Annual Performance Indicators

October 2008

CORRECTIONS

The following corrections have been made to the online version of the 2008 Performance Indicator report. Please note that the hard copies distributed do not contain these corrections.

Page 5

Relevance: Sixth decade goals set a target for graduate student enrolment to be 25 per cent of the total student population.

Page 16

Performance: Annual funds raised in 2007/08 amounted to $112 million, representing 26 per cent of the operating revenue. In 2007/08, the cumulative campaign results stood at $466 million, 130 per cent of the 2007 campaign goal and 47 per cent of the 2017 goal.

The following charts have been updated with current NSERC data as the information became available after distribution of the report had been completed:

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Figure 3.2.E

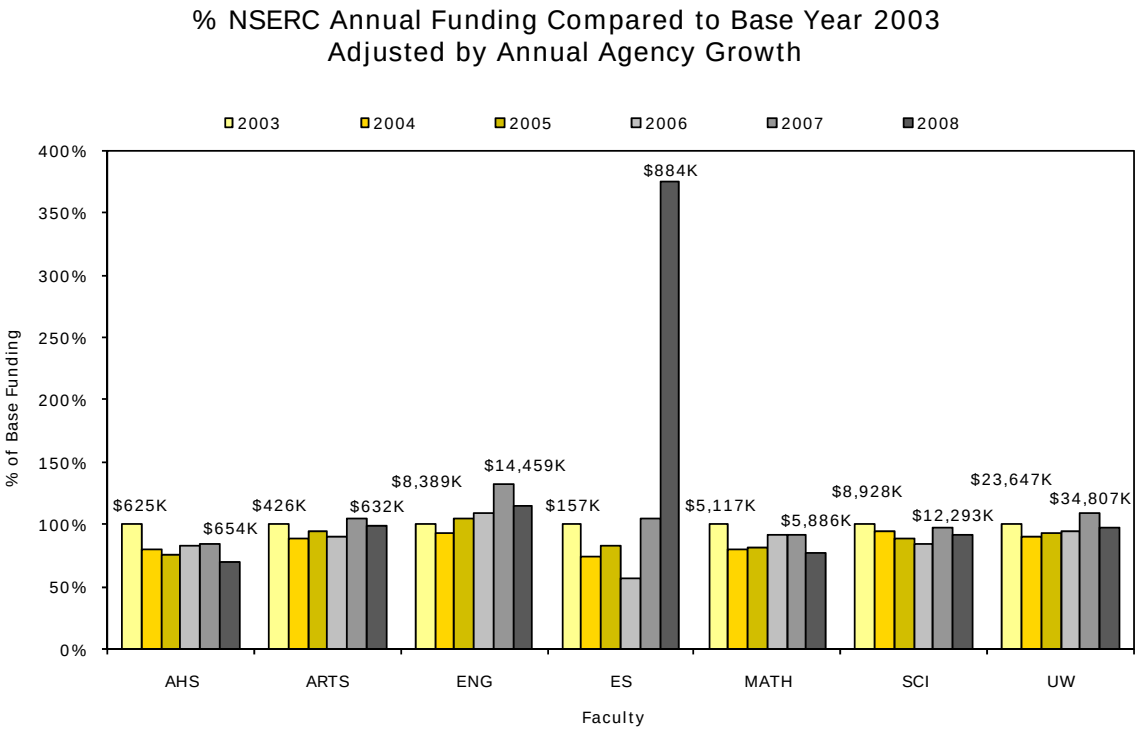

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Figure 3.2.H

NSERC - % Change in $ to G13 2002-2007					
	G13 University	2002/03 $ x 000s	2007/08 $ x 000s	Change $ x 000s	Change %
1	Ottawa	11,937	20,988	9,051	75.8%
2	Queen's	20,446	35,381	14,935	73.0%
3	UBC	39,281	62,786	23,505	59.8%
4	Waterloo	27,993	44,543	16,550	59.1%
5	McMaster	17,350	25,613	8,263	47.6%
6	McGill	29,568	41,044	11,476	38.8%
7	Laval	29,836	40,963	11,127	37.3%
8	Toronto	50,245	66,873	16,628	33.1%
9	Western	16,288	21,651	5,363	32.9%
10	Calgary	19,679	25,473	5,794	29.4%
11	Alberta	37,091	45,274	8,183	22.1%
12	Dalhousie	15,451	18,507	3,056	19.8%
13	Montréal	20,408	22,821	2,413	11.8%
	G13 Total	335,573	471,917	136,344	40.6%
	Total/all Institutions	584,746	852,826	268,080	45.8%

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Figure 3.2.K

NSERC - Distribution of $ to G13				
	G13 University	2007/078$ x 000s	% of Total G13 $	% of Total $
1	Toronto	66,873	14.17%	7.84%
2	UBC	62,786	13.30%	7.36%
3	Alberta	45,274	9.59%	5.31%
4	Waterloo	44,543	9.44%	5.22%
5	McGill	41,044	8.70%	4.81%
6	Laval	40,963	8.68%	4.80%
7	Queen's	35,381	7.50%	4.15%
8	McMaster	25,613	5.43%	3.00%
9	Calgary	25,473	5.40%	2.99%
10	Montréal	22,821	4.84%	2.68%
11	Western	21,651	4.59%	2.54%
12	Ottawa	20,988	4.45%	2.46%
13	Dalhousie	18,507	3.92%	2.17%
	Total	471,917	100.00%	55.34%
	Total/all Institutions	852,826		

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Figure 3.2.O

NSERC Discovery Grants 2007/08					
G13 University	Number		Amount		Average Award ($)
	N	%	$	%	
Toronto	740	7.37%	$27,132,407	8.98%	$36,665
UBC	666	6.63%	$22,954,203	7.60%	$34,466
Alberta	550	5.48%	$18,588,016	6.15%	$33,796
McGill	521	5.19%	$17,608,123	5.83%	$33,797
Waterloo	553	5.51%	$16,943,564	5.61%	$30,639
Calgary	386	3.84%	$11,453,138	3.79%	$29,671
Western	382	3.80%	$11,266,571	3.73%	$29,494
McMaster	345	3.43%	$11,261,851	3.73%	$32,643
Laval	353	3.51%	$10,551,275	3.49%	$29,890
Montréal	290	2.89%	$10,125,810	3.35%	$34,917
Queen's	289	2.88%	$10,084,636	3.34%	$34,895
Dalhousie	301	3.00%	$9,203,950	3.05%	$30,578
Ottawa	276	2.75%	$8,349,740	2.76%	$30,253
G13 Total	5,652	56.27%	$185,523,284	61.40%	$32,439
Total Awarded	10,044	100.00%	$302,156,326	100.00%	$30,083

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INTRODUCTION

Through the three core activities that characterize every university—teaching, research and community service—universities have a direct impact on our identity, our productivity, our social, physical and economic well-being, and our quality of life. They broaden our horizons culturally, philosophically and intellectually.

—Trends in Higher Education, Association of Universities and Colleges of Canada

Over the next 10 years the University of Waterloo will continue to pursue a course for program excellence, enriched research, and a global presence. This course will not be without challenges—increasing expectations of parents, students and government for high quality, accessible and responsive programs; global competition for highly qualified faculty, staff and students; insufficient funding to adequately resource the university enterprise; and demand for transparency and accountability.

Since early 2007, the Ministry of Training, Colleges and Universities has granted the University of Waterloo funding approval for new undergraduate programs in Knowledge Integration and in International Development, graduate programs in Global Governance, Health and Work, and Computational Mathematics. Beginning in 2008/09, Waterloo will seek approval for an increase in career-focused professional graduate programs to address economic and societal needs. Innovative programs such as these complement and build on Waterloo's strengths, create relevant educational experiences for our students, and expand Canada's highly-skilled and resilient workforce.

Our goal to internationalize the University of Waterloo remains a high priority, competing across the globe for highly qualified students, faculty and staff in order to enrich our campus environment. New partnerships, such as the development of a campus in the United Arab Emirates, present both risk and opportunity as we look for innovative ways to globalize and diversify our resources.

We continue to be diligent in our efforts to enhance performance, improve quality, and ensure both accountability and transparency. The publication of this document, along with our Public Accountability web page (www.analysis.uwaterloo.ca/docs/MTCUSubmissions.php), is evidence of our commitment to transparency, the strategic management of our resources, and sound planning for our future.

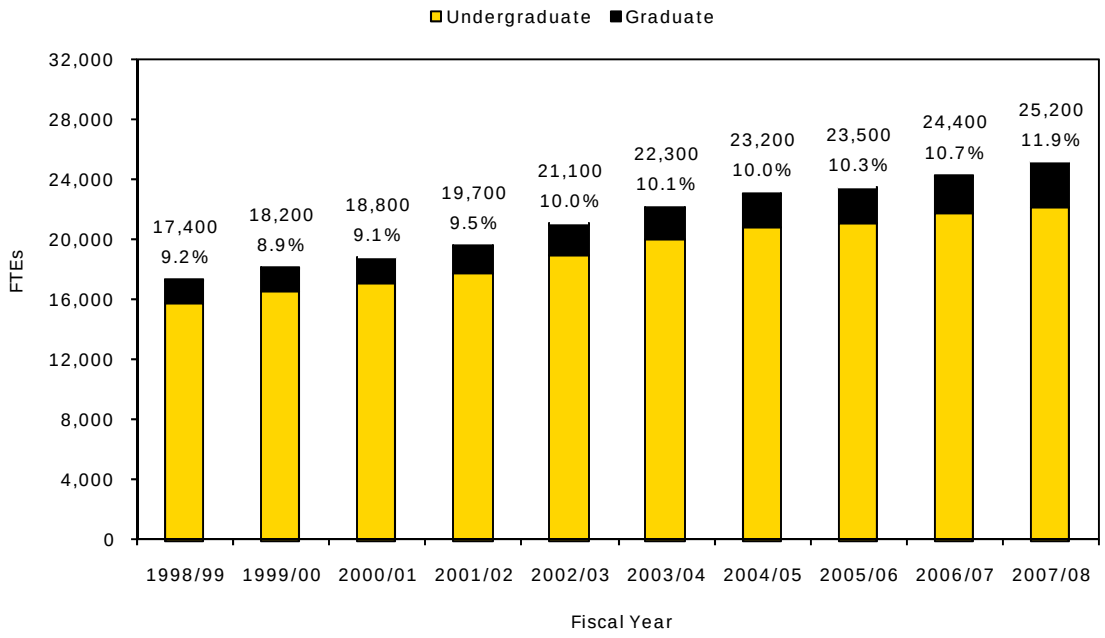
Prepared by the Task Force on Performance Indicators, with the support of the Data Working Group, this fourth annual Performance Indicator Report highlights measures in the following key areas: undergraduate studies, graduate studies, research, faculty, staff, co-operative education, resources, fundraising, and the library. This report is a vehicle to communicate our strengths, our challenges, and our opportunities to the broader community. It reflects our commitment to the culture of access, quality and accountability in Ontario today.

OVERVIEW FOR 2008 REPORT

One year into our sixth decade (2007/08 – 2016/17) we have begun to track our progress using the metrics and indicators in this report. The design and delivery of benchmarks to track our progress requires further investigation and work—this is simply a starting point. The indicators reported in the overview may, in the future, change to better reflect the priorities of the sixth decade plan.

Our Students

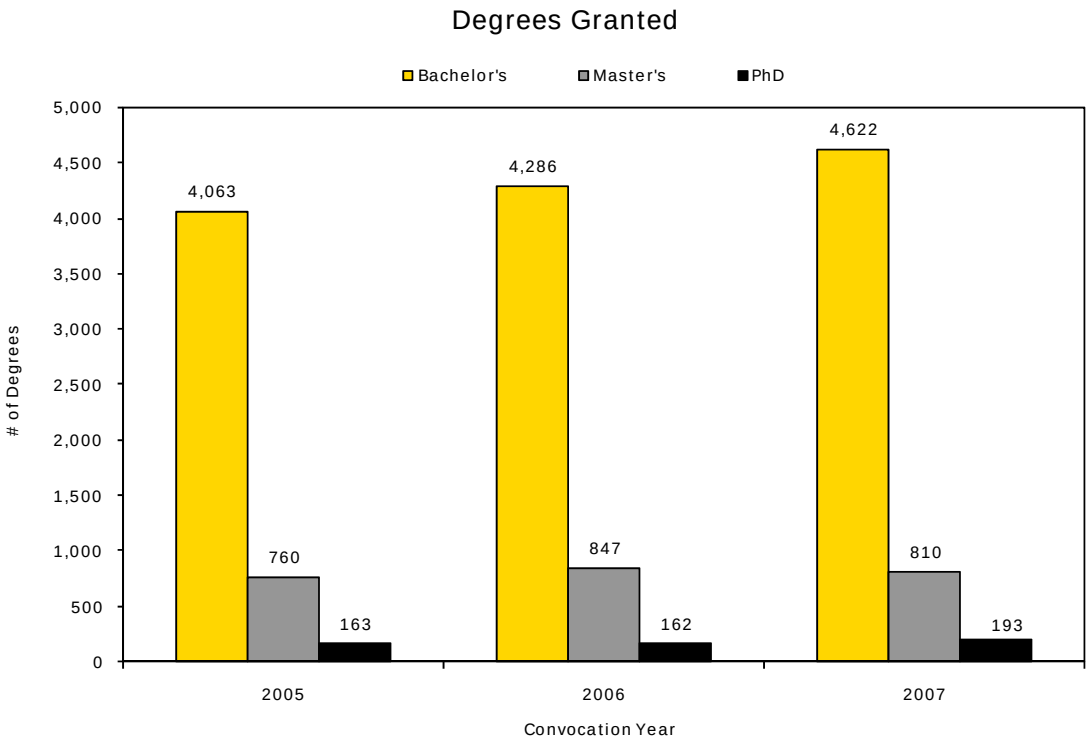
FTE[1] Enrolment – Undergraduate and Graduate



Relevance: Sixth decade goals set a target for graduate student enrolment to be 25 per cent of the total student population.

Performance: In 2007/08, graduate enrolment represented 11.9 per cent of our student population.

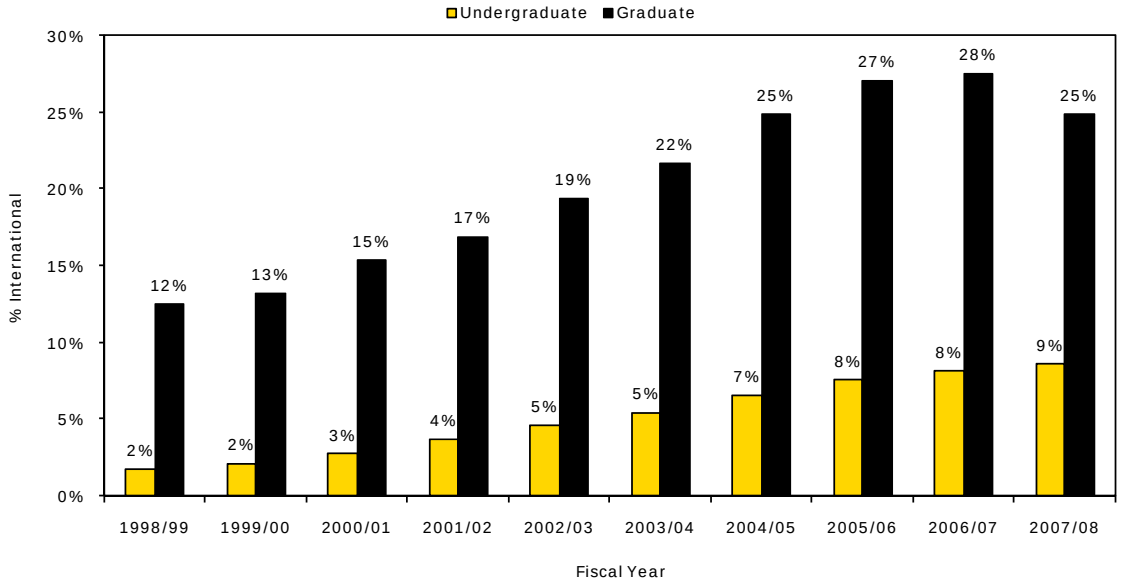
[1] FTE = full-time equivalent.



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

Performance: We expect to see a steady increase in the number of graduate degrees granted, as we realize our graduate enrolment targets.

International Students as % of their Respective Populations

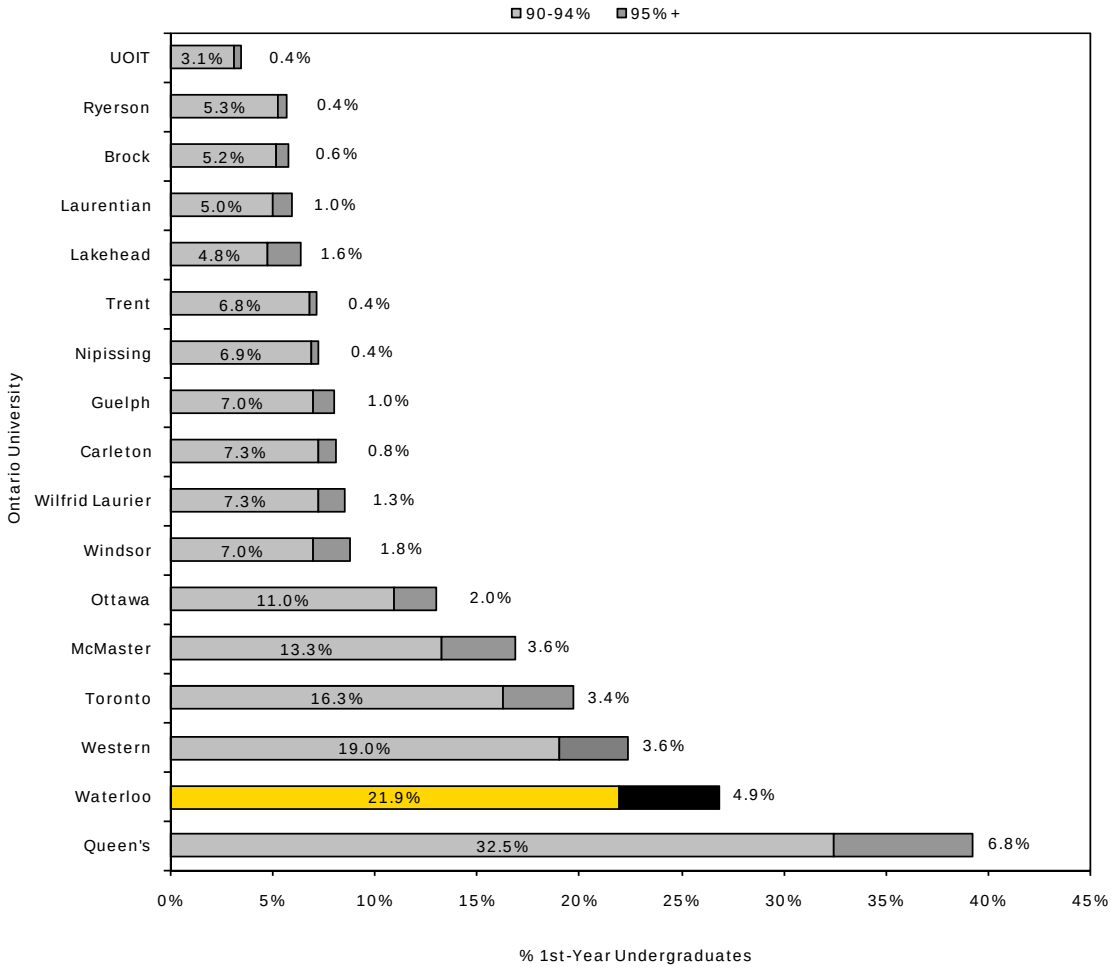


Relevance: Internationalization is a cornerstone of our Sixth Decade plan. Our goal is that international students will represent 20 per cent of our undergraduate student population and 30 per cent of our graduate student population.

Performance: Currently, nine per cent of our undergraduate and 25 per cent of our graduate student populations are international students.

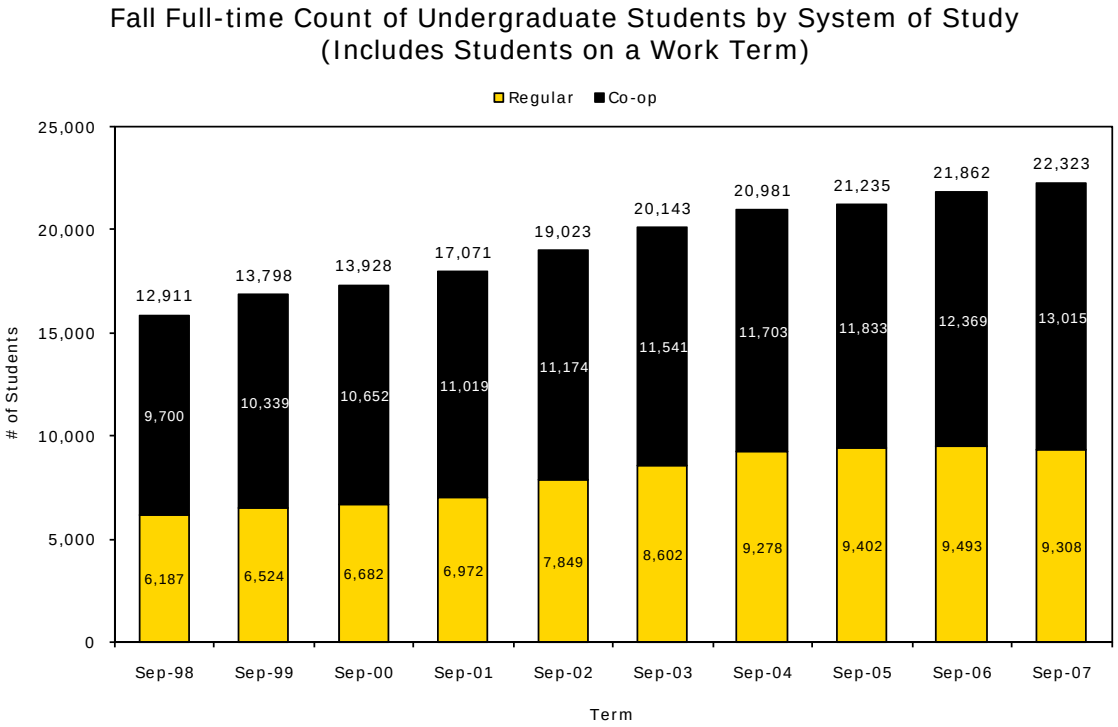
Internationalization at UW includes the experience gained through study abroad and exchange opportunities and international co-op work terms. We have met our target of having 200 UW students studying abroad or in exchange programs, a baseline from which to measure our future activity.

Entering Averages of 90%+ as Compared to Ontario Universities
Fall 2006



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

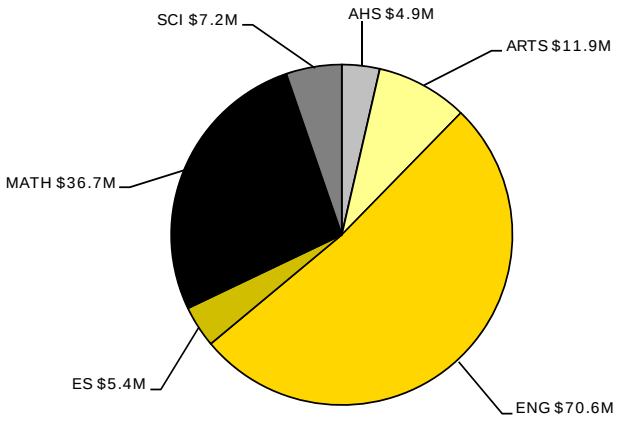
Performance: In prior years we have used the Maclean's survey as a source for entering grade average data, which allowed us to collect results for our G13 peers. That data source is no longer available for all of our G13 peers. We now present the Ontario system which shows Waterloo second to Queen's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



Relevance: UW will maintain its position as the leading co-operative education university in the world.

Performance: The percentage of students registered in undergraduate co-operative education programs has increased to 58 per cent in fall 2007 from 57 per cent in fall 2006. In fall 2007, we see a two per cent increase in our total fall full-time count, with a two per cent decrease in our regular stream programs and a five per cent increase in our co-operative programs over fall 2006.

Total Earnings by Students on Co-op Work Term 2007/08
$136,000,000



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 2007/08 co-op students earned $136 million compared to $129 million in 2006/07, an increase of six per cent overall.

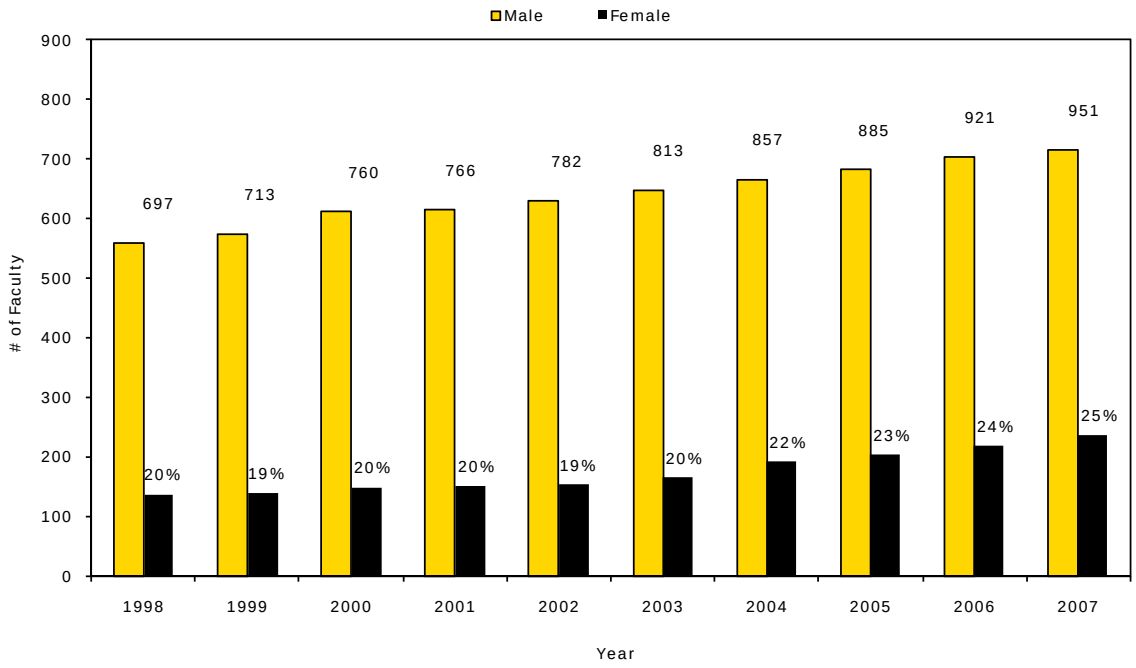
A comprehensive review of co-operative education and career services done in 2005 and a review of the employment process completed in 2006 led the Department of Co-operative Education and Career Services (CECS) to create a strategic framework for co-op renewal encompassing the recommendations of both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

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

- A mission statement, vision and business and culture principles.
- An employer relations and marketing strategy.
- Definition of and stabilization of core processes using process management methodology including the core employment process and the unemployed student management process.
- A framework for employment feasibility studies, new programs and program changes.
- The development of a new information technology system is well underway and on target for fall 2009.
- Increased data analysis and measurement to support projects and business decisions.
- Establishment of an International Working Group to address issues unique to students going on international work terms and incoming visa students, and the development of a risk management framework for the international programs in CECS.

