WATERLOO

Annual Performance Indicators 2012

UNIVERSITY OF WATERLOO

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WATERLOO

Introduction

For 55 years, the University of Waterloo has led innovation and global change. Through world-class research and inspired teaching, we have helped define new frontiers in areas including engineering, computer science, health and aging, psychology, and the environment.

Success of this magnitude does not happen by accident. Our course must be carefully planned and charted, measured and adjusted. This eighth edition of the University of Waterloo's Performance Indicators gives shape to emerging trends within our own institution, and explores our place among national and international peers.

The Performance Indicators report works in tandem with Waterloo's ambition to not only be one of Canada's top universities, but to also be recognized among the world's most-desired post-secondary schools. The report provides a baseline to measure our institutional performance, and is a springboard for developing more detailed measures of our progress.

Strategic initiatives, including this report, are regularly reviewed and revised, and for that reason, this is the final time the Performance Indicators report will appear in this form.

Based on the results of our Mid-cycle Review process, we will build a new assessment framework that embodies Waterloo's six foundational pillars and three key goals. The pillars, clarified and affirmed through the Mid-cycle Review, are: academic excellence, research excellence and impact, co-operative education, graduate studies, internationalization, and entrepreneurship.

Waterloo's strategic plan continues to be driven by our key goals, which emerged through the Mid-cycle Review: advancing the quality of education, advancing research excellence and impact, and enhancing student opportunities and experience.

Leveraging our pillars and advancing our key goals will strengthen the foundation of this institution. To help lead the way, Waterloo has welcomed a number of new senior administrators over the last year.

These leaders will guide an expanded strategic planning process, which will become part of the fabric of Waterloo. Sharpening our performance metrics will allow us to better address and track how our actions move us forward towards even greater success as an institution that improves the lives of people around the world.

Corrections:

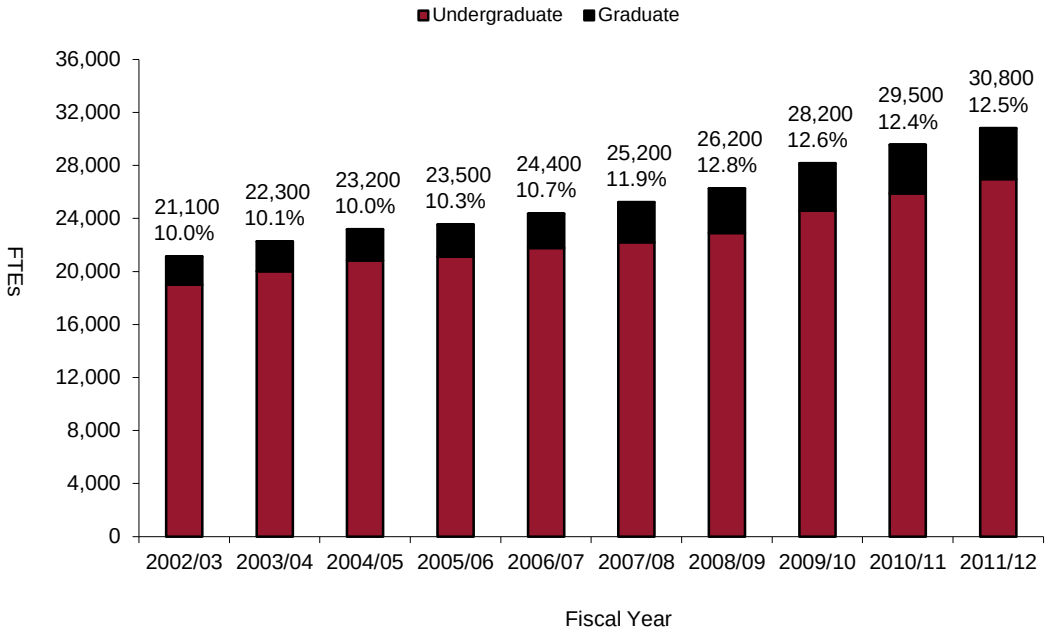
Overview – Our Faculty - Data corrected to exclude visitors and researchers (as per previous years)

Figure 1.8.B – Title corrected to show the proper Cohort year - 2005 through 2010

Figure 4.1.A, 4.1.B, 4.1.C, 4.2.A, and 4.3.A – Data corrected to exclude visitors and researchers (as per previous years)

Our Students

FTE[1] Enrolment – Undergraduate and Graduate

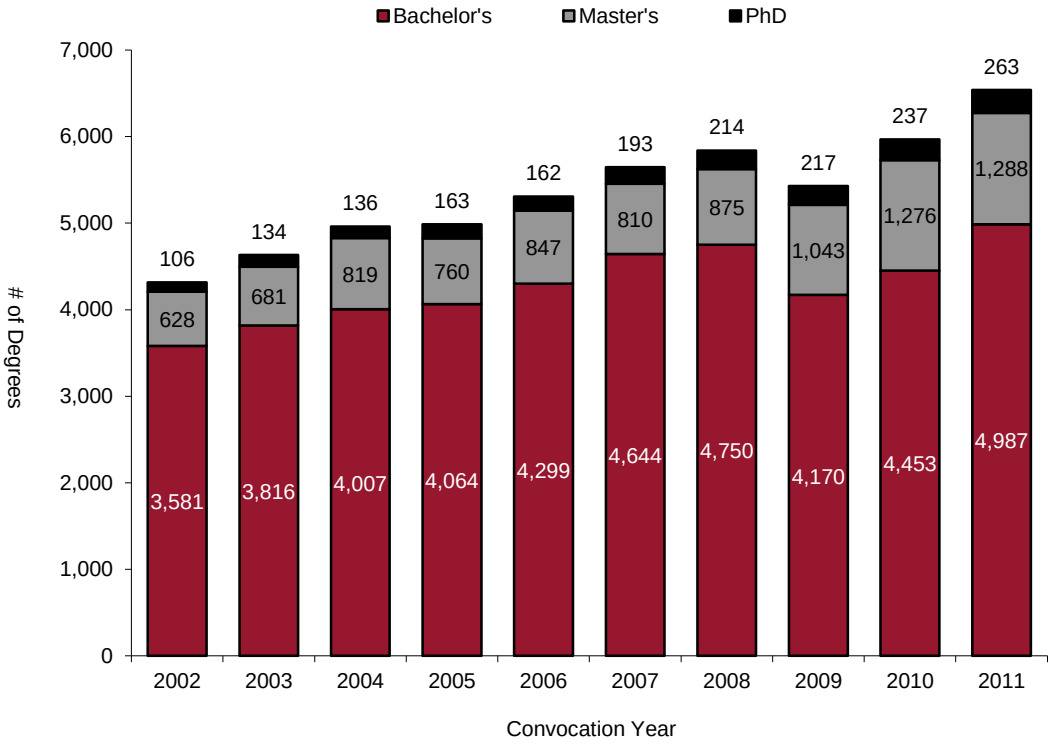


Relevance: Target graduate student enrolment to be 25 per cent of the total student population.

Performance: In 2011/12, graduate enrolment represented 12.5 per cent of our student population.

[1] FTE = full-time equivalent.

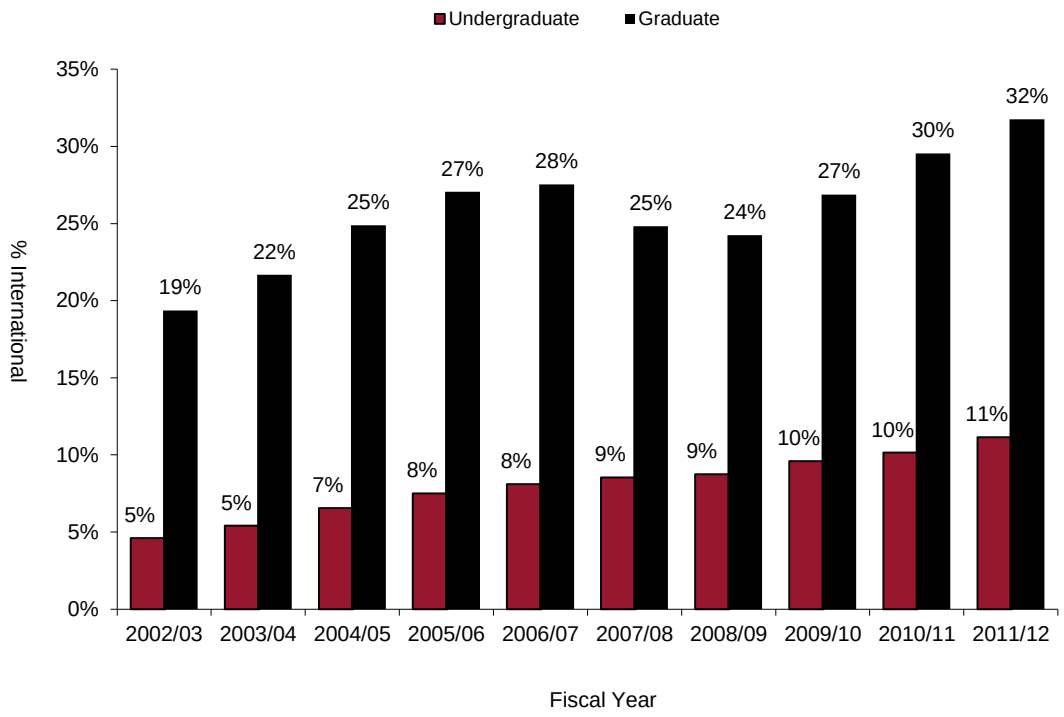
Degrees Granted



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

Performance: Two years after the decline in the 2009 undergraduate degrees granted, we continue to see a steady increase in our undergraduate degrees granted.

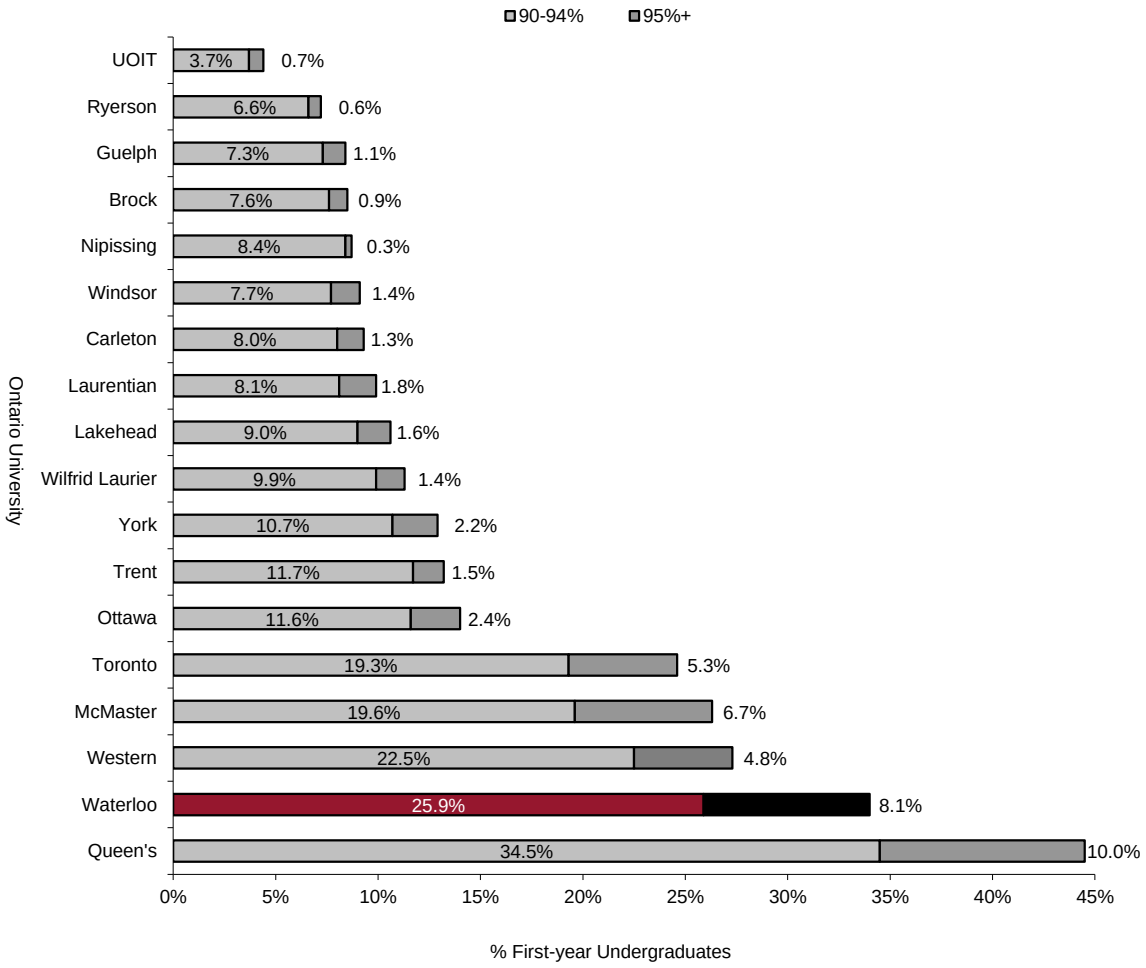
International Students as % of their Respective Populations



Relevance: Internationalization is one of our six Foundational Pillars.

Performance: In 2011/12 the undergraduate international percentage increased to 11 per cent. The graduate percentage increased to 32 per cent, surpassing our goal of 30 per cent. Internationalization at the University of Waterloo also includes student experience gained through study abroad and exchange opportunities and international co-op work terms.

Entering Averages of 90%+ as Compared to Ontario Universities - Fall 2010[2]

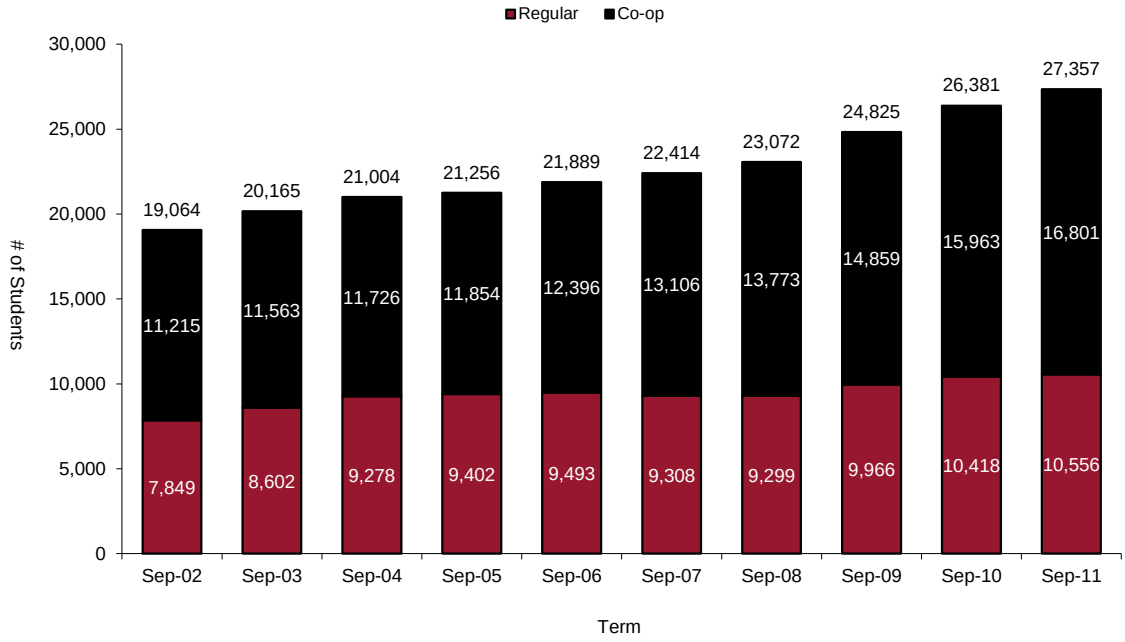


Relevance: We strive to be among the top three institutions in Canada attracting first-year students with entering average grades of 90 per cent plus.

Performance: Within the Ontario system, uWaterloo places second with 34 per cent of our first-year undergraduates with entering averages of 90 per cent or higher.

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

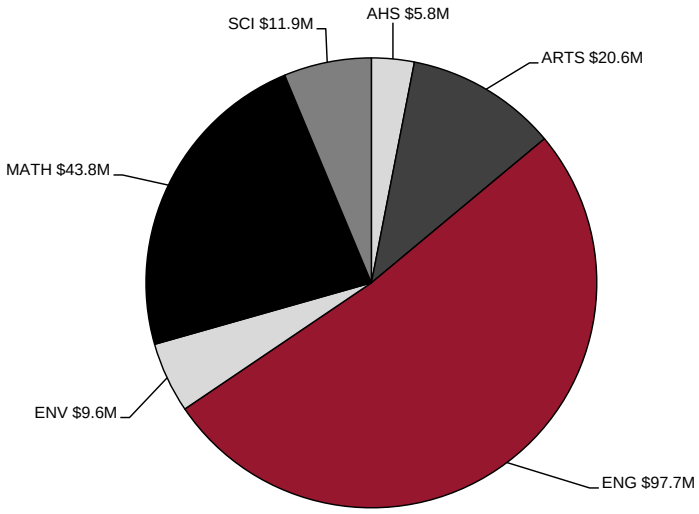
Fall Full-time Count of Undergraduate Students by System of Study (Includes Students on a Work Term)



Relevance: 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 was steady at 61 per cent in fall 2011. In fall 2011, we saw a 3.7 per cent increase in our total fall full-time count as compared to 2010.

Total Earnings by Students on Co-op Work Term 2011/12[3] - $189,000,000



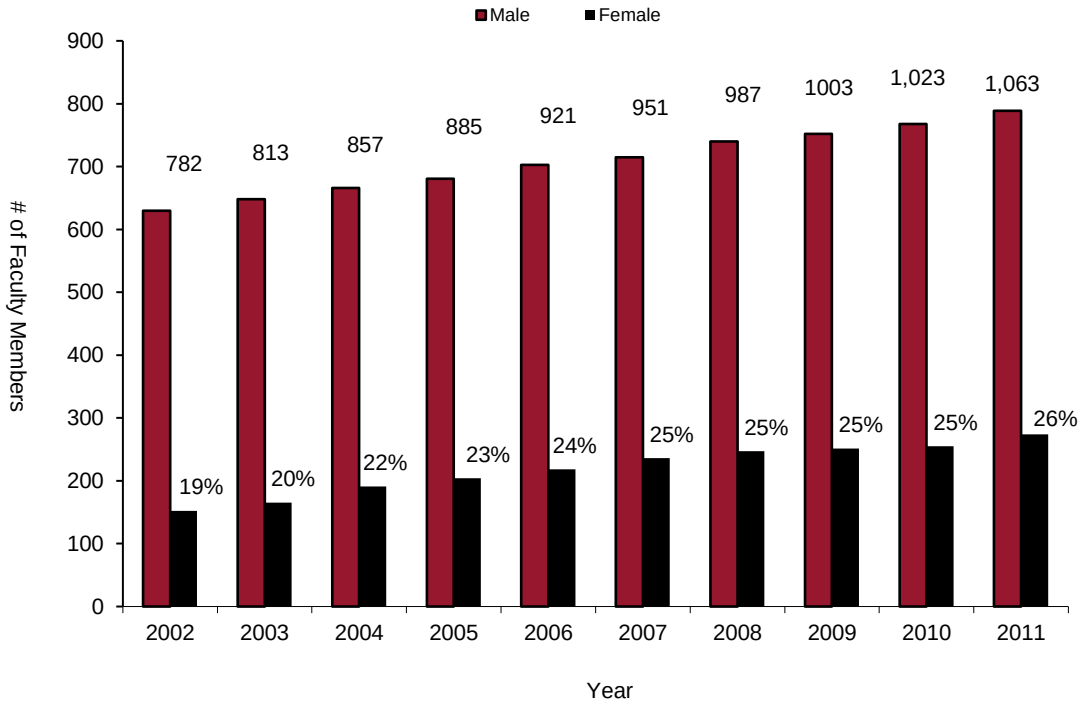
Relevance: Guarantee to meet the financial needs of ALL qualified Canadian students through a combination of scholarships, research internships, student loans, and co-op jobs.

Performance: In 2011/12 co-op students' estimated earnings were $189 million compared to $161 million in 2010/11.

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

Our Faculty

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

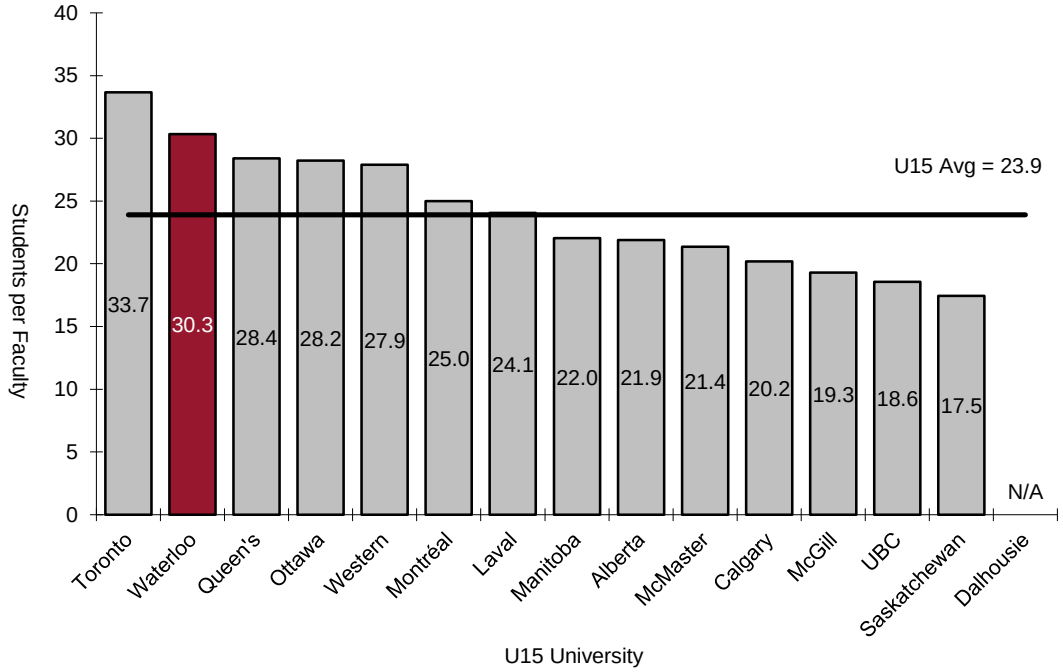


Relevance: Target of at least 1,000 full-time faculty members by 2017.

Performance: Attracting female faculty and maintaining equity in faculty hiring practices remains a priority.

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

Full-time Student to Full-time Tenure and Tenure-stream Faculty Ratio as Compared to U15[5] Universities 2010/11



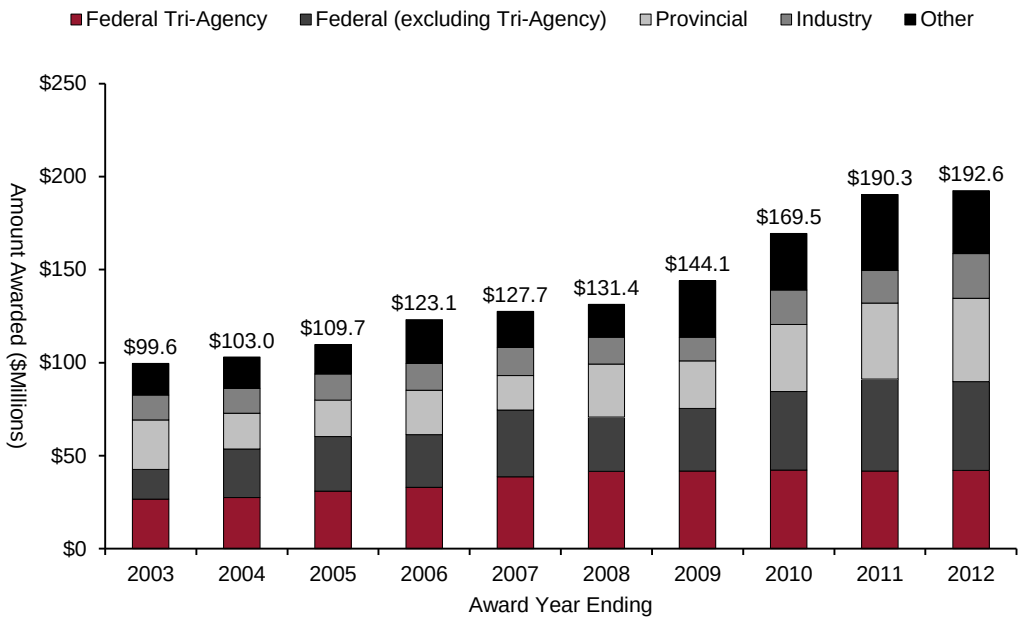
Relevance: Decrease the ratio of students to support.

Performance: In 2010/11 uWaterloo had one of the highest ratios of full-time student to full-time tenure and tenure-stream faculty among our U15 Data Exchange peers.

[5] Dalhousie University data not available at the time of publication of this report.

Our Research

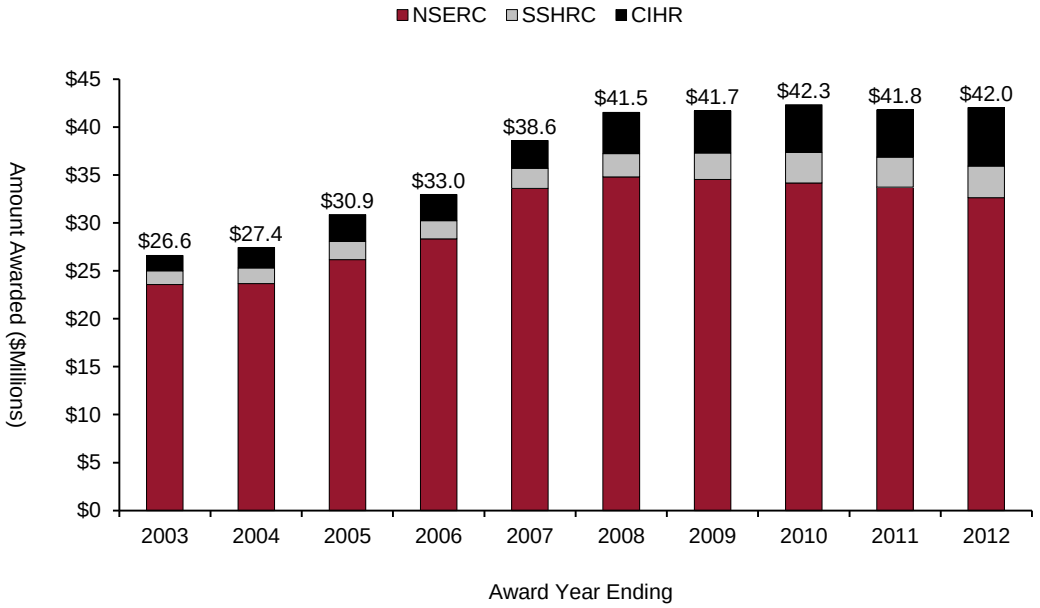
Total Sponsored Research Awards by Source



Relevance: Increase research awards to 50 per cent of the operating revenue.

Performance: 2011/12 research awards represent about 33 per cent of our 2011/12 operating revenue.

Federal Tri-Agency Research Awards 2003-2012[6]



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 U15, in the period 2007 to 2012, we ranked twelfth in percentage increase in research awards from the NSERC granting council. In 2011/12, we ranked sixth in absolute dollars awarded (see Figures 3.2.H and 3.2.K in the research section).

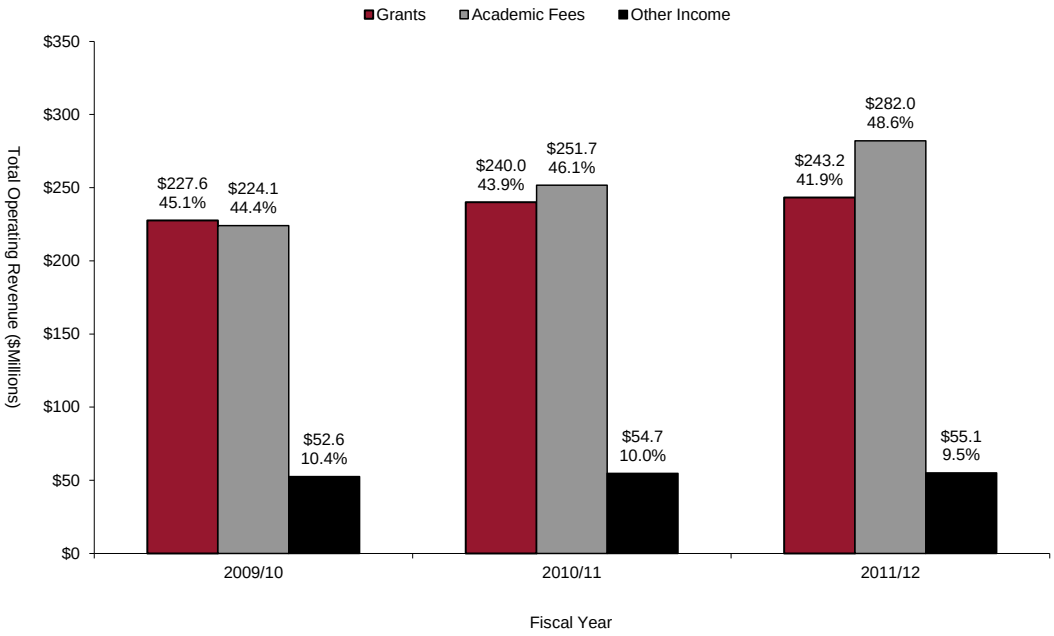
Relative to the U15, in the period 2007 to 2012, we ranked first in percentage increase in research awards from the SSHRC granting council. In 2011/12, we ranked twelfth in absolute dollars awarded (see Figures 3.2.I and 3.2.L in the research section).

Relative to the U15, in the period 2007 to 2012, we ranked first in percentage increase in research awards from the CIHR granting council. In 2011/12 our absolute dollars awarded was $5.8 million (see Figures 3.2.J and 3.2.M in the research section).

[6] 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[7]

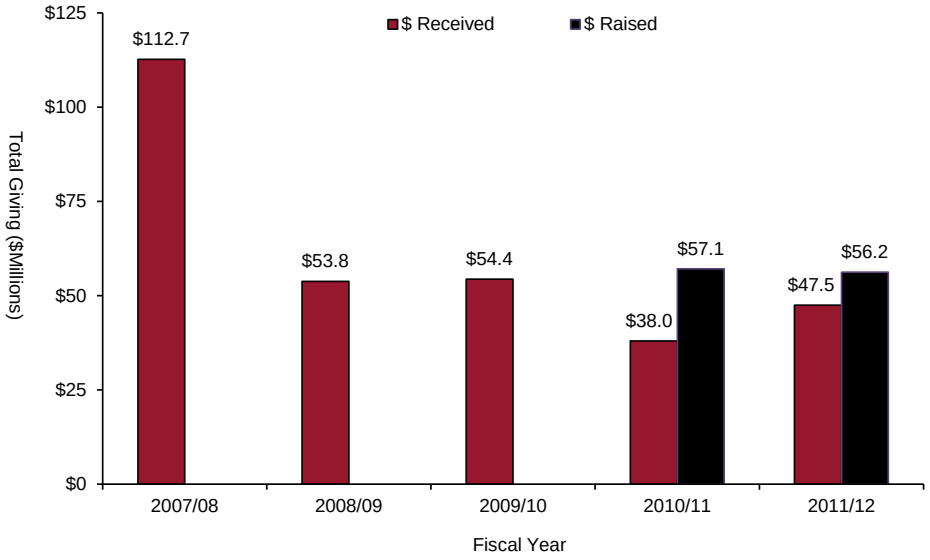


Relevance: Identified as an enabling goal in the mid-cycle review, improving resources and funding will be examined over the next few years, resulting in the University of Waterloo having incremental resources to support its pursuit of academic excellence.

Performance: In 2011/12, our operating revenue increased to approximately $580 million, up from $546 million in 2010/11, an increase of approximately six per cent.

[7] 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.

Private Sector Contributions



Relevance: Raise annual funds equivalent to 20 per cent of the operating budget.

Performance: Annual funds received in 2010/11 amounted to $47.5 million and represented eight per cent of the operating revenue.

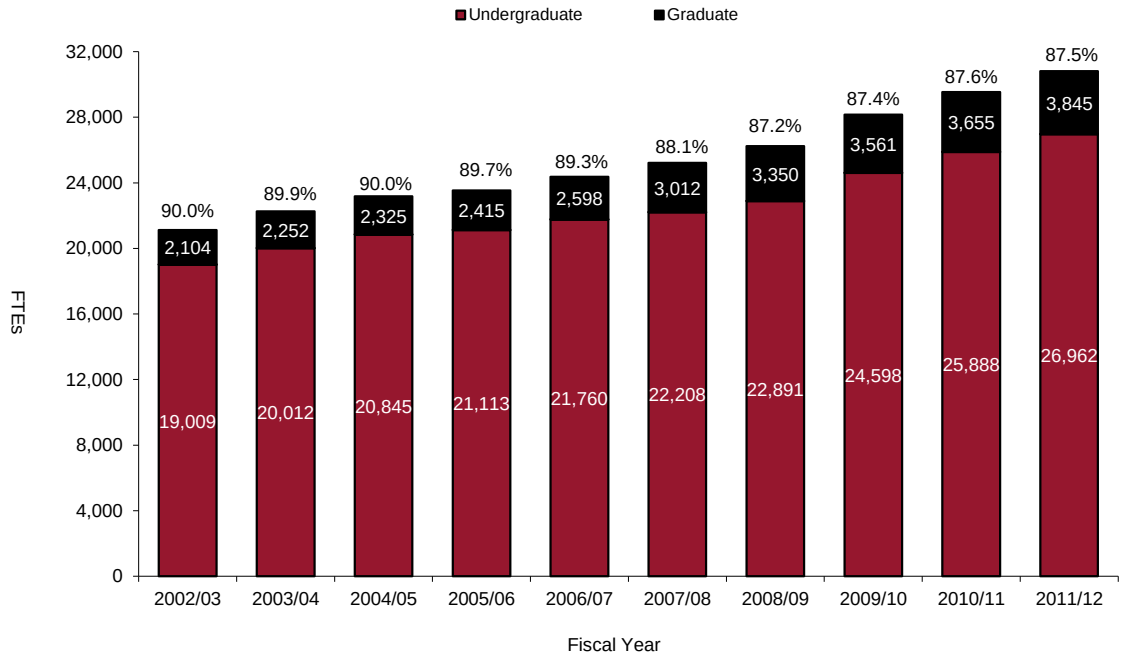
1. Undergraduate Studies

The University 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.

1.1 ENROLMENT

Figure 1.1.A[8]

FTE Enrolment – Undergraduate and Graduate



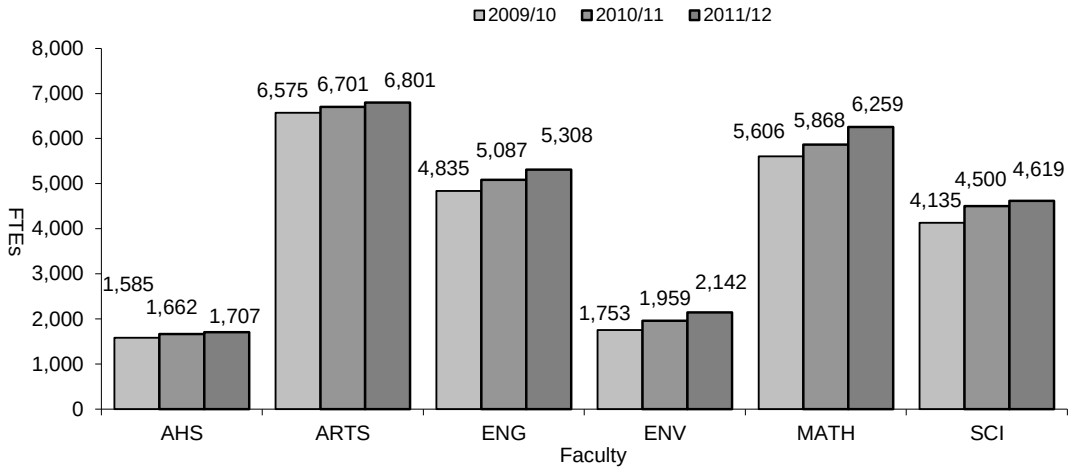
For most schools with only a regular system of study—where students register in the fall and winter terms—the count of fall, full-time students is the best method to measure the size of their student population. At uWaterloo, because of co-op, we count students in two ways: annual full-time equivalent 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.

[8] Percentage of undergraduate FTE students displayed.

When we count annual FTEs, our goal is to measure the size of our on-campus student population and to represent accurately each student. 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.

Figure 1.1.B[9]

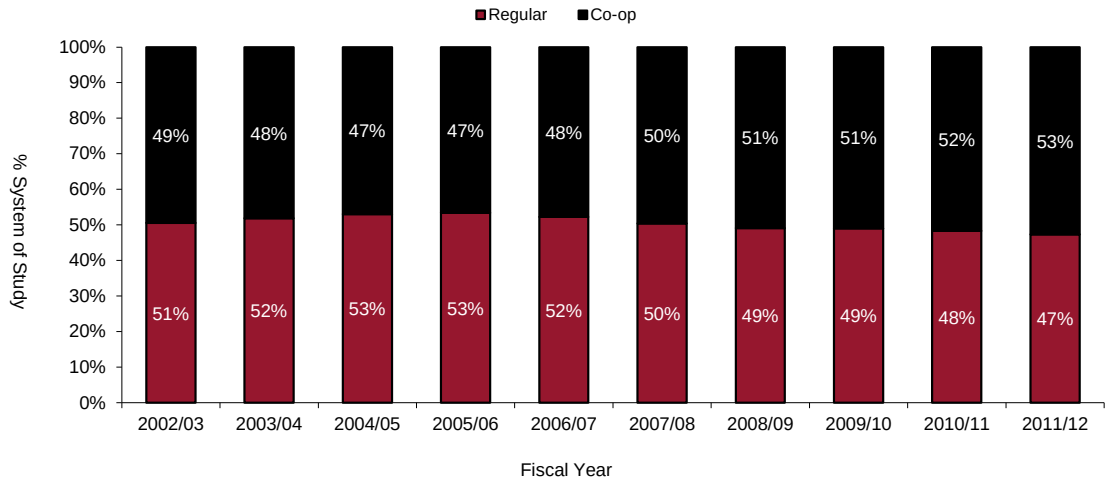
Undergraduate FTE Enrolment by Faculty



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. When counting co-op students on a work term, we include those students who were unable to find a job.

