSoft Student Administration (SA) system.

Figure 1.1.D



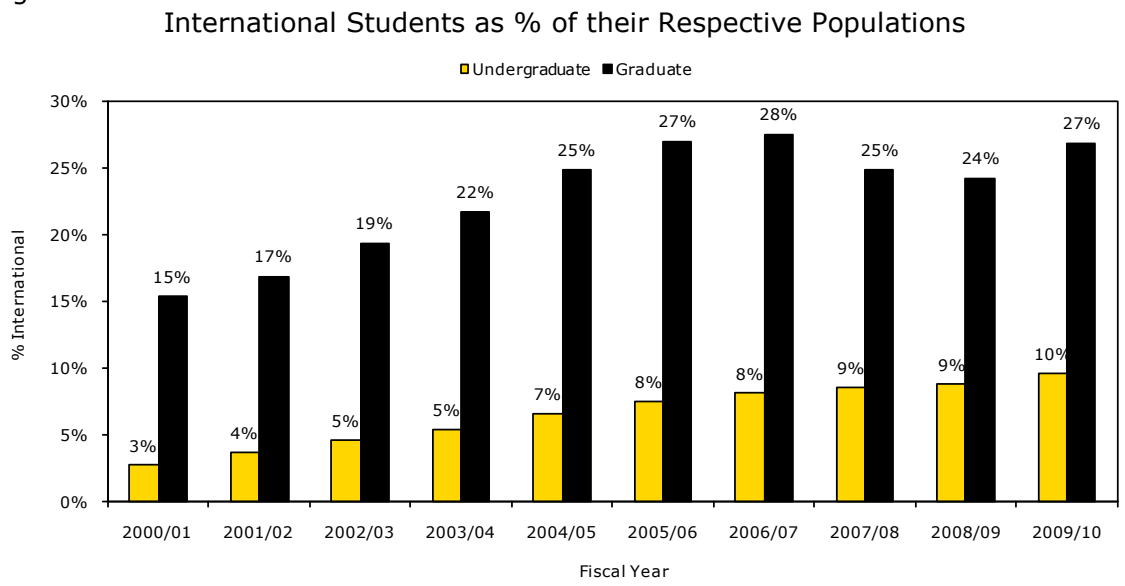
Based on the count of students in the fall term, about 60 per cent of undergraduates were registered in co-operative programs in the fall of 2009.

Figure 1.1.E



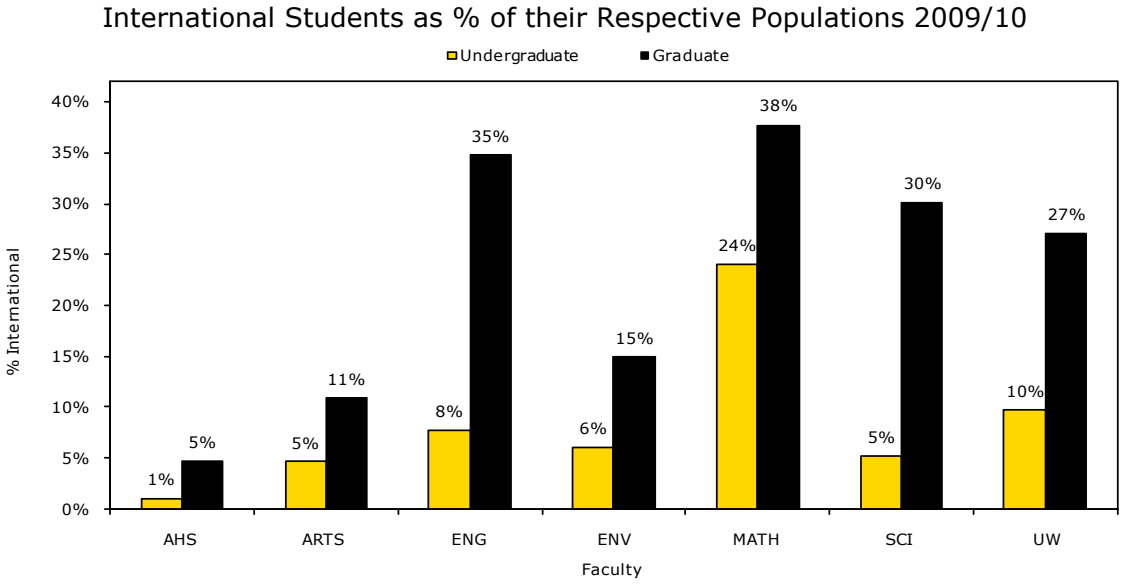
The international percentages in Figure 1.1.F and Figure 1.1.G will help us to assess our annual progress on the University's priority of increased internationalization.

Figure 1.1.F



We see in the chart below that at the University level, international students make up ten per cent of undergraduate enrolment and 27 per cent of graduate enrolment.

Figure 1.1.G



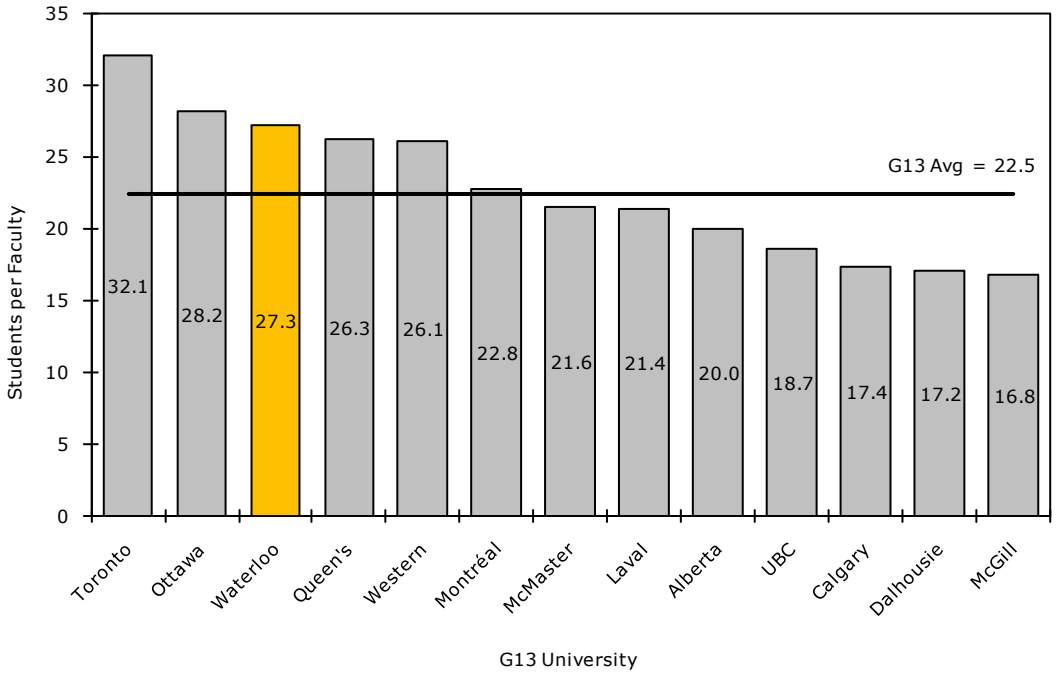
1.2. Student to Faculty Ratio

The student to faculty ratio is considered a reasonable indicator of the quality of education at universities. The time and attention a faculty member is able to devote to each individual student is directly related to the quality of that student's educational experience. The student to faculty ratio is also an indicator of the level and allocation of resources in our academic units.

In order to measure ourselves against our peers, we look at FTE students per tenure and tenure-stream faculty (Figure 1.2.A). Despite efforts to increase the number of faculty members, our student to faculty ratio remains one of the highest of the G13 universities.

Figure 1.2.A[10]

FTE Students to Full-Time Tenure and Tenure-Stream Faculty Ratio as Compared to G13 Universities 2008/09



At UW, we have two additional measures that we use internally for decision-making and resource allocation—full-time equivalent (FTE) students *taught* by each Faculty (distinct from students registered in each Faculty); and the capacity of a Faculty to generate operating grants, a measure we call basic income teaching units, or BTUs. We then take ratios of these measures to the size of our complement faculty, which is the number of ongoing faculty positions (filled and open) for which the University has made a budgetary commitment.

The concept of FTE students taught is fairly straight forward—it represents the total number of FTE students who are taught in the Faculty including students registered in other Faculties. We

[10] Source: G13 Data Exchange.

convert courses taught by each Faculty to equivalent students taught using a formula that takes into account course weights and the average course load for students in the Faculty.

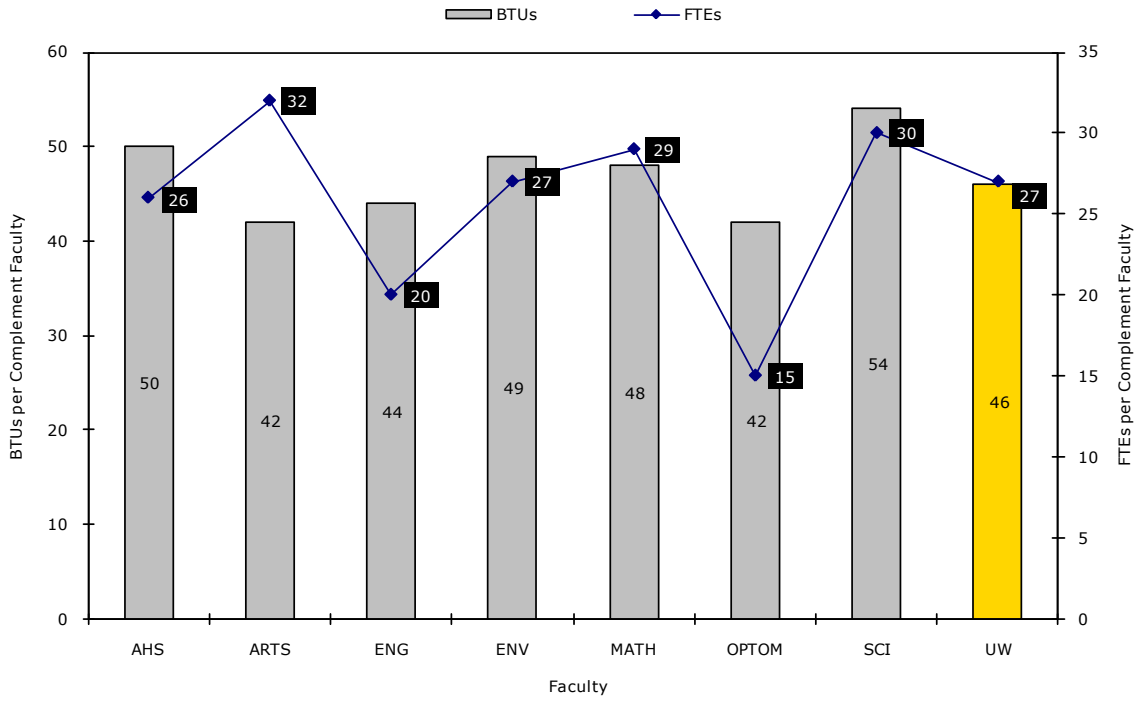
For example, the Faculty of Arts may register 100 students and teach the equivalent of 140 students because students in other faculties take Arts courses to complete their degree requirements.

The concept of BTUs brings in another dimension—the operating grant revenue generated by students registered in a Faculty. Each student reported to the government for funding purposes generates a specified number of *basic income units,* or BIUs, depending on their program and level of study. BIUs are defined by the Ministry of Training, Colleges and Universities. In order to distribute the BIU funds across the Faculties according to the amount of teaching activity, we convert student term courses taught to BTUs using the average course load for the Faculty and the average BIU weight of the students registered in that Faculty.

The chart below shows the two measures described above—FTE students taught per complement aculty and the BTUs generated per complement faculty. We separate Optometry from Science since teaching ratios for Optometry are lower due to clinical teaching requirements.

Figure 1.2.B

BTUs and FTE Students Taught per Complement Faculty[11]
2009/10



[11] Complement faculty are ongoing faculty positions – filled and open – supported by operating funds, for which the University has made a budgetary commitment. Source: Finance. OPTOM = Optometry.

1.3. Grade Averages

Entering grade average is one indicator of the quality of the student. At UW we seek to admit the brightest students possible. In Fall 2005, UW established The President's Scholarship to guarantee a minimum $2,000 scholarship to all students with an incoming average of over 90 per cent. In Fall 2006, UW established a $1,000 scholarship for students with an 85-90 per cent average.

Figure 1.3.A[12]

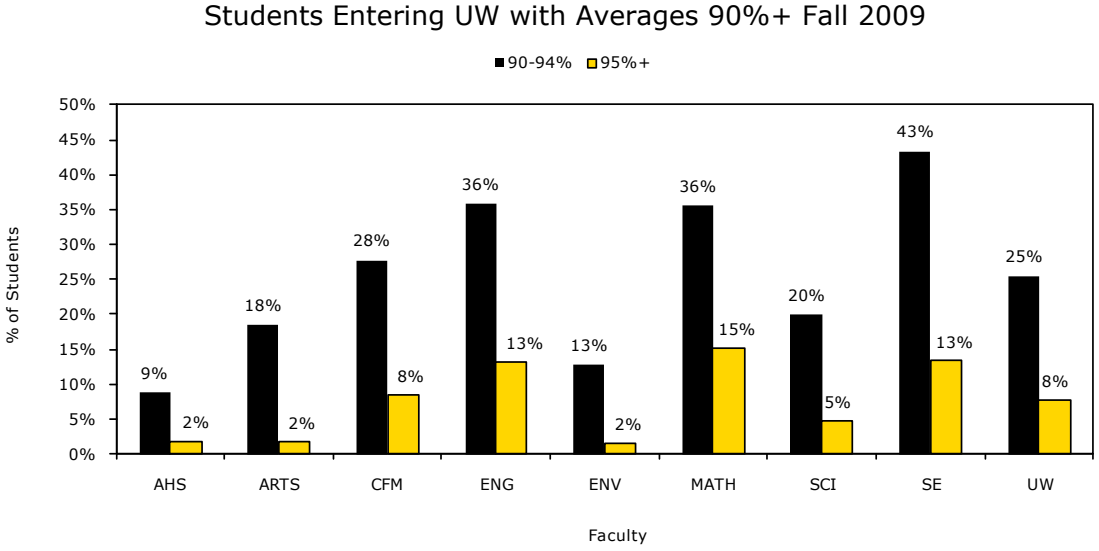
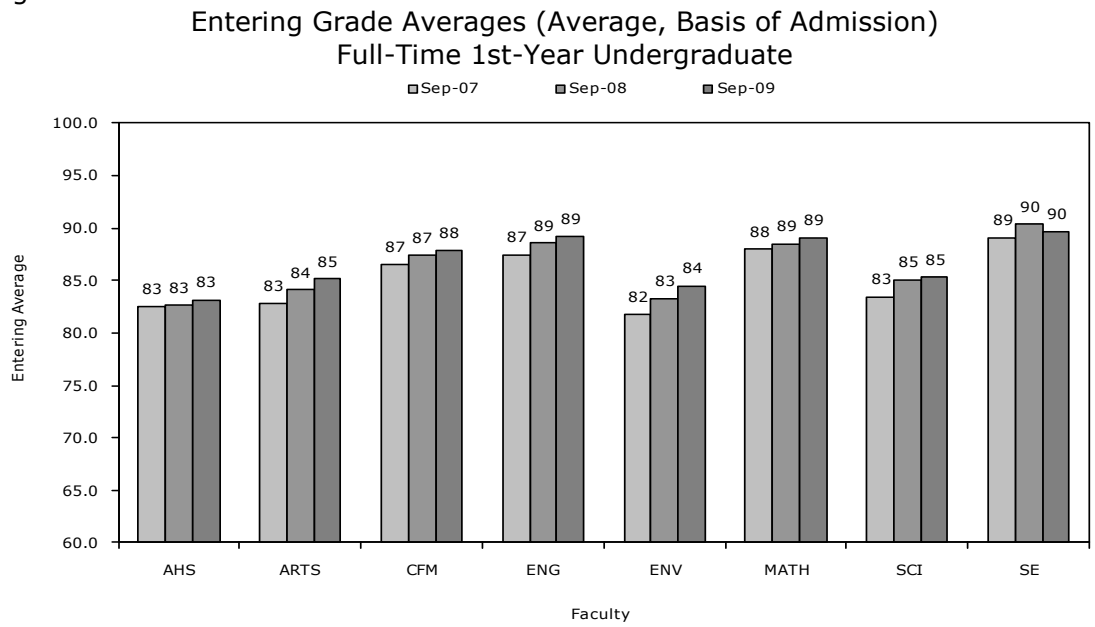


Figure 1.3.B



[12] CFM = Computing and Financial Management; SE = Software Engineering.

To better understand the range of entering averages we present the break out of the 25th and 75th percentiles. For example, in 2009, for the Faculty of Arts, we see that the average entering grade was 85 per cent (Figure 1.3.B); we see the 25th percentile entering grade average was 81 per cent (Figure 1.3.C) and the 75th percentile entering grade average was 89 per cent (Figure 1.3.B). These measures tell us that of the students registered in the Faculty of Arts, in Fall 2009, 75 per cent had a grade average higher than 81 per cent and 25 per cent had a grade average higher than 89 per cent.

Figure 1.3.C[13]

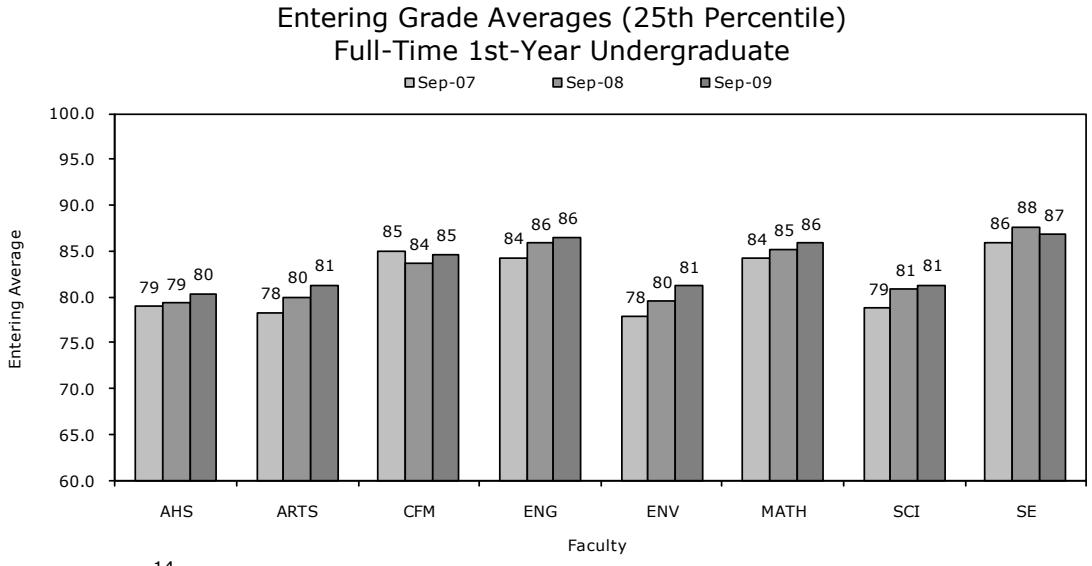
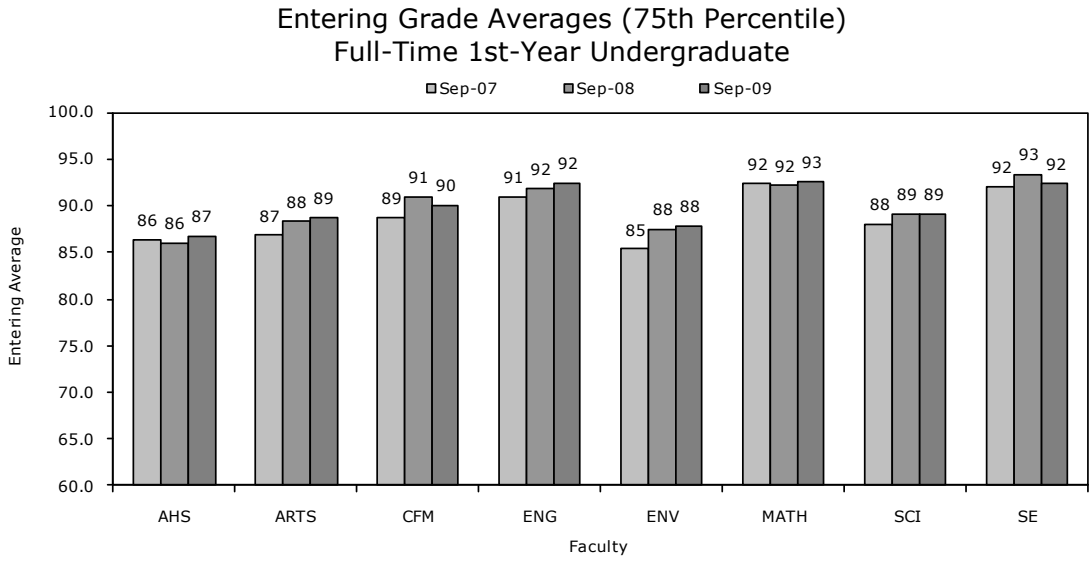


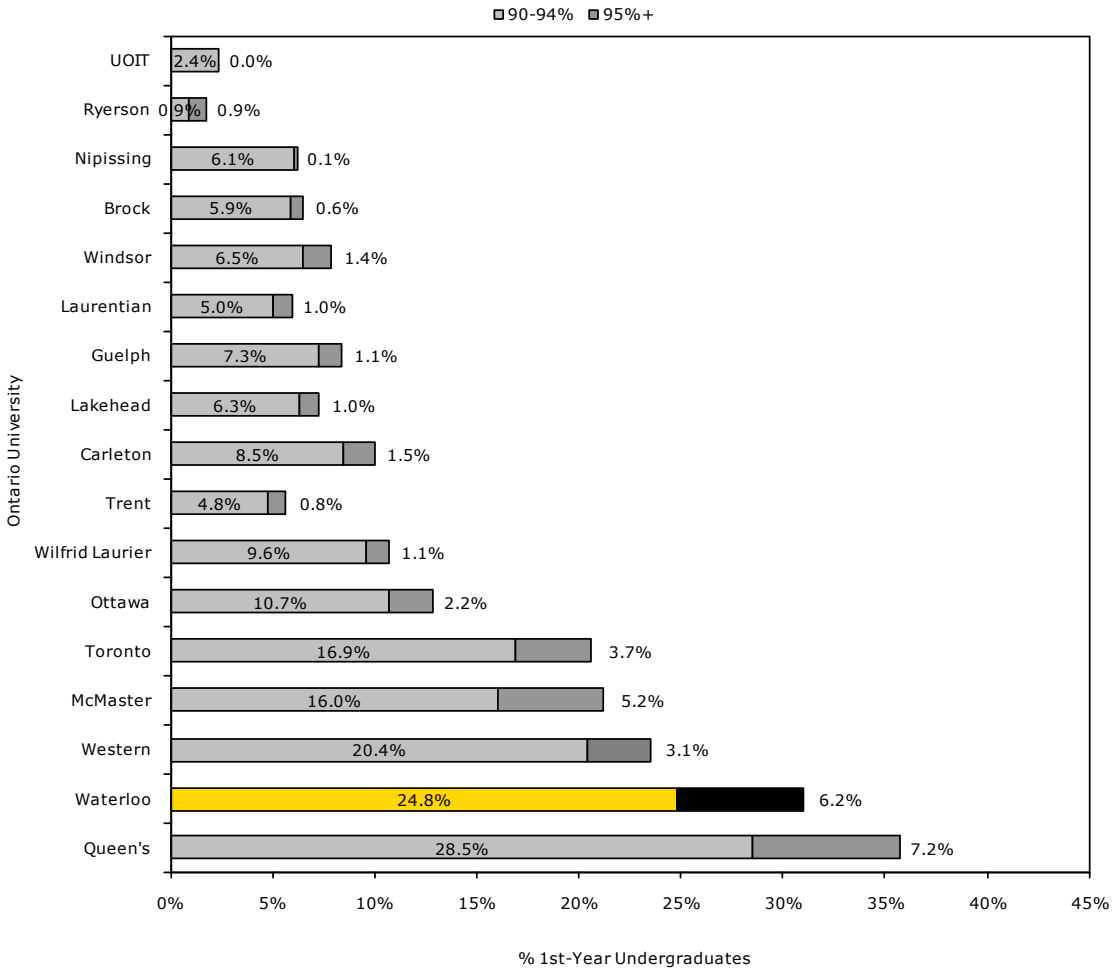
Figure 1.3.D[14]



[13] The 25th Percentile means that 75 per cent of students entered with grade averages higher than the mark indicated.
[14] The 75th Percentile means that 25 per cent of students entered with grade averages higher than the mark indicated.

Figure 1.3.E

Entering Averages of 90%+ as Compared to Ontario Universities
Fall 2008



In prior years we have used the Maclean's survey as a source for entering grade average data, which allowed us to collect results for our G13 peers. That data source is no longer available for all of our G13 peers. We now present the Ontario system[15] which shows Waterloo second to Queen's in the percentage of students with entering averages of 90 per cent or higher.

[15] Source: CUDO (Common University Data Ontario). York University not included as the data is not available.

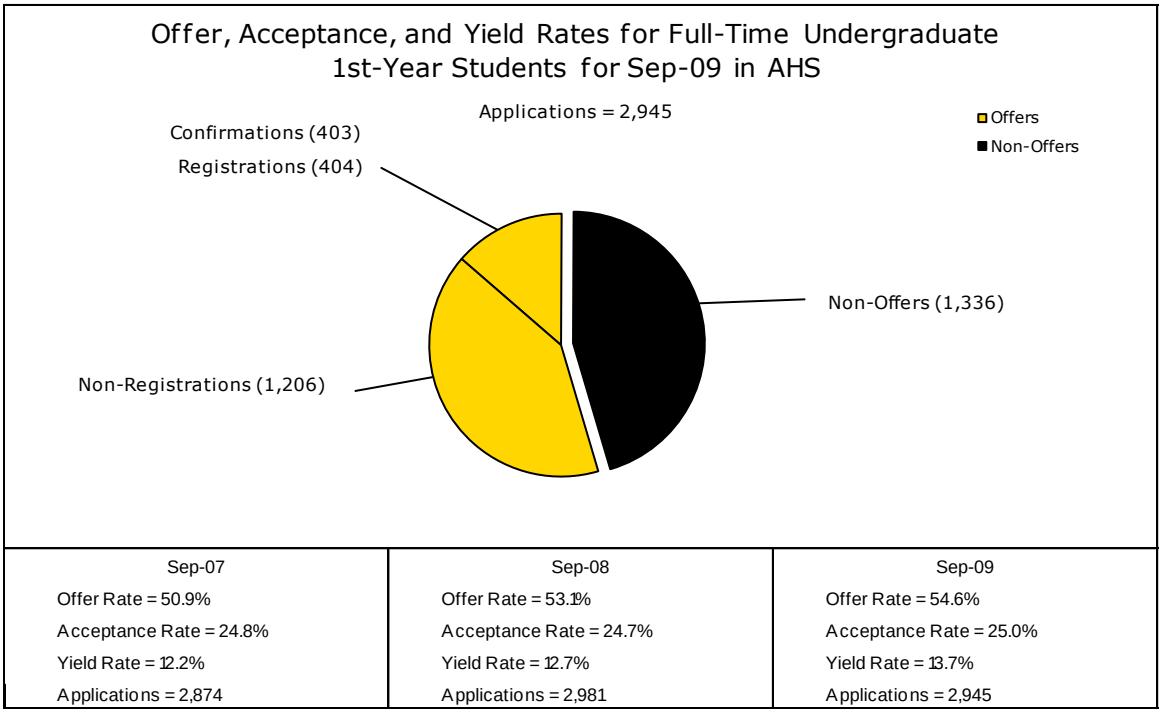
1.4. Offer, Acceptance, and Yield Rates

In this section, we look at the number of applications, offers, confirmations, and registrations by Faculty. We monitor these measures to gauge the level of interest in a particular Faculty, the offer rate (number of offers versus number of applications), the acceptance rate (number of confirmations versus number of offers), and the yield rate (number of registrations versus number of applications).

These rates help us to understand and predict demand for our programs, and to improve our strategy for making offers. For example, if we want 100 students to register from a pool of 2,000 applicants, we need to decide how many students should receive offers. Depending on the anticipated acceptance rate, the answer may be 150, 200, or even 600 students.

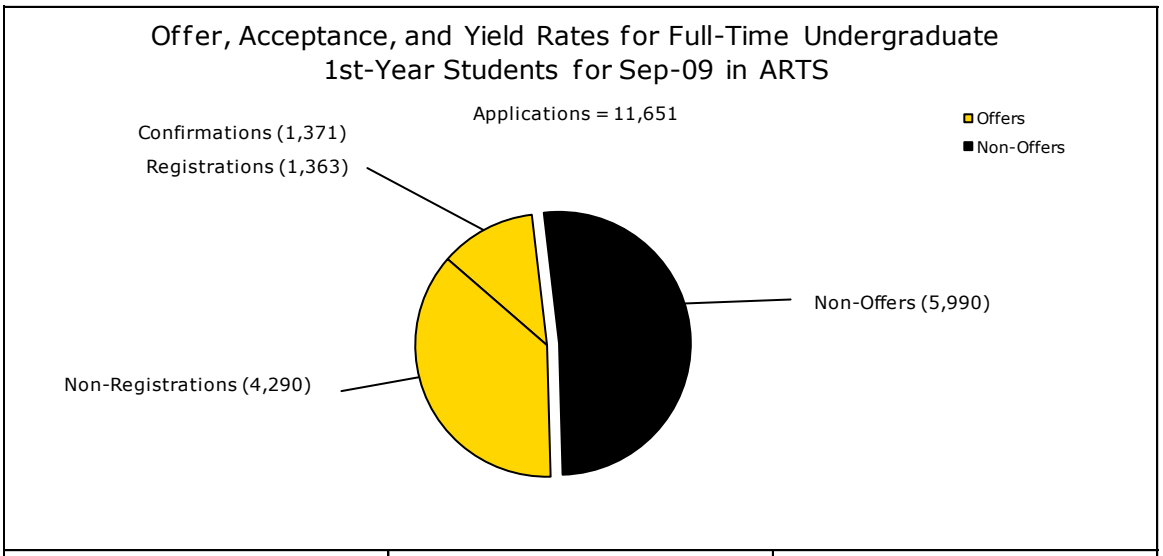
Figure 1.4.A through Figure 1.4.H show three recent years of application activity including changes in activity levels in each Faculty. Software Engineering, and Computing and Financial Management have separate charts as these programs are split between Faculties and it is not possible to split applications across Faculties.

Figure 1.4.A



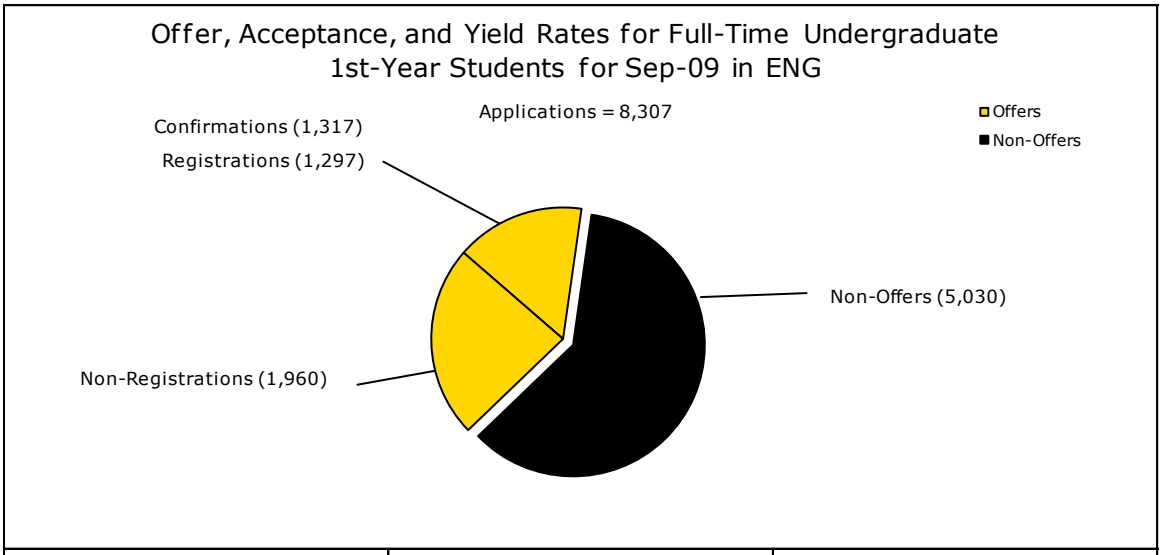
Sep-07	Sep-08	Sep-09
Offer Rate = 50.9%	Offer Rate = 53.1%	Offer Rate = 54.6%
Acceptance Rate = 24.8%	Acceptance Rate = 24.7%	Acceptance Rate = 25.0%
Yield Rate = 12.2%	Yield Rate = 12.7%	Yield Rate = 13.7%
Applications = 2,874	Applications = 2,981	Applications = 2,945

Figure 1.4.B



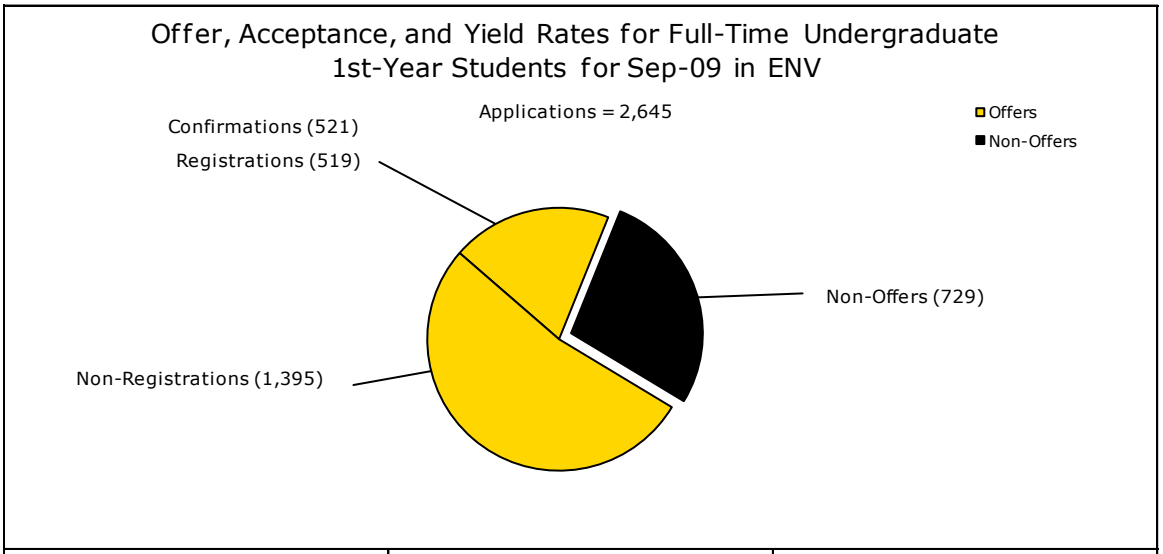
Sep-07	Sep-08	Sep-09
Offer Rate = 49.6%	Offer Rate = 47.6%	Offer Rate = 48.6%
Acceptance Rate = 24.5%	Acceptance Rate = 23.9%	Acceptance Rate = 24.2%
Yield Rate = 11.9%	Yield Rate = 11.2%	Yield Rate = 11.7%
Applications = 10,828	Applications = 11,693	Applications = 11,651

Figure 1.4.C



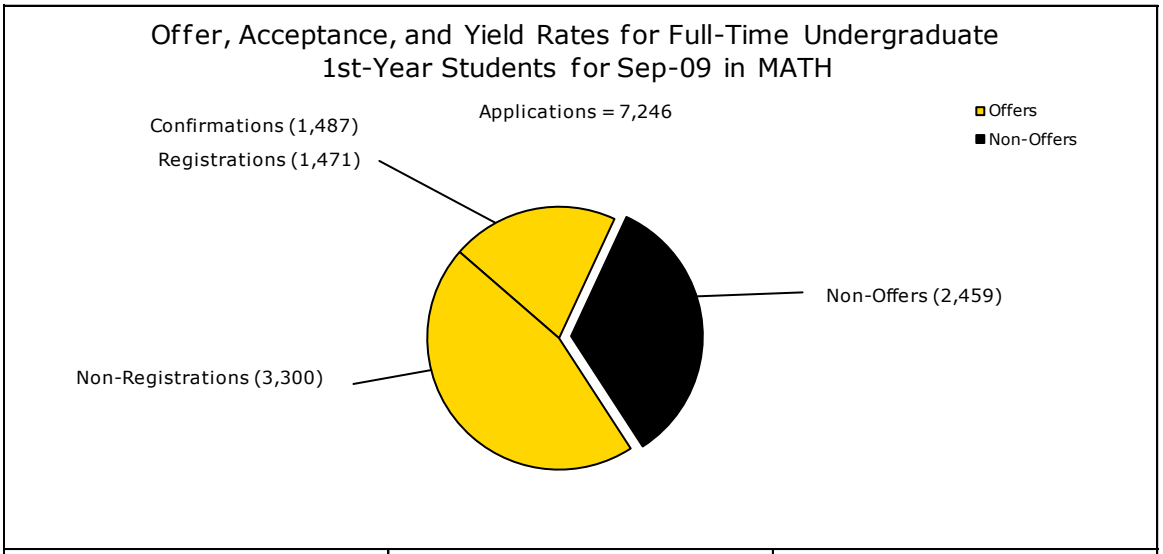
Sep-07	Sep-08	Sep-09
Offer Rate = 43.0%	Offer Rate = 39.3%	Offer Rate = 39.4%
Acceptance Rate = 39.7%	Acceptance Rate = 42.7%	Acceptance Rate = 40.2%
Yield Rate = 16.8%	Yield Rate = 16.4%	Yield Rate = 15.6%
Applications = 7,404	Applications = 8,033	Applications = 8,307