Our Faculty

Count of Full-time Faculty by Gender and Percentage Female[2]

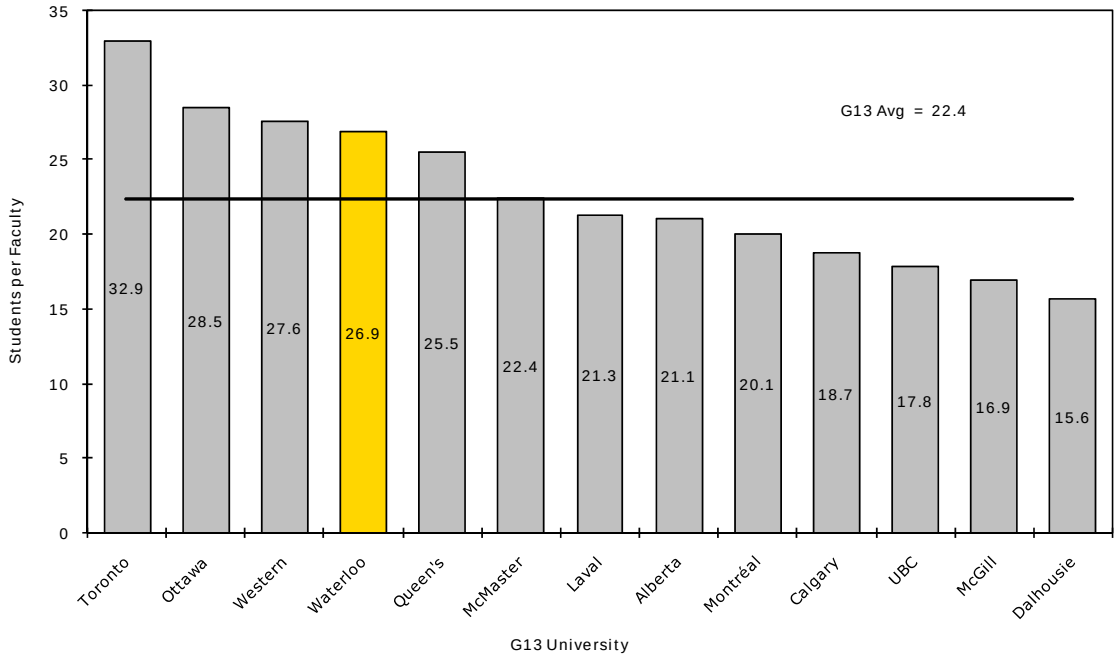


Relevance: Our sixth decade goals include a target of at least 1,000 full-time faculty members by 2017.

Performance: We have experienced a steady increase in the number of full-time faculty over the past several years. With 951 in 2007, we are at 95 per cent of our target for 2017.

[2] Source: Stats Canada UCASS – As of October 1st of each survey year.

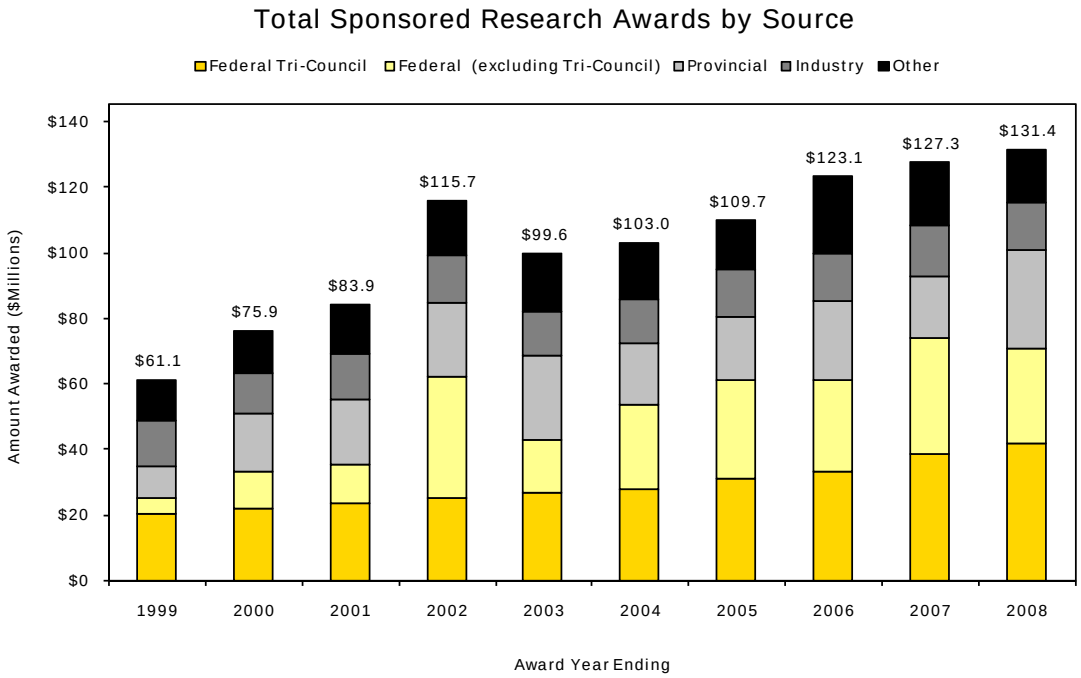
Full-Time Undergraduate Student to Full-Time Tenure and Tenure-Stream Faculty Ratio as Compared to G13 Universities 2006/07



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

Performance: In 2006/07 UW had the fourth highest ratio of full-time student to full-time tenure and tenure-stream faculty among our G13 Data Exchange peers; this position did not change from 2005/06.

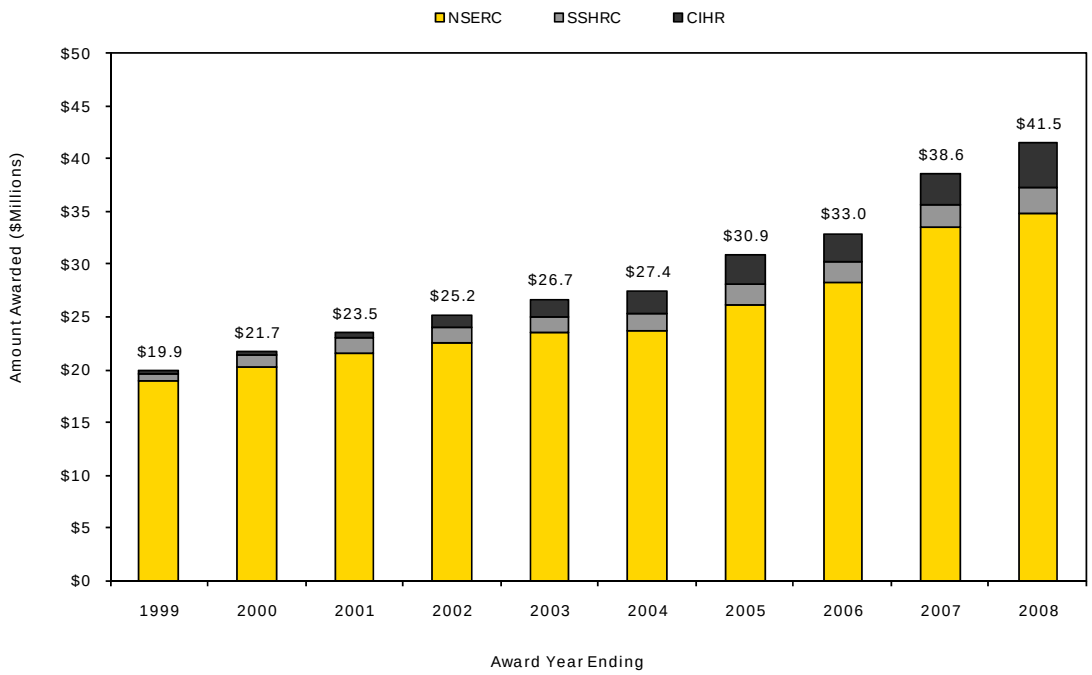
Our Research



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

Performance: Our 2007/08 research revenue represents about 31 per cent of our 2007/08 operating revenue.

Federal Tri-Council Research Awards 1999-2008[3]



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

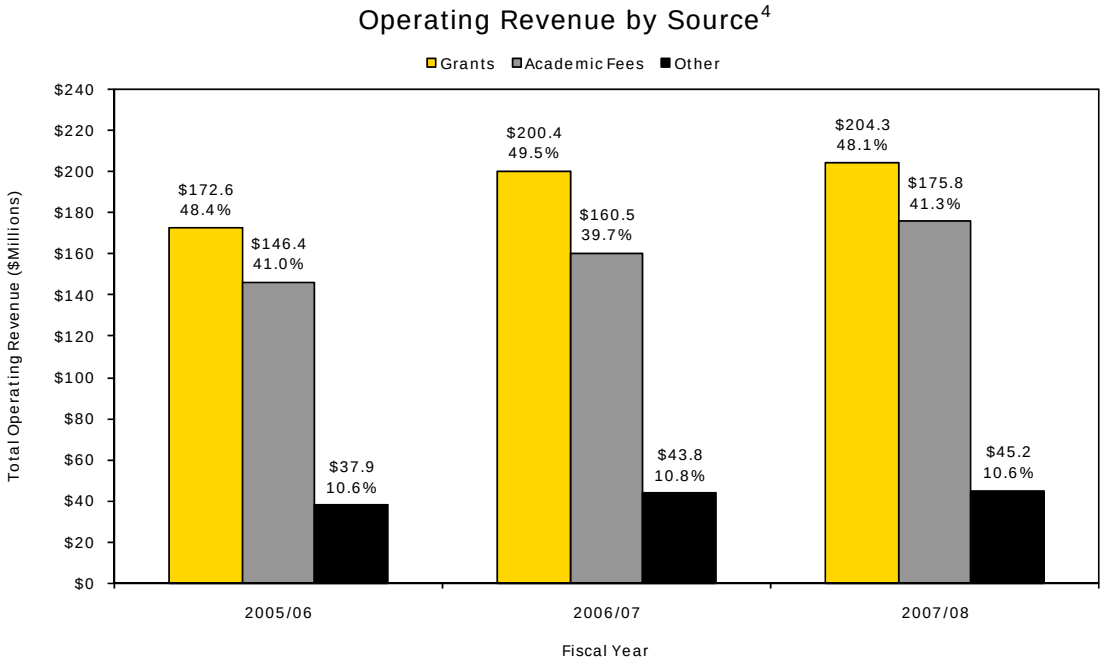
Performance: Relative to the G13, in the period 2001 to 2006, we ranked fourth in percentage increase in monies received from NSERC granting council. In 2006/07, we ranked sixth in absolute dollars received (see Figure 3.2.H in the research section).

Relative to the G13, in the period 2002 to 2007, we ranked fourth in percentage increase in monies received from SSHRC granting council. In 2007/08, we ranked 12th in absolute dollars received (see Figure 3.2.I in the research section).

Relative to the G13, in the period 2002 to 2007, we ranked first in percentage increase in monies received from CIHR granting council. In 2007/08, our absolute dollars received was $4.6 million (see Figure 3.2.J in the research section).

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

Our Resources

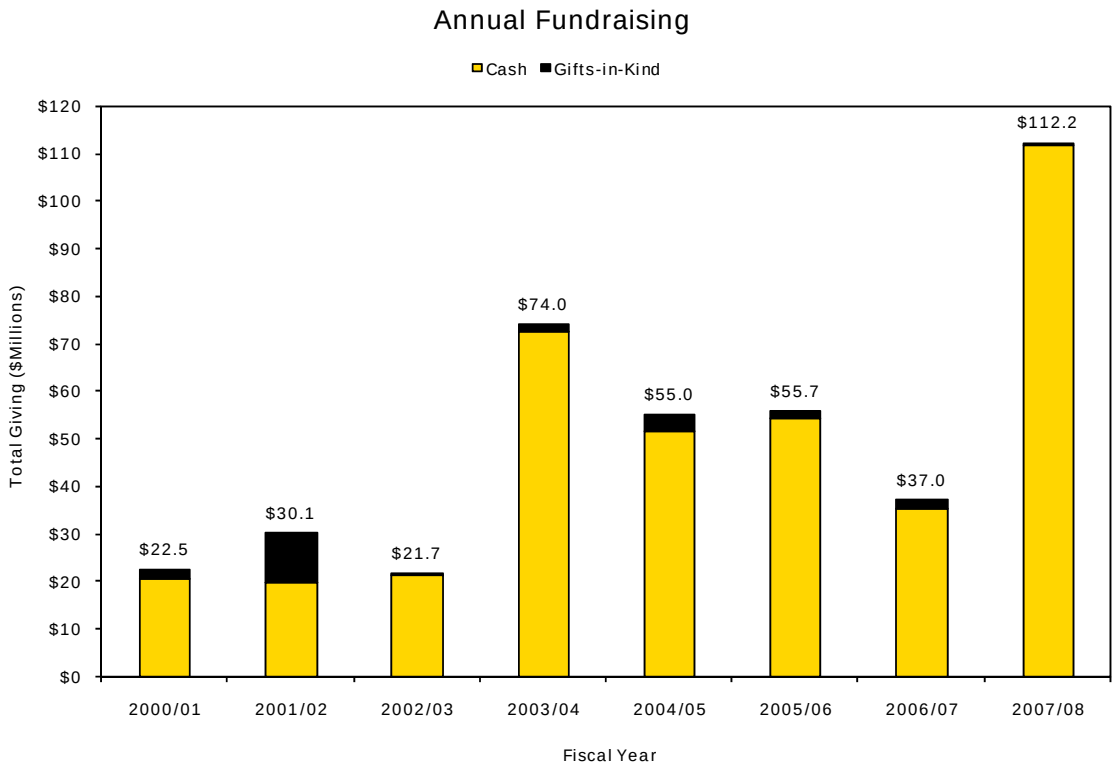


Relevance: UW will have incremental resources to support its pursuit of academic excellence.

Performance: In 2007/08, our operating revenue increased to about $430 million, up from $405 million in 2006/07, an increase of approximately 6 per cent.

In 2007/08, our operating expenses per FTE student increased by six per cent, or about $900 per student.

[4] 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. 2007/08 numbers are subject to Board approval.



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

Performance: Annual funds raised in 2007/08 amounted to $112 million, representing 26 per cent of the operating revenue. In 2007/08, the cumulative campaign results stood at $466 million, 130 per cent of the 2007 campaign goal and 47 per cent of the 2017 goal.

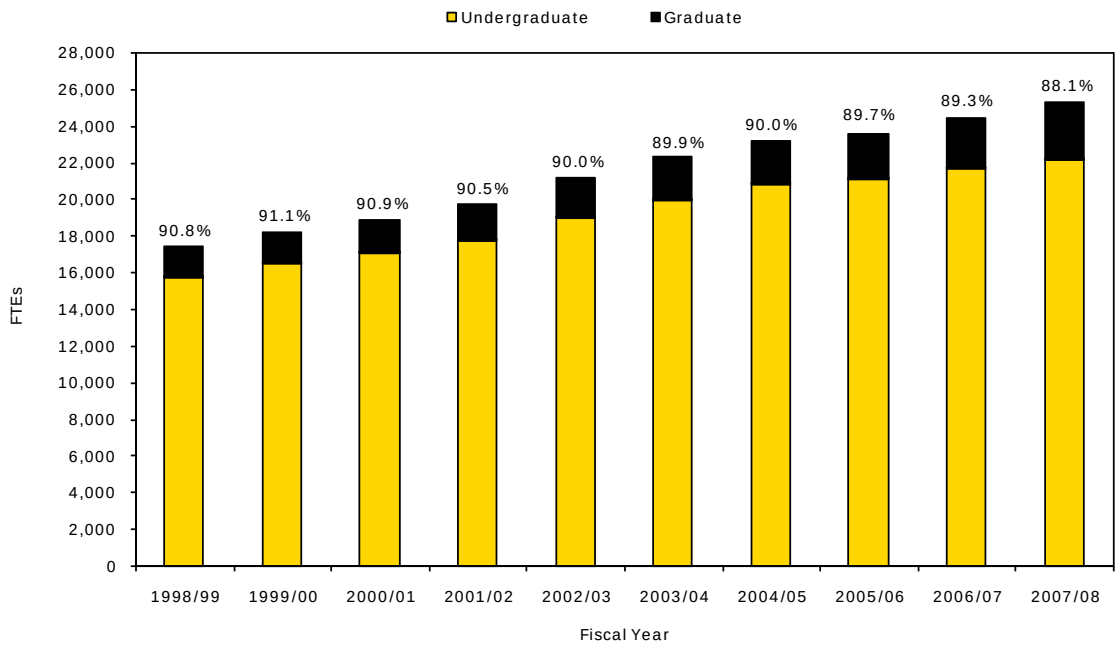
Annual fundraising achievements measure overall performance of advancement activities across the entire University and are important indicators of how well we are doing to raise private-sector gifts. The graph above shows a rise in private-sector giving to the University from 2000/01 to 2007/08, with dramatic leaps in 2003/04 and 2007/08. These leaps can be partially accounted for by several significant pacesetter gifts.

1. UNDERGRADUATE STUDIES

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

1.1. Enrolment

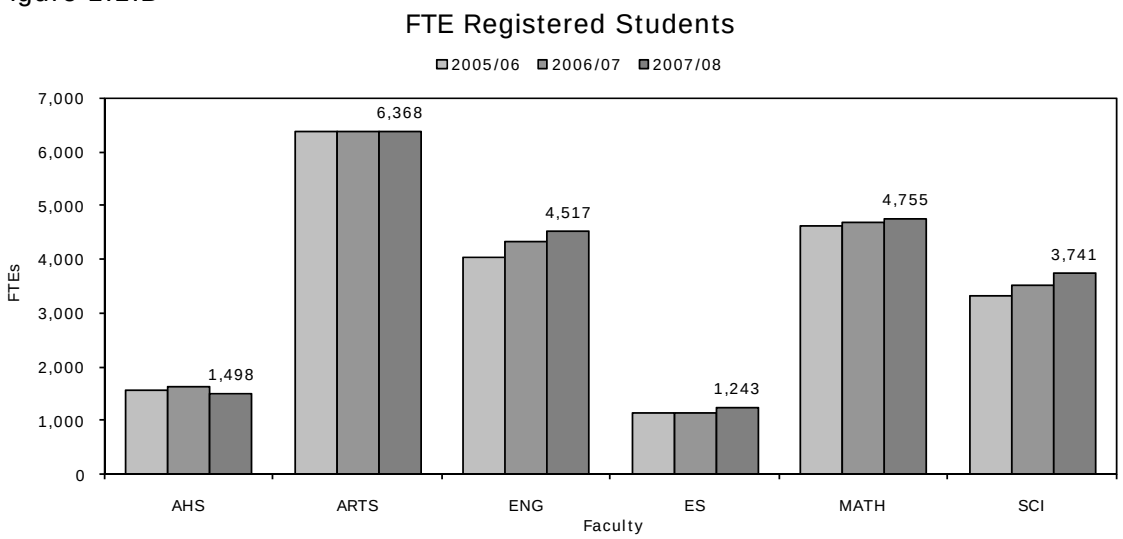
Figure 1.1.A[5]



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

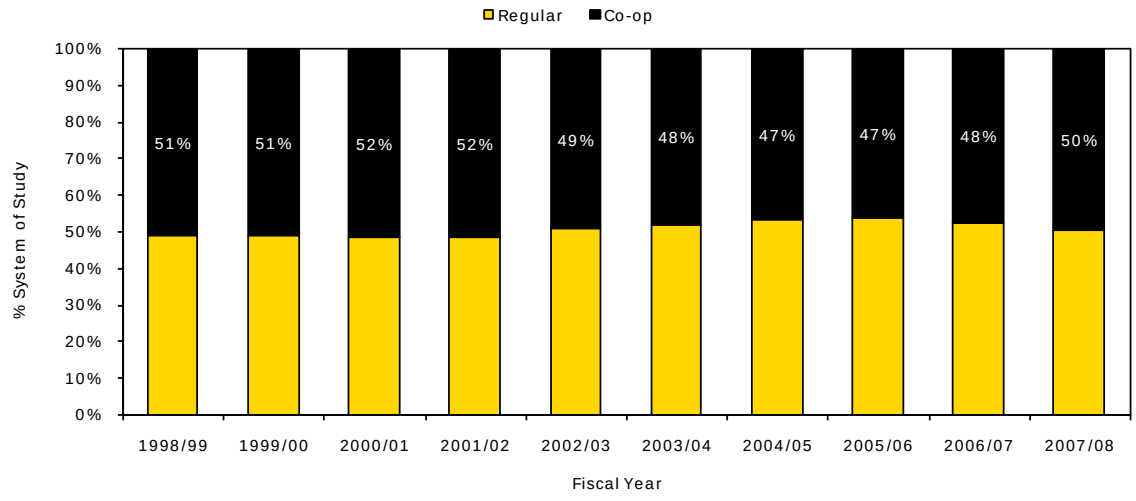
[5] Percentage of undergraduate FTE students displayed.

Figure 1.1.B[6]



When we count students in the fall term, we also include those in our co-operative education programs who are off-campus on a work term. Since co-op students are not always registered for two academic terms in a year, our annual FTE count is lower than our count of fall full-time students. As of 2008[7], when counting co-op students on a work term, we include those students who were unable to find a job. Figure 1.1.C to Figure 1.1.E show the distribution, over time and by Faculty, of co-op and regular students.

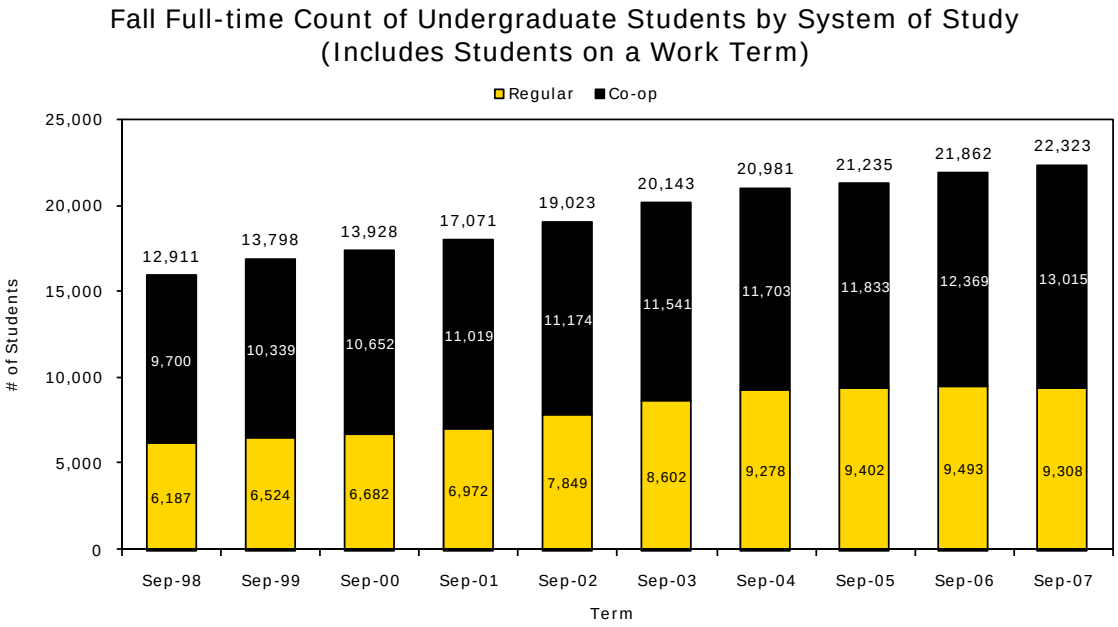
Figure 1.1.C



[6] AHS = Applied Health Studies; ENG = Engineering; ES = Environmental Studies; SCI = Science. 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 of Mathematics and enrolment is split between these two faculties.

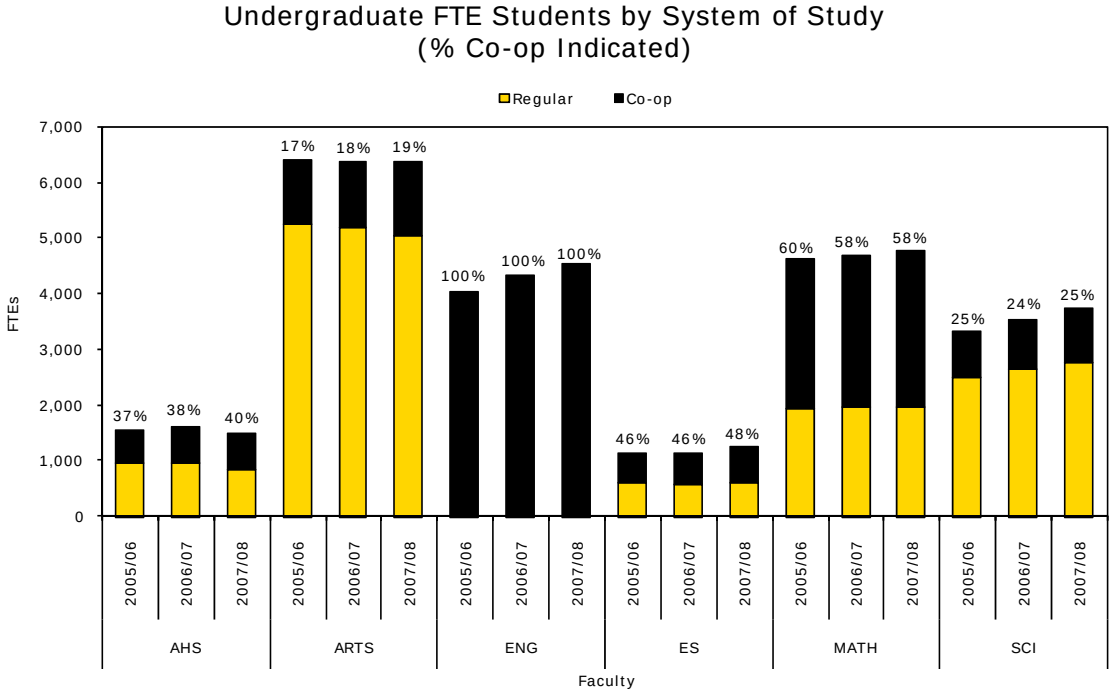
[7] Co-op work term information was corrected back to the 2001/02 fiscal year when it was made available using the new PeopleSoft Student Administration (SA) system.