Figure 1.1.C

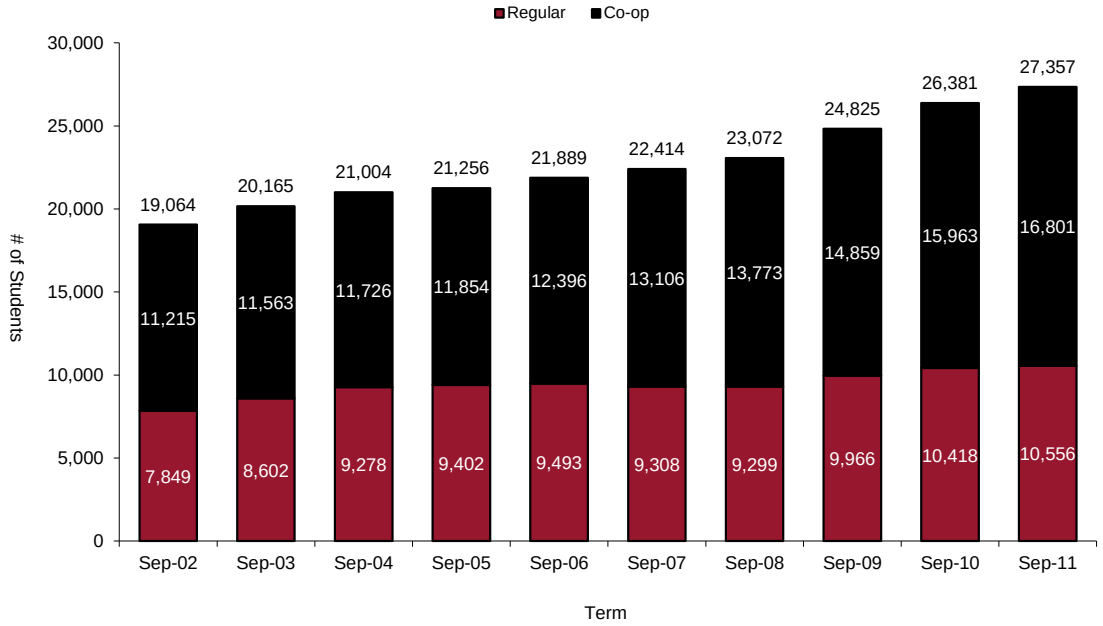
% Undergraduate FTE Students by System of Study



[9] 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 Bachelor of Social Work program is not shown, which had 107 students in 2008/09, 110 in 2009/10, 111 in 2010/11 and 126 in 2011/12.

Figure 1.1.D

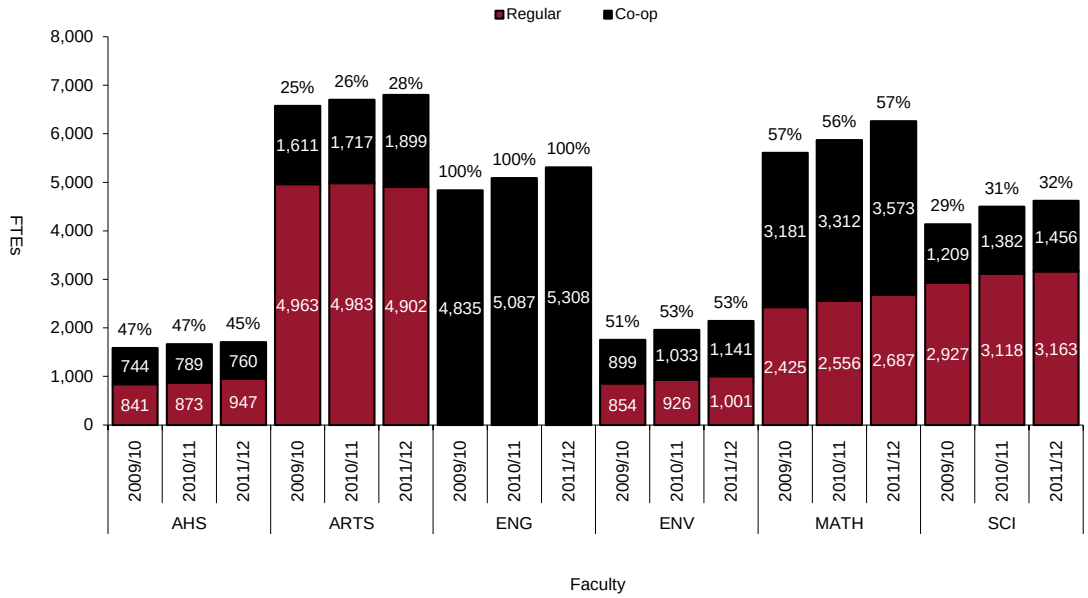
Fall Full-time Count of Undergraduate Students by System of Study (Includes Students on a Work Term)



Based on the count of students in the fall term, about 61 per cent of undergraduates were registered in co-operative programs in the fall of 2011.

Figure 1.1.E

Undergraduate FTE Students by System of Study[10]

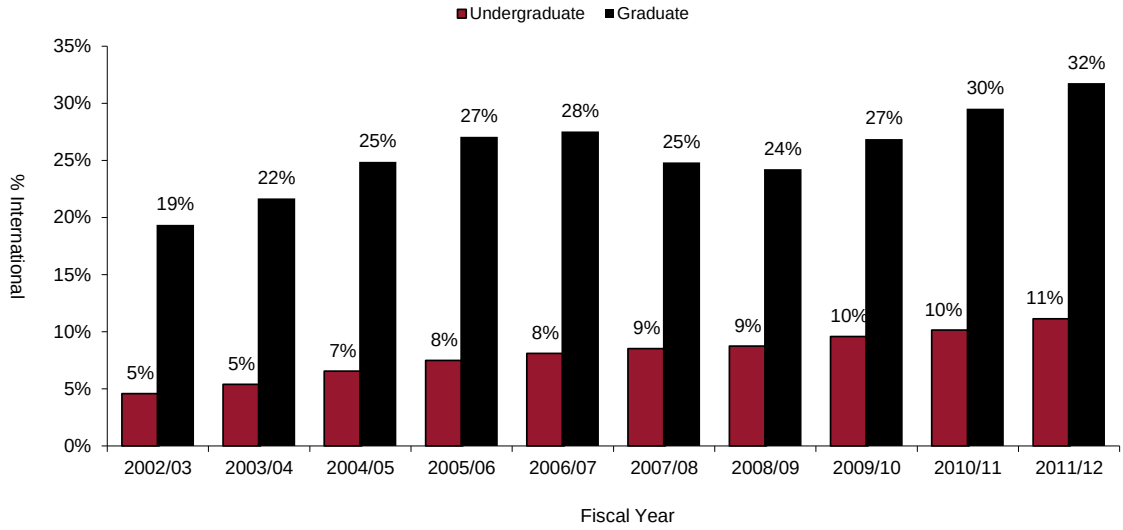


[10] Percentage co-op displayed.

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

Figure 1.1.F

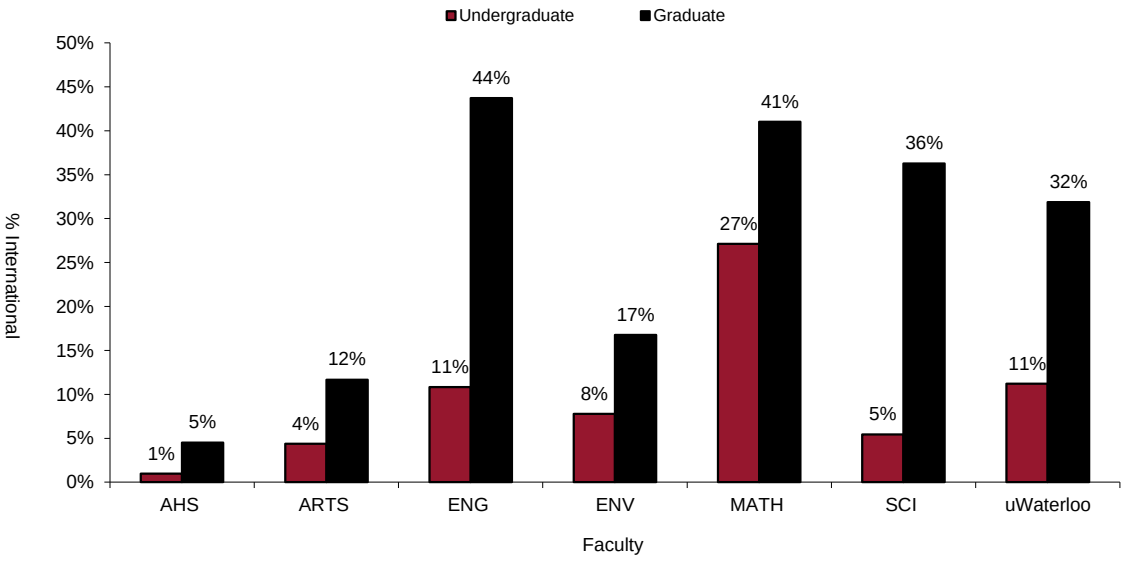
International Students as % of their Respective Populations – 10-Year History



At the University level, international students make up 11 per cent of undergraduate enrolment and 32 per cent of graduate enrolment.

Figure 1.1.G

International Students as % of their Respective Populations 2011/12

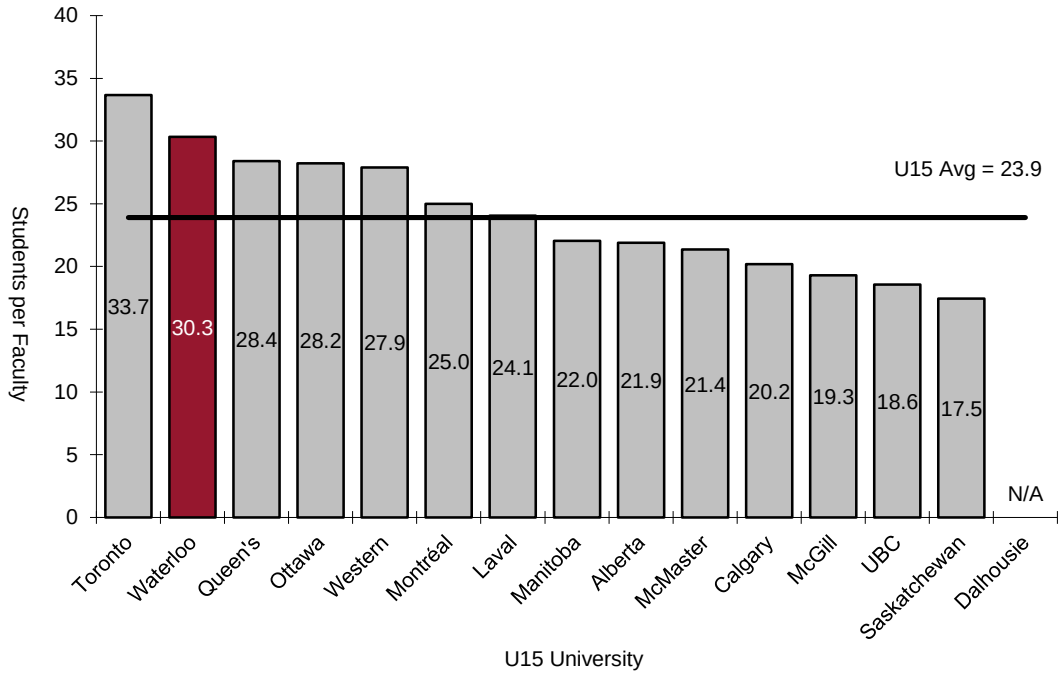


1.2 STUDENT TO FACULTY RATIO

In order to measure ourselves against our peers, we look at the ratio of 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 U15 universities.

Figure 1.2.A[11]

FTE[12] Students to Full-time Tenure and Tenure-stream Faculty Ratio as Compared to U15 Universities 2010/11



At uWaterloo, 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 convert the number of students enrolled in courses taught by each faculty member 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

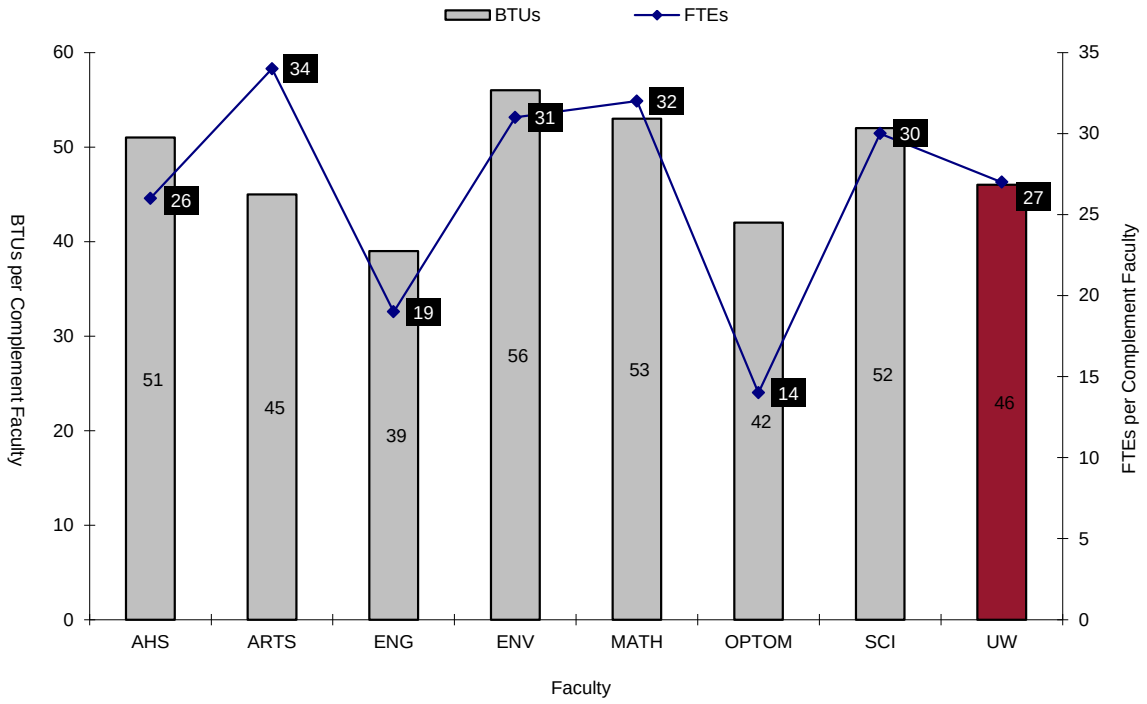
[11] Source: U15 Data Exchange. Dalhousie data was not available at time of publication.
[12] Includes Undergraduate and Graduate FTEs.

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 faculty member and the BTUs generated per complement faculty member. 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[13] 2011/12



[13] BTUs and FTEs include undergraduate and graduate students. Complement faculty members are ongoing faculty member 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 uWaterloo we seek to admit the brightest students possible. In fall 2005, uWaterloo 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, uWaterloo established a $1,000 scholarship for students with an 85-90 per cent average.

Figure 1.3.A

Undergraduate Students Entering University of Waterloo with Averages 90%+ Fall 2011[14]

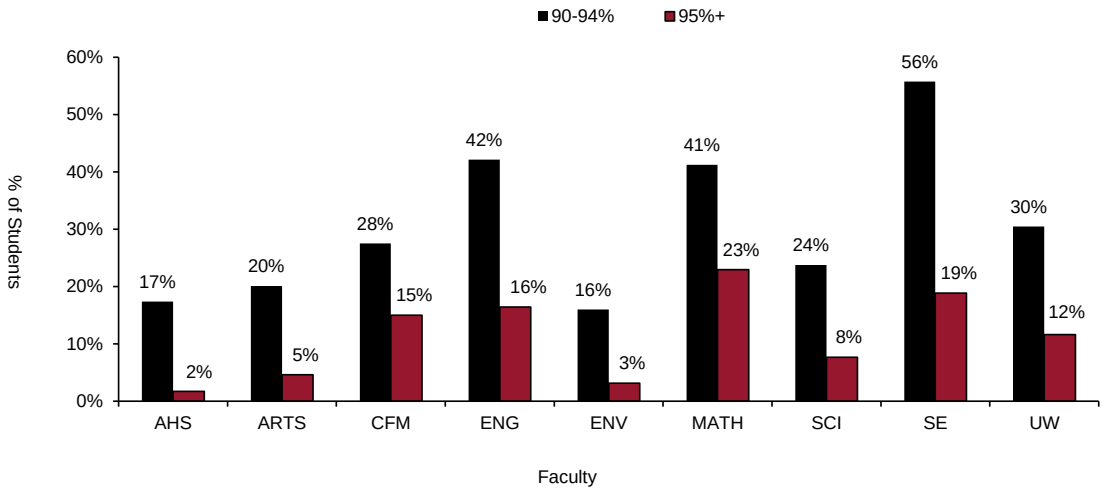
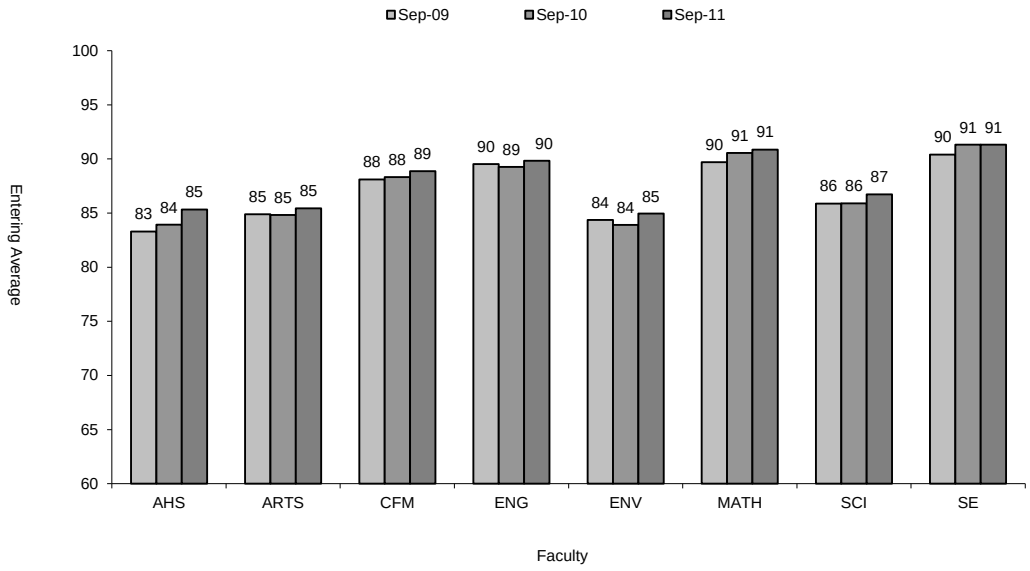


Figure 1.3.B

Entering Grade Averages (Average, Basis of Admission) Full-time First-year Undergraduate



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

To understand better the range of entering averages we present the break out of the 25th and 75th percentiles. For example, in 2011, 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.D). These measures tell us that of the students registered in the Faculty of Arts, in fall 2011, 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[15]

Entering Grade Averages (25th Percentile) Full-time First-year Undergraduate

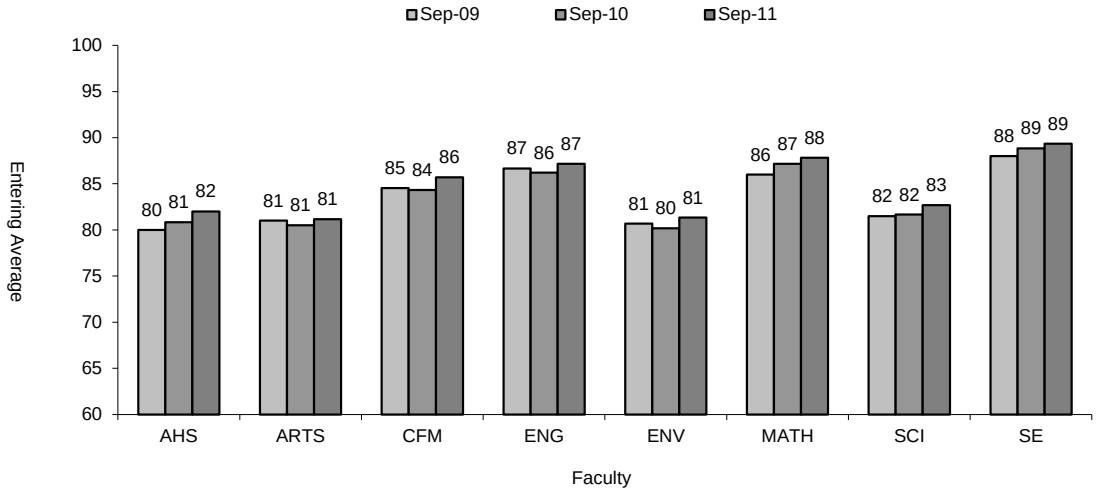
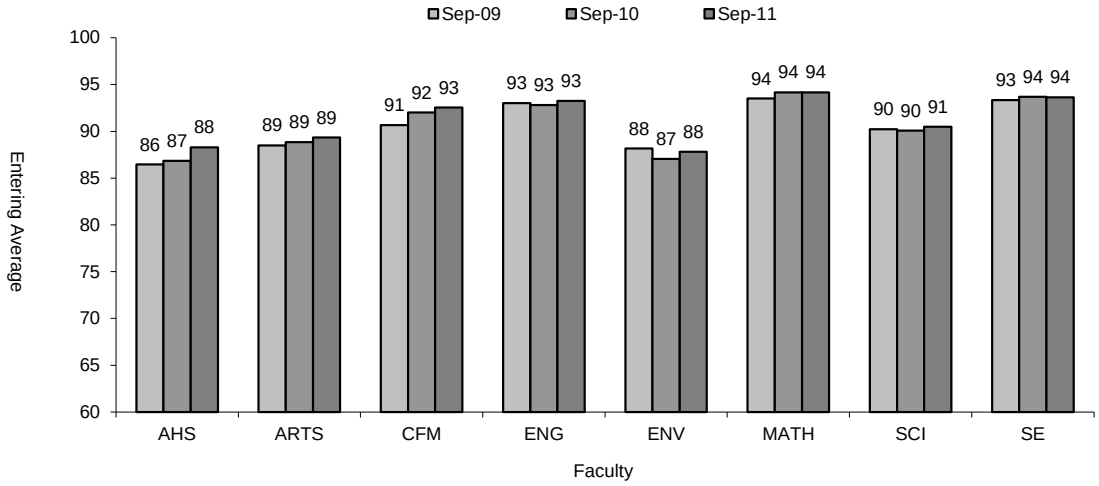


Figure 1.3.D[16]

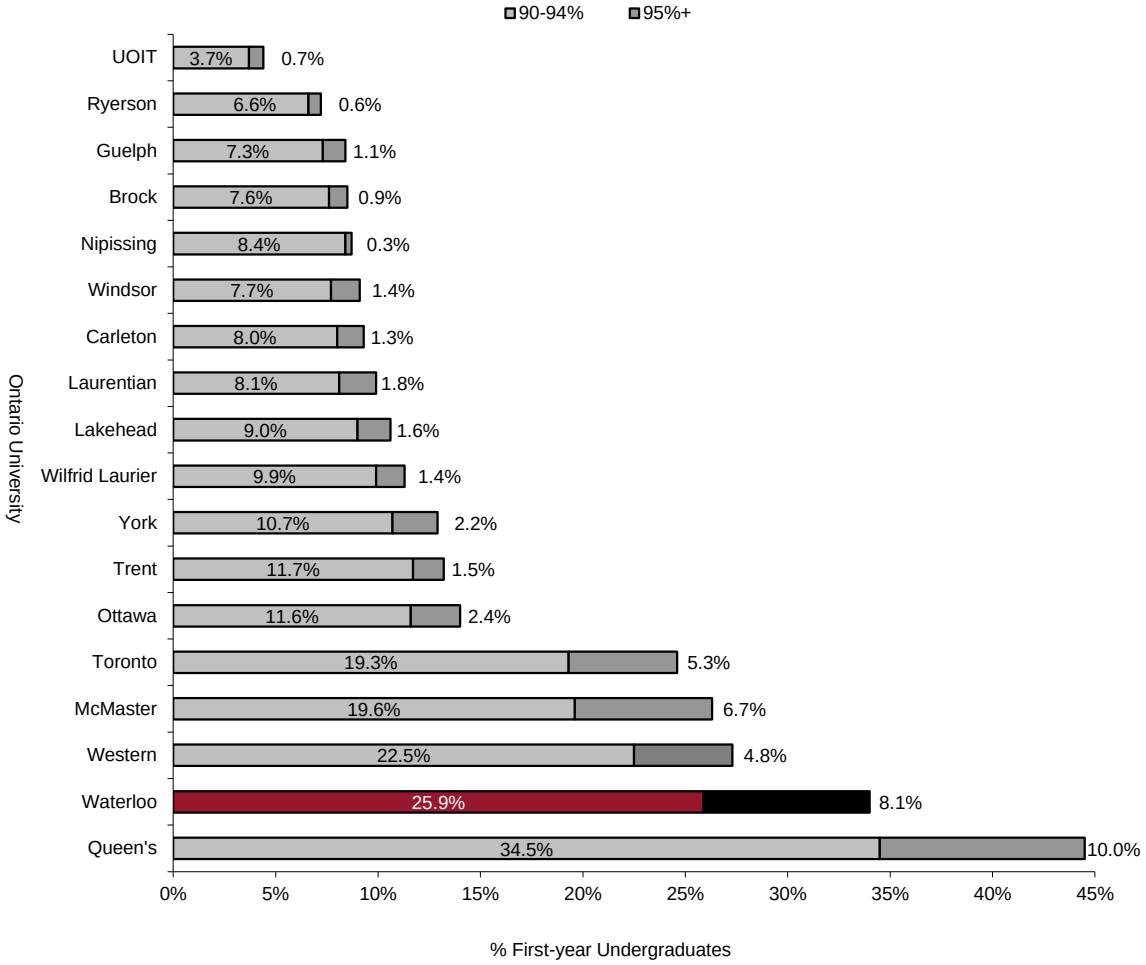
Entering Grade Averages (75th Percentile) Full-time First-year Undergraduate



[15] The 25th Percentile means that 75 per cent of students entered with grade averages higher than the mark indicated.
[16] 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%+[17] as Compared to Ontario Universities Fall 2010



[17] Source: CUDO (Common University Data Ontario).

WATERLOO

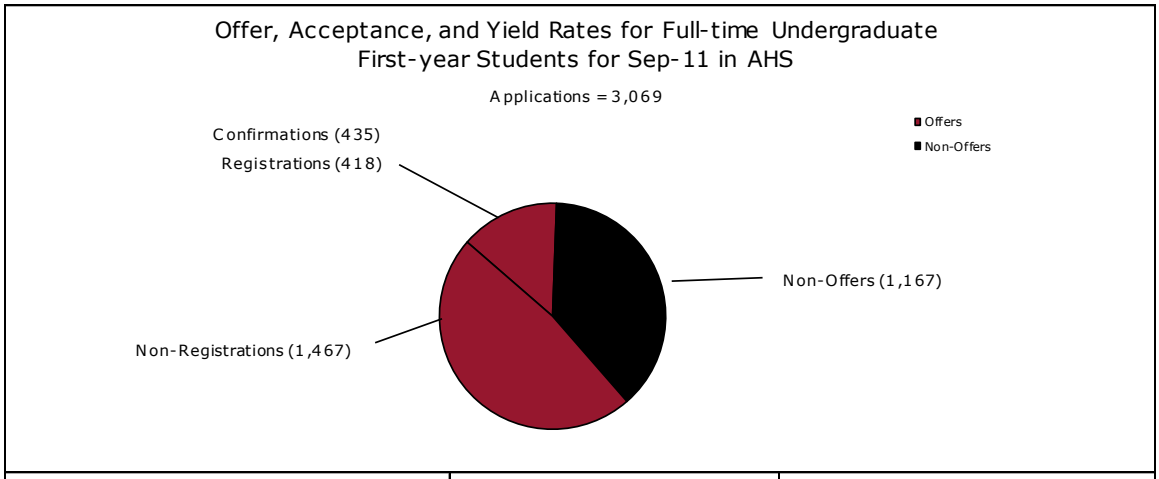
1.4 OFFER, ACCEPTANCE, AND YIELD RATES

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.

Figures 1.4.A through Figure 1.4.H show three recent years of application[18] 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.

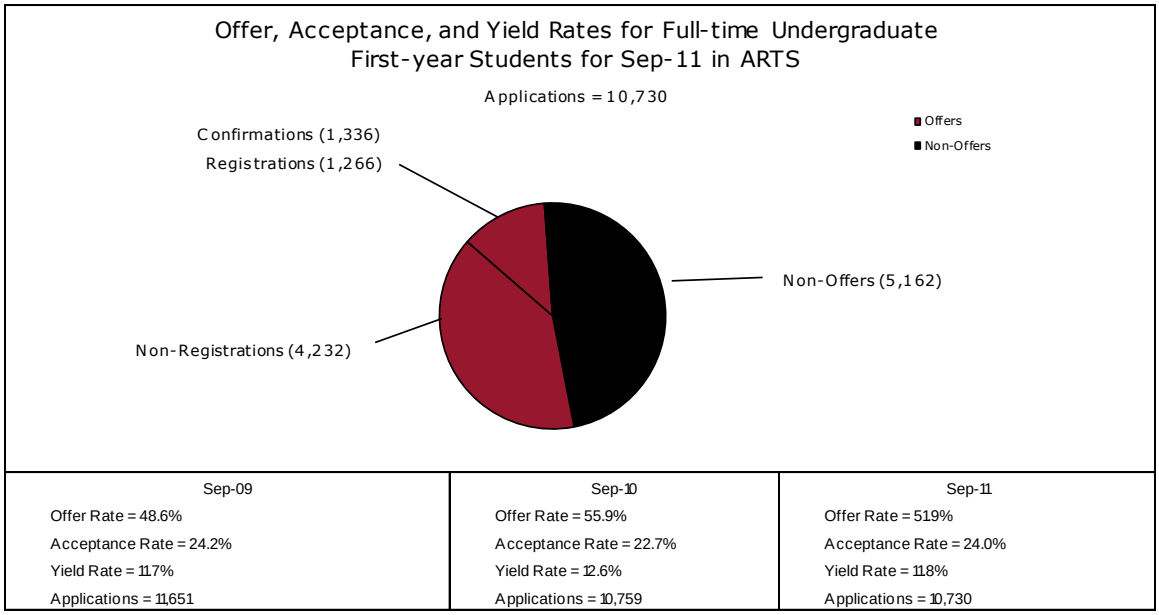
Figure 1.4.A



Sep-09	Sep-10	Sep-11
Offer Rate = 54.6%	Offer Rate = 64.9%	Offer Rate = 62.0%
Acceptance Rate = 25.0%	Acceptance Rate = 25.1%	Acceptance Rate = 22.9%
Yield Rate = 13.7%	Yield Rate = 16.1%	Yield Rate = 13.6%
Applications = 2,945	Applications = 2,760	Applications = 3,069

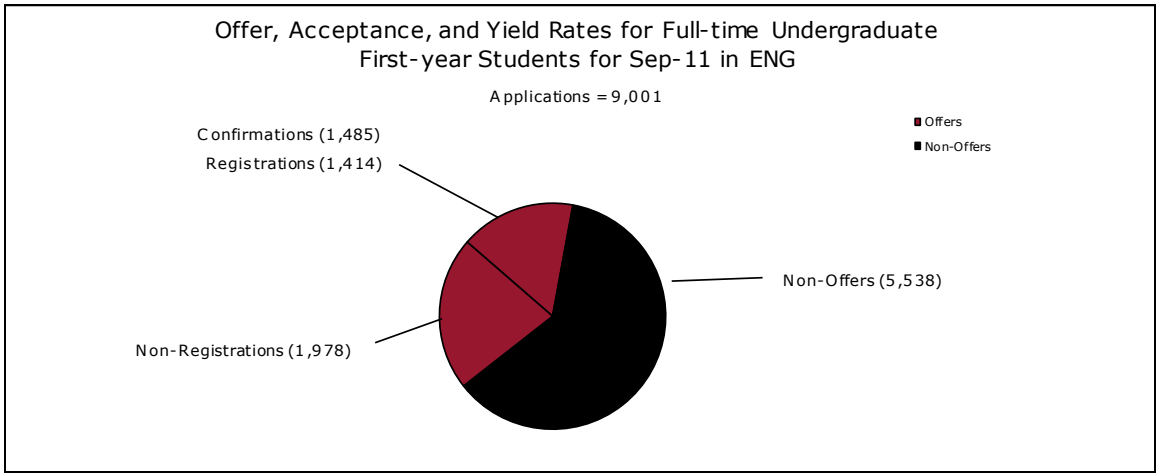
[18] Count of applications includes students applying for the Sep-11 term and then registering in the Sep-11 term.

Figure 1.4.B



Sep-09	Sep-10	Sep-11
Offer Rate = 48.6%	Offer Rate = 55.9%	Offer Rate = 51.9%
Acceptance Rate = 24.2%	Acceptance Rate = 22.7%	Acceptance Rate = 24.0%
Yield Rate = 11.7%	Yield Rate = 12.6%	Yield Rate = 11.8%
Applications = 11,651	Applications = 10,759	Applications = 10,730

Figure 1.4.C



Sep-09	Sep-10	Sep-11
Offer Rate = 39.4%	Offer Rate = 45.2%	Offer Rate = 38.5%
Acceptance Rate = 40.2%	Acceptance Rate = 40.2%	Acceptance Rate = 42.9%
Yield Rate = 15.6%	Yield Rate = 17.9%	Yield Rate = 15.7%
Applications = 8,307	Applications = 8,060	Applications = 9,001

Figure 1.4.D

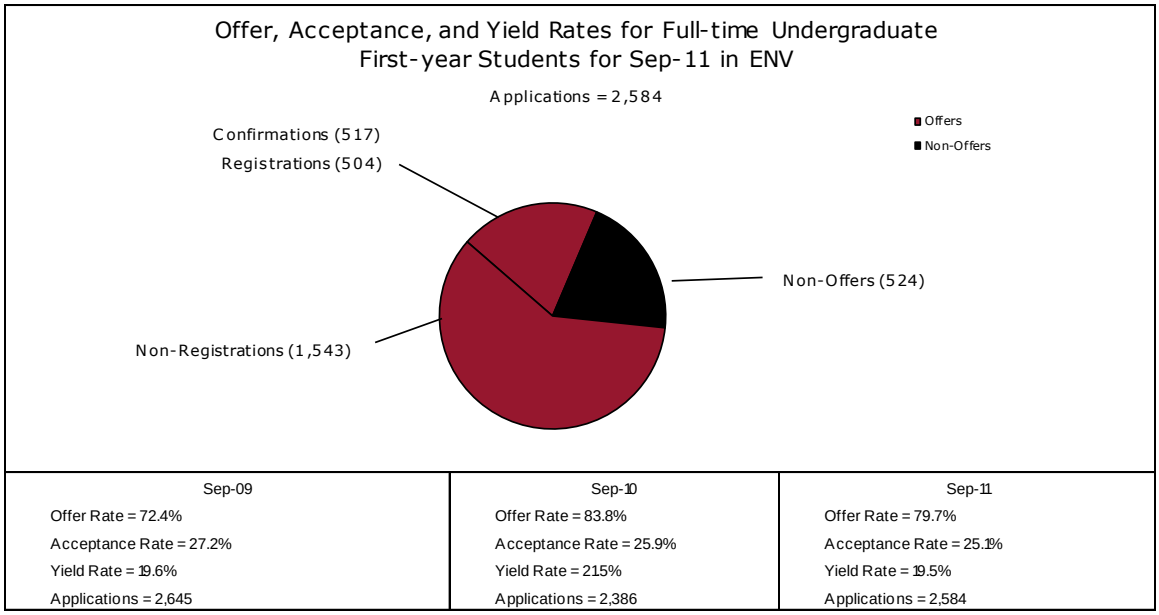


Figure 1.4.E

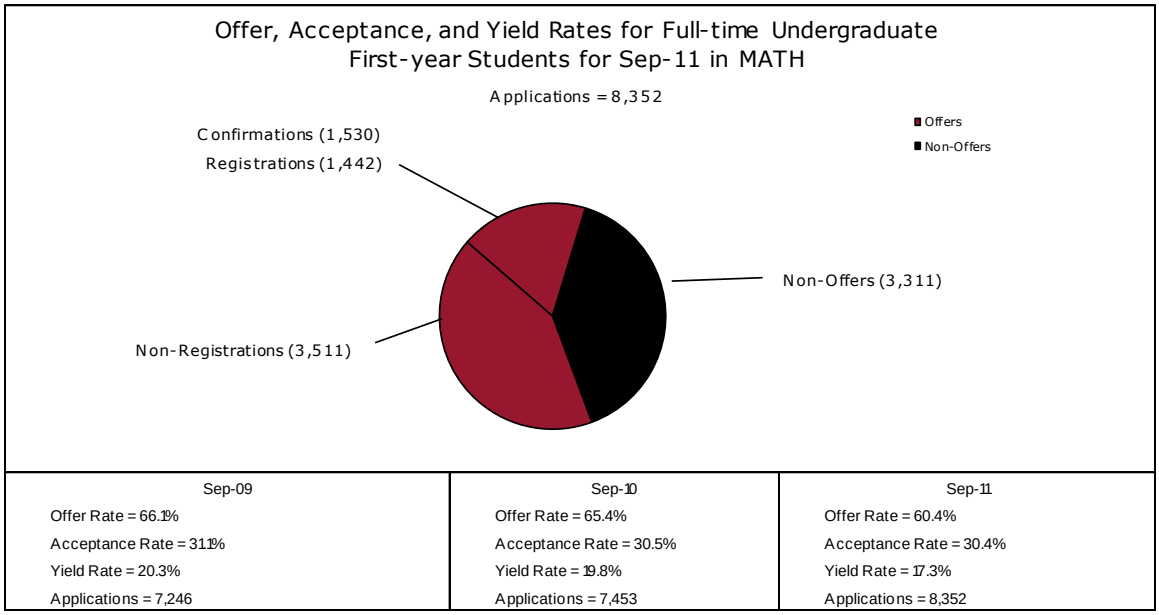
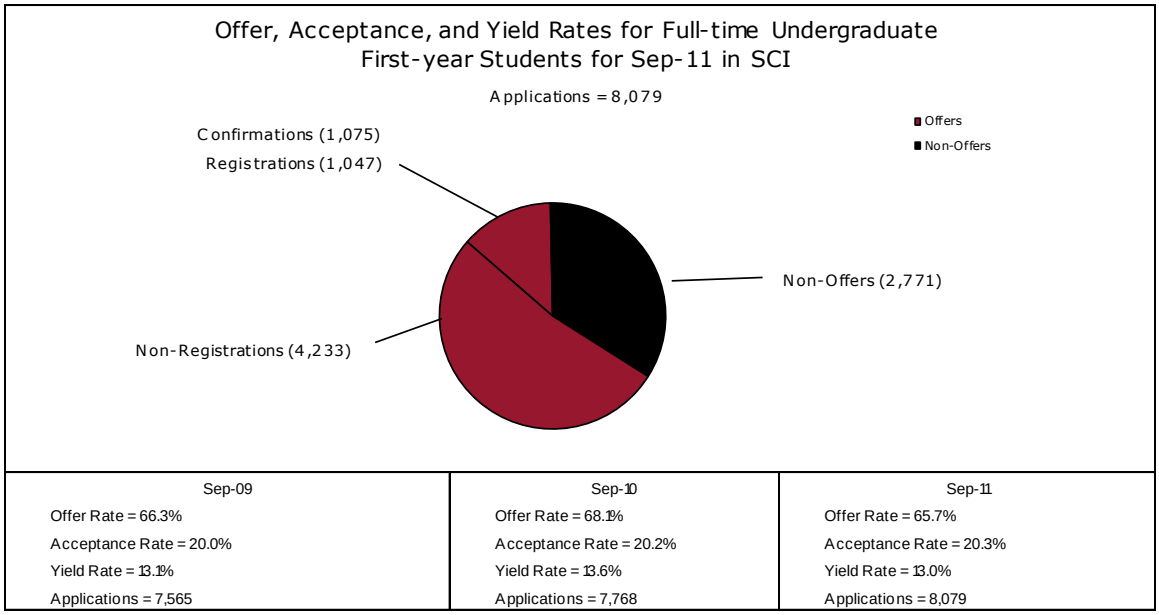
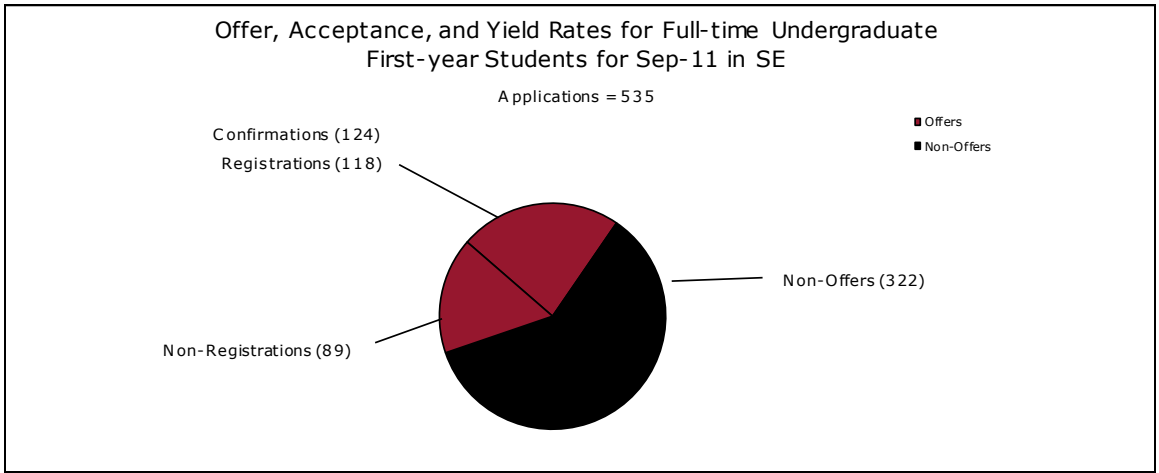