Figure 1.4.D



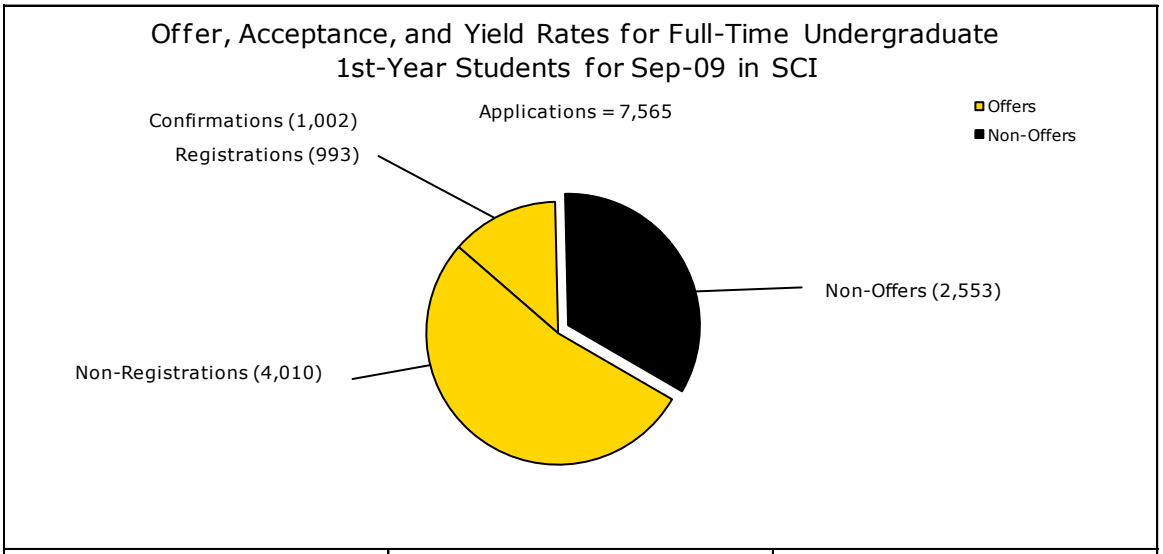
Sep-07	Sep-08	Sep-09
Offer Rate = 77.3%	Offer Rate = 65.9%	Offer Rate = 72.4%
Acceptance Rate = 28.9%	Acceptance Rate = 29.4%	Acceptance Rate = 27.2%
Yield Rate = 22.6%	Yield Rate = 19.4%	Yield Rate = 19.6%
Applications = 1,718	Applications = 2,574	Applications = 2,645

Figure 1.4.E



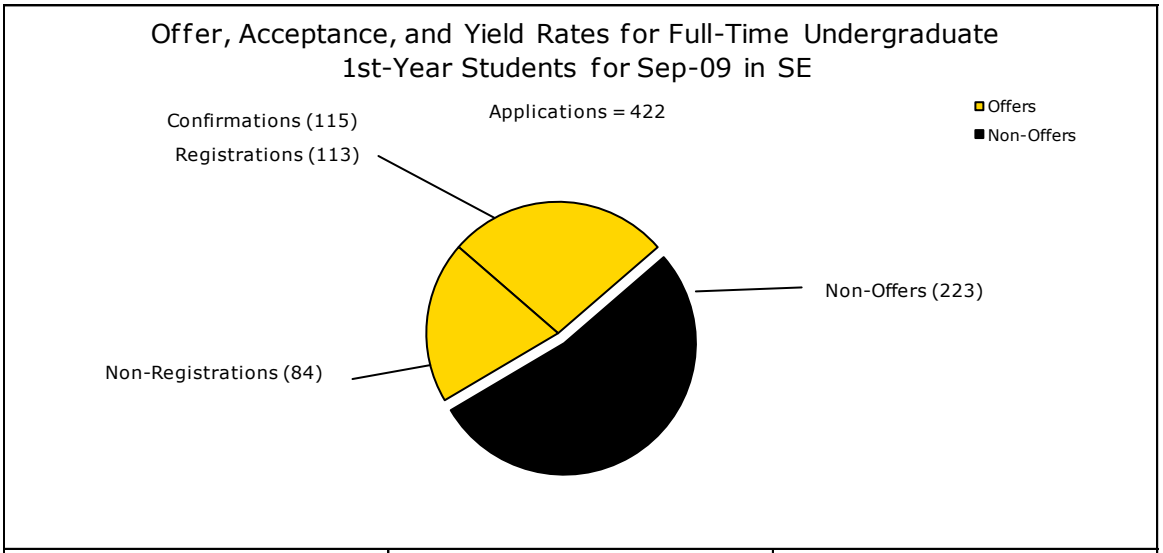
Sep-07	Sep-08	Sep-09
Offer Rate = 67.1%	Offer Rate = 64.8%	Offer Rate = 66.1%
Acceptance Rate = 35.4%	Acceptance Rate = 30.2%	Acceptance Rate = 31.1%
Yield Rate = 23.3%	Yield Rate = 19.1%	Yield Rate = 20.3%
Applications = 5,339	Applications = 7,591	Applications = 7,246

Figure 1.4.F



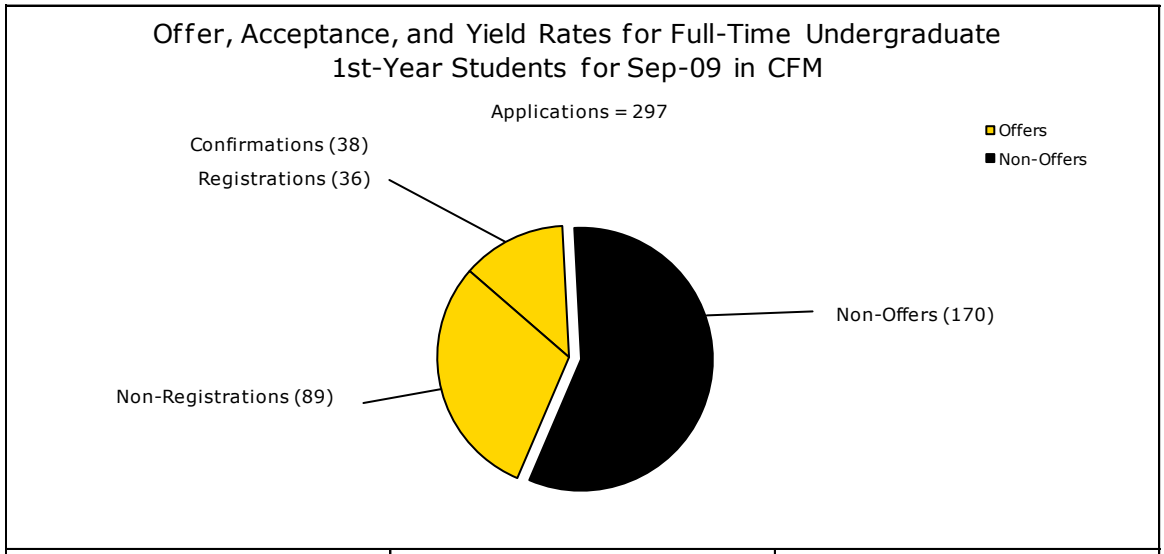
Sep-07	Sep-08	Sep-09
Offer Rate = 67.5%	Offer Rate = 61.8%	Offer Rate = 66.3%
Acceptance Rate = 20.9%	Acceptance Rate = 18.5%	Acceptance Rate = 20.0%
Yield Rate = 13.5%	Yield Rate = 11.2%	Yield Rate = 13.1%
Applications = 8,025	Applications = 7,919	Applications = 7,565

Figure 1.4.G



Sep-07	Sep-08	Sep-09
Offer Rate = 42.4%	Offer Rate = 42.0%	Offer Rate = 47.2%
Acceptance Rate = 63.2%	Acceptance Rate = 58.0%	Acceptance Rate = 57.8%
Yield Rate = 25.6%	Yield Rate = 24.2%	Yield Rate = 26.8%
Applications = 429	Applications = 476	Applications = 422

Figure 1.4.H[16]



Sep-07	Sep-08	Sep-09
Offer Rate = 37.0%	Offer Rate = 44.8%	Offer Rate = 42.8%
Acceptance Rate = 35.3%	Acceptance Rate = 36.4%	Acceptance Rate = 29.9%
Yield Rate = 12.7%	Yield Rate = 16.7%	Yield Rate = 12.1%
Applications = 276	Applications = 239	Applications = 297

[16] Computing and Financial Management program started in 2006.

1.5 Geographic Source

Understanding the geographical outreach of the University of Waterloo allows us to assess the strength of our reputation and influence beyond the local community.

Figure 1.5.A[17]

Geographic Distribution of 1st-Year Registrants as Reported by City of School Last Attended Sep-09

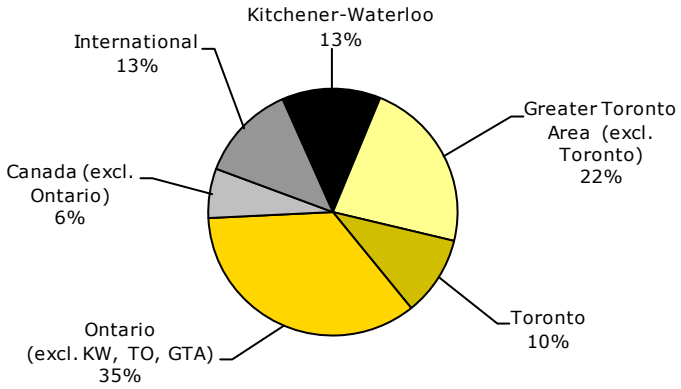
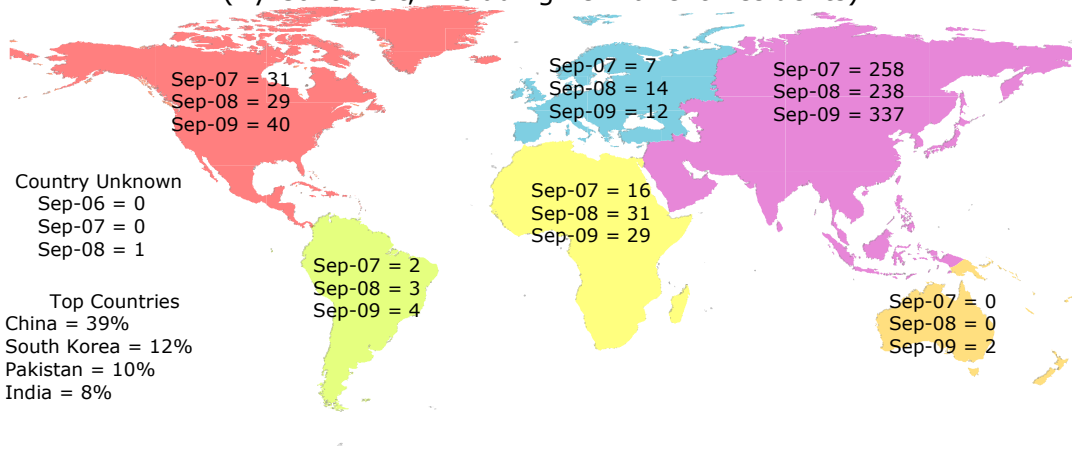


Figure 1.5.B[18]

New International Undergraduate Students by Region of Origin (By Continent, Excluding Permanent Residents)



[17] Visa students are placed into the "international" category first, then for the remaining students, the country and city of last school attended is examined.

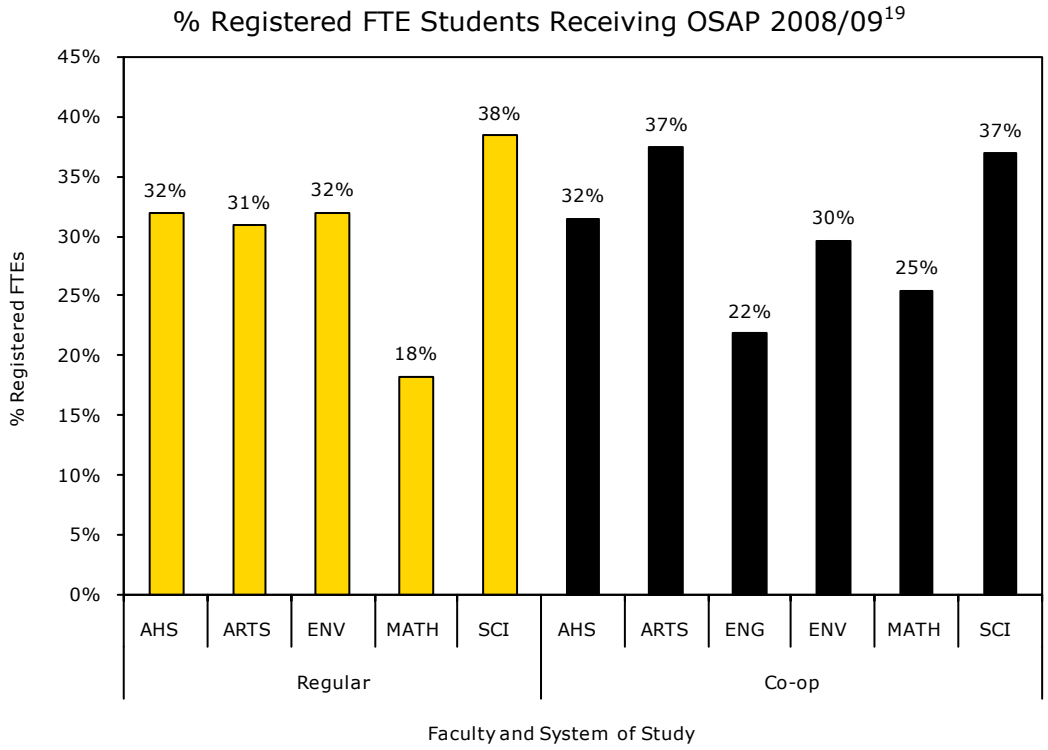
[18] Permanent Residents are not included because UW's definition of international involvement focuses more on students who have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental North America excludes Canada. Source: The Ministry of Training, Colleges and Universities (MTCU) collects statistical and financially related data on students in Ontario universities and related institutions; collectively this information makes up the University Statistical Enrolment Report (USER) database. Figure 1.5.B uses USER country of citizenship, visa students only, fall terms only for new students.

1.6. OSAP Participation

The Ontario Student Assistance Program (OSAP) provides eligible students with various types of assistance based on financial need. Figure 1.6.A shows the percentage of our students receiving OSAP by Faculty and system of study, while 1.6.B shows the average dollar amount of the awards received by those students participating in the program, also by Faculty and system of study.

In some cases, OSAP funds are not sufficient to meet the financial need of the student. To address this issue, UW guarantees to fund unmet need as defined by OSAP or a student assistance program from another Canadian province. The University aspires to identify students in need and ensure that all eligible students admitted to full-time undergraduate programs have the financial assistance necessary to complete their studies. Students are required to seek financial support from all sources, including family, employment, loans, and government support programs.

Figure 1.6.A



Participation rates from co-op students increased in all areas in 2008/09 compared to 2007/08.

[19] 2008/09 includes Fall 2008, Winter 2009, and Spring 2009. SE is split 50/50 between Math and Engineering Faculties; CFM is split 50/50 between Arts and Math Faculties.

We expect co-op earnings to partially offset the financial commitments of students, and may expect the average OSAP paid to be lower for co-op students than regular stream students.

Figure 1.6.B

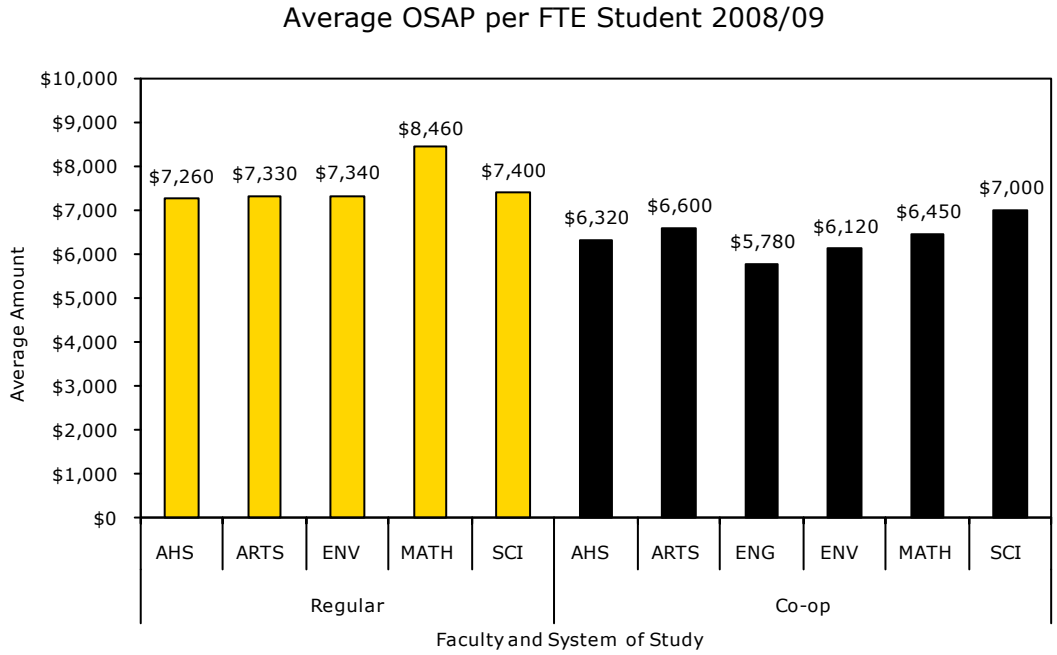


Figure 1.6.C[20]

Financial Support to Undergraduate Regular FTE Students 2008/09								
Faculty	OSAP	Grants	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	%Supported
AHS	$1,937,158	$338,376	$93,250	$324,100	$99,853	$2,792,737	$8,900	38%
ARTS	$11,296,745	$2,018,261	$626,444	$1,653,350	$634,577	$16,229,377	$8,947	36%
ENV	$1,608,111	$310,164	$215,631	$254,600	$121,149	$2,509,654	$8,678	42%
MATH	$3,641,101	$709,617	$1,130,975	$748,700	$208,693	$6,439,086	$9,575	29%
SCI	$7,972,195	$1,746,348	$458,975	$1,053,200	$428,776	$11,659,494	$9,438	44%

Figure 1.6.D

Financial Support to Undergraduate Co-op FTE Students 2008/09								
Faculty	OSAP	Grants	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	%Supported
AHS	$1,337,272	$302,168	$272,550	$312,600	$251,993	$2,476,584	$8,319	44%
ARTS	$3,544,741	$776,788	$998,605	$1,073,400	$742,141	$7,135,676	$9,411	53%
ENG	$5,592,728	$1,496,808	$3,803,740	$2,474,250	$1,613,744	$14,981,270	$8,230	41%
ENV	$1,403,799	$295,889	$357,412	$310,200	$183,103	$2,550,404	$7,579	43%
MATH	$5,036,674	$1,344,416	$2,564,803	$1,438,196	$1,329,954	$11,714,042	$8,778	44%
SCI	$2,784,811	$443,923	$519,625	$884,550	$399,824	$5,032,733	$9,114	51%

[20] As of last year, we now include government grants such as the Canadian access grants, Ontario access grants, and Canadian study grants. Inclusion will impact the average support for 08/09.

1.7. Student Engagement

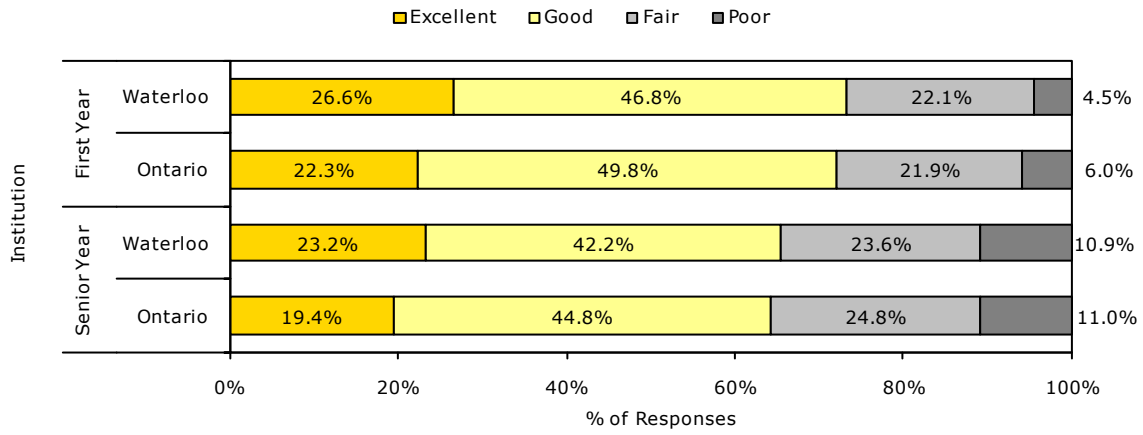
The National Survey of Student Engagement (NSSE) was launched in 1999 by the Indiana University Centre for Postsecondary Research with a mandate to investigate the relationship between student behaviour and educational success. Through hundreds of thousands of survey responses collected since 1999, at more than 1,000 different universities and colleges across Canada and the United States, a clear conclusion has emerged. What students *do* while in university matters. Specifically, the degree to which students are *engaged* in their education, and with their institution, matters a great deal. Student engagement, measured by participation in productive learning activities such as working on group projects outside of class, and discussing ideas from readings or classes with others outside of class, involvement in campus organizations, interaction with peers and faculty members, and satisfaction with their educational experience are all positively correlated with desired outcomes such as higher retention and graduation rates.

In 2006, the University of Waterloo had an overall participation rate of 49.5 per cent, collecting responses from 4,448 students. In the 2008 survey, University of Waterloo had an overall participation rate of 41 per cent, with 4,170 students responding.

Interaction with faculty members, and the quality and value of those interactions is one indication of student engagement. Receiving prompt feedback from faculty on academic performance, working with faculty members on research projects, discussing ideas from class with faculty members outside of class, all contribute to improved faculty-student interaction and increased student engagement. Figure 1.7.A charts the responses of students asked to evaluate the quality of academic advising they have received. As compared to our peers in Ontario UW appears to be performing slightly above the provincial average. Our positive responses drop somewhat between our first-year students and our graduating-year students, as they do at our peer institutions in Ontario.

Figure 1.7.A[21]

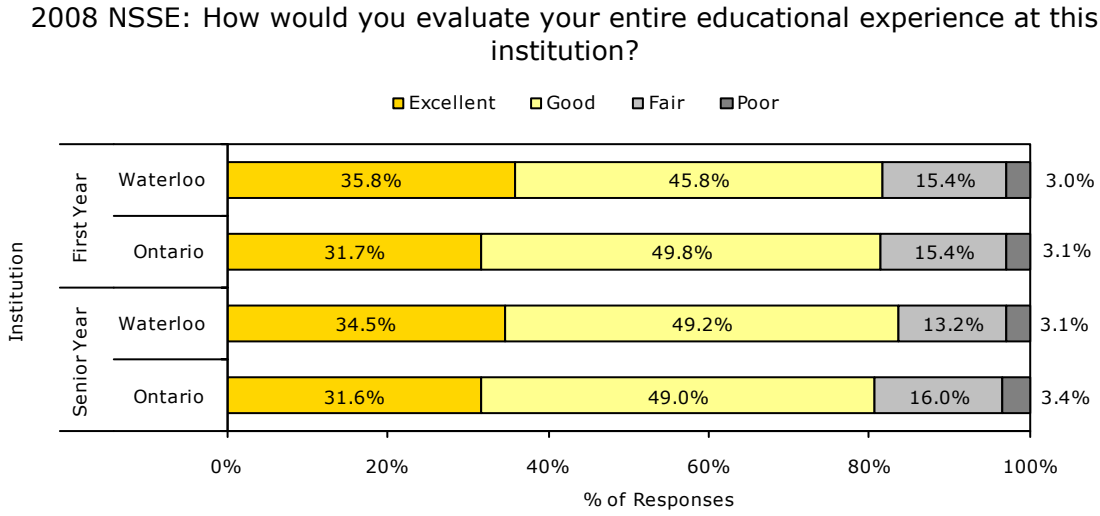
2008 NSSE: Overall, how would you evaluate the quality of academic advising you have received at your institution?



[21] Source: The National Survey of Student Engagement.

When asked to evaluate their entire educational experience at UW as shown in Figure 1.7.B , UW has roughly the same proportion of our students responding positively with a rating of "Excellent" or "Good" as the students at our peer institutions across Ontario. The University of Waterloo does have a slightly larger proportion of students answering Excellent with 35.8 per cent of first-year students and 34.5 per cent of graduating-year students giving us the highest possible response to this question. Again there is a small decline between our first-year and graduating-year students, as there also was in students across Ontario.

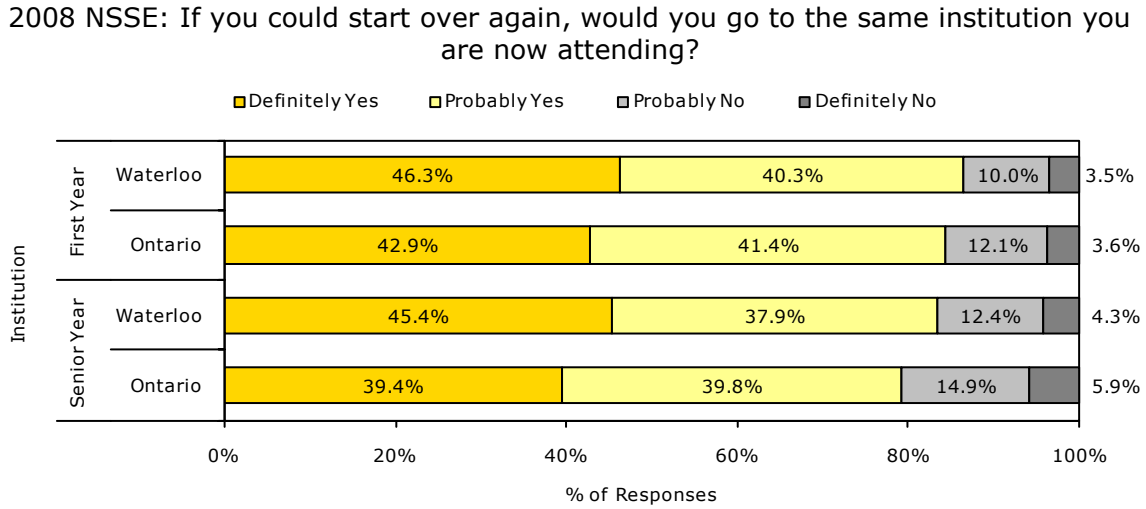
Figure 1.7.B[22]



The choice of which institution to attend for their post-secondary education is one of the most important decisions many of our students have ever had to make. Numerous factors weigh heavily when making that decision and Figure 1.7.C shows their response when asked if given the opportunity to start over again whether they would choose the same institution. Overall 86.6 per cent of our first-year students and 83.3 per cent of our graduating-year students responded that they would "Definitely" or "Probably" choose UW again, as compared to 84.3 per cent of first-year students and 79.2 per cent of graduating-year students across Ontario. While it is encouraging to know that so many of our students express satisfaction with their decision, there are 63 first-year students and 75 graduating students that responded that they would "Definitely Not" choose UW again. A better understanding of the reasons why these students express such dissatisfaction with their choice, and investigation of what can be done to address those concerns is only one of the many ways in which our NSSE results are being used to help us improve as an institution.

[22] Source: The National Survey of Student Engagement.

Figure 1.7.C[23]



[23] Source: The National Survey of Student Engagement.

1.8. Retention, Graduation, Degrees Granted, and Degree Distribution

In 2006, the University of Waterloo participated, for the first time, in the Consortium for Student Data Exchange (CSRDE) retention and graduation study. The CSRDE is a consortium of colleges and universities, both public and private, which shares student retention and graduation data. Along with many Canadian institutions, and all Ontario universities, UW will use the CSRDE results to help us measure our performance against similar institutions across North America.

In the charts below we have chosen public institutions as our comparator. The CSRDE survey is based on the premise that an institution's retention and completion rates depend largely on how selective the institution is, where selectivity is defined by entering students' average SAT or ACT test scores. CSRDE reports the retention and graduation results by four levels of selectivity — Highly Selective – SAT above 1100 (maximum 1600) or ACT above 24 (maximum 36); Selective – SAT 1045 to 1100 or ACT 22.5 to 24; Moderately Selective – SAT 990 to 1044 or ACT 21 to 22.4; Less Selective – SAT below 990 or ACT below 21.

Figure 1.8.A indicates that 89.0 per cent of UW's full-time, first-year students who entered into a first-entry undergraduate program in 2008 continued their studies in 2009. This is compared to an 87.4 per cent retention rate cited at highly selective public institutions.

Figure 1.8.A

Retention Rate Waterloo vs Other North American Public Institutions by Selectivity of the 2008 Full-Time 1st-Year Cohort Continuing in their Studies in 2009

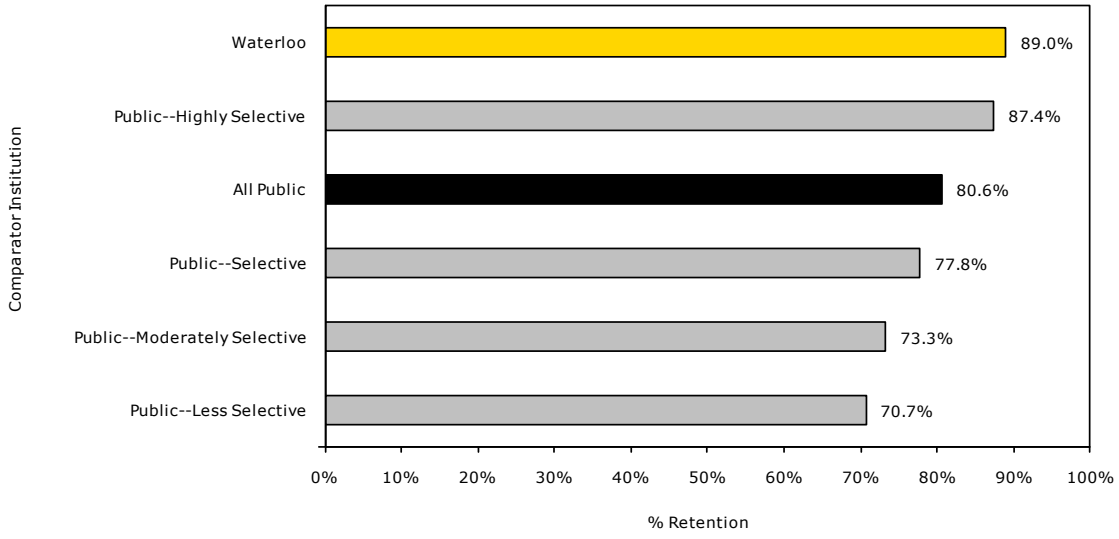


Figure 1.8.B

Six-Year Graduation Rate Waterloo vs Other North American Public Institutions by Selectivity of the 2003 Full-Time 1st-Time 1st-Year Cohort Graduating by 2008

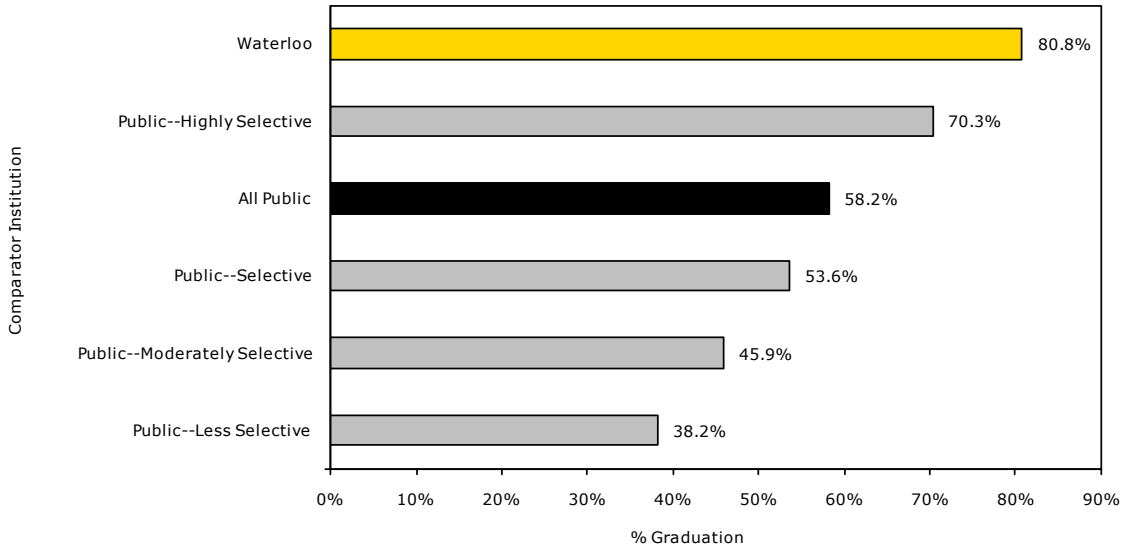
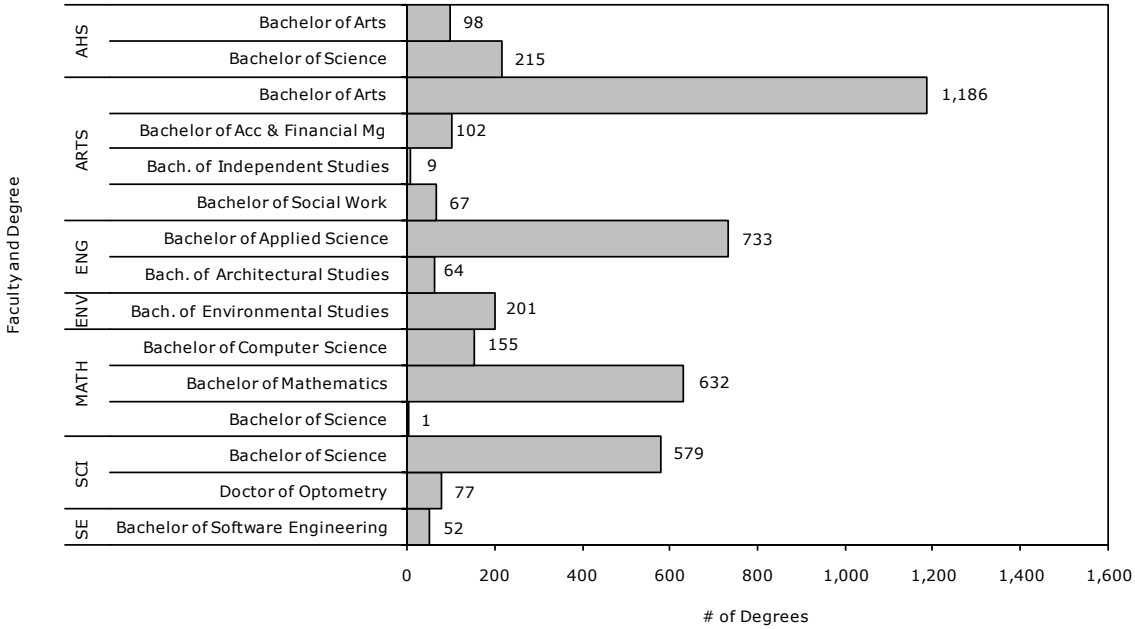


Figure 1.8.C shows the number of undergraduate degrees conferred in 2009 by Faculty and the type of degree granted. In total, 4,171 undergraduate degrees were conferred in 2009.

Figure 1.8.C

Undergraduate Degrees Granted
2009



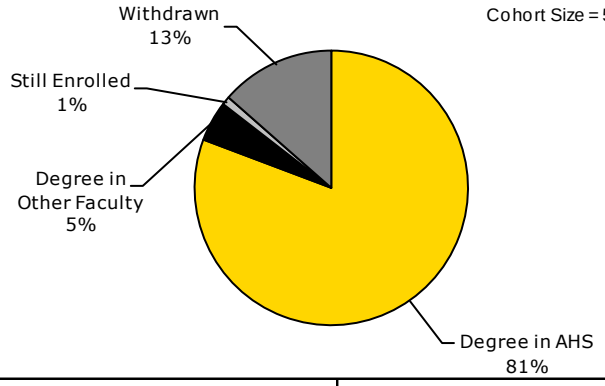
The University of Waterloo also monitors undergraduate degree distribution by academic Faculty. We track each cohort of students to determine the percentage who graduate with a degree from their Faculty of first registration, who graduate from another UW Faculty, who are still studying, or who have withdrawn. We also calculate the three-year average of the number of full-time terms to complete a degree in their Faculty of first registration.