Figure 1.1.D



Based on the count of students in the fall term, about 58 per cent of undergraduates were registered in co-operative programs in the fall of 2007.

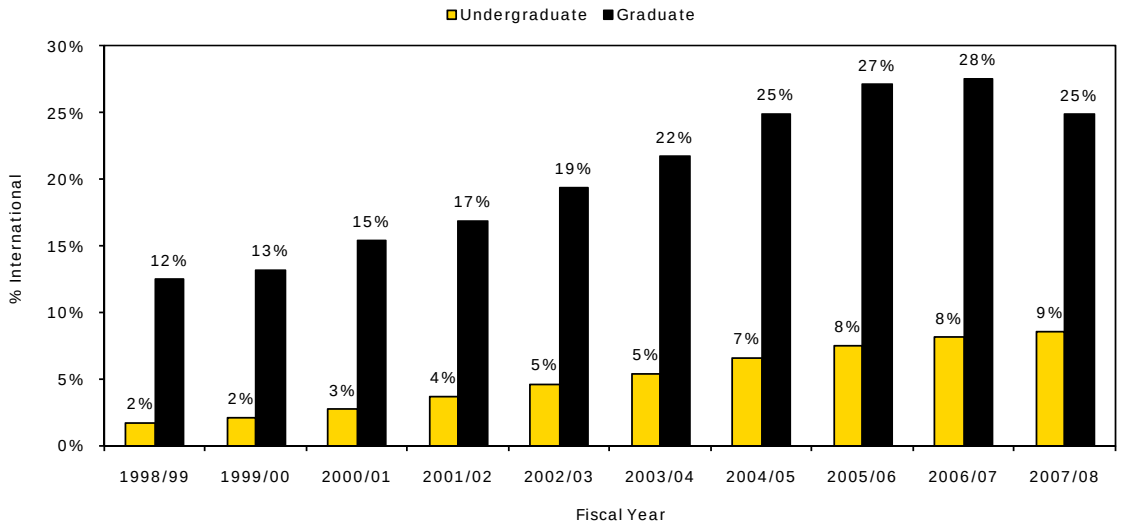
Figure 1.1.E



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

Figure 1.1.F

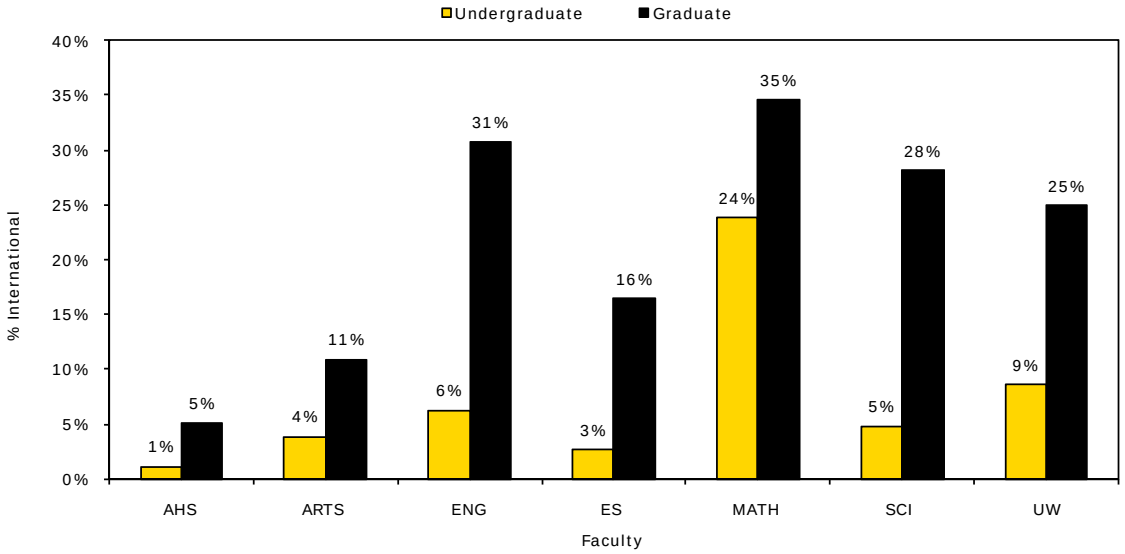
International Students as % of their Respective Populations



We see in the chart below that in Mathematics, international students make up 24 per cent of undergraduate students and 35 per cent of graduate students. At the University level, international students make up nine per cent of undergraduate enrolment and 25 per cent of graduate enrolment.

Figure 1.1.G

International Students as % of their Respective Populations 2007/08



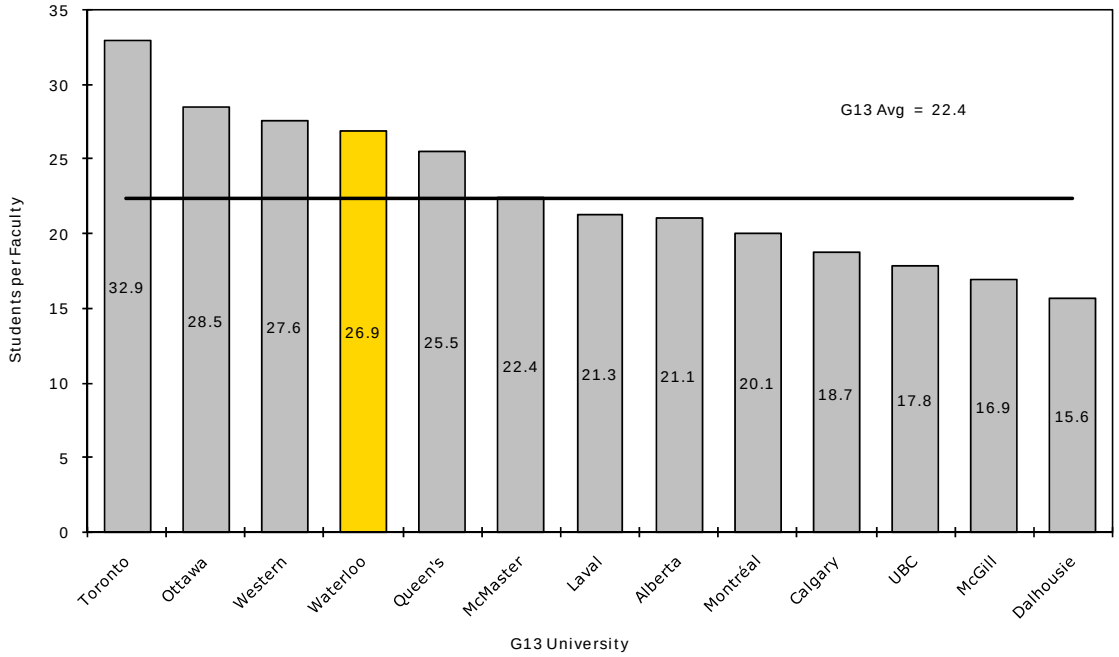
1.2. Student to Faculty Ratio

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

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

Figure 1.2.A[8]

FTE Students to Full-Time Tenure and Tenure-Stream Faculty Ratio as Compared to G13 Universities 2006/07



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

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

[8] Source: G13 Data Exchange.

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

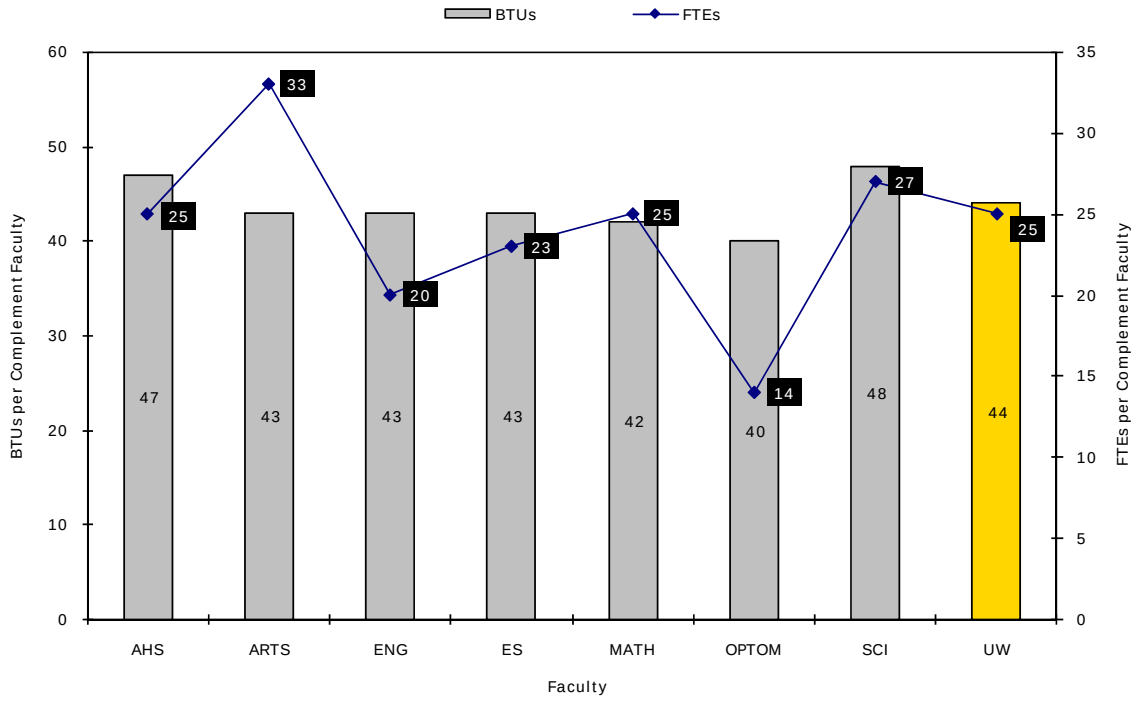
For example, the Faculty of Arts may register 100 students and teach the equivalent of 140 students because students in other Faculties take Arts courses to complete their degree requirements.

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

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

Figure 1.2.B

BTUs and FTE Students Taught per Complement Faculty[9]
2007/08



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

1.3. Grade Averages

Entering grade average[10] is one indicator of the quality of the student. At UW we seek to admit the brightest students possible. In fall 2005, UW established The President's Scholarship to guarantee a minimum $2,000 scholarship to all students with an incoming average of over 90 per cent. In fall 2006, UW established a $1,000 scholarship for students with an 85-90 per cent average.

Figure 1.3.A

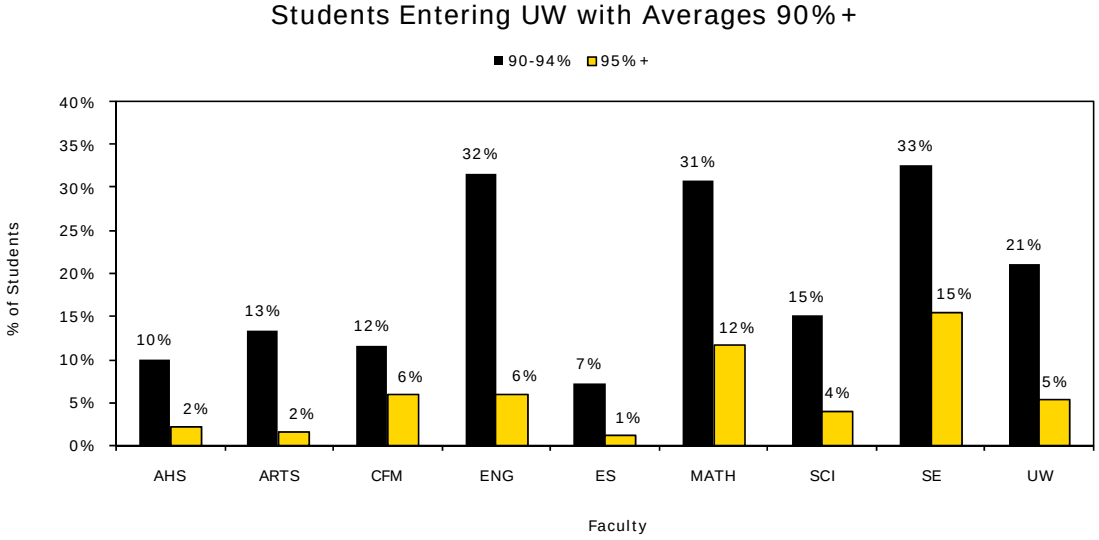
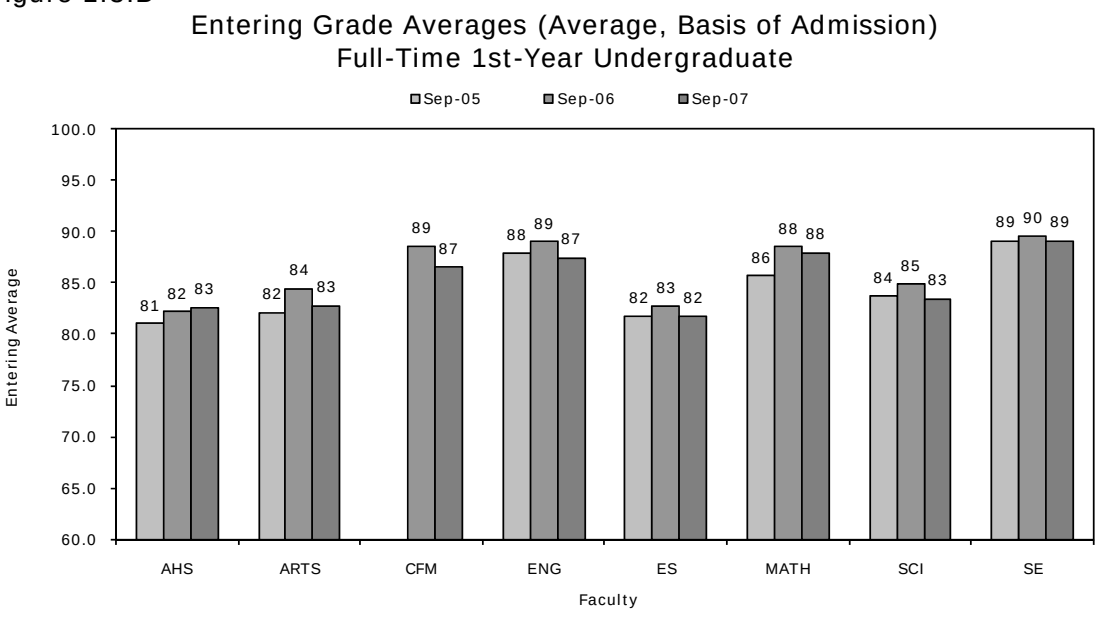


Figure 1.3.B



[10] New source for grades used this year (University of Waterloo Registrar's office); therefore totals will not match previous reports. CFM = Computing and Financial Management; SE = Software Engineering.

To better understand the range of entering averages we present the break out of the 25th and 75th percentiles. For example, in 2007, for the Faculty of Arts, we see that the average entering grade was 83 per cent (Figure 1.3.B); we see the 25th percentile entering grade average was 78 per cent (Figure 1.3.C) and the 75th percentile entering grade average was 87 per cent (Figure 1.3.D). These measures tell us that of the students registered in the Faculty of Arts, in fall 2007, 75 per cent had a grade average higher than 78 per cent and 25 per cent had a grade average higher than 87 per cent.

Figure 1.3.C[11]

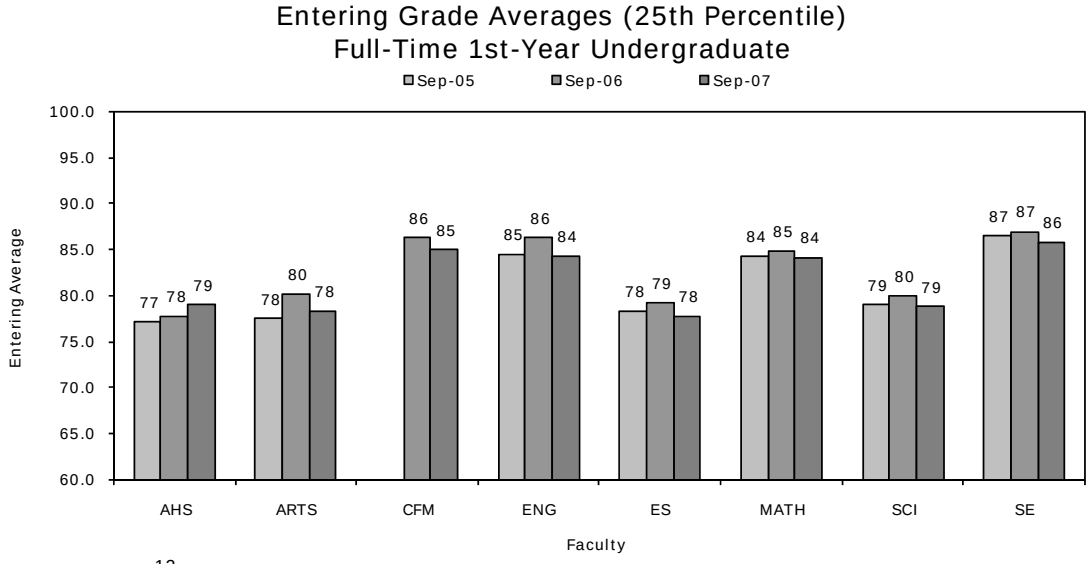
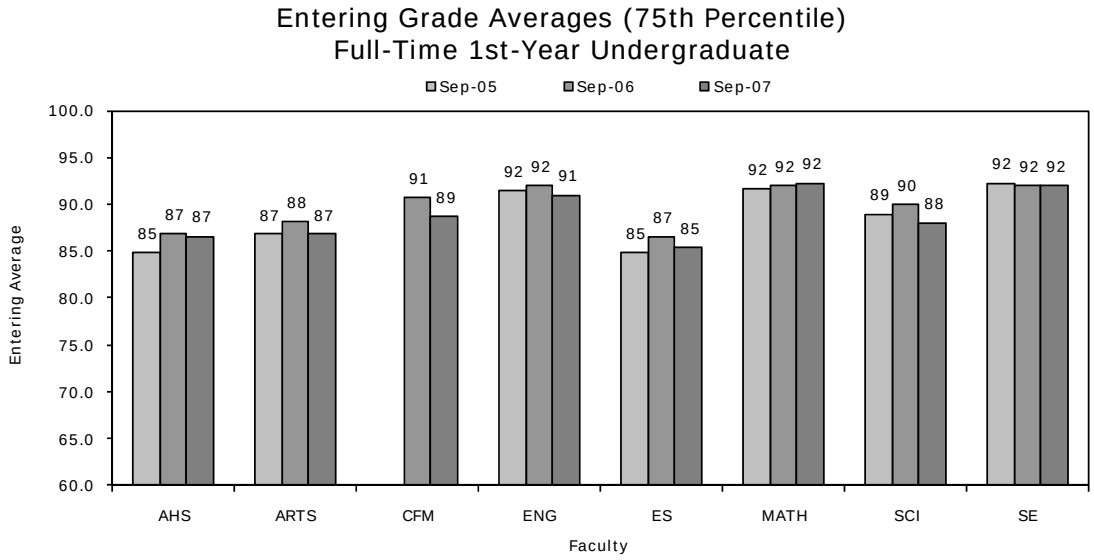


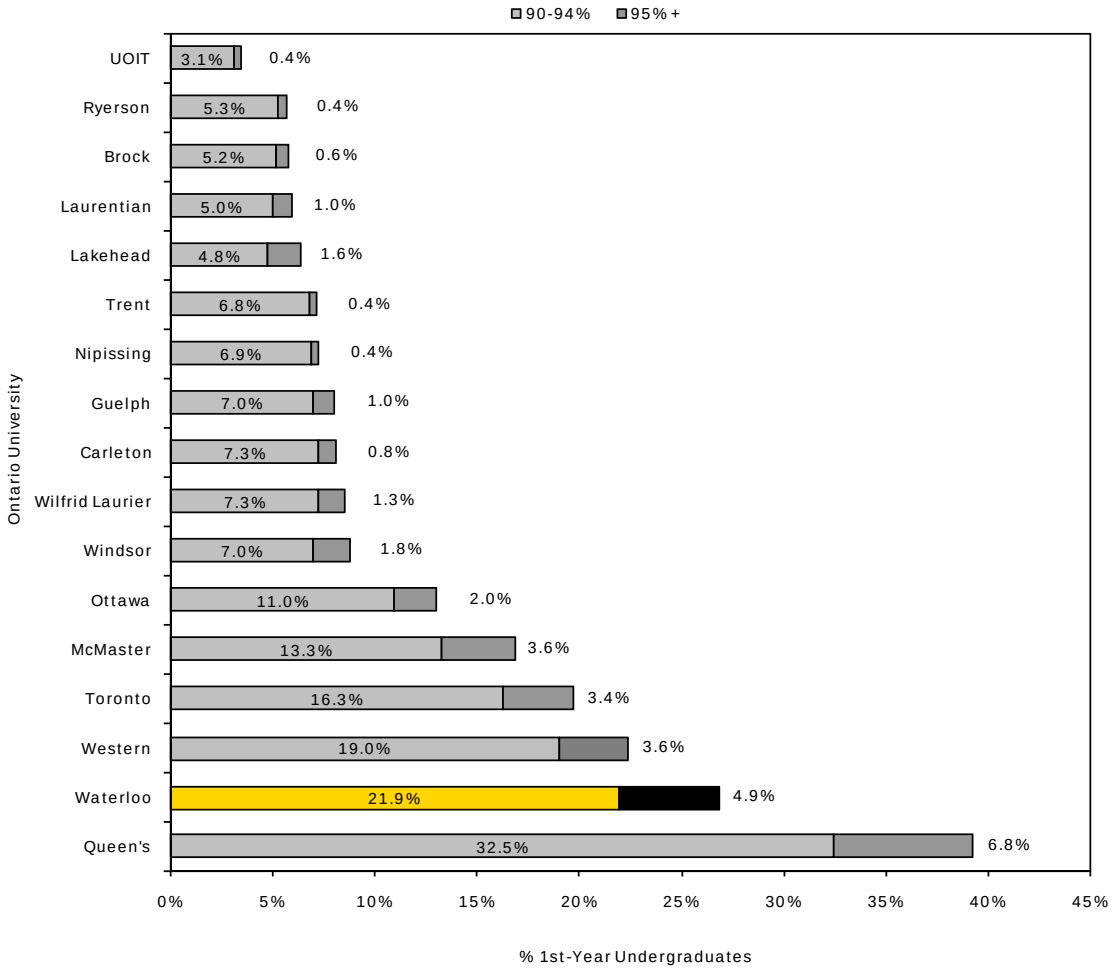
Figure 1.3.D[12]



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

Figure 1.3.E

Entering Averages of 90%+ as Compared to Ontario Universities
Fall 2006



In prior years we have used the Maclean's survey as a source for entering grade average data, which allowed us to collect results for our G13 peers. That data source is not longer available for all of our G13 peers. We now present the Ontario system[13] which shows Waterloo second to Queen's in the percentage of students with entering averages of 90 per cent or higher.

[13] Source: CUDO (Common University Data Ontario). York University not included as overall average not available.