Figure 1.4.F



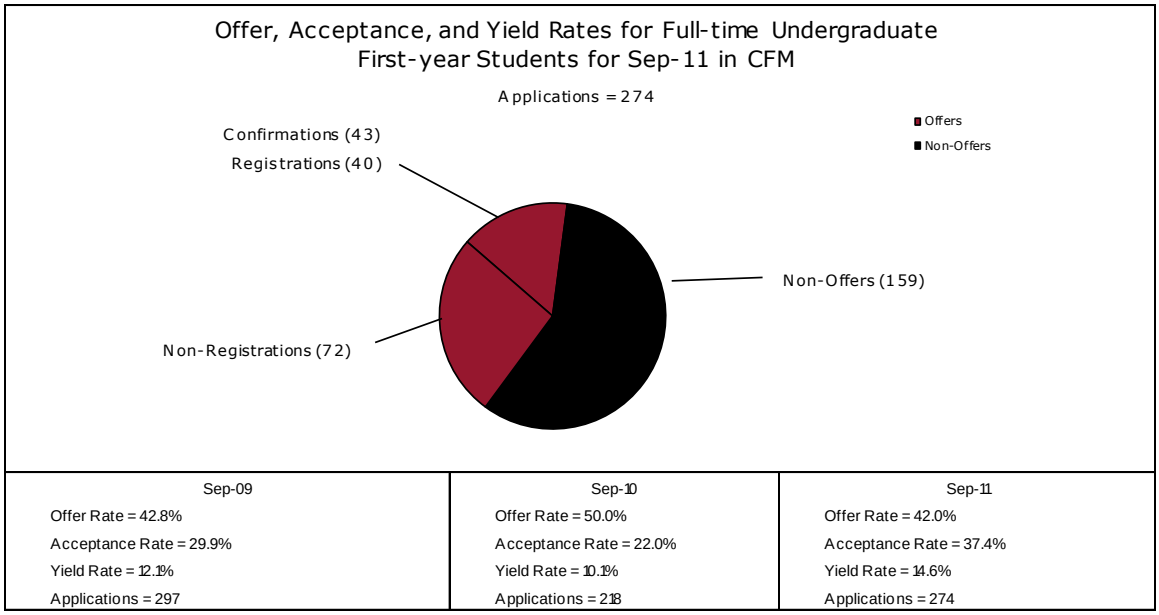
Sep-09	Sep-10	Sep-11
Offer Rate = 66.3%	Offer Rate = 68.1%	Offer Rate = 65.7%
Acceptance Rate = 20.0%	Acceptance Rate = 20.2%	Acceptance Rate = 20.3%
Yield Rate = 13.1%	Yield Rate = 13.6%	Yield Rate = 13.0%
Applications = 7,565	Applications = 7,768	Applications = 8,079

Figure 1.4.G



Sep-09	Sep-10	Sep-11
Offer Rate = 47.2%	Offer Rate = 42.0%	Offer Rate = 39.8%
Acceptance Rate = 57.8%	Acceptance Rate = 62.6%	Acceptance Rate = 58.2%
Yield Rate = 26.8%	Yield Rate = 25.7%	Yield Rate = 22.1%
Applications = 422	Applications = 502	Applications = 535

Figure 1.4.H



Sep-09	Sep-10	Sep-11
Offer Rate = 42.8%	Offer Rate = 50.0%	Offer Rate = 42.0%
Acceptance Rate = 29.9%	Acceptance Rate = 22.0%	Acceptance Rate = 37.4%
Yield Rate = 12.1%	Yield Rate = 10.1%	Yield Rate = 14.6%
Applications = 297	Applications = 218	Applications = 274

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[19]

Geographic Distribution of First-year, Undergraduate Registrants as Reported by City of School Last Attended Sep-11

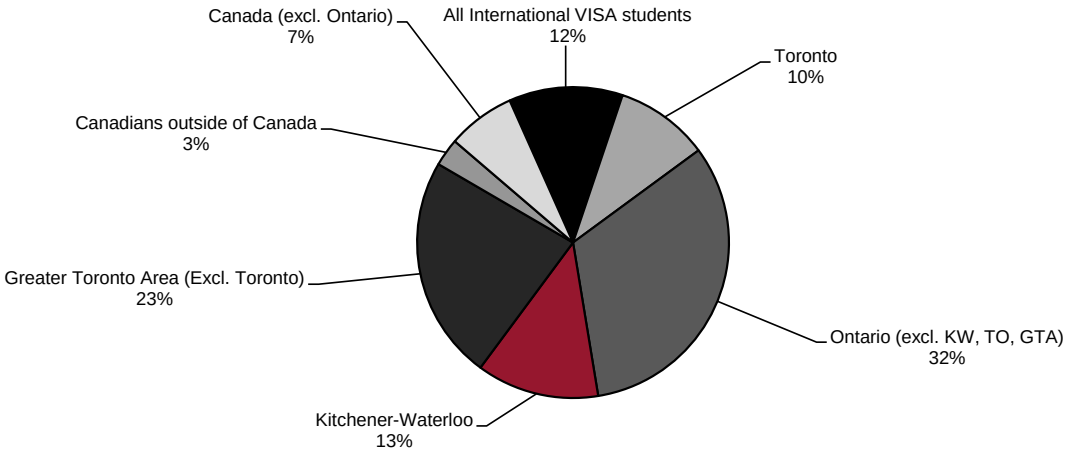
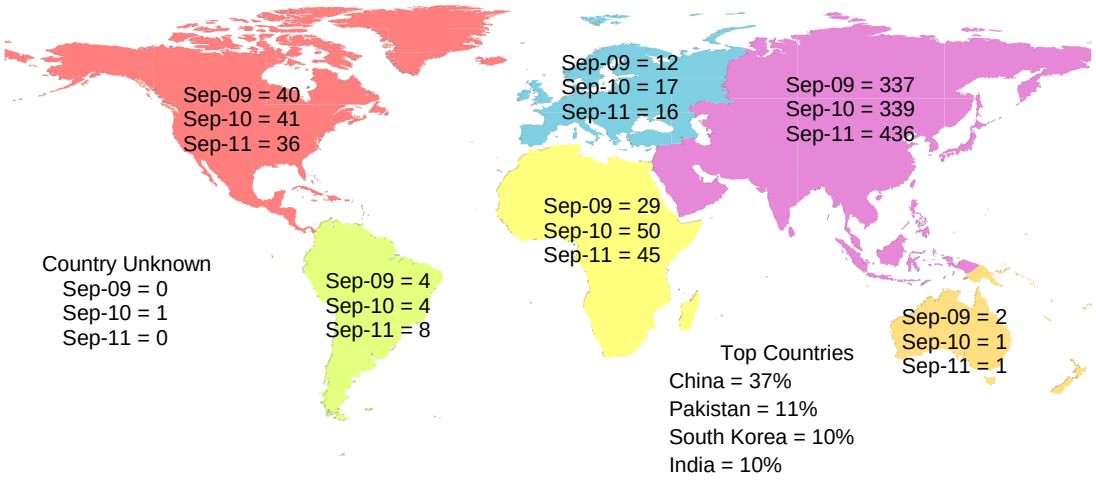


Figure 1.5.B[20]

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



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

[20] 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.

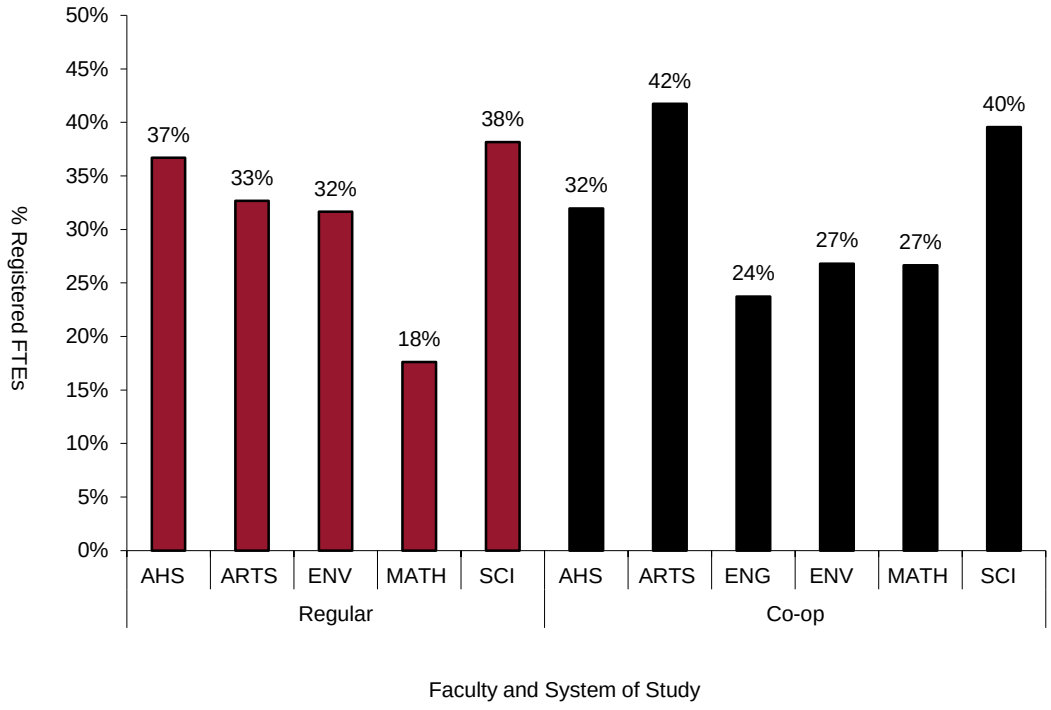
1.6 OSAP PARTICIPATION

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 Figure 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, the University of Waterloo guarantees to fund any 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

% Registered Undergraduate FTE Students Receiving OSAP 2010/11[21]



[21] 2010/11 includes fall 2010, winter 2011, and spring 2011.

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

Average OSAP per Undergraduate FTE Student 2010/11

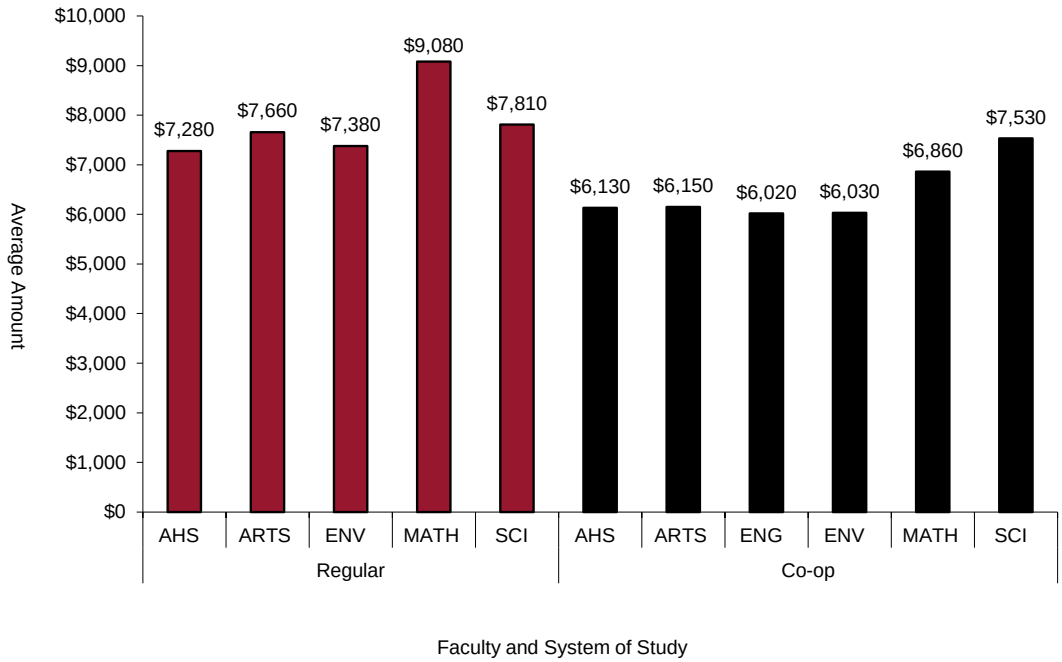


Figure 1.6.C

Financial Support to Undergraduate Regular FTE Students 2010/11								
Faculty	OSAP	Grants	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$2,355,987	$516,354	$129,525	$125,900	$116,260	$3,244,026	$8,331	44%
ARTS	$12,753,046	$3,043,046	$656,002	$783,425	$573,892	$17,809,412	$8,822	40%
ENV	$2,193,468	$515,028	$168,550	$139,100	$104,831	$3,120,977	$8,633	38%
MATH	$4,505,647	$1,052,037	$1,491,198	$566,350	$225,457	$7,840,688	$8,766	31%
SCI	$9,313,832	$2,125,944	$606,925	$518,000	$459,227	$13,023,928	$9,036	46%

Figure 1.6.D

Financial Support to Undergraduate Co-op FTE Students 2010/11								
Faculty	OSAP	Grants	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$1,529,544	$385,041	$330,275	$169,650	$233,520	$2,648,030	$7,223	46%
ARTS	$4,375,791	$1,149,490	$1,069,729	$1,843,063	$894,003	$9,332,075	$9,783	53%
ENG	$6,904,393	$1,791,165	$4,397,744	$3,554,163	$1,530,472	$18,177,937	$8,244	45%
ENV	$1,666,748	$541,275	$520,700	$189,500	$246,691	$3,164,913	$7,431	40%
MATH	$6,005,234	$1,712,569	$2,859,929	$1,603,225	$1,495,157	$13,676,114	$8,812	46%
SCI	$4,058,991	$995,231	$541,132	$1,283,350	$335,916	$7,214,619	$9,560	53%

1.7 STUDENT ENGAGEMENT

Strategic planning in 2011/12 identified student engagement as a priority area for the University of Waterloo. The Student Success Office (SSO) is mandated to contribute to this priority, with responsibilities that include leading and coordinating various programs and initiatives that are student-focused, pervasive, and integrated across academic and academic support areas, and incorporating best practices in student development. In the fall of 2011, the Student Success Office (SSO) opened its doors in South Campus Hall on time and within budget with a mission to help students achieve success by fostering and supporting a fulfilling university experience.

Over the course of the next year, Student Success Office efforts will include scaling up programming for international students and expanding University 101 course delivery from a pilot phase to a full-scale delivery.

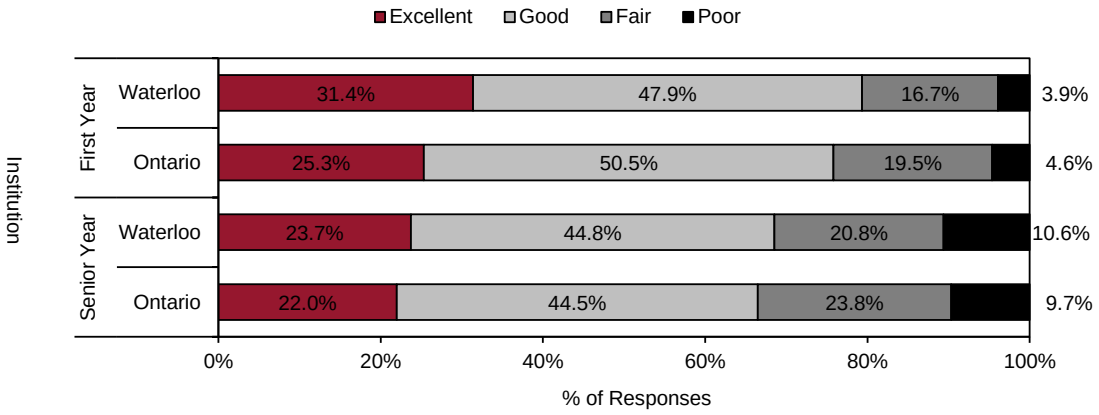
The National Survey of Student Engagement (NSSE), launched in 1999 by the Indiana University Center for Postsecondary Research with a mandate to investigate the relationship between student behaviour and educational success, contains additional measures of student engagement. Through hundreds of thousands 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.

The NSSE survey, run every three years, was most recently run in 2011. The following are examples of responses from the 2011 survey showing the results from both the University of Waterloo and the Ontario system for both first year and senior year undergraduate students.

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, uWaterloo 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[22]

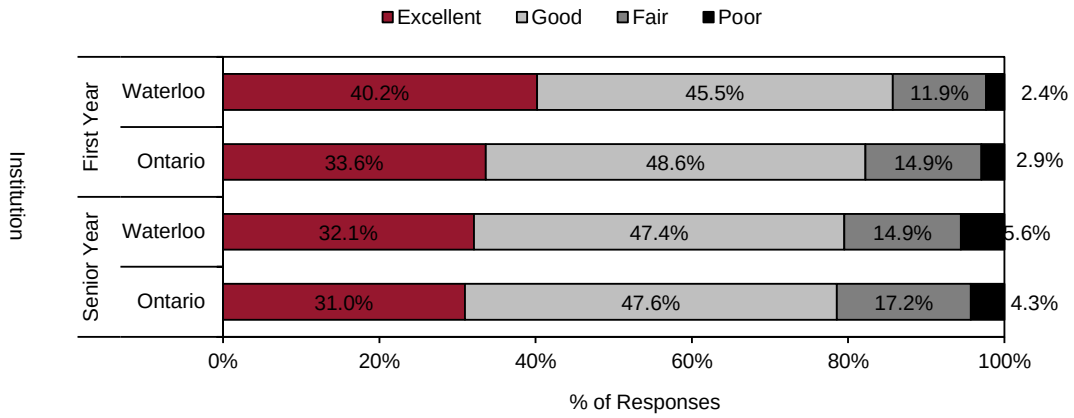
2011 NSSE: Overall, how would you evaluate the quality of academic advising you have received at your institution?



When asked to evaluate their entire educational experience at the University of Waterloo as shown in Figure 1.7.B, uWaterloo 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 40.2 per cent of first-year students and 32.1 per cent of graduating-year students giving us the highest possible response to this question.

Figure 1.7.B[23]

2011 NSSE: How would you evaluate your entire educational experience at this institution?



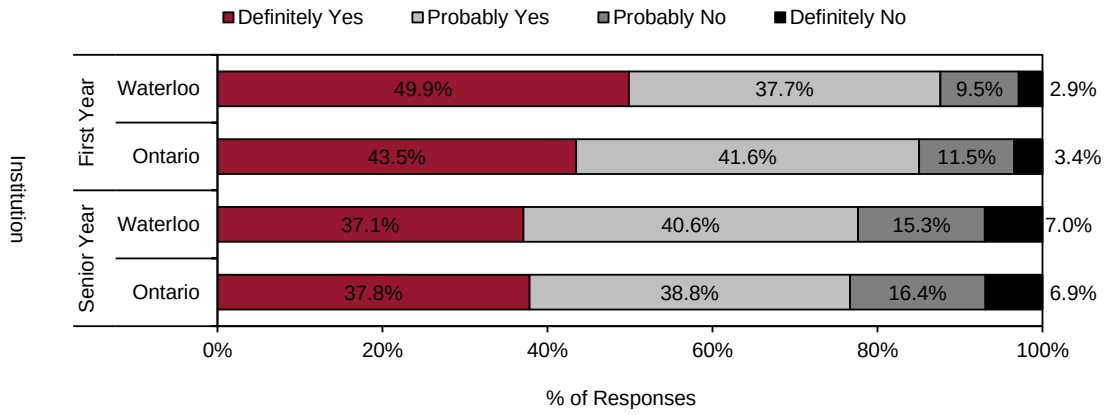
The choice of which institution to attend, for their post-secondary education, is one of the most important decisions many of our students ever make. Numerous factors weigh heavily when making that decision and Figure 1.7.C shows their response when asked if given the opportunity to start over again whether they would choose the same institution. Overall 87.6 per cent of our first-year students and 77.7 per cent of our graduating-year students responded that they would "Definitely" or "Probably" choose the University of

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

Waterloo again, as compared to 85.1 per cent of first-year students and 76.6 per cent of graduating-year students across Ontario.

Figure 1.7.C[24]

2011 NSSE: If you could start over again, would you go to the same institution you are now attending?



1.8 RETENTION, GRADUATION, DEGREES GRANTED, AND DEGREE DISTRIBUTION

Since 2006, the University of Waterloo has participated 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, the University of Waterloo is able to use the CSRDE results to help measure 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 1,100 (maximum 1,600) or ACT above 24 (maximum 36); Selective – SAT 1,045 to 1,100 or ACT 22.5 to 24; Moderately Selective – SAT 990 to 1,044 or ACT 21 to 22.4; Less Selective – SAT below 990 or ACT below 21.

Figure 1.8.A indicates that 90.4 per cent of uWaterloo's full-time, first-year students who entered into a first-entry undergraduate program in 2010 continued their studies in 2011. This is compared to an 87.7 per cent retention rate cited at highly selective public institutions.

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

Figure 1.8.A

Retention Rate Waterloo vs. Other North American Public Institutions by Selectivity of the 2010 Full-time First-year Cohort Continuing in their Studies in 2011

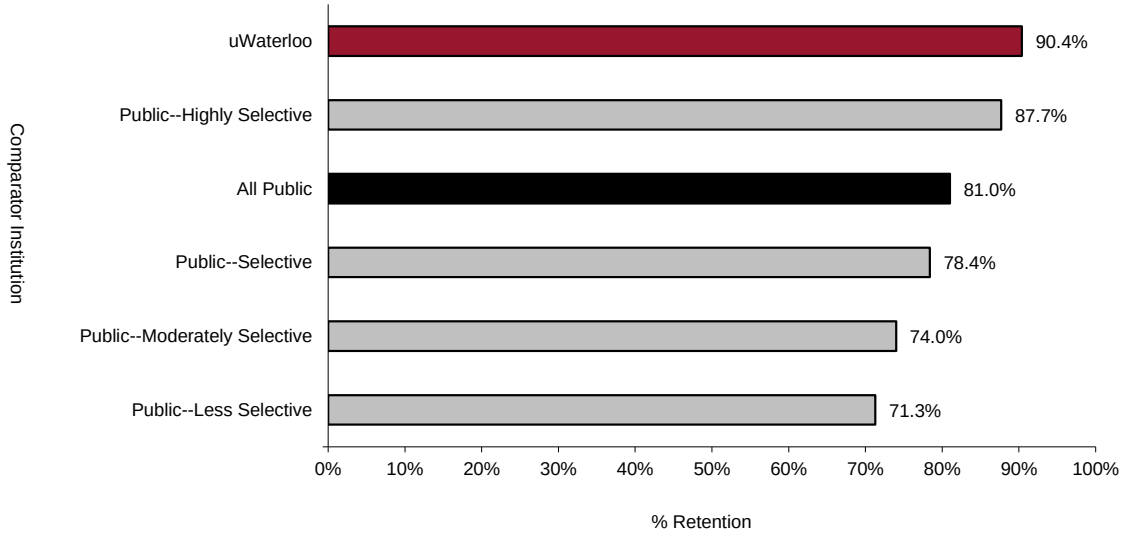
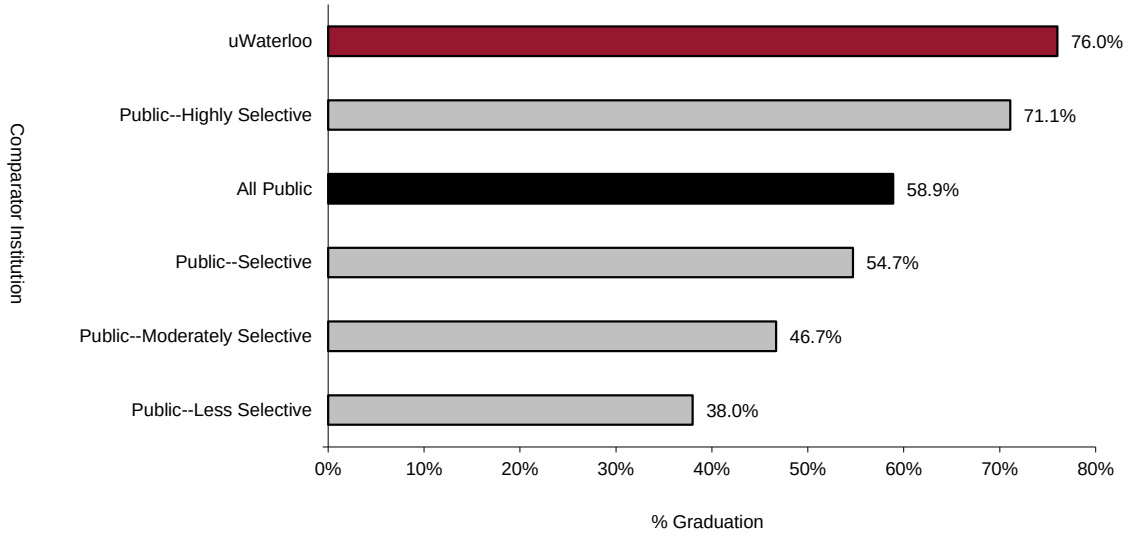


Figure 1.8.B

Six-year Graduation Rate Waterloo vs. Other North American Public Institutions by Selectivity of the 2005 Full-time First-time First-year Cohort Graduating by 2010

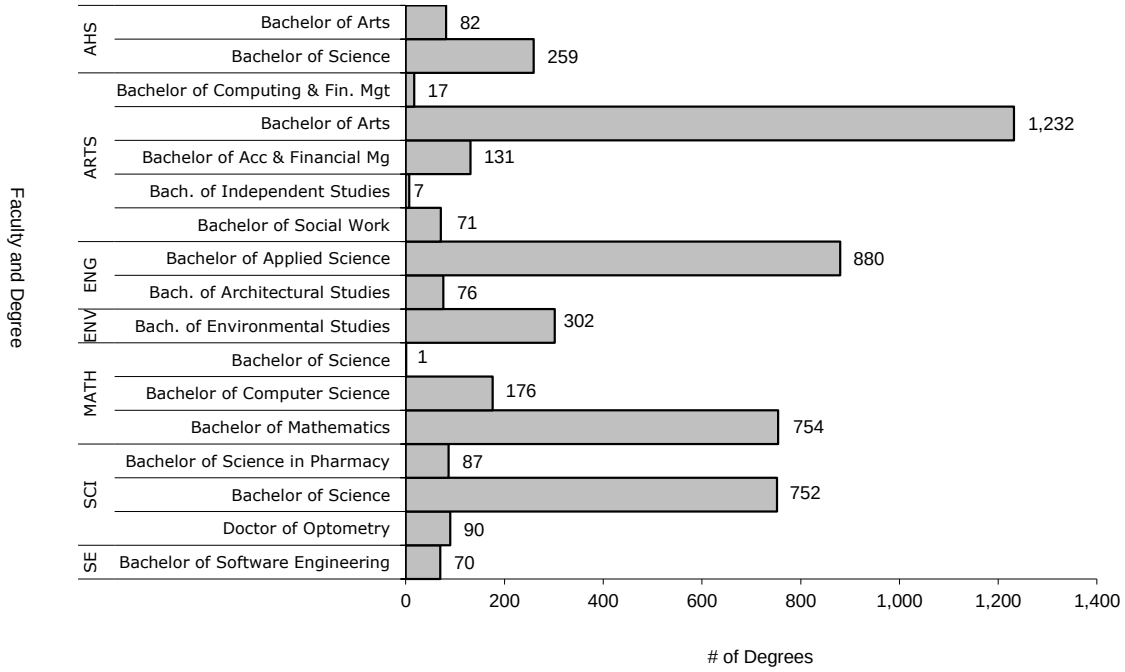


WATERLOO

Figure 1.8.C shows the number of undergraduate degrees conferred in 2011 by Faculty and the type of degree granted. In total, 4,987 undergraduate degrees were conferred in 2011.

Figure 1.8.C

Undergraduate Degrees Granted - 2011



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 uWaterloo Faculty, who are still studying, and those 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.

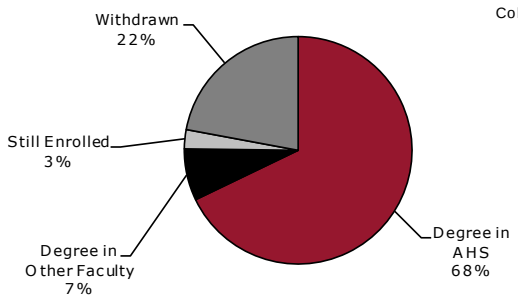
When the Ministry of Training, Colleges and Universities measures degree completion rates, it typically allows a six-year window for students in a four-year program to complete their degree. Since students in a co-operative program generally require an extra year to complete their academic studies, due to their work term employment, we typically allow a seven-year window. Hence, in Figures 1.8.D through 1.8.J[25], we look at degree completion in 2012 for the 2005/06 cohort. We also show the 2003/04 and 2004/05 cohorts for comparison.

[25] Percent graduated may not total to 100 percent due to rounding.

Figure 1.8.D

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in AHS

(Degree Completion as of June 2012)



2003/04	
Cohort Size	504
Degree in AHS	80.8%
Degree in Other Faculty	4.8%
Still Enrolled	1.0%
Withdrawn	13.5%

2004/05	
Cohort Size	371
Degree in AHS	66.6%
Degree in Other Faculty	10.2%
Still Enrolled	2.2%
Withdrawn	21.0%

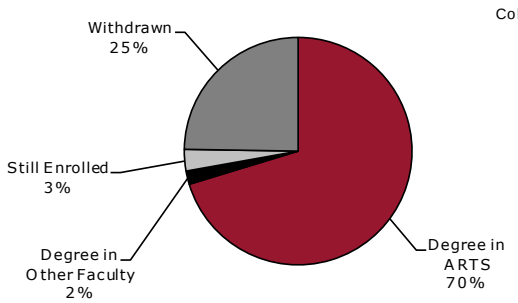
AHS
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.0%
5	0.2%
6	3.5%
7	6.4%
8	70.8%
9	12.6%
10	5.4%
>10	1.2%

Figure 1.8.E

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in ARTS

(Degree Completion as of June 2012)



2003/04	
Cohort Size	1,197
Degree in ARTS	74.5%
Degree in Other Faculty	1.4%
Still Enrolled	2.8%
Withdrawn	21.3%

2004/05	
Cohort Size	1,359
Degree in ARTS	66.7%
Degree in Other Faculty	1.8%
Still Enrolled	4.6%
Withdrawn	26.8%

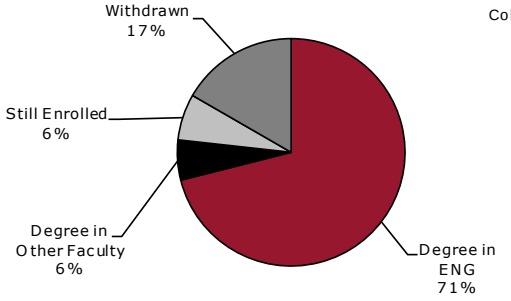
ARTS
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.7%
5	1.5%
6	11.3%
7	9.2%
8	53.9%
9	15.3%
10	5.4%
>10	2.8%

Figure 1.8.F

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in ENG

(Degree Completion as of June 2012)



Cohort Size = 1,140

2003/04	
Cohort Size	995
Degree in ENG	85.2%
Degree in Other Faculty	3.4%
Still Enrolled	3.8%
Withdrawn	7.5%

2004/05	
Cohort Size	1,110
Degree in ENG	72.1%
Degree in Other Faculty	3.7%
Still Enrolled	8.8%
Withdrawn	15.4%

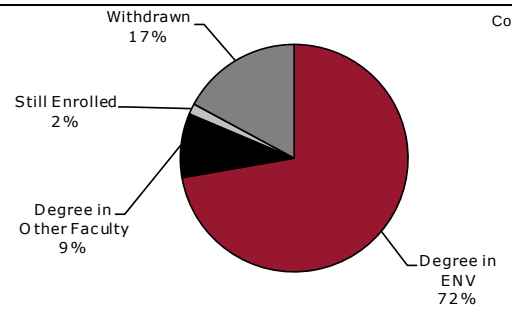
ENG
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.0%
5	0.0%
6	0.2%
7	1.4%
8	67.7%
9	25.7%
10	4.0%
>10	1.1%

Figure 1.8.G

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in ENV

(Degree Completion as of June 2012)



Cohort Size = 263

2003/04	
Cohort Size	351
Degree in ENV	72.4%
Degree in Other Faculty	7.7%
Still Enrolled	1.4%
Withdrawn	18.5%

2004/05	
Cohort Size	245
Degree in ENV	65.7%
Degree in Other Faculty	5.3%
Still Enrolled	2.4%
Withdrawn	26.5%

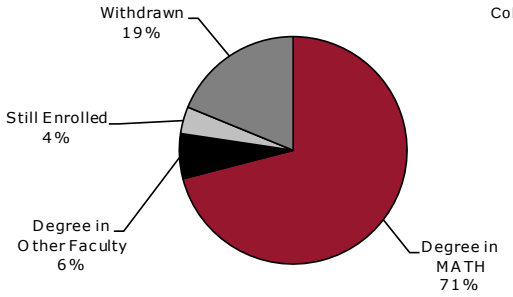
ENV
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.3%
5	0.6%
6	4.4%
7	8.8%
8	66.1%
9	14.4%
10	4.1%
>10	1.2%

Figure 1.8.H

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in MATH

(Degree Completion as of June 2012)



Cohort Size = 782

2003/04	
Cohort Size	1,098
Degree in MATH	75.4%
Degree in Other Faculty	5.9%
Still Enrolled	3.4%
Withdrawn	15.3%

2004/05	
Cohort Size	822
Degree in MATH	66.4%
Degree in Other Faculty	8.8%
Still Enrolled	3.8%
Withdrawn	21.0%

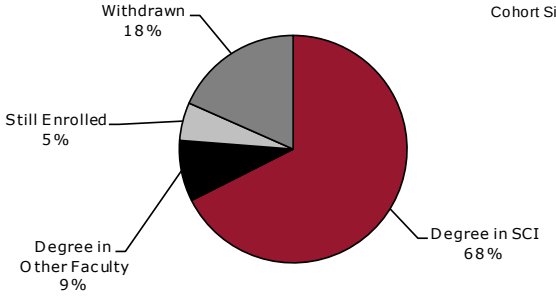
MATH
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.1%
5	0.3%
6	0.6%
7	3.8%
8	50.9%
9	29.8%
10	10.2%
>10	4.3%

Figure 1.8.I

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort in SCI

(Degree Completion as of June 2012)



Cohort Size = 610

2003/04	
Cohort Size	1,034
Degree in SCI	69.0%
Degree in Other Faculty	8.5%
Still Enrolled	4.4%
Withdrawn	18.1%

2004/05	
Cohort Size	703
Degree in SCI	61.0%
Degree in Other Faculty	11.1%
Still Enrolled	5.4%
Withdrawn	22.5%

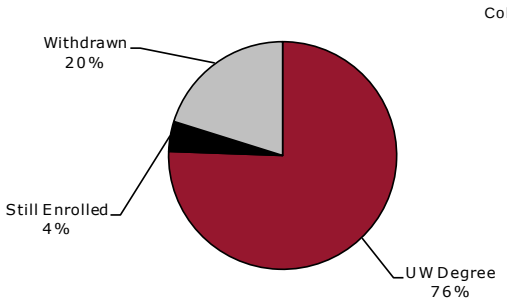
SCI
Three Year Average of Full-time Terms to Complete Degree

FT Terms	% Graduated
<=4	0.3%
5	0.2%
6	5.4%
7	4.5%
8	53.1%
9	20.9%
10	10.3%
>10	5.3%

Figure 1.8.J[26]

Degree Distribution of the 2005/06 Full-time, First-time, First-year Undergraduate Cohort for UW

(Degree Completion as of June 2012)



2002/03	
Cohort Size	5,282
UW Degree	81.4%
Still Enrolled	3.1%
Withdrawn	15.6%

2003/04	
Cohort Size	4,715
UW Degree	73.0%
Still Enrolled	5.2%
Withdrawn	21.8%

UW
Three 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%

[26] The degree completion rate here differs from that in Figure 1.8.B due to a difference in methodology and timing.