When the Ministry of Training, Colleges and Universities measures degree completion rates, it typically allows a six-year window for students in a four-year program to complete their degree. Since students in a co-operative program generally require an extra year to complete their academic studies, due to their work term employment, we typically allow a seven-year window. Hence, in the next series of charts, we begin with the 2001/02 cohort.

Figure 1.8.D

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in AHS

(Degree Completion as of June 2010)



2001/02	
Cohort Size	294
Degree in AHS	714%
Degree in Other Faculty	6.8%
Still Enrolled	14%
Withdrawn	20.4%

2002/03	
Cohort Size	358
Degree in AHS	76.3%
Degree in Other Faculty	4.5%
Still Enrolled	2.0%
Withdrawn	17.3%

AHS

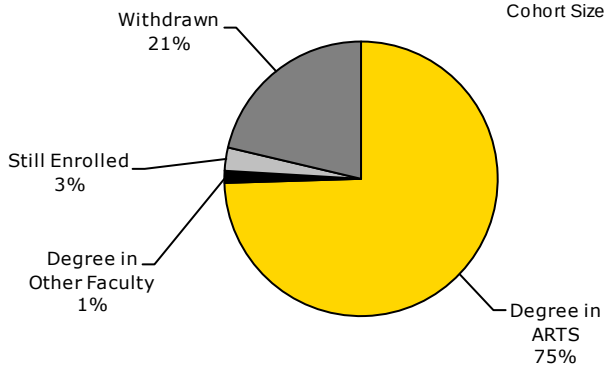
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.0%
5	0.1%
6	2.2%
7	5.2%
8	66.5%
9	19.6%
10	5.4%
>10	1.1%

Figure 1.8.E

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ARTS

(Degree Completion as of June 2010)



2001/02		2002/03	
Cohort Size	1,010	Cohort Size	1,306
Degree in ARTS	70.4%	Degree in ARTS	69.2%
Degree in Other Faculty	2.1%	Degree in Other Faculty	1.3%
Still Enrolled	1.7%	Still Enrolled	3.0%
Withdrawn	25.8%	Withdrawn	26.5%

ARTS

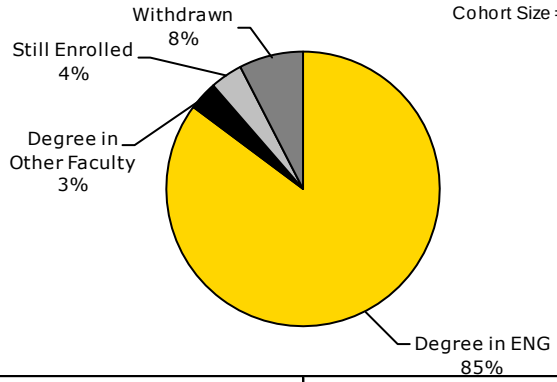
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.6%
5	1.4%
6	11.5%
7	8.4%
8	52.8%
9	16.8%
10	5.9%
>10	2.5%

Figure 1.8.F

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ENG

(Degree Completion as of June 2010)



2001/02		2002/03	
Cohort Size	804	Cohort Size	882
Degree in ENG	84.1%	Degree in ENG	82.7%
Degree in Other Faculty	4.2%	Degree in Other Faculty	3.4%
Still Enrolled	2.4%	Still Enrolled	4.2%
Withdrawn	9.3%	Withdrawn	9.8%

ENG

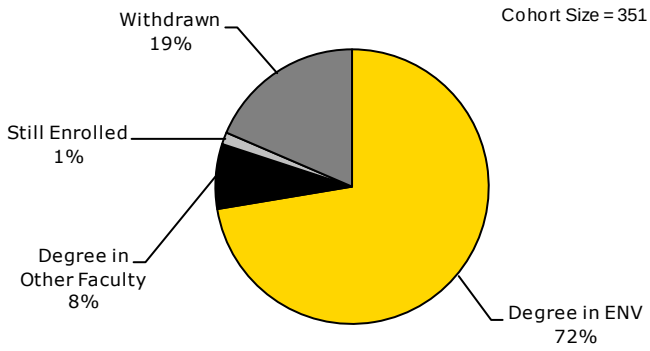
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.0%
5	0.0%
6	0.3%
7	4.2%
8	60.8%
9	29.3%
10	4.0%
>10	1.5%

Figure 1.8.G

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ENV

(Degree Completion as of June 2010)



Cohort Size = 351

2001/02	
Cohort Size	265
Degree in ENV	74.7%
Degree in Other Faculty	6.8%
Still Enrolled	1.5%
Withdrawn	17.0%

2002/03	
Cohort Size	278
Degree in ENV	67.6%
Degree in Other Faculty	7.9%
Still Enrolled	2.5%
Withdrawn	21.9%

ENV

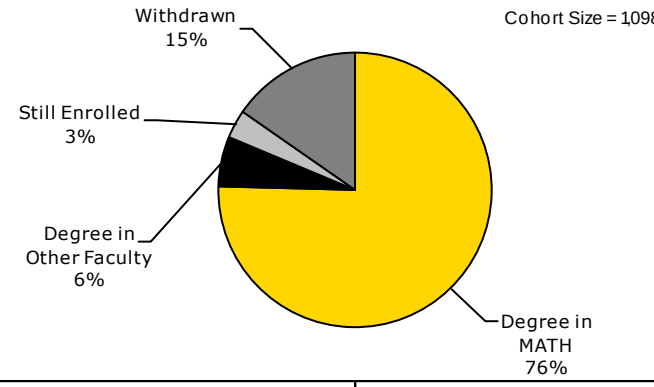
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.2%
5	0.6%
6	3.9%
7	8.7%
8	59.4%
9	20.6%
10	4.7%
>10	1.8%

Figure 1.8.H

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in MATH

(Degree Completion as of June 2010)



Cohort Size = 1,098

2001/02	
Cohort Size	1,050
Degree in MATH	75.9%
Degree in Other Faculty	7.0%
Still Enrolled	1.8%
Withdrawn	15.3%

2002/03	
Cohort Size	1,028
Degree in MATH	71.6%
Degree in Other Faculty	7.4%
Still Enrolled	4.1%
Withdrawn	16.9%

MATH

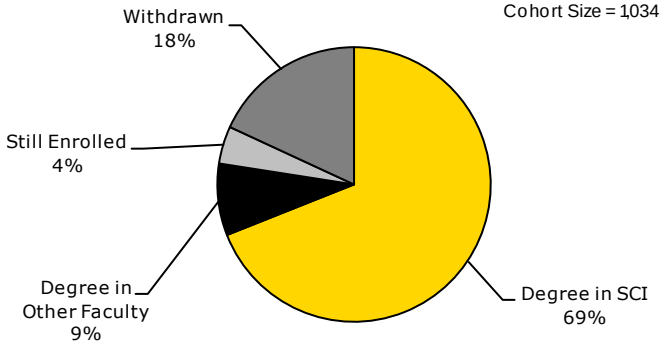
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.1%
5	0.2%
6	0.8%
7	3.9%
8	49.7%
9	30.6%
10	11.1%
>10	3.8%

Figure 1.8.I

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in SCI

(Degree Completion as of June 2010)



2001/02	
Cohort Size	639
Degree in SCI	67.8%
Degree in Other Faculty	10.2%
Still Enrolled	17%
Withdrawn	20.3%

2002/03	
Cohort Size	630
Degree in SCI	64.1%
Degree in Other Faculty	6.4%
Still Enrolled	6.5%
Withdrawn	23.0%

SCI

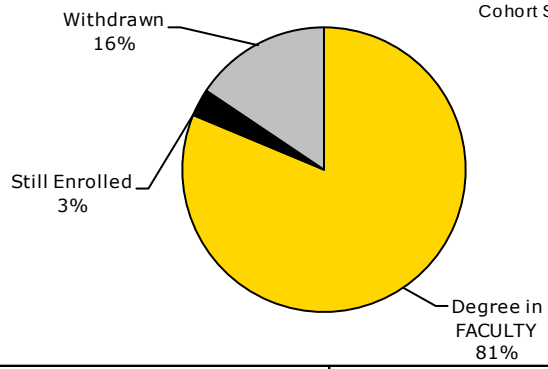
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.1%
5	0.2%
6	6.2%
7	4.1%
8	47.9%
9	24.2%
10	10.7%
>10	6.4%

Figure 1.8.J[24]

Degree Distribution of the 2003/04 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort for UW

(Degree Completion as of June 2010)



2001/02	
Cohort Size	4,062
UW Degree	80.2%
Still Enrolled	1.8%
Withdrawn	18.0%

2002/03	
Cohort Size	4,584
UW Degree	80.1%
Still Enrolled	1.8%
Withdrawn	18.1%

UW

3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
4	0.3%
5	0.7%
6	4.5%
7	5.2%
8	58.2%
9	21.5%
10	6.9%
>10	2.9%

[24] The degree completion rate here differs from that in the CSRDE chart due to a difference in methodology and timing.

2. GRADUATE STUDIES

The University of Waterloo's vision for our sixth decade supports a proactive approach to innovative graduate education, with a goal to double our graduate enrolment. To guide that process and to monitor our progress we focus in this section on our graduate enrolment, student to faculty ratio, quality of students, global engagement, recruitment, student support, student satisfaction, degree completion rates, and degrees granted.

2.1. Enrolment

Figure 2.1.A

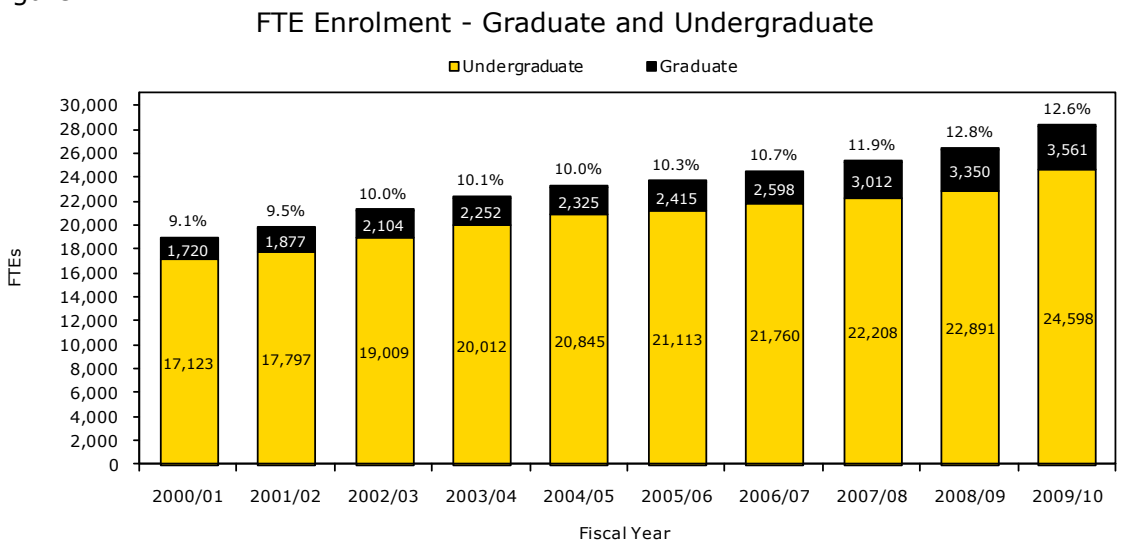
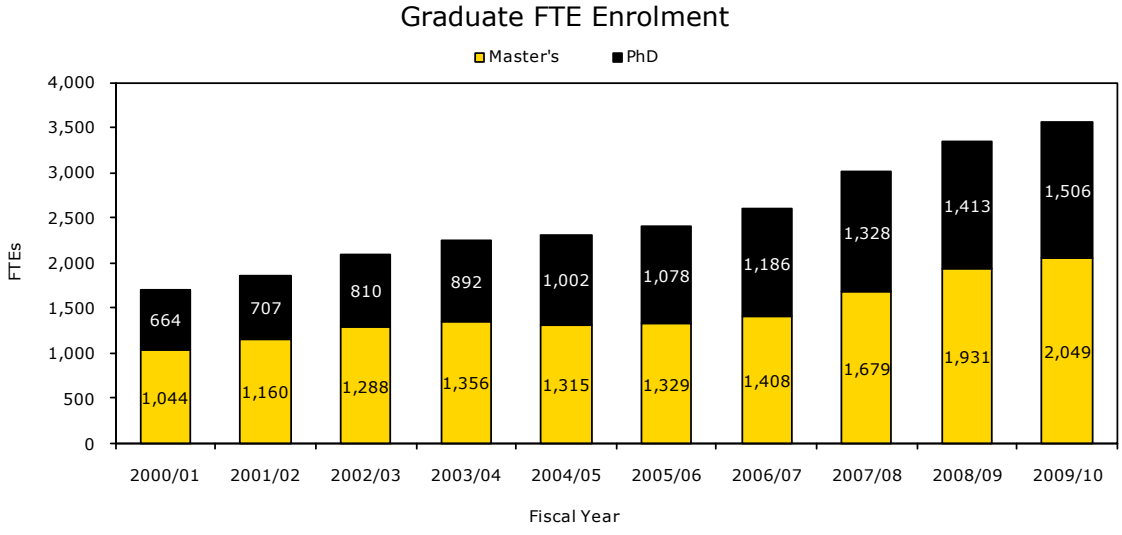


Figure 2.1.B[25]



[25] Excludes Non-Degree students.

Full-time graduate students normally register for three terms per year and generate an annual 1.0 FTE. A part-time student registered for three terms per year would generate 0.3 FTE.

Figure 2.1.C[26]

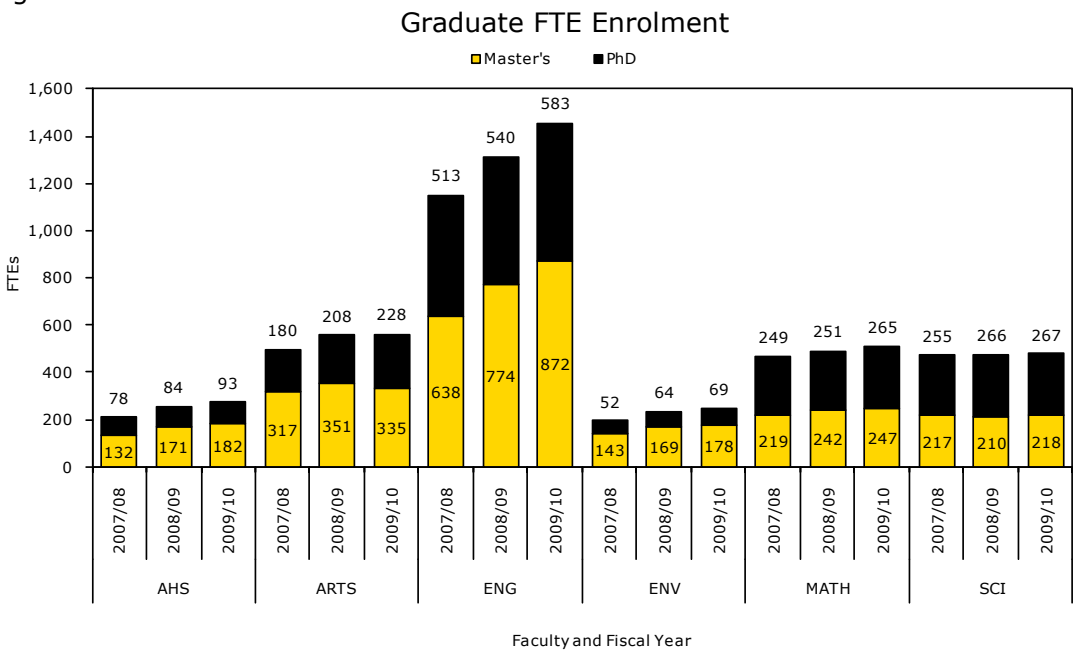
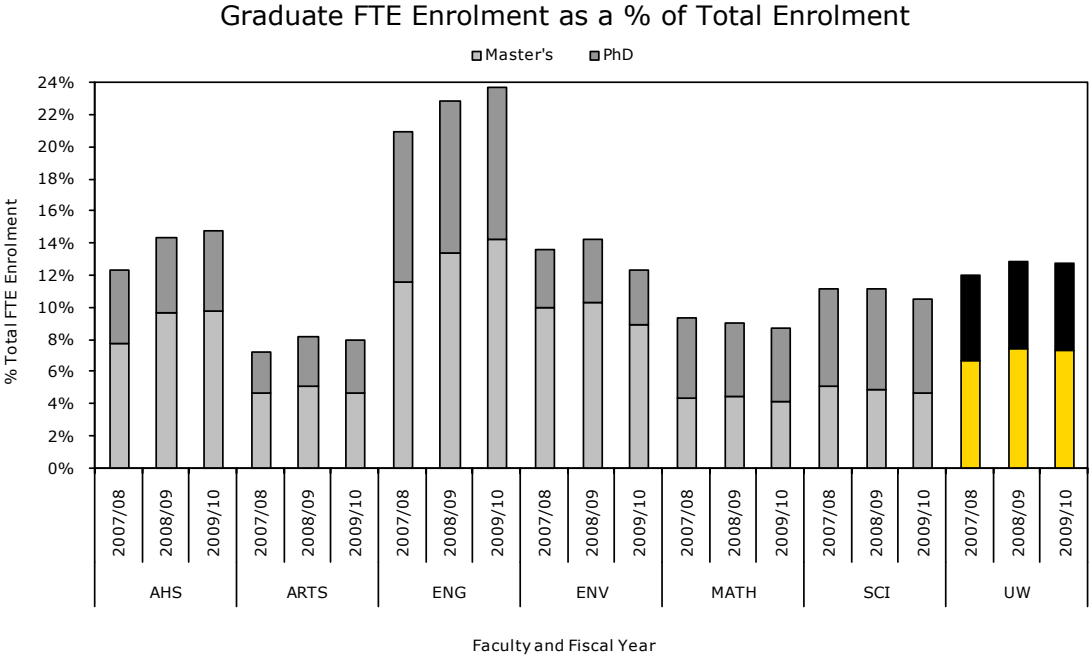


Figure 2.1.D

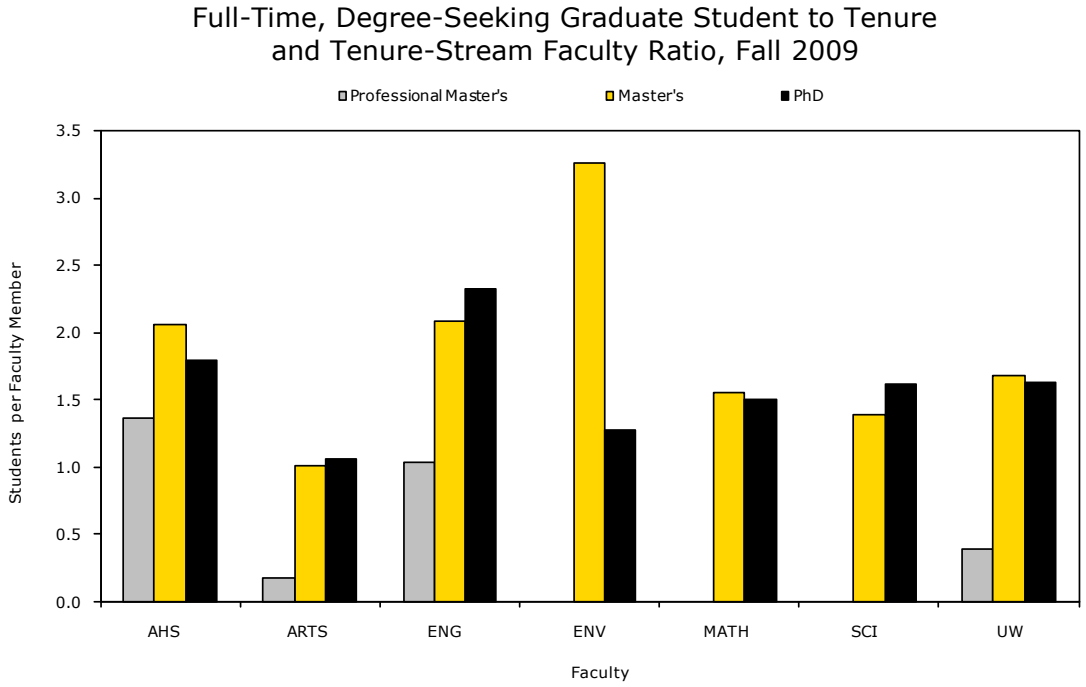


[26] In 2009/10, there were 17.2 FTEs enrolled in Theology that are not represented in the graph. Non-Degree students are also excluded.

2.2. Student to Faculty Ratio

The graduate student to faculty ratio is considered a reasonable indicator of the intensity of graduate education at universities. The ratios below are intended to represent this graduate studies intensity at the Faculty level. However, we recognize that some faculty members supervise as many as six or more students at a time, and some supervise no graduate students — an issue that requires management and monitoring at the department level.

Figure 2.2.A[27]



2.3. Quality of Students

The amount of external scholarship support generated by graduate students is one measure of their quality.

Rather than counting the number of individual students, we calculate the number of students in a given Faculty, and the number of students receiving some form of external scholarship funding, in terms of annual full-time equivalents (FTEs). FTEs allow for three terms of changing data to be reported in an annual time frame. For example, if a student studies for two terms in Engineering and then changes to the Faculty of Science in the third term of a year, we would report 0.66 FTEs of activity in the Faculty of Engineering and 0.33 FTEs of activity in Science. The same is true for calculating FTEs of funding. If a student receives an external scholarship for two terms in a year, then we would say that he or she received 0.66 FTEs of external scholarship support.

[27] Professional master's programs at UW are defined by the Graduate Studies Office and include Accounting, Architecture, Business, Entrepreneurship & Technology, Master of Engineering programs, and Taxation.

Figure 2.3.A and 2.3.B show the percentage of annual FTE students (who are Canadians or Permanent Residents) in a particular Faculty at the master's or doctoral level receiving an external scholarship. The downward trend, seen in Figure 2.3.A and 2.3.B , may be a result of several factors. Over the past three years there has been an increase in both master's and doctoral level enrolment. Faculties with the most significant enrolment increases show the most significant downward trend in percentage of domestic students holding external awards as only a limited number of awards are available from Canada-wide sources to domestic students attending Canadian universities. Other factors include growth in new professional programs and increases to established professional programs, many of which are part-time or are not eligible/funded by provincial or federal award programs. However, it is important to note that the total number of domestic awards held at UW did increase.

Figure 2.3.A

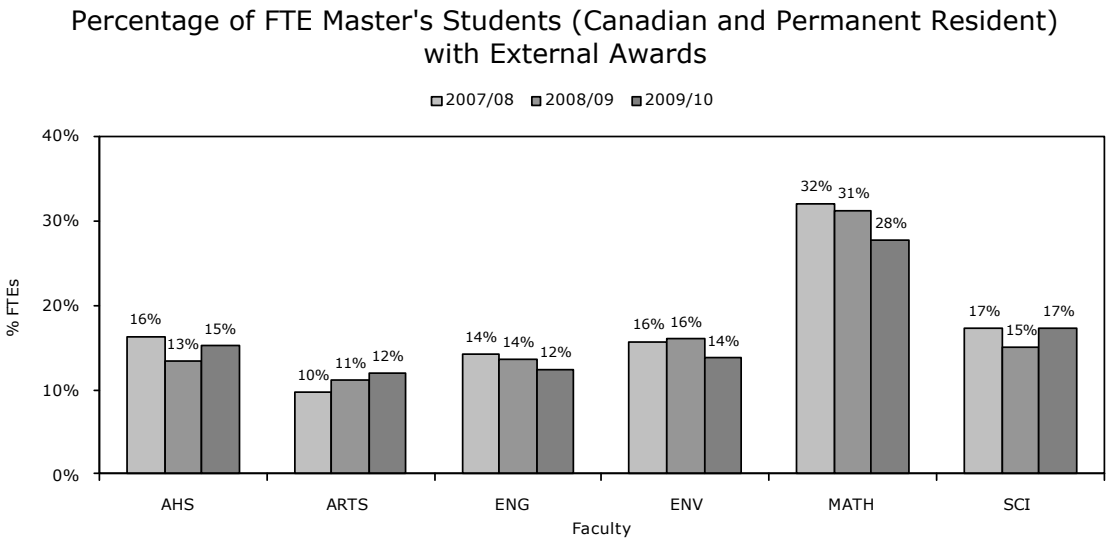


Figure 2.3.B

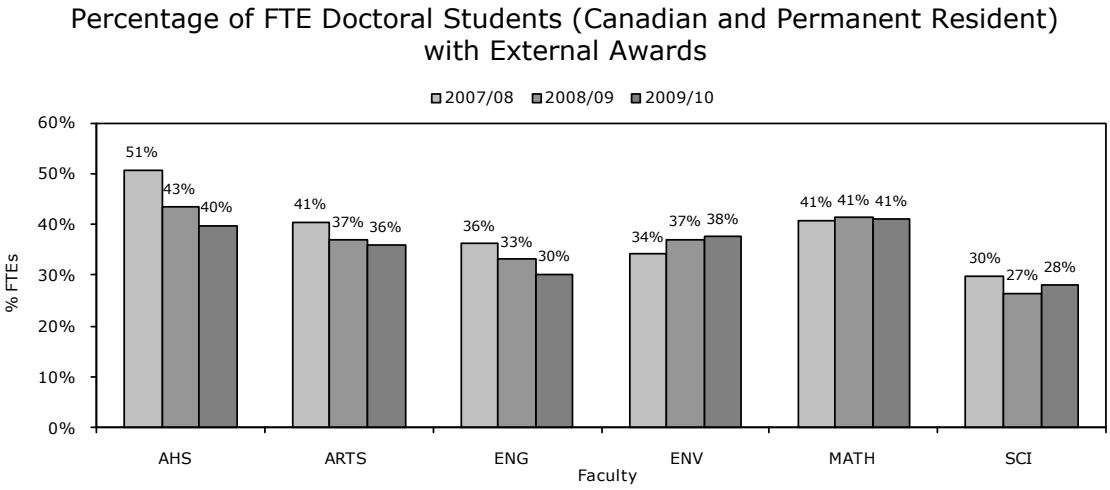
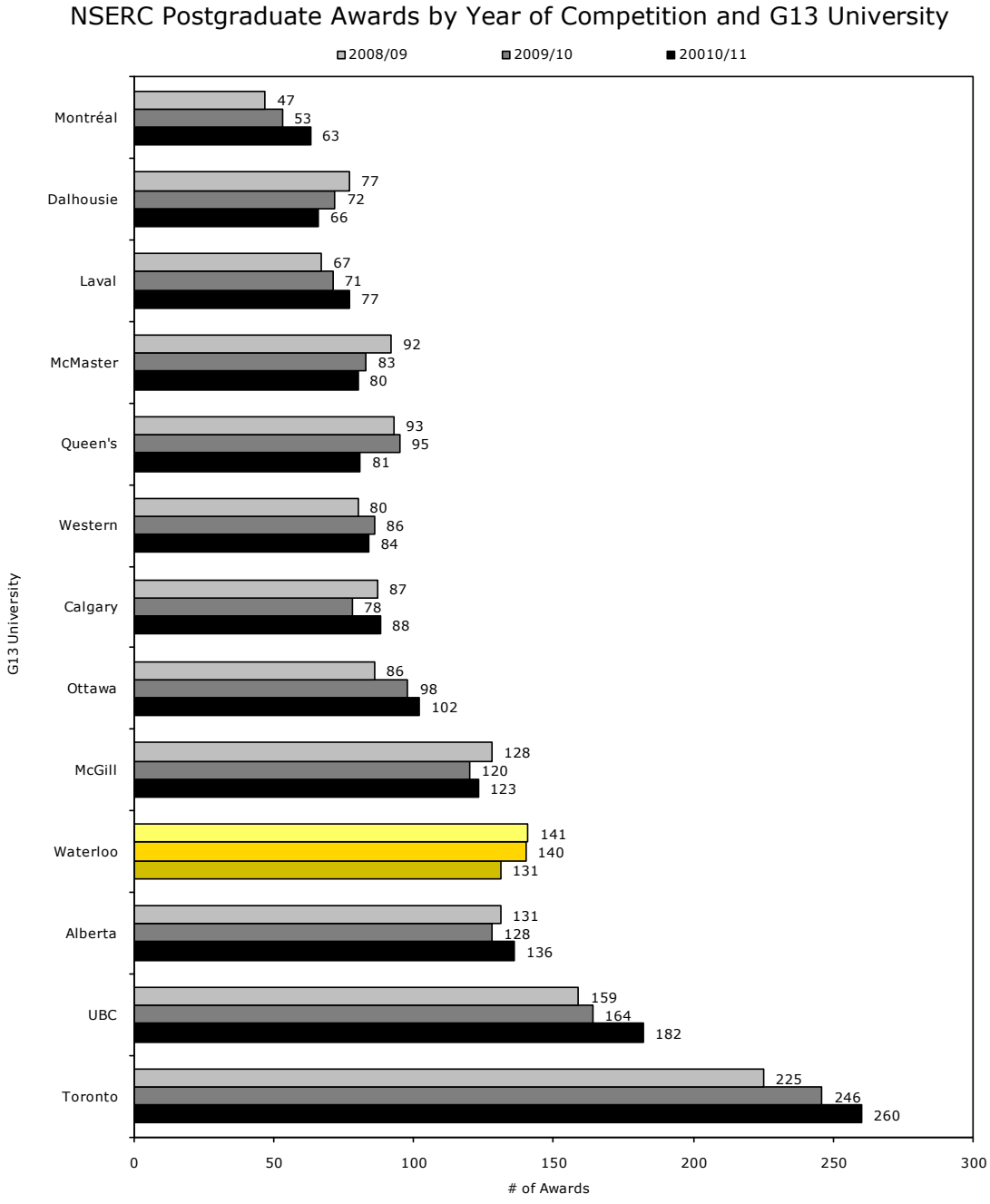


Figure 2.3.C, below, shows Natural Sciences and Engineering Research Council (NSERC) postgraduate awards to UW students, including those who may have subsequently attended graduate studies at other institutions, and similar data for those institutions in the G13.

Figure 2.3.C

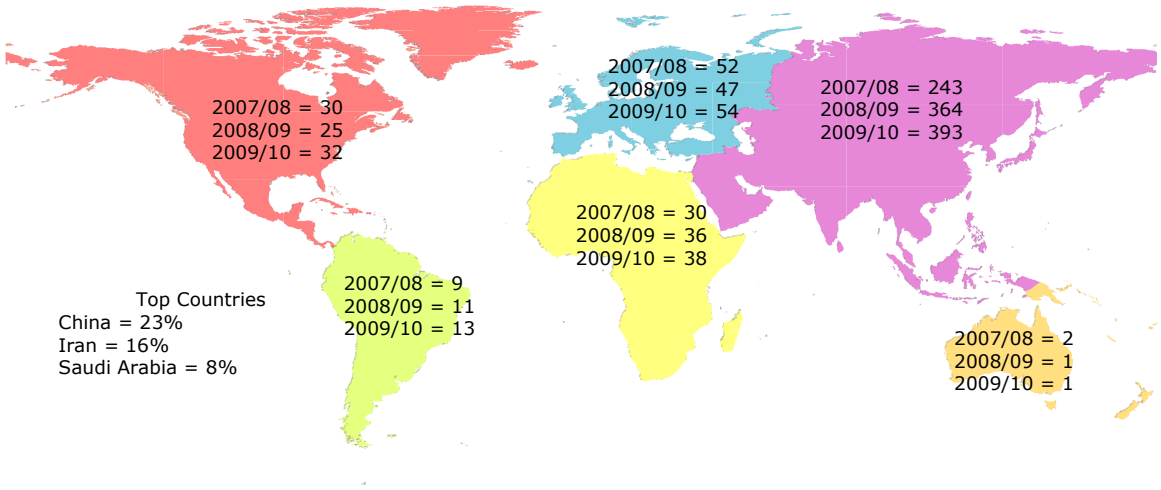


2.4. Geographic Source

Understanding the geographical outreach of the University of Waterloo allows us to assess the strength of our reputation and influence beyond the local community. The strength of our reputation can be measured in part by the breadth of the area from which we draw students.

Figure 2.4.A[28]

New International Graduate Students by Region of Origin
(By Continent, Excluding Permanent Residents)



2.5. Graduate Application, Offer, and Yield Rates

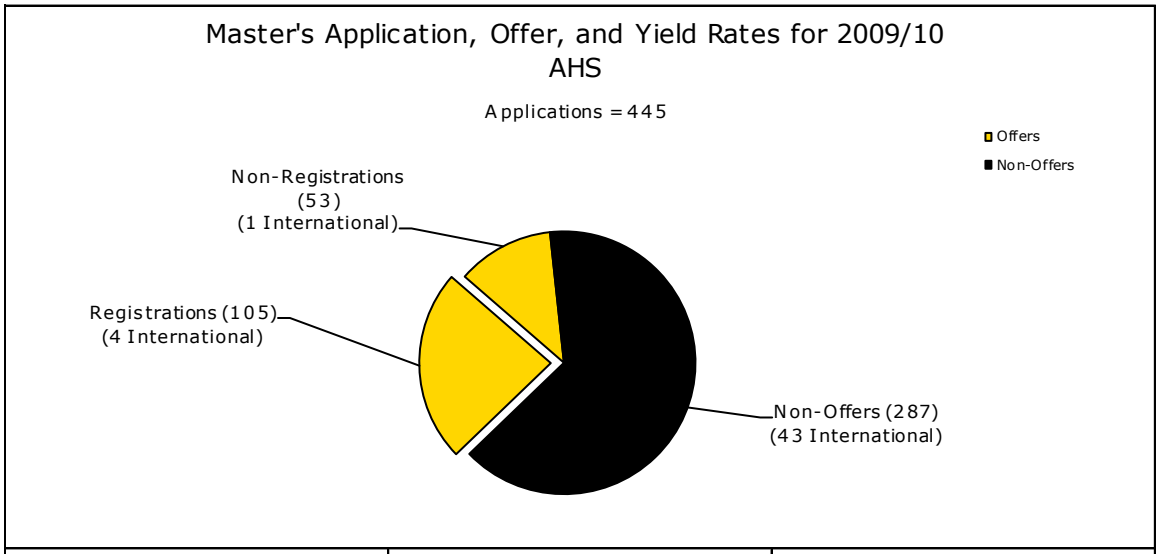
Entry to graduate studies is fundamentally different from the undergraduate programs, particularly in the area of offer and yield rates. Similar to the undergraduate case, we track the offer rate (number of offers versus number of applications), and the yield rate (number of registrations versus number of applications). However, the process and expectations for applications in graduate studies are decidedly different. Applicants seek more specialized and advanced programs based on their unique research interests and career plans. In some cases, applicants seek to study with a particular faculty member.

At any time, up to the start of the admission term, applicants can choose a competitive offer from another university. Science and technology programs are highly competitive. All programs endeavour to attract highly qualified students.

Figure 2.5.A through Figure 2.5.L show numbers of applications and the offer and yield rates for each of the most recent three years, by level of study (master's or doctoral) for each Faculty.

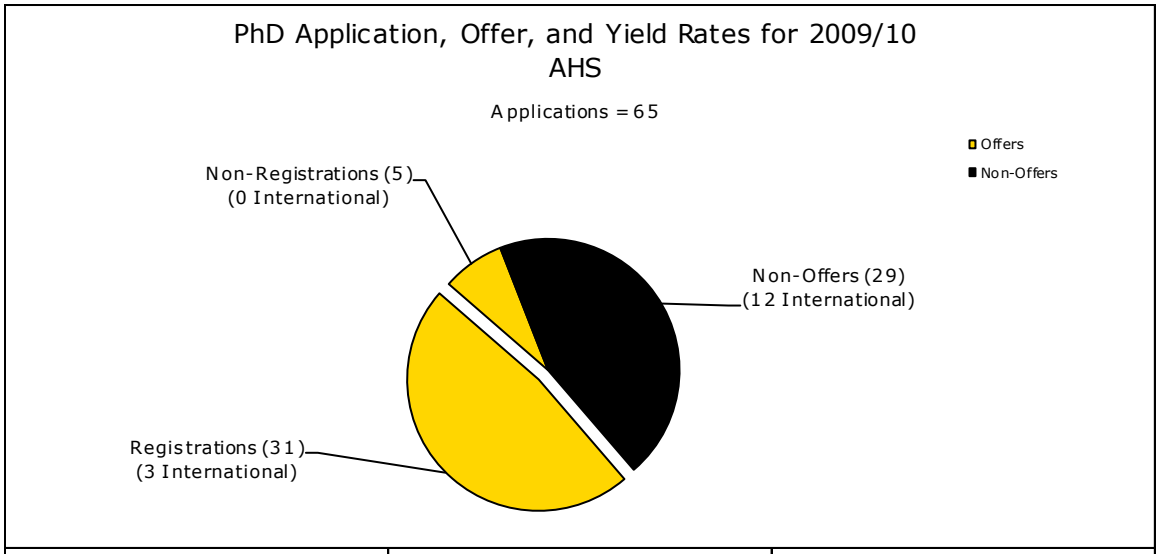
[28] Permanent Residents are not included in this chart because UW's definition of international involvement focuses more on students that have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental North America excludes Canada. Source: USIS Country of Citizenship, Visa Students only, fall terms only.