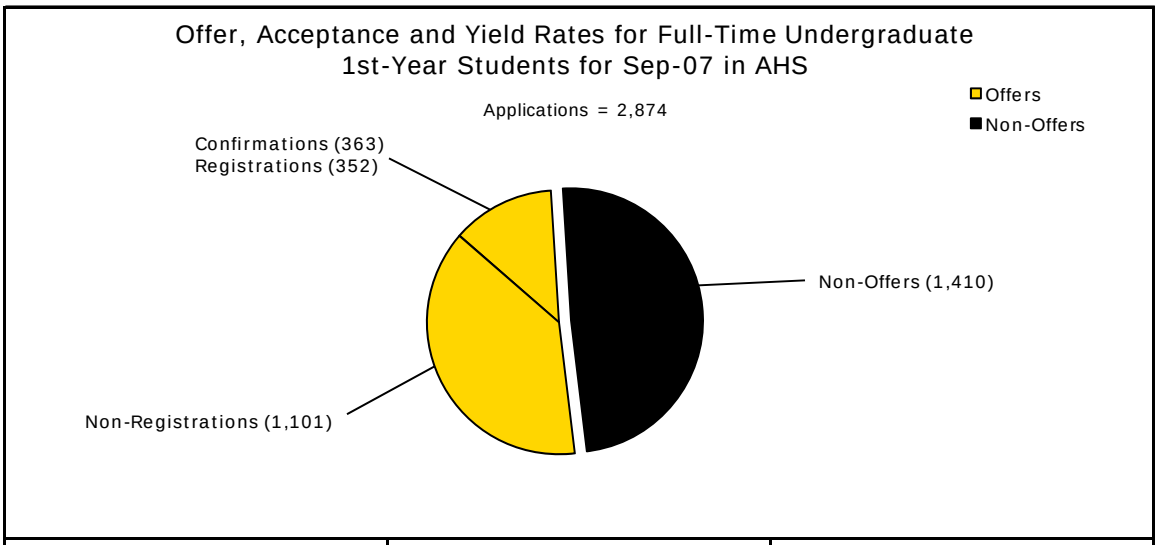
1.4. Offer, Acceptance, and Yield Rates

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

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

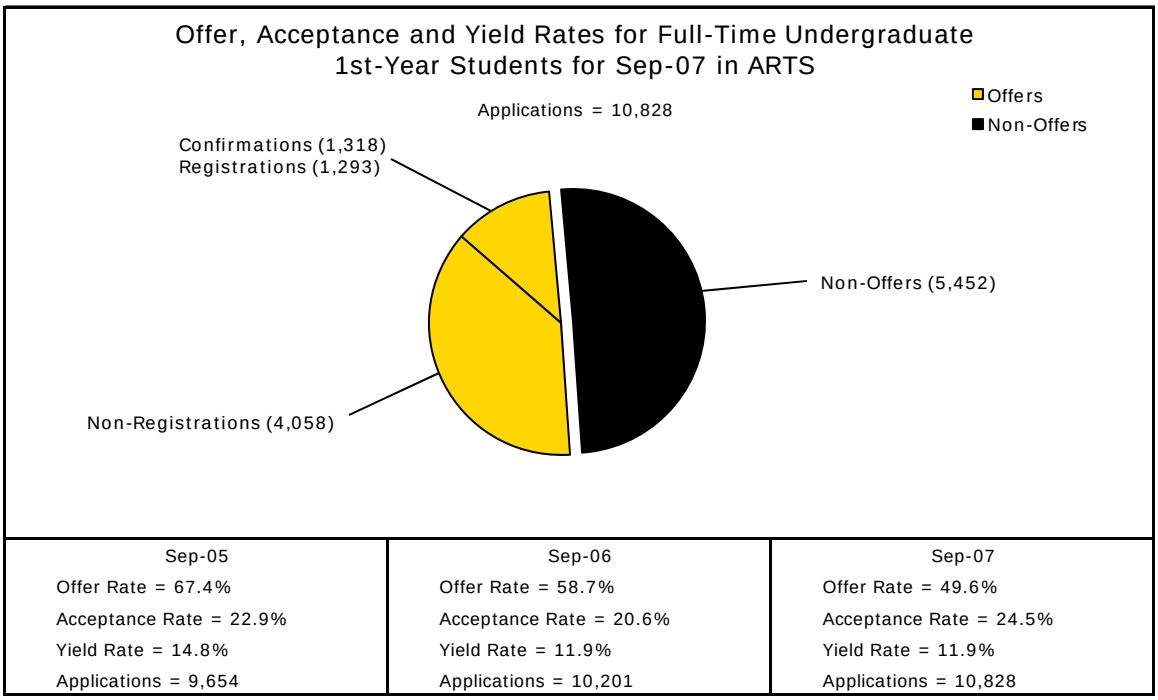
Figure 1.4.A through Figure 1.4.H show three recent years of application activity including changes in activity levels in each Faculty. Software Engineering and Computing and Financial Management have separate charts as these programs are split between Faculties and it is not possible to split applications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

Figure 1.4.A



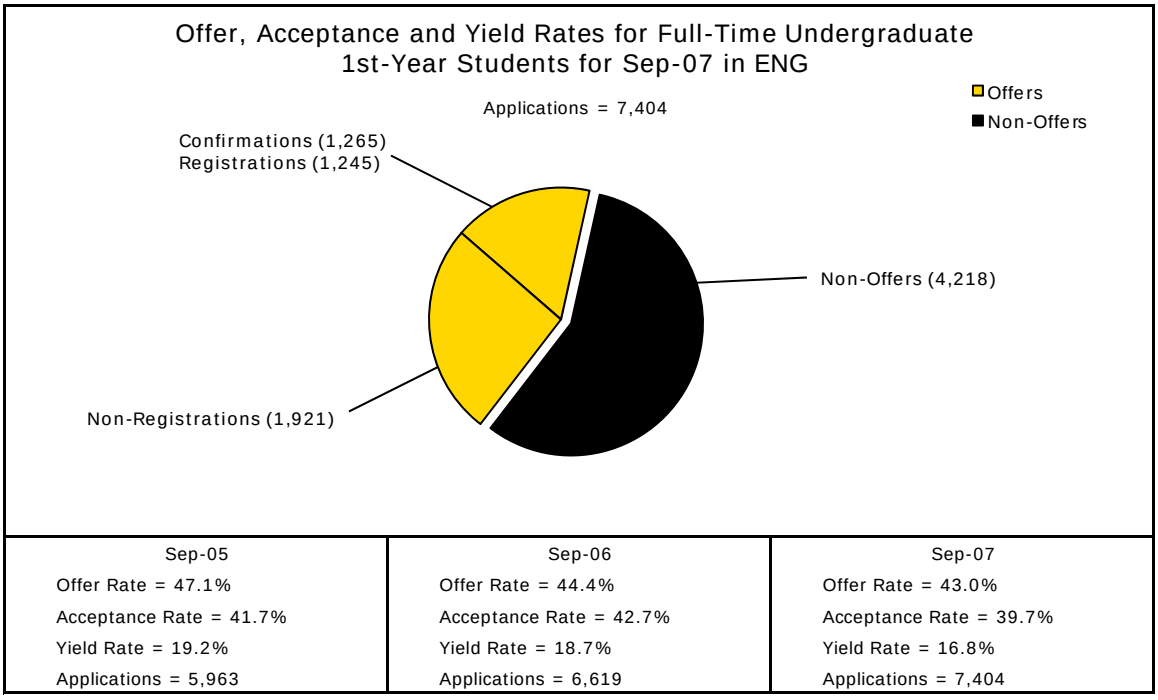
Sep-05	Sep-06	Sep-07
Offer Rate = 62.9%	Offer Rate = 64.2%	Offer Rate = 50.9%
Acceptance Rate = 21.7%	Acceptance Rate = 26.2%	Acceptance Rate = 24.8%
Yield Rate = 13.2%	Yield Rate = 16.6%	Yield Rate = 12.2%
Applications = 2,829	Applications = 2,653	Applications = 2,874

Figure 1.4.B



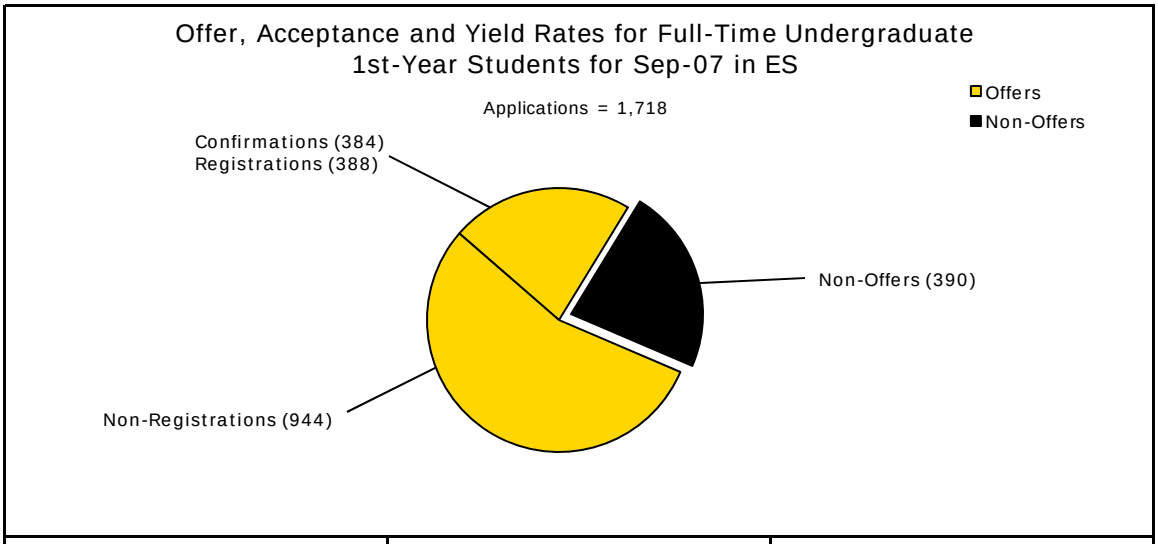
Sep-05	Sep-06	Sep-07
Offer Rate = 67.4%	Offer Rate = 58.7%	Offer Rate = 49.6%
Acceptance Rate = 22.9%	Acceptance Rate = 20.6%	Acceptance Rate = 24.5%
Yield Rate = 14.8%	Yield Rate = 11.9%	Yield Rate = 11.9%
Applications = 9,654	Applications = 10,201	Applications = 10,828

Figure 1.4.C



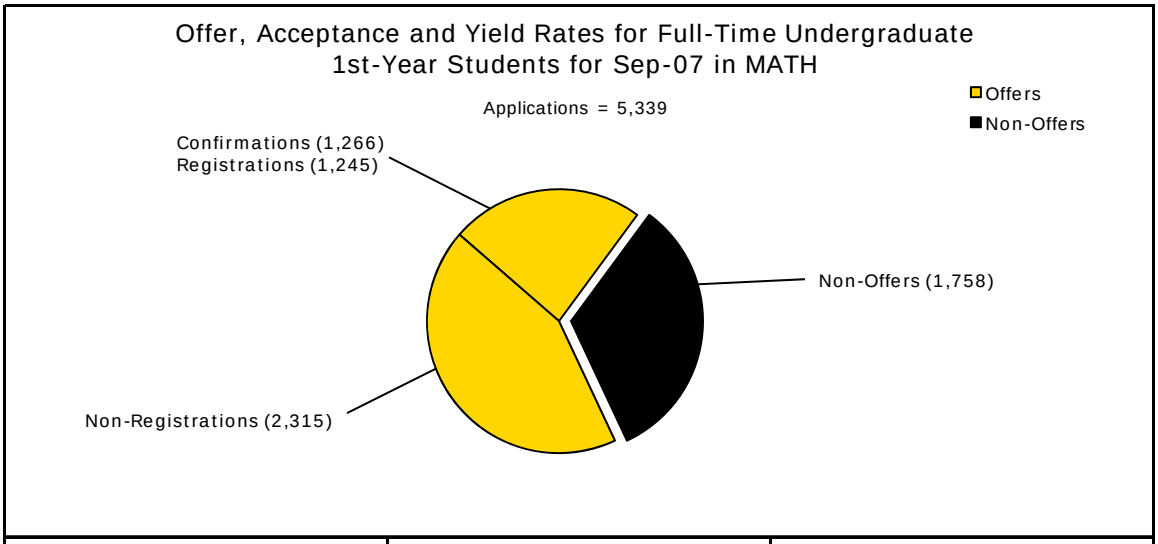
Sep-05	Sep-06	Sep-07
Offer Rate = 47.1%	Offer Rate = 44.4%	Offer Rate = 43.0%
Acceptance Rate = 41.7%	Acceptance Rate = 42.7%	Acceptance Rate = 39.7%
Yield Rate = 19.2%	Yield Rate = 18.7%	Yield Rate = 16.8%
Applications = 5,963	Applications = 6,619	Applications = 7,404

Figure 1.4.D



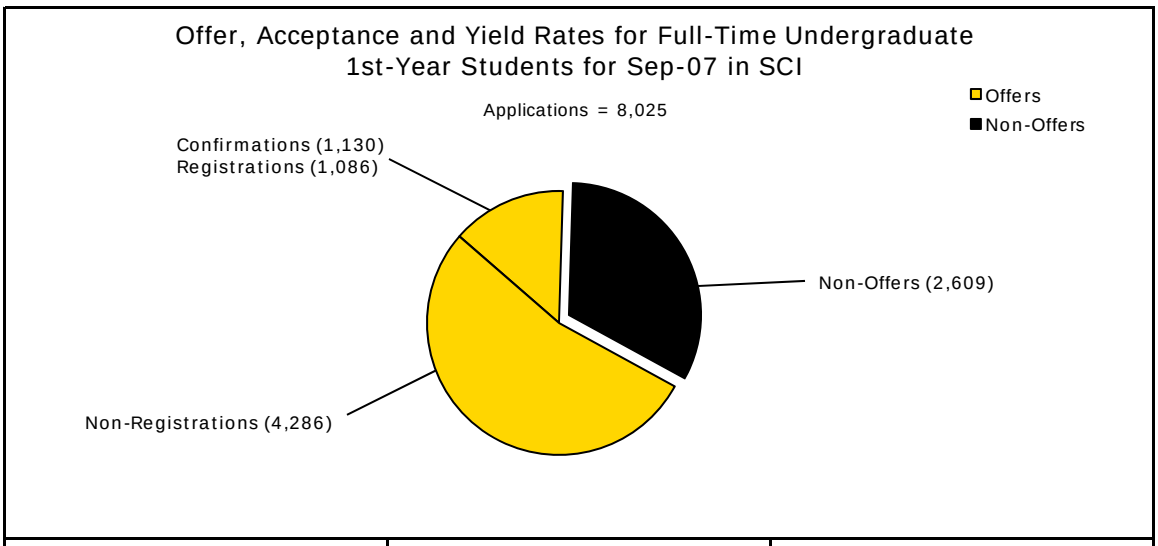
Sep-05	Sep-06	Sep-07
Offer Rate = 89.7%	Offer Rate = 86.4%	Offer Rate = 77.3%
Acceptance Rate = 26.1%	Acceptance Rate = 27.2%	Acceptance Rate = 28.9%
Yield Rate = 22.8%	Yield Rate = 22.9%	Yield Rate = 22.6%
Applications = 1,213	Applications = 1,170	Applications = 1,718

Figure 1.4.E



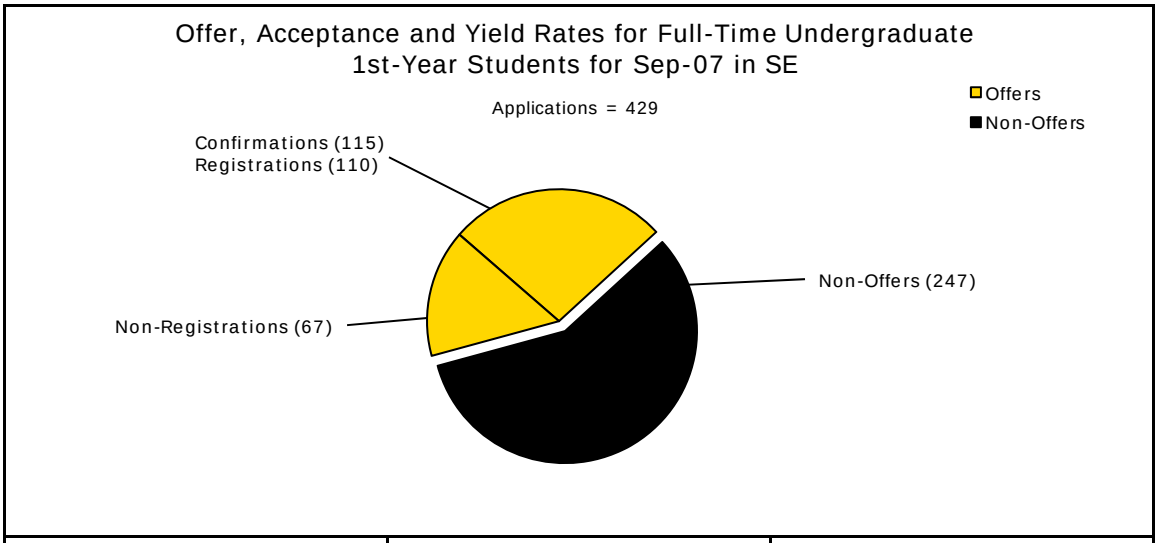
Sep-05	Sep-06	Sep-07
Offer Rate = 65.7%	Offer Rate = 65.3%	Offer Rate = 67.1%
Acceptance Rate = 33.3%	Acceptance Rate = 35.7%	Acceptance Rate = 35.4%
Yield Rate = 20.7%	Yield Rate = 23.0%	Yield Rate = 23.3%
Applications = 4,696	Applications = 4,939	Applications = 5,339

Figure 1.4.F



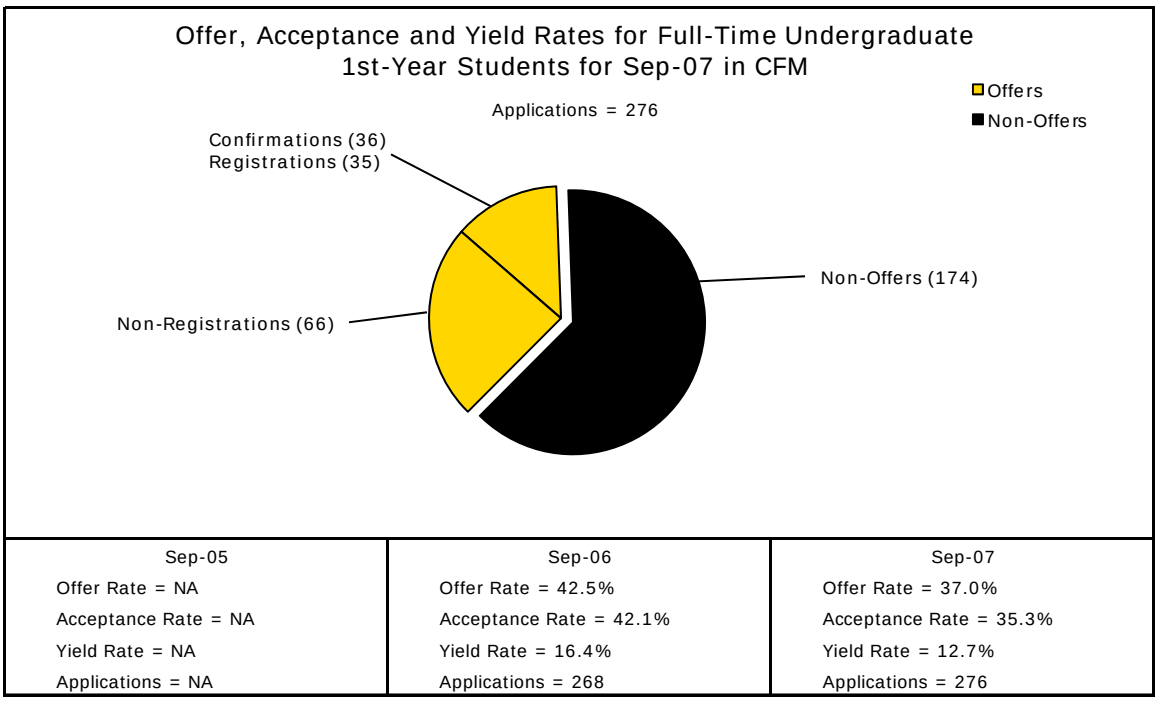
Sep-05	Sep-06	Sep-07
Offer Rate = 67.0%	Offer Rate = 71.3%	Offer Rate = 67.5%
Acceptance Rate = 17.6%	Acceptance Rate = 19.5%	Acceptance Rate = 20.9%
Yield Rate = 11.4%	Yield Rate = 13.6%	Yield Rate = 13.5%
Applications = 6,135	Applications = 6,731	Applications = 8,025

Figure 1.4.G



Sep-05	Sep-06	Sep-07
Offer Rate = 51.7%	Offer Rate = 53.7%	Offer Rate = 42.4%
Acceptance Rate = 54.9%	Acceptance Rate = 63.5%	Acceptance Rate = 63.2%
Yield Rate = 28.1%	Yield Rate = 33.5%	Yield Rate = 25.6%
Applications = 377	Applications = 352	Applications = 429

Figure 1.4.H[14]



Sep-05	Sep-06	Sep-07
Offer Rate = NA	Offer Rate = 42.5%	Offer Rate = 37.0%
Acceptance Rate = NA	Acceptance Rate = 42.1%	Acceptance Rate = 35.3%
Yield Rate = NA	Yield Rate = 16.4%	Yield Rate = 12.7%
Applications = NA	Applications = 268	Applications = 276

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

1.5 Geographic Source

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

Figure 1.5.A[15]

Geographic Distribution of 1st-Year Registrants as Reported by City of School Last Attended Sep-07

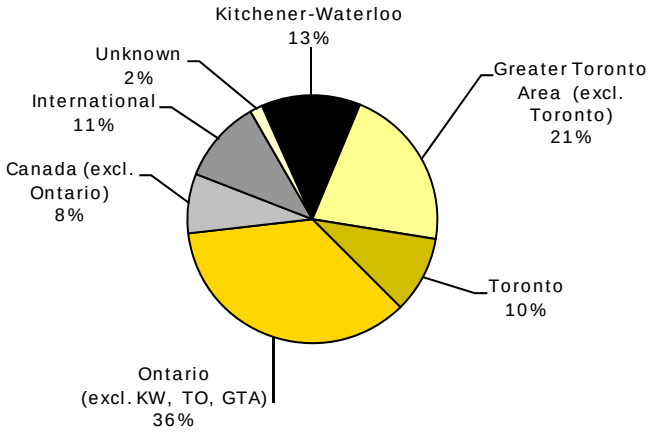
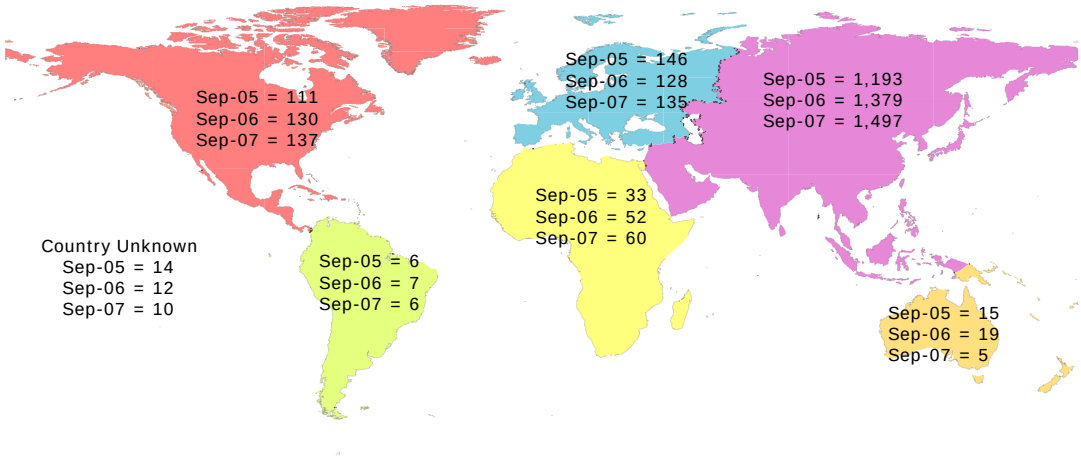


Figure 1.5.B[16]

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



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

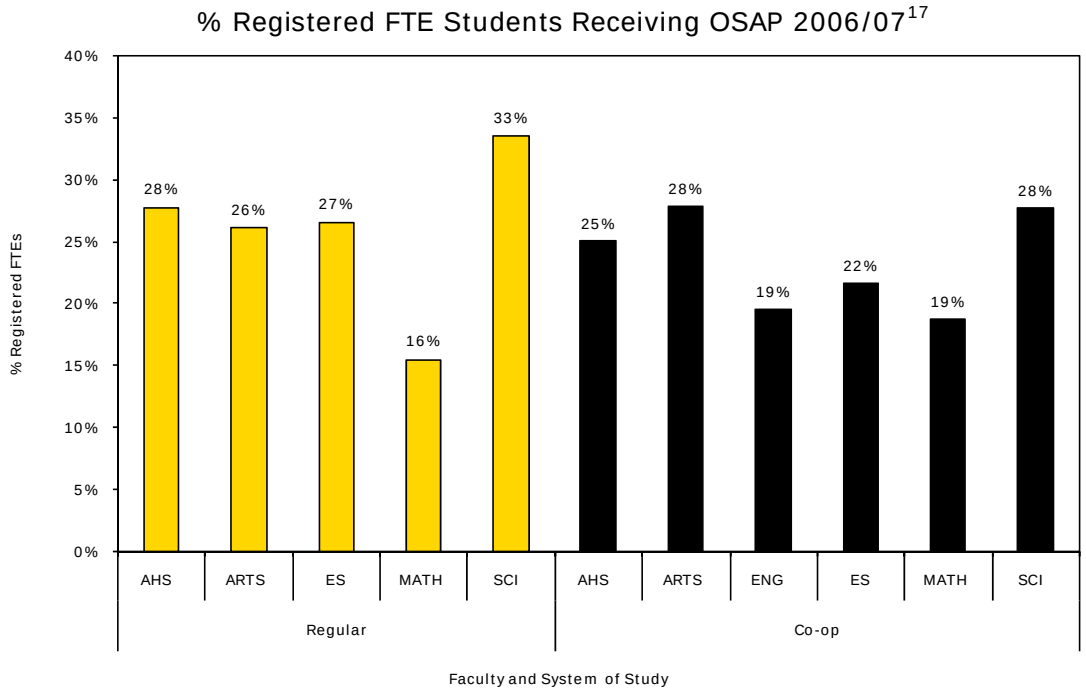
[16] Permanent Residents are not included because UW's definition of international involvement focuses more on students who have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental North America excludes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

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, UW guarantees to fund unmet need as defined by OSAP or a student assistance program from another Canadian province. The University aspires to identify students in need and ensure that all eligible students admitted to full-time undergraduate programs have the financial assistance necessary to complete their studies. Students are required to seek financial support from all sources, including family, employment, loans, and government support programs.

Figure 1.6.A



Participation rates from our students in co-operative education are, as expected, generally lower than students in the regular stream programs. However, participation rates from co-op students increased in 2006/07, in all Faculties except Arts, compared to 2005/06.