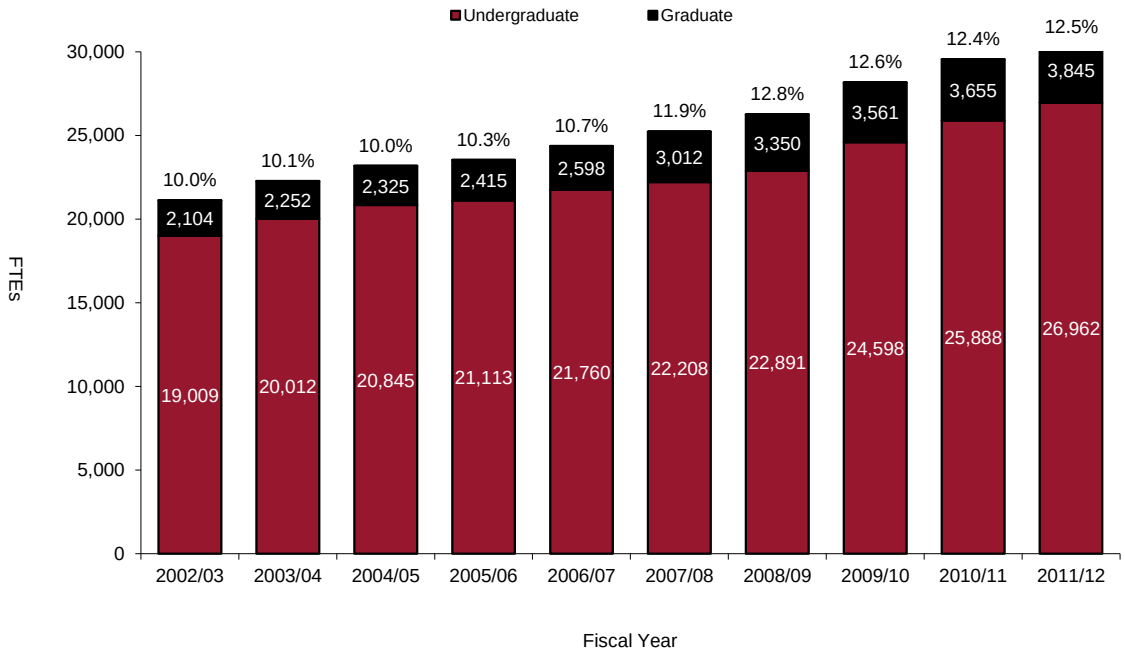
2. Graduate Studies

The University of Waterloo supports a proactive approach to innovative graduate education. 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

FTE Enrolment - Graduate and Undergraduate[27]



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

[27] Percentage of graduate students displayed.

Figure 2.1.B

Graduate FTE Enrolment[28] – 10-Year History

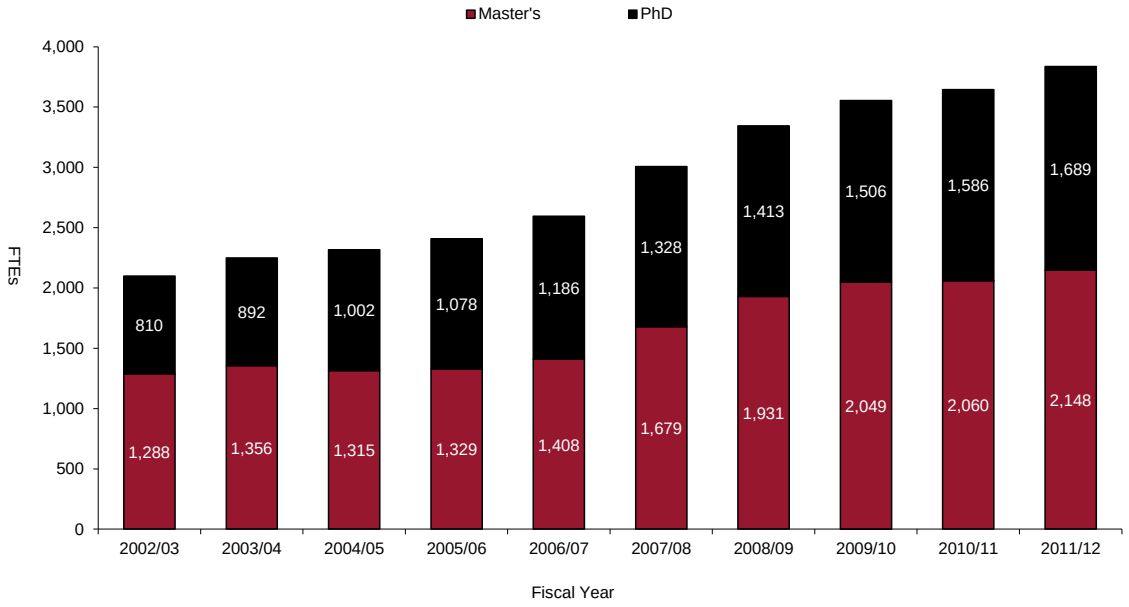
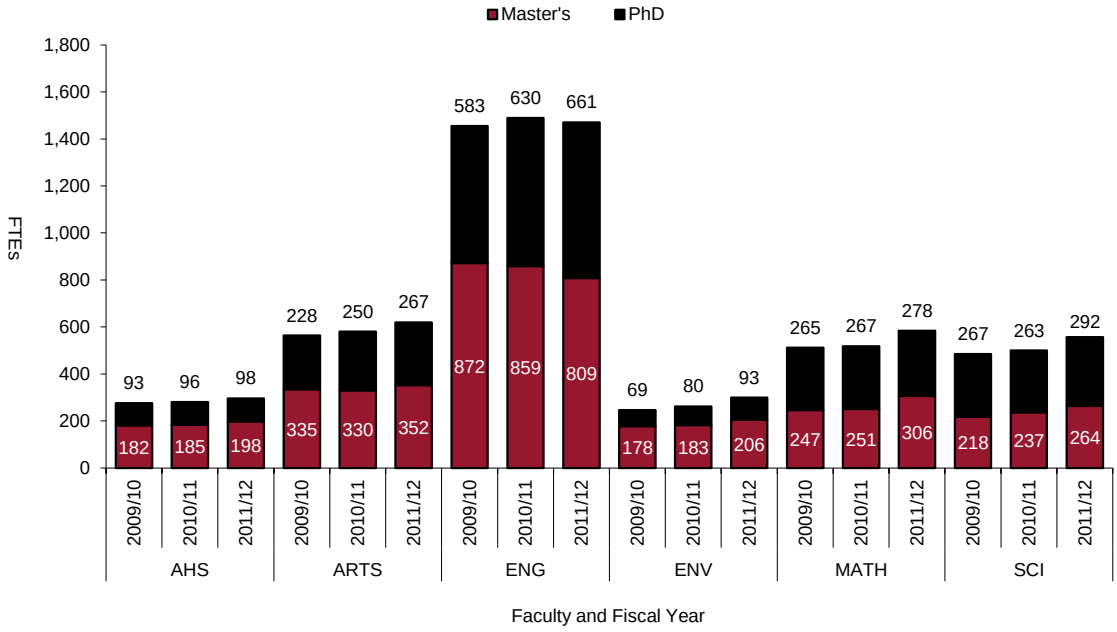


Figure 2.1.C

Graduate FTE Enrolment[29]

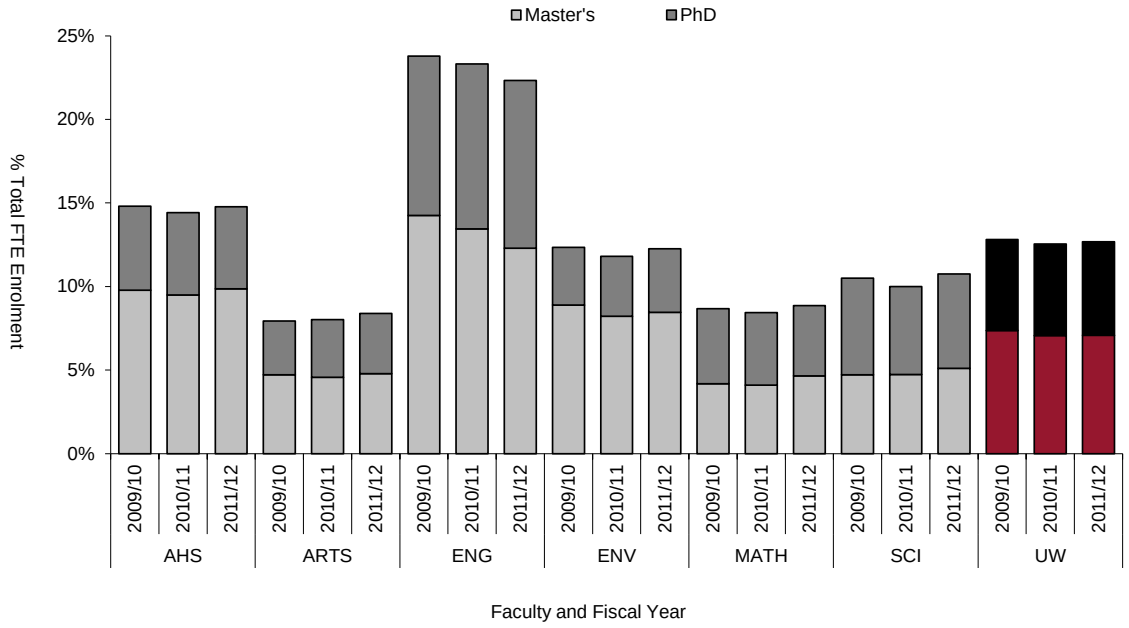


[28] Excludes non-degree programs (8.0 FTE in 2011/12).

[29] In 2011/12, there were 12.5 FTE enrolled in Theology and 8.0 FTE in non-degree programs that are not represented in the graph.

Figure 2.1.D

Graduate Student Enrolment as a % of Total Enrolment

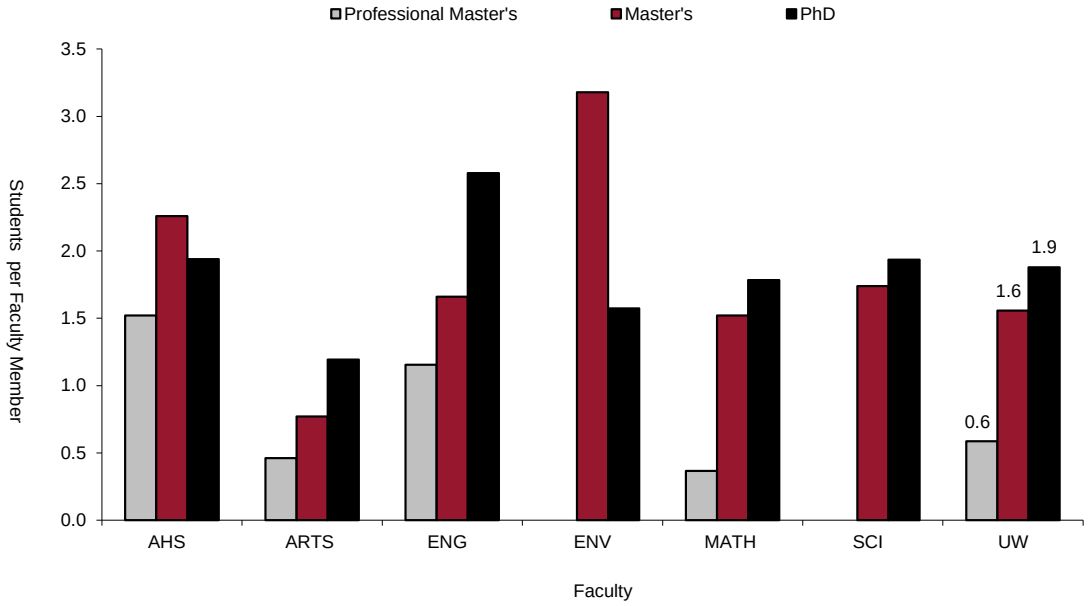


2.2 STUDENT TO FACULTY RATIO

The graduate student to faculty ratio is generally considered a reasonable indicator of the intensity of graduate education at universities. The ratios below are intended to represent the 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.

Figure 2.2.A[30]

Full-time, Degree-seeking Graduate Student to Tenure and Tenure-stream Faculty Ratio, Fall 2011



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 the Faculty of 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.

Figure 2.3.A and Figure 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. Over the past three years there has been an increase in both master's and doctoral level

[30] Professional master's programs at uWaterloo are defined by the Graduate Studies Office and include Accounting, Actuarial Science, Architecture, Digital Experience Innovation, Environment and Business, Health Informatics, Master of Engineering programs, Mathematics for Teachers, Public Health, Public Service, Quantitative Finance, Taxation, and Business, Entrepreneurship & Technology.

enrolment, particularly in the master's professional and part-time programs. Only a limited number of awards are available from Canada-wide sources to full-time domestic students in research programs at Canadian universities. Even with the increase in part-time master's enrolment, the total number of domestic awards held at uWaterloo did increase.

Figure 2.3.A

Percentage of FTE Master's Students (Canadian and Permanent Resident) with External Awards

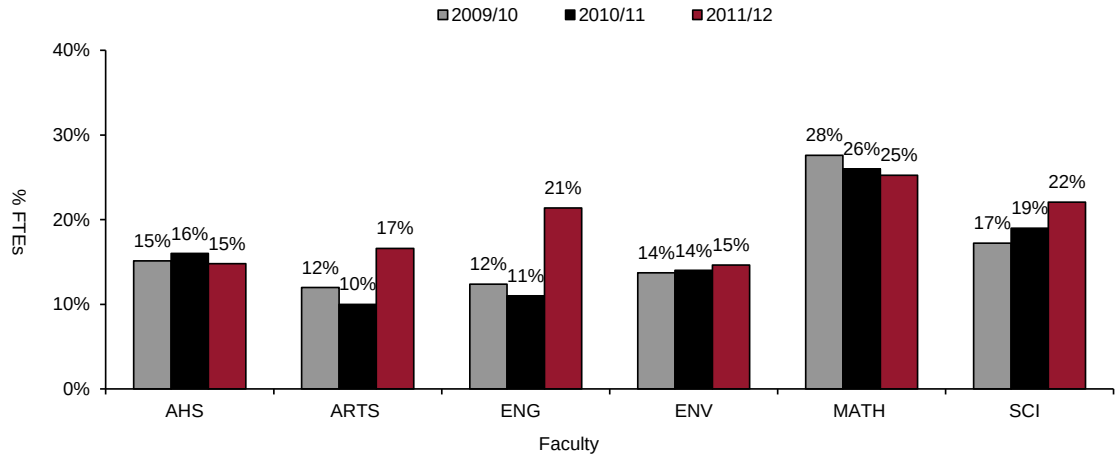
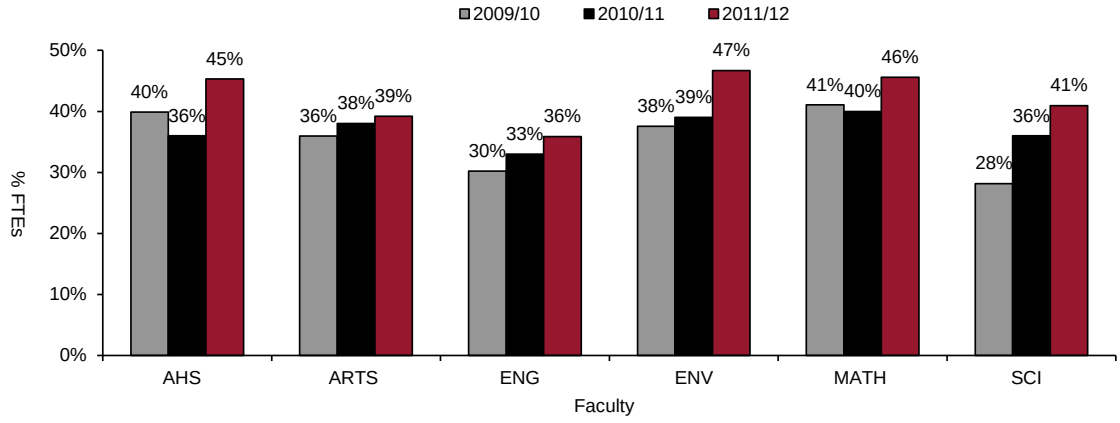


Figure 2.3.B

Percentage of FTE Doctoral Students (Canadian and Permanent Resident) with External Awards

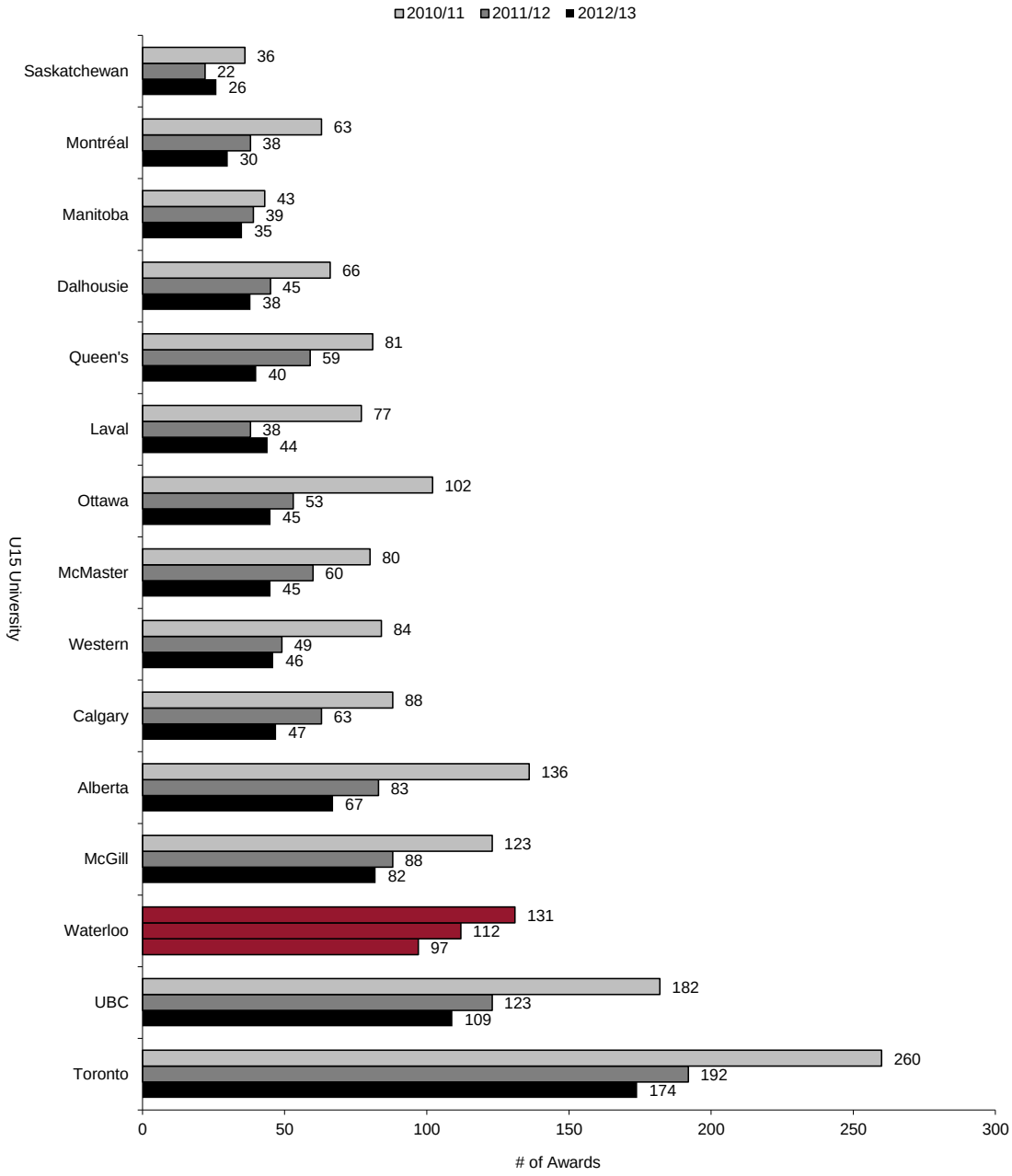


WATERLOO

Figure 2.3.C, below, shows Natural Sciences and Engineering Research Council (NSERC) postgraduate scholarships to uWaterloo students, including those who may attend graduate studies at other institutions, and similar data for those institutions in the U15.

Figure 2.3.C

NSERC Postgraduate Awards Offered by Year of Competition and U15 University

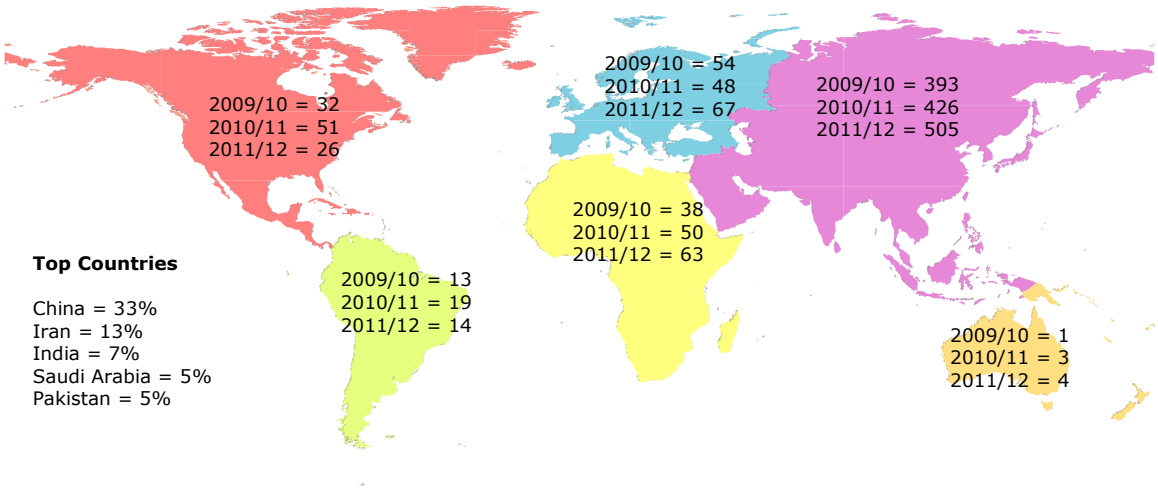


2.4 GEOGRAPHIC SOURCE

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[31]

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



2.5 GRADUATE APPLICATION, OFFER, AND YIELD RATES

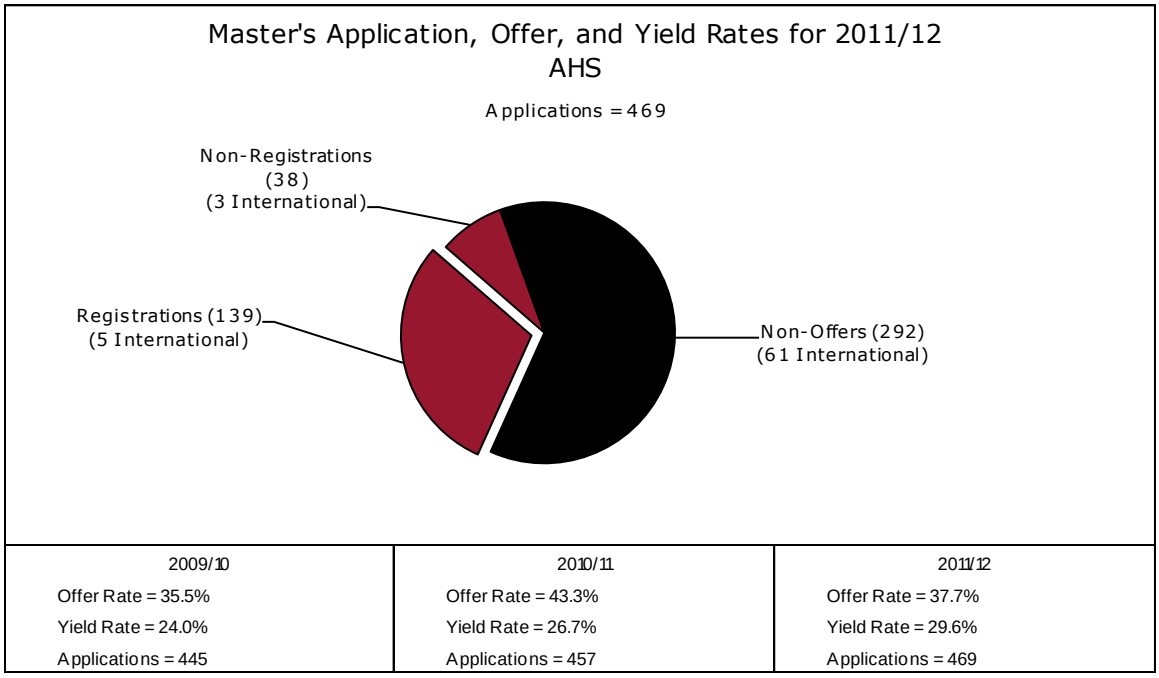
Admission to graduate studies is fundamentally different from the undergraduate programs, particularly in the area of offer and yield rates. Similar to the undergraduate case, we track the offer rate (number of offers versus number of applications), and the yield rate (number of registrations versus 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. Registrations, non-registrations, and non-offers totals (and international) are displayed for each level of study.

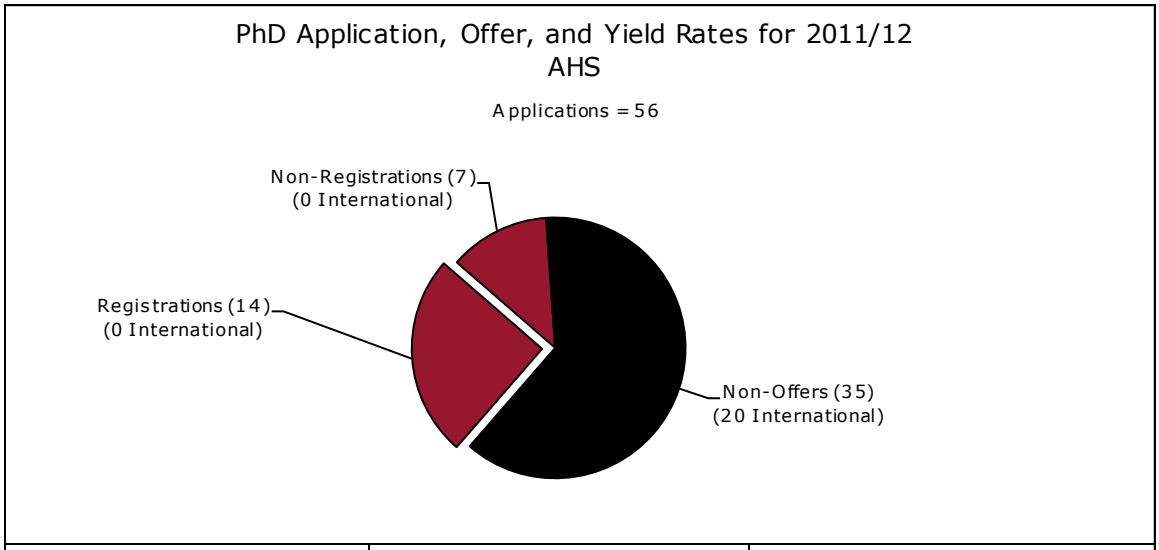
[31] Permanent Residents are not included in this chart because uWaterloo's definition of international involvement focuses more on students that have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental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

Figure 2.5.A



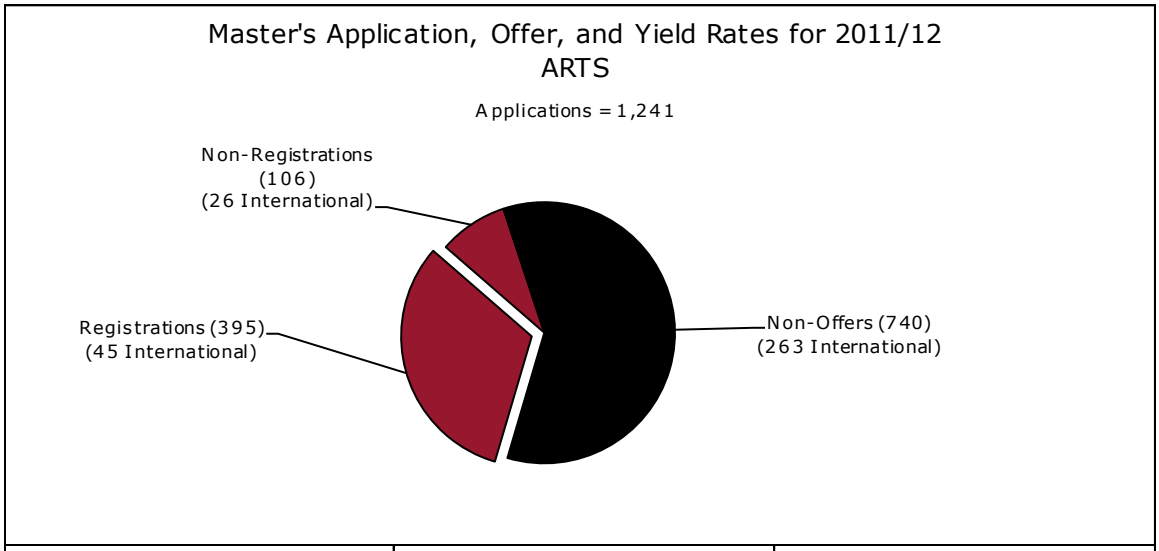
2009/10	2010/11	2011/12
Offer Rate = 35.5%	Offer Rate = 43.3%	Offer Rate = 37.7%
Yield Rate = 24.0%	Yield Rate = 26.7%	Yield Rate = 29.6%
Applications = 445	Applications = 457	Applications = 469

Figure 2.5.B



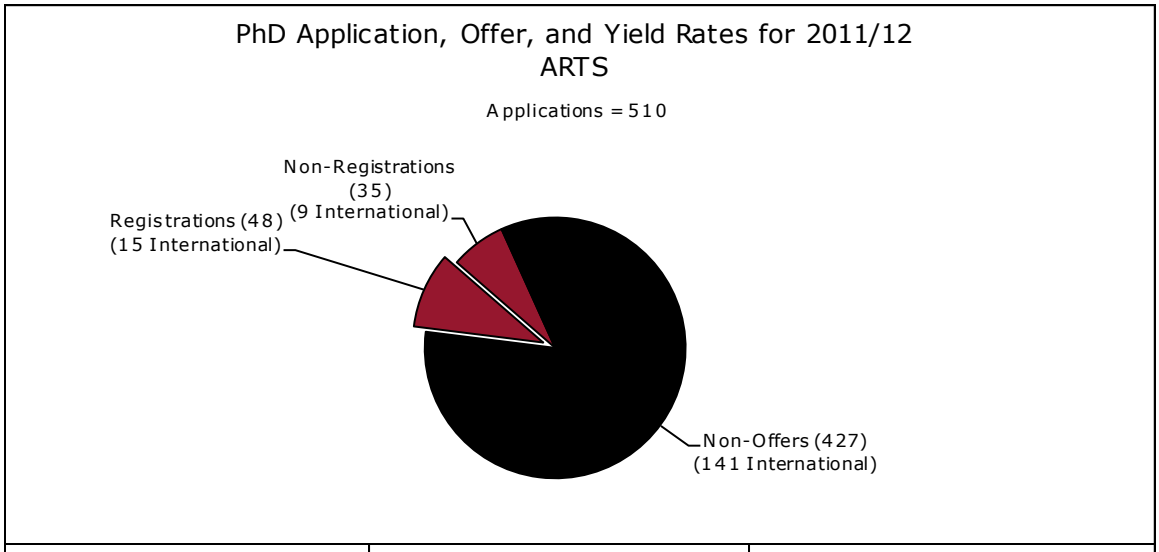
2009/10	2010/11	2011/12
Offer Rate = 55.4%	Offer Rate = 49.1%	Offer Rate = 37.5%
Yield Rate = 47.7%	Yield Rate = 36.4%	Yield Rate = 25.0%
Applications = 65	Applications = 55	Applications = 56

Figure 2.5.C



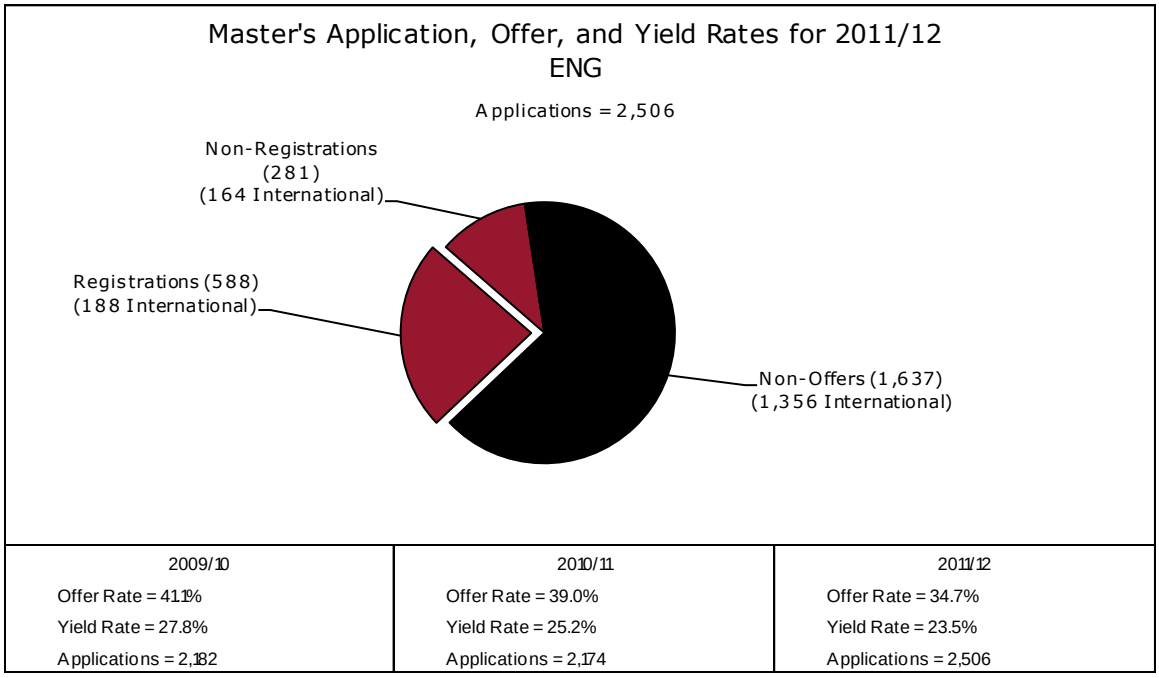
2009/10	2010/11	2011/12
Offer Rate = 41.1%	Offer Rate = 49.9%	Offer Rate = 40.4%
Yield Rate = 30.2%	Yield Rate = 34.6%	Yield Rate = 31.8%
Applications = 1,207	Applications = 1,088	Applications = 1,241

Figure 2.5.D



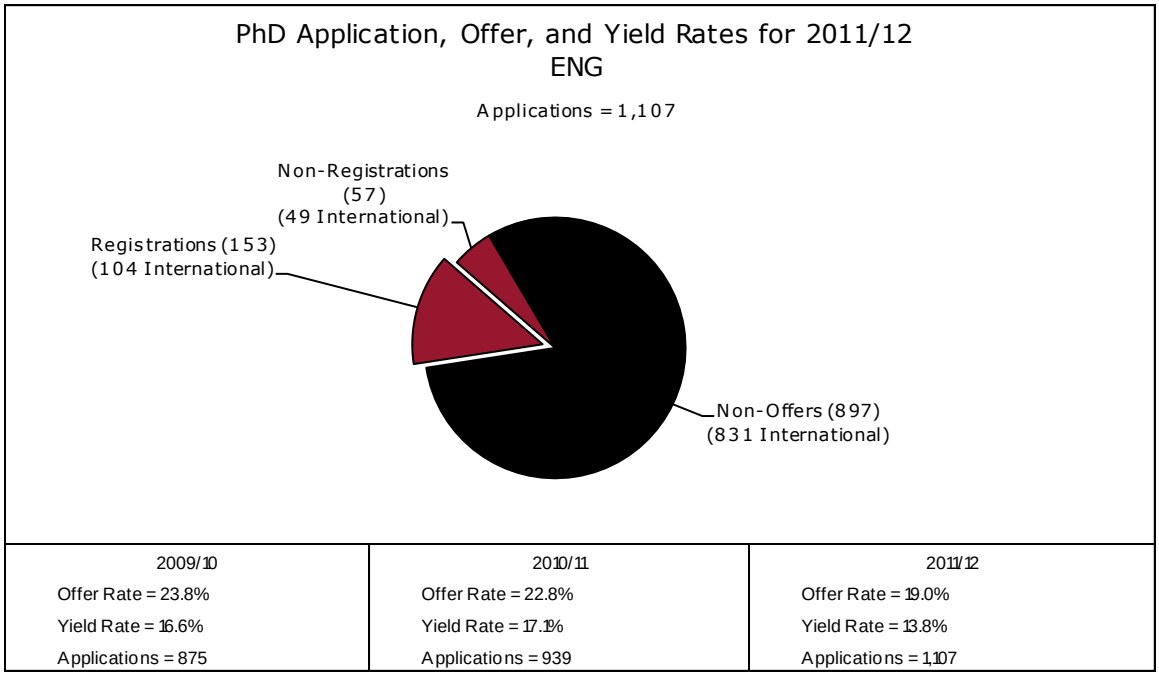
2009/10	2010/11	2011/12
Offer Rate = 17.0%	Offer Rate = 27.6%	Offer Rate = 16.3%
Yield Rate = 7.7%	Yield Rate = 10.4%	Yield Rate = 9.4%
Applications = 441	Applications = 460	Applications = 510