Figure 2.5.A



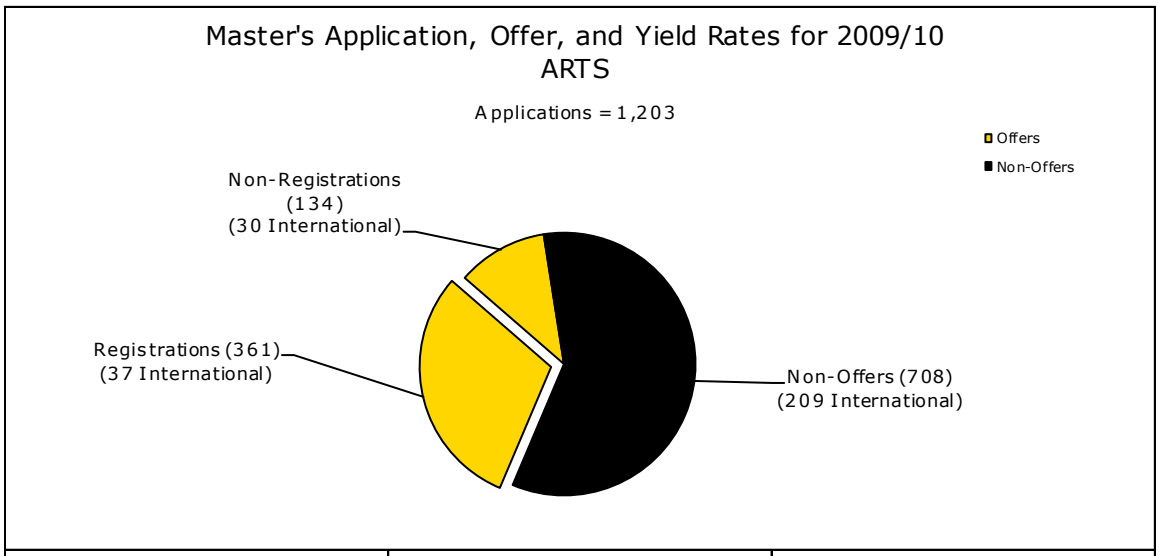
2007/08	2008/09	2009/10
Offer Rate = 36.5%	Offer Rate = 32.1%	Offer Rate = 35.5%
Yield Rate = 29.2%	Yield Rate = 26.8%	Yield Rate = 23.6%
Applications = 397	Applications = 414	Applications = 445

Figure 2.5.B



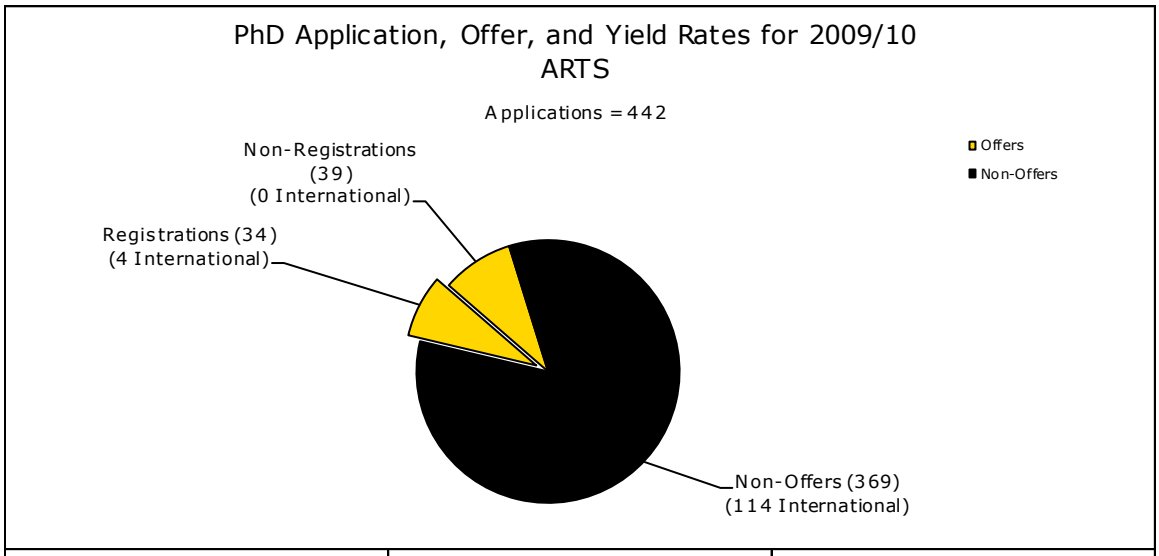
2007/08	2008/09	2009/10
Offer Rate = 42.6%	Offer Rate = 49.1%	Offer Rate = 55.4%
Yield Rate = 34.4%	Yield Rate = 41.8%	Yield Rate = 47.7%
Applications = 61	Applications = 55	Applications = 65

Figure 2.5.C



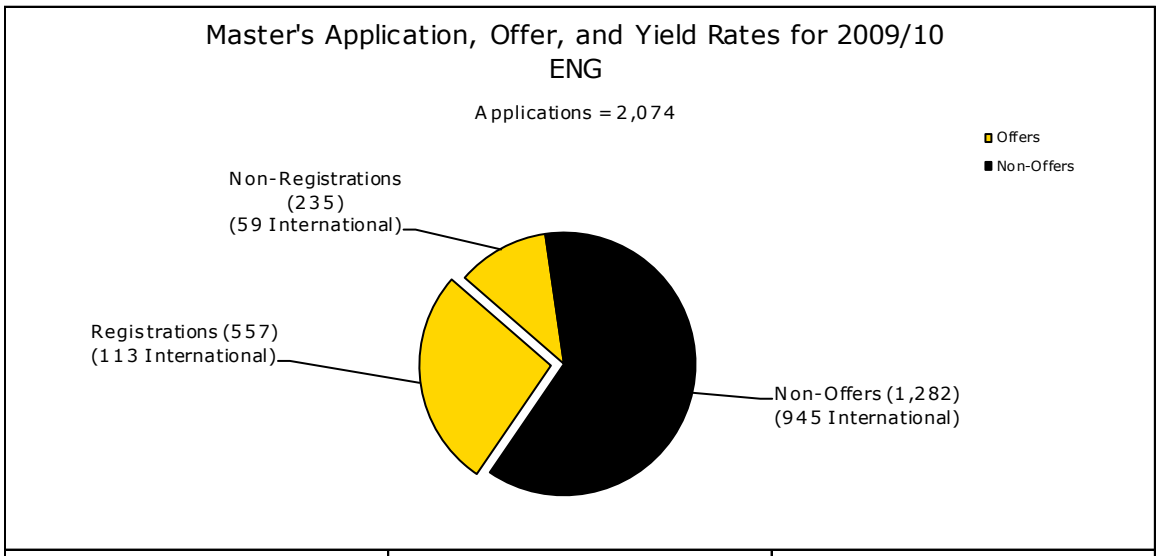
2007/08	2008/09	2009/10
Offer Rate = 46.0%	Offer Rate = 39.8%	Offer Rate = 41.1%
Yield Rate = 28.5%	Yield Rate = 32.2%	Yield Rate = 30.0%
Applications = 1,247	Applications = 1,045	Applications = 1,203

Figure 2.5.D



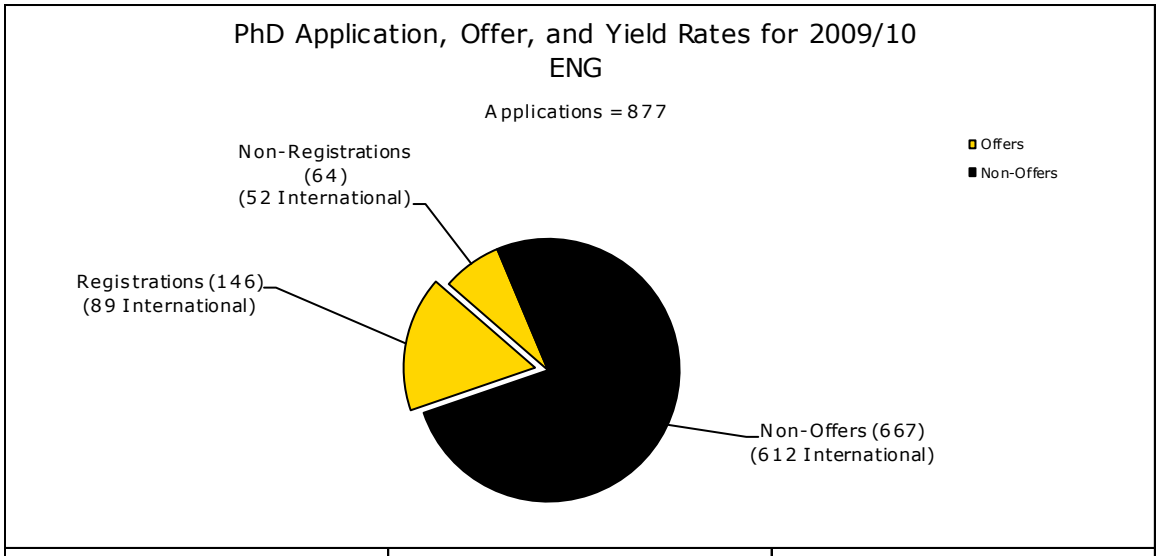
2007/08	2008/09	2009/10
Offer Rate = 23.2%	Offer Rate = 17.2%	Offer Rate = 16.5%
Yield Rate = 17.2%	Yield Rate = 12.0%	Yield Rate = 7.7%
Applications = 483	Applications = 460	Applications = 442

Figure 2.5.E



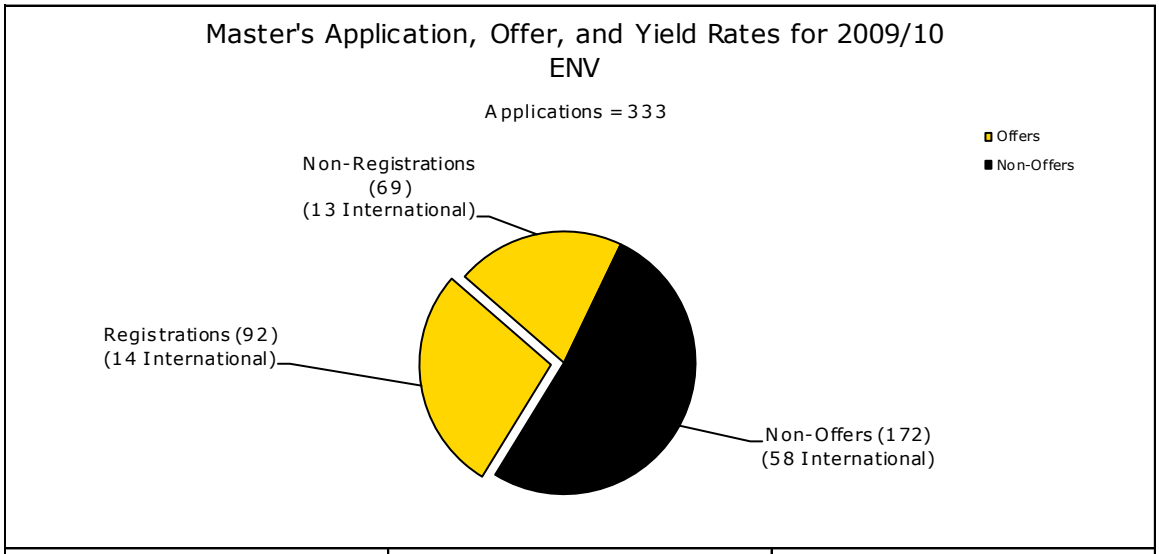
2007/08	2008/09	2009/10
Offer Rate = 40.0%	Offer Rate = 42.3%	Offer Rate = 38.2%
Yield Rate = 24.5%	Yield Rate = 30.2%	Yield Rate = 26.9%
Applications = 2,045	Applications = 1,790	Applications = 2,074

Figure 2.5.F



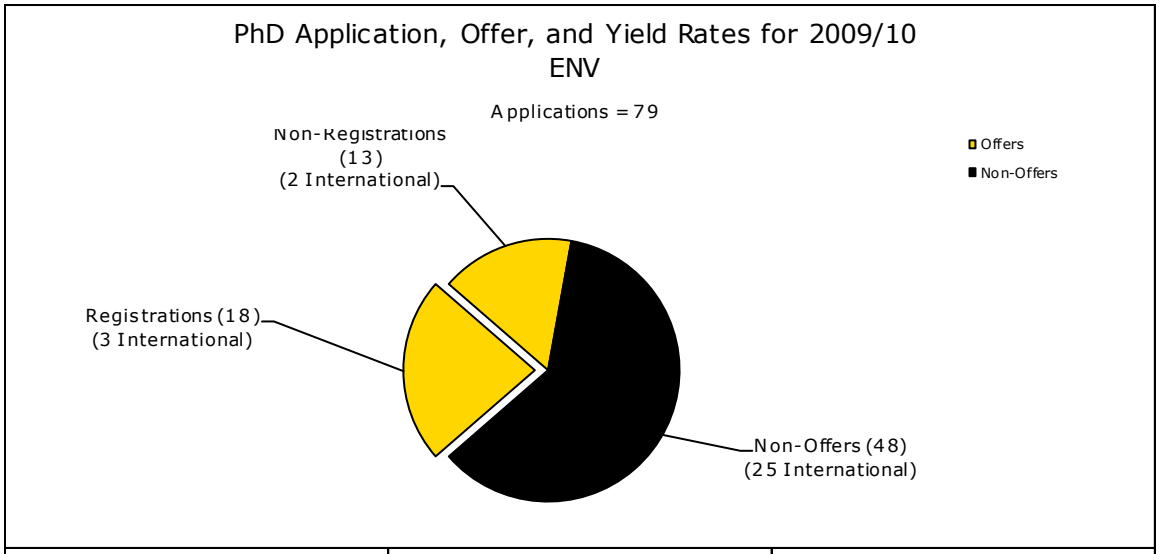
2007/08	2008/09	2009/10
Offer Rate = 30.8%	Offer Rate = 30.8%	Offer Rate = 23.9%
Yield Rate = 19.7%	Yield Rate = 23.2%	Yield Rate = 16.6%
Applications = 852	Applications = 785	Applications = 877

Figure 2.5.G



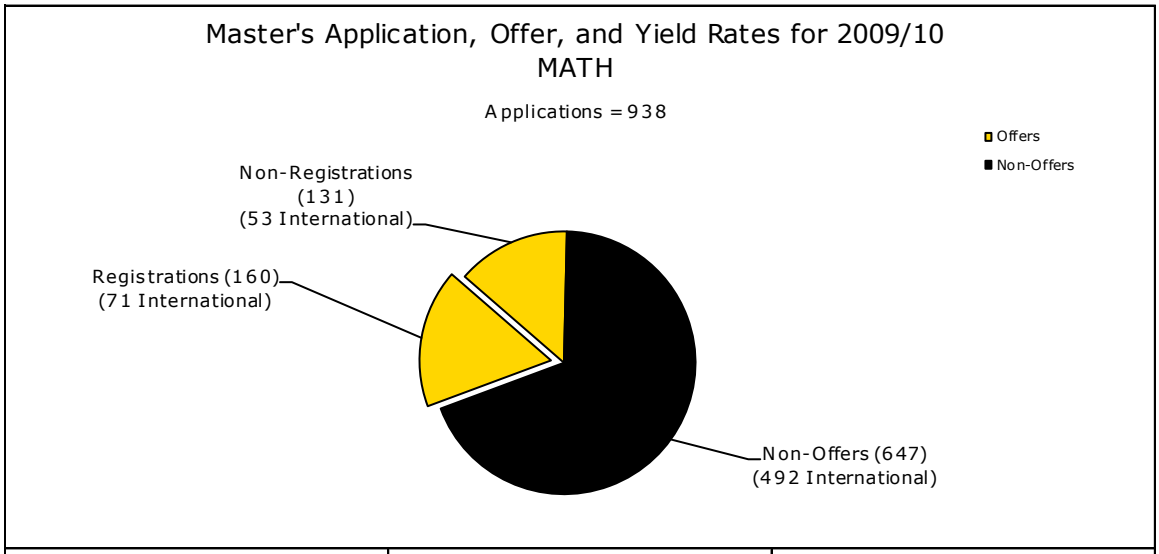
2007/08	2008/09	2009/10
Offer Rate = 52.7%	Offer Rate = 50.0%	Offer Rate = 48.3%
Yield Rate = 32.6%	Yield Rate = 34.0%	Yield Rate = 27.6%
Applications = 313	Applications = 300	Applications = 333

Figure 2.5.H



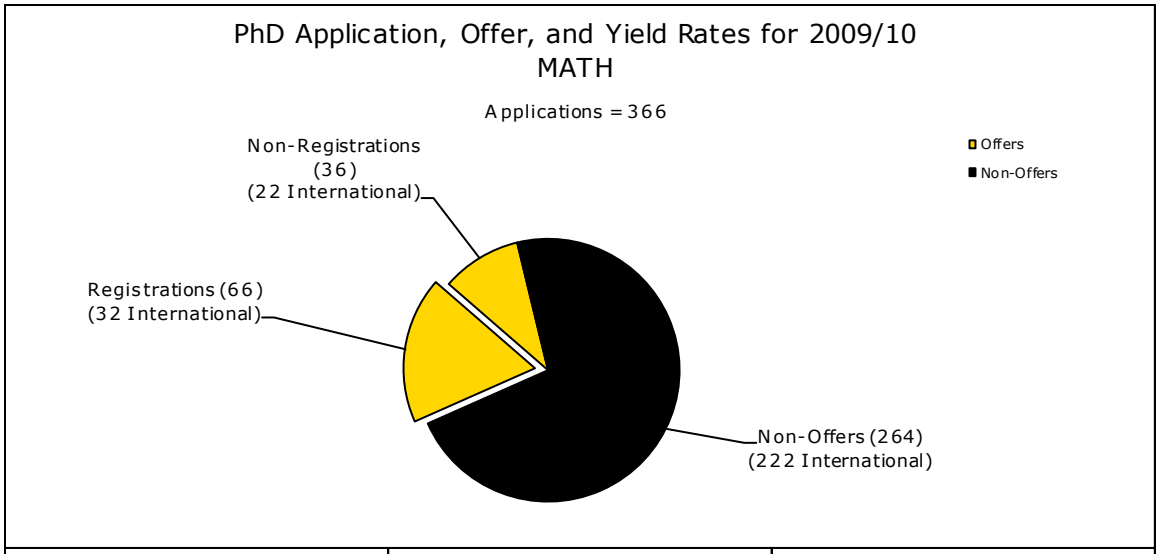
2007/08	2008/09	2009/10
Offer Rate = 38.1%	Offer Rate = 43.6%	Offer Rate = 39.2%
Yield Rate = 25.0%	Yield Rate = 38.5%	Yield Rate = 22.8%
Applications = 84	Applications = 78	Applications = 79

Figure 2.5.I



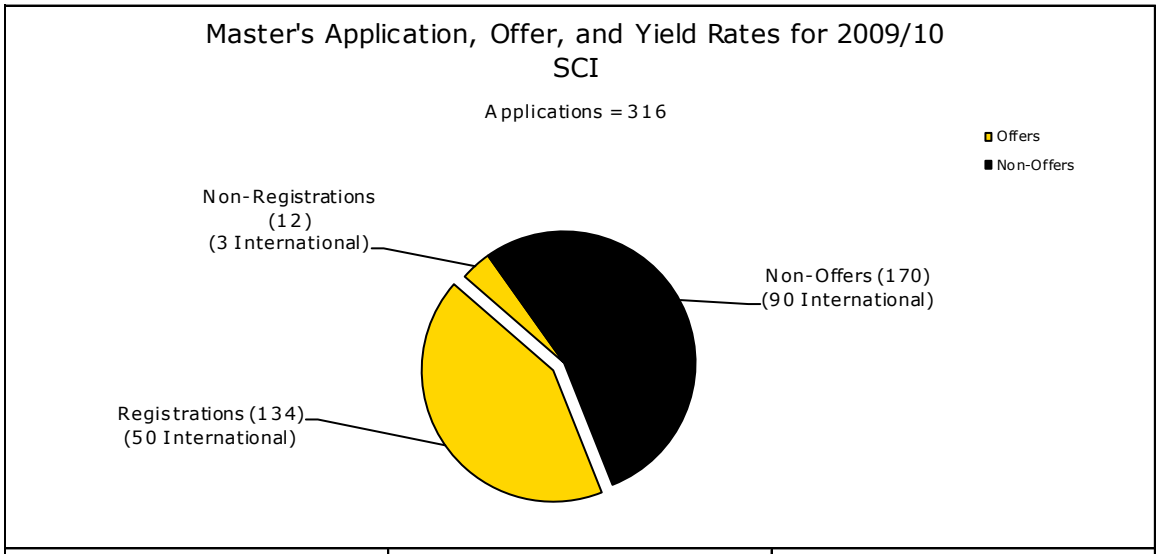
2007/08	2008/09	2009/10
Offer Rate = 24.8%	Offer Rate = 26.6%	Offer Rate = 31.0%
Yield Rate = 17.1%	Yield Rate = 21.6%	Yield Rate = 17.1%
Applications = 936	Applications = 834	Applications = 938

Figure 2.5.J



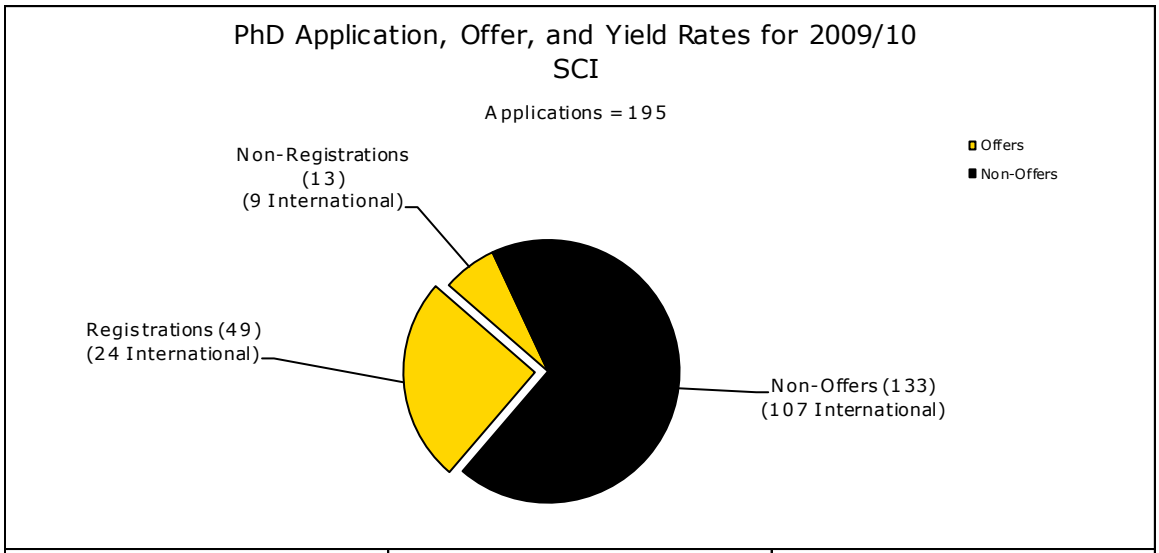
2007/08	2008/09	2009/10
Offer Rate = 24.5%	Offer Rate = 24.1%	Offer Rate = 27.9%
Yield Rate = 14.0%	Yield Rate = 17.6%	Yield Rate = 18.0%
Applications = 392	Applications = 290	Applications = 366

Figure 2.5.K



2007/08	2008/09	2009/10
Offer Rate = 64.7%	Offer Rate = 37.7%	Offer Rate = 46.2%
Yield Rate = 30.1%	Yield Rate = 30.6%	Yield Rate = 42.4%
Applications = 366	Applications = 284	Applications = 316

Figure 2.5.L



2007/08	2008/09	2009/10
Offer Rate = 39.1%	Offer Rate = 32.7%	Offer Rate = 31.8%
Yield Rate = 29.9%	Yield Rate = 27.5%	Yield Rate = 25.1%
Applications = 261	Applications = 153	Applications = 195

2.6. Student Support

Graduate student support is provided in a number of ways, including scholarships ($35 million), remuneration for work as teaching assistants ($11 million) and as research assistants ($16 million) and graduate research studentships ($7 million). Graduate students are the third-largest pay group at UW, after faculty and staff.

This indicator shows graduate student support for master's and doctoral students by Faculty and by type including teaching assistantships (TAs), research assistantships (RAs), internal University of Waterloo scholarships, external scholarships, and other sources. Other sources of income include vacation pay from TAs and RAs and needs-based bursaries.

Figure 2.6.A and Figure 2.6.B[29] show differences in the levels of graduate student support across Faculties for master's and doctoral candidates. More specifically, they demonstrate whether particular Faculties emphasize particular kinds of student support over others, e.g., research rather than teaching assistantships. As we can see from Figure 2.6.A and Figure 2.6.B, in 2009/10 UW graduate students received close to $79 million, up from $74 million in 2008/09.

Figure 2.6.A

Financial Support to Master's Students 2009/10 (thousands)							
	AHS	ARTS	ENG	ENV	MATH	SCI	Total
External Scholarship	$452	$611	$2,585	$397	$1,017	$785	$5,847
Internal Scholarship	$760	$1,477	$1,529	$773	$1,987	$1,540	$8,065
Teaching Assistantships	$510	$1,157	$1,451	$807	$1,501	$686	$6,113
Research Assistantships	$169	$131	$67	$152	$372	$102	$992
Research Scholarship	$379	$50	$4,440	$217	$1,223	$2,197	$8,505
Other	$182	$632	$1,330	$248	$179	$304	$2,875
Total	$2,453	$4,058	$11,402	$2,593	$6,277	$5,614	$32,397
Average Support	$19	$18	$21	$20	$28	$27	$22
% Supported	69%	67%	64%	73%	90%	94%	72%

Figure 2.6.B

Financial Support to Doctoral Students 2009/10 (thousands)							
	AHS	ARTS	ENG	ENV	MATH	SCI	Total
External Scholarship	$765	$1,915	$4,640	$662	$1,985	$1,585	$11,553
Internal Scholarship	$590	$2,559	$3,536	$483	$2,737	$1,643	$11,549
Teaching Assistantships	$315	$1,522	$1,872	$184	$1,262	$870	$6,024
Research Assistantships	$206	$304	$142	$114	$423	$133	$1,322
Research Scholarship	$211	$178	$7,577	$142	$2,189	$3,025	$13,322
Other	$254	$451	$901	$295	$414	$362	$2,677
Total	$2,341	$6,930	$18,667	$1,880	$9,011	$7,618	$46,447
Average Support	$28	$32	$34	$30	$35	$29	$32
% Supported	91%	94%	95%	91%	98%	97%	95%

[29] Total may not add up due to rounding (to the nearest $1,000).

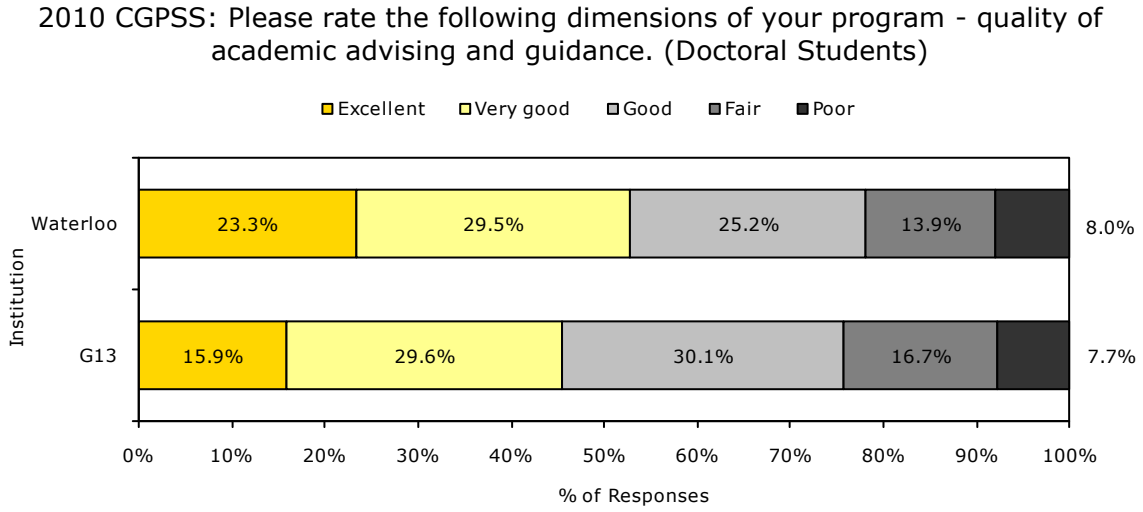
2.7. Graduate Student Satisfaction

Like the National Survey of Student Engagement (NSSE) for undergraduates, the Canadian Graduate and Professional Student Survey (CGPSS) is designed to gather feedback from our graduate students about their educational experience at UW. The CGPSS asks students about their satisfaction with their experience at UW, the degree of support they receive from their program or department, the effectiveness of their supervisor, the financial support they received, as well as university resources and student life.

The University of Waterloo participated in the CGPSS in 2005, 2007 and 2010, with a survey invitation being sent out to every graduate student enrolled at UW. Again in 2010, a number of peer institutions across Ontario and all G13 Universities from across Canada participated, allowing us to compare our results with those received by our peer institutions, and to identify areas where UW is excelling as well as issues and concerns for improvement or further investigation. In future years we plan to display data from two consecutive surveys and compare the results. Graduate students are divided into three separate groups when the results are analyzed, master's students with a thesis component to their program, master's students with no thesis, and doctoral students.

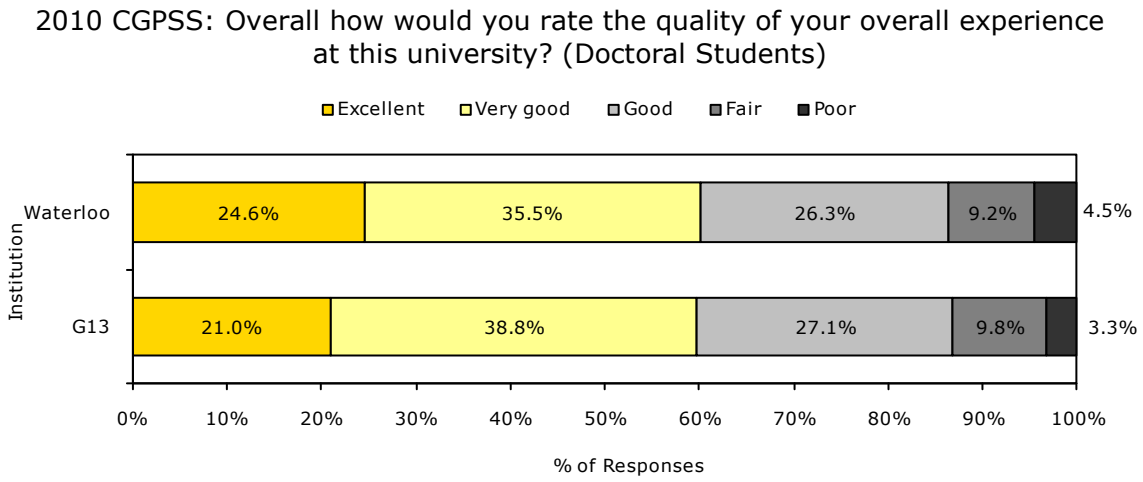
As in the NSSE survey the CGPSS contains a number of general assessment questions where students are asked to rate the quality and effectiveness of different aspects of their experience. Figure 2.7.A shows the responses of doctoral students when asked to rate the quality of academic advising and guidance they have received in their program. Overall the University of Waterloo seems to have a slight advantage over our peer institutions in the G13 with 52.8 per cent of our Doctoral students responding with "Excellent" or "Very Good" as compared to 45.5 per cent of Doctoral students across the G13. At the other end of the spectrum both groups have very similar proportions of students responding with only "Fair" or "Poor".

Figure 2.7.A



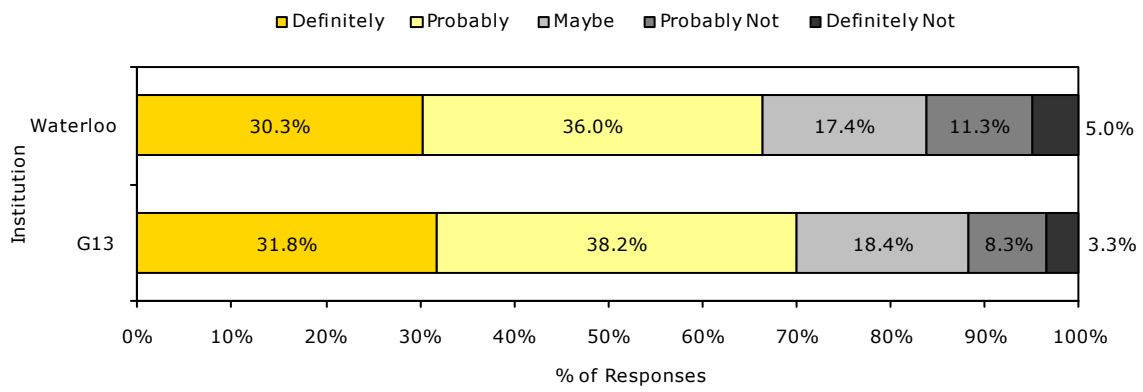
When asked to evaluate their overall experience at UW as shown in Figure 2.7.B UW's results mirror those of the G13 very closely with 24.6 per cent responding with "Excellent", and 35.5 per cent with "Good", compared to 21.0 per cent and 38.8 per cent respectively from students at the G13 institutions.

Figure 2.7.B



In Figure 2.7.C., students were asked if given the opportunity to begin their graduate career again whether or not they would choose the same institution. Our results continue to correspond very closely to those of the G13 as 30.3 per cent of our Doctoral students responded with "Definitely" and 36.0 per cent responded "Probably", but 16.3 per cent responded that they would "Probably Not" or "Definitely Not" choose UW again.

Figure 2.7.C



Further work to isolate factors that contribute to student satisfaction and dissatisfaction with their experience at UW by analyzing the survey responses may help us to improve the graduate student experience for future UW students.

2.8 Completion Rates and Degrees Granted

This indicator shows the 1999 Doctoral and 2003 Master's cohort completion rates of UW graduate students as compared to the other universities in the G13. Specifically, Figure 2.8.A through Figure 2.8.F show the size and progress of the 2003 starting master's and 1999 doctoral cohorts including the length of time it took students to graduate, the number of those who had either completed their studies or were still studying as of the winter 2008 term, and the number of study terms for those who withdrew.