[17] 2006/07 includes Fall 2006, Winter 2007 & Spring 2007

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

Figure 1.6.B

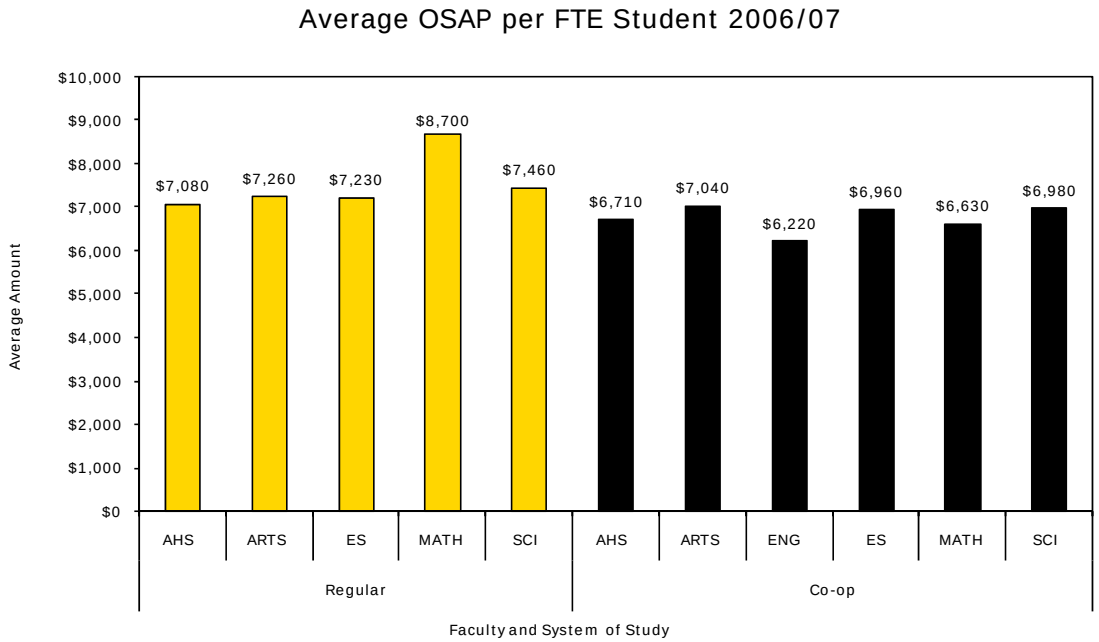


Figure 1.6.C

Financial Support to Undergraduate Regular FTE Students 2006/07							
Faculty	OSAP	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$1,875,000	$75,000	$112,000	$151,000	$2,213,000	$7,037	33%
ARTS	$9,938,000	$641,000	$752,000	$635,000	$11,967,000	$7,153	32%
ES	$1,104,000	$51,000	$87,000	$80,000	$1,321,000	$7,473	31%
MATH	$2,824,000	$725,000	$395,000	$146,000	$4,090,000	$8,160	24%
SCI	$6,647,000	$483,000	$436,000	$474,000	$8,041,000	$7,468	40%

Figure 1.6.D

Financial Support to Undergraduate Co-op FTE Students 2006/07							
Faculty	OSAP	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$1,108,000	$225,000	$157,000	$246,000	$1,737,000	$6,755	39%
ARTS	$2,411,000	$752,000	$585,000	$653,000	$4,401,000	$7,794	46%
ENG	$5,024,000	$3,211,000	$1,818,000	$1,586,000	$11,638,000	$7,373	38%
ES	$809,000	$157,000	$108,000	$118,000	$1,192,000	$6,559	34%
MATH	$3,317,000	$1,893,000	$795,000	$1,112,000	$7,117,000	$7,270	37%
SCI	$1,708,000	$474,000	$282,000	$298,000	$2,763,000	$7,023	44%

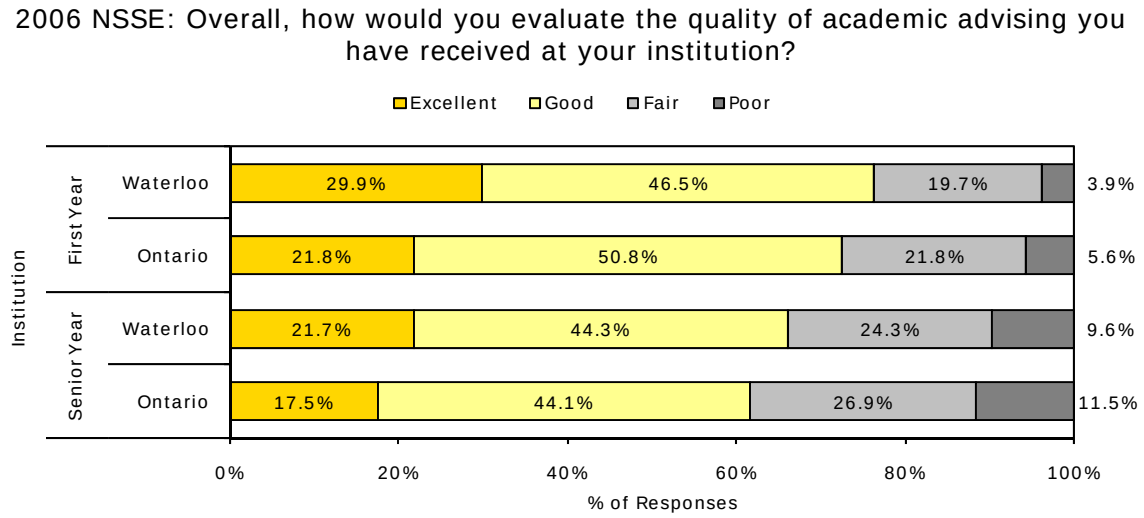
1.7. Student Engagement

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

In future years we plan to display data from two consecutive surveys and compare the results. We are displaying the 2006 results again this year as the 2008 results are not yet available. In 2006, the University of Waterloo had an overall participation rate of 49.5 per cent, collecting responses from 4,448 students.

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

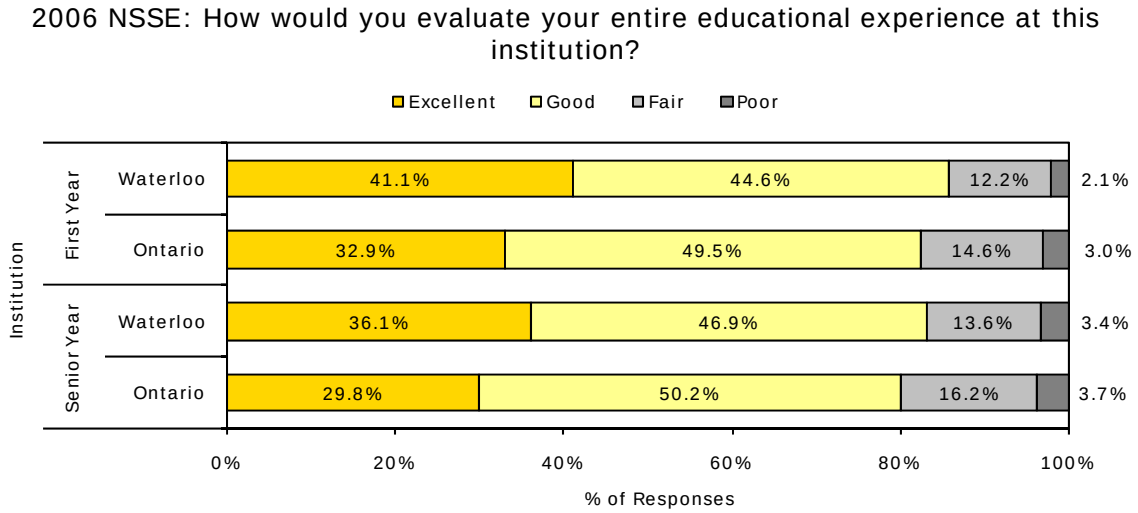
Figure 1.7.A[18]



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

When asked to evaluate their entire educational experience at UW as shown in Figure 1.7.B, UW has roughly the same proportion of our students responding positively with a rating of "Excellent" or "Good" as the students at our peer institutions across Ontario. The University of Waterloo does have a slightly larger proportion of students answering Excellent with 41.1 per cent of first-year students and 36.1 per cent of graduating-year students giving us the highest possible response to this question. Again there is a small decline between our first-year and graduating-year students, as there also was in students across Ontario.

Figure 1.7.B[19]

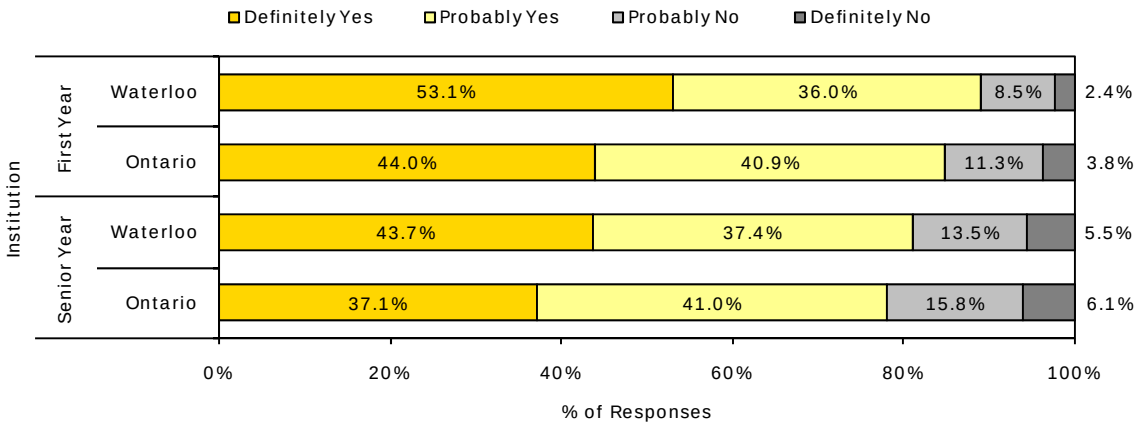


The choice of which institution to attend for their post-secondary education is one of the most important decisions many of our students have ever had to make. Numerous factors weigh heavily when making that decision and Figure 1.7.C shows their response when asked if given the opportunity to start over again whether they would choose the same institution. Overall 89.1 per cent of our first-year students and 81.1 per cent of our graduating-year students responded that they would "Definitely" or "Probably" choose UW again, as compared to 84.9 per cent of first-year students and 78.1 per cent of graduating-year students across Ontario. While it is encouraging to know that so many of our students express satisfaction with their decision, there are 50 first-year students and 109 graduating students that responded that they would "Definitely Not" choose UW again. A better understanding of the reasons why these students express such dissatisfaction with their choice, and investigation of what can be done to address those concerns is only one of the many ways in which our NSSE results can be used to help us improve as an institution.

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

Figure 1.7.C[20]

2006 NSSE: If you could start over again, would you go to the same institution you are now attending?



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

1.8. Retention, Graduation, Degrees Granted and Degree Distribution

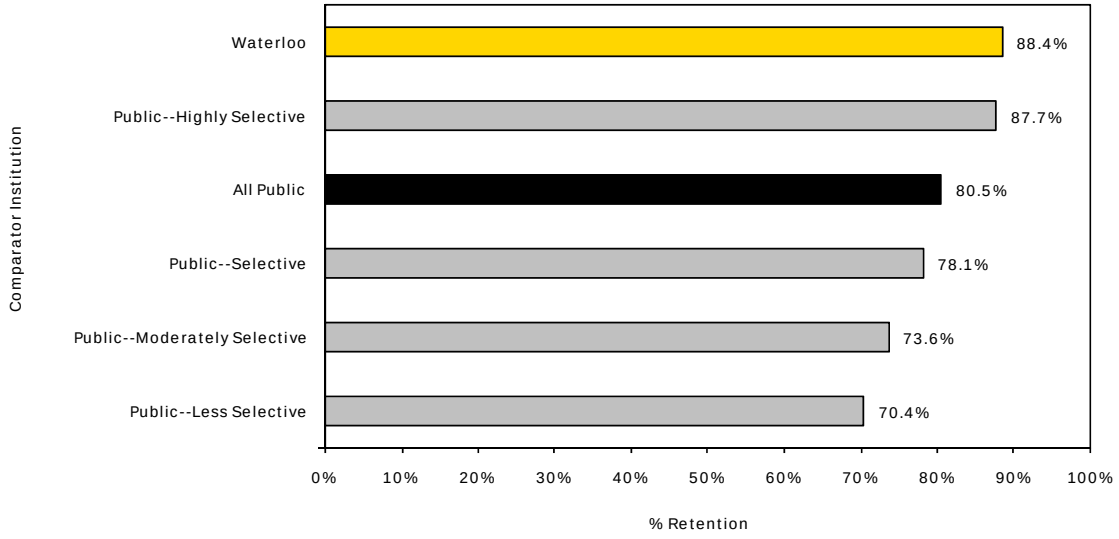
In 2006, the University of Waterloo participated, for the first time, in the Consortium for Student Data Exchange (CSRDE) retention and graduation study. The CSRDE is a consortium of colleges and universities, both public and private, who share student retention and graduation data. Along with many Canadian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

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

Figure 1.8.A indicates that 88.4 per cent of UW's full-time, first-year students who entered into a first-entry undergraduate program in 2006 continued their studies in 2007. This is compared to an 87.7 per cent retention rate cited at highly selective public institutions.

Figure 1.8.A[21]

Retention Rate Waterloo vs Other North American Public Institutions by Selectivity of the 2006 Full-Time 1st-Year Cohort Continuing in their Studies in 2007



[21] For the purposes of CSRDE, Software Engineering is split evenly between Math and Engineering; Computing and Financial Management is split evenly between Math and Engineering. Architecture is in Engineering, and students who graduated with a three-year degree are included.

Figure 1.8.B

Six-Year Graduation Rate Waterloo vs Other North American Public Institutions by Selectivity of the 2001 Full-Time 1st-Time 1st-Year Cohort Graduating by 2006

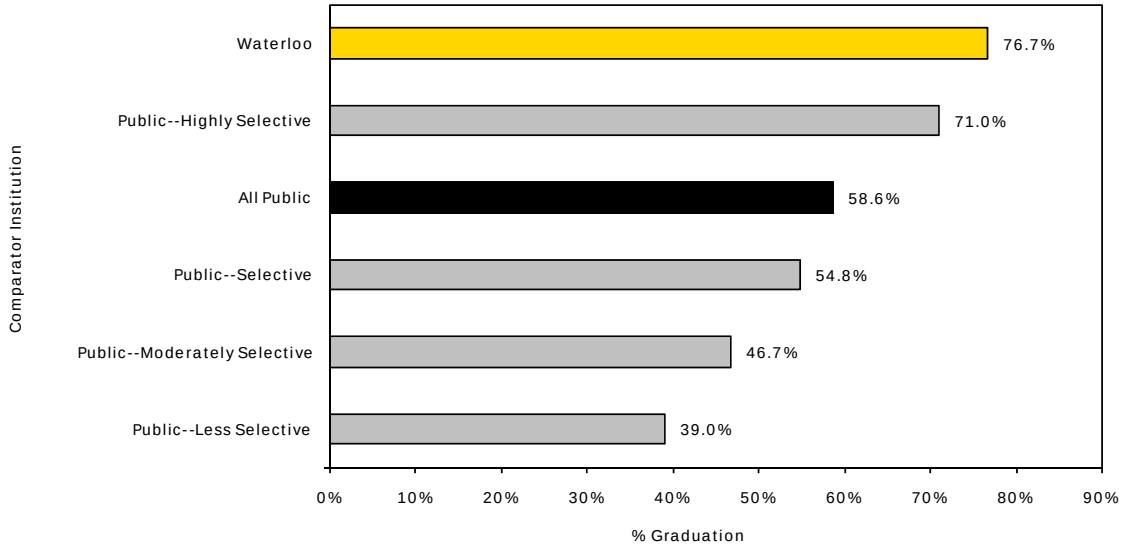
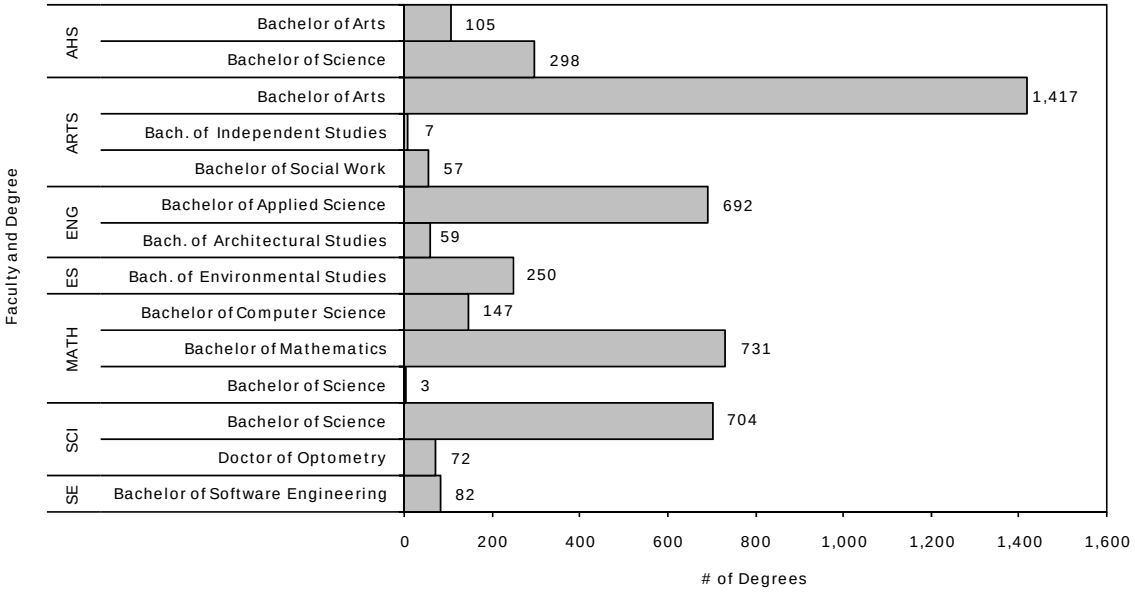


Figure 1.8.C shows the number of undergraduate degrees conferred in 2007 by Faculty and the type of degree granted. In total, 4,624 undergraduate degrees were conferred in 2007.

Figure 1.8.C

Undergraduate Degrees Granted 2007



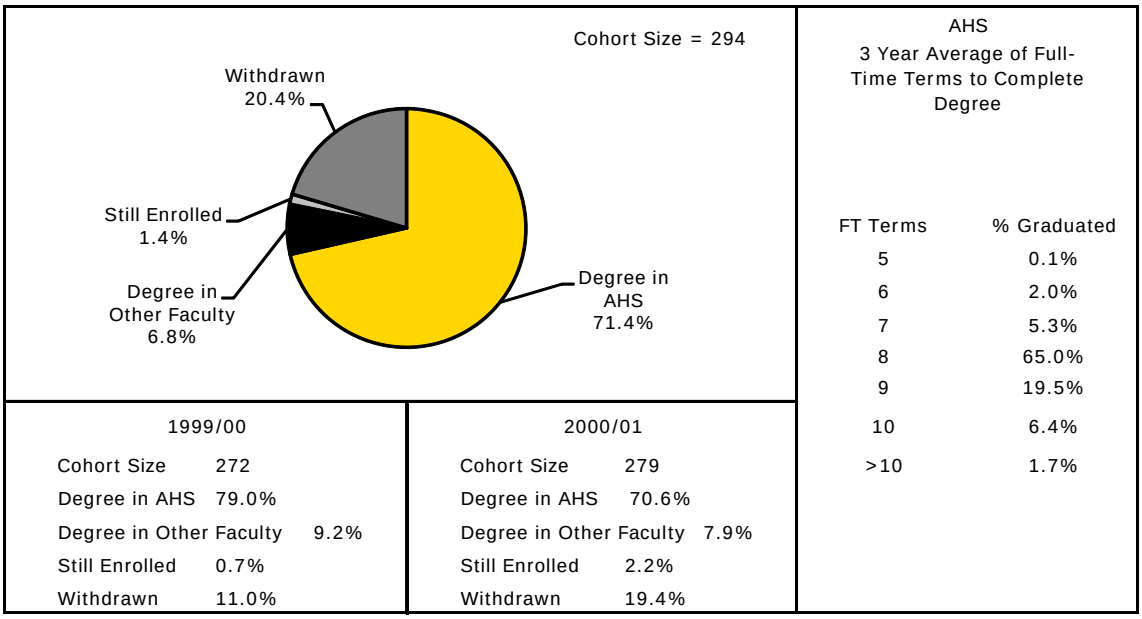
The University of Waterloo also monitors undergraduate degree distribution by academic Faculty. We track each cohort of students to determine the percentage who graduate with a degree from their Faculty of first registration, who graduate from another UW Faculty, who are still studying, or who have withdrawn.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

When the Ministry of Training, Colleges and Universities measures degree completion rates, it typically allows a six-year window for students in a four-year program to complete their degree. Since students in a co-operative program generally require an extra year to complete their academic studies, due to their work term employment, we typically allow a seven-year window. Hence, in the next series of charts, we begin with the 2001/2002 cohort.

Figure 1.8.D

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in AHS

(Degree Completion as of June 2008)



1999/00	
Cohort Size	272
Degree in AHS	79.0%
Degree in Other Faculty	9.2%
Still Enrolled	0.7%
Withdrawn	11.0%

2000/01	
Cohort Size	279
Degree in AHS	70.6%
Degree in Other Faculty	7.9%
Still Enrolled	2.2%
Withdrawn	19.4%

AHS
3 Year Average of Full-Time Terms to Complete Degree

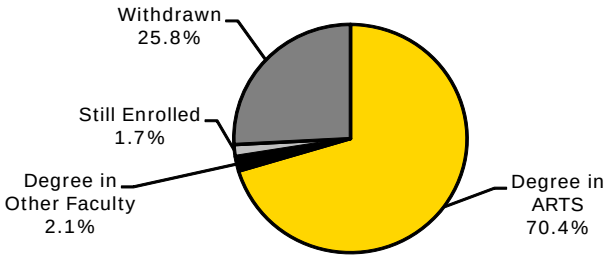
FT Terms	% Graduated
5	0.1%
6	2.0%
7	5.3%
8	65.0%
9	19.5%
10	6.4%
>10	1.7%

Figure 1.8.E

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ARTS

(Degree Completion as of June 2008)

Cohort Size = 1,010



1999/00	
Cohort Size	1,162.0
Degree in ARTS	70.5%
Degree in Other Faculty	2.1%
Still Enrolled	2.1%
Withdrawn	25.4%

2000/01	
Cohort Size	1,017.0
Degree in ARTS	68.6%
Degree in Other Faculty	2.9%
Still Enrolled	3.4%
Withdrawn	25.1%

ARTS
3 Year Average of Full-Time Terms to Complete Degree

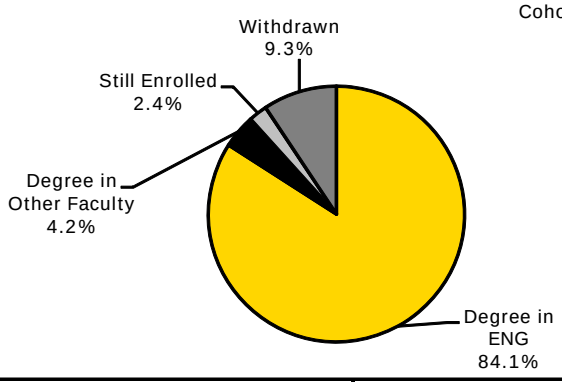
FT Terms	% Graduated
4	0.4%
5	1.0%
6	9.6%
7	7.6%
8	54.3%
9	17.3%
10	6.4%
>10	3.3%

Figure 1.8.F

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ENG

(Degree Completion as of June 2008)

Cohort Size = 804



1999/00	
Cohort Size	978
Degree in ENG	78.3%
Degree in Other Faculty	9.4%
Still Enrolled	1.8%
Withdrawn	10.4%

2000/01	
Cohort Size	880
Degree in ENG	84.0%
Degree in Other Faculty	4.8%
Still Enrolled	3.2%
Withdrawn	8.1%

ENG
3 Year Average of Full-Time Terms to Complete Degree

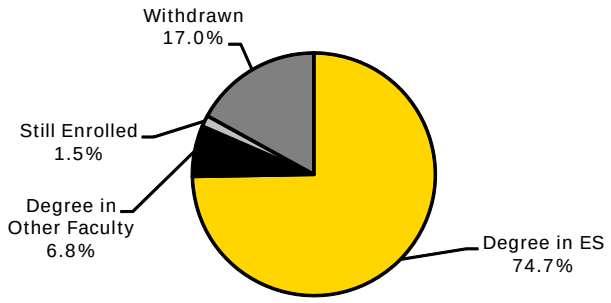
FT Terms	% Graduated
6	0.3%
7	3.3%
8	61.6%
9	27.8%
10	5.0%
>10	2.1%

Figure 1.8.G

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ES

(Degree Completion as of June 2008)

Cohort Size = 265



1999/00	
Cohort Size	235
Degree in ES	76.6%
Degree in Other Faculty	3.8%
Still Enrolled	0.4%
Withdrawn	19.1%

1999/00	
Cohort Size	212
Degree in ES	74.1%
Degree in Other Faculty	4.2%
Still Enrolled	1.9%
Withdrawn	19.8%

ES
3 Year Average of Full-Time Terms to Complete Degree

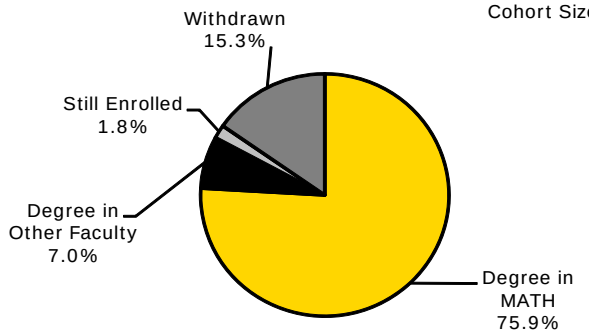
FT Terms	% Graduated
3	0.2%
4	0.2%
5	0.4%
6	3.3%
7	8.2%
8	60.6%
9	20.1%
10	4.9%
>10	2.3%

Figure 1.8.H

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in MATH

(Degree Completion as of June 2008)

Cohort Size = 1,050



1999/00	
Cohort Size	975
Degree in MATH	77.5%
Degree in Other Faculty	5.1%
Still Enrolled	1.7%
Withdrawn	15.6%

2000/01	
Cohort Size	991
Degree in MATH	77.8%
Degree in Other Faculty	5.8%
Still Enrolled	2.8%
Withdrawn	13.6%

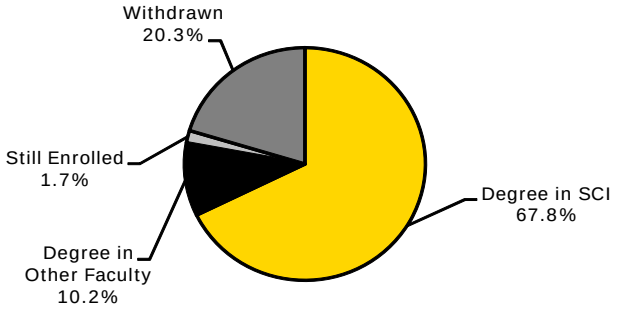
MATH
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
5	0.1%
6	0.8%
7	3.5%
8	49.3%
9	30.6%
10	10.9%
>10	4.8%

Figure 1.8.I

Degree Distribution of the 2001/02 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in SCI

(Degree Completion as of June 2008)



1999/00		2000/01	
Cohort Size	688	Cohort Size	523
Degree in SCI	68.2%	Degree in SCI	66.3%
Degree in Other Faculty	10.6%	Degree in Other Faculty	9.8%
Still Enrolled	0.9%	Still Enrolled	5.0%
Withdrawn	20.3%	Withdrawn	18.9%

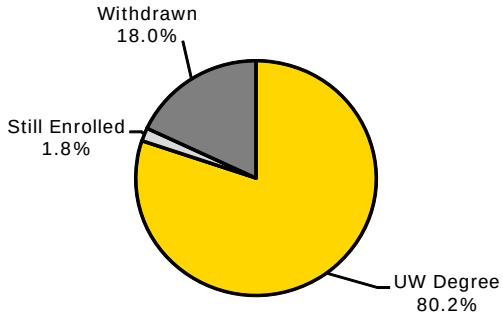
SCI
3 Year Average of Full-Time Terms to Complete Degree

FT Terms	% Graduated
6	4.5%
7	3.8%
8	46.9%
9	23.8%
10	11.8%
>10	9.1%

Figure 1.8.J[22]

Degree Distribution of the 2001/02 Full-time, 1st-Time, 1st-Year Undergraduate Cohort for UW

(Degree Completion as of June 2008)



1999/00		2000/01	
Cohort Size	4,310	Cohort Size	3,902
UW Degree	80.5%	UW Degree	79.9%
Still Enrolled	1.7%	Still Enrolled	3.3%
Withdrawn	17.8%	Withdrawn	16.8%

UW
3 Year Average of Full-Time Terms to Complete any Degree

FT Terms	% Graduated
4	0.2%
5	0.4%
6	3.5%
7	4.8%
8	55.0%
9	24.4%
10	7.9%
>10	4.0%

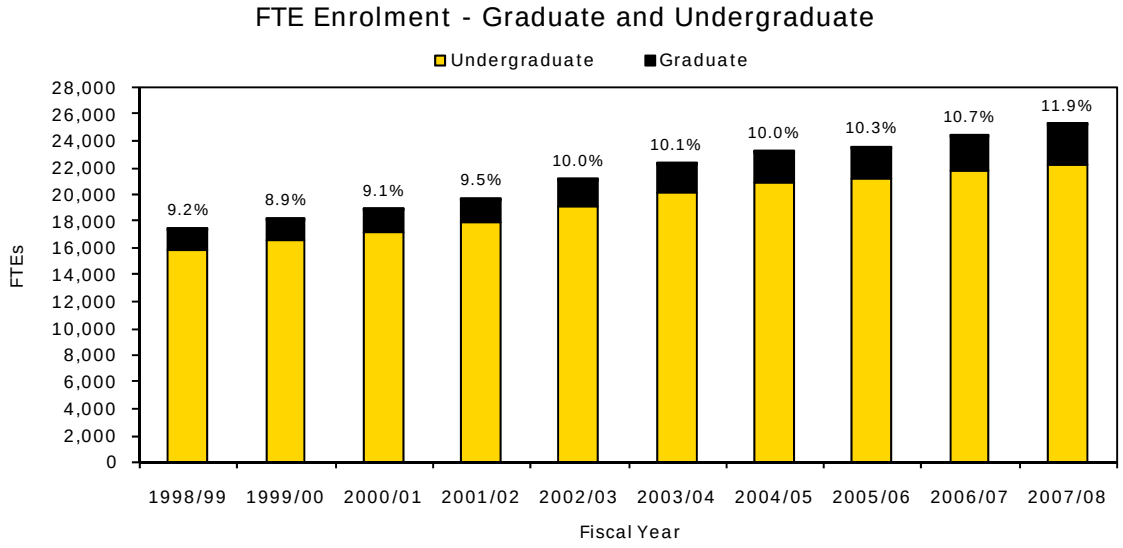
[22] The degree completion rate here differs from that in the CSRDE chart due to a difference in methodology and timing.