Figure 2.5.E



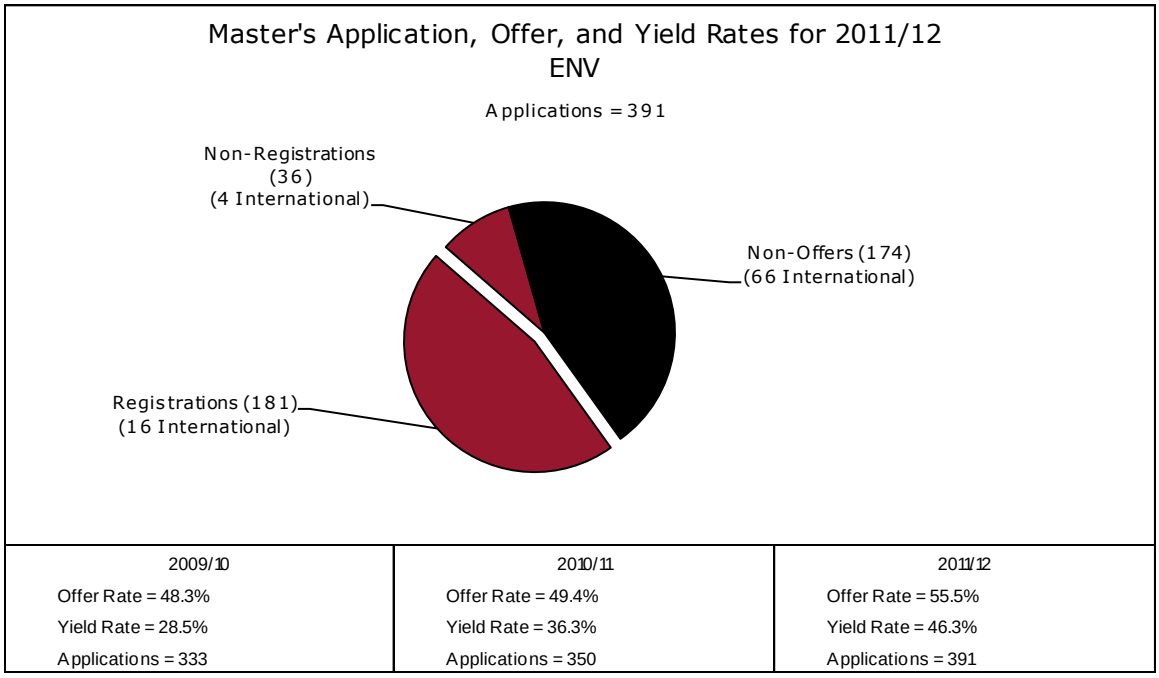
2009/10	2010/11	2011/12
Offer Rate = 41.1%	Offer Rate = 39.0%	Offer Rate = 34.7%
Yield Rate = 27.8%	Yield Rate = 25.2%	Yield Rate = 23.5%
Applications = 2,182	Applications = 2,174	Applications = 2,506

Figure 2.5.F



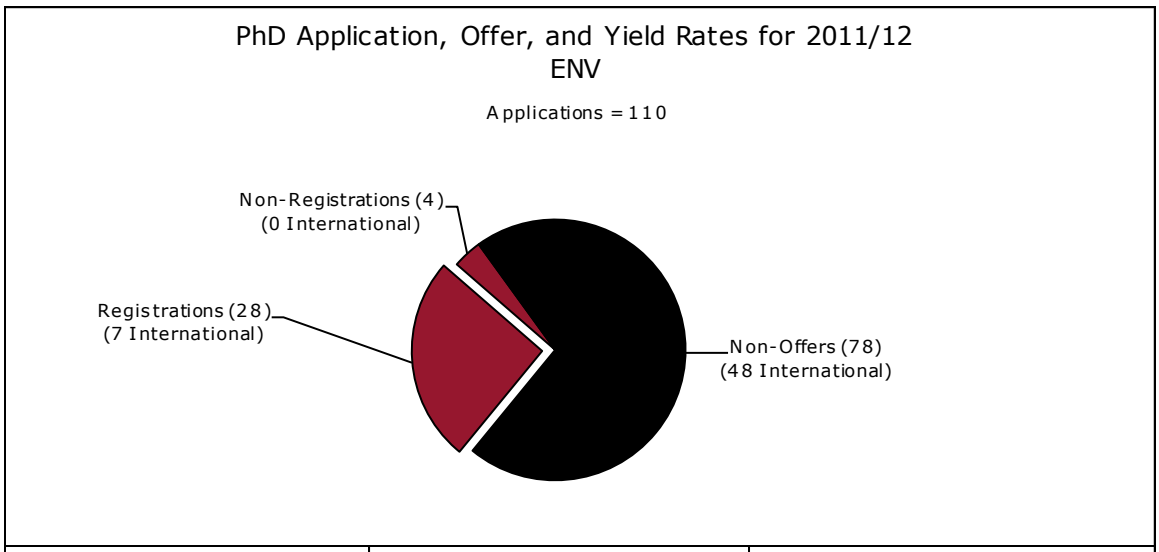
2009/10	2010/11	2011/12
Offer Rate = 23.8%	Offer Rate = 22.8%	Offer Rate = 19.0%
Yield Rate = 16.6%	Yield Rate = 17.1%	Yield Rate = 13.8%
Applications = 875	Applications = 939	Applications = 1,107

Figure 2.5.G



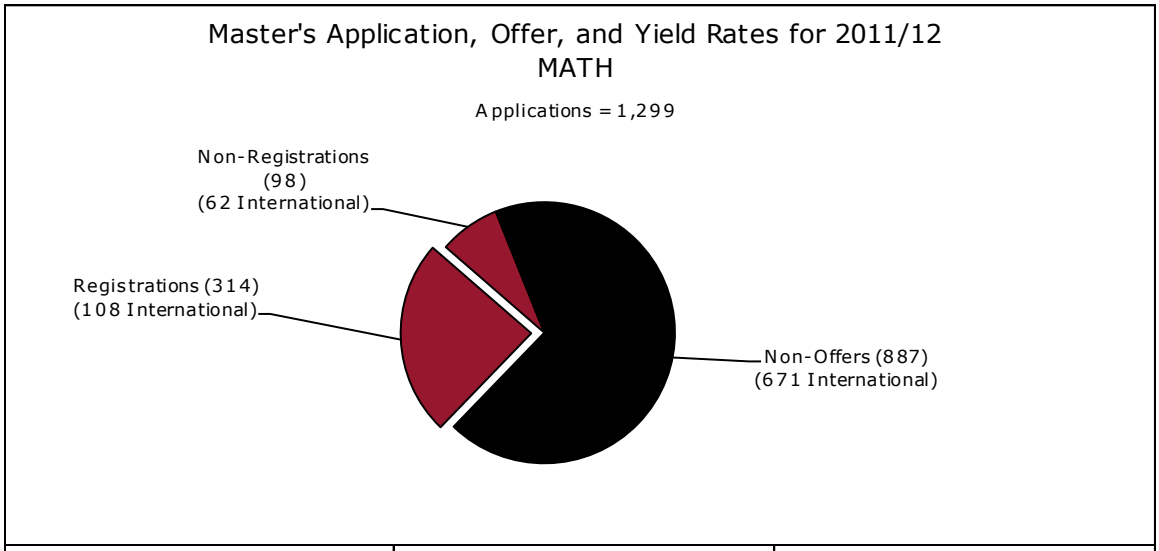
2009/10	2010/11	2011/12
Offer Rate = 48.3%	Offer Rate = 49.4%	Offer Rate = 55.5%
Yield Rate = 28.5%	Yield Rate = 36.3%	Yield Rate = 46.3%
Applications = 333	Applications = 350	Applications = 391

Figure 2.5.H



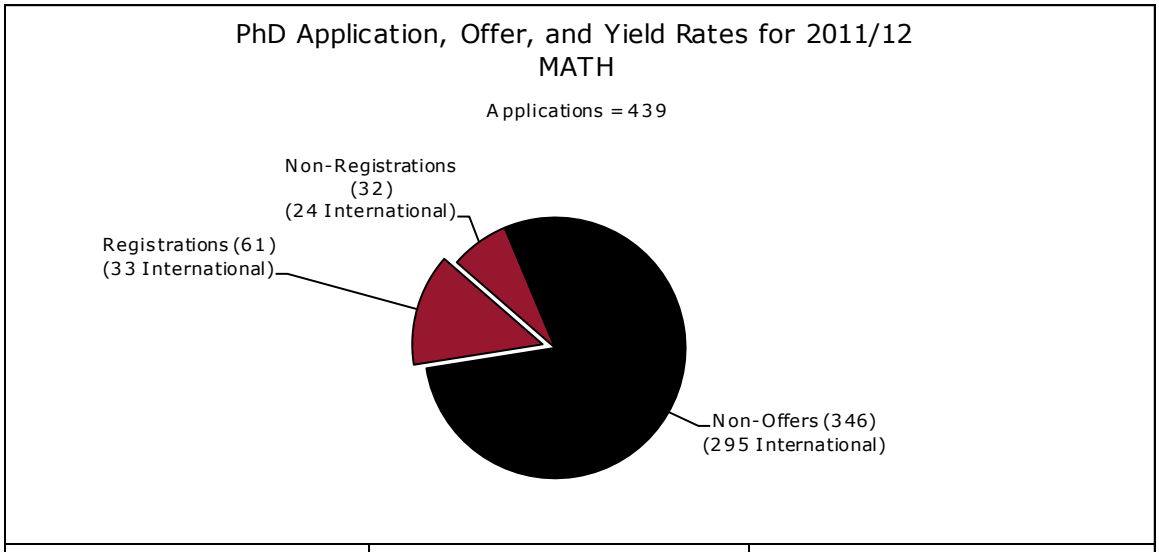
2009/10	2010/11	2011/12
Offer Rate = 39.2%	Offer Rate = 36.7%	Offer Rate = 29.1%
Yield Rate = 24.1%	Yield Rate = 27.6%	Yield Rate = 25.5%
Applications = 79	Applications = 98	Applications = 110

Figure 2.5.I



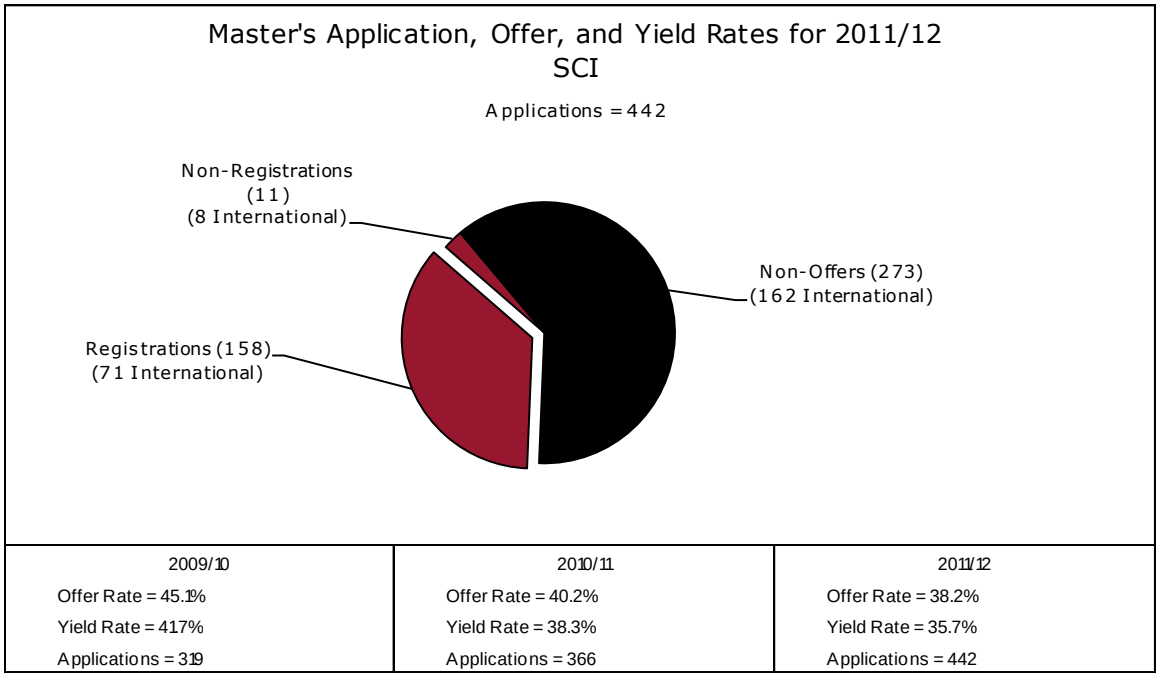
2009/10	2010/11	2011/12
Offer Rate = 31.0%	Offer Rate = 35.9%	Offer Rate = 31.7%
Yield Rate = 17.6%	Yield Rate = 21.0%	Yield Rate = 24.2%
Applications = 940	Applications = 1,151	Applications = 1,299

Figure 2.5.J



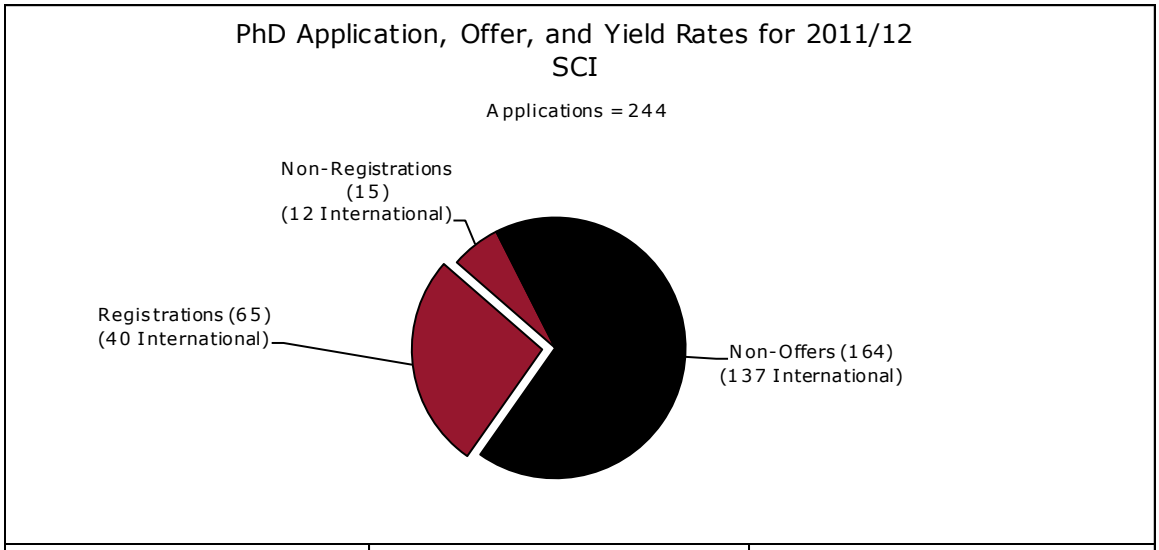
2009/10	2010/11	2011/12
Offer Rate = 27.9%	Offer Rate = 27.6%	Offer Rate = 21.2%
Yield Rate = 17.8%	Yield Rate = 12.5%	Yield Rate = 13.9%
Applications = 366	Applications = 352	Applications = 439

Figure 2.5.K



2009/10	2010/11	2011/12
Offer Rate = 45.1%	Offer Rate = 40.2%	Offer Rate = 38.2%
Yield Rate = 41.7%	Yield Rate = 38.3%	Yield Rate = 35.7%
Applications = 319	Applications = 366	Applications = 442

Figure 2.5.L



2009/10	2010/11	2011/12
Offer Rate = 31.1%	Offer Rate = 34.5%	Offer Rate = 32.8%
Yield Rate = 25.4%	Yield Rate = 28.1%	Yield Rate = 26.6%
Applications = 193	Applications = 171	Applications = 244

2.6 STUDENT SUPPORT

Graduate student support is provided in a number of ways, including scholarships ($41 million), remuneration for work as teaching assistants ($12 million) and as research assistants ($2 million) and graduate research studentships ($25 million). Graduate students are the third-largest pay group at uWaterloo, after faculty and staff.

The figures below display graduate student support for master's (research programs only) and doctoral students by Faculty and by type including teaching assistantships (TAs), research assistantships (RAs), research studentships (RSs), 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[32] and Figure 2.6.B[33] 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. uWaterloo graduate students received $88 million, up from $81 million in 2010/11.

Figure 2.6.A

Financial Support to Master's Students 2011/12 (thousands)							
	AHS	ARTS	ENG	ENV	MATH	SCI	Total
External Scholarships	$249	$407	$2,314	$409	$601	$1,133	$5,114
Internal Scholarships	$528	$1,237	$1,324	$841	$1,850	$2,393	$8,173
Teaching Assistantships	$552	$601	$1,175	$908	$1,546	$856	$5,638
Research Assistantships	$273	$46	$40	$262	$246	$148	$1,016
Research Studentships	$190	$25	$4,901	$282	$1,344	$2,466	$9,208
Other	$105	$564	$449	$259	$132	$183	$1,691
Total	$1,896	$2,881	$10,204	$2,962	$5,719	$7,179	$30,840
Average Support	$22	$20	$26	$21	$27	$29	$25
% FTEs Supported	91%	87%	92%	76%	93%	95%	90%

Figure 2.6.B

Financial Support to Doctoral Students 2011/12 (thousands)							
	AHS	ARTS	ENG	ENV	MATH	SCI	Total
External Scholarships	$920	$2,093	$4,839	$1,149	$2,295	$2,128	$13,423
Internal Scholarships	$602	$3,003	$4,389	$749	$3,081	$2,157	$13,981
Teaching Assistantships	$311	$1,191	$2,201	$363	$1,546	$1,004	$6,616
Research Assistantships	$197	$349	$176	$152	$290	$158	$1,324
Research Studentships	$223	$233	$9,240	$243	$2,352	$3,298	$15,590
Other	$219	$1,011	$886	$314	$343	$308	$3,080
Total	$2,472	$7,881	$21,732	$2,970	$9,906	$9,053	$54,014
Average Support	$30	$32	$34	$34	$37	$32	$34
% FTEs Supported	85%	92%	95%	93%	98%	97%	95%

[32] Total may not add up due to rounding (to the nearest $1,000); Master's research programs only.
[33] Total may not add up due to rounding (to the nearest $1,000).

2.7 GRADUATE STUDENT SATISFACTION

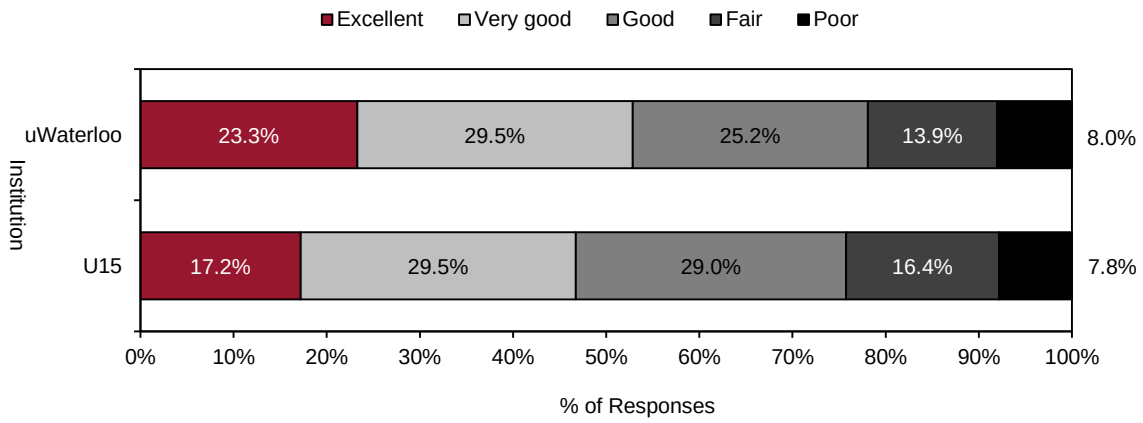
Like the National Survey of Student Engagement (NSSE) for undergraduates, the Canadian Graduate and Professional Student Survey (CGPSS) is designed to gather feedback from our graduate students about their educational experience at uWaterloo. The CGPSS asks students about their satisfaction with their experience at uWaterloo, 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 survey currently runs on a three-year cycle with our next anticipated participation in 2013.

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 uWaterloo. In 2007 and 2010 a number of peer institutions across Ontario and the majority of U15 universities from across Canada also participated, allowing us to compare our results with those of our peer institutions, and to identify areas where uWaterloo is excelling as well as issues and concerns for improvement or further investigation. 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 U15 with 52.8 per cent of our doctoral students responding with "Excellent" or "Very Good" as compared to 46.7 per cent of doctoral students across the U15. 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

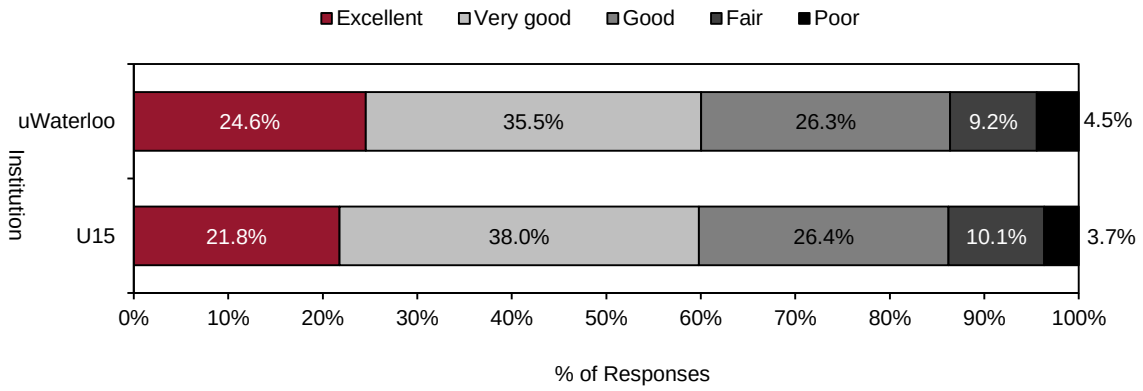
2010 CGPSS: Please rate the following dimensions of your program - quality of academic advising and guidance. (Doctoral Students)



When asked to evaluate their overall experience at uWaterloo, as shown in Figure 2.7.B, uWaterloo's results mirror those of the U15 very closely with 24.6 per cent responding with "Excellent", and 35.5 per cent with "Good", compared to 21.8 per cent and 38.0 per cent respectively from students at the U15 institutions.

Figure 2.7.B

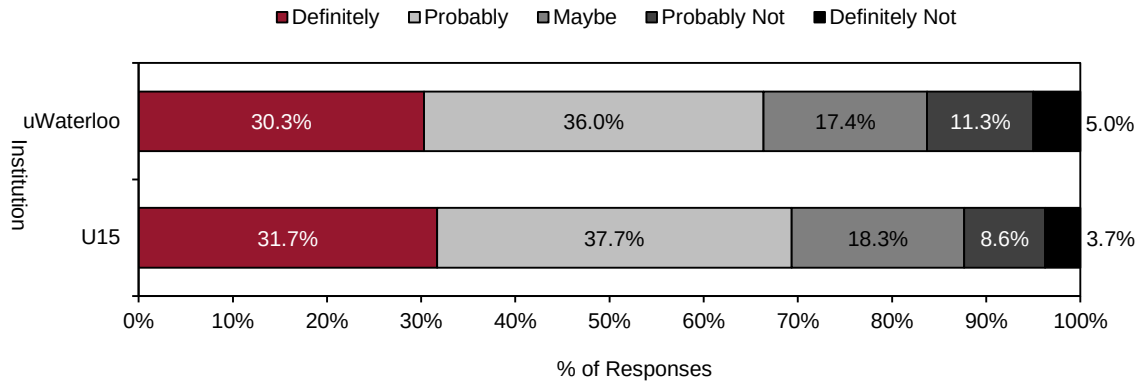
2010 CGPSS: Overall how would you rate the quality of your overall experience at this university? (Doctoral Students)



Our results continue to correspond very closely to those of the U15 in Figure 2.7.C. When students were asked if given the opportunity to begin their graduate career again whether or not they would choose the same institution they responded with 30.3 per cent of our Doctoral students choosing with “Definitely” and 36.0 per cent choosing “Probably”, but 16.3 per cent responded that they would “Probably Not” or “Definitely Not” choose uWaterloo again.

Figure 2.7.C

2010 GPSS: If you were to start your graduate career again, would you select this same university? (Doctoral Students)



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

2.8 COMPLETION RATES AND DEGREES GRANTED

This indicator shows the 2001 and 2005 cohort completion rates of uWaterloo graduate students as compared to the other universities in the U15. Specifically, Figure 2.8.A through Figure 2.8.F show the size and progress of the 2005 starting master's and 2001 doctoral cohorts including the length of time it took students to graduate, the number of students who had either completed their studies or were still studying as of the winter 2010 term, and the number of study terms for those who withdrew.

Figure 2.8.A

2005 Master's Cohort U15 Universities all Disciplines % Graduated or Transferred to PhD without completion of the Master's as of Sep-10

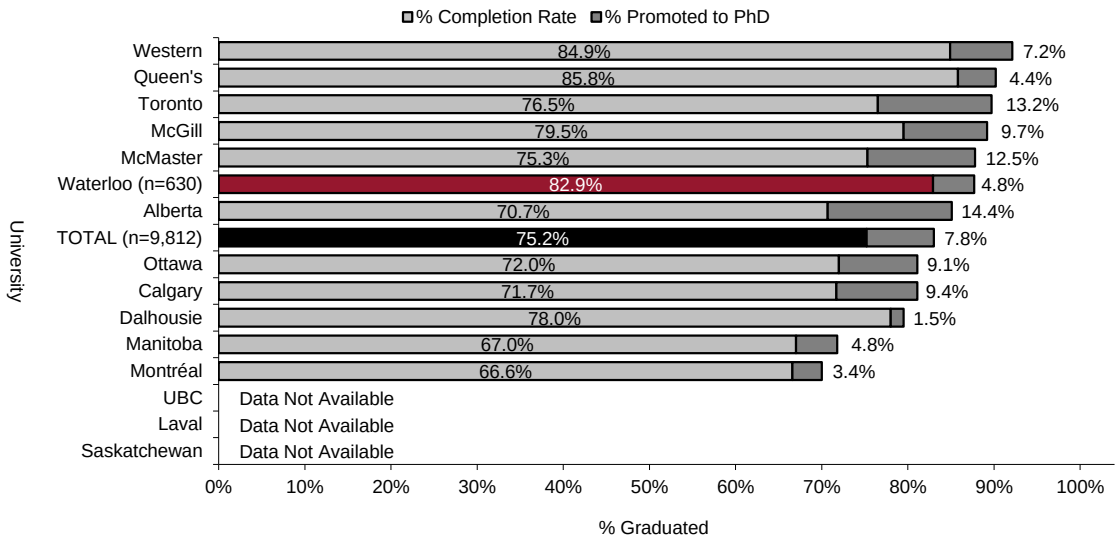


Figure 2.8.B

2001 Doctoral Cohort U15 Universities all Disciplines % Graduated as of Sep-10

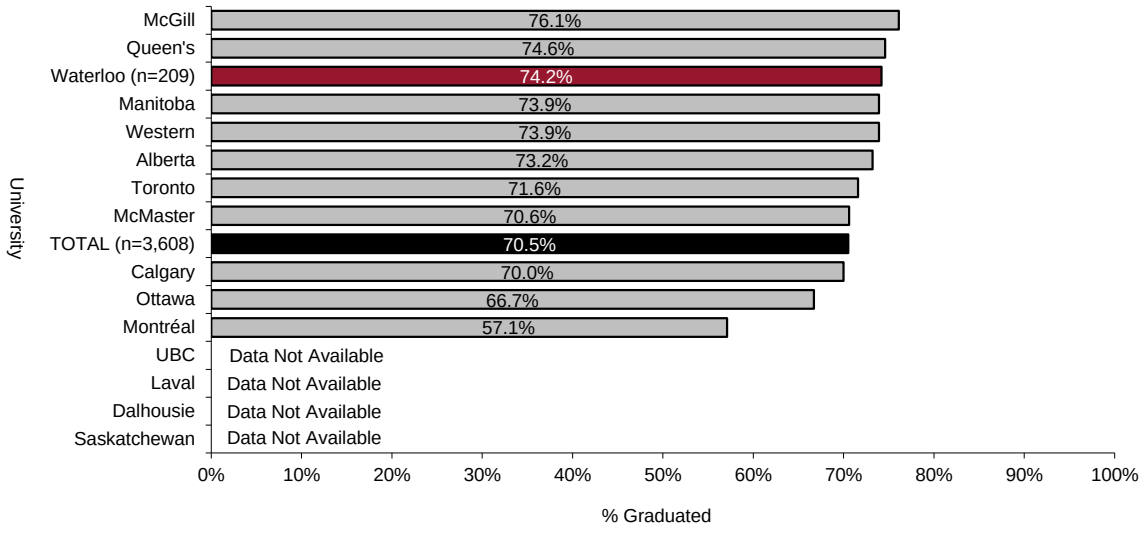


Figure 2.8.C

2005 Master's Cohort U15 Universities all Disciplines Median Number of Terms Registered to Degree Completion

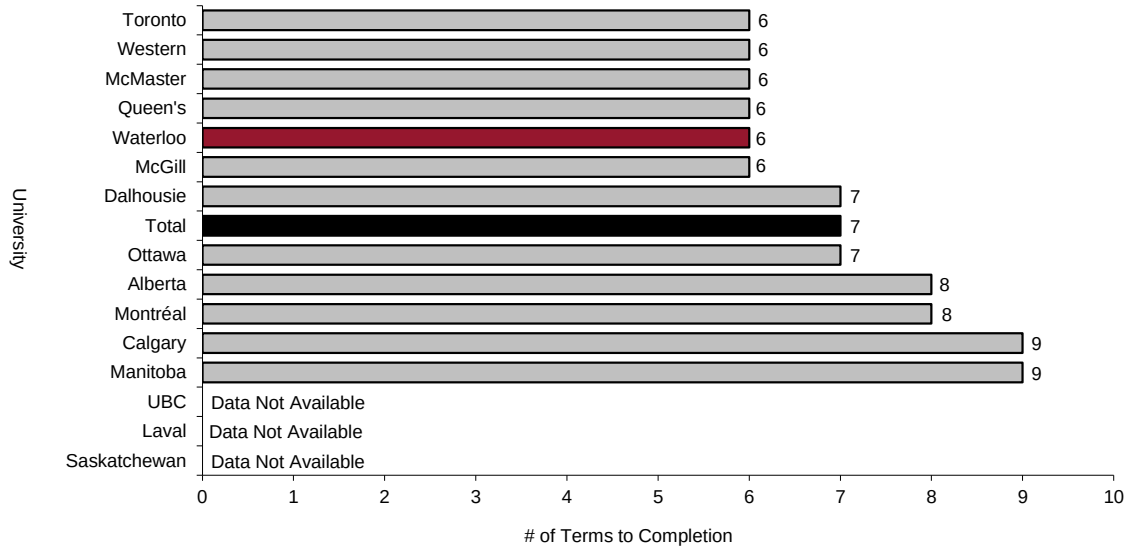


Figure 2.8.D

2001 Doctoral Cohort U15 Universities all Disciplines Median Number of Terms Registered to Degree Completion

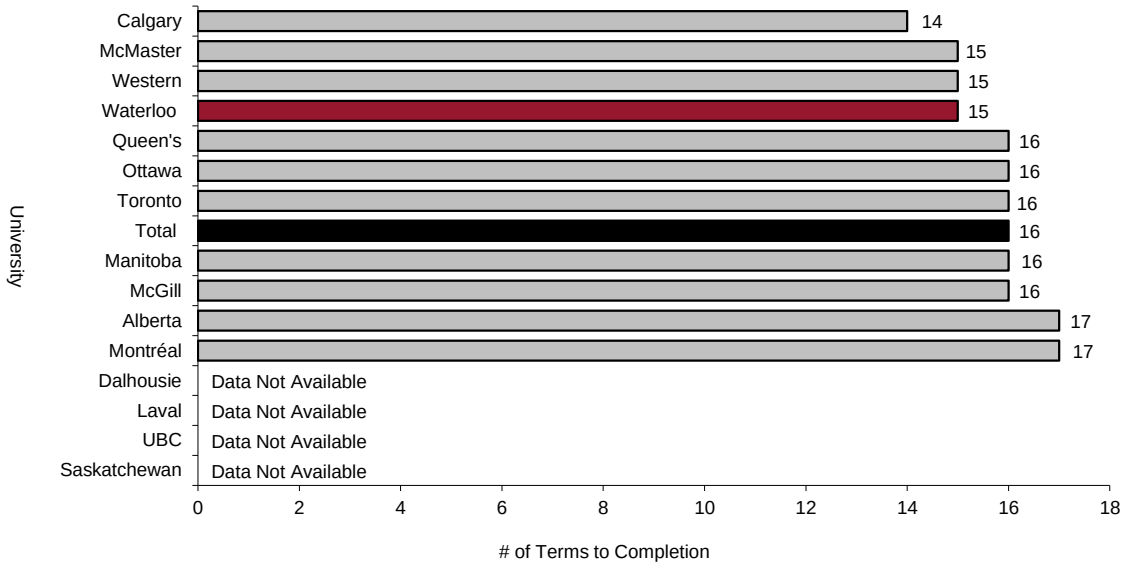


Figure 2.8.E

2005 Master's Cohort U15 Universities all Disciplines Median Number of Terms Registered for Withdrawn Students

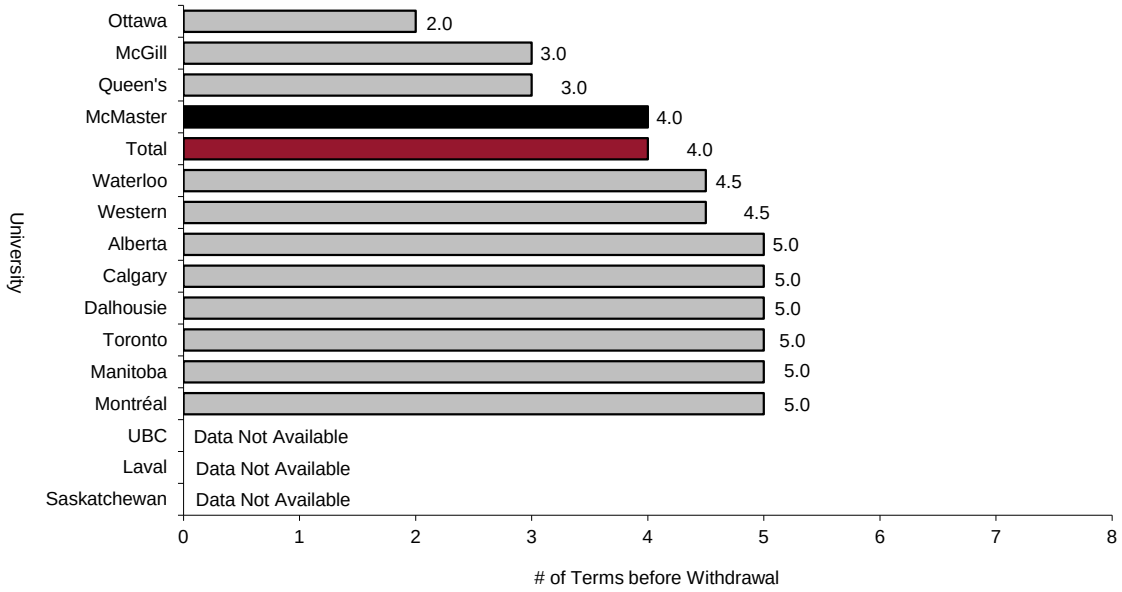
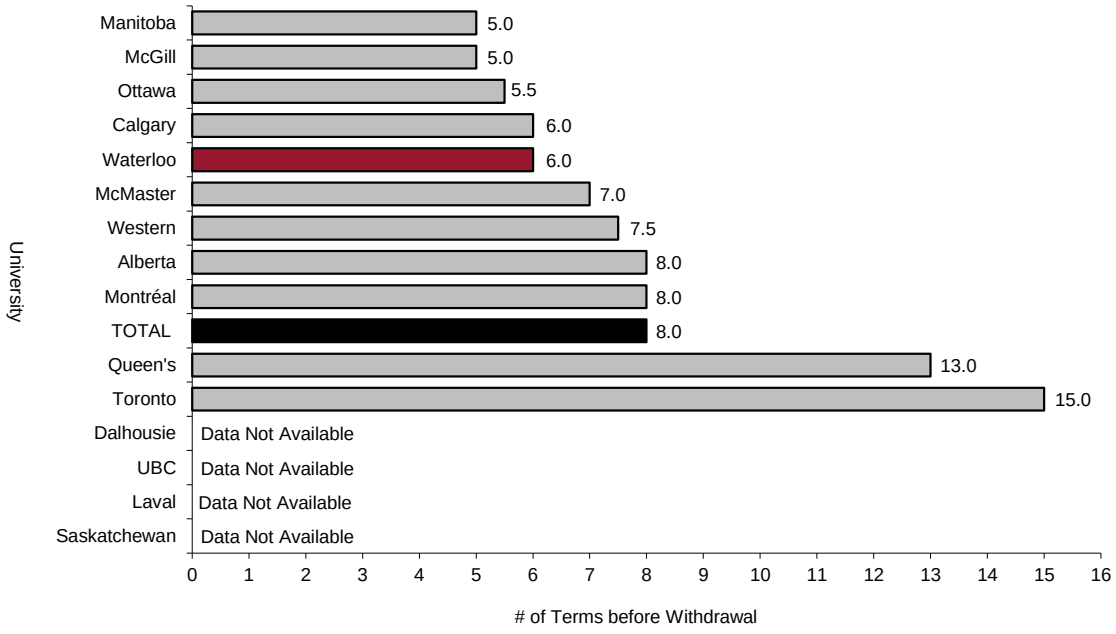


Figure 2.8.F

2001 Doctoral Cohort U15 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 2009 and 2011, distinct from the cohort analyses above.