Figure 2.8.A

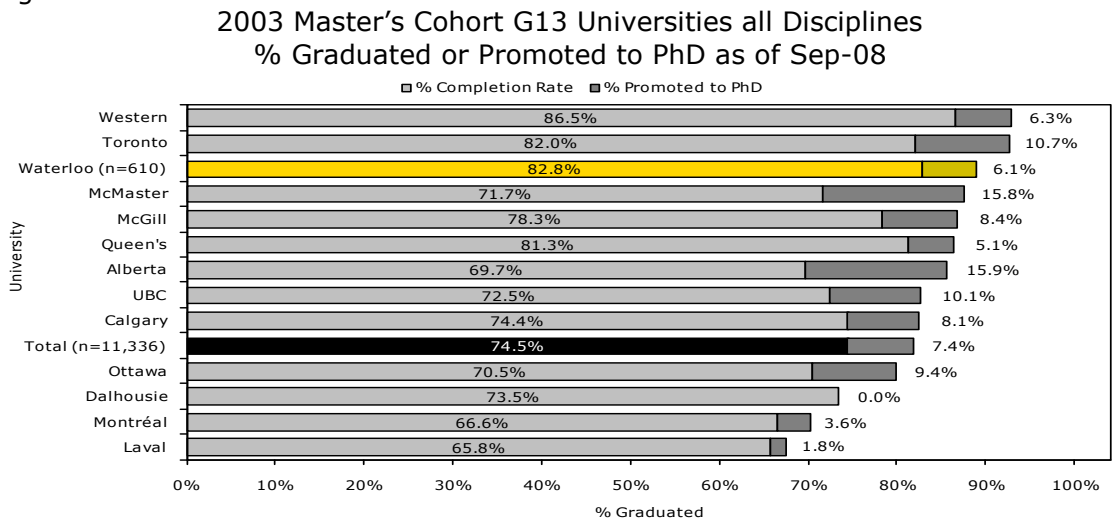


Figure 2.8.B

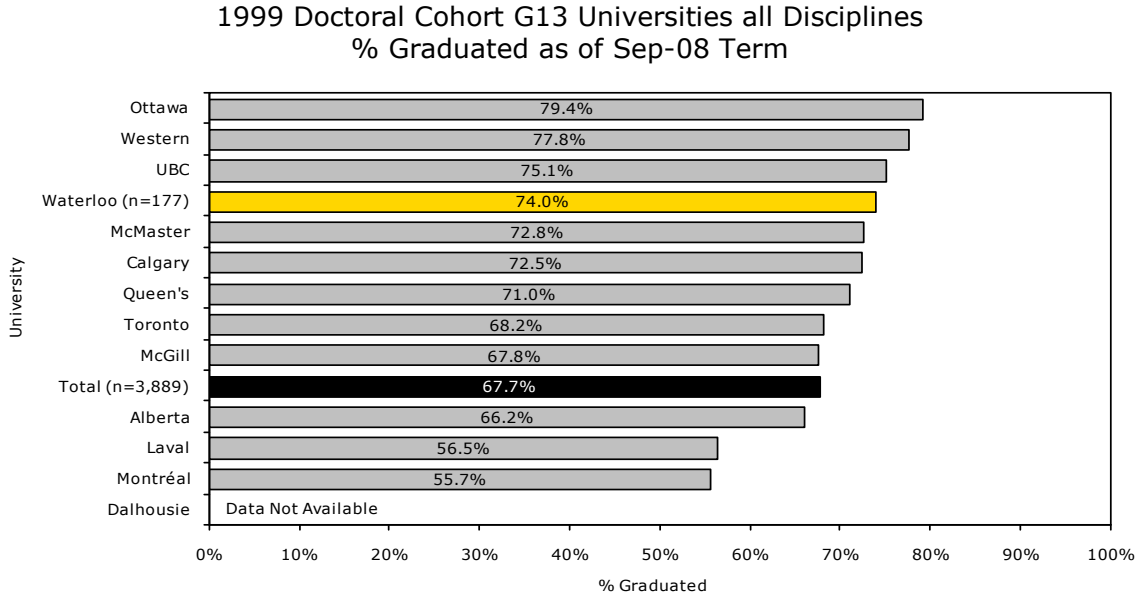


Figure 2.8.C

2003 Master's Cohort G13 Universities all Disciplines
Median Number of Terms Registered to Degree Completion

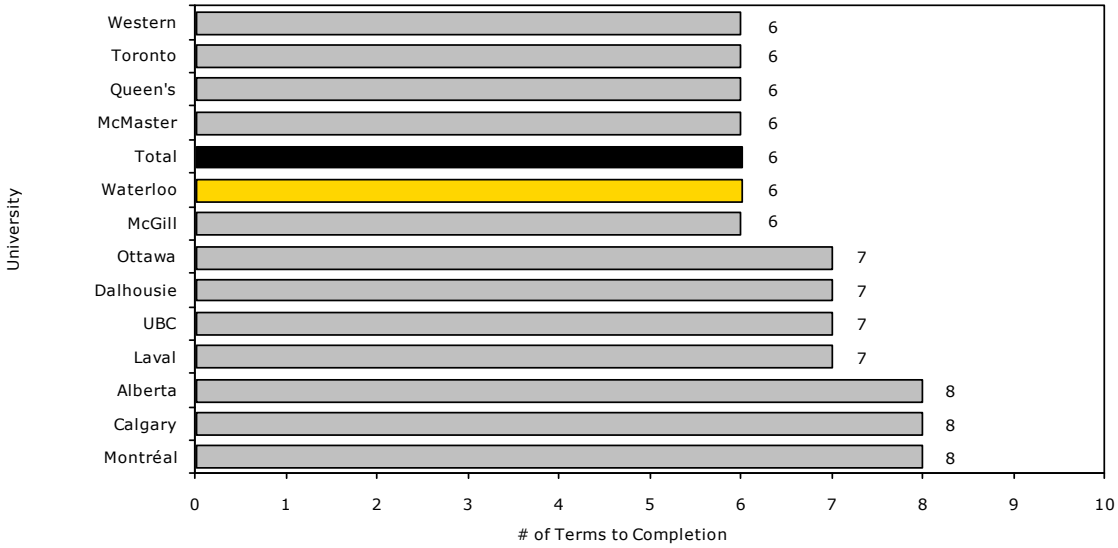


Figure 2.8.D

1999 Doctoral Cohort G13 Universities all Disciplines
Median Number of Terms Registered to Degree Completion

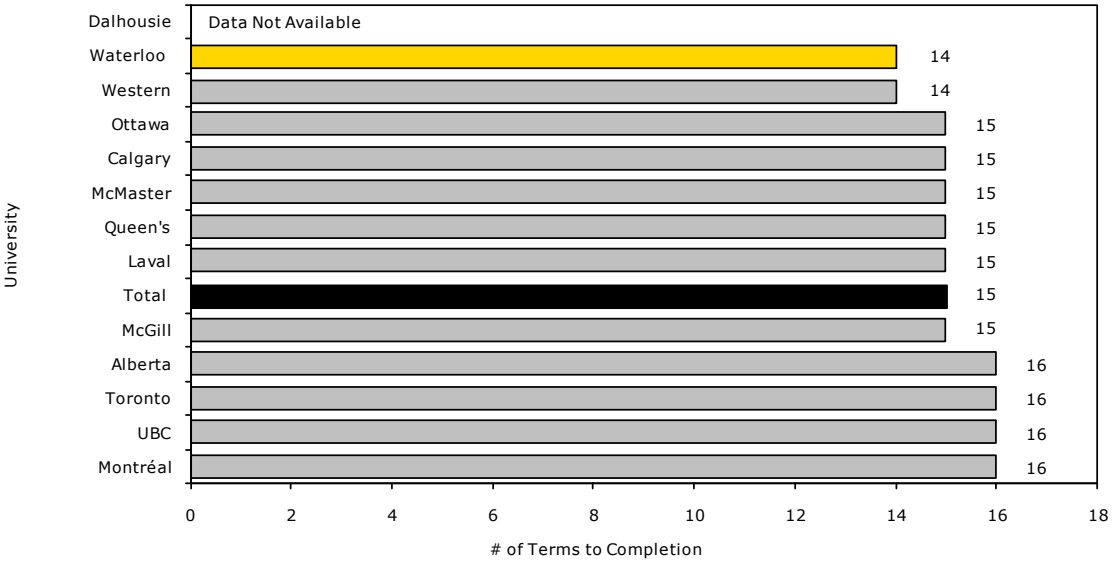


Figure 2.8.E

2003 Master's Cohort G13 Universities all Disciplines
Median Number of Terms Registered for Withdrawn Students

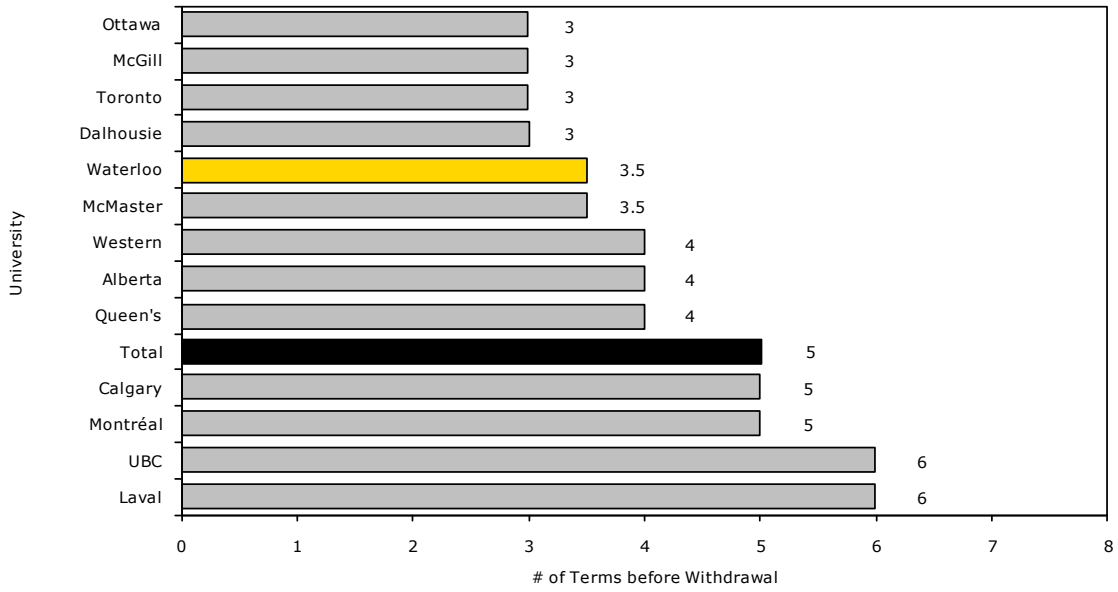
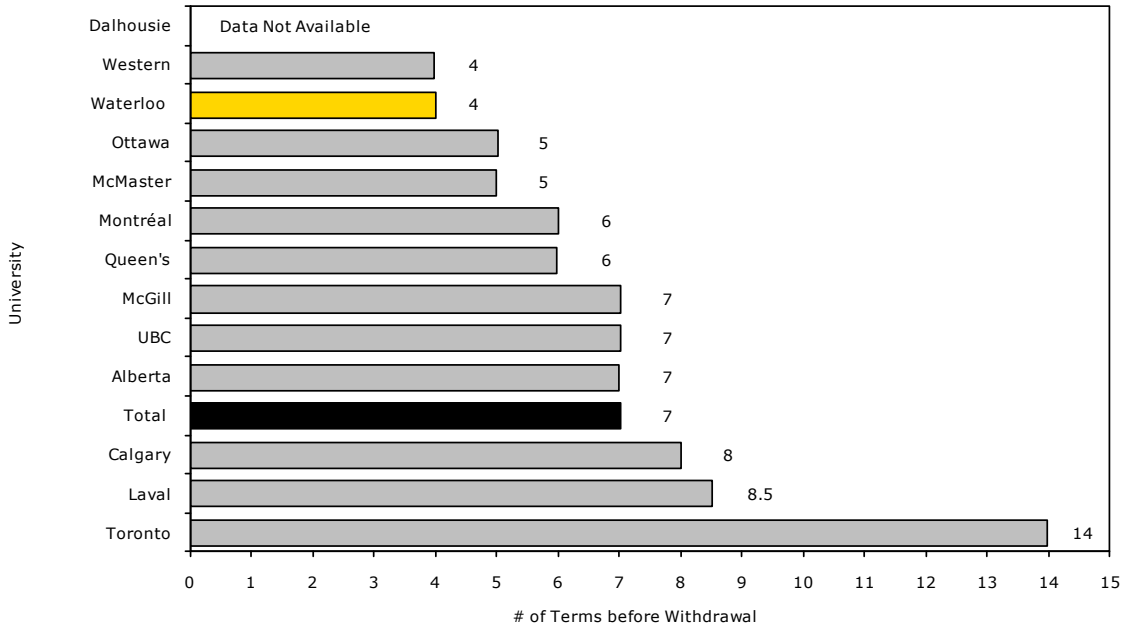


Figure 2.8.F

1999 Doctoral Cohort G13 Universities all Disciplines
Median Number of Terms Registered for Withdrawn Students



The next two figures show the average time to completion for those students who earned their degree between 2006 and 2008, distinct from the cohort analyses above.

Figure 2.8.G

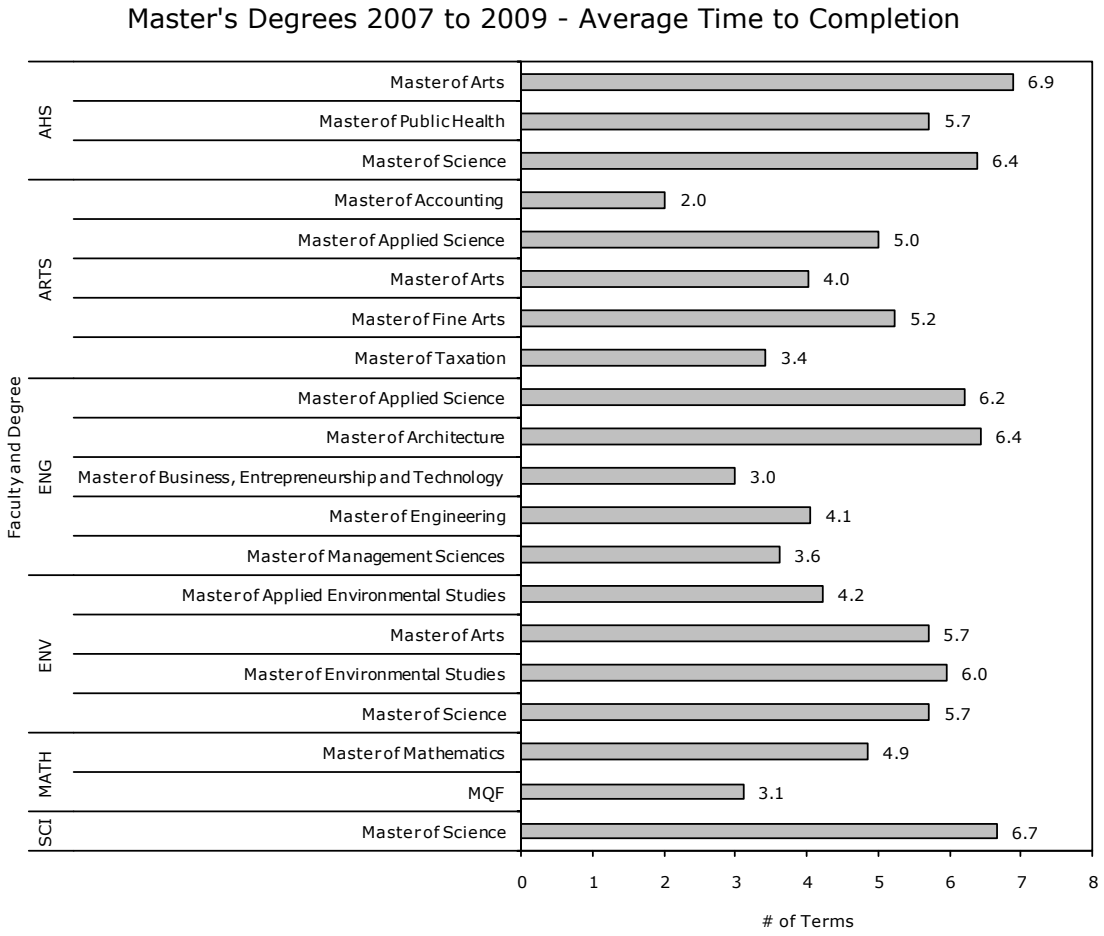
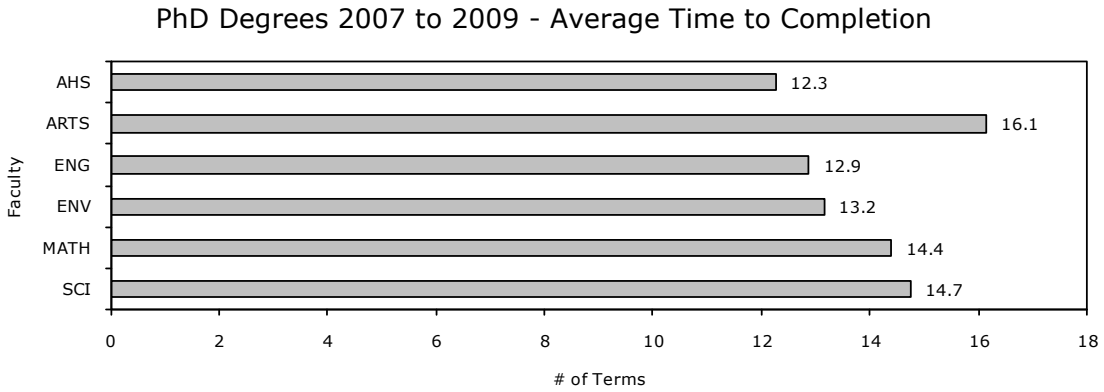


Figure 2.8.H



In 2009 there were 1041 master's degrees and 217 doctoral degrees granted.

Figure 2.8.I

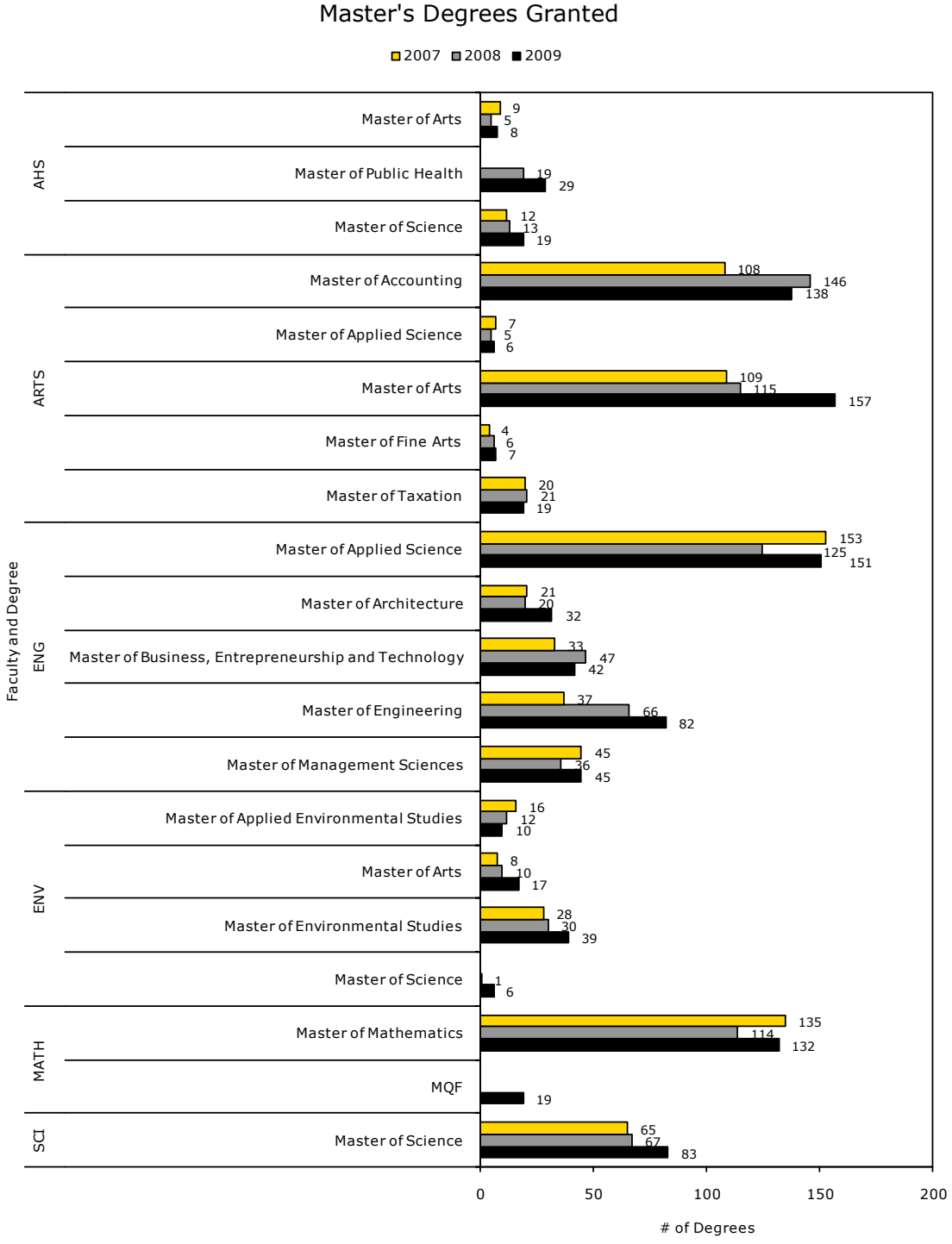
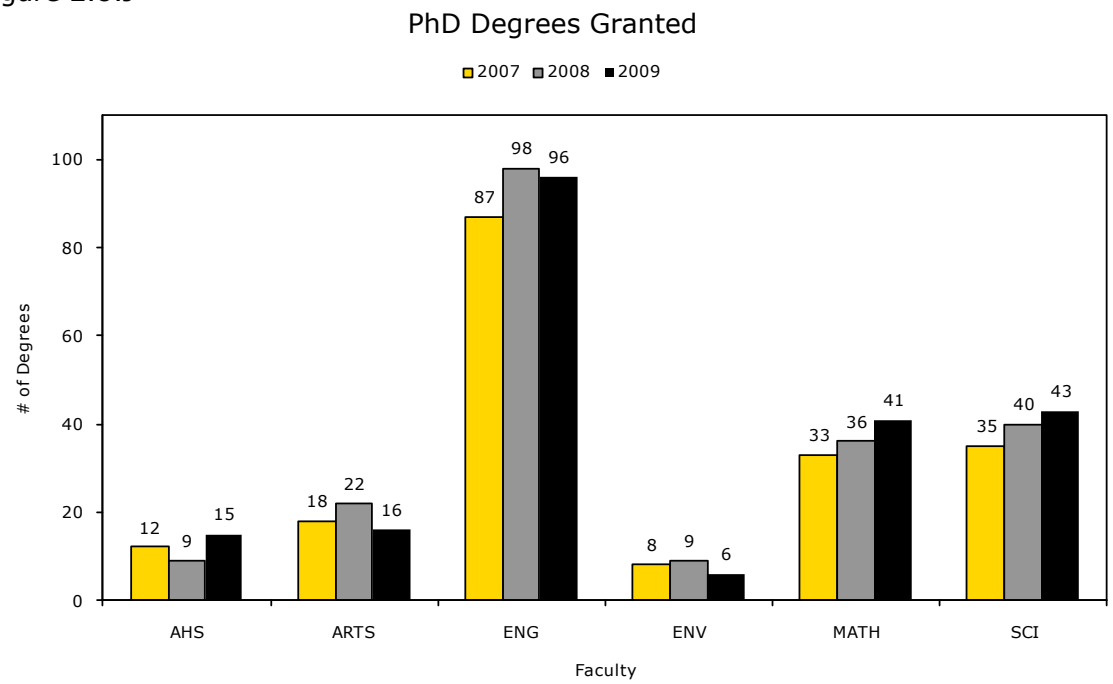


Figure 2.8.J



As our double-cohort students complete their undergraduate education, UW recognizes our responsibility to ensure access to a range of graduate education opportunities in a range of disciplines. The professional communities we serve with our undergraduate students—accountancy, engineering, planning, pharmacy, optometry, architecture—demand graduate degrees in their disciplines. Our goal is to meet that demand.

3. RESEARCH

The University of Waterloo is a research-intensive university, and our faculty members are actively involved in research, scholarship, and creative work in a wide variety of departments, centres, and institutes. Their teaching is enhanced by current discoveries, and their public service is informed by current knowledge. The University of Waterloo is committed to both basic research, which is essential to the discovery of new knowledge, and applied research, which seeks novel ways to use that knowledge for the benefit of society and the world around us.

A distinguishing feature of UW's research profile is its outstanding record of contract research with both private and public sectors. The University has an unparalleled record of spawning new companies and otherwise capitalizing on its many research accomplishments for the benefit of society. Research at UW encompasses a full spectrum of work in the arts, social and behavioural sciences, humanities, engineering, environmental studies, health, physical and life sciences, and mathematics.

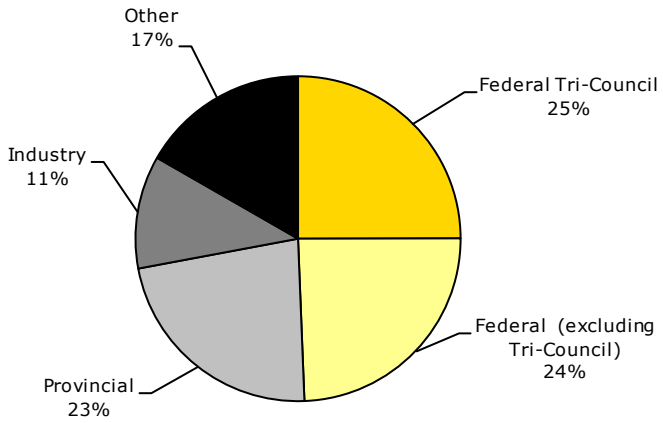
In this section, we examine total research awards, including those from international sources, awards from the Tri-Council agencies and the government of Ontario.

3.1. Research Awards

Research awards for the 2009/10 year were up by 17 per cent from 2008/09, totalling near $170 million. Funding from Federal government agencies made up roughly half of all funding with 50 per cent of federal funding coming from the Tri-Council.

Figure 3.1.A[30]

Total Sponsored Research Awards by Source 2009/10
$169,506,642



[30] "Other" includes, for example, funding from inter-university sub-awards, internal matching of institutional awards, foundations, private agencies, and other governmental bodies. "Federal (excluding Tri-Council)" includes $10M for IQC (Institute for Quantum Computing). "Provincial" includes $10M for IQC.

Figure 3.1.B[31]

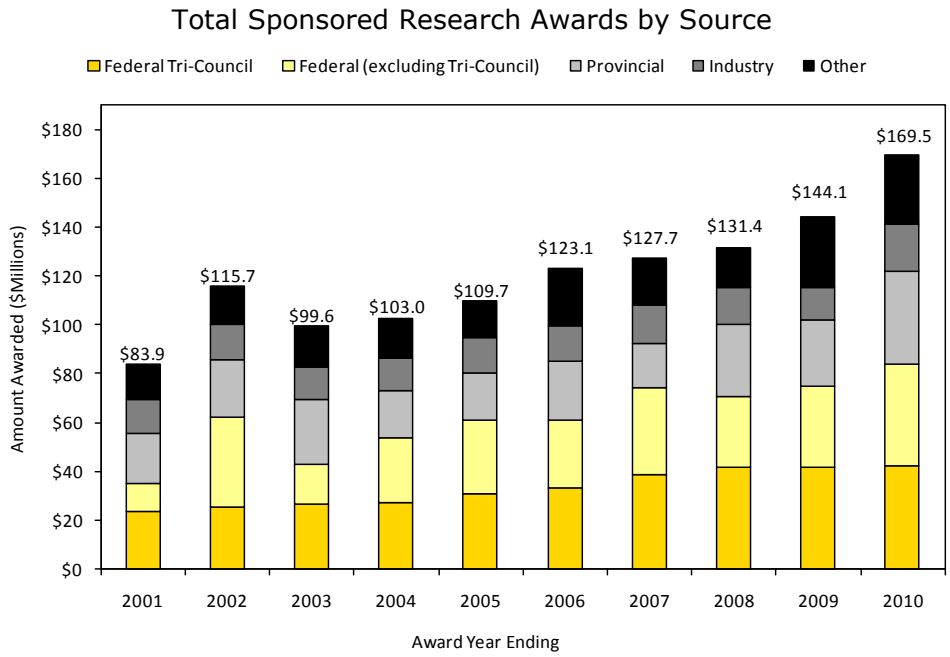
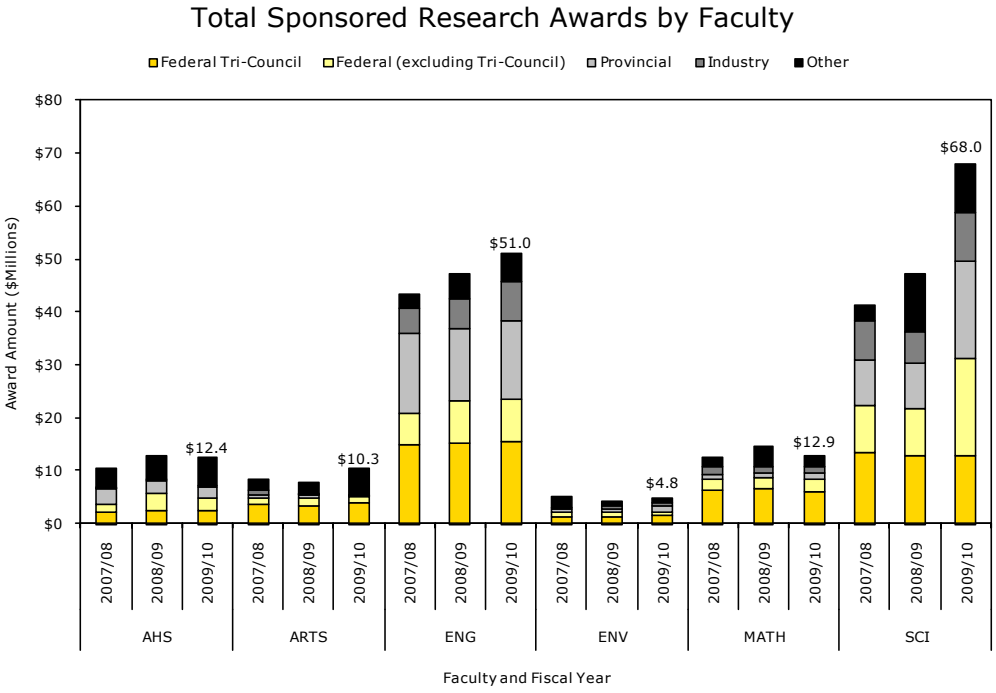


Figure 3.1.C excludes about $10 million in awards to the federated university and affiliated university colleges and/or non-academic units at UW.

Figure 3.1.C



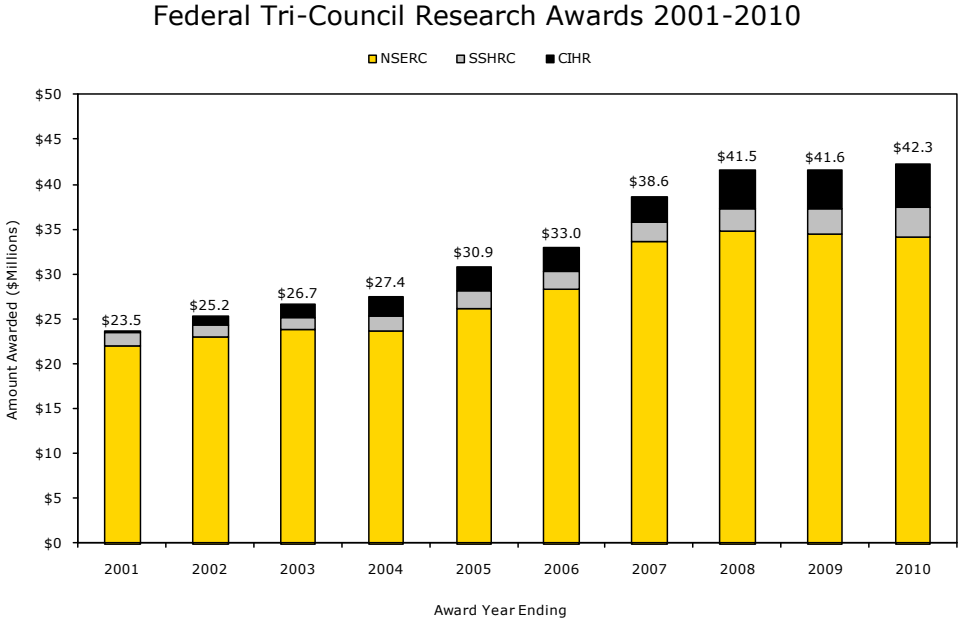
[31] 2002 was an unusual year in Federal (excluding Tri-Council) funding due to a large number of Canada Foundation for Innovation awards.

Figure 3.1.D[32]

3.2. Federal Tri-Council

Research awards from the three major granting councils—the Natural Sciences and Engineering Research Council (NSERC), the Canadian Institutes for Health Research (CIHR), and the Social Sciences and Humanities Research Council (SSHRC) —are presented for the past 10 years.

Figure 3.2.A



[32] In 2009/10, 81 per cent of international awards were from sponsors in the United States, the majority of which came from industry. The Canadian International Development Agency (CIDA) sponsors research in other countries but is not included in these figures. Includes all awards from outside of Canada.

Figure 3.2.B

Breakout of Federal Tri-Council Research Awards 2009/10
$42,320,341

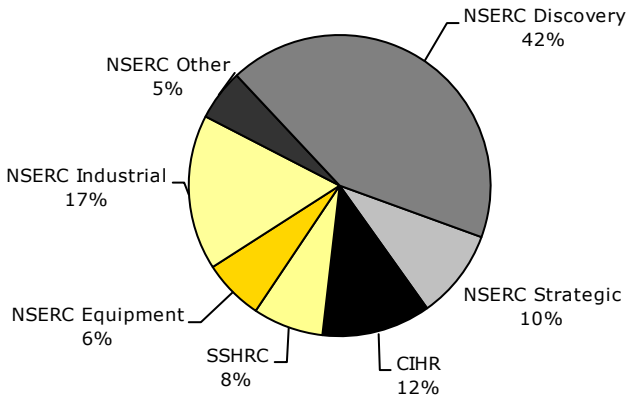


Figure 3.2.C

Federal Tri-Council Research Awards by Faculty

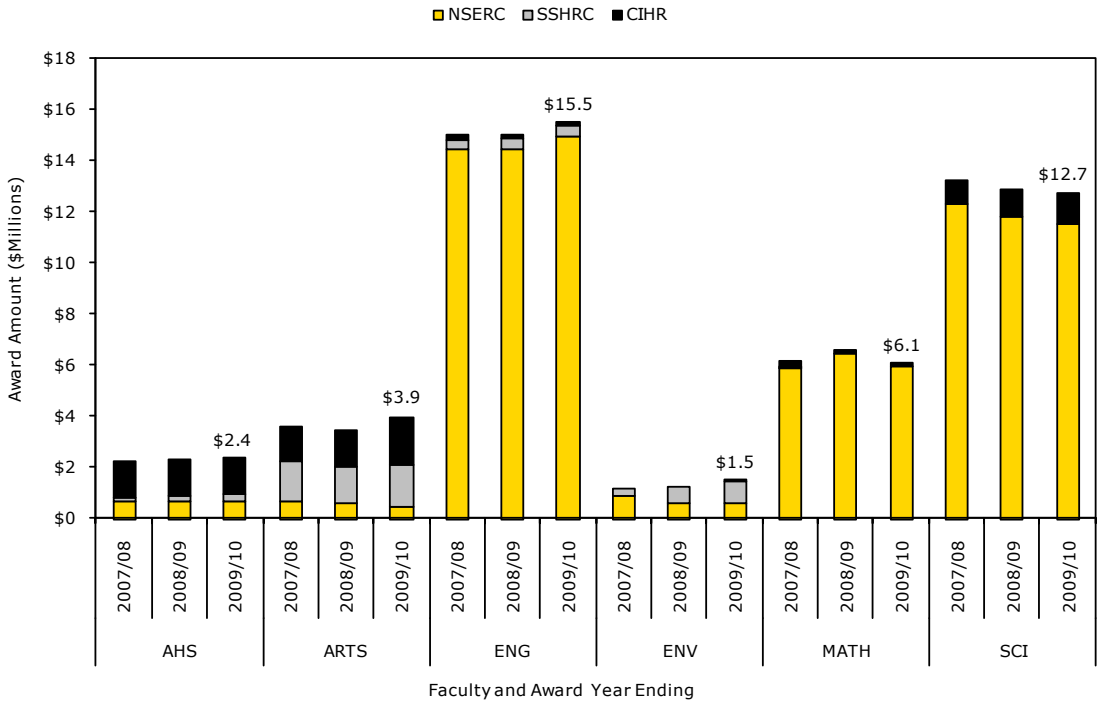


Figure 3.2.D

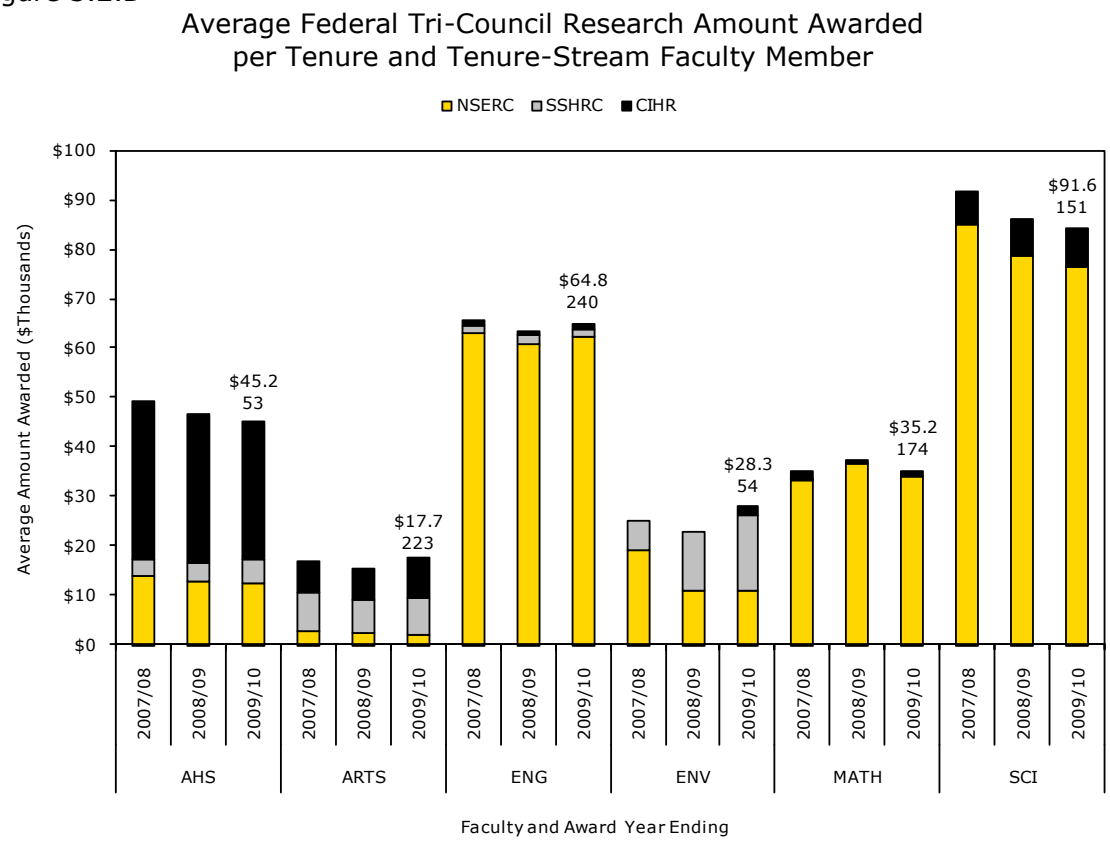
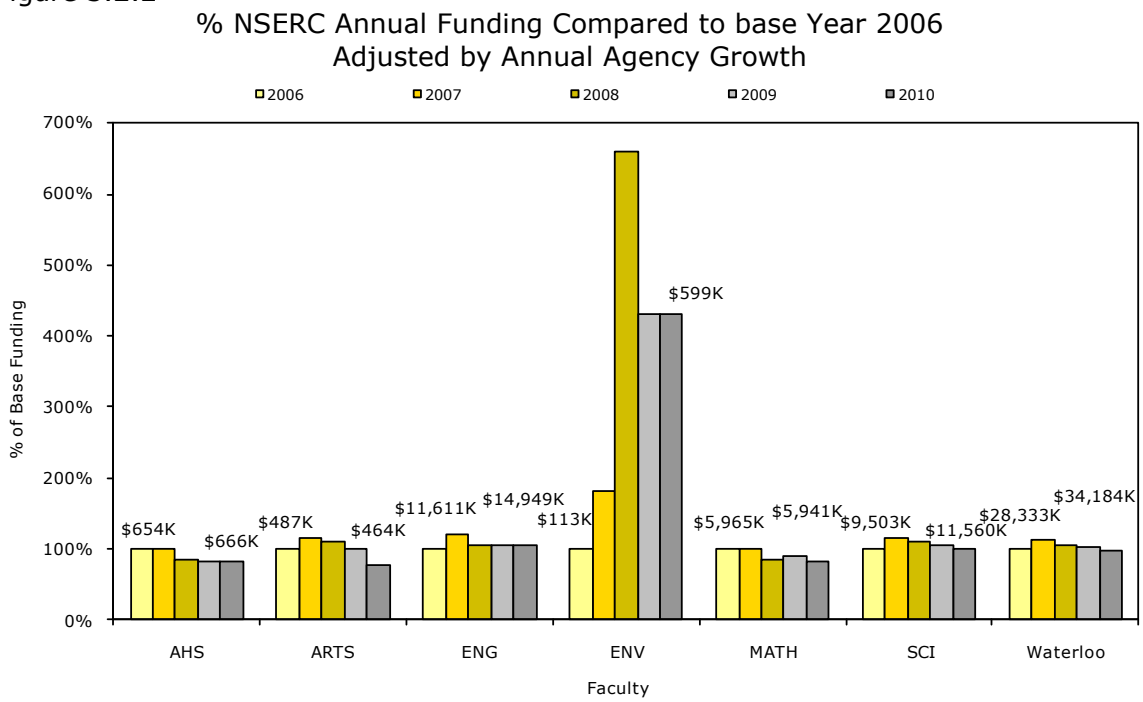


Figure 3.2.E through Figure 3.2.G illustrate the change in funding, relative to the base year[33], from each of the Tri-Council agencies. For example, if the funds available from NSERC in 2008 increased by five per cent from 2007 and AHS's 2008 funding remained at the 2007 level, then AHS's 2008 funding would be 95.2 per cent of the 2007 level. If AHS's 2008 level increased by five per cent then it would be at 100 per cent funding relative to its 2007 base year.