2. GRADUATE STUDIES

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

2.1. Enrolment

Figure 2.1.A



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

Figure 2.1.B

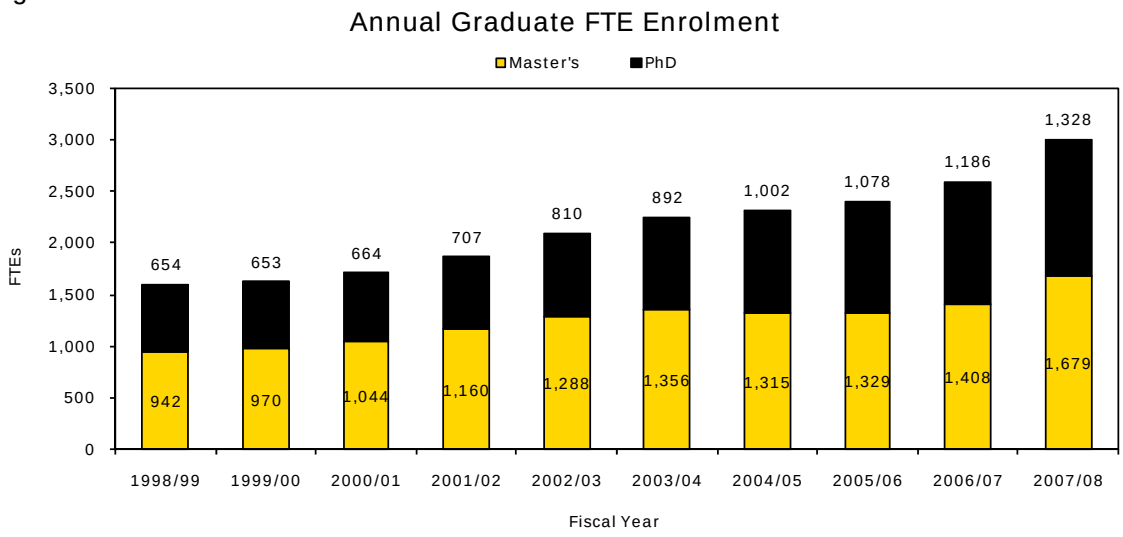


Figure 2.1.C[23]

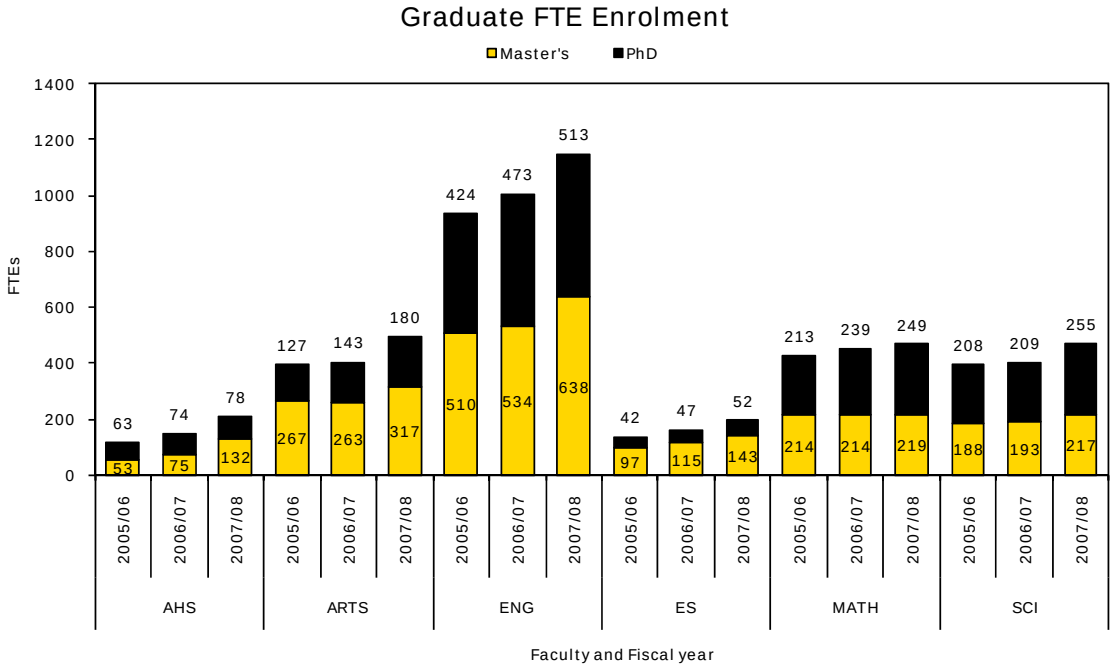
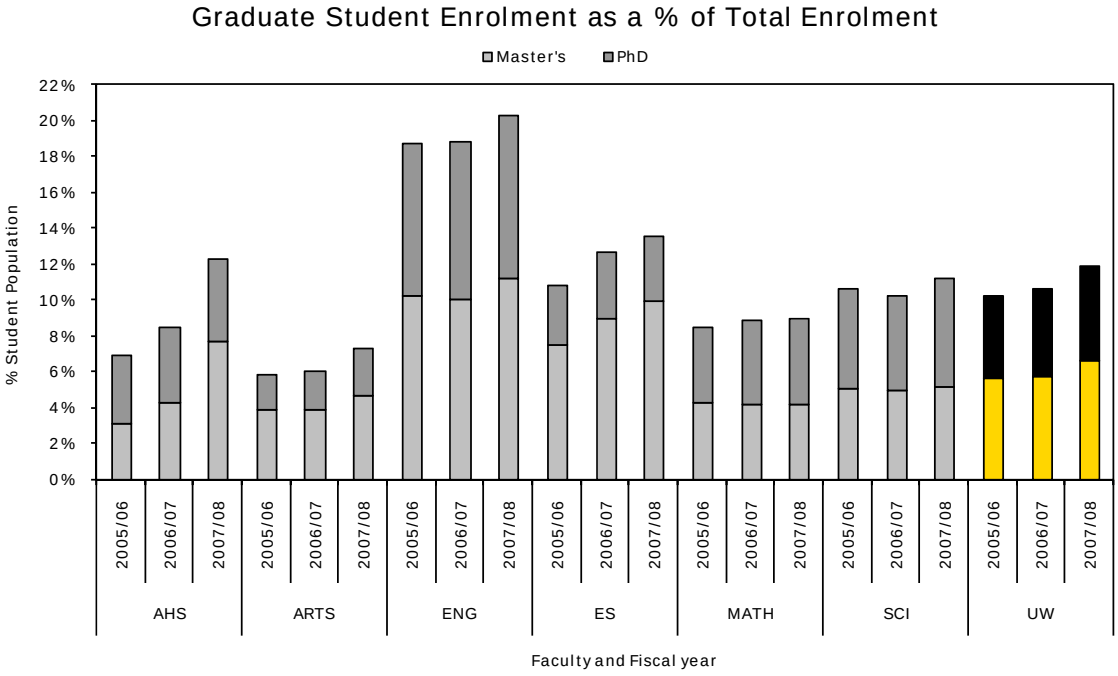


Figure 2.1.D

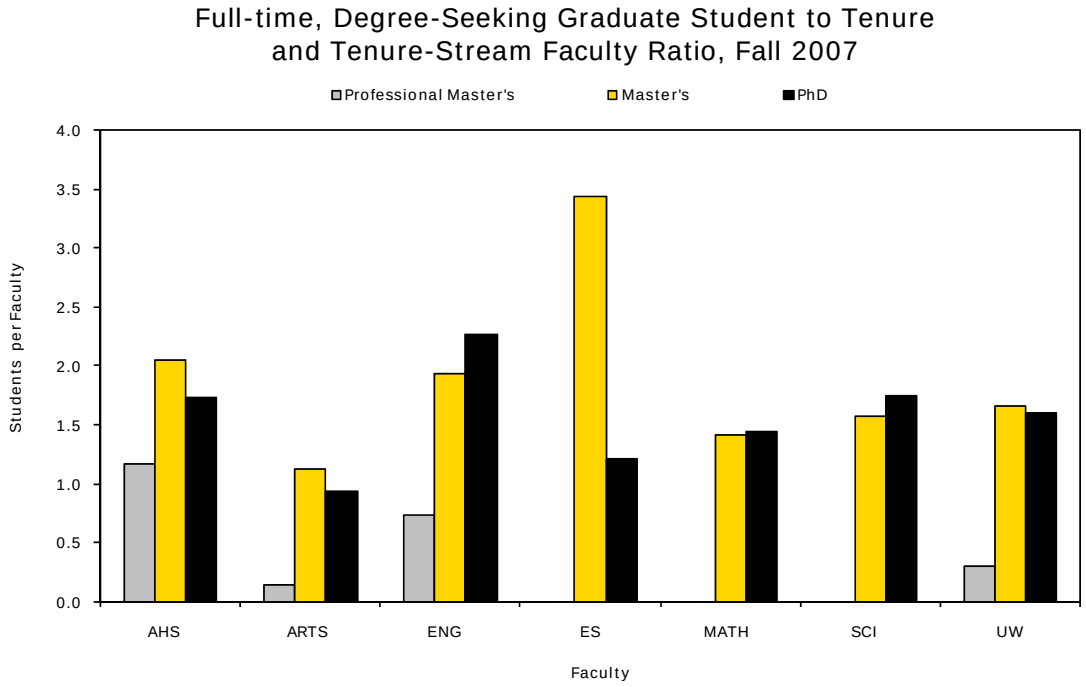


[23] In 2007/08, there were 13.0 FTE enrolled in Theology that are not represented in the graph.

2.2. Student to Faculty Ratio

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

Figure 2.2.A[24]



2.3. Quality of Students

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

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

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

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

Figure 2.3.A

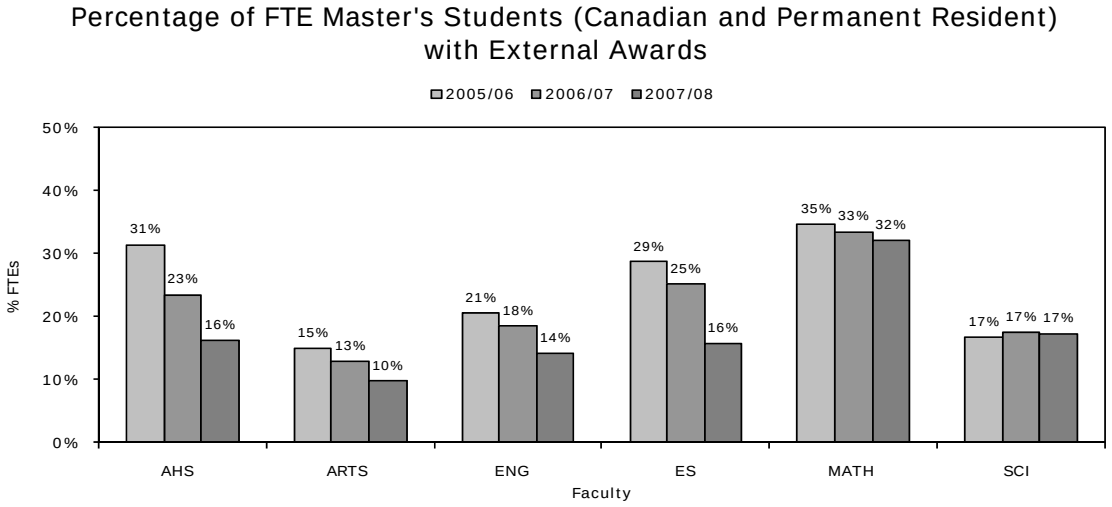


Figure 2.3.B

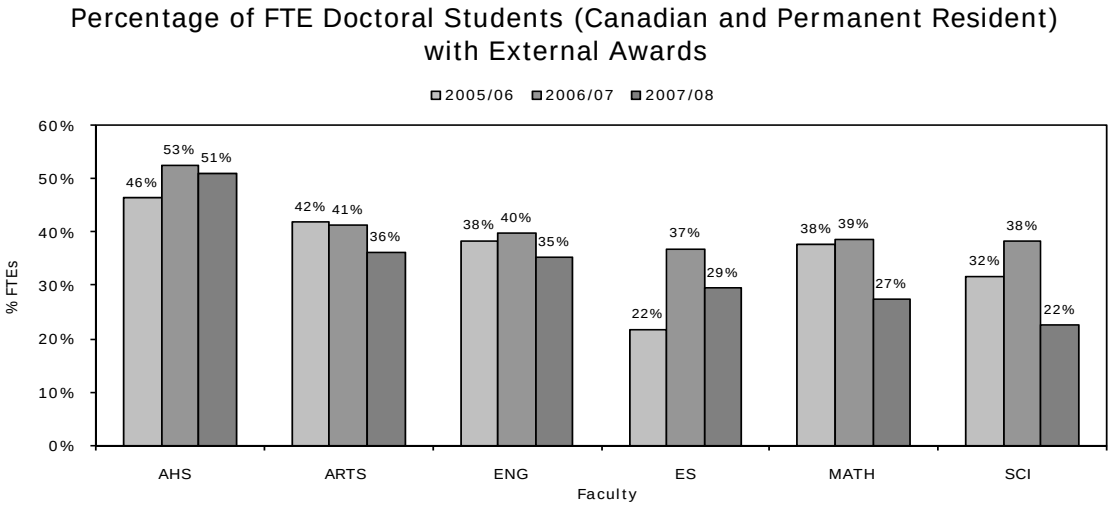
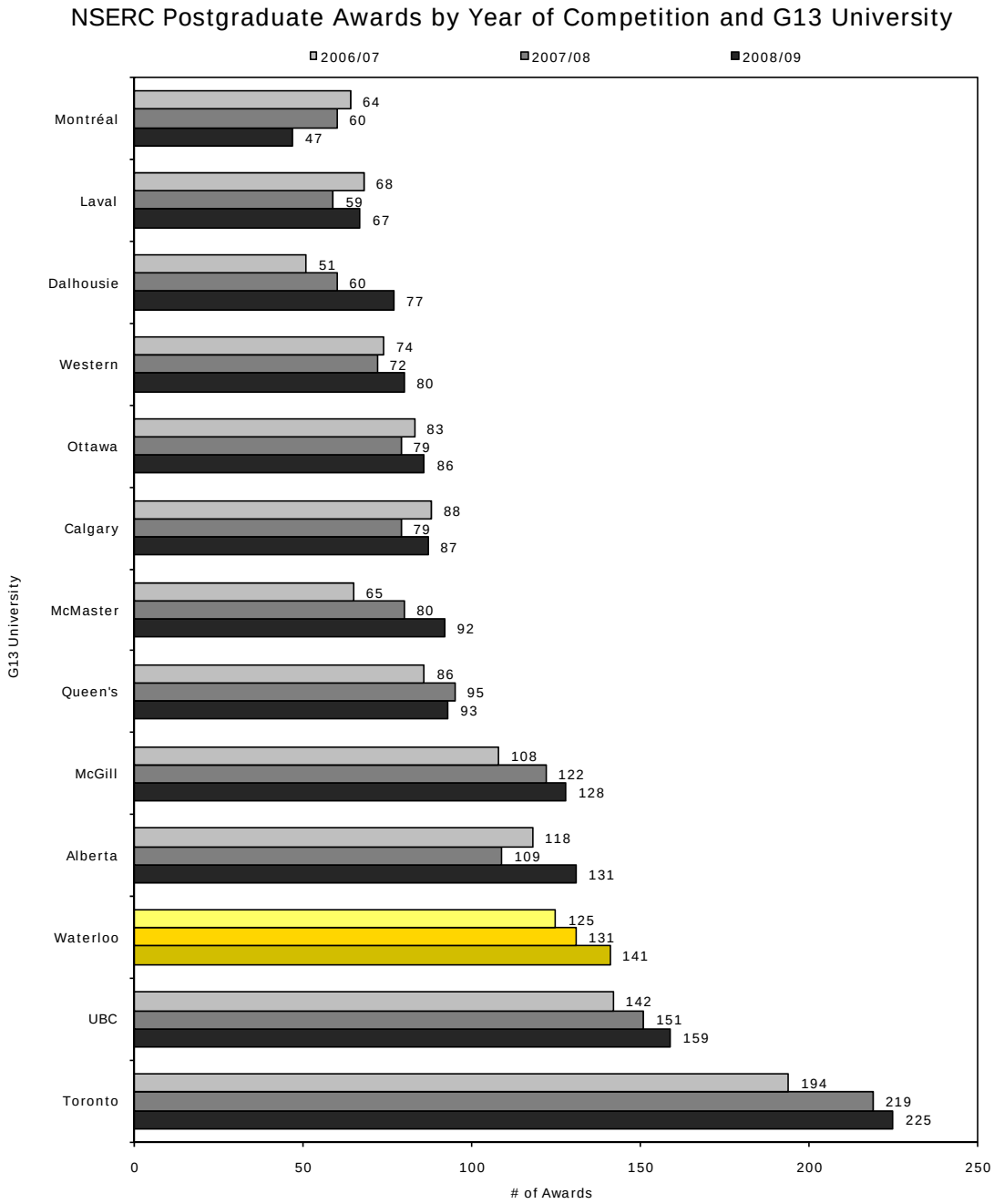


Figure 2.3.C, below, shows Natural Sciences and Engineering Research Council postgraduate awards to UW students, including those who may have attended graduate studies at other institutions, and similar data for those institutions in the G13. In 2004/05, Canada Graduate Scholarship (CGS) awards were introduced. In 2006/07, fewer CGS awards were made available system-wide due to the introduction of a three-year doctoral award for some award recipients.

Figure 2.3.C

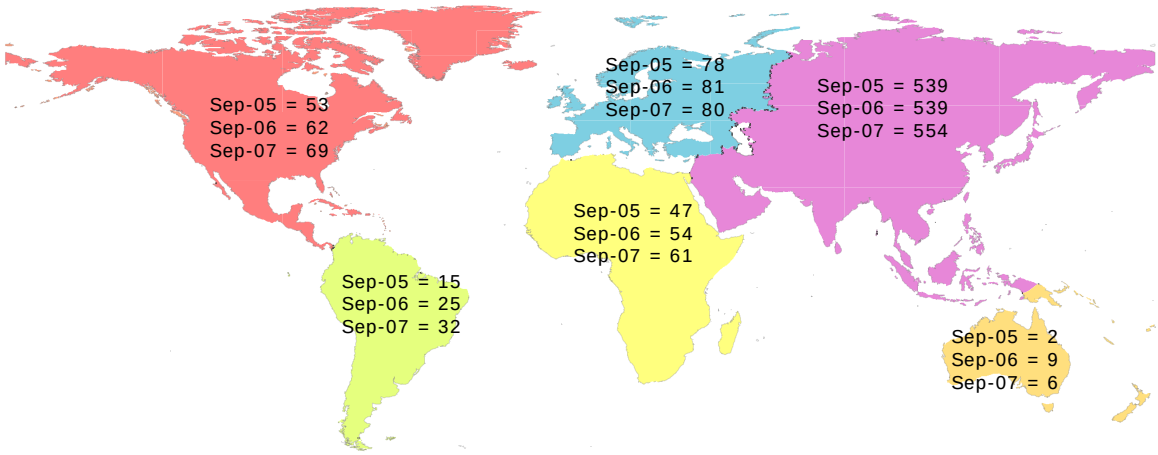


2.4. Geographic Source

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

Figure 2.4.A[25]

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



2.5. Graduate Application, Offer and Yield Rates

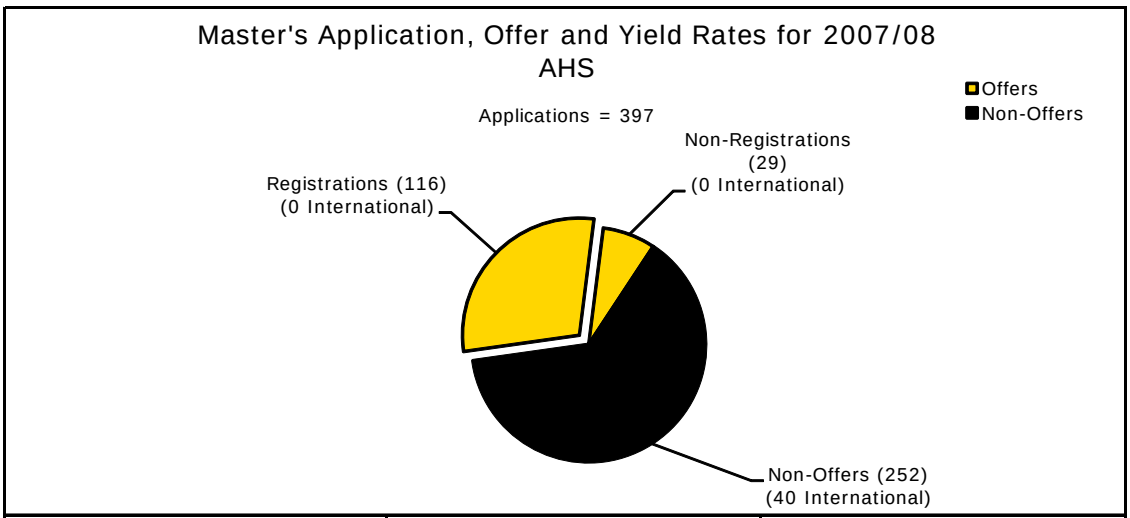
Entry to graduate studies is fundamentally different from the undergraduate programs, particularly in the area of offer and yield rates. Similar to the undergraduate case, we track the offer rate (number of offers versus number of applications), and the yield rate (number of registrations versus number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

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

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

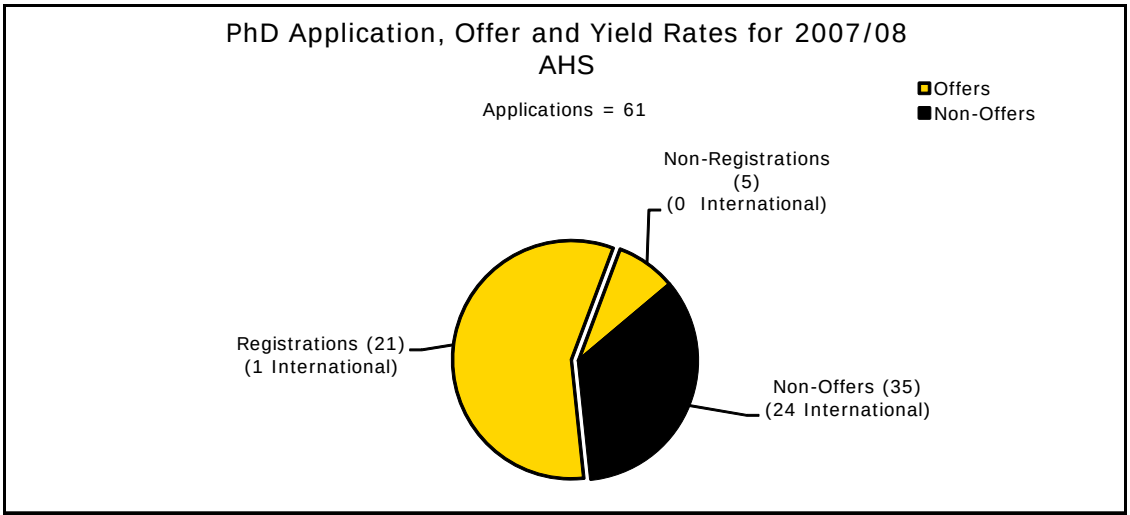
[25] Permanent Residents are not included in this chart because UW's definition of international involvement focuses more on students that have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental North America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