Figure 2.8.G

Master's Degrees 2009 to 2011 - Average Time to Completion

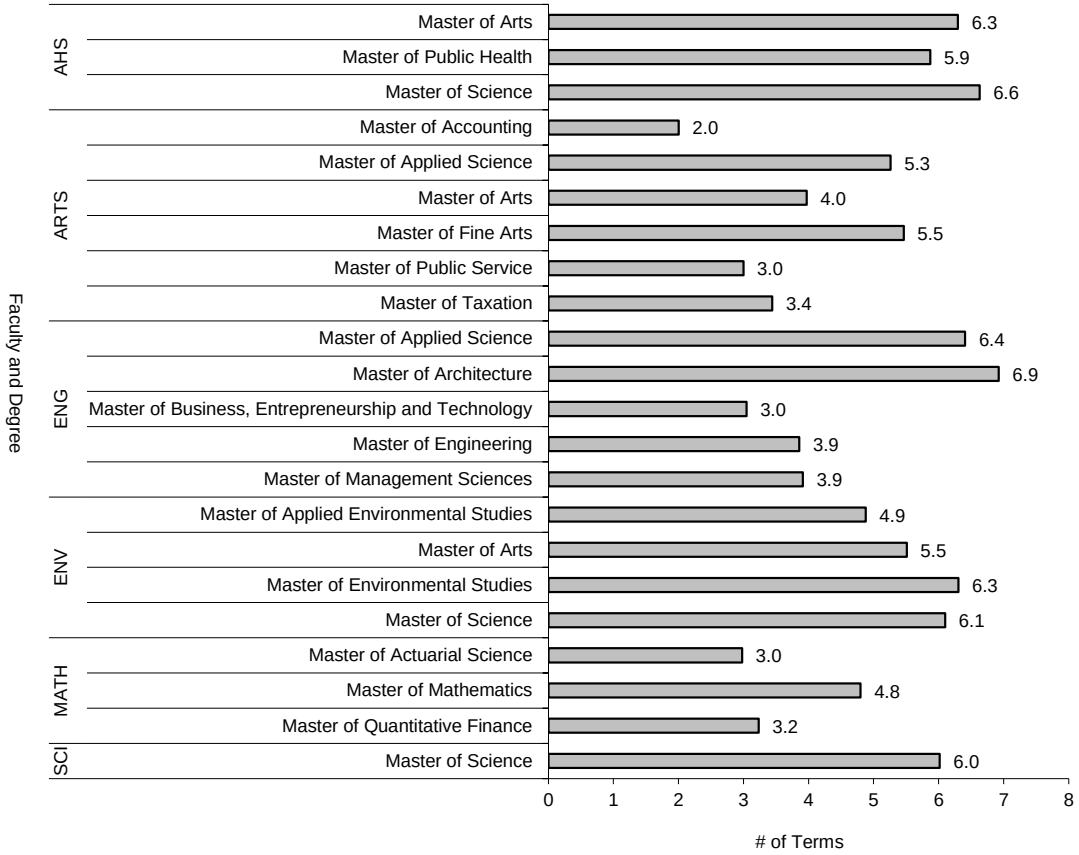


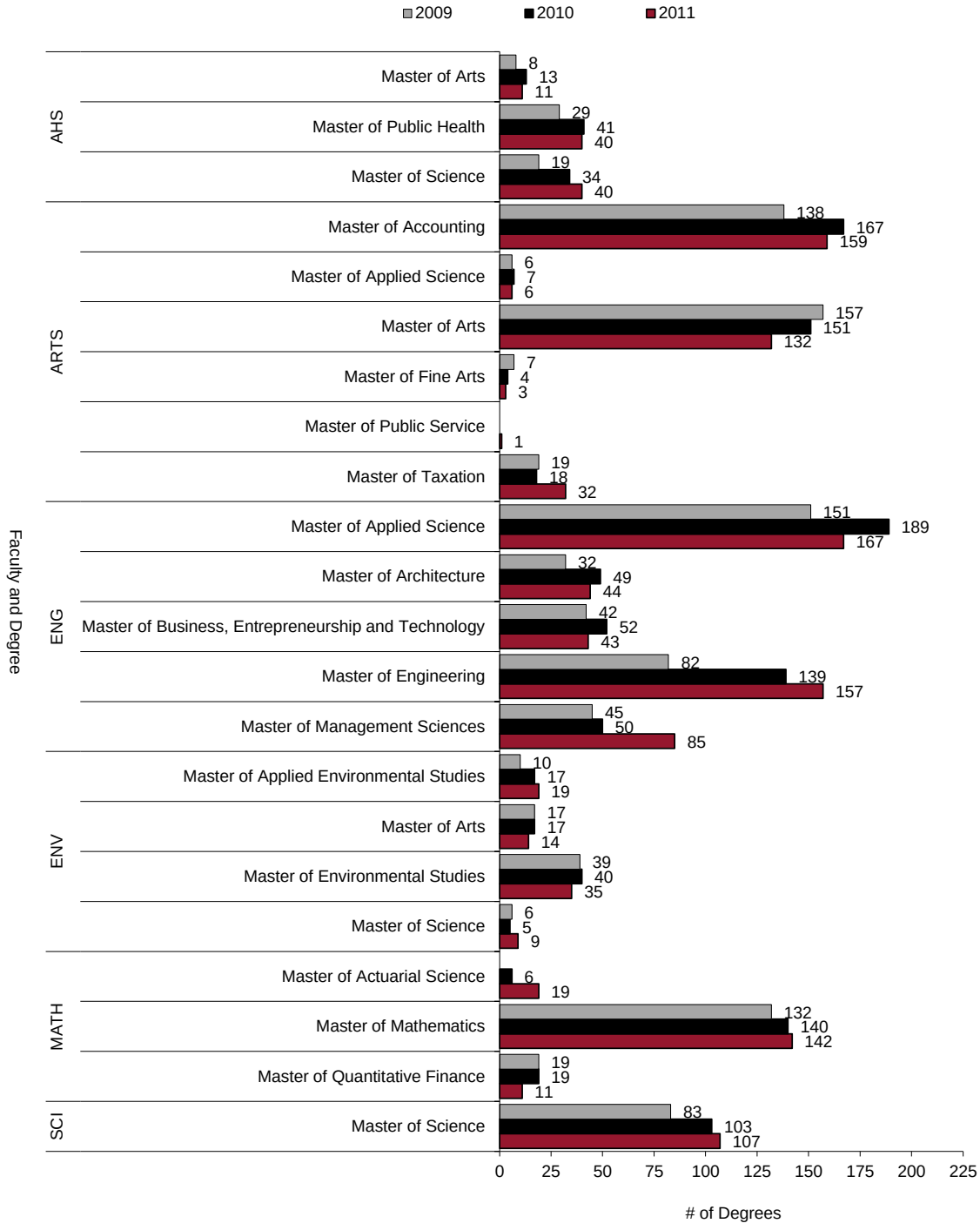
Figure 2.8.H

PhD Degrees 2009 to 2011 - Average Time to Completion

In 2011 there were 1,276 master's degrees and 263 doctoral degrees granted.

Figure 2.8.I

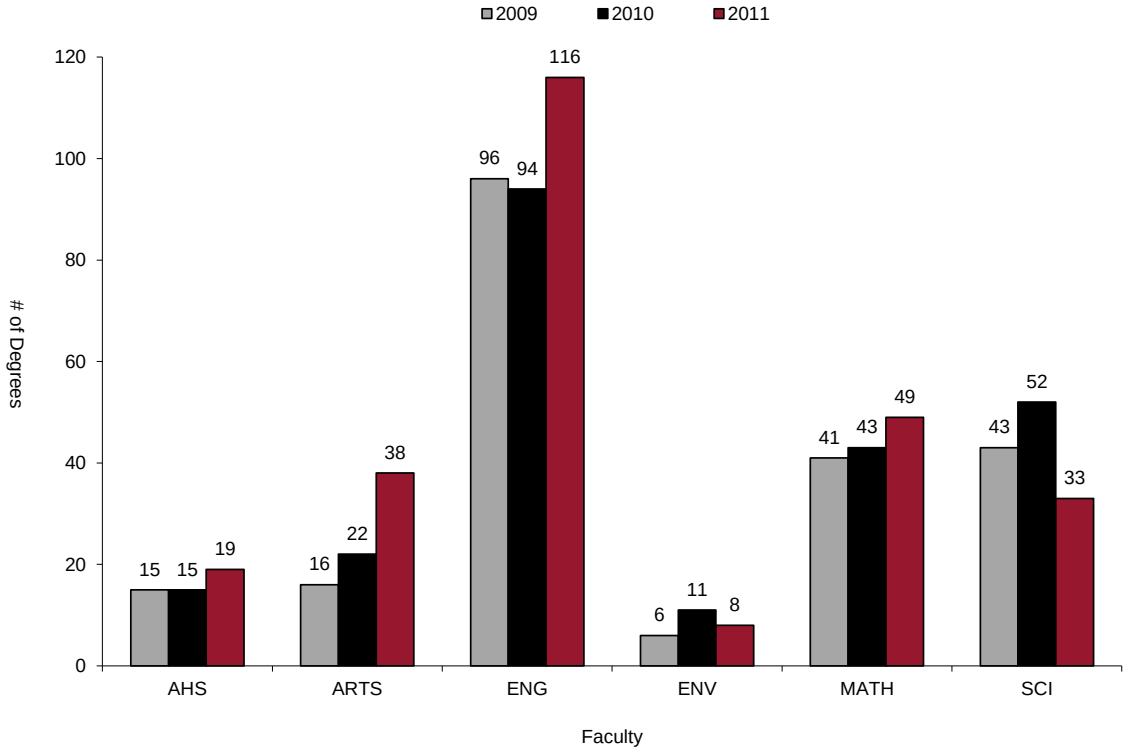
Master's Degrees Granted[34]



[34] Excludes Master of Theology degrees.

Figure 2.8.J

PhD Degrees Granted



3. Research

The University of Waterloo is committed to both basic research, which is essential to the discovery of new knowledge, and applied research. A distinguishing feature of uWaterloo's research profile is its outstanding record of contract research with both private and public sectors.

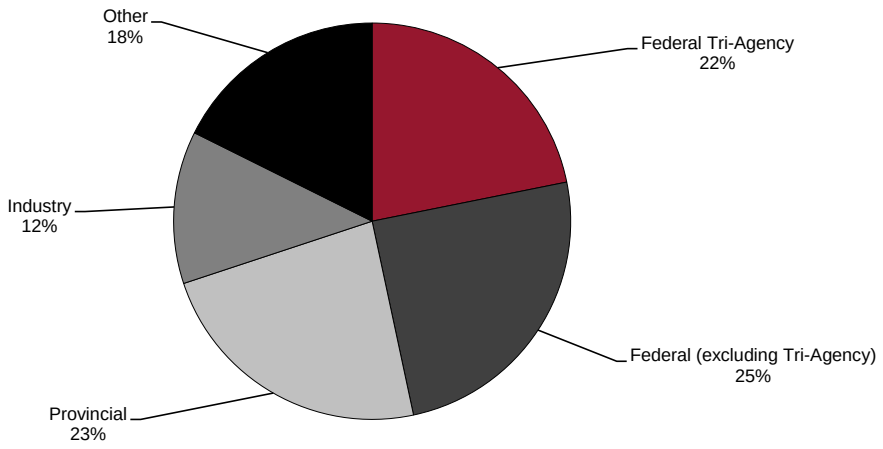
In this section, we examine total research awards, including those from international sources, awards from the Tri-Agencies, and the government of Ontario.

3.1 RESEARCH AWARDS

Research awards for the 2011/12 year were up slightly from 2010/11, totalling over $192 million. Funding from Federal government agencies made up roughly half of all funding with 50 per cent of federal funding coming from the Tri-Agency.

Figure 3.1.A[35]

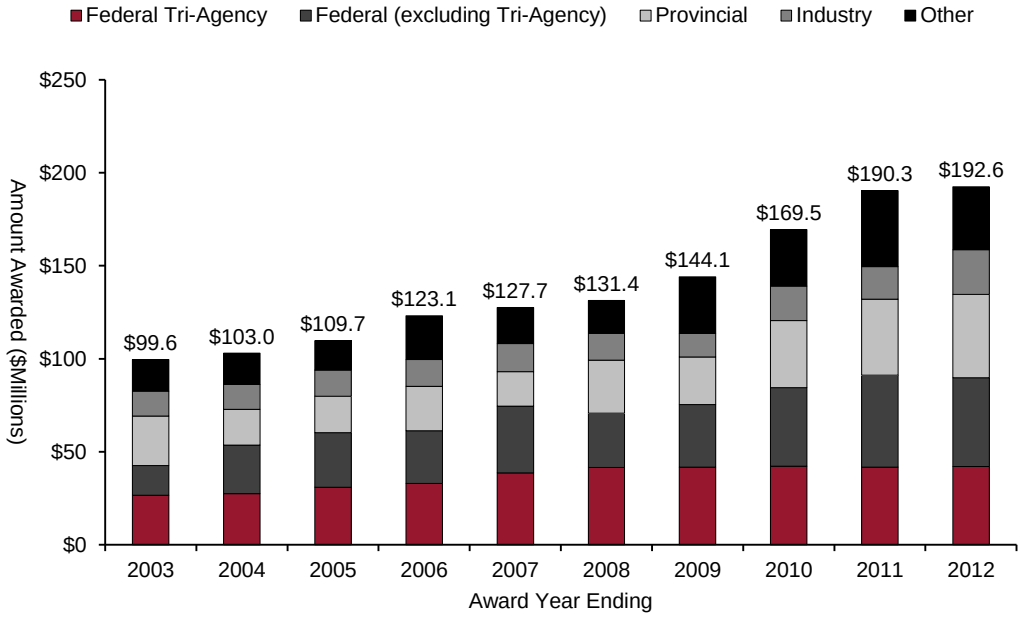
Total Sponsored Research Awards by Source 2011/12 - $192,555,192



[35] "Other" includes, for example, funding from inter-university sub-awards, internal matching of institutional awards, foundations, private agencies, and other governmental bodies.

Figure 3.1.B

Total Sponsored Research Awards by Source



Figures 3.1.C and 3.1.D exclude about $14 million in awards to the Federated University and Affiliated Colleges and/or non-academic units at uWaterloo.

Figure 3.1.C

Total Sponsored Research Awards by Faculty

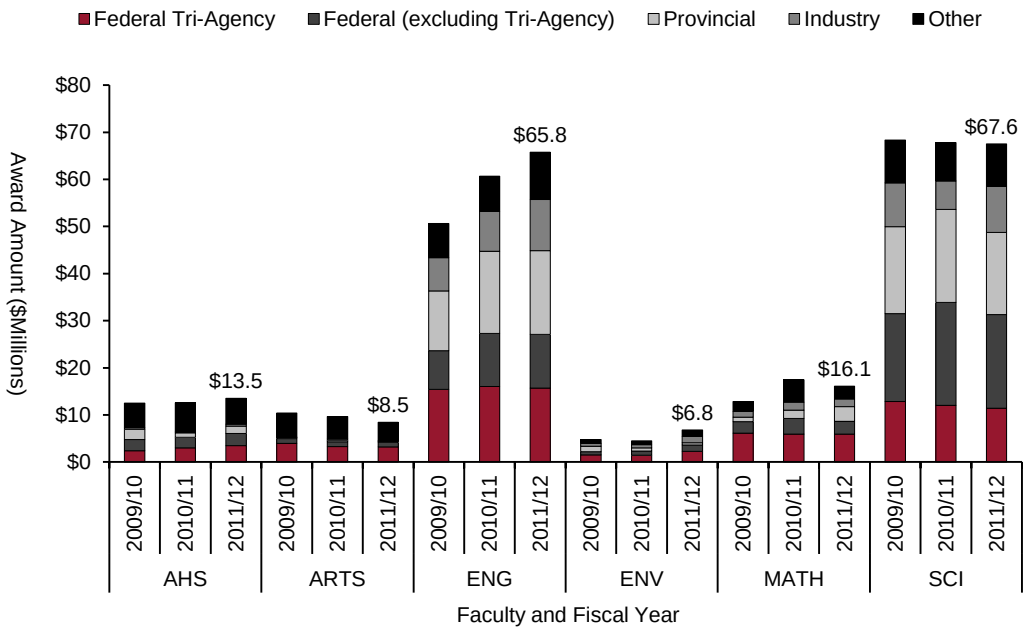


Figure 3.1.D

Total Sponsored Research Awards by Faculty per Tenure and Tenure-Stream Faculty Member

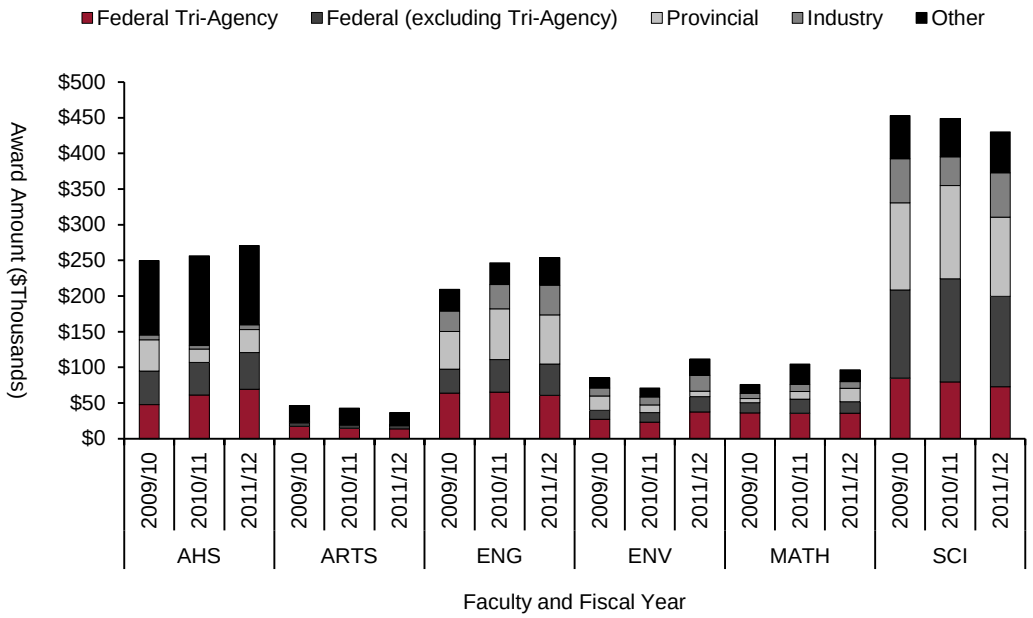
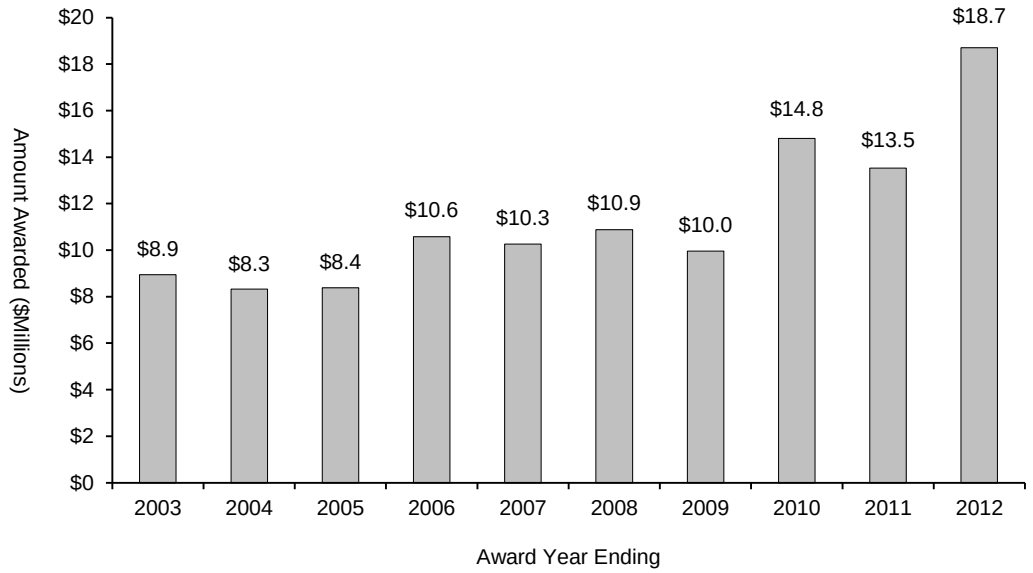


Figure 3.1.E[36]

International Awards 2003-2012



[36] In 2011/12, 68 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.

3.2 FEDERAL TRI-AGENCY

Research awards from the three major granting agencies—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

Federal Tri-Agency Research Awards 2003-2012

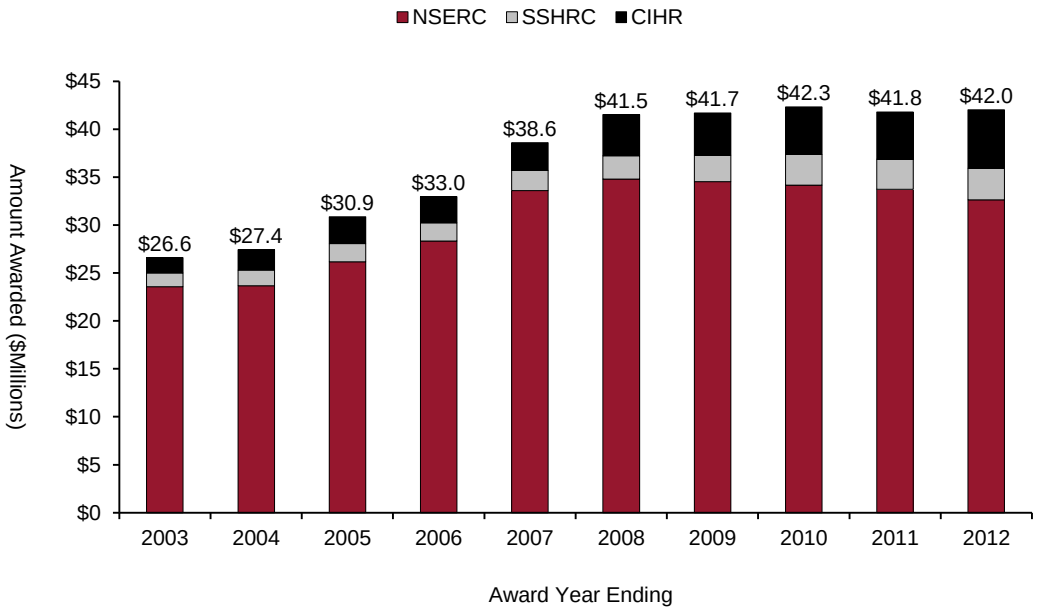
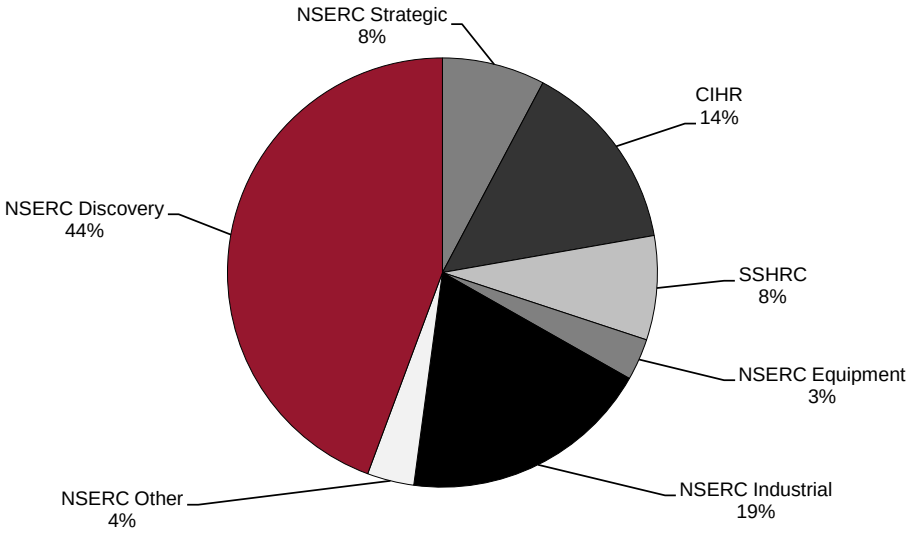


Figure 3.2.B

Breakout of Federal Tri-Agency Research Awards 2011/12 - $42,041,988



The following are uWaterloo's tri-agency success rates compared to the national average:

- NSERC's Discovery program – 77.7% (compared to the national average of 62.2%)
- SSHRC's Insight grant – 20% (compared to the national average of 27%)
- CIHR spring open competition[37] – 4.5% (compared to the national average of 20.1%).

Figure 3.2.C

Federal Tri-Agency Research Awards by Faculty

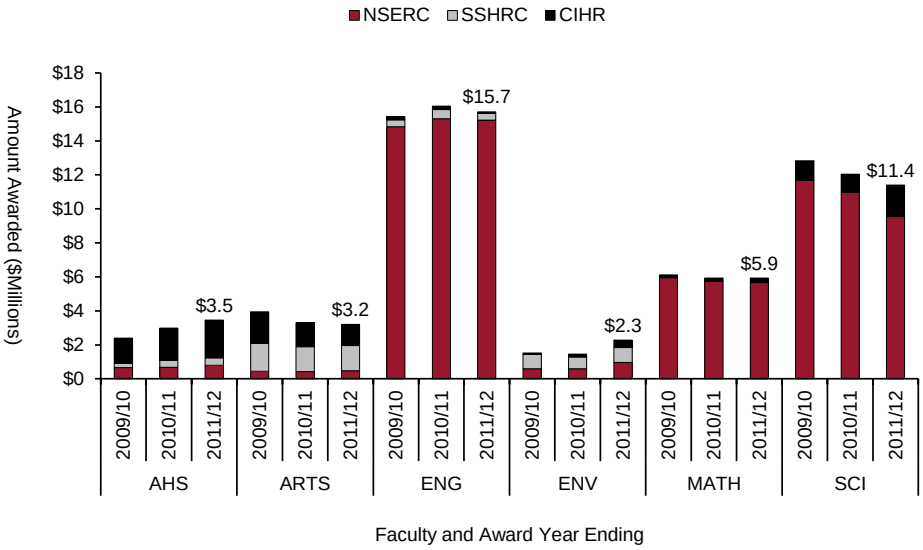
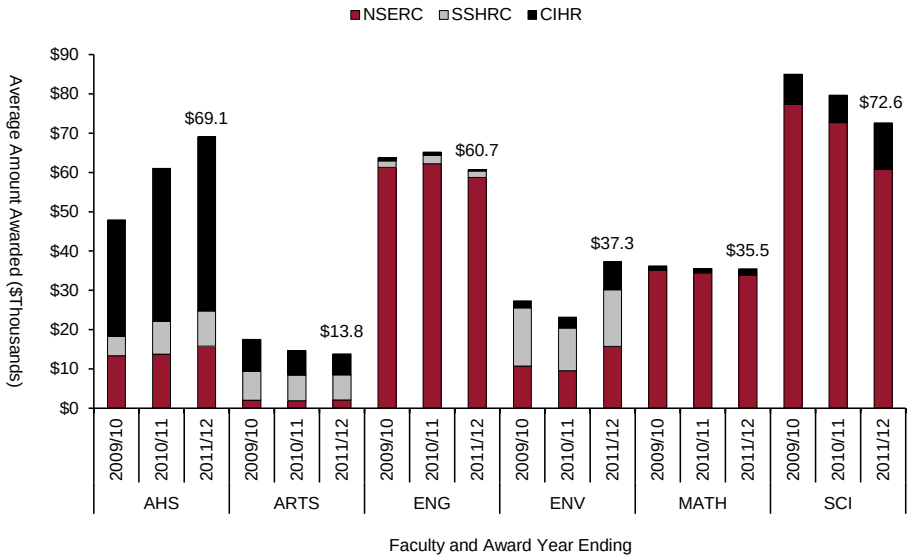


Figure 3.2.D

Average Federal Tri-Agency Research Amount Awarded per Tenure and Tenure-Stream Faculty Member

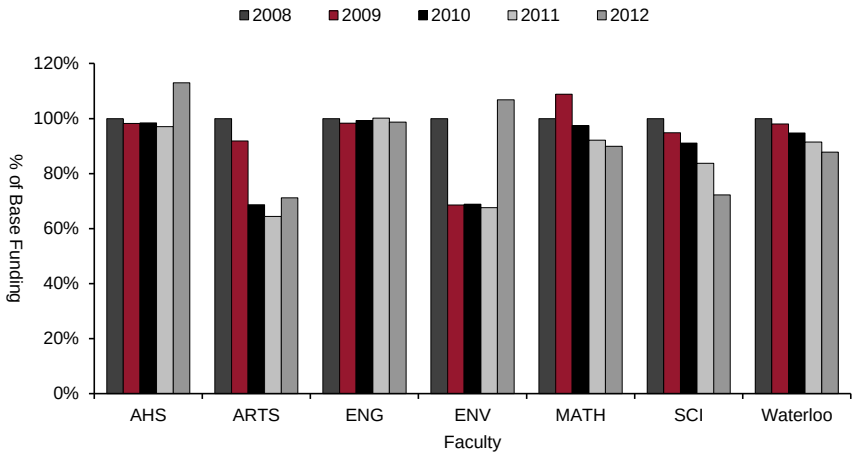


[37] Success rates include one year bridge funding awards and priority funding awards in addition to the fully funded grants awarded through the open operating grant competition.

Figures 3.2.E through Figure 3.2.G illustrate the change in funding, relative to the base year[38] , from each of the Tri-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.

Figure 3.2.E

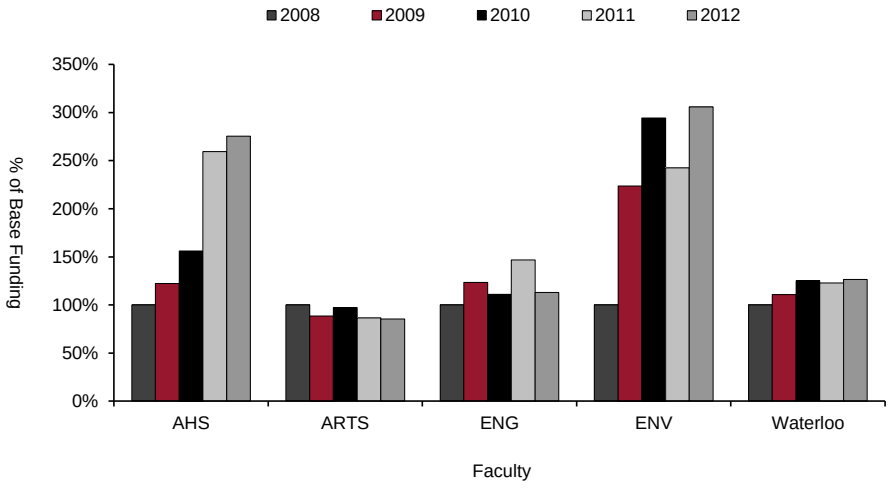
% NSERC Annual Funding Compared to Base Year 2008 Adjusted by Annual Agency Growth



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

% SSHRC Annual Funding Compared to Base Year 2008 Adjusted by Annual Agency Growth



[38] The base year is 2008.

Figure 3.2.G

% CIHR Annual Funding Compared to Base Year 2008 Adjusted by Annual Agency Growth[39]

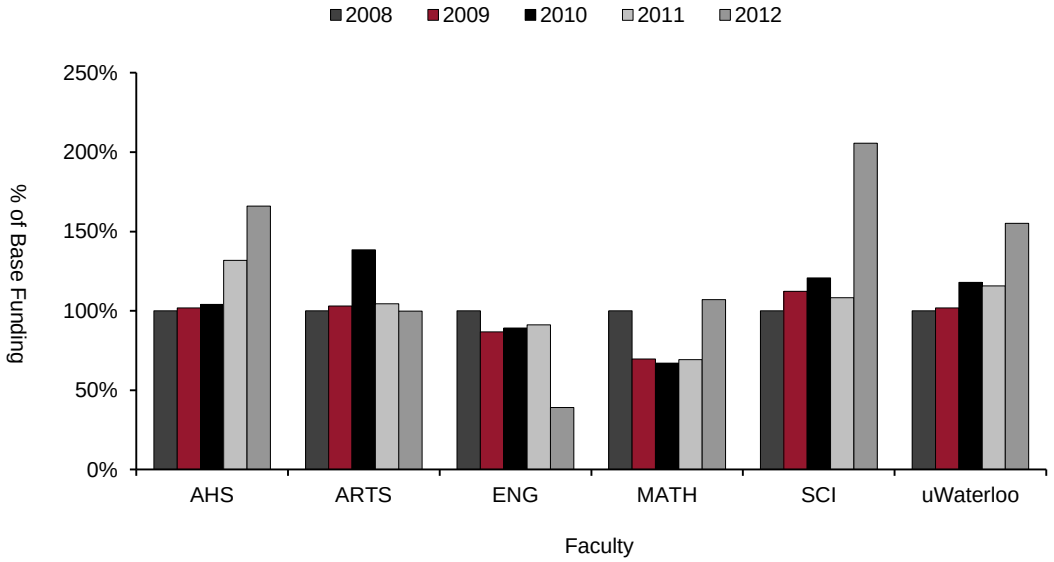


Figure 3.2.H through Figure 3.2.J show the total dollars allocated by the Tri-Agencies to the U15 universities in fiscal year 2006/07 and 2011/12 for NSERC, SSHRC, and CIHR, and the percentage change for each institution. The data in these tables have been taken from the Agency databases and includes Canada Research Chair awards, which are not included in Figures 3.2.A through 3.2.G.

Figure 3.2.H

NSERC - % Change in $ to U15 2007-2012					
	U15 University	2006/07 $ x 000s	2011/12 $ x 000s	Change $ x 000s	Change %
1	University of Calgary	27,116	36,584	9,468	34.9%
2	University of Saskatchewan	29,165	39,178	10,014	34.3%
3	University of Ottawa	20,891	26,882	5,991	28.7%
4	McGill University	45,845	58,401	12,556	27.4%
5	University of British Columbia	63,049	78,790	15,741	25.0%
6	Queen's University	27,630	33,775	6,146	22.2%
7	Dalhousie University	20,961	25,310	4,349	20.7%
8	McMaster University	28,910	34,483	5,572	19.3%
9	University of Western Ontario	22,798	26,403	3,604	15.8%
10	University of Alberta	48,822	56,102	7,281	14.9%
11	Université Laval	45,612	51,618	6,006	13.2%
12	University of Waterloo	45,658	51,230	5,572	12.2%
13	University of Toronto	74,840	83,883	9,043	12.1%
14	University of Manitoba	20,697	19,501	-1,196	-5.8%
15	Université de Montréal	29,660	26,613	-3,047	-10.3%
	U15 Total	551,652	648,752	97,100	17.6%
	Total/all Institutions	854,568	1,035,206	180,638	21.1%

[39] Although the Faculty of Environment does receive CIHR funding in some years, no CIHR funding was received in the 2008 base year.

Figure 3.2.I

SSHRC - % Change in $ to U15 2007-2012					
	U15 University	2006/07 $ x 000s	2011/12 $ x 000s	Change $ x 000s	Change %
1	University of Waterloo	4,881	7,011	2,130	43.6%
2	Dalhousie University	3,514	4,964	1,450	41.3%
3	University of British Columbia	20,692	26,155	5,462	26.4%
4	McGill University	16,011	18,707	2,696	16.8%
5	University of Ottawa	13,197	15,377	2,180	16.5%
6	University of Saskatchewan	3,098	3,594	0,496	16.0%
7	University of Calgary	6,797	7,468	0,672	9.9%
8	University of Toronto	28,687	30,101	1,414	4.9%
9	Queen's University	8,679	9,053	0,375	4.3%
10	Université de Montréal	16,695	16,694	-0,1	0.0%
11	Université Laval	13,583	13,545	-0,38	-0.3%
12	McMaster University	8,330	7,671	-0,659	-7.9%
13	University of Western Ontario	11,121	10,214	-0,907	-8.2%
14	University of Alberta	13,684	12,268	-1,416	-10.3%
15	University of Manitoba	5,510	4,827	-0,683	-12.4%
	U15 Total	174,478	187,648	13,171	7.5%
	Total/all Institutions	282,952	307,950	24,998	8.8%

Figure 3.2.J below, shows a 116 per cent change in funding to uWaterloo from 2006/07. 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. The change to CIHR has made available a wider range of grants for which uWaterloo researchers are eligible.

Figure 3.2.J

CIHR - % Change in $ to U15 2007-2012					
	U15 University	2006/07 $ x 000s	2011/12 $ x 000s	Change $ x 000s	Change %
1	University of Waterloo	2,679	5,797	3,118	116.4%
2	Dalhousie University	15,593	21,883	6,290	40.3%
3	McMaster University	28,773	36,354	7,581	26.3%
4	University of British Columbia	57,009	67,513	10,504	18.4%
5	Université Laval	17,246	18,303	1,057	6.1%
6	University of Western Ontario	24,686	23,554	-1,132	-4.6%
7	University of Calgary	31,418	28,629	-2,789	-8.9%
8	University of Ottawa	24,462	21,537	-2,925	-12.0%
9	McGill University	53,558	46,878	-6,680	-12.5%
10	University of Alberta	42,585	36,976	-5,609	-13.2%
11	University of Toronto	72,093	62,497	-9,596	-13.3%
12	Queen's University	17,360	14,730	-2,631	-15.2%
13	Université de Montréal	31,505	24,699	-6,806	-21.6%
14	University of Manitoba	19,062	14,902	-4,160	-21.8%
15	University of Saskatchewan	9,481	6,556	-2,924	-30.8%
	U15 Total	447,511	430,809	-16,702	-3.7%
	Total/all Institutions	768,188	817,855	49,667	6.5%

Figure 3.2.K through Figure 3.2.M show the distribution of the total awards by the Tri-Agencies to the U15 universities in 2011/12, and the percentage of those awards for each institution.