[33] The base year is 2006.

Figure 3.2.E



Caution needs to be exercised when interpreting Figure 3.2.F since the overall numbers of grants are low and the gain or loss of one research award could substantially change the results.

Figure 3.2.F

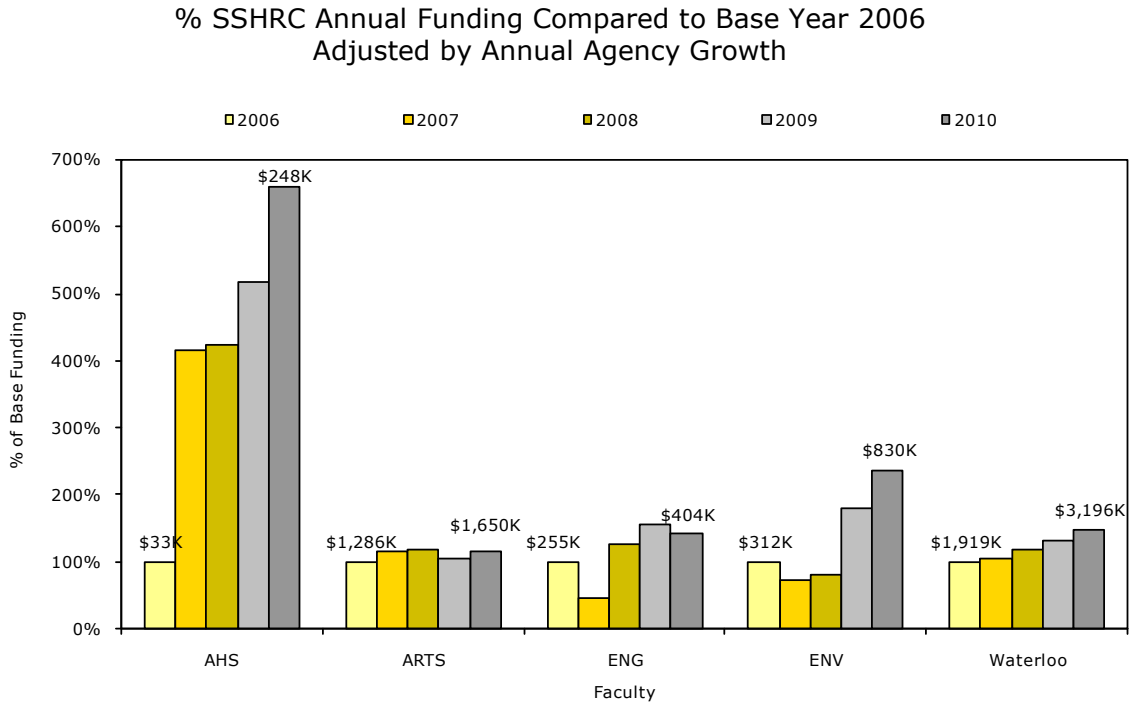


Figure 3.2.G

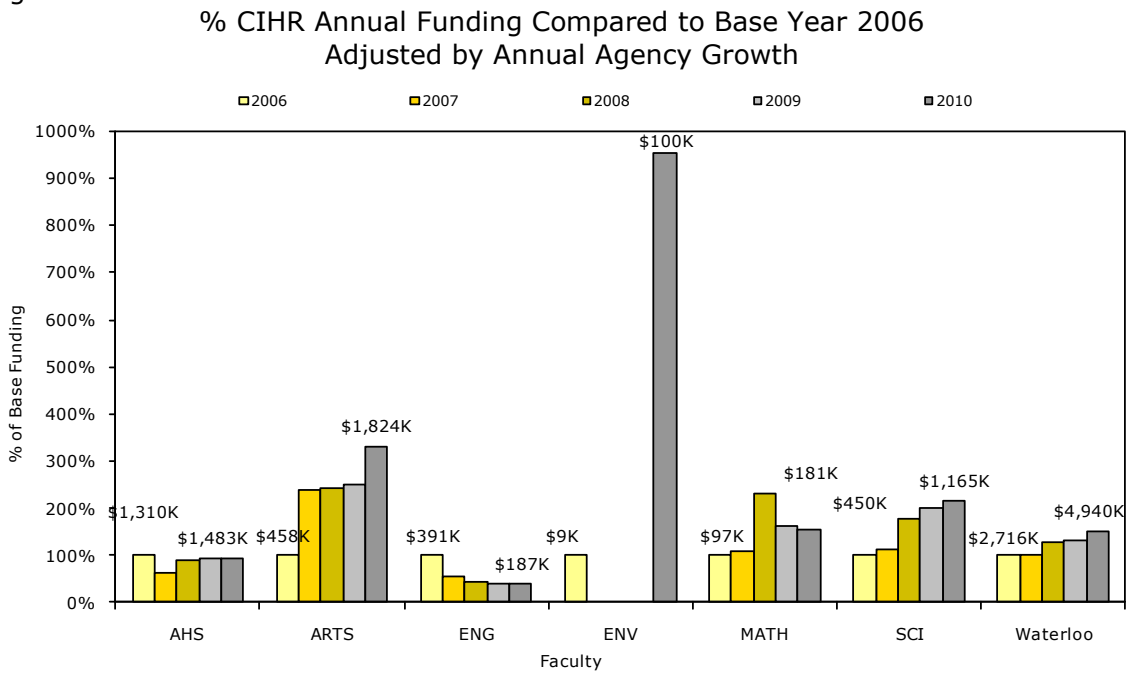


Figure 3.2.H through Figure 3.2.J show the total dollars allocated by the tri-councils to the G13 universities in fiscal year 2004/05 and 2009/10 for NSERC, SSHRC, and CIHR, and the percentage change for each institution. The data in these tables have been taken from the council databases.

Figure 3.2.H

NSERC - % Change in $ to G13 2004/5-2009/10					
	G13 University	2004/05 % x 000s	2009/10 $ x 000s	Change $ x 000s	Change %
1	University of Ottawa	18,235	29,274	11,039	60.5%
2	University of British Columbia	53,377	82,005	28,628	53.6%
3	Queen's University	24,160	36,078	11,918	49.3%
4	McGill University	40,770	55,151	14,381	35.3%
5	University of Western Ontario	20,364	27,477	7,112	34.9%
6	University of Waterloo	38,983	51,258	12,275	31.5%
7	University of Calgary	25,658	33,138	7,479	29.2%
8	University of Toronto	66,031	82,456	16,424	24.9%
9	McMaster University	25,630	30,425	4,795	18.7%
10	Université Laval	42,129	48,260	6,130	14.6%
11	Dalhousie University	18,361	20,807	2,446	13.3%
12	University of Alberta	48,913	51,758	2,845	5.8%
13	Université de Montréal	26,300	27,570	1,270	4.8%
	G13 Total	448,912	575,655	126,742	28.2%
	Total/all Institutions	765,644	1,003,484	237,840	31.1%

Figure 3.2.I

SSHRC - % Change in $ to G13 2004/5-2009/10					
	G13 University	2004/05 % x 000s	2009/10 $ x 000s	Change $ x 000s	Change %
1	University of Waterloo	4,160	7,070	2,910	70.0%
2	Dalhousie University	2,839	4,815	1,976	69.6%
3	University of British Columbia	16,894	24,336	7,442	44.0%
4	University of Ottawa	10,380	14,175	3,795	36.6%
5	Queen's University	6,600	9,003	2,403	36.4%
6	McGill University	12,163	16,145	3,982	32.7%
7	University of Toronto	23,885	31,428	7,544	31.6%
8	University of Calgary	5,739	7,531	1,791	31.2%
9	Université de Montréal	12,785	16,375	3,590	28.1%
10	Université Laval	11,808	14,288	2,480	21.0%
11	McMaster University	6,102	7,328	1,226	20.1%
12	University of Western Ontario	9,718	10,792	1,075	11.1%
13	University of Alberta	13,417	13,044	- 373	-2.8%
	G13 Total	136,490	176,330	39,840	29.2%
	Total/all Institutions	230,403	301,870	71,467	31.0%

Figure 3.2.J below, shows a 116 per cent change in funding to UW from 2004/05. In 2000, the Medical Research Council (MRC) was replaced by the Canada Institutes for Health Research (CIHR) which provided research awards to a much wider spectrum of research fields. CIHR not only included funding for Biomedical and Clinical research, but also the areas of Health Services and Policy, and Public and Population Health. This explains the large increase in funding from 2004/05 – 2009/10. Unlike the other G13 universities, UW has no medical school, limiting the funds that were available through MRC. The change to CIHR has made available a wider range of grants for which UW researchers are eligible.

Figure 3.2.J

CIHR - % Change in $ to G13 2004/5-2009/10					
	G13 University	2004/05 % x 000s	2009/10 $ x 000s	Change $ x 000s	Change %
1	University of Waterloo	2,548	5,492	2,944	115.6%
2	McMaster University	25,725	48,308	22,583	87.8%
3	University of Ottawa	19,830	29,906	10,076	50.8%
4	Dalhousie University	14,692	21,963	7,271	49.5%
5	University of Toronto	59,649	79,760	20,111	33.7%
6	McGill University	46,855	57,191	10,336	22.1%
7	University of British Columbia	56,756	68,720	11,964	21.1%
8	Université de Montréal	28,675	34,147	5,471	19.1%
9	University of Western Ontario	22,210	24,400	2,189	9.9%
10	Université Laval	22,112	24,207	2,096	9.5%
11	Queen's University	15,303	16,144	840	5.5%
12	University of Calgary	33,594	34,420	827	2.5%
13	University of Alberta	42,537	43,062	525	1.2%
	G13 Total	390,485	487,720	97,234	24.9%
	Total/all Institutions	700,205	901,738	201,533	28.8%

Figure 3.2.K through Figure 3.2.M show the distribution of the total awards by the tri-councils to the G13 universities in 2009/10, and the percentage of those awards for each institution.

Figure 3.2.K

NSERC - Distribution of $ to G13				
	G13 University	2009/10 $ x 000s	% of Total G13 $	% of Total $
1	University of Toronto	82,456	14.32%	8.22%
2	University of British Columbia	82,005	14.25%	8.17%
3	McGill University	55,151	9.58%	5.50%
4	University of Alberta	51,758	8.99%	5.16%
5	University of Waterloo	51,258	8.90%	5.11%
6	Université Laval	48,260	8.38%	4.81%
7	Queen's University	36,078	6.27%	3.60%
8	University of Calgary	33,138	5.76%	3.30%
9	McMaster University	30,425	5.29%	3.03%
10	University of Ottawa	29,274	5.09%	2.92%
11	Université de Montréal	27,570	4.79%	2.75%
12	University of Western Ontario	27,477	4.77%	2.74%
13	Dalhousie University	20,807	3.61%	2.07%
	G13 Total	575,655	100.00%	57.37%
	Total/all Institutions	1,003,484		

Figure 3.2.L

SSHRC - Distribution of $ to G13				
	G13 University	2009/10 $ x 000s	% of Total G13 $	% of Total $
1	University of Toronto	31,428	17.82%	10.41%
2	University of British Columbia	24,336	13.80%	8.06%
3	Université de Montréal	16,375	9.29%	5.42%
4	McGill University	16,145	9.16%	5.35%
5	Université Laval	14,288	8.10%	4.73%
6	University of Ottawa	14,175	8.04%	4.70%
7	University of Alberta	13,044	7.40%	4.32%
8	University of Western Ontario	10,792	6.12%	3.58%
9	Queen's University	9,003	5.11%	2.98%
10	University of Calgary	7,531	4.27%	2.49%
11	McMaster University	7,328	4.16%	2.43%
12	University of Waterloo	7,070	4.01%	2.34%
13	Dalhousie University	4,815	2.73%	1.60%
	G13 Total	176,330	100.00%	58.41%
	Total/all Institutions	301,870		

Figure 3.2.M

CIHR - Distribution of $ to G13				
	G13 University	2009/10$ x000s	%of Total G13 $	%of Total $
1	University of Toronto	79,760	16.35%	8.85%
2	University of British Columbia	68,720	14.09%	7.62%
3	McGill University	57,191	11.73%	6.34%
4	McMaster University	48,308	9.90%	5.36%
5	University of Alberta	43,062	8.83%	4.78%
6	University of Calgary	34,420	7.06%	3.82%
7	Université de Montréal	34,147	7.00%	3.79%
8	University of Ottawa	29,906	6.13%	3.32%
9	University of Western Ontario	24,400	5.00%	2.71%
10	Université Laval	24,207	4.96%	2.68%
11	Dalhousie University	21,963	4.50%	2.44%
12	Queen's University	16,144	3.31%	1.79%
13	University of Waterloo	5,492	1.13%	0.61%
	G13 Total	487,720	100.00%	54.09%
	Total/all Institutions	901,738		

Figure 3.2.N

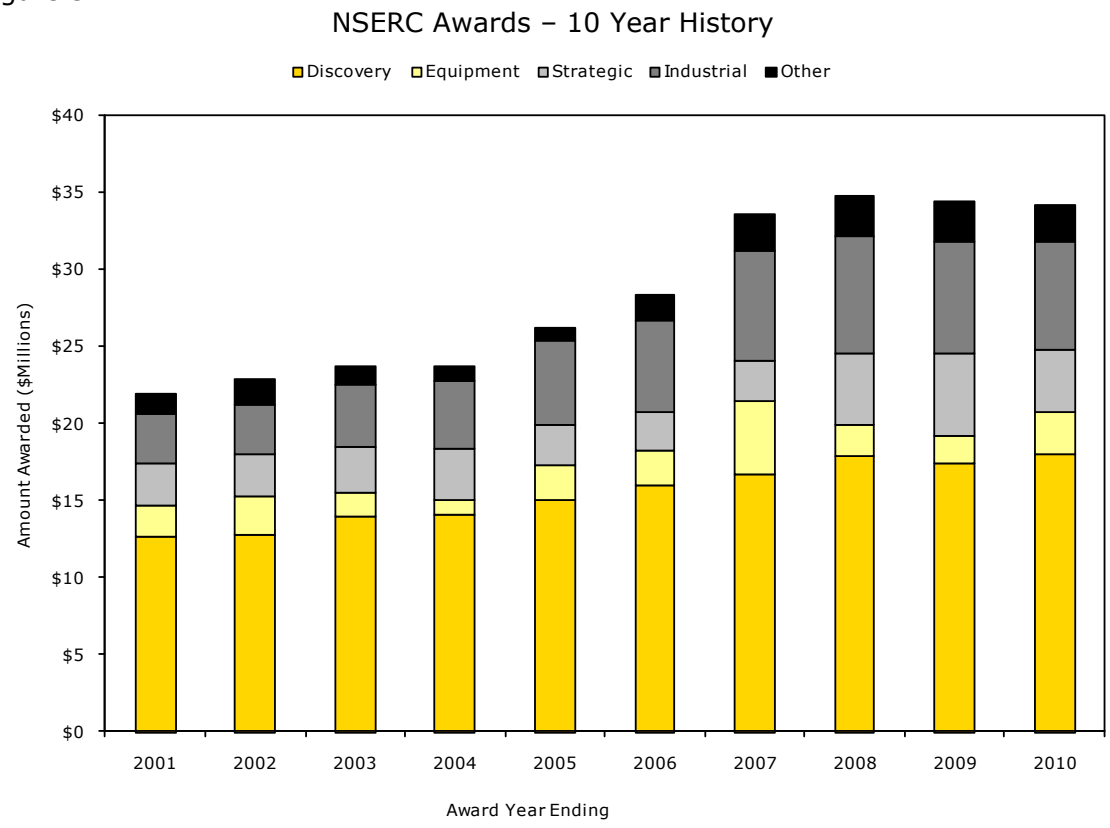


Figure 3.2.O

NSERC Discovery Grants 2009/10					
G13 University	Number		Amount		Average Award ($)
	N	%	$	%	
University of Toronto	747	7.47%	$28,312,509	9.14%	$37,902
University of British Columbia	668	6.68%	$23,753,203	7.67%	$35,559
University of Alberta	590	5.90%	$19,699,816	6.36%	$33,390
McGill University	515	5.15%	$17,793,538	5.74%	$34,551
University of Waterloo	552	5.52%	$17,156,643	5.54%	$31,081
University of Calgary	393	3.93%	$12,016,430	3.88%	$30,576
McMaster University	349	3.49%	$11,482,667	3.71%	$32,902
University of Western Ontario	376	3.76%	$11,239,234	3.63%	$29,892
Université de Montréal	298	2.98%	$10,801,627	3.49%	$36,247
Université Laval	343	3.43%	$10,660,853	3.44%	$31,081
Queen's University	284	2.84%	$10,213,473	3.30%	$35,963
University of Ottawa	291	2.91%	$9,050,789	2.92%	$31,102
Dalhousie University	281	2.81%	$8,916,660	2.88%	$31,732
G13 Total	5,687	56.87%	$191,097,442	61.70%	$33,603
Total Awarded	10,004	100.00%	$309,730,991	100.00%	$30,961

3.3. Ontario

The next indicators show research awards from the Ontario Research Fund – Research Excellence (ORF-RE), the Ontario Research Fund – Research Infrastructure (ORF-RI), Early Researcher Award (ERA), the Ontario Centres of Excellence (OCE), Ministry of Health (MOH), and other sources for each Faculty.

Figure 3.3.A

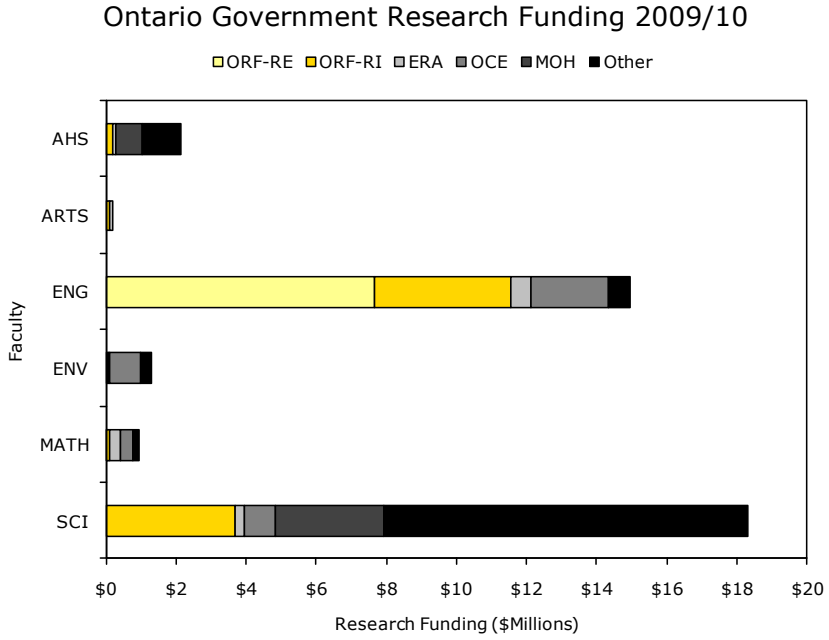
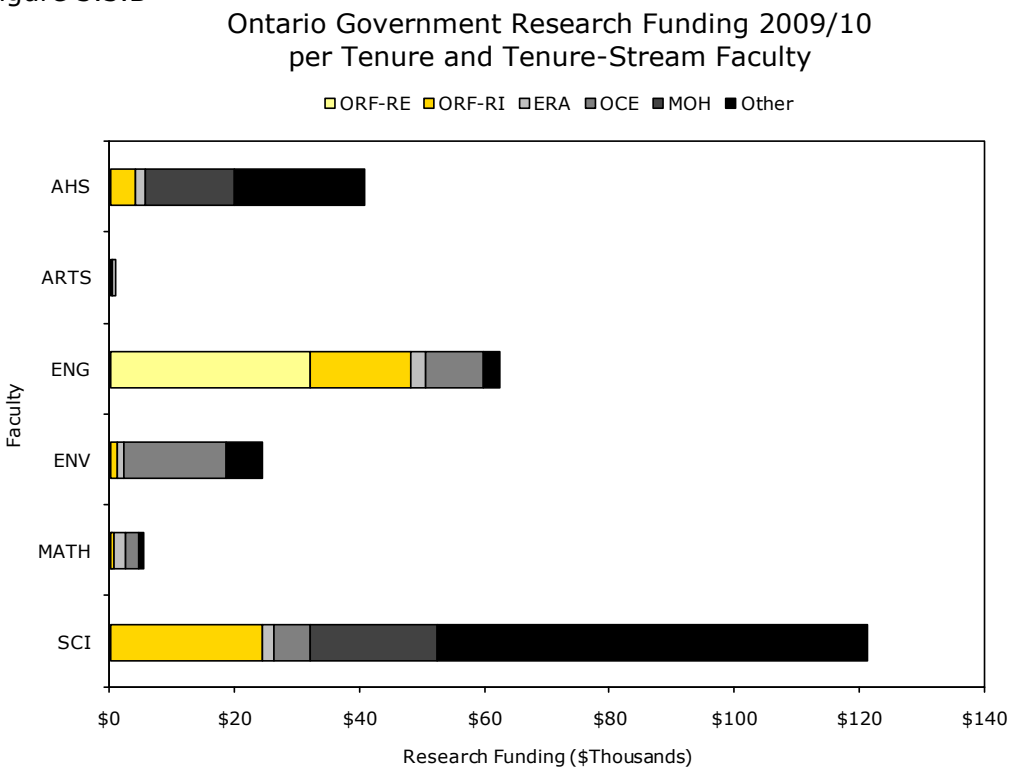


Figure 3.3.B



From its beginning, UW has been a leader in conducting research in partnership with the private sector and transferring new knowledge and advances in technology to society for the benefit of all. In 2009/10, we had 11 active industrially-sponsored NSERC Research Chairs, and our Waterloo Commercialization Office (WatCo) helps researchers commercialize the results of their research. The University of Waterloo's inventor-owned intellectual property policy provides a stimulus for attracting faculty members and offers great incentive for the entrepreneurial graduate student who may want to create a spin-off company.

The University of Waterloo's Sixth Decade Plan is dedicated to achieving increased research intensity and the vigorous promotion and encouragement of frontier and reflective research.

4. FACULTY

The University of Waterloo recognizes the importance of our innovative, collaborative, and committed leaders—our academic faculty who teach, engage in research, and serve our students and our community. In this section we highlight our faculty appointments and our hiring practices; and we monitor the age distribution of our professoriate, ever mindful of the need to revitalize the pool of individuals who share our vision of continuous improvement and innovation.

The table below shows our faculty count by gender and Faculty. This year we have added the percentage of female PhDs who were enrolled in Canadian institutions over a five year period from 2001 to 2005 (total female enrolment in this time period was more than 60,000). This percentage constitutes the potential pool of female candidates from which universities could hire. We mapped the various disciplines to UW Faculties to illustrate how well we are doing in our hiring of female faculty relative to the size of the pool available. For example, in those disciplines mapped to the Faculty of Engineering, 21 per cent of PhD candidates, our potential hiring pool, were female. As of October 1, 2010, 14 per cent of the Faculty of Engineering faculty were female.

Total Faculty Count by Gender - October 1, 2009					
Faculty	Male	Female	Total	%Female	Canadian % Female PhD Enrolment
Applied Health Sciences	35	22	57	39%	63%
Arts	155	94	249	38%	58%
Engineering	224	37	261	14%	21%
Environment	38	22	60	37%	40%
Mathematics	164	36	200	18%	45%
Science	136	40	176	23%	26%
Colleges	38	34	72	47%	NA
Total	790	285	1,075	27%	45%

4.1. Faculty Counts by Gender

To support our goal to achieve the highest-quality learning environment for our students, we actively seek out and hire the best and the brightest in their fields of study. We are committed to improving the gender balance in our faculty complement by hiring highly qualified female faculty. In this section we look at faculty counts by rank and gender for Waterloo, excluding faculty at our federated university and affiliated university colleges, and compared to our G13 peers.

Figure 4.1.A[34]

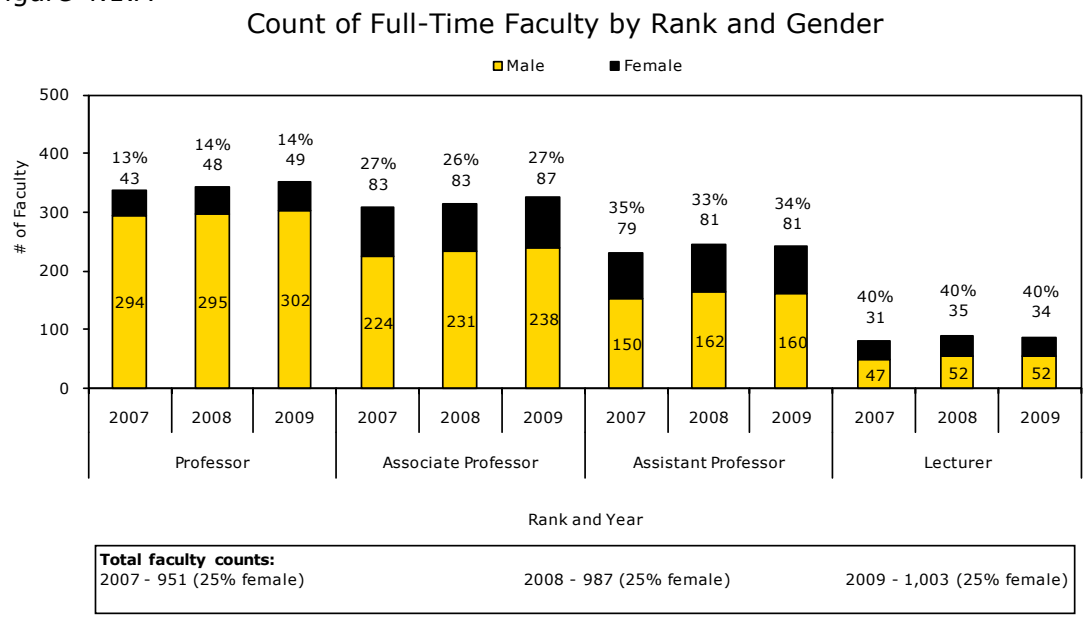
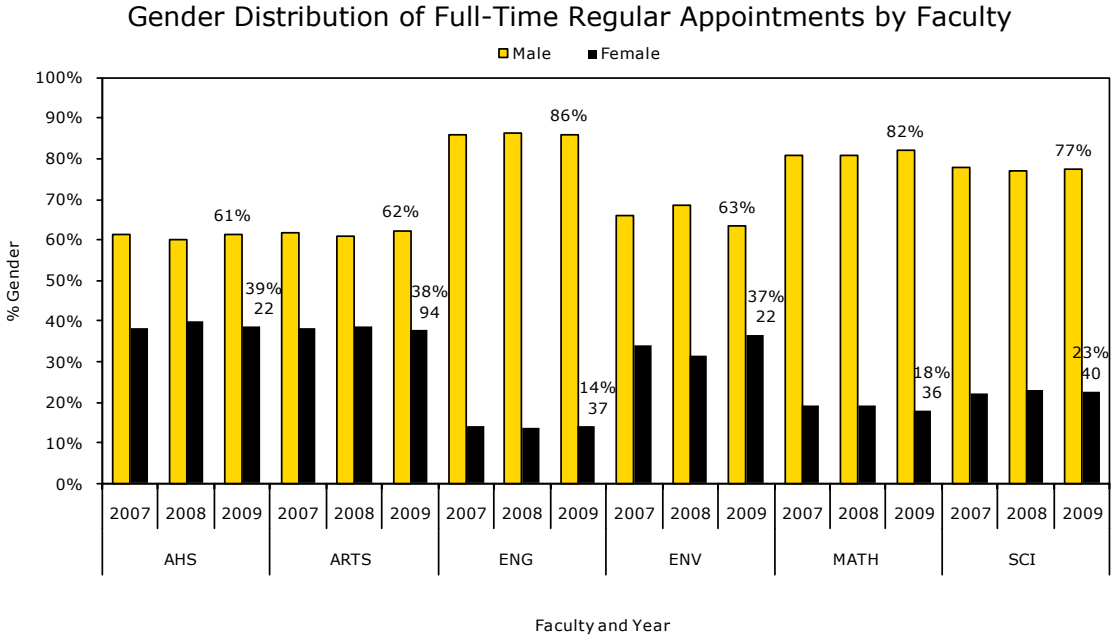


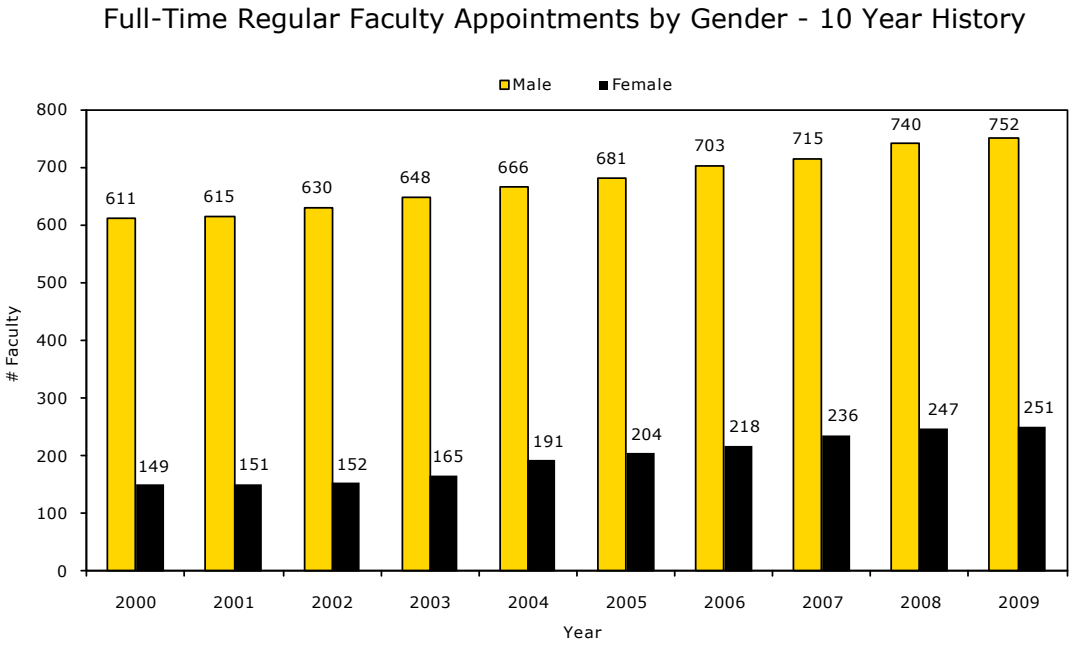
Figure 4.1.B[35]



[34] Source: Stats Canada UCASS (University and College Academic Staff System) and UW Human Resources. Percentage female is displayed in 4.1.A.

[35] Source: Stats Canada UCASS, as of October 1st of each survey year.

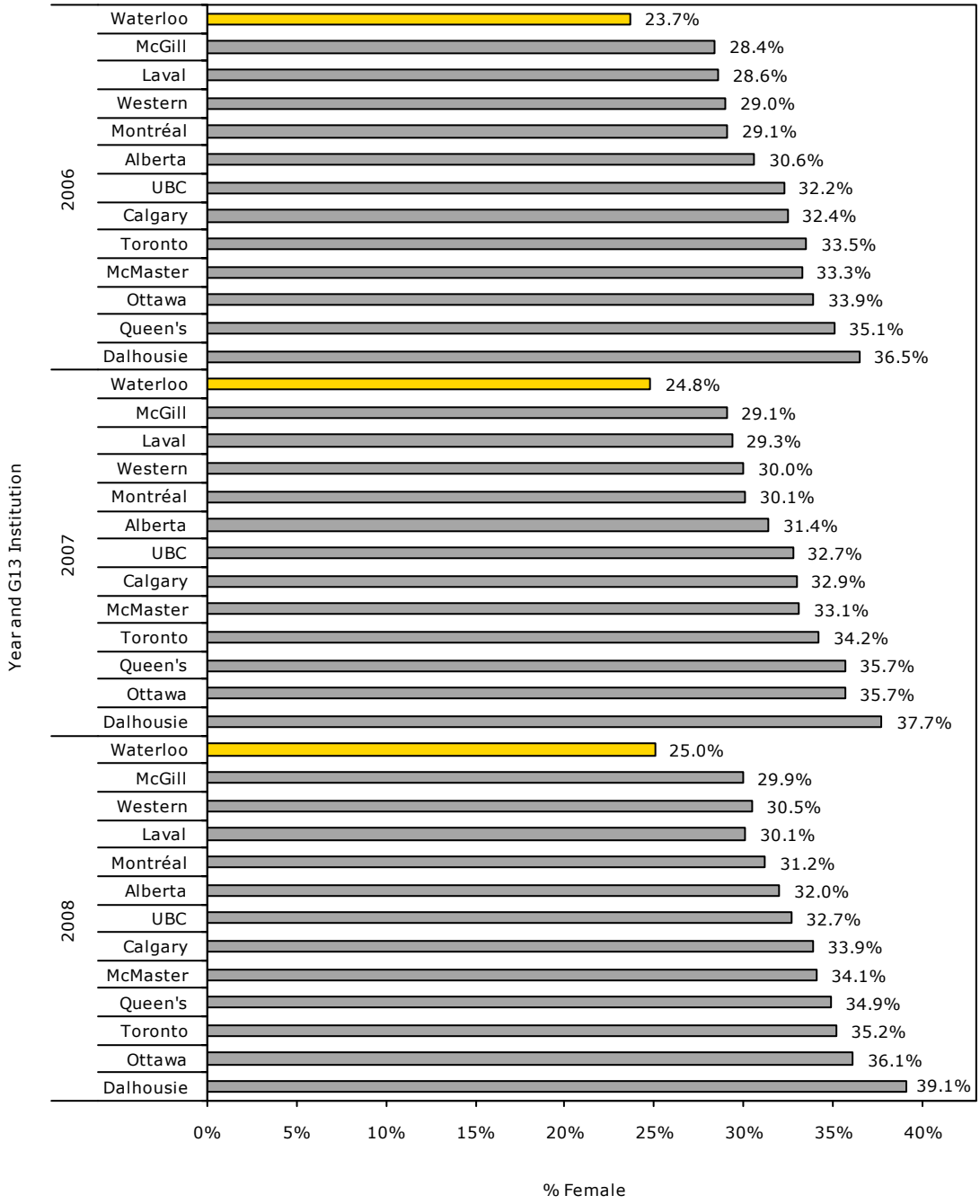
Figure 4.1.C[36]



[36] Source: Stats Canada UCASS, as of October 1st of each survey year.