Figure 2.5.A



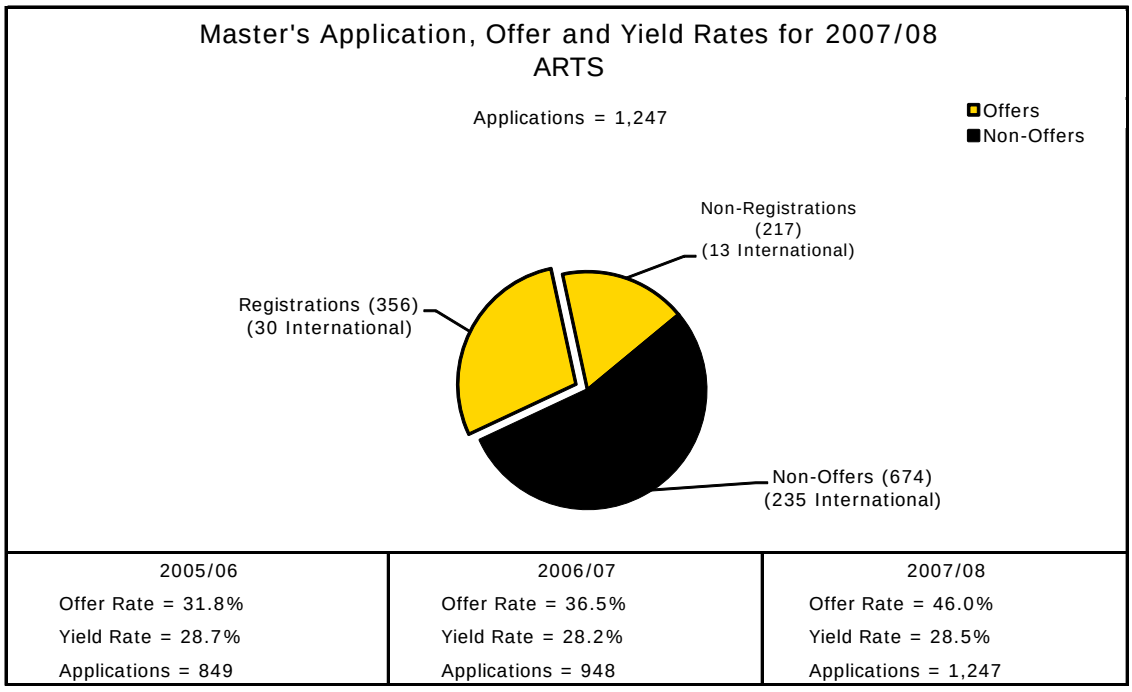
2005/06	2006/07	2007/08
Offer Rate = 27.1%	Offer Rate = 44.9%	Offer Rate = 36.5%
Yield Rate = 19.5%	Yield Rate = 37.1%	Yield Rate = 29.2%
Applications = 118	Applications = 205	Applications = 397

Figure 2.5.B



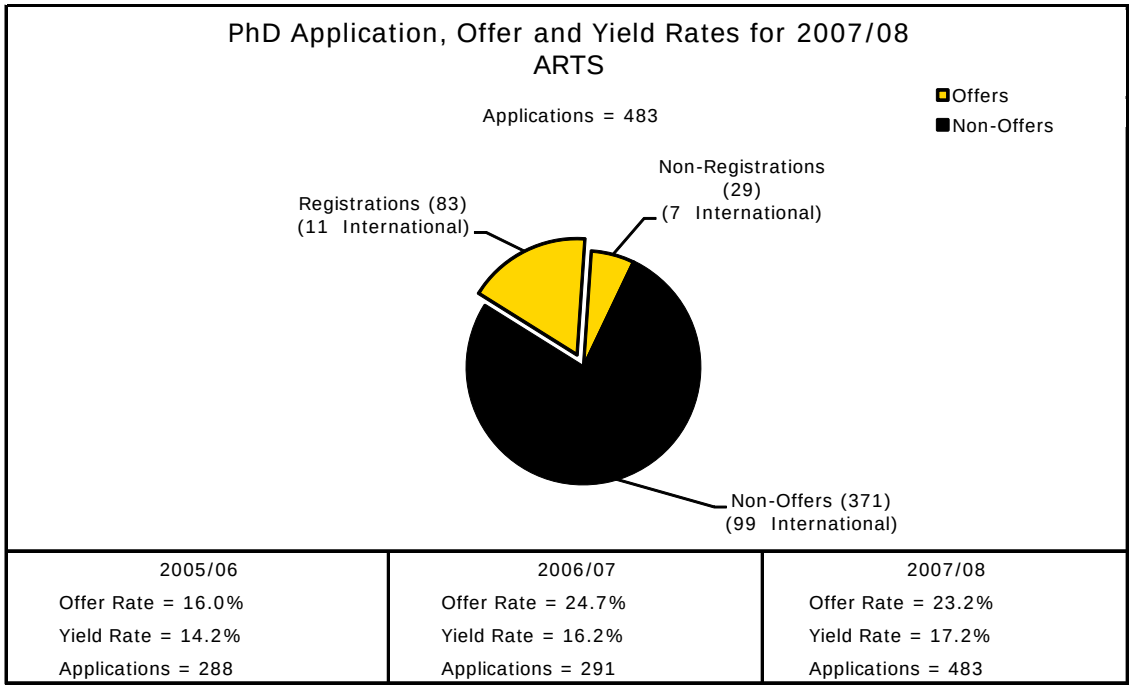
2005/06	2006/07	2007/08
Offer Rate = 51.9%	Offer Rate = 48.1%	Offer Rate = 42.6%
Yield Rate = 46.2%	Yield Rate = 40.4%	Yield Rate = 34.4%
Applications = 52	Applications = 52	Applications = 61

Figure 2.5.C



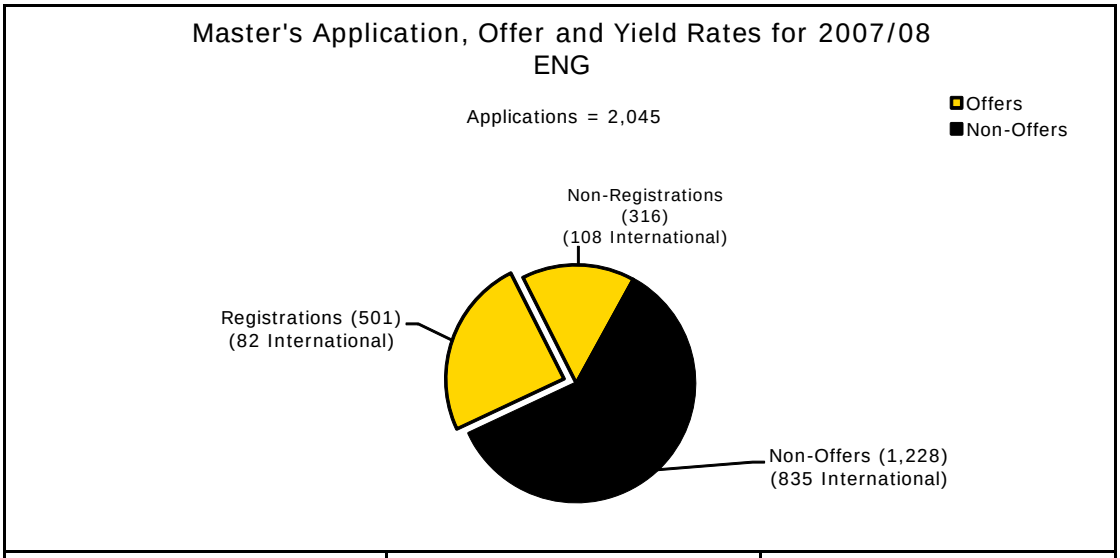
2005/06	2006/07	2007/08
Offer Rate = 31.8%	Offer Rate = 36.5%	Offer Rate = 46.0%
Yield Rate = 28.7%	Yield Rate = 28.2%	Yield Rate = 28.5%
Applications = 849	Applications = 948	Applications = 1,247

Figure 2.5.D



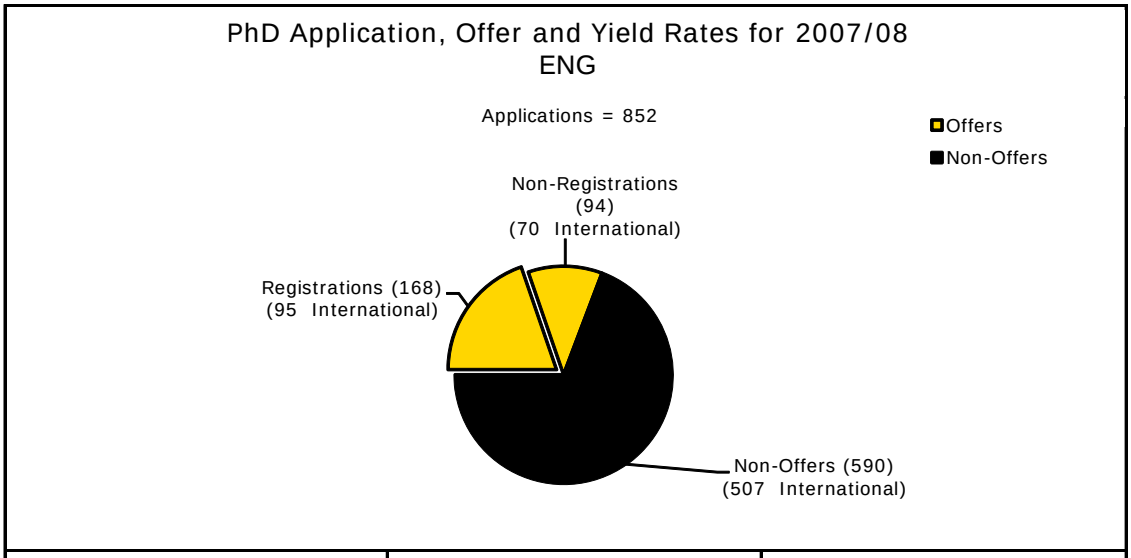
2005/06	2006/07	2007/08
Offer Rate = 16.0%	Offer Rate = 24.7%	Offer Rate = 23.2%
Yield Rate = 14.2%	Yield Rate = 16.2%	Yield Rate = 17.2%
Applications = 288	Applications = 291	Applications = 483

Figure 2.5.E



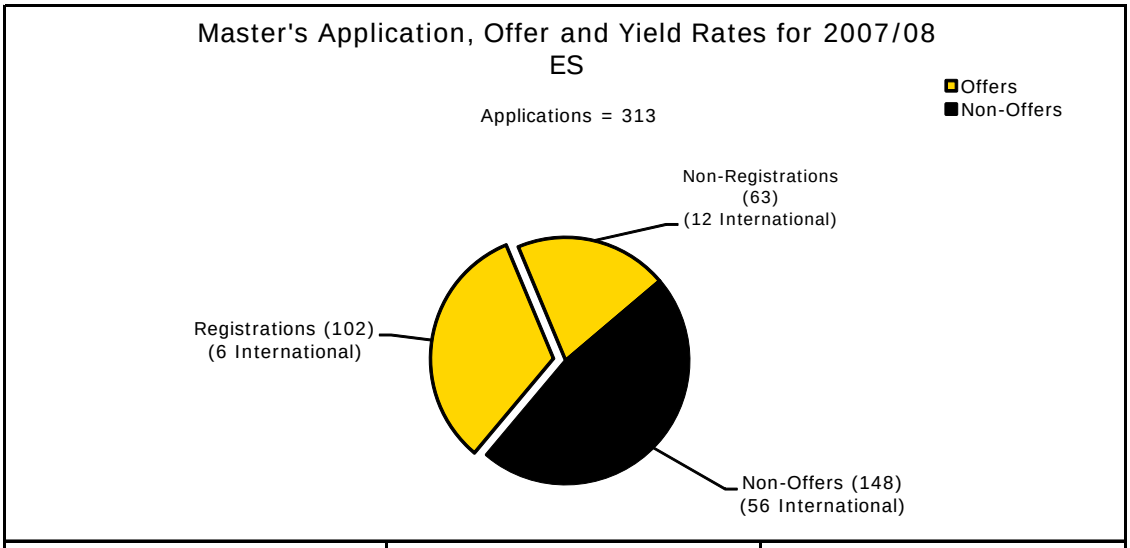
2005/06	2006/07	2007/08
Offer Rate = 28.6%	Offer Rate = 34.5%	Offer Rate = 40.0%
Yield Rate = 21.8%	Yield Rate = 25.2%	Yield Rate = 24.5%
Applications = 1,355	Applications = 1,611	Applications = 2,045

Figure 2.5.F



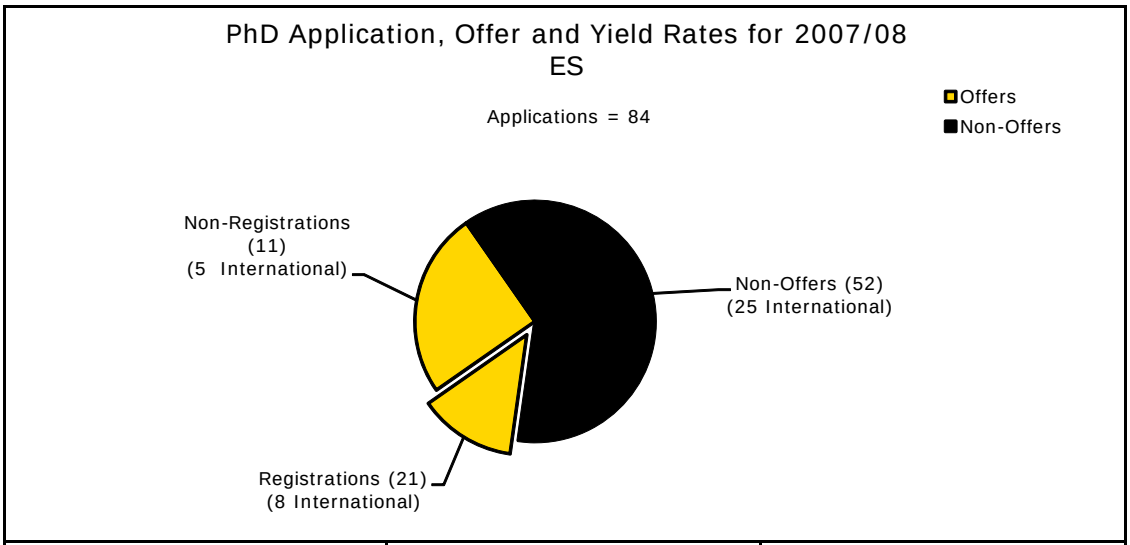
2005/06	2006/07	2007/08
Offer Rate = 25.0%	Offer Rate = 26.8%	Offer Rate = 30.8%
Yield Rate = 20.6%	Yield Rate = 18.4%	Yield Rate = 19.7%
Applications = 539	Applications = 652	Applications = 852

Figure 2.5.G



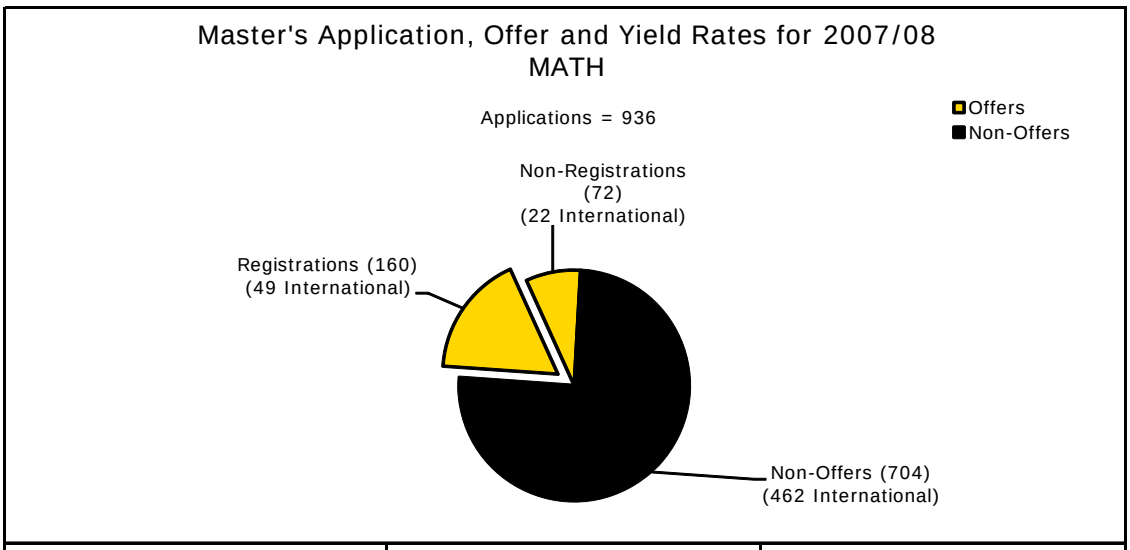
2005/06	2006/07	2007/08
Offer Rate = 38.8%	Offer Rate = 54.8%	Offer Rate = 52.7%
Yield Rate = 29.5%	Yield Rate = 37.6%	Yield Rate = 32.6%
Applications = 224	Applications = 221	Applications = 313

Figure 2.5.H



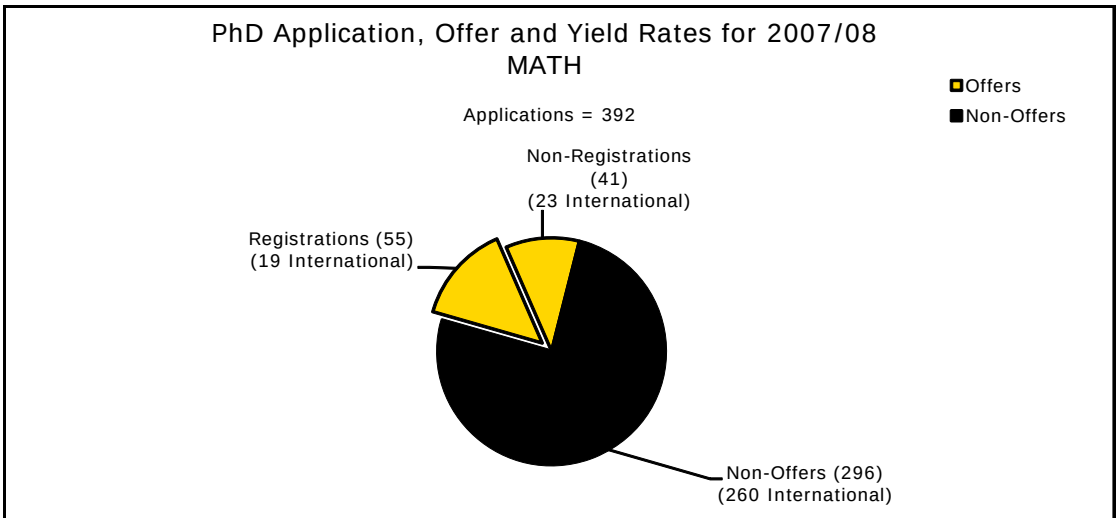
2005/06	2006/07	2007/08
Offer Rate = 47.9%	Offer Rate = 51.9%	Offer Rate = 38.1%
Yield Rate = 39.6%	Yield Rate = 37.0%	Yield Rate = 25.0%
Applications = 48	Applications = 54	Applications = 84

Figure 2.5.I



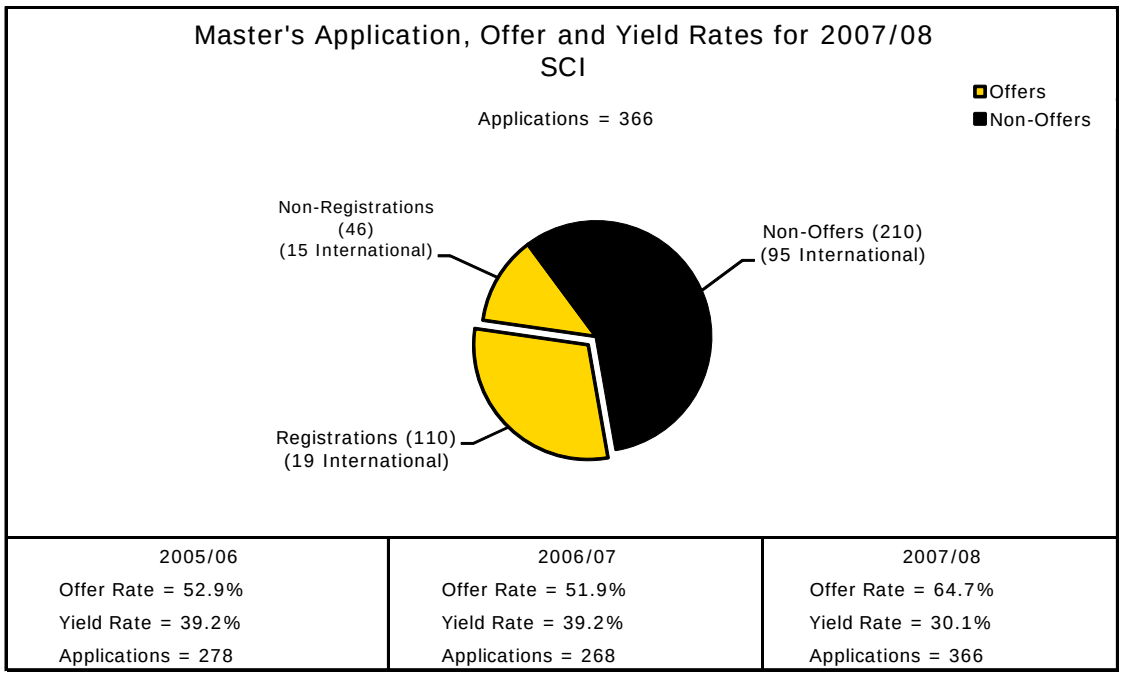
2005/06	2006/07	2007/08
Offer Rate = 24.1%	Offer Rate = 26.3%	Offer Rate = 24.8%
Yield Rate = 15.6%	Yield Rate = 17.2%	Yield Rate = 17.1%
Applications = 846	Applications = 873	Applications = 936

Figure 2.5.J



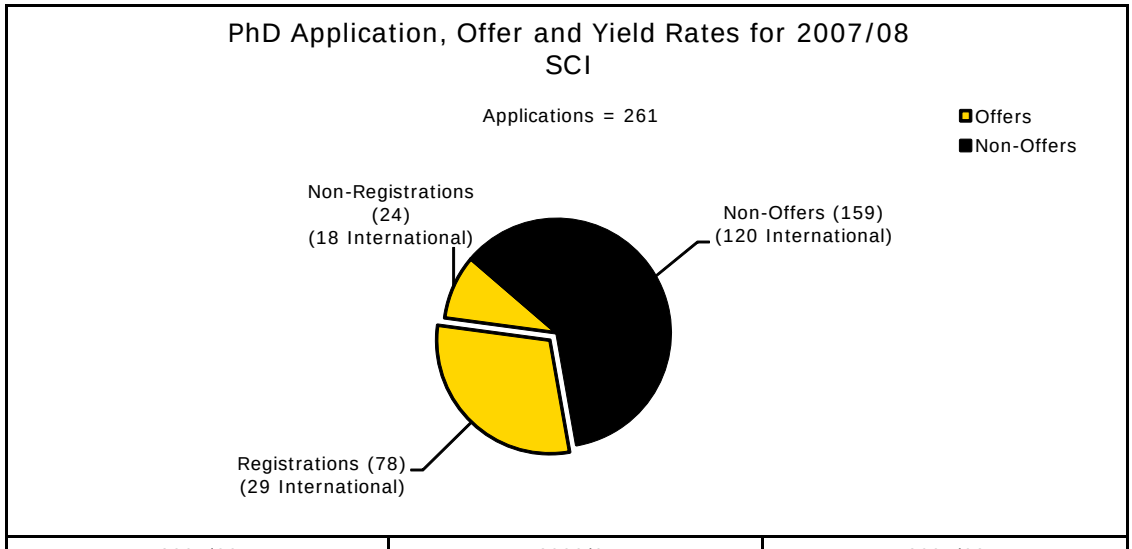
2005/06	2006/07	2007/08
Offer Rate = 20.4 %	Offer Rate = 31.1%	Offer Rate = 24.5%
Yield Rate = 12.9%	Yield Rate = 19.2%	Yield Rate = 14.0%
Applications = 372	Applications = 334	Applications = 392

Figure 2.5.K



2005/06	2006/07	2007/08
Offer Rate = 52.9%	Offer Rate = 51.9%	Offer Rate = 64.7%
Yield Rate = 39.2%	Yield Rate = 39.2%	Yield Rate = 30.1%
Applications = 278	Applications = 268	Applications = 366

Figure 2.5.L



2005/06	2006/07	2007/08
Offer Rate = 52.8%	Offer Rate = 35.1%	Offer Rate = 39.1%
Yield Rate = 37.1%	Yield Rate = 29.2%	Yield Rate = 29.9%
Applications = 89	Applications = 154	Applications = 261

2.6. Student Support

Graduate student support is provided in a number of ways, including scholarships ($30 million) and remuneration for work as teaching assistants ($13 million) and research assistants ($20 million). Graduate students are the third-largest pay group at UW, after faculty and staff.

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

Figure 2.6.A and Figure 2.6.B[26] 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, i.e., research rather than teaching assistantships. As we can see from Figure 2.6.A and Figure 2.6.B, in 2007/08 UW graduate students received in excess of $70 million, up from $62 million in 2006/07.