Figure 3.2.K

NSERC - Distribution of $ to U15				
	U15 University	2011/12$ x 000s	% of Total U15 $	% of Total $
1	University of Toronto	83,883	12.93%	8.10%
2	University of British Columbia	78,790	12.14%	7.61%
3	McGill University	58,401	9.00%	5.64%
4	University of Alberta	56,102	8.65%	5.42%
5	Université Laval	51,618	7.96%	4.99%
6	University of Waterloo	51,230	7.90%	4.95%
7	University of Saskatchewan	39,178	6.04%	3.78%
8	University of Calgary	36,584	5.64%	3.53%
9	McMaster University	34,483	5.32%	3.33%
10	Queen's University	33,775	5.21%	3.26%
11	University of Ottawa	26,882	4.14%	2.60%
12	Université de Montréal	26,613	4.10%	2.57%
13	University of Western Ontario	26,403	4.07%	2.55%
14	Dalhousie University	25,310	3.90%	2.44%
15	University of Manitoba	19,501	3.01%	1.88%
	U15 Total	648,752	100.00%	62.67%
	Total/all Institutions	1,035,206		

Figure 3.2.L

SSHRC - Distribution of $ to U15				
	U15 University	2011/12$ x 000s	% of Total U15 $	% of Total $
1	University of Toronto	30,101	16.04%	9.77%
2	University of British Columbia	26,155	13.94%	8.49%
3	McGill University	18,707	9.97%	6.07%
4	Université de Montréal	16,694	8.90%	5.42%
5	University of Ottawa	15,377	8.19%	4.99%
6	Université Laval	13,545	7.22%	4.40%
7	University of Alberta	12,268	6.54%	3.98%
8	University of Western Ontario	10,214	5.44%	3.32%
9	Queen's University	9,053	4.82%	2.94%
10	McMaster University	7,671	4.09%	2.49%
11	University of Calgary	7,468	3.98%	2.43%
12	University of Waterloo	7,011	3.74%	2.28%
13	Dalhousie University	4,964	2.65%	1.61%
14	University of Manitoba	4,827	2.57%	1.57%
15	University of Saskatchewan	3,594	1.92%	1.17%
	U15 Total	187,648	100.00%	60.93%
	Total/all Institutions	307,950		

Figure 3.2.M

CIHR - Distribution of $ to U15				
	U15 University	2011/12$ x 000s	% of Total U15 $	% of Total $
1	University of British Columbia	67,513	15.67%	8.25%
2	University of Toronto	62,497	14.51%	7.64%
3	McGill University	46,878	10.88%	5.73%
4	University of Alberta	36,976	8.58%	4.52%
5	McMaster University	36,354	8.44%	4.45%
6	University of Calgary	28,629	6.65%	3.50%
7	Université de Montréal	24,699	5.73%	3.02%
8	University of Western Ontario	23,554	5.47%	2.88%
9	Dalhousie University	21,883	5.08%	2.68%
10	University of Ottaw a	21,537	5.00%	2.63%
11	Université Laval	18,303	4.25%	2.24%
12	University of Manitoba	14,902	3.46%	1.82%
13	Queen's University	14,730	3.42%	1.80%
14	University of Saskatchew an	6,556	1.52%	0.80%
15	University of Waterloo	5,797	1.35%	0.71%
	U15 Total	430,809	100.00%	52.68%
	Total/all Institutions	817,855		

Figure 3.2.N

NSERC Awards Received – 10-Year History

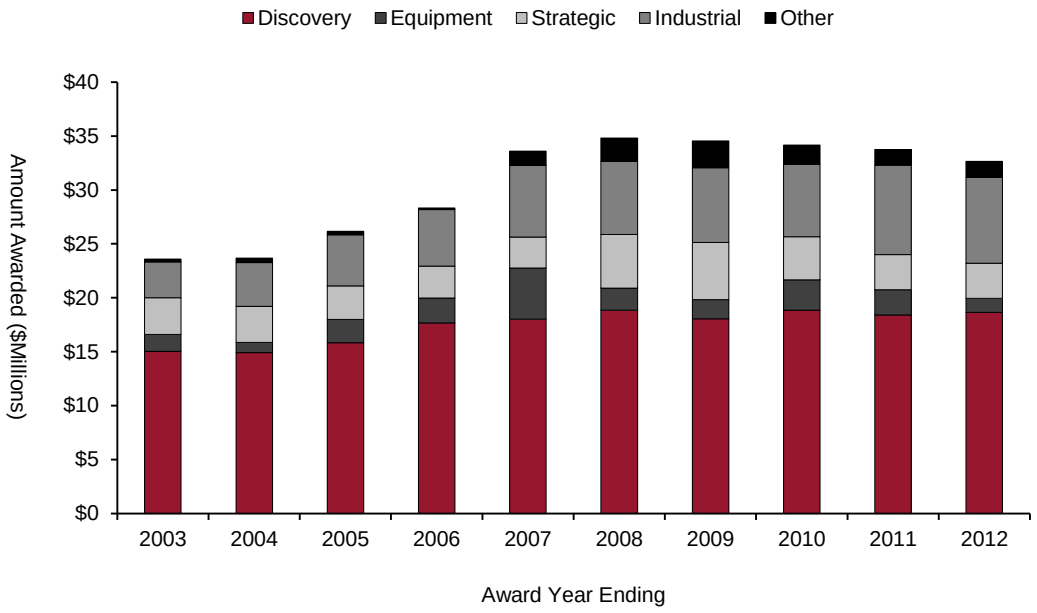


Figure 3.2.O

NSERC Discovery Grants 2011/12						
		Number		Amount		
	U15 University	N	%	$	%	Average Award ($)
1	University of Toronto	749	7.82%	$29,587,587	9.52%	$39,503
2	University of British Columbia	658	6.87%	$24,365,413	7.84%	$37,030
3	University of Alberta	558	5.83%	$19,486,265	6.27%	$34,922
4	McGill University	531	5.55%	$18,611,039	5.99%	$35,049
5	University of Waterloo	527	5.51%	$16,849,019	5.42%	$31,972
6	University of Calgary	369	3.85%	$12,240,474	3.94%	$33,172
7	University of Western Ontario	359	3.75%	$11,548,622	3.71%	$32,169
8	Université de Montréal	289	3.02%	$11,159,497	3.59%	$38,614
9	Université Laval	331	3.46%	$11,095,243	3.57%	$33,520
10	McMaster University	318	3.32%	$10,963,925	3.53%	$34,478
11	Queen's University	271	2.83%	$10,329,665	3.32%	$38,117
12	University of Ottawa	295	3.08%	$9,401,349	3.02%	$31,869
13	Dalhousie University	267	2.79%	$8,724,503	2.81%	$32,676
14	University of Saskatchewan	248	2.59%	$7,477,414	2.41%	$30,151
15	University of Manitoba	247	2.58%	$7,140,363	2.30%	$28,908
	U15 Total	6,017	62.85%	$208,980,378	67.24%	$34,732
	Total Awarded	9,573	100.00%	$310,896,274	100.00%	$32,476

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

Ontario Government Research Funding 2011/12

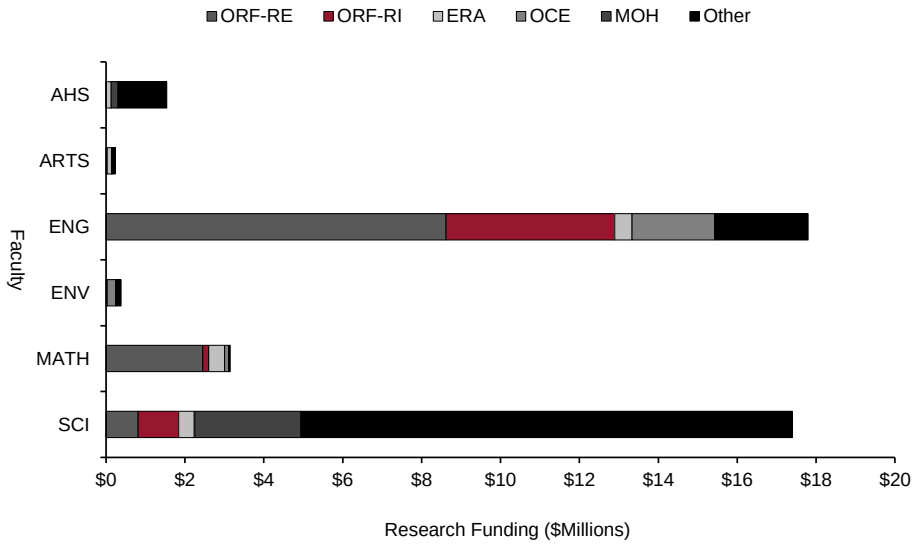
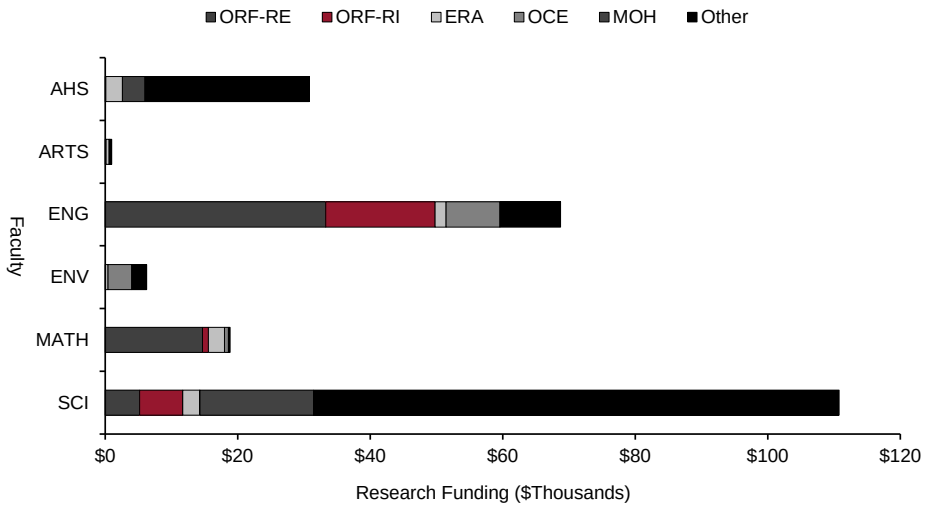


Figure 3.3.B

Ontario Government Research Funding 2011/12 per Tenure and Tenure-Stream Faculty



In 2011/12, we had nine active industrially-sponsored NSERC Research Chairs, and our Waterloo Commercialization Office (WatCo) helps researchers commercialize the results of their research.

4. Faculty Members

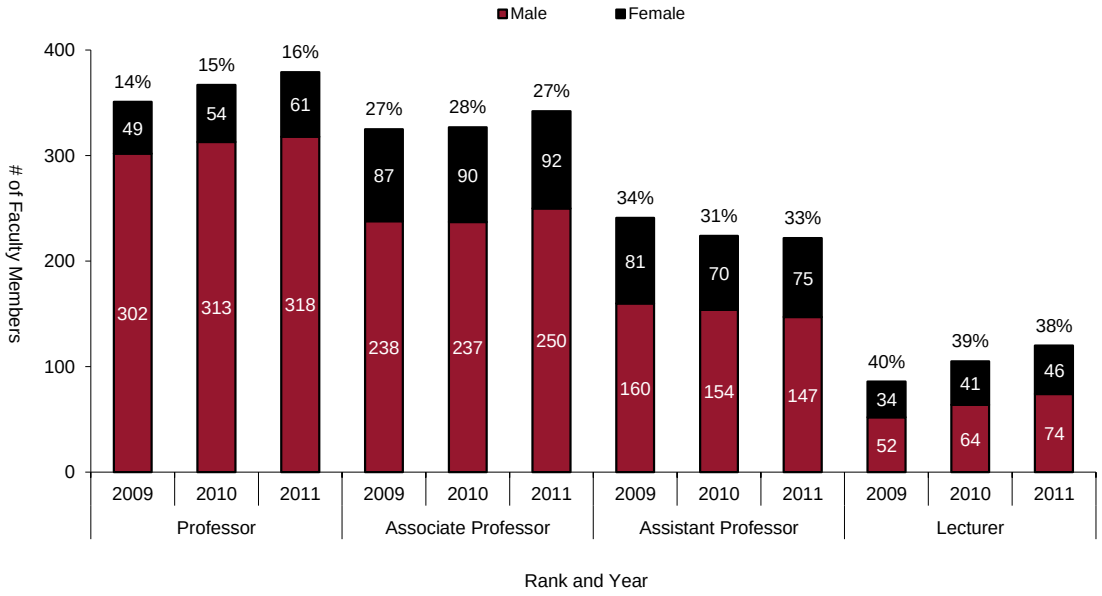
The University of Waterloo recognizes the importance of our innovative, collaborative, and committed leaders—our academic faculty members who teach, engage in research, and serve our students and our community. In this section we highlight our faculty appointments and our hiring practices; and we monitor 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.

4.1 FACULTY MEMBER COUNTS BY GENDER

In this section we look at faculty counts[40] by rank and gender for uWaterloo, excluding faculty at our Federated University and Affiliated Colleges, and compared to our U15 peers.

Figure 4.1.A

Count of Full-time Faculty Members by Rank and Gender



Total faculty counts:		
2009 - 1,003 (25% female)	2010 - 1,023 (25% female)	2011 - 1,063 (26% female)

[40] Source: Statistics Canada UCASS (University and College Academic Staff System) and uWaterloo Human Resources. Excludes visitors and researchers.

Figure 4.1.B[41]

Gender Distribution of Full-time Regular Appointments by Faculty

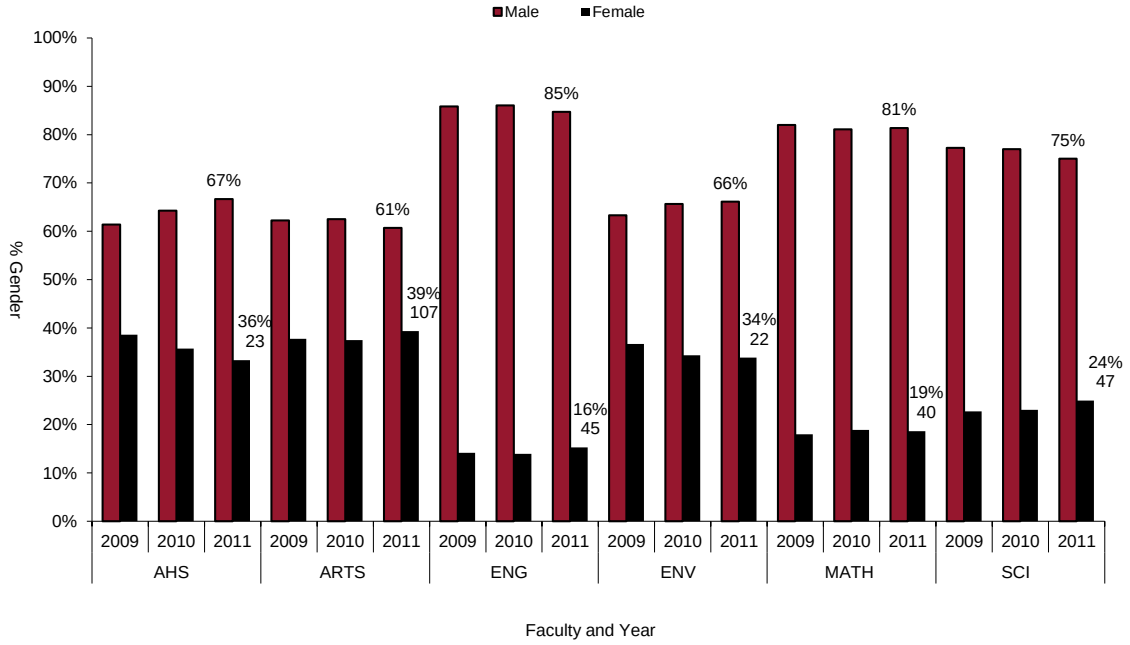
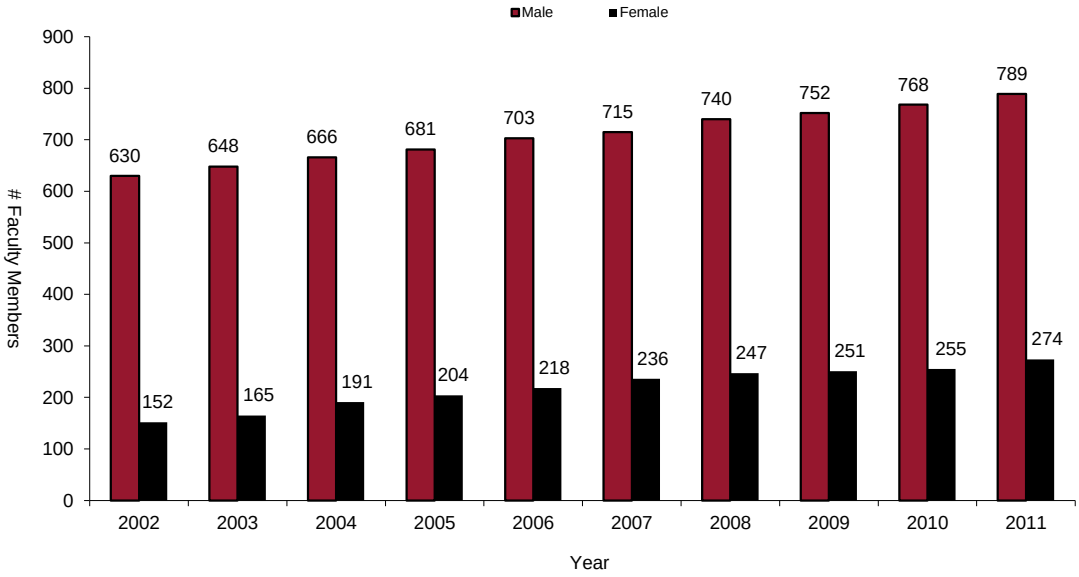


Figure 4.1.C[42]

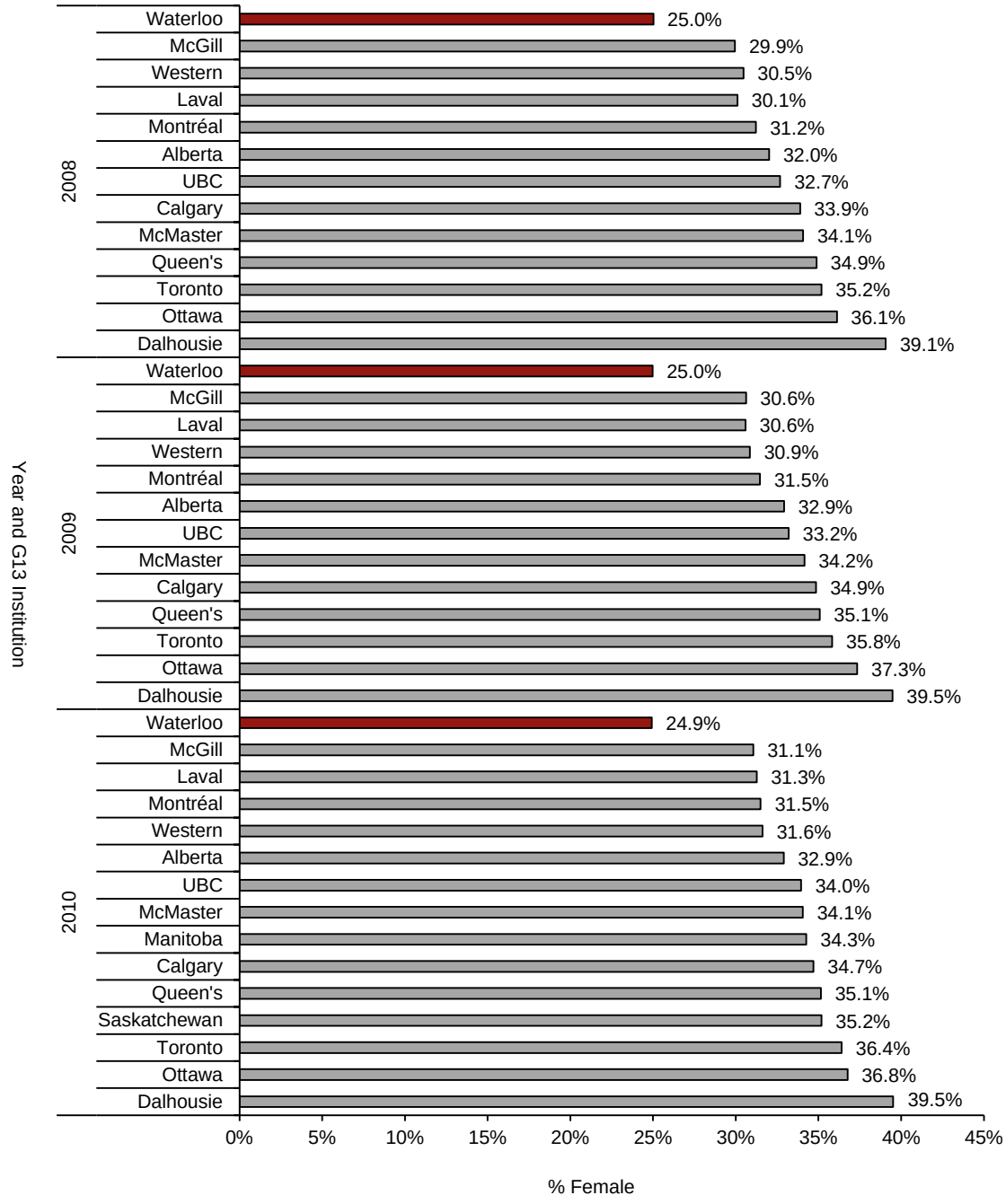
Full-time Regular Faculty Appointments by Gender – 10-Year History



[41] Source: Statistics Canada UCASS, as of October 1st of each survey year.Excludes visitors and researchers.
[42] Source: Statistics Canada UCASS, as of October 1st of each survey year. Excludes visitors and researchers.

Figure 4.1.D[43]

Faculty Appointments by % Female – Three-Year History as Compared to U15 Universities



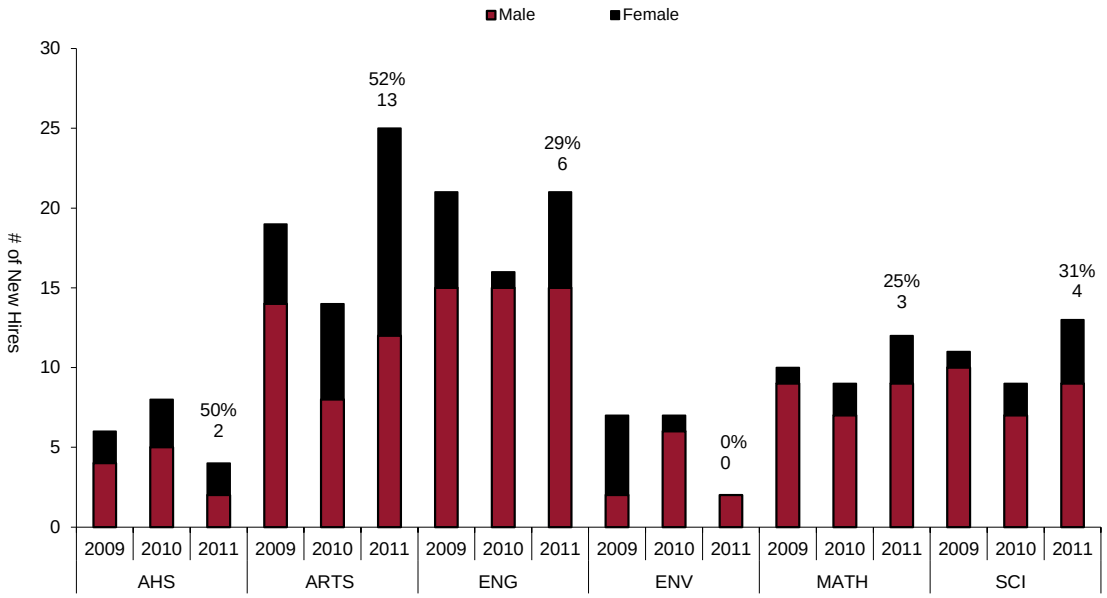
[43] Source: Statistics Canada UCASS, as of October 1st of each survey year. The University of Saskatchewan and University of Manitoba joined the U15 in 2011. Excludes visitors and researchers.

4.2 NEW HIRES BY GENDER

Figure 4.2.A shows new hires by Faculty and gender and highlights the count and percentage of female hires. In 2011, there were 77 new faculty hires. Of these, 36% (28) were female which equates to a 12% increase from 2010. Looking at citizenship status of the new hires, in 2011, 61% of the female hires were Canadian. In 2010, 73% were Canadian and in 2009, 35% of the female hires were Canadian.

Figure 4.2.A[44]

New Hires by Faculty and Gender



Total new faculty hires:		
2009- 73 (27% female)	2010- 63 (24% female)	2011- 77 (36% female)

[44] Source: Statistics Canada UCASS, as of October 1st of each survey year. Count and percentage of female faculty hires displayed. Excludes visitors and researchers.

Figure 4.2.B shows the count of faculty members by Faculty and gender, and the percentage of male and female faculty members within each Faculty.

Figure 4.2.B[45]

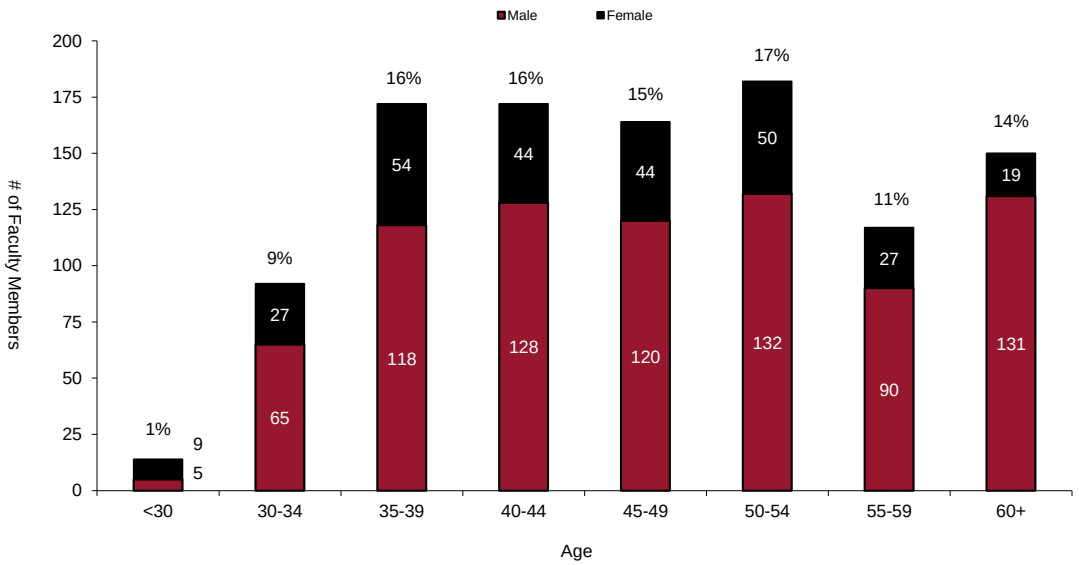
Total Faculty Count by Gender - October 1, 2011					
Faculty	Male	Female	Total	% Male	% Female
Applied Health Sciences	41	23	64	64%	36%
Arts	164	107	271	61%	39%
Engineering	244	45	289	84%	16%
Environment	43	22	65	66%	34%
Mathematics	174	40	214	81%	19%
Science	146	47	193	76%	24%
Colleges	41	37	78	53%	47%
Total	853	321	1,174	73%	27%

4.3 AGE DISTRIBUTION

As of October 2011, 42 per cent of Waterloo's faculty population was 50 years or older. We also display the count of each gender within each age band. For example: 16% of the total faculty population is between the ages of 35-39 (125 are male and 55 are female).

Figure 4.3.A[46]

Age Distribution by Gender (as of October 1, 2011)



Additional indicators that could be considered for future additions include age distribution of our faculty members by rank and Faculty; and the distribution of women among senior academic administrators.

[45] Source: Canadian % Female PhD Enrolment from Statistics Canada.
[46] Source: Statistics Canada UCASS, as of October 1st of each survey year. Excludes visitors and researchers.

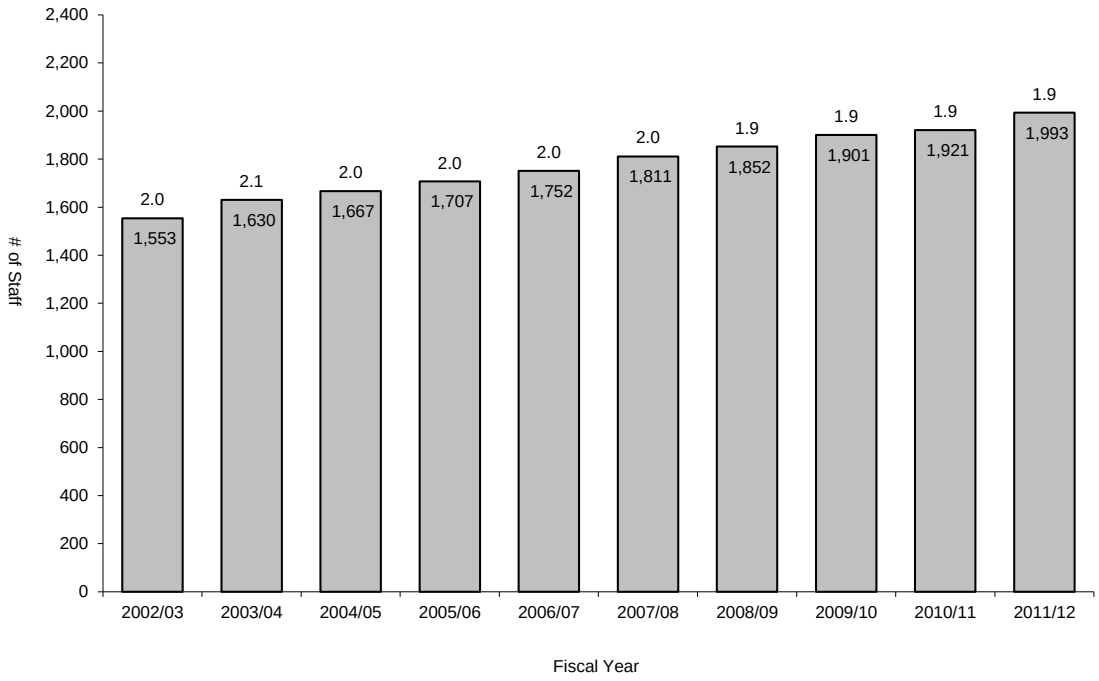
5. Staff

A world-leading university needs highly competent staff. In this section, we highlight our staff complement[47], 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



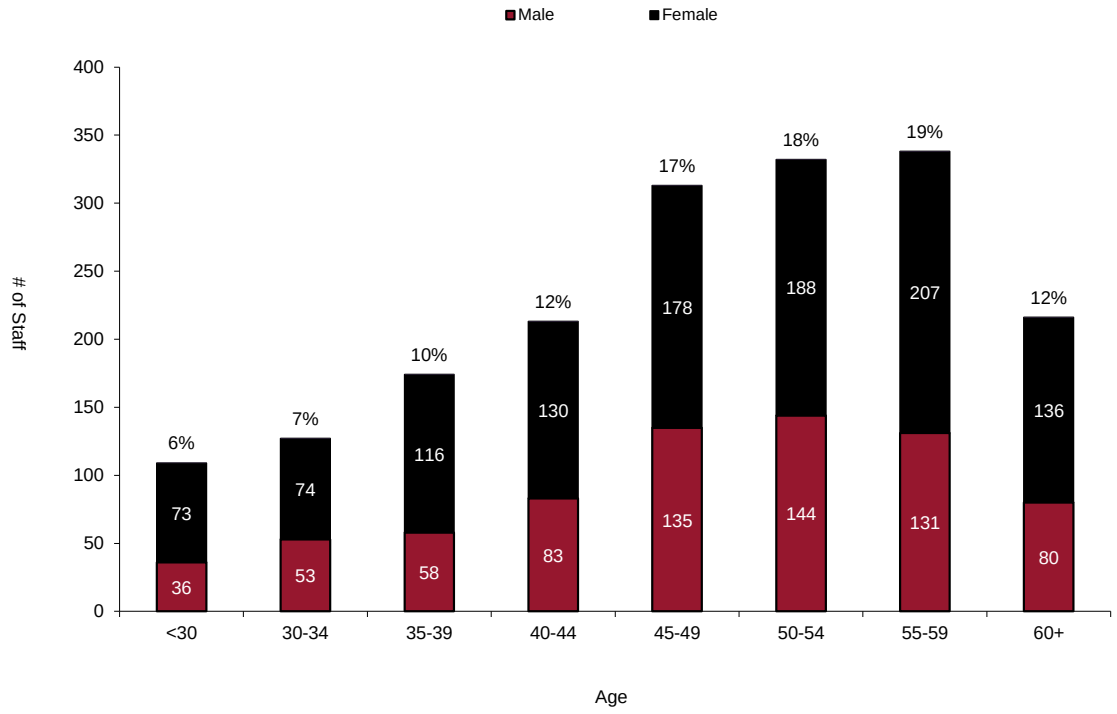
[47] Source: Finance. Staff complement positions are ongoing positions—filled and open—supported by operating funds, for which the University has made a budgetary commitment. A position may have two incumbents sharing the responsibilities.

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 is with faculty—we face a significant challenge managing retirements with almost 50 percent of our academic support staff older than 50 years of age.

Figure 5.2.A

Age Distribution of Academic Support Staff as of July 1, 2012



6. Co-operative Education

From its inception in 1957, the University of Waterloo has committed to the model of co-operative education. In fall 2011 about 61 per cent of full-time students were registered in over 120 co-operative education programs across the six academic Faculties. Waterloo maintains over 28,000 active employer contacts, and has had 5,000 to 6,100 students looking for employment each term. The overall number of students has steadily increased each year. The winter term of 2012 reached a milestone, with over 6,000 students seeking employment. The first university to use the co-op model in Canada, uWaterloo has the largest public university-based co-operative education program in the world.

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 for the term by Faculty. The overall employment rate at the beginning of the term was 88 per cent. The overall final employment rate in 2011/12 grew to 96 per cent. This is equivalent to the final rates achieved in 2010/11 and 2009/10 of 96 per cent.

Figure 6.1.A

Co-op Employment Summary 2011/12

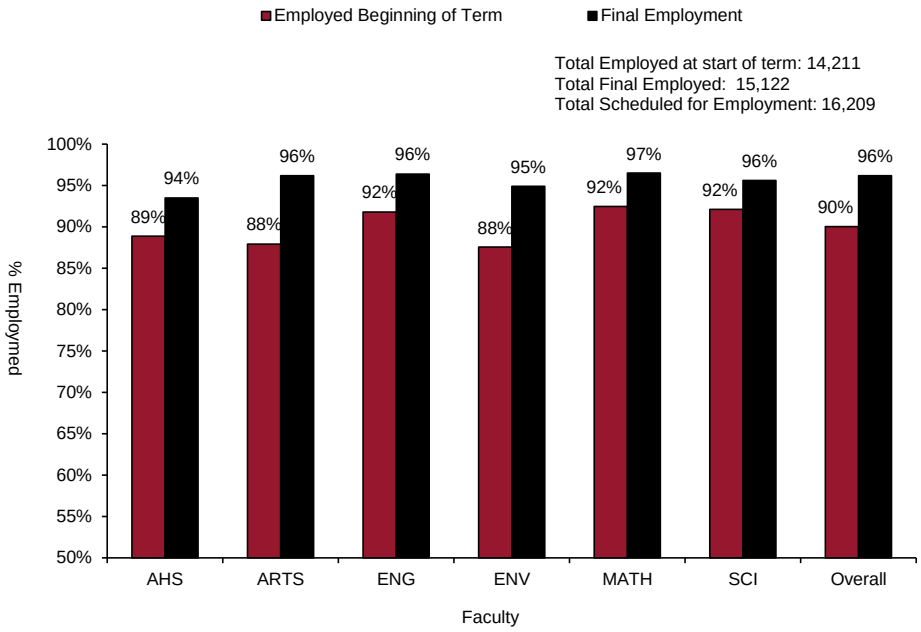
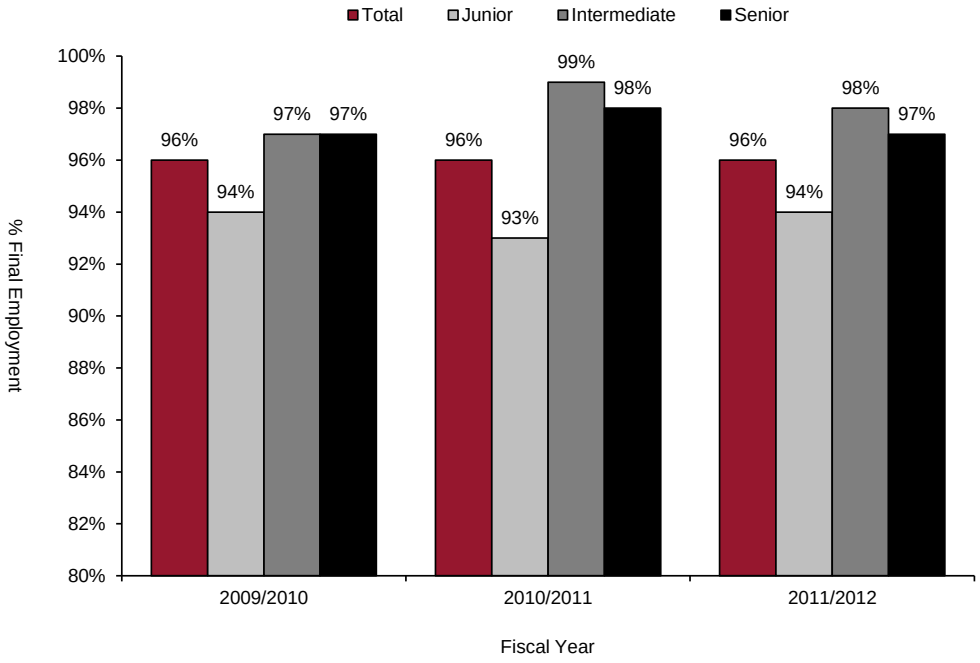


Figure 6.1.B shows final employment rates by level. CECA tracks employment rates as early as the middle of the academic term preceding the work term. We have identified junior students (first or second work term) as being hired later in the process and are working to understand how to help them gain employment earlier in the process.

Figure 6.1.B

Co-op Final Employment by Student Level



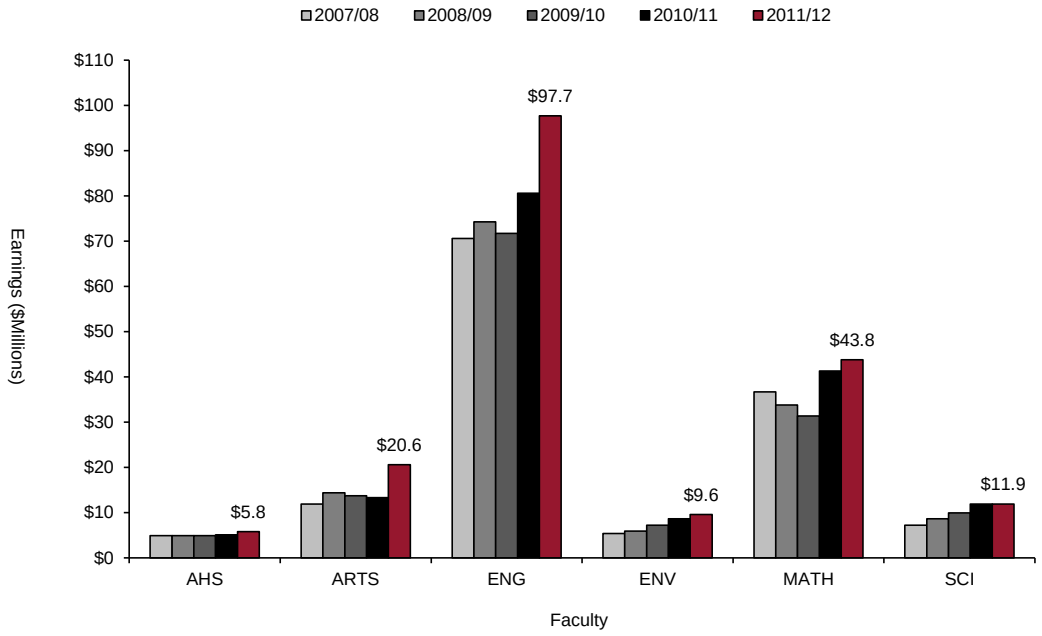
6.2 EARNINGS BY CO-OP STUDENTS

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[48], providing a maximum 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 2011/12 are estimated to be approximately $189 million[49].