Figure 4.1.D[37]

Faculty Appointments by % Female - Three Year History as Compared to G13 Universities

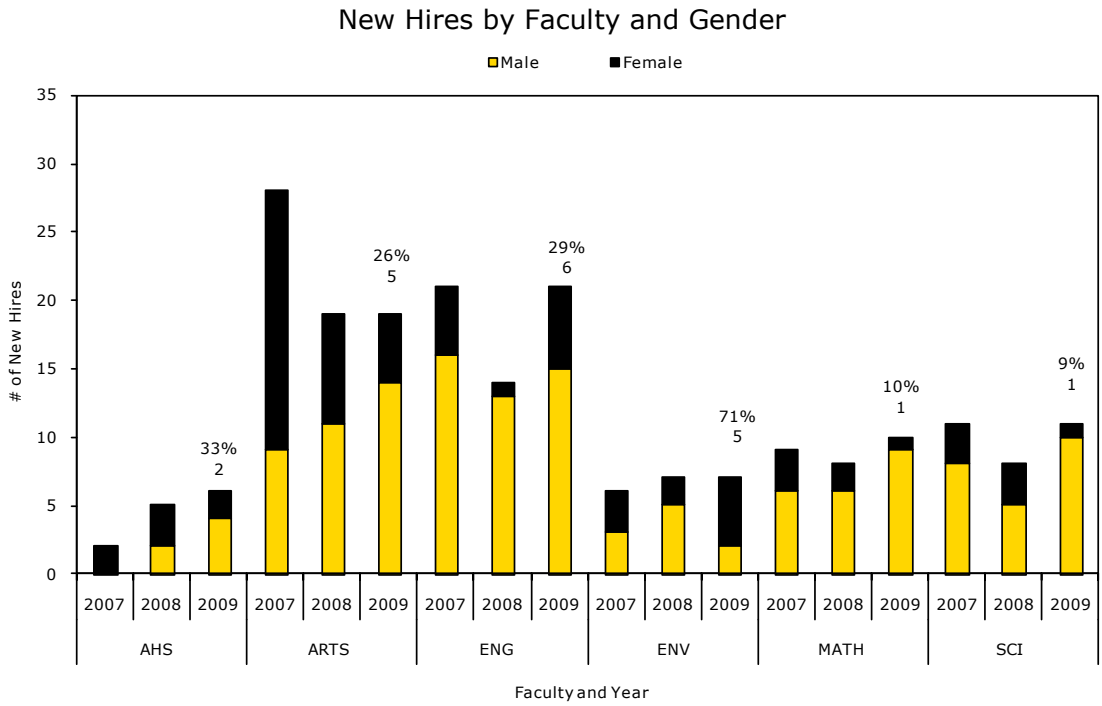


[37] Source: Stats Canada UCASS, as of October 1st of each survey year.

4.2. New Hires by Gender

Each decade, UW establishes a target for the hiring of female faculty by forecasting retirements and reviewing the proportion of females in discipline pools of PhD candidates. Two factors contribute to UW's seemingly low percentage of female faculty, particularly in the areas of mathematics, engineering, and science: UW has higher proportions of faculty in these disciplines than other universities, and the percentage of female doctoral graduates of mathematics, engineering, and science is smaller than the percentage of females in other disciplines. Data available from the Association of Universities and Colleges of Canada indicate, over the past several years, the available pool of females in mathematics has been about 45 per cent, in engineering 21 per cent, and in science 26 per cent. At the University of Waterloo our percentage of female faculty in mathematics is close to 19 per cent, in engineering about 14 per cent and in science about 23 per cent. For 2010, our female faculty target is 199; as of 2008, we had already surpassed the target with 280 female faculty.

Figure 4.2.A[38]



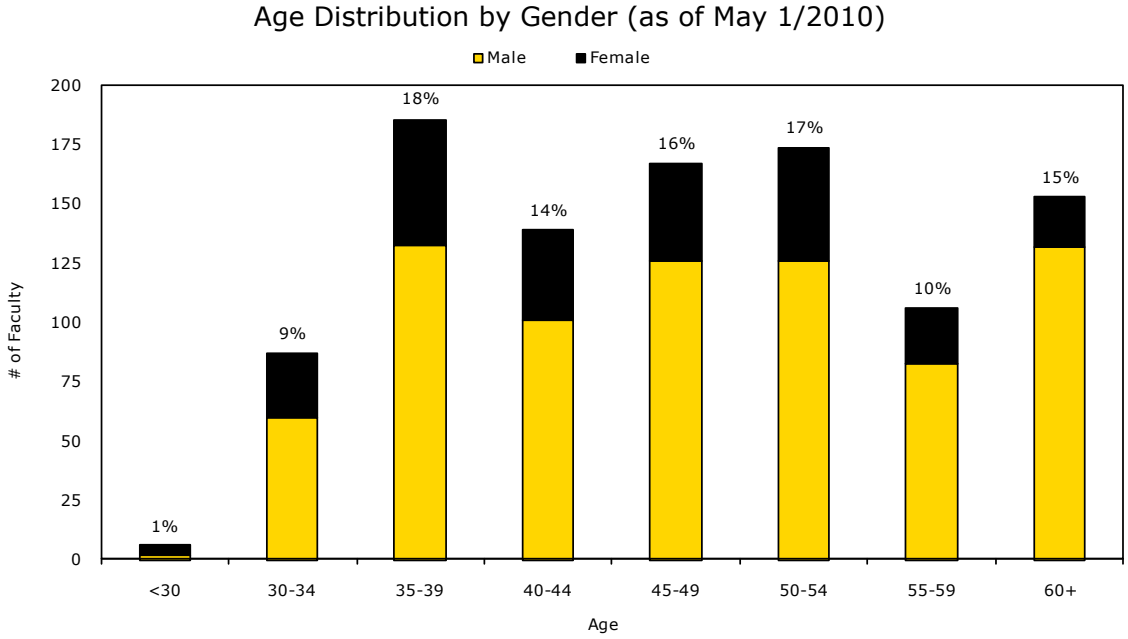
Total new faculty hires:		
2007- 77 (46% female)	2008 - 61(31% female)	2009 - 73(27% female)

[38] Source: Stats Canada UCASS, as of October 1st of each survey year. Number and percentage of female faculty hires displayed.

4.3. Age Distribution

As of May 2010, 42 per cent of Waterloo's faculty population was age 50 years or older.

Figure 4.3.A[39]



[39] Source: Human Resource Management System. Percentage female displayed.

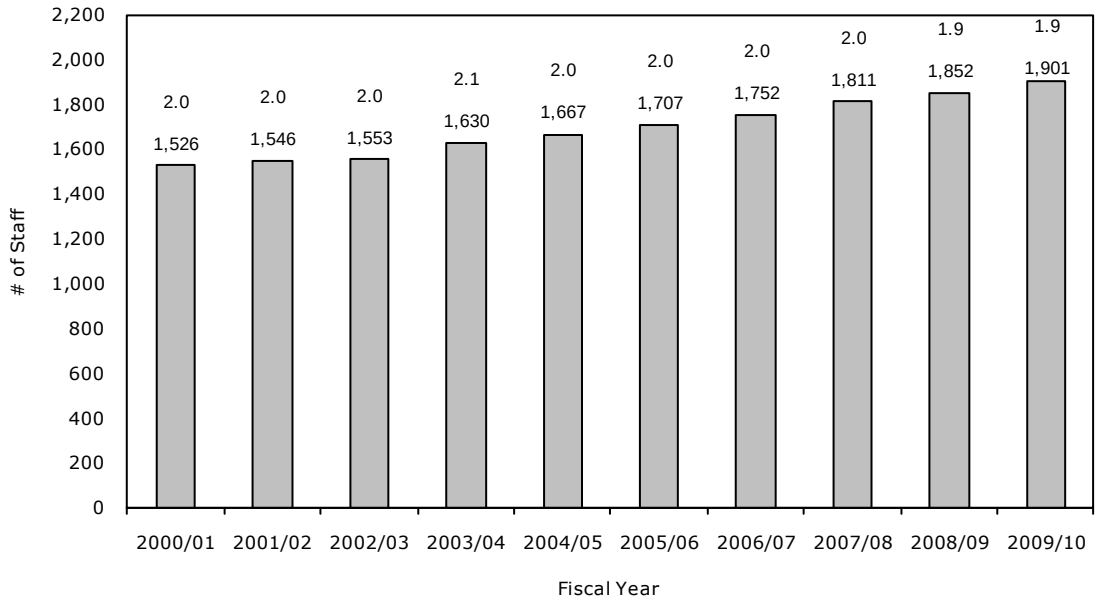
5. STAFF

A world-leading university needs highly competent staff. The University of Waterloo promotes the recruitment of staff of the highest quality and recognizes the importance of staff involvement in, and contribution to, the educational process. The University of Waterloo seeks to engage staff in all aspects of our student and campus life. In this section, we highlight our staff complement[40], over time, and monitor the age distribution recognizing the need to revitalize the pool of individuals so important to our overall operations. As seen in chart 5.1.A our staff to faculty ratio has remained relatively constant over the last 10 years at around 2.0.

5.1. Operating Staff Complement

Figure 5.1.A

Academic Support Staff in Operating Complement and Staff-Faculty Ratio

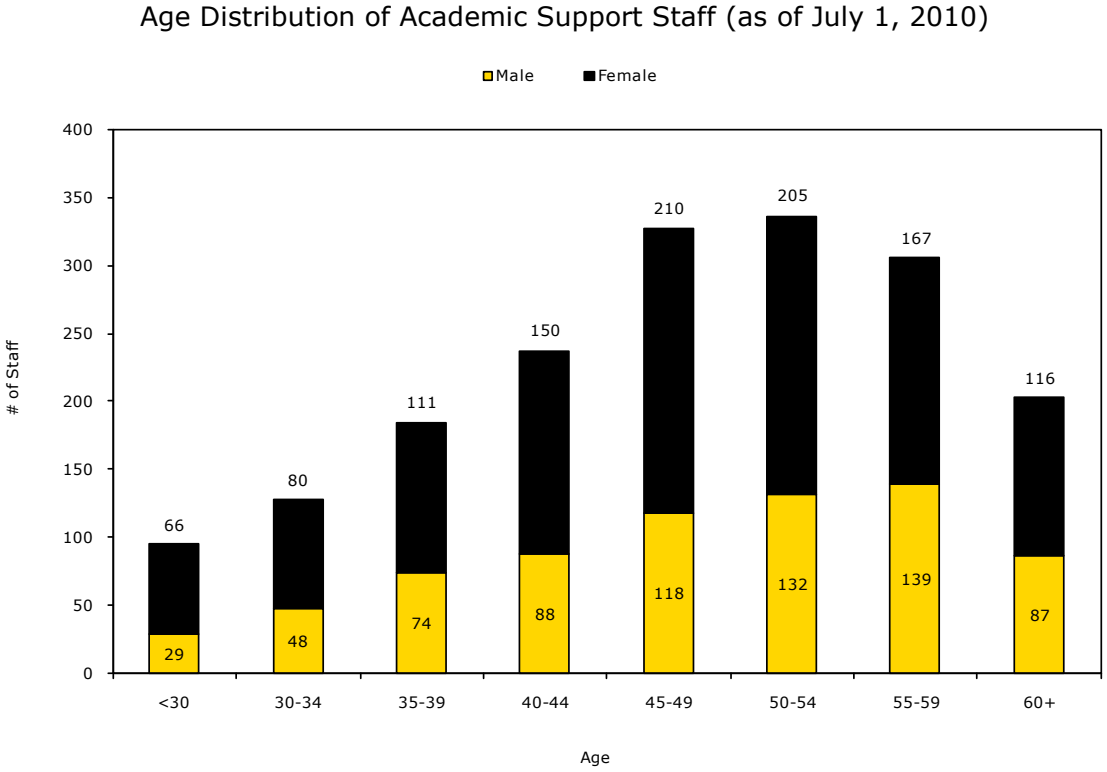


[40] Source: Finance. Staff complement positions are ongoing positions—filled and open—supported by operating funds, for which the University has made a budgetary commitment. A position may have two incumbents sharing the responsibilities.

5.2. Staff Age Distribution

We monitor the age distribution of staff to anticipate hiring demands. Although monitoring is essential at the departmental level, a good spread of ages at the university level is a measure of institutional stability. From the age distribution chart we can see that—as with faculty—we face a significant challenge managing retirements.

Figure 5.2.A[41]



[41] Source: Job information (Human Resources). Totals from 'head' count including University Support Staff and CUPE Local 793 employees currently on payroll or on approved leaves in operating, research or ancillary funded on-going positions.

6. CO-OPERATIVE EDUCATION

From its inception is 1957, the University of Waterloo has committed to the model of co-operative education. Waterloo has continued to invest in co-operative education since the very beginning when Engineering was the only faculty with co-operative programs (in fact, 100 per cent of Engineering is co-op). In Fall 2009 over 60 per cent of full-time students were registered in over 105 co-operative education programs across six academic Faculties. Waterloo maintains over 28,000 active employer contacts, and has had 4,000 to 5,400 students looking for employment each term. The overall number of students has steadily increased each year. In the Winter term of 2011, a milestone of close to 6,000 students are anticipated to be seeking employment. The first university to use the co-op model in Canada, Waterloo has the largest public university-based co-operative education program in the world.

A comprehensive review of co-operative education and career services completed in 2005 and a review of the employment process done in 2006 led the Department of Co-operative Education and Career Services (CECS) to create a strategic framework for renewal encompassing the recommendations of both reviews. The framework was further enhanced in 2008, following the development of an employer relation and marketing strategy.

There has been significant progress in all areas of the framework, notably:

- Recruitment of the senior leadership team, including two new directors for employment relations, and the start of a segmented employer relations approach focussing on employers who consistently hire large number of students from multiple Faculties.
- Implementation of a new marketing and business development strategy to develop and harvest opportunities with employers new to Waterloo co-op.
- The introduction, in Spring 2010, of the new information technology system, WaterlooWorks, to a limited audience of architecture students and employers. Full implementation is anticipated in 2011.
- The addition of 20 new or amended academic programs to the employment requirement portfolio.
- Achieving the status of delivery agent for Industry Canada's Small Business Internship Program. This program has been an unqualified success for both employers and students.
- The development of performance metrics to measure the effectiveness of the renewal strategies focussing on student employment.

6.1. Employment Summary

Co-op employment measures help us understand the percentage of students employed at different points in time. Figure 6.1.A shows employment rates at the beginning of the work term and the final employment rate by for the term by Faculty. The overall employment rate at the beginning of the term was 86.3 per cent. The overall final employment rate in 2009/10 was 96.2 per cent. This is lower than the rates achieved in 2008/09 of 97 per cent, and 2007/08 of 98 percent. This is due in part to a decline in new jobs as the global recession hit and in part by more students scheduled to work in 2009/10 than in previous years.

Figure 6.1.A

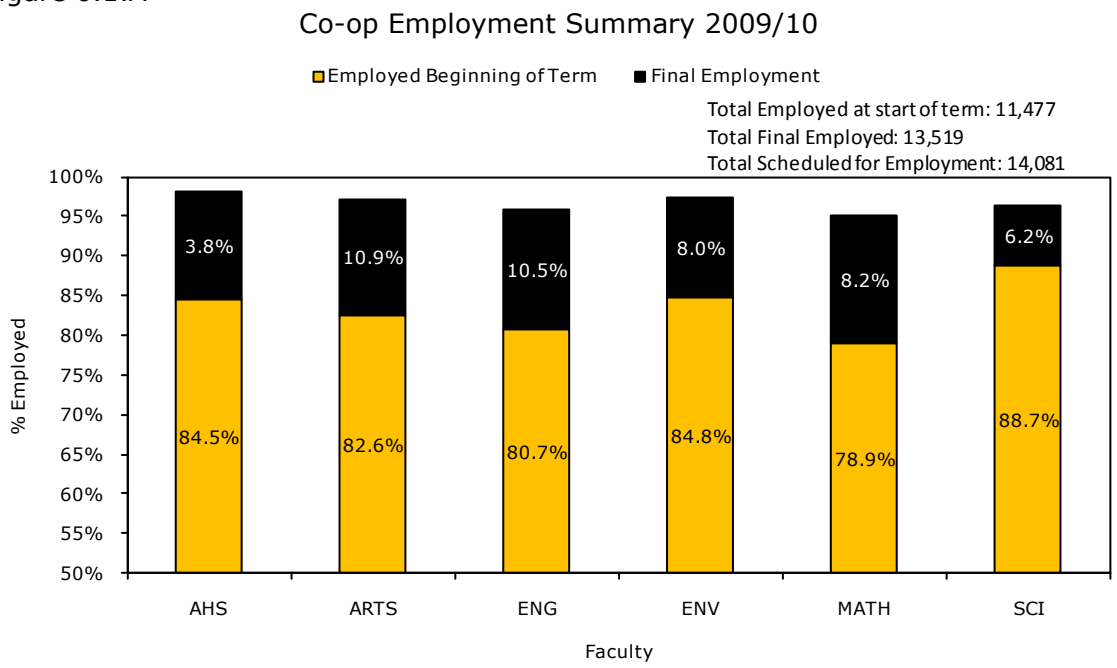
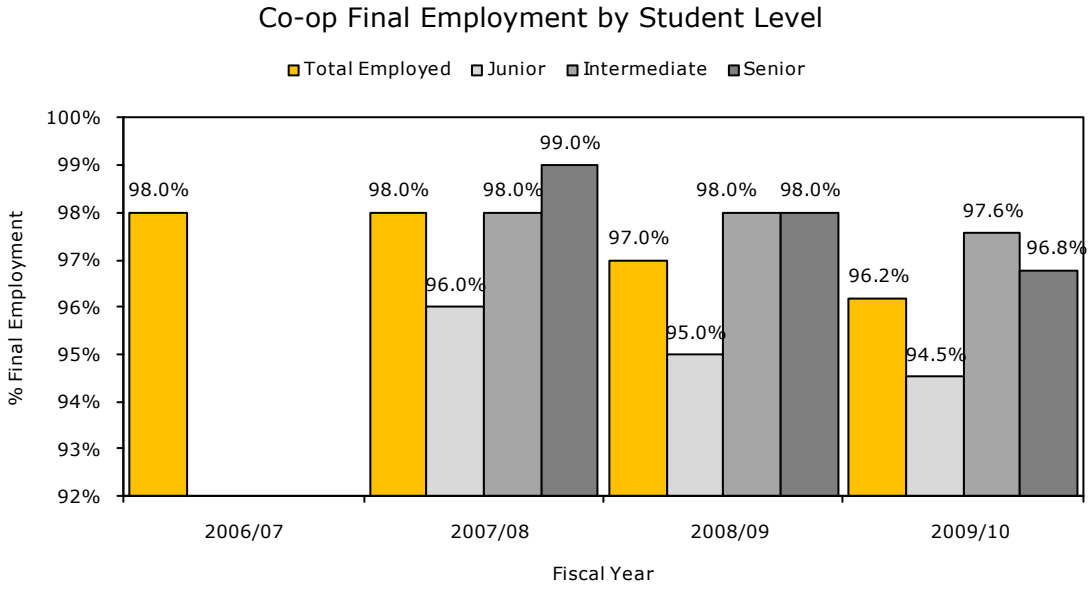


Figure 6.2.B shows final employment rates by level. CECS tracks employment rates as early as the middle of the academic term preceding the work term. We have identified junior students (1st or 2nd work term) as being hired later in the process and are working to understand how to help them gain employment earlier in the process.

Figure 6.1.B[42]



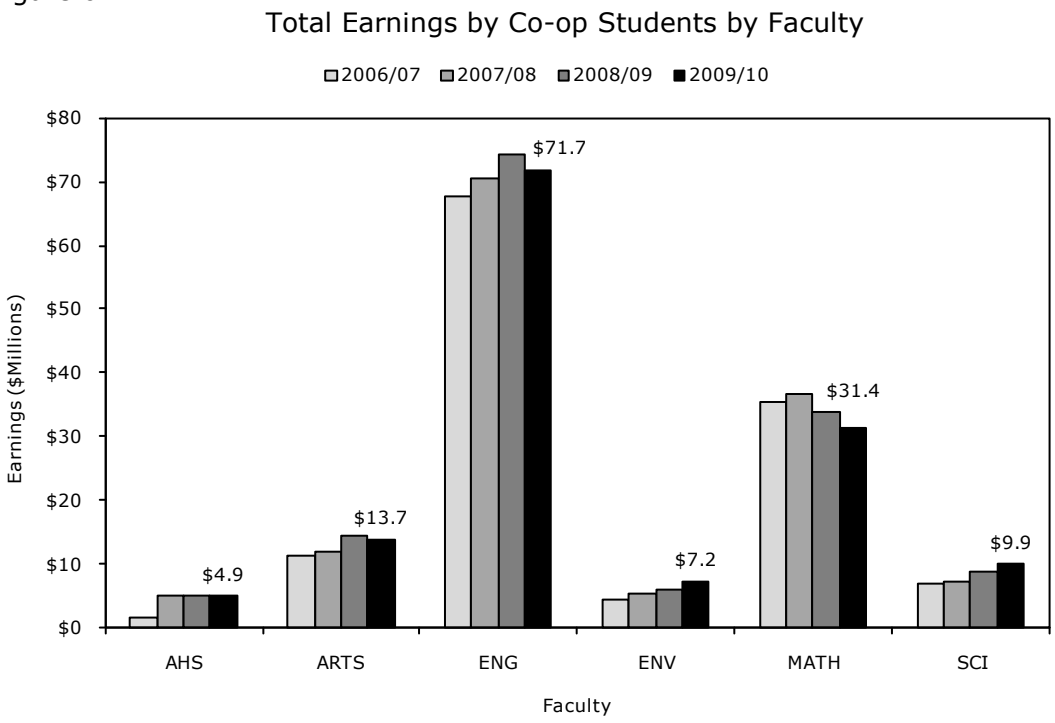
[42] 2006/07 does not show level data as tracking of students by level was initiated in 2007/08.

6.2. Earnings by Co-op Students

Total earnings by co-op students indicate the economic impact of the co-operative program in the workforce. In support of the benefits that co-operative education brings, the government of Ontario increased the Co-operative Education Tax Credit[43], providing a refundable tax credit of $3,000 up from $1,000 per student for each four month period of employment.

Total earnings of our co-op students in 2009/10 were $139 million.[44]

Figure 6.2.A

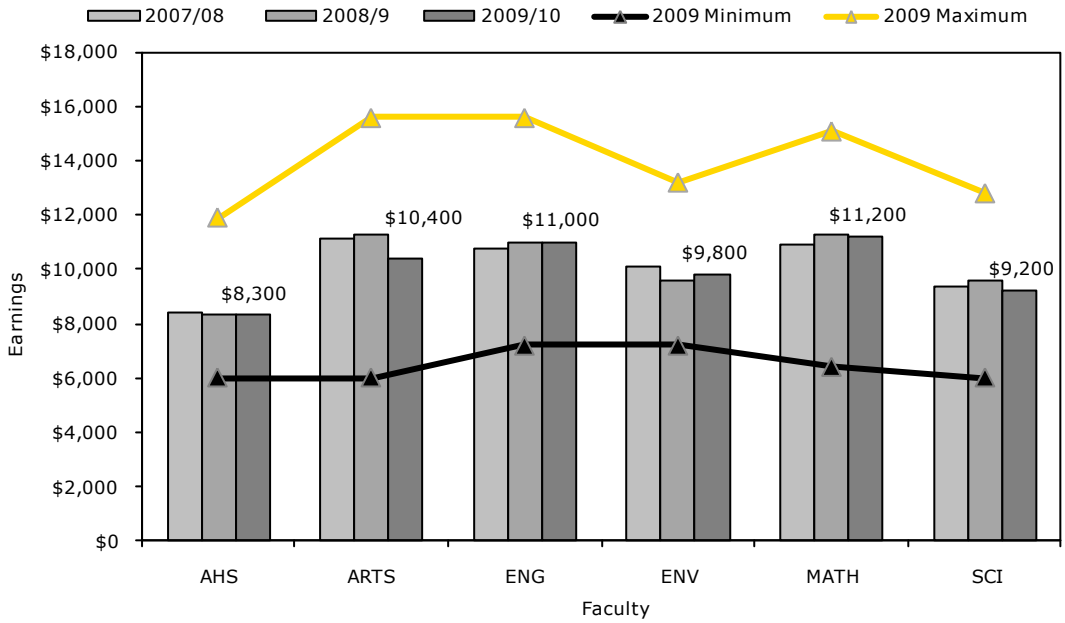


Co-operative work term income is an important measure for students, letting them know what to expect from the co-operative employment experience. Figure 6.2.B shows the average work term salary by Faculty over the past four years. On average a student would earn $10,000 during the work term.

[43] http://www.rev.gov.on.ca/en/credit/cetc/
[44] Total student earnings are estimated using average salaries.

Figure 6.2.B

Average Co-op Earnings per Work Term by Faculty 2009/10



In addition to a salary premium two years after graduation of approximately 12 per cent[45], students who studied in the co-operative education system gain valuable work experience, a network of workplace contacts, and practical knowledge of the employment climate and culture. Most importantly, they gain personal and professional growth that will enhance their prospects for meaningful employment and their contribution to the workforce.

[45] 2002 Waterloo study Co-operative Education: Greater Benefits, Greater Costs.

7. RESOURCES

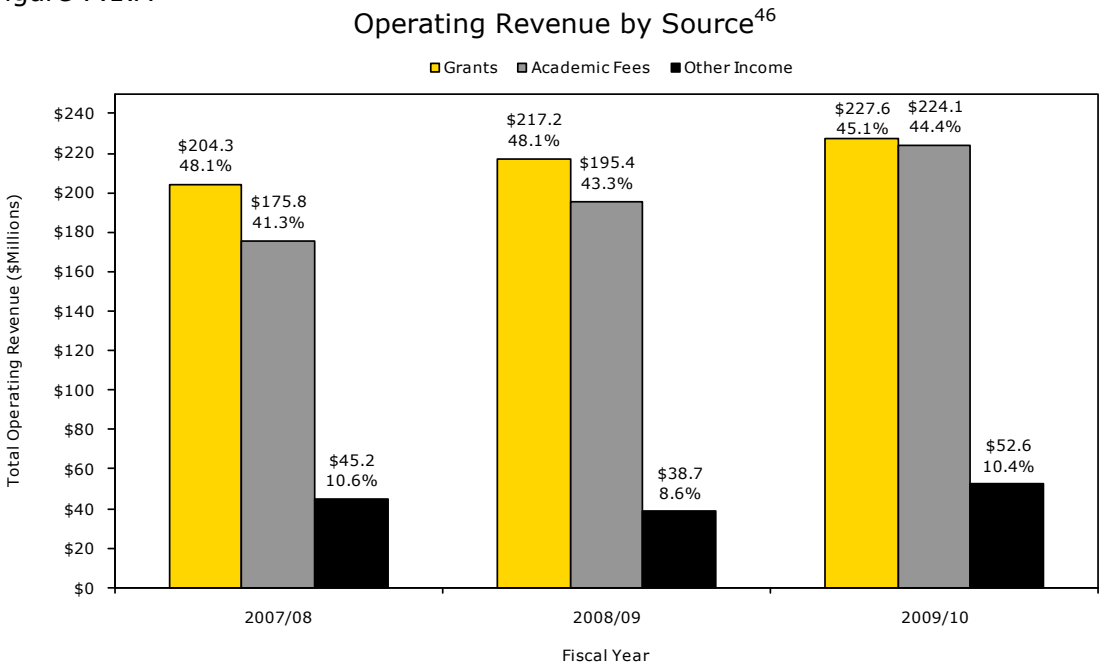
Financial stability and the flexibility to respond to new initiatives and opportunities are paramount to UW's success. Over the last decade and a half, reduced per-student government operating grants have resulted in higher student to faculty ratios. At the same time, students are paying more for their education. As a result, students and parents expect better programs and services, and a greater voice in decisions that affect them. The University of Waterloo continues to explore other revenue sources and partnership arrangements to ensure high quality and access to learning and research.

7.1. Operating Revenue by Source

The sources of the University's operating revenue are presented in actual dollars and as percentages of the total. The two largest sources are grants—mainly Ministry of Training, Colleges and Universities (MTCU) operating grants—and tuition fees. These two comprise more than 90 per cent of the whole. Other income includes items such as external sales of goods and services (by academic and academic support units), investment income, and corporate income sources such as application fees.

Figure 7.1.A illustrates that government grants continue to be less than half of the University's total funding and that the majority of revenue comes from tuition fees and other income sources. Tuition, as a percentage of operating revenue, has risen dramatically in the past 10 years as government grants have not kept pace with inflationary pressures.

Figure 7.1.A



[46] 2009/10 numbers are subject to Board approval.

Scholarships and bursaries as a percentage of operating expenses have increased dramatically over the past 15 years, from about three per cent in 1994/95 to 18 per cent in 2009/10 due, in most part, to UW's response to the increased financial demands placed on students.

Figure 7.1.B

Scholarships and Bursaries as % of Operating Expenses[47]

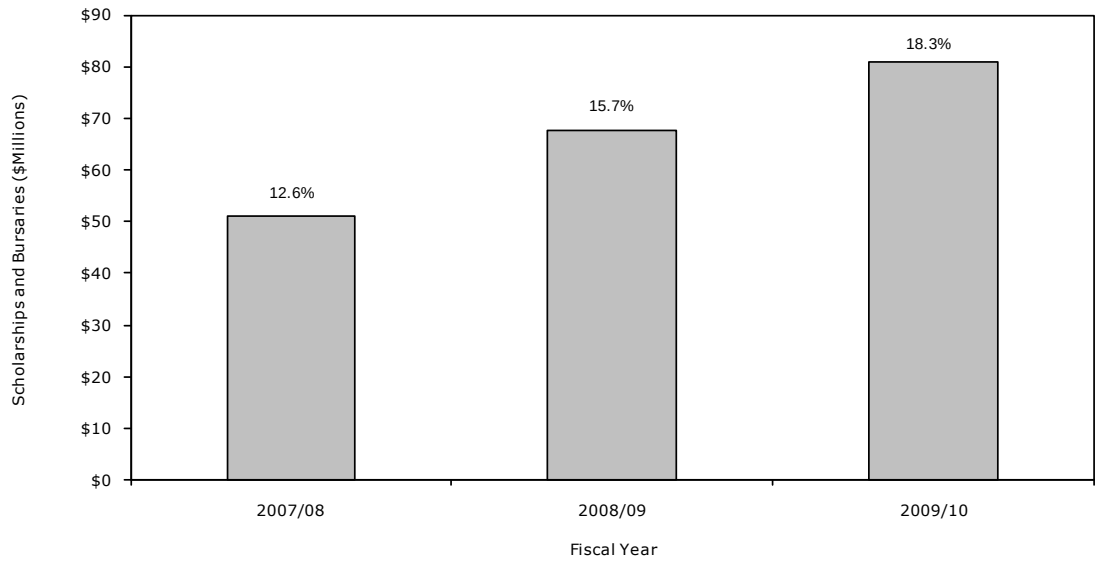
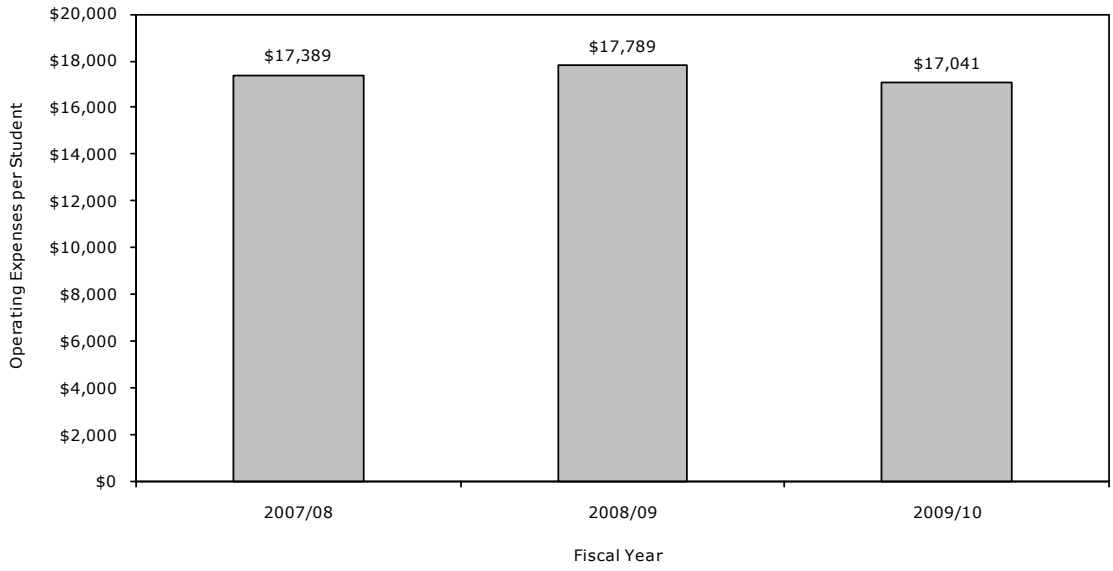


Figure 7.1.C

Operating Expenses per FTE Student[48]



[47] 2009/10 numbers are subject to Board approval.

[48] 2009/10 numbers are subject to Board approval.

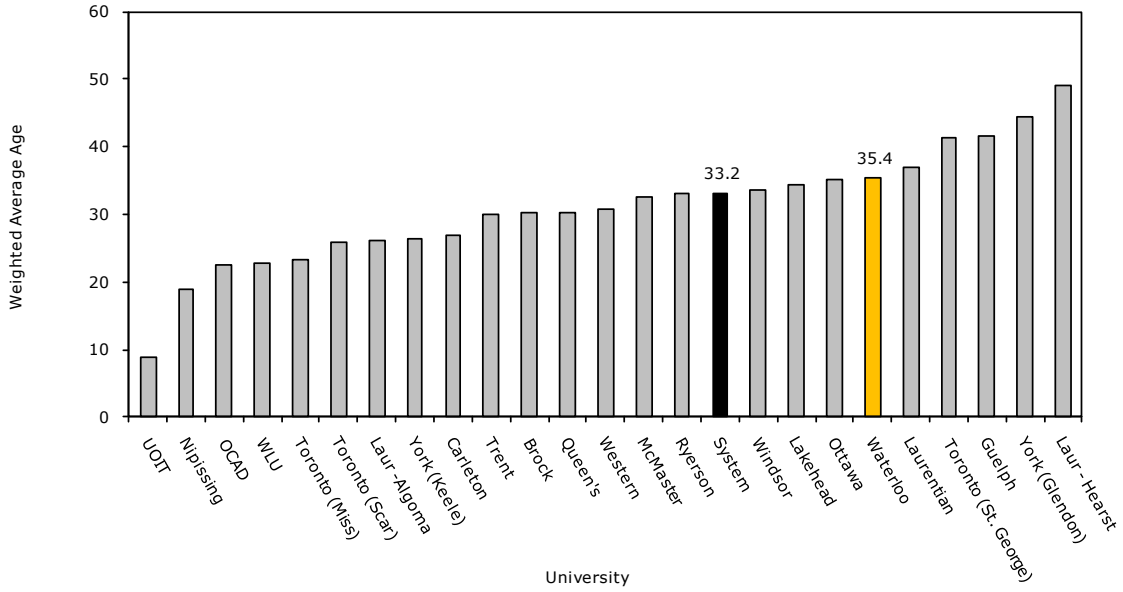
7.2. Age of Facilities Profile

Every three years, the Council of Ontario Universities (COU) gathers information to calculate the average age of the province's university facilities. The weighted average age of an institution[49] is a better measure of the age of physical facilities than the age of the campus taken by itself, since the weighted age includes recently added building space. When a university constructs a large new building, for example, the weighted average age of the campus will decline—that is, the campus will "grow younger"—in proportion to the ratio of the new space to the existing space. The next survey year is 2010 and new data will be available in the 2011 report.