Figure 6.2.A

Total Earnings by Co-op Students by Faculty



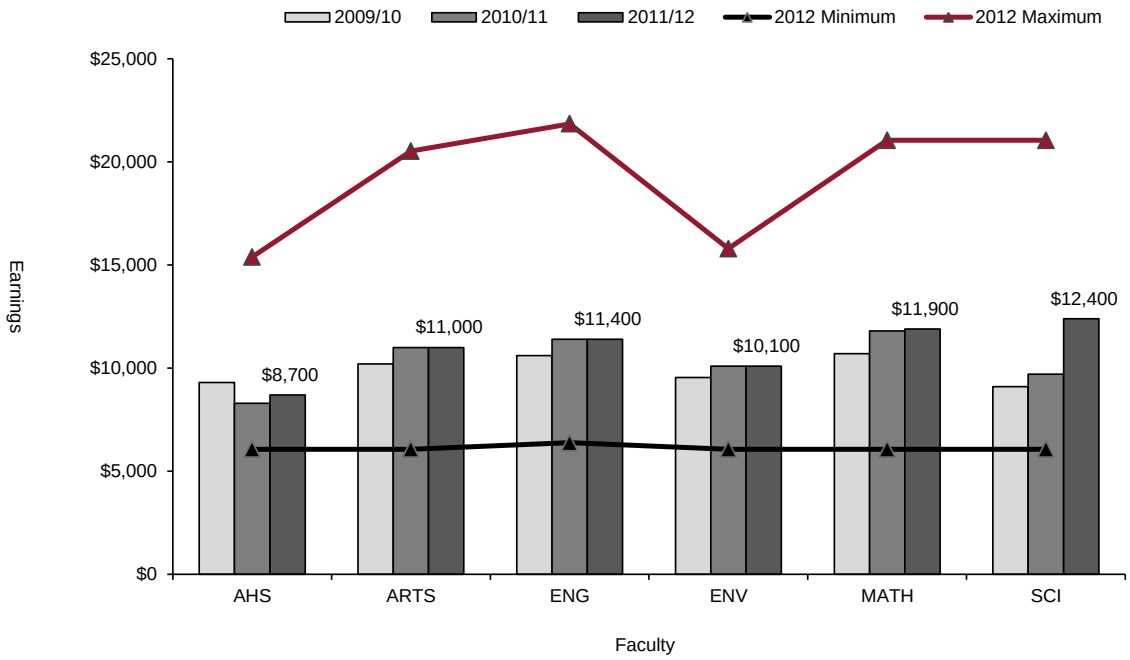
Co-operative work term income is an important measure for students, letting them know what to expect from the co-operative employment experience. Figure 6.2.B shows the average work term salary by Faculty over the past four years. On average a student earned $12,351 during the work term.

[48] http://www.rev.gov.on.ca/en/credit/cetc/

[49] Total student earnings are estimated using average salaries.

Figure 6.2.B

Average Co-op Earnings per Work Term by Faculty 2011/12



In addition to a salary premium two years after graduation of approximately 12 per cent[50], 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.

[50] 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 uWaterloo'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.

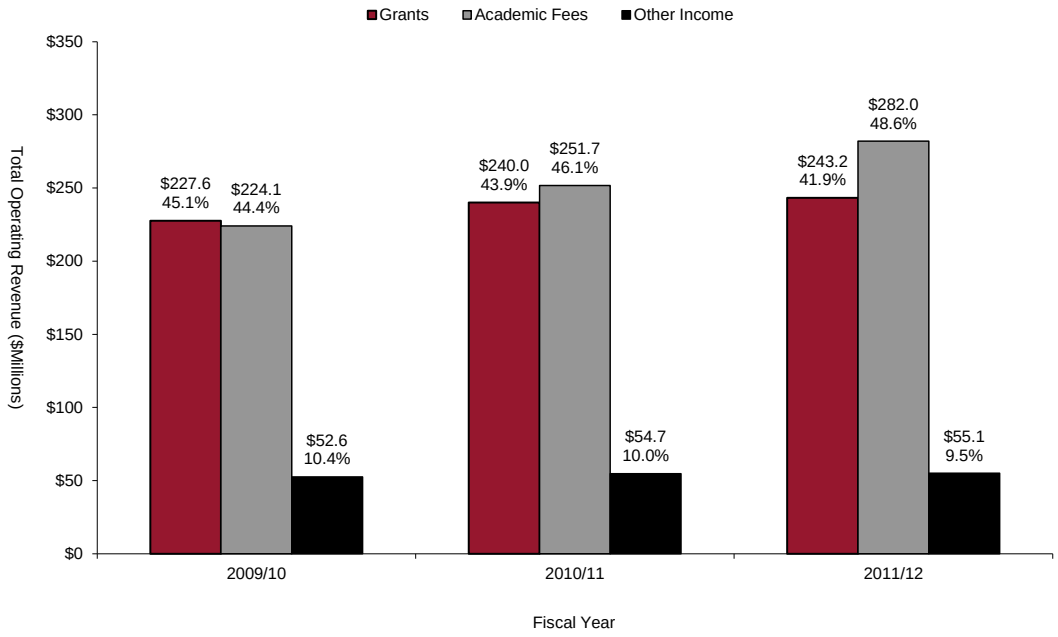
7.1 OPERATING REVENUE BY SOURCE

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 total. 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

Operating Revenue by Source



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 18.9 per cent in 2011/12 due, in most part, to uWaterloo's response to the increased financial demands placed on students.

Figure 7.1.B

Scholarships and Bursaries as % of Operating Expenses

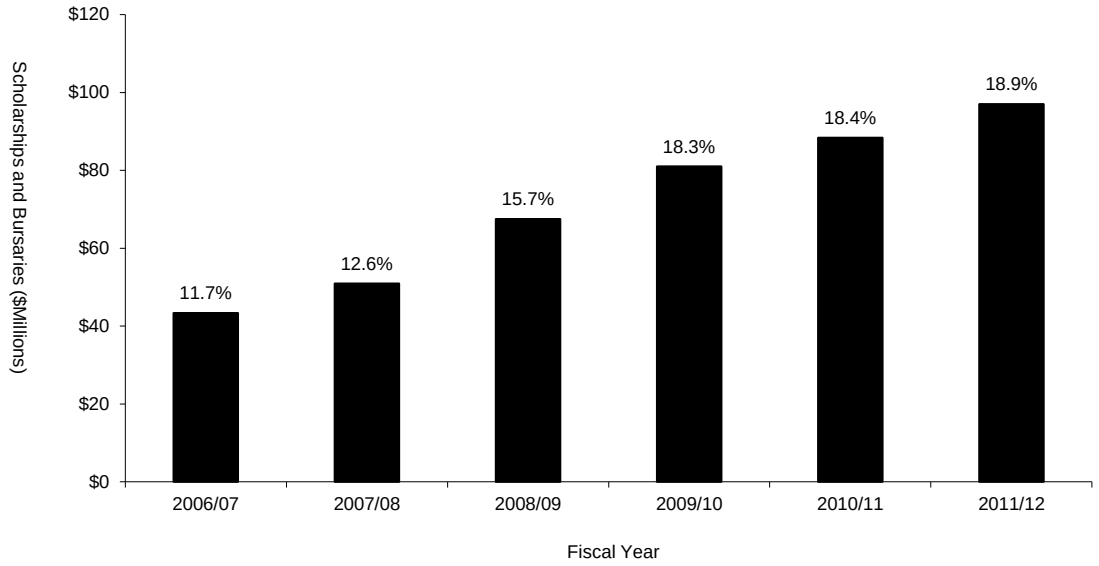
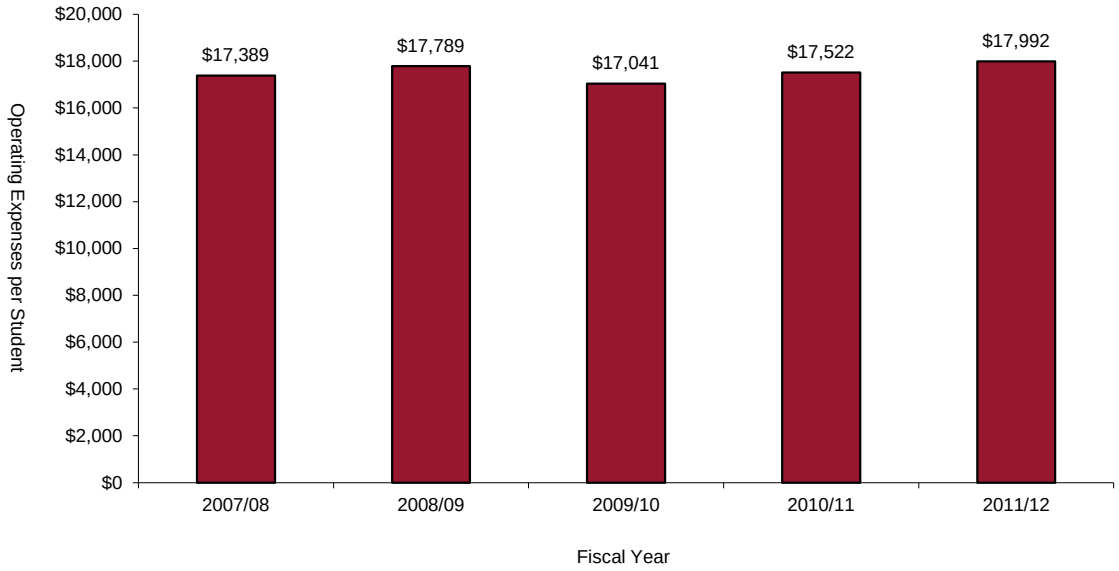


Figure 7.1.C

Operating Expenses per FTE Student



WATERLOO

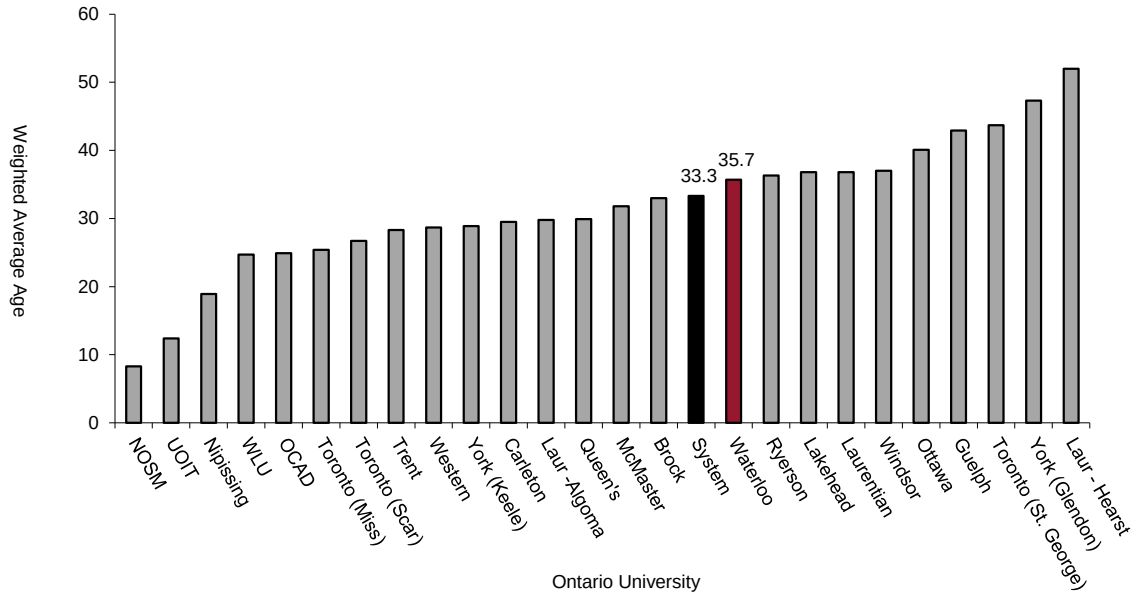
7.2 AGE OF FACILITIES PROFILE

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[51] of an institution 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 most recent survey year was 2010/11.

Figure 7.2.A presents the weighted average ages of 25 Ontario universities. In 2010, our physical facilities had a weighted average age of 35.7, as compared to 35.4 in 2007[52].

Figure 7.2.A

Age Profile of Ontario University Space as of November 1, 2010



[51] Weighted average age is 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.

[52] Source: COU Inventory of Physical Facilities of Ontario Universities 2010-11, Age Profile of Ontario University Space (data is preliminary).

7.3 SPACE INVENTORY

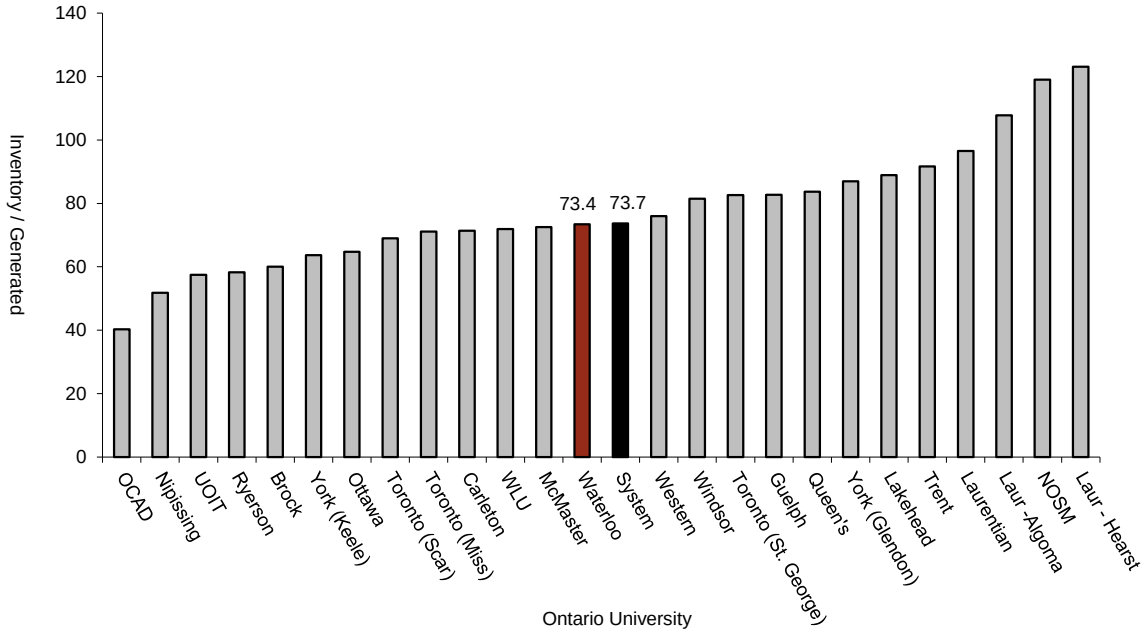
Every three years, the COU also calculates generated space for each Ontario university: how much space it needs, based on space standards developed by COU and on the numbers of faculty, staff, and students, as well as other measures of activity at each university. This formula number is compared to the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

If a university's inventory of space matches its generated 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.

As of November 2010, uWaterloo was comparable with the system average: we had 73.4 per cent of the space we needed, compared to the system average figure of 73.7 per cent.

Figure 7.3.A

Percentage of Inventory to Generated Space[53]

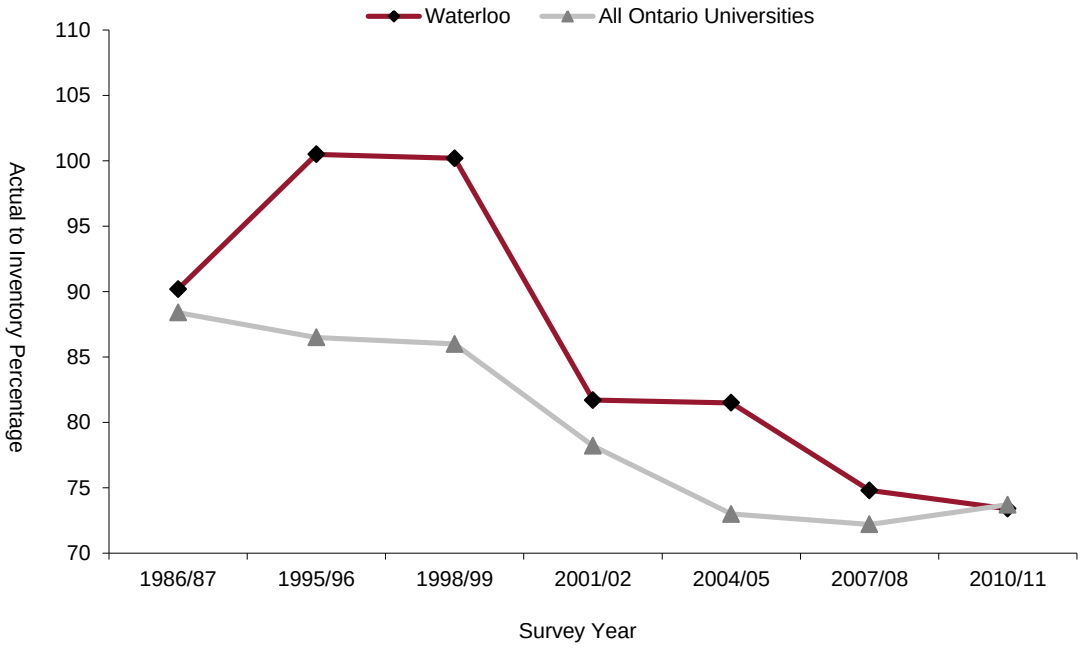


[53] Source: COU Inventory of Physical Facilities of Ontario Universities 2010-11; (data is preliminary).

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, uWaterloo 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[54]

Percentage of Actual Space to Generated Space



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

8. University Advancement & Fundraising

The year 2011/12 was one of rebuilding at uWaterloo, specifically in the fundraising arena. In 2011/12, total funds raised were $56.2 million and funds received (cash-in) totalled $47.5 million.

8.1 ALUMNI DONATIONS

Alumni donors play a significant role in supporting the University of Waterloo. We measure our success in building and maintaining alumni relationships by the number of alumni with valid contact information and the number of alumni donors.

From these two figures we can calculate the percentage of alumni who make gifts to uWaterloo – approximately 11 per cent. This percentage may be seen as an indicator of how well the university served alumni while they were students, the depth of their continuing affinity for uWaterloo and a measure of their support for higher education. Our success in earning and retaining the loyalty of alumni may be measured over time by monitoring this indicator.

Following trends experienced by many post-secondary institutions, uWaterloo continued to see declines in alumni participation rates.

Figure 8.1.A

Alumni Donation Statistics	
	2007-2012
Alumni with valid contact information (cumulative five-year total)	474,807
Alumni donors (cumulative five-year total)	52,576
Participation	11%
Percentage of known alumni with valid contact information: 66%	

8.2 FUNDRAISING FINANCIAL PERFORMANCE

Fundraising financial performance measures the effectiveness of advancement activities across the entire university by total dollars received and is an important indicator of how well we are doing to raise private-sector gifts. Results published annually in our Stakeholder Report show donors total dollars raised, dollars raised by constituency, fund designation, and the impact of donations on uWaterloo's programs, scholarships, buildings, and research.

It is important to view dollars received over several years, as fundraising is prone to peaks and valleys as a result of transformational gifts received, and is affected by the Canadian and global economy, leadership staffing changes, and government priorities.

In 2010/11 the university also began tracking the dollars raised as an important metric for demonstrating the fundraising effectiveness in one year. Dollars raised reflects all new pledges and gifts received during the reporting period.

The Ontario Trust for Student Support (OTSS) program ended in March 2012. This was an important program to encourage endowed gifts for student financial aid. We were once again successful in maximizing the OTSS program, obtaining a $1.2775 - $1 match on fundraised dollars. This represents an additional $1.47 million in external revenue directed to our endowments.

A summary of funds received from the private sector is shown, year-by-year, from 2007/08 to 2011/12. This includes cash gifts, private-sector research grants, and sponsorship to the University and 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

Private Sector Contributions (2007 – 2012)

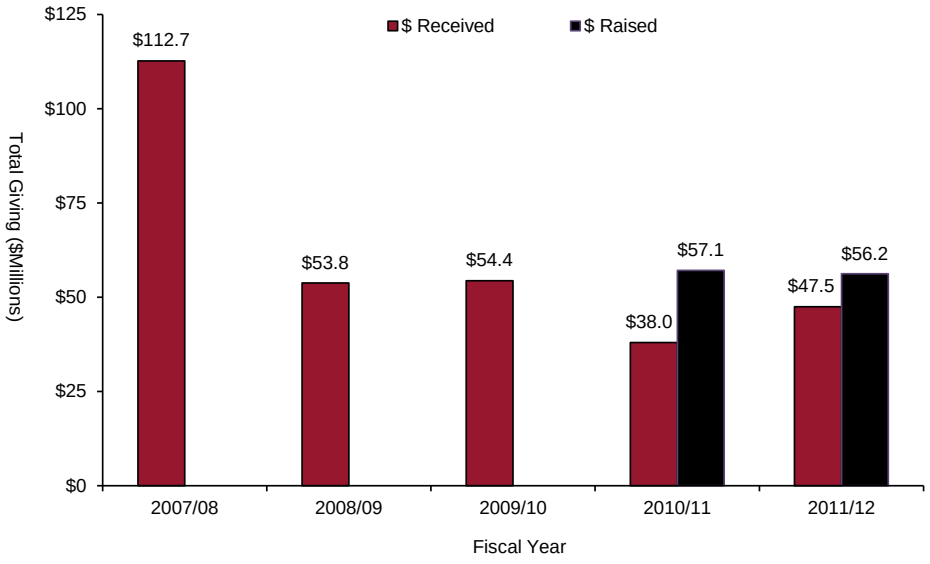


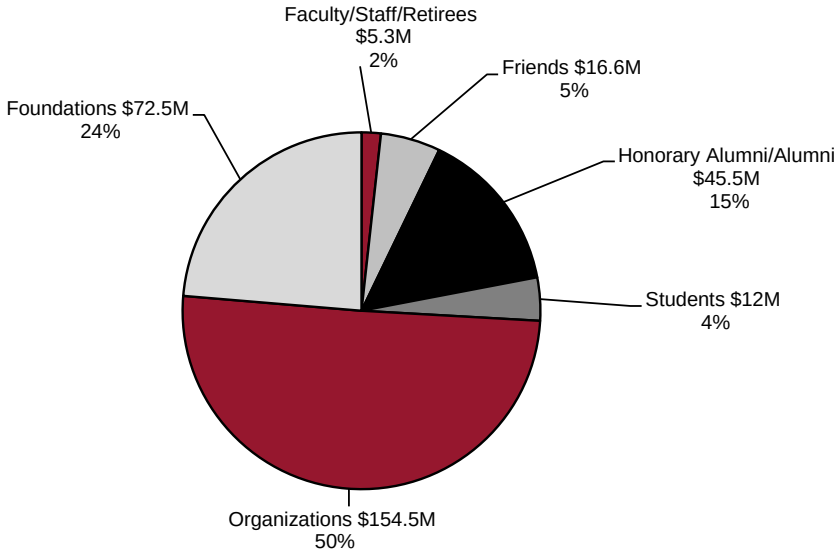
Figure 8.2.A shows 2007/08 was an exceptional year where $64.6 million of the total cash received came from four generous donors. Cumulative dollars received from 2007 to 2012 is $306.4 million.

8.3 DONOR CONSTITUENCY

Figure 8.3.A shows dollars received (cash and gifts-in-kind) by donor constituency during 2007 to 2012. This indicator shows trends in giving by various donor groups and will allow us to track the effectiveness of programs aimed at different constituencies over time.

Figure 8.3.A

Contributions by Donor Constituency (2007 – 2012)



8.4 GIFT DESIGNATION

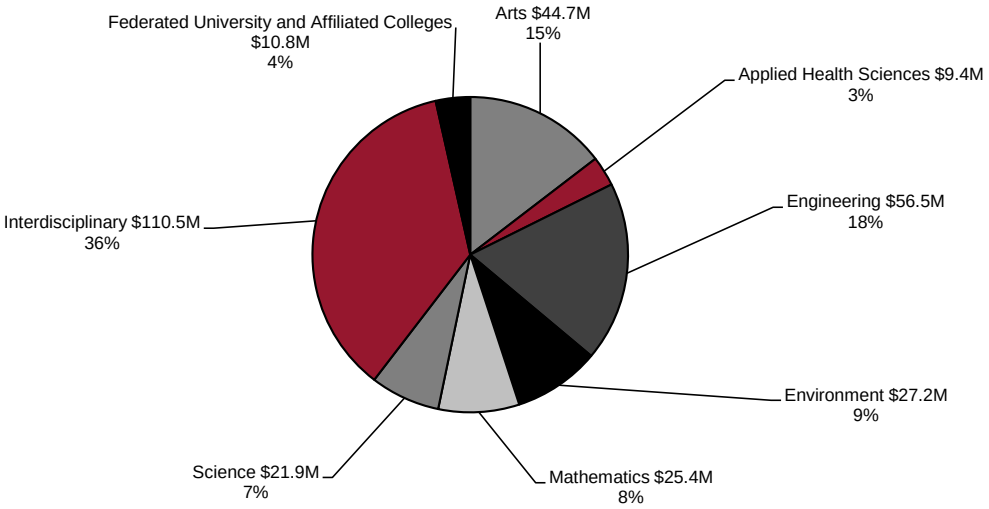
Another way of interpreting advancement activity is to show cumulative fundraising results (cash and gifts-in-kind) by the Faculty or project area that ultimately receives the funds. Most donors designate their gifts to benefit a specific Faculty, college, program, or scholarship etc. Internally, this information gives volunteers, administrators and deans an indication of their fundraising progress. Externally, it shows donors where their contributions have made an impact.

Figure 8.4.A shows fundraising results by Faculty, college, and unit.
Figure 8.4.B shows fundraising results by designation.

The “Interdisciplinary” section includes scholarships that are open to students in two or more disciplines, such as the David Johnston International Experience Awards, 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.

Figure 8.4.A

Results by Faculty, College, or Unit (2007 – 2012)

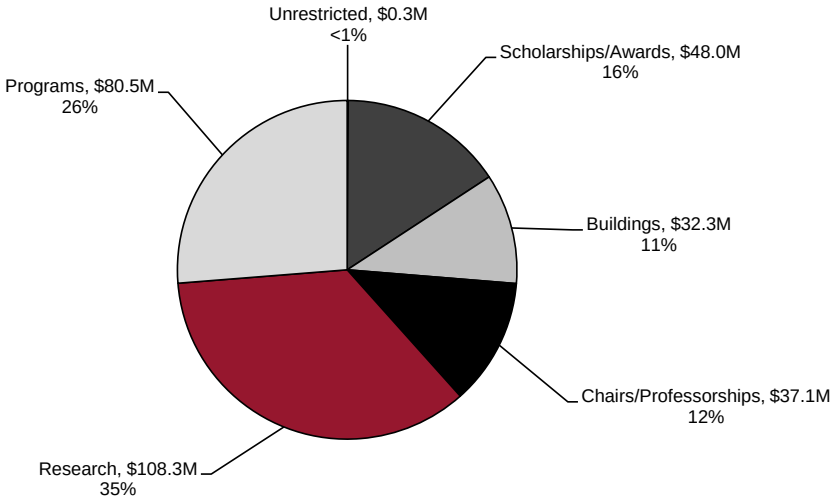


* Interdisciplinary includes the following:

Scholarships	$11.3 million
Research Grants	$34.6 million
IQC	$49.9 million
Library	$2.2 million
Athletics	$1.3 million
Other	$11.2 million

Figure 8.4.B

Results by Gift Designation (2007 – 2012)[55]



[55] Based on Gifts Received.

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).

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

Library Expenditures[56] as % of University Operating Expenditures, U15 Universities

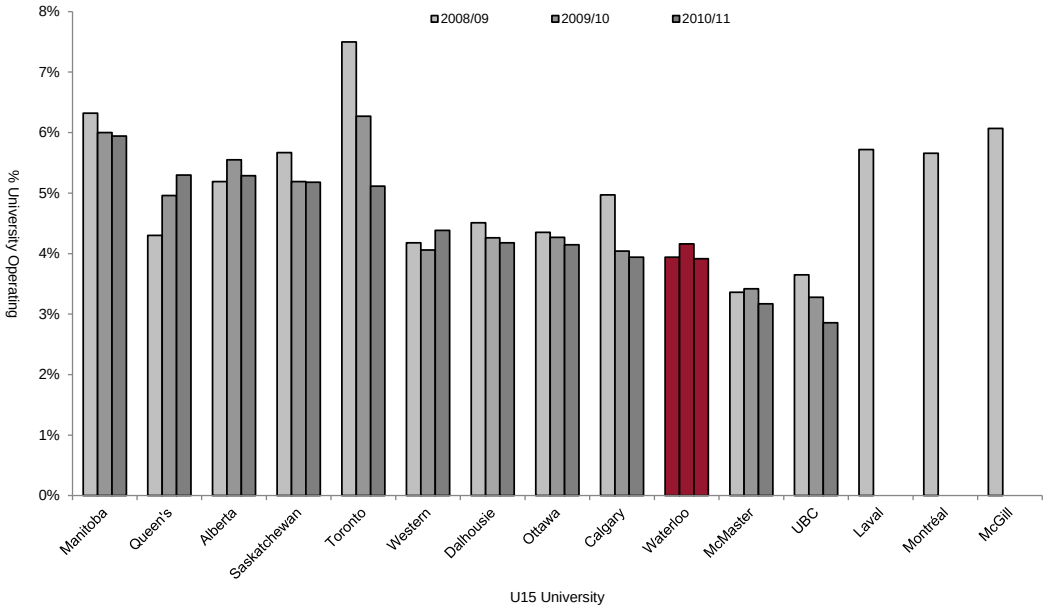


Figure 9.1.A shows library expenditures as a percentage of the University operating budget for each of the U15 universities (CAUBO data for 2009/10 and 2010/11 were not available for Quebec universities as of 20 July 2012) for the three latest fiscal years. Waterloo's library expenditures were 3.94 per cent of university operating expenditures in 2008/09. The next year this percentage rose to 4.16 per cent. In 2010/11 the percentage again decreased to 3.91 per cent. Waterloo's rank among the 12 reporting U15 universities has fallen to 10th in 2010/11.

[56] 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 U15 universities as well as for the TriUniversity Group (TUG).

While Waterloo ranked low in 2010/11 in total holdings at eleventh place, the holdings count for the TriUniversity Group shows the benefit of making the collections of our TUG partners (U of Guelph and WLU) 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), U15 Universities & TriUniversity Group (TUG)

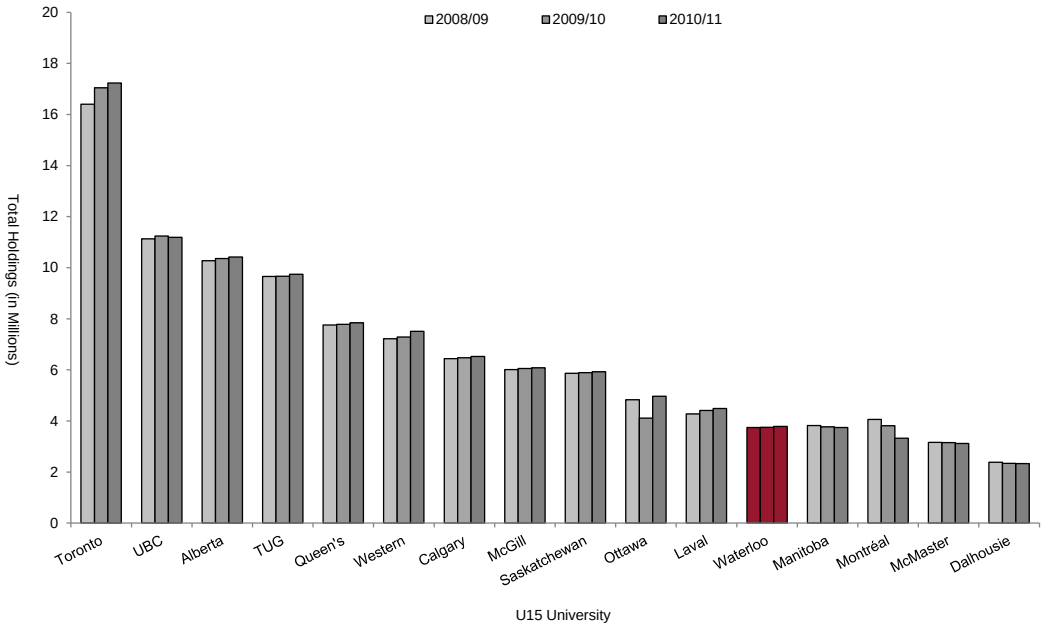


Figure 9.2.B shows the libraries' holdings in terms of items per full-time equivalent student (FTE), which takes into account the level of demand. Waterloo had 155 items per student in 2008/09. This count decreased to 144 in 2009/10. In 2010/11, Waterloo dropped to eleventh position in the U15 (data only available for 12 universities) with holdings of 138 items per student. Enrolment data for Dalhousie, University of Manitoba, and University of Saskatchewan were not available for inclusion in the 2012 Performance Indicators Report.

Figure 9.2.B

Total Library Holdings per Student FTE, U15[57] Universities

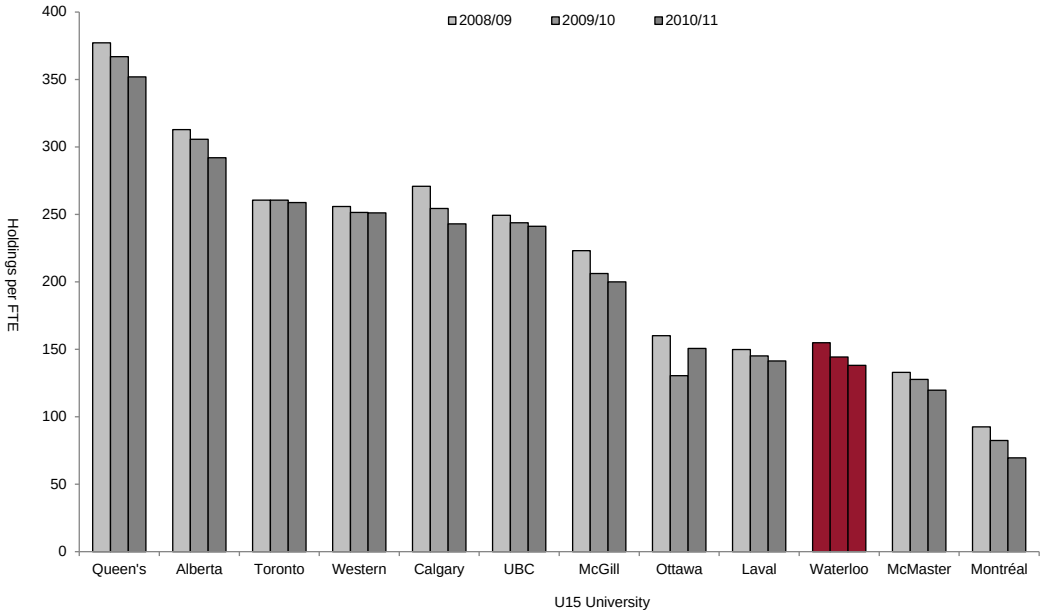


Figure 9.2.A and Figure 9.2.B include counts of printed materials (monographs, bound journal volumes, government documents) and micro-materials, but not electronic, cartographic, or audio-visual materials. The counts do not include the holdings of the libraries of Waterloo's Federated University and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

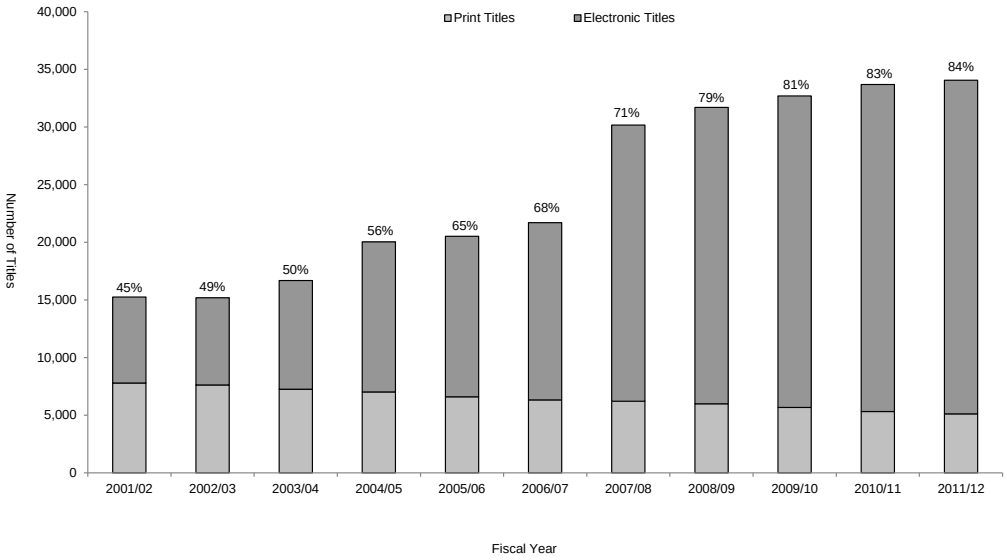
The data in these charts do not take into account the significance of electronic resources, which are playing an increasingly important role at all universities. Electronic monograph holdings at Waterloo have grown from 5,747 titles in 2000/01 to 357,626 titles in 2011/12 and now represent over 19.5 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 34,061 current serial titles in 2011/12, of which 28,934 titles (i.e., 85 per cent) are in electronic format.

[57] University of Saskatchewan and University of Manitoba did not participate in the Student FTE project.

Figure 9.2.C

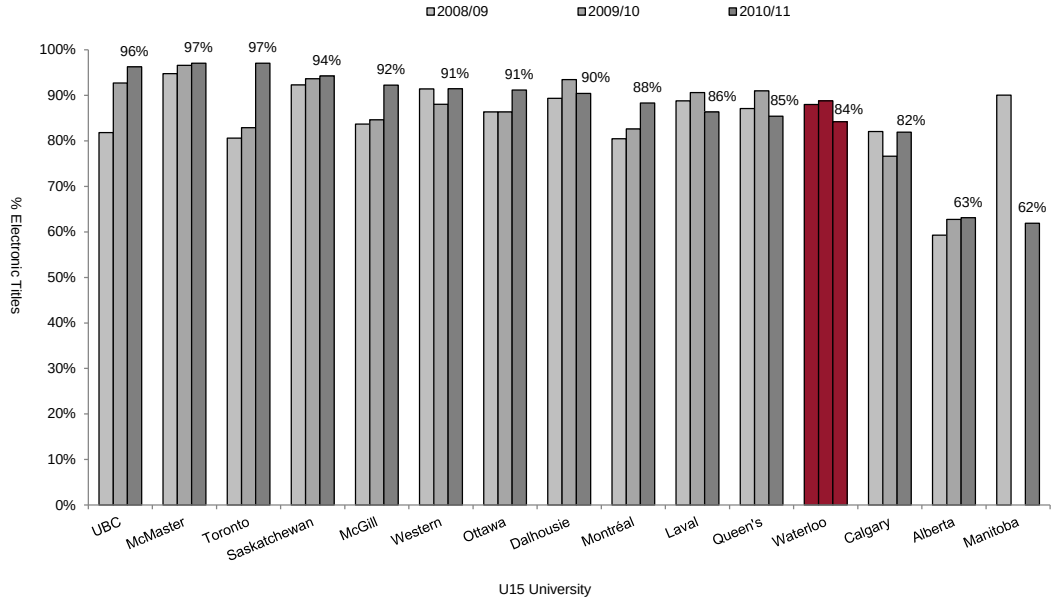
Library Holdings: Print and Electronic Serial Titles



While Waterloo has placed low since 2005/06 among U15 university libraries for total number of serial titles, we rank higher in terms of our percentage of serial titles in electronic format. Figure 9.2.D shows that in 2010/11, Waterloo was in twelfth place with 84 per cent of its serial titles in electronic format.

Figure 9.2.D[58]

% Serial Titles in Electronic Format, U15 Universities



[58] University of Manitoba's data was unavailable for 2009/10.

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