Figure 7.2.A presents the weighted average ages of 24 Ontario universities. In 2007, our physical facilities had a weighted average age of 35.4, up from 31.6 in 2004.[50]

Figure 7.2.A

Age Profile of Ontario University Space



7.3. Space Inventory

Every three years, the COU also generates a "space entitlement" for each Ontario university; how much space it needs, based on space standards developed by COU and on the numbers of faculty, staff, and students, as well as research grants and other measures of activity at each university. This formula number is compared to the actual inventory of space and a ratio of "inventory to formula" is produced.

[49] Calculated by multiplying the space in a building by the age of the building, summing these products for all buildings on campus and then dividing by the institutional space.

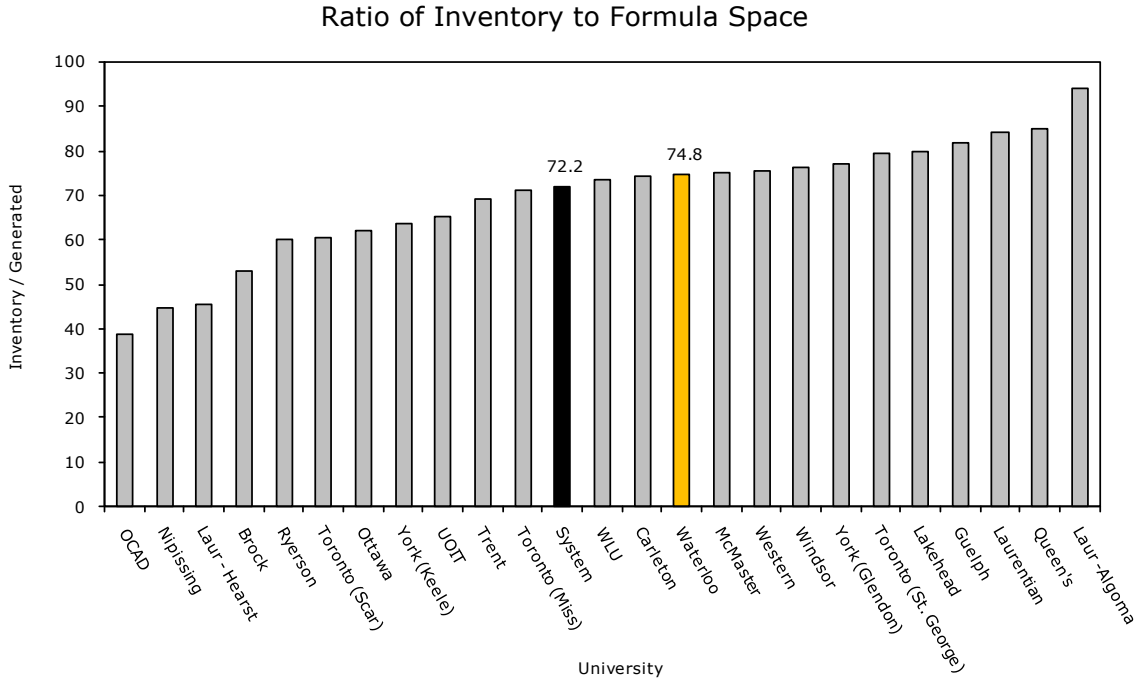
[50] The 2007 figures are based on the preliminary Council of Ontario Universities space survey.

If a university's inventory of space matches its formula space, then that university is said to have 100 per cent of the generated amount. If the percentage is less than 100, then the university has less space than it needs, according to the formula.

Co-operative education programs allow for a more efficient use of the University of Waterloo's physical plant, by shifting enrolment from fall and winter terms to the spring term. At UW, average full-time enrolment is distributed over the three terms as follows: 18 per cent in spring, 43 per cent in fall, and 39 per cent in winter. A "non-co-op" institution's ideal enrolment is split 50/50 in fall and winter. Because the space formula measures only fall enrolment, our space entitlement generates only 43/50 or 86 per cent of a regular institution with the same annual enrolment.

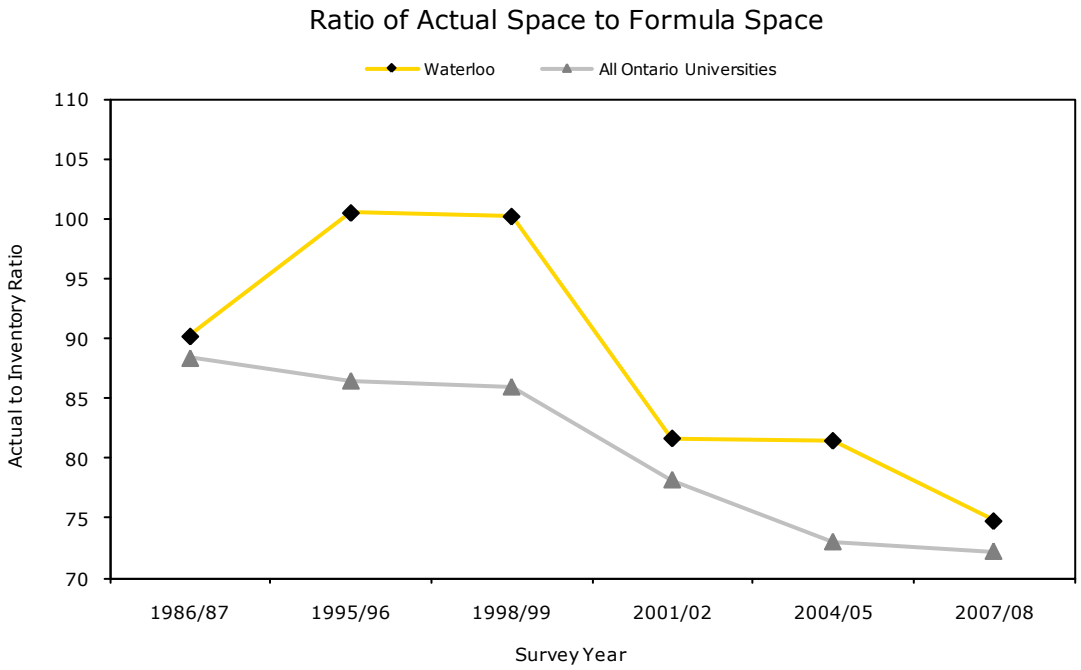
As of November 2007, UW was slightly better off than the system as a whole: we had 74.8 per cent of the space we needed, compared to an average figure of 73 per cent. If we adjust our entitlement to account for the difference resulting from our co-operative education programs, UW's ratio of inventory to formula space drops from 74.8 per cent to 63.8 per cent, less than the system average.

Figure 7.3.A



Physical space to house students, locate classrooms, conduct research and accommodate staff is critical to the effective delivery of higher education. Between 1995 and 1999, UW had adequate space to conduct university business, according to the formula shown in the next chart. Despite Ontario's recent investments through SuperBuild and other funds, the ratio of actual space available has declined sharply, due in large part to the arrival of the double cohort students.

Figure 7.3.B[51]



[51] Table 37 - COU Inventory of Physical Facilities of Ontario Universities, various years.

8. FUNDRAISING

2009/10 was a year of significant change for the Office of Development & Alumni Affairs (ODAA), with numerous process improvements executed in order to gain efficiencies and set the stage for increased future capacity. Of particular note, it was the first full year with new relationship management software and the second year of the university non-mission critical hiring freeze. All ODAA teams continue to meet expectations through a reassignment of projects, internal secondments, and an ongoing refinement of roles and responsibilities with an aim of maximizing impact and reducing duplication.

Centrally and in the Faculties, Colleges, and other decentralized units, overall efforts were concentrated on priorities that are aligned with the University's Sixth Decade Plan and serve to advance the university's vision of being a global leader and research intensive university.

Overall gifts received were $53.8 million in 2009/10.

8.1. Alumni Donations

Alumni donors play an important role in supporting our goals of excellence. To help us stay in contact with them, we track the number of alumni with valid contact information and the number of alumni donors. Both figures below are cumulative five-year totals.

From these two figures we can calculate the percentage of alumni who make gifts to the University – approximately 16 per cent. This percentage may be seen as an indicator of how well the University served the alumni while they were students, the depth of their continuing affinity for the University, and a measure of their support for higher education in general. Our success in earning and retaining the loyalty of alumni may be measured over time by monitoring this indicator.

The University of Waterloo is experiencing a modest decline in alumni participation rate over the past three-years. The economic recession in 2008/09 and the resulting impact which is still being felt is an important factor in this decline.

Figure 8.1.A

Alumni Donation Statistics	
	2005-2010
Alumni with valid contact information (cumulative five year total)	427,122
Alumni donors (cumulative five year total)	68,488
Participation	16%
Includes faculty, staff, and retirees who are also alumni, and includes both spouses in the case of joint gifts. Includes cash or gift-in-kind donations and/or pledge expectancies. Excludes honourary degree holders.	

8.2. Fundraising Financial Performance

Fundraising financial performance measures the effectiveness of advancement activities across the entire University by total dollars raised and is an important indicator of how well we are doing to raise private sector gifts. Results published annually in our Report on Giving show donors how much was raised, dollars raised by constituency, how their funds were used, and the impact of their giving on Waterloo's programs, scholarships, buildings, and research. This activity and publication is an important component in our ongoing donor stewardship activities.

Waterloo continues to achieve good fundraising financial results and has seen steady returns in terms of private sector fundraising since the inception of Campaign Waterloo in 2000/01.

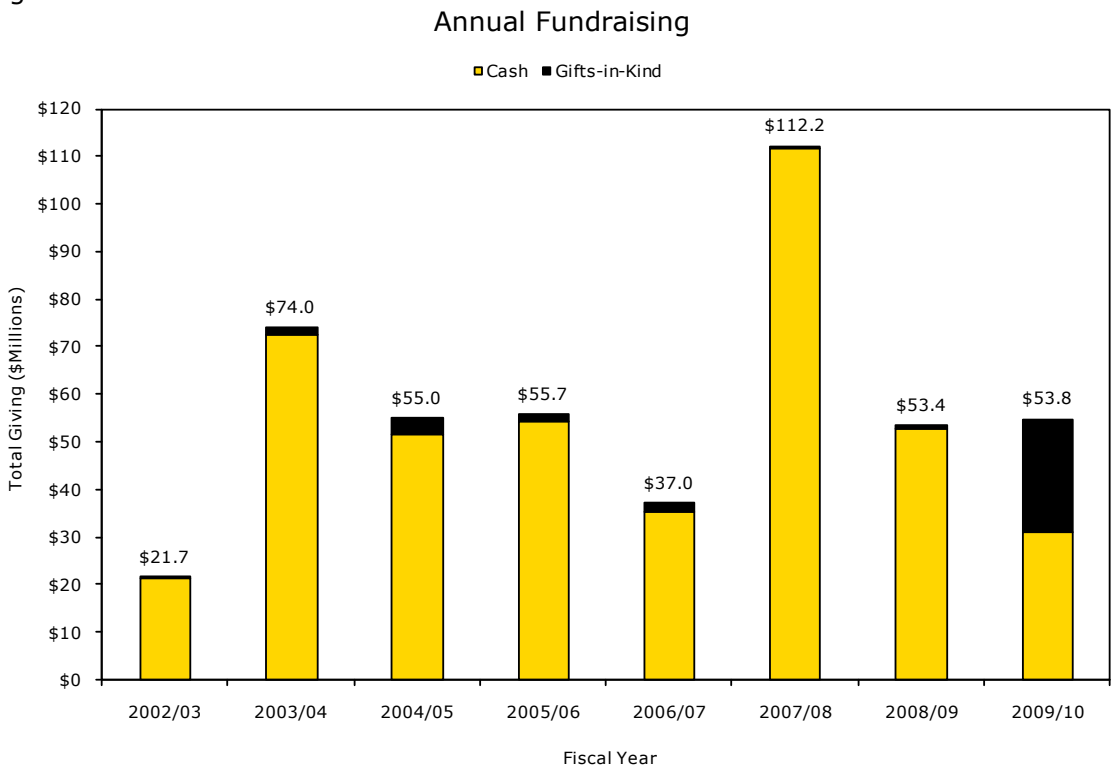
In addition to private sector gifts, uWaterloo continues to place well compared to other Canadian top tier and research intensive universities in securing support from all levels of government in the form of matching funds, special grants, and partnerships. Our private sector fundraising efforts in 2009/10 were augmented by success in obtaining funding from the Knowledge Infrastructure Program (KIP) in which we were able to support capital expansion priorities in Mathematics, Engineering and Environment with $50 million in support from our provincial and federal governments. We further sustained our success in maximizing the Ontario Trust for Student Support program (OTSS) by again raising our full quota and obtained a $1.39:$1 match on fundraising dollars, representing an additional $1.9 million in external revenue directed to our endowment.

With significant momentum and sixth decade objectives to achieve, Campaign Waterloo - Making the Future continues toward its goal to sustain fundraising at the $100-million level annually by 2017.

A summary of funds raised from the private sector is shown, year-by-year, from 2002/03 to 2009/10. Income in millions of dollars is broken out by cash and gifts-in-kind. It includes gifts, private sector research grants and sponsorship to the University and to the four federated university and affiliated colleges (FUAC) from all sources, including alumni, parents, students, friends, faculty, staff, retirees, and organizations. This demonstrates a broad base of private support.

Figure 8.2.A shows despite some exceptional years, there is a general upward trend in private-sector giving to the University from 2002/03 to 2009/10. The most recent year was one in which this trend was due in large part to significant gifts-in-kind.

Figure 8.2.A



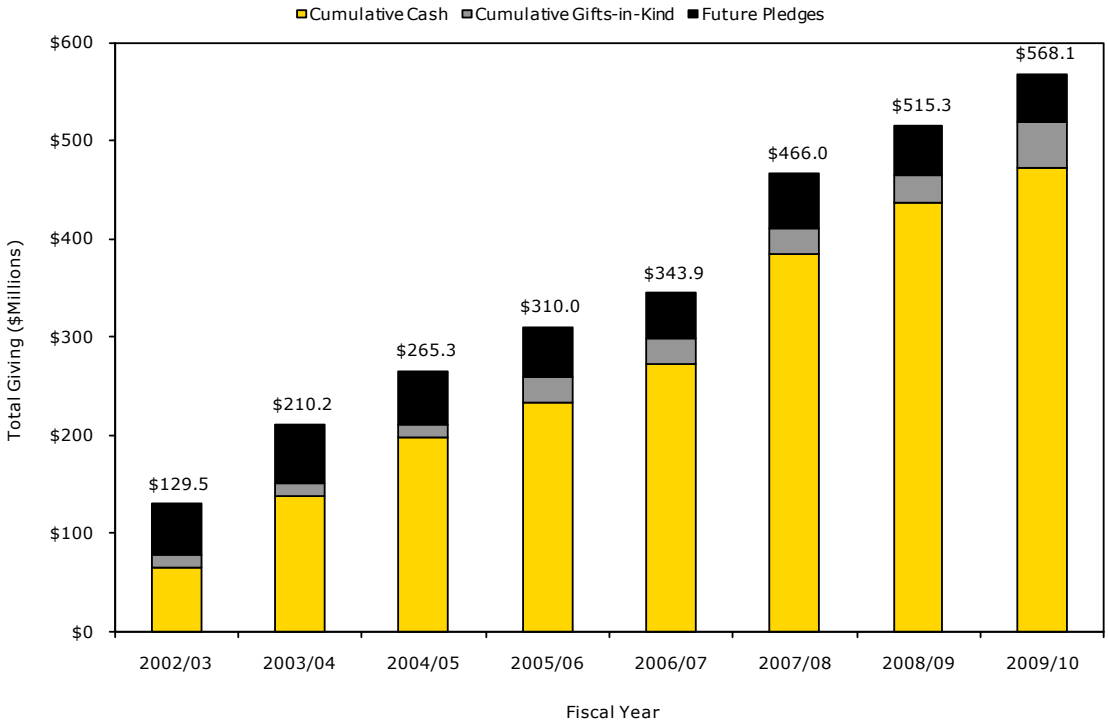
8.3. Cumulative Campaign Results

Another important indicator of our fundraising performance is annual accumulation of Campaign results, classified by cash, gifts-in-kind, and pledges. Campaign Waterloo officially began in May 2000 with a goal of $260M. This goal was revised to $350M in 2007, and by the end of 2009/10, the total raised stood at $568.1 million in gifts and pledges.

Figure 8.3.A illustrates our cumulative fundraising achievements to April 30, 2010, representing 162 per cent of the 2007 campaign goal. The funds raised are being used to support priority projects that include new buildings ($102.6 million), chairs and professorships ($104.6 million), research support ($126.0 million), the library ($6.5 million), programs ($134.3 million), and scholarships ($93.5 million).

Figure 8.3.A

Cumulative Campaign Waterloo Results to April 30, 2010



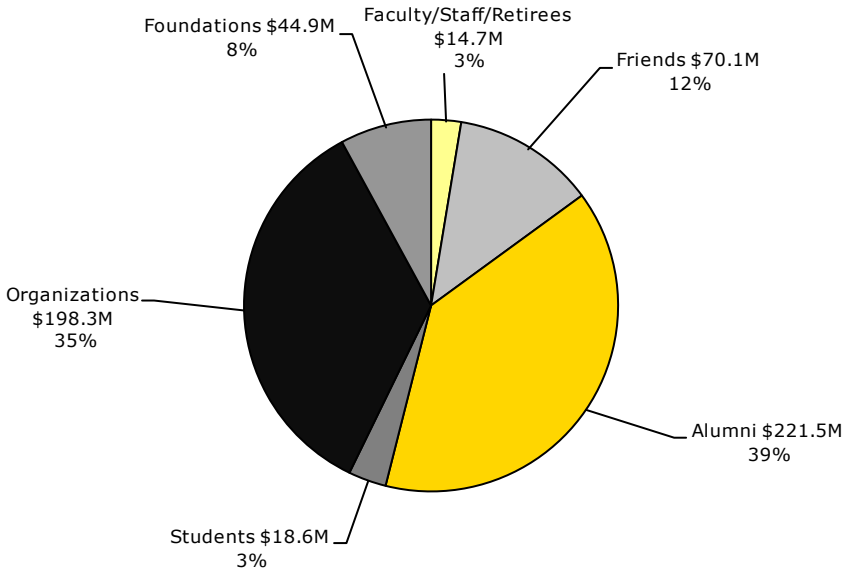
8.4. Donor Constituency

Figure 8.4.A shows campaign results by donor source or constituency, cumulated from the beginning of Campaign Waterloo in May 2000 to April 2010.

This indicator shows trends in giving by various donor groups and will allow us, over time, to track the effectiveness of programs aimed at different constituencies. For example, more than half of all donations to Campaign Waterloo from 2000 through 2009 came from individuals – all with some connection to the University of Waterloo – and less than half came from foundations, corporations, and organizations.

Figure 8.4.A

Campaign Waterloo Results by Donor Constituency
(May-00 to April-10)



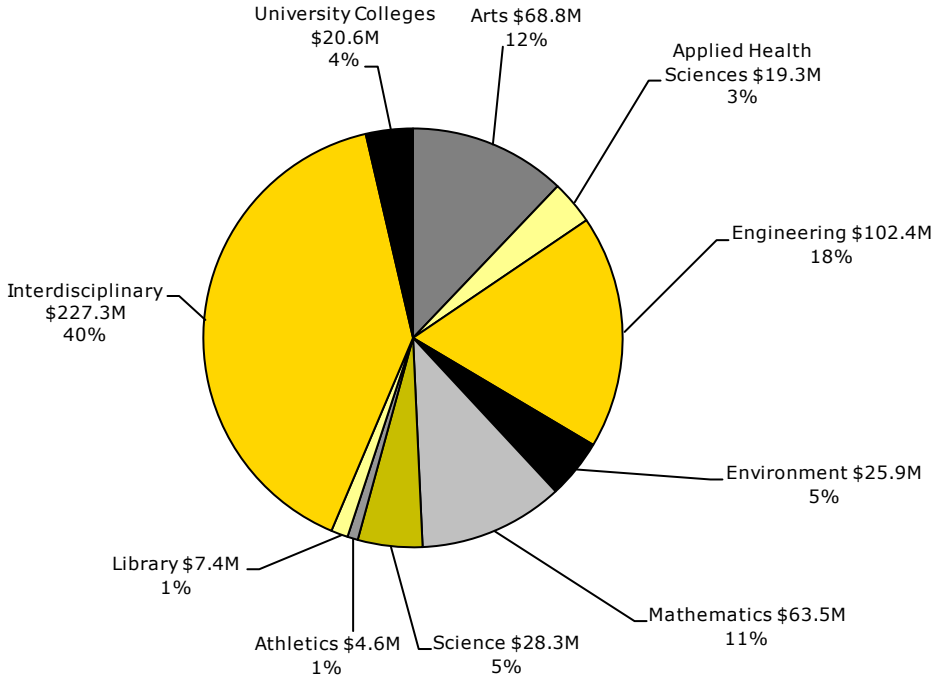
8.5. Gift Designation

Another way of interpreting advancement activity is to show cumulative campaign fundraising results by the Faculty or unit that ultimately receives the funds. Most donors designate their gifts to benefit a specific Faculty, College, program, scholarship, or the like. Internally, this information gives volunteers, administrators, and deans an indication of their fundraising progress. Externally, it shows donors where their contributions have made an impact. Figure 8.5.A shows how funds raised through Campaign Waterloo between May 2000 and April 2010 have been directed according to the wishes of donors.

The "Interdisciplinary" sector includes scholarships that are open to students in two or more disciplines and centres or programs that span two or more Faculties, such as the Institute for Quantum Computing. Donations to schools have been included within their respective Faculties: for example, gifts to the School of Optometry and the School of Pharmacy are included in the Faculty of Science sector gifts to the School of Accounting and Finance in the Faculty of Arts sector. Of note, 2005/06, the School of Architecture moved from the Faculty of Environment to the Faculty of Engineering.

Figure 8.5.A

Campaign Waterloo Results by Gift Designation
(May-00 to April-10)



9. LIBRARY

The University of Waterloo's goal is to rank among the top research libraries in Canada. We continue to strengthen our information resources by taking advantage of opportunities through our active participation in the Canadian Research Knowledge Network (CRKN) and the Ontario Council of University Libraries (OCUL). Our electronic monograph holdings have increased notably over the last few years, and the recent round of CKRN negotiations allowed us to enrich and expand our electronic content further by the significant acquisition of even more e-books. We will continue to focus our efforts under three umbrella themes: e-initiatives, enriching the student experience, and space. Striving for a high level of user satisfaction with the services and resources we provide remains an overarching objective.

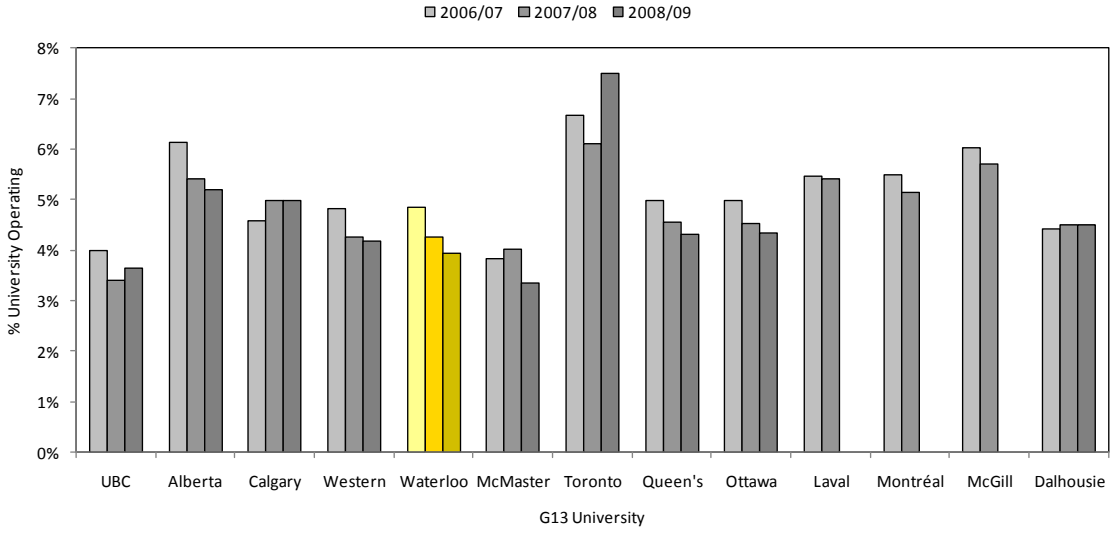
9.1. Library Expenditures as Percentage of Operating Expenditures

One way of measuring the University's commitment to maintaining library resources and services is to show the percentage of the University's budget assigned to the library. By tracing this important indicator over several years we can assess how well we are faring in terms of support for library resources and services compared with other similar institutions, and whether there is a trend in the level of support.

Figure 9.1.A shows library expenditures as a percentage of the University operating budget for each of the G13 universities (data not available as of June 2010 for Quebec universities) for the three latest fiscal years. Waterloo's library expenditures were 4.85 per cent of university operating expenditures in 2006/07. In 2007/08 this percentage dropped to 4.26 per cent. In 2008/09 there was a further decrease to 3.94 per cent. Waterloo's now ranks eighth among the ten reporting G13 universities.

Figure 9.1.A

Library Expenditures[52] as % of University Operating Expenditures, G13 Universities



[52] Source: Canadian Association of University Business Officers (CAUBO)

9.2. Holdings: Print and Electronic

Strong university library collections are essential to support teaching, learning, and research. The size of the collection is sometimes seen as an indicator of how well we are supporting our core functions, as compared to other similar universities. Figure 9.2.A shows total library holdings for each of the G13 universities as well as for the TriUniversity Group (TUG).

While Waterloo ranked low in 2008/09 in total holdings at eleventh place, the holdings count for the TriUniversity Group shows the benefit of making the collections of our University of Guelph and Wilfrid Laurier University partners readily available to our users through Primo (the online catalogue of the combined collections of the TriUniversity Group of Libraries). When total TUG holdings are taken into account, Waterloo's ranking increased to fourth place.

Figure 9.2.A

Total Library Holdings (in Millions),
G13 Universities & TriUniversity Group (Tug)

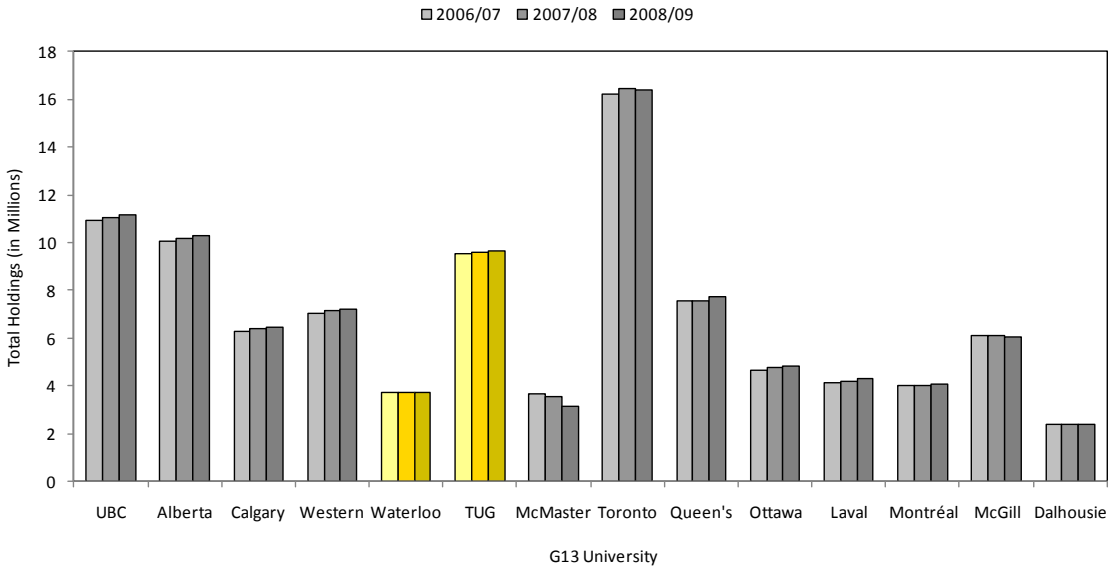


Figure 9.2.B shows the libraries' holdings in terms of items per full-time equivalent student (FTE), which takes into account the level of demand. Waterloo had 166 items per student in 2006/07. This statistic decreased to 161 in 2007/08. In 2008/09 Waterloo dropped to tenth position with holdings of 155 items per student.

Figure 9.2.B

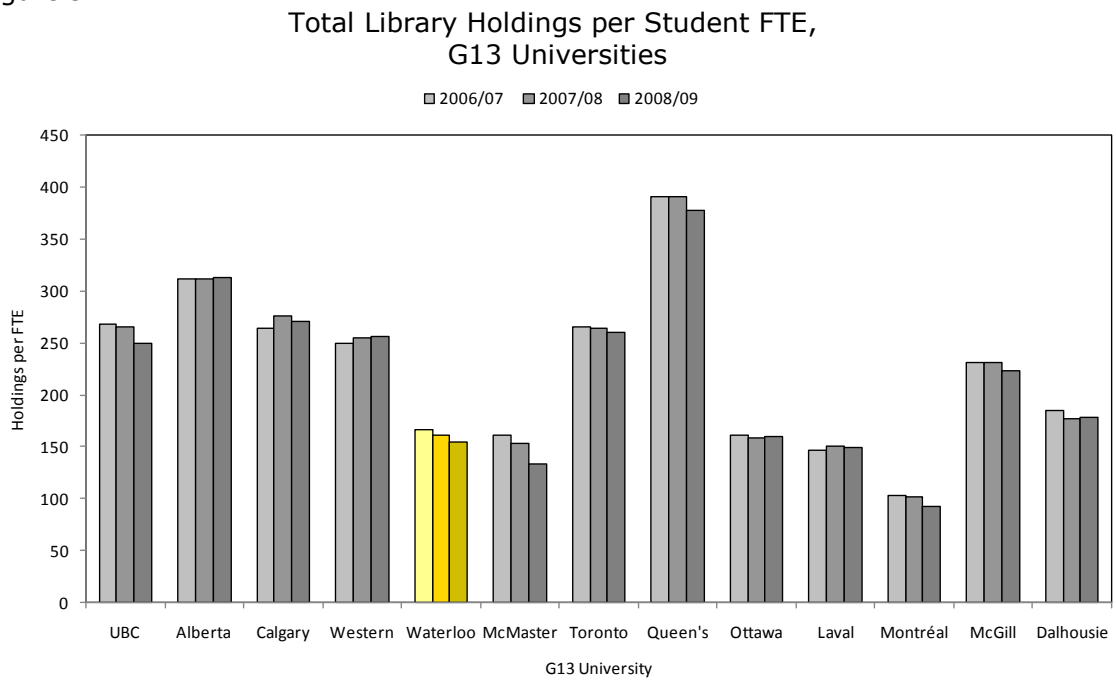
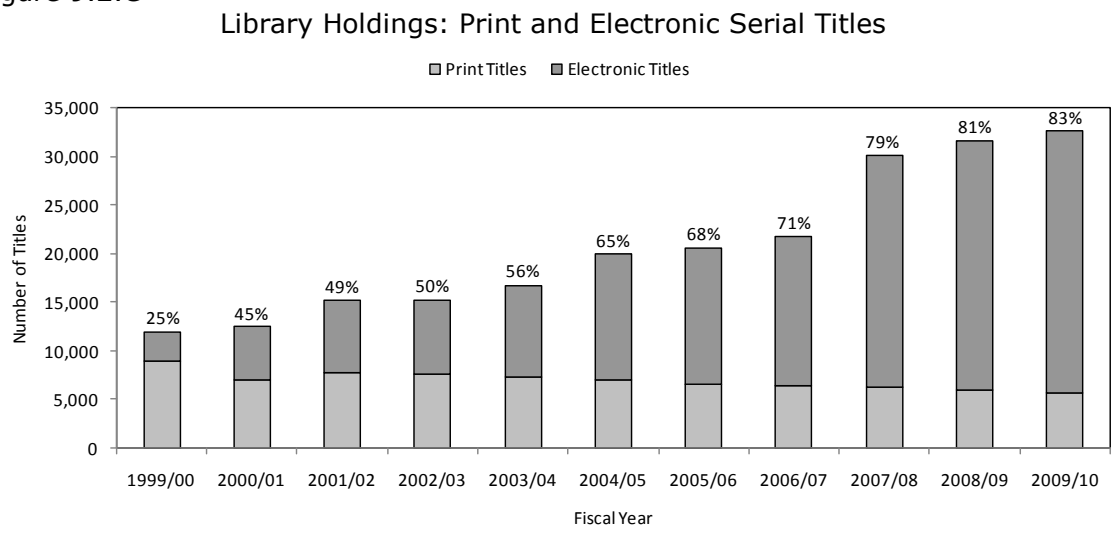


Figure 9.2.A and Figure 9.2.B include counts of printed materials (monographs, bound journal volumes, government documents) and micro-materials, *but not electronic, cartographic, or audio-visual materials*. The counts do not include the holdings of the libraries of Waterloo's federated university and affiliated university colleges.

The data in these charts do not take into account the significance of electronic resources, which are playing an increasingly important role at all universities. Electronic monograph holdings have grown from 5,747 titles in 2000/01 to 330,107 titles in 2008/09 and now represent over 18 per cent of the total monograph collection.

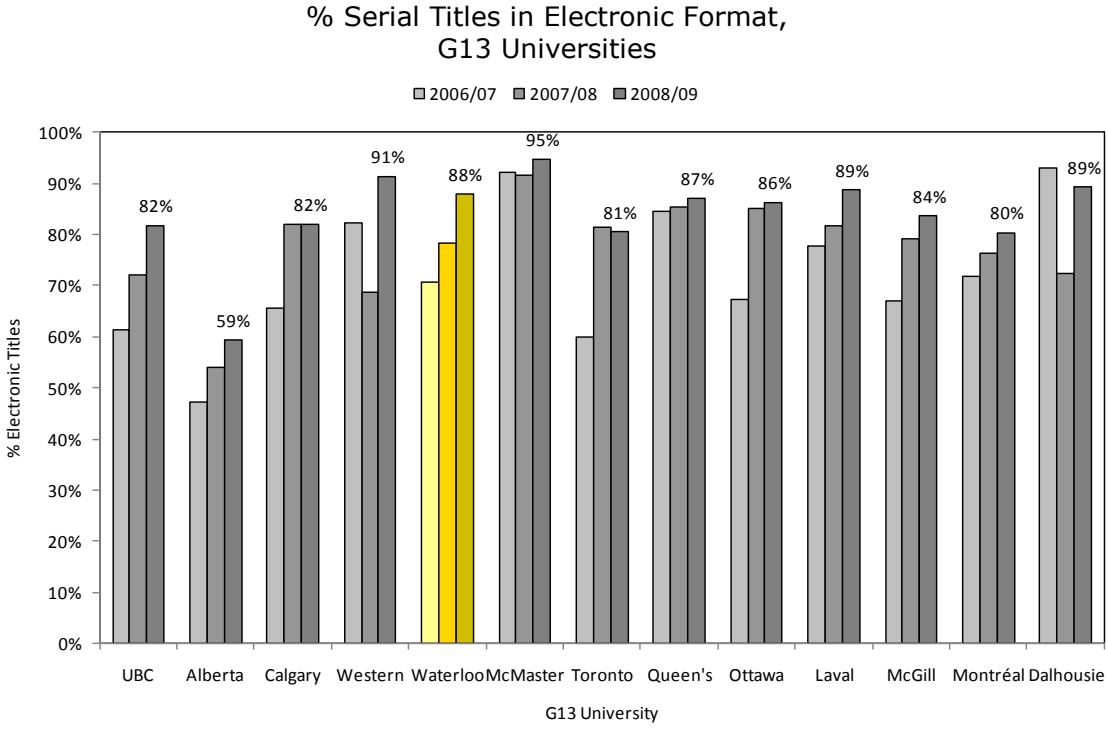
Figure 9.2.C shows that Waterloo's electronic serial holdings have also continued to grow substantially. Waterloo received 32,695 current serial titles in 2009/10, of which 27,013 titles (i.e., 83 per cent) were in electronic format.

Figure 9.2.C



While Waterloo has placed last or low among G13 university libraries for total number of serial titles since 2005/06, we rank higher in terms of our percentage of serial titles in electronic format. Figure 9.2.D shows that in 2008/09 Waterloo was in fifth place with 88 per cent of its serial titles in electronic format.

Figure 9.2.D



Now in our sixth year, the work of the Performance Indicators Task Force and the Data Working Group has stabilized with few questions and issues arising. 2010 will mark a change in focus from performance indicator metrics to reporting of progress relative to our Sixth Decade Plan.

The next several years promise both challenges and opportunities. The provision of analyses, benchmarks and milestones will help us to assess our priorities, basic principles, and strategic directions. Change will continue to be the theme in the coming year as we continue to work with our senior administrators, Faculties and students to understand, plan and monitor for success and gauge the impact of innovative initiatives.

Coordinated by Institutional Analysis & Planning, with support from the Performance Indicator Task Force and the Data Working Group, this report will facilitate strategic institutional planning and public accountability. We remain committed to the review and production of future reports.

University of Waterloo Performance Indicators Task Force, 2010

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