Figure 2.6.A

Financial Support to Master's Students 2007/08							
Faculty	External Scholarships	Internal Scholarships	Teaching Assistantships	Research Assistantships	Other	Total	Average Income / Supported Student
AHS	$329,000	$505,000	$668,000	$474,000	$149,000	$2,125,000	$18,000
ARTS	$498,000	$1,199,000	$1,398,000	$108,000	$520,000	$3,724,000	$15,000
ENG	$2,154,000	$1,529,000	$1,268,000	$3,595,000	$1,406,000	$9,952,000	$20,000
ES	$438,000	$312,000	$1,016,000	$232,000	$279,000	$2,277,000	$21,000
MATH	$913,000	$1,290,000	$1,904,000	$1,352,000	$277,000	$5,736,000	$26,000
SCI	$679,000	$991,000	$791,000	$2,179,000	$457,000	$5,098,000	$27,000
Total	$5,011,000	$5,826,000	$7,045,000	$7,940,000	$3,089,000	$28,911,000	$20,000

Figure 2.6.B

Financial Support to Doctoral Students 2007/08							
Faculty	External Scholarships	Internal Scholarships	Teaching Assistantships	Research Assistantships	Other	Total	Average Income / Supported Student
AHS	$880,000	$427,000	$241,000	$444,000	$222,000	$2,216,000	$30,000
ARTS	$1,623,000	$1,609,000	$1,347,000	$364,000	$471,000	$5,414,000	$30,000
ENG	$4,996,000	$2,808,000	$1,719,000	$5,932,000	$1,283,000	$16,738,000	$34,000
ES	$381,000	$313,000	$244,000	$90,000	$228,000	$1,256,000	$26,000
MATH	$1,391,000	$2,043,000	$1,733,000	$2,517,000	$720,000	$8,403,000	$34,000
SCI	$1,285,000	$1,618,000	$863,000	$3,023,000	$580,000	$7,370,000	$31,000
Total	$10,555,000	$8,818,000	$6,148,000	$12,371,000	$3,504,000	$41,396,000	$31,000

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

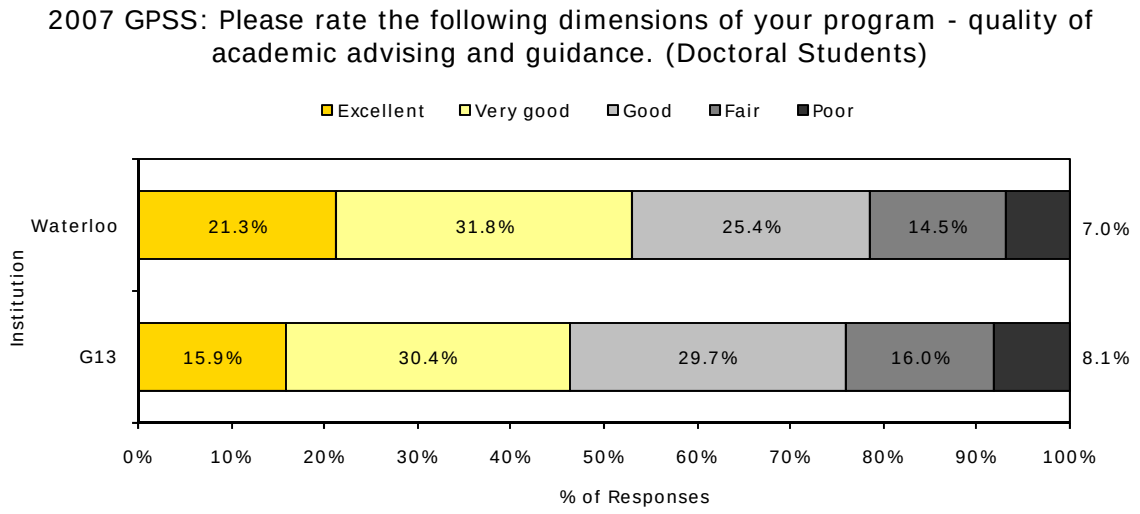
2.7. Graduate Student Satisfaction

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

The University of Waterloo participated in the GPSS in 2005 and 2007 with a survey invitation being sent out to every graduate student enrolled at UW. In 2007 a number of peer institutions across Ontario and all G13 Universities from across Canada also participated, allowing us to compare our results with those received by our peer institutions, and to identify areas where UW is excelling as well as issues and concerns for improvement or further investigation. The next survey is planned for 2009. In future years we plan to display data from two consecutive surveys and compare the results. Graduate students are divided into three separate groups when the results are analyzed, master's students with a thesis component to their program, master's students with no thesis, and doctoral students.

As in the NSSE survey the GPSS contains a number of general assessment questions where students are asked to rate the quality and effectiveness of different aspects of their experience. Figure 2.7.A shows the responses of doctoral students when asked to rate the quality of academic advising and guidance they have received in their program. Overall the University of Waterloo seems to have a slight advantage over our peer institutions in the G13 with 53.1 per cent of our Doctoral students responding with "Excellent" or "Very Good" as compared to 46.3 per cent of Doctoral students across the G13. At the other end of the spectrum both groups have very similar proportions of students responding with only "Fair" or "Poor".

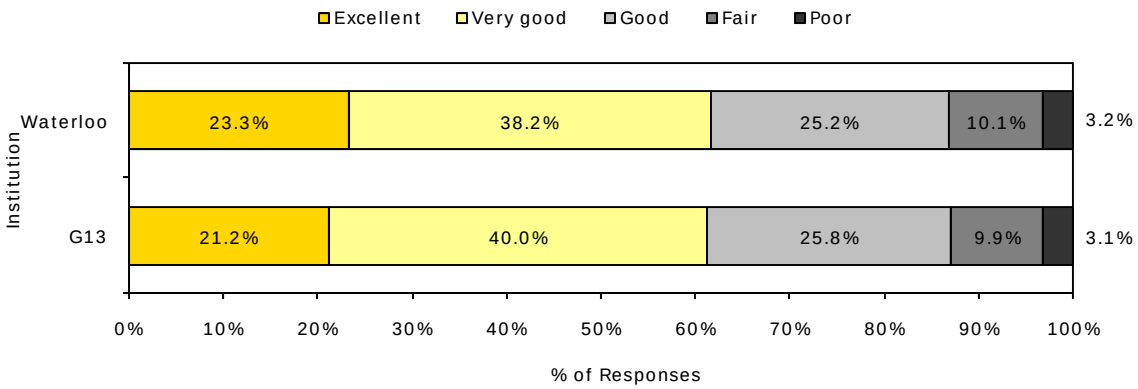
Figure 2.7.A



When asked to evaluate their overall experience at UW as shown in Figure 2.7.B UW's results mirror those of the G13 very closely with 23.3 per cent responding with "Excellent", and 38.2 per cent with "Good", compared to 21.2 per cent and 40.0 per cent respectively from students at the G13 institutions.

Figure 2.7.B

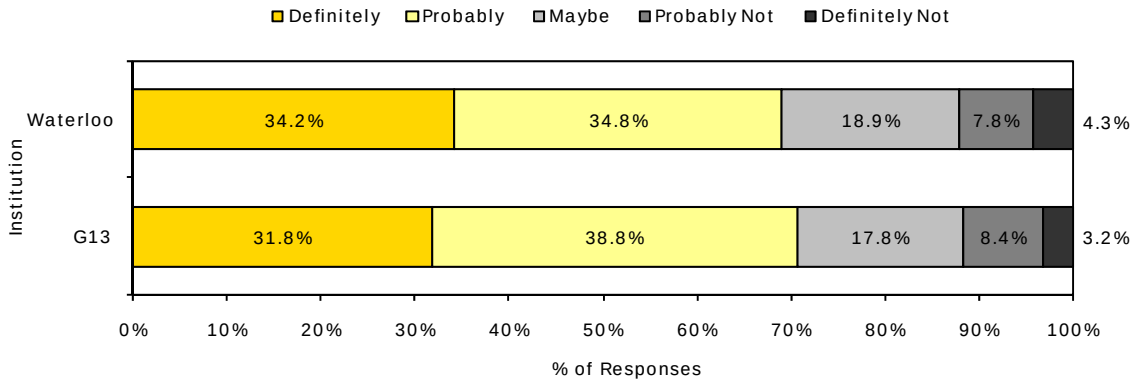
2007 GPSS: Overall how would you rate the quality of your overall experience at this university? (Doctoral Students)



Our results continue to correspond very closely to those of the G13 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. 34.2 per cent of our Doctoral students responded with "Definitely" and 34.8 per cent responded "Probably", but 12.1 per cent responded that they would "Probably Not" or "Definitely Not" choose UW again.

Figure 2.7.C

2007 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 UW by analyzing the survey responses may help us to improve the graduate student experience for future UW students.

2.8. Completion Rates and Degrees Granted

This indicator shows the 1997 cohort completion rates of UW graduate students as compared to the nine other universities in the G13. Specifically, Figure 2.8.A through Figure 2.8.F show the size and progress of the 1997 starting master's and doctoral cohorts including the length of time it took students to graduate, the number of those who had either completed their studies or were still studying as of the winter 2006 term, and the number of study terms for those who withdrew.

Figure 2.8.A

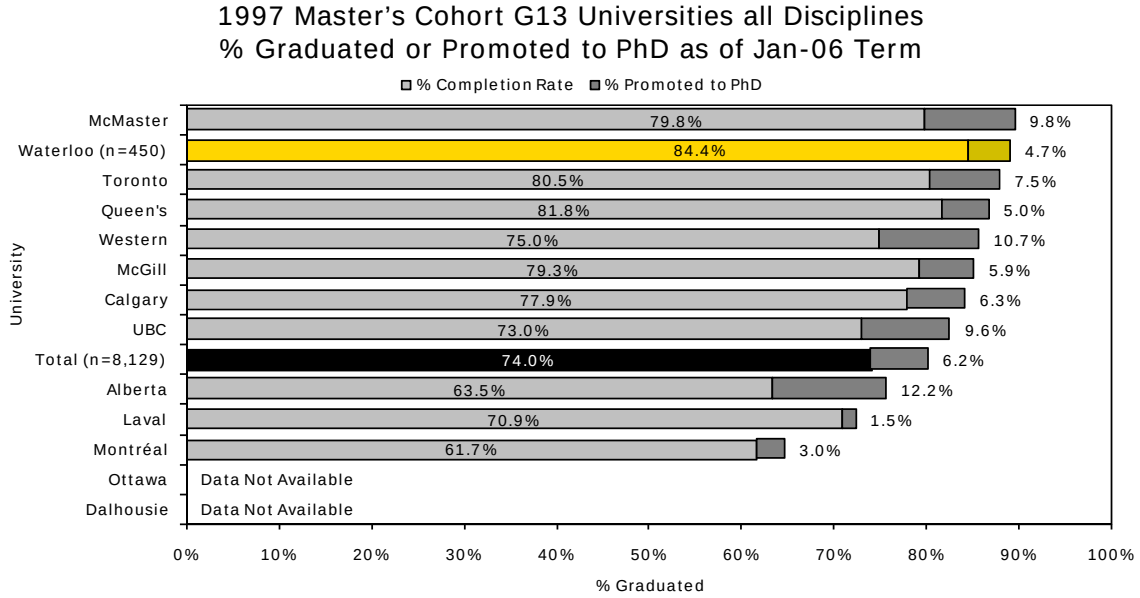


Figure 2.8.B

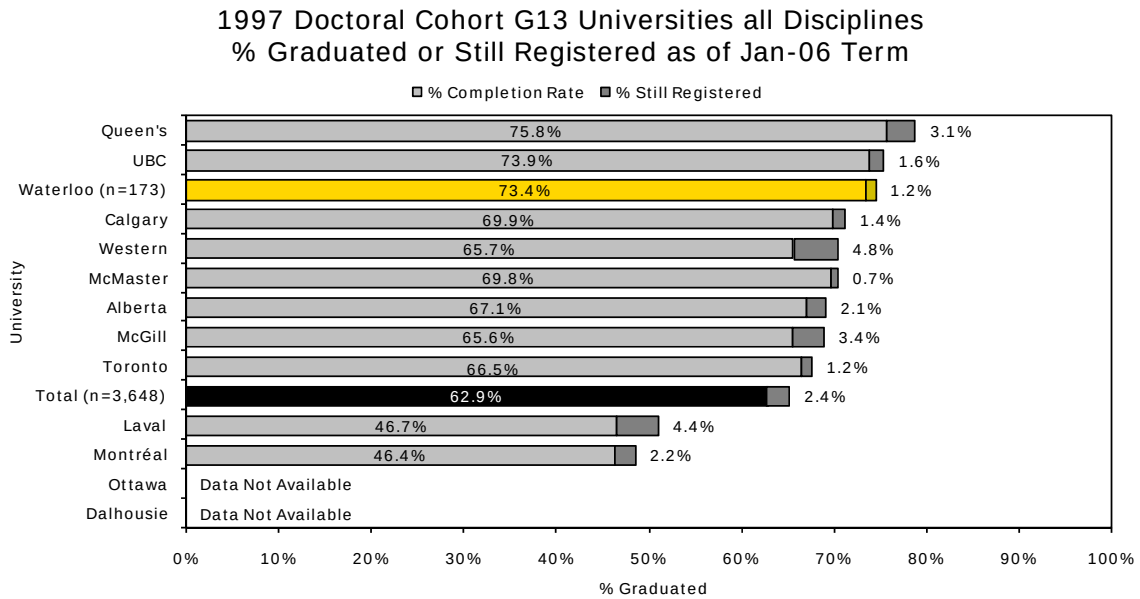


Figure 2.8.C

1997 Master's Cohort G13 Universities all Disciplines
Median Number of Terms Registered to Degree Completion

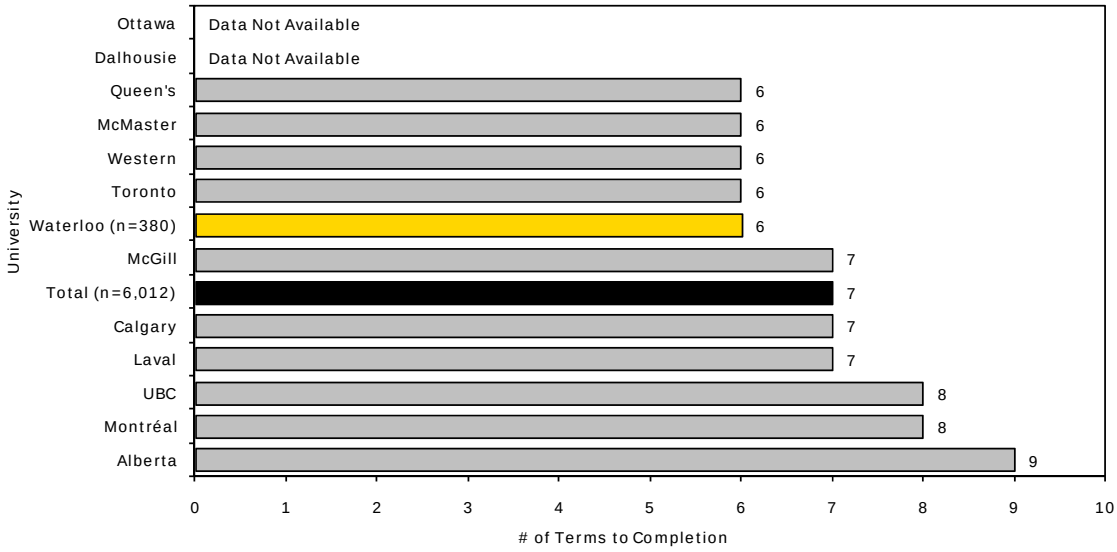


Figure 2.8.D

1997 Doctoral Cohort G13 Universities all Disciplines
Median Number of Terms Registered to Degree Completion

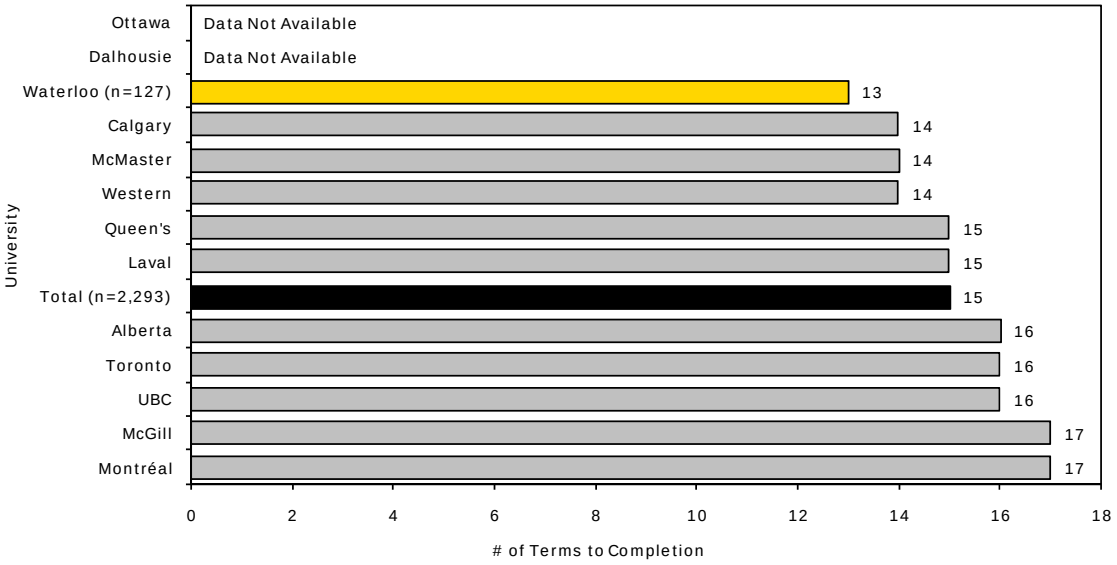


Figure 2.8.E

1997 Master's Cohort G13 Universities all Disciplines
Median Number of Terms Registered for Withdrawn Students

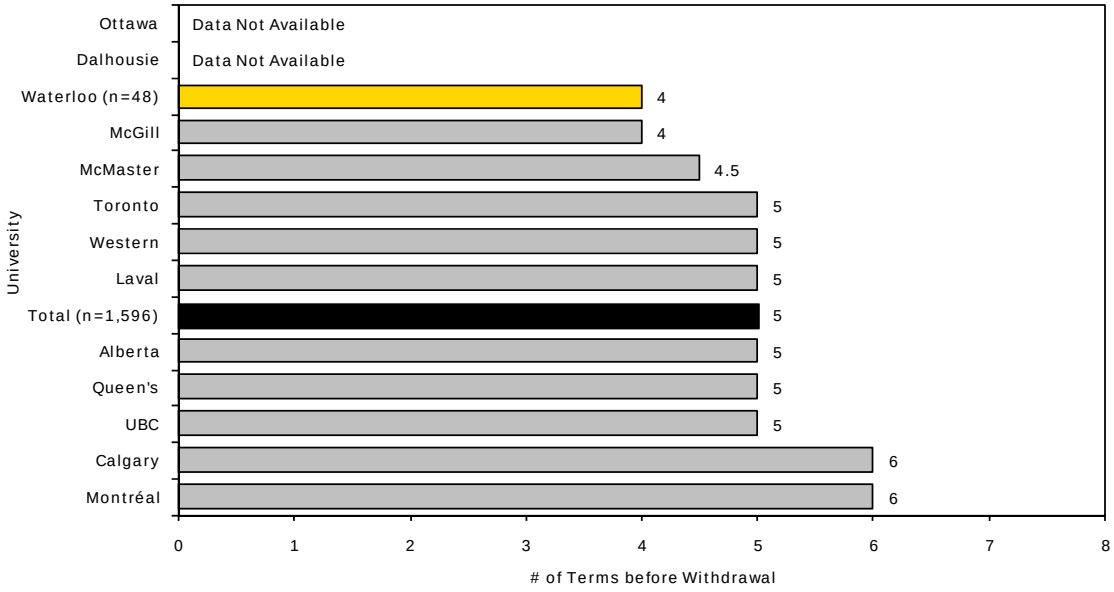
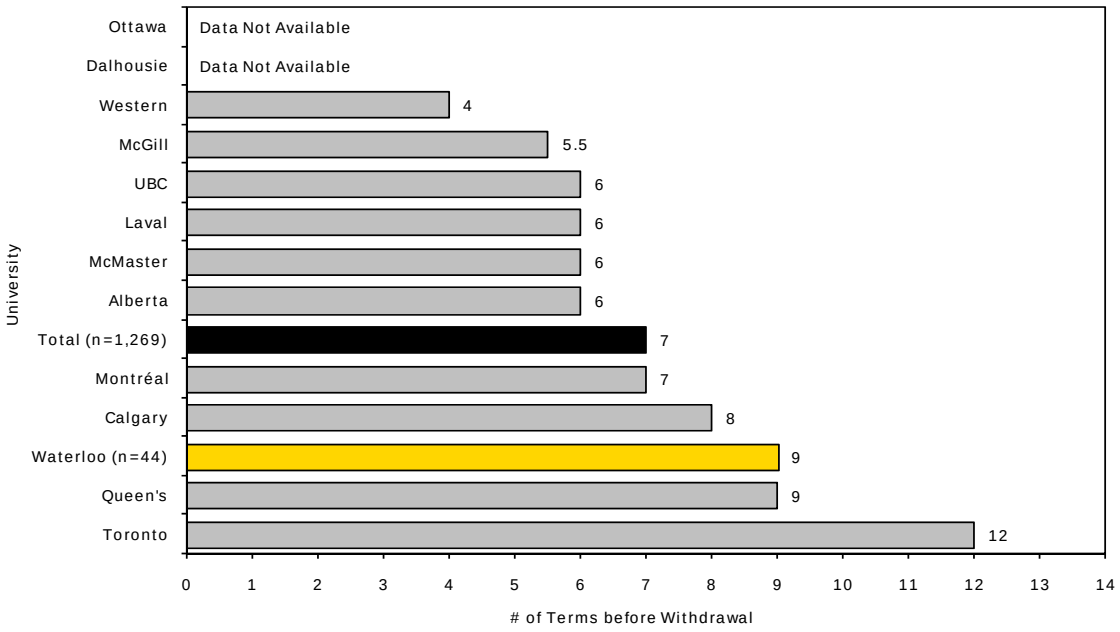


Figure 2.8.F

1997 Doctoral Cohort G13 Universities all Disciplines
Median Number of Terms Registered for Withdrawn Students



The next two figures show the average time to completion for those students who earned their degree between 2005 and 2007, distinct from the cohort analyses above.

Figure 2.8.G

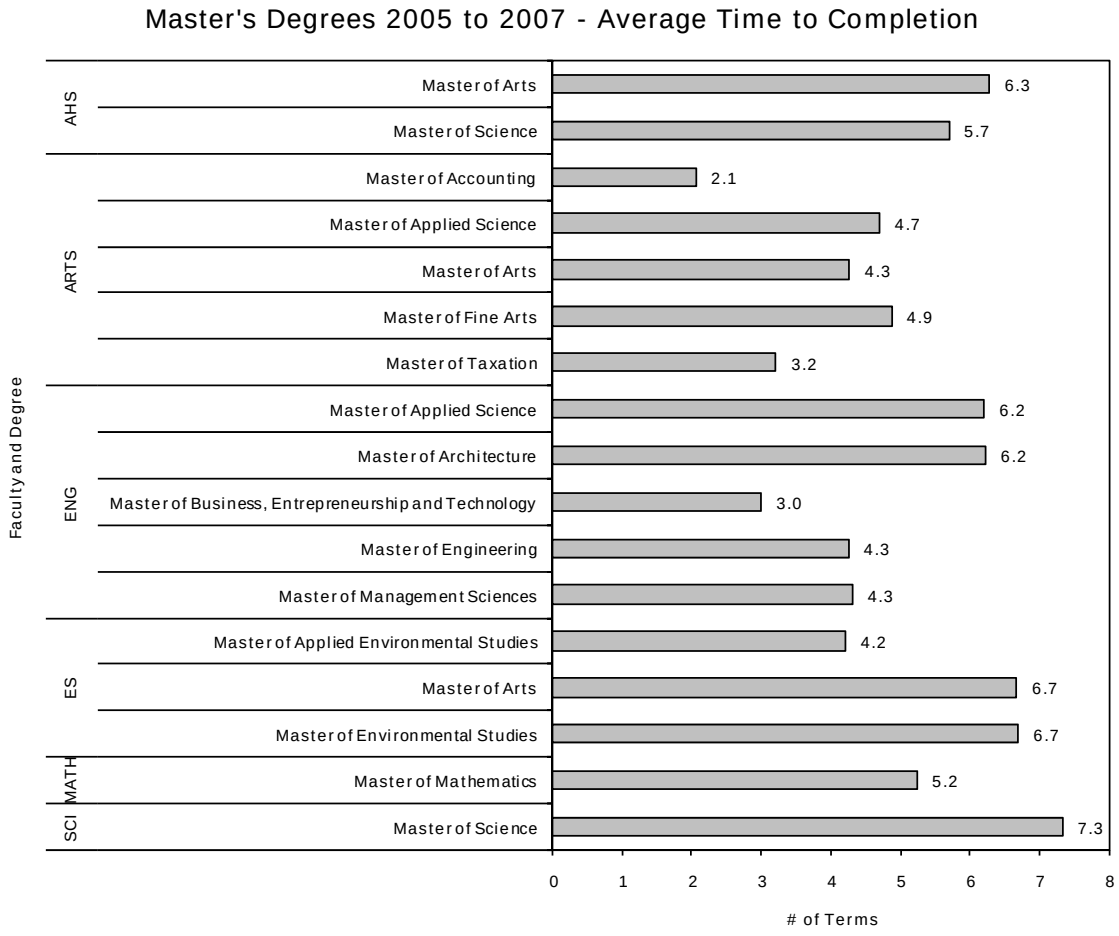
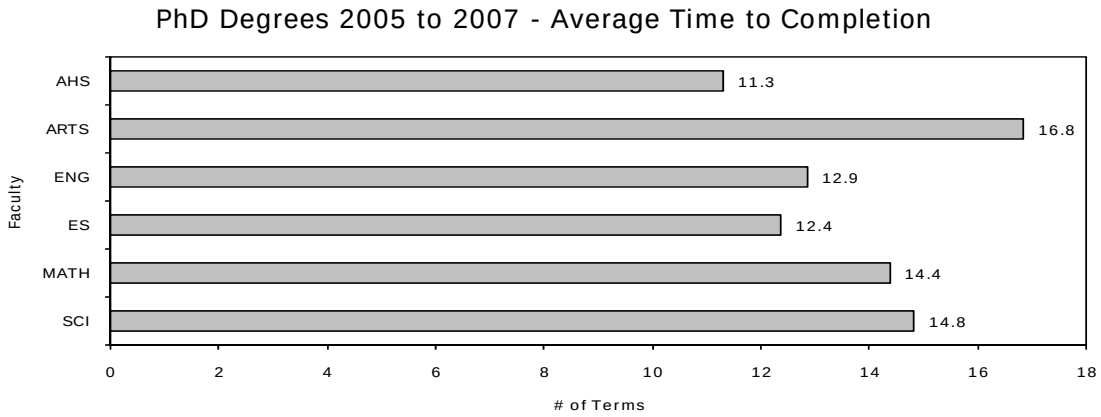


Figure 2.8.H



In 2007 there were 810 master's degrees and 193 doctoral degrees granted.

Figure 2.8.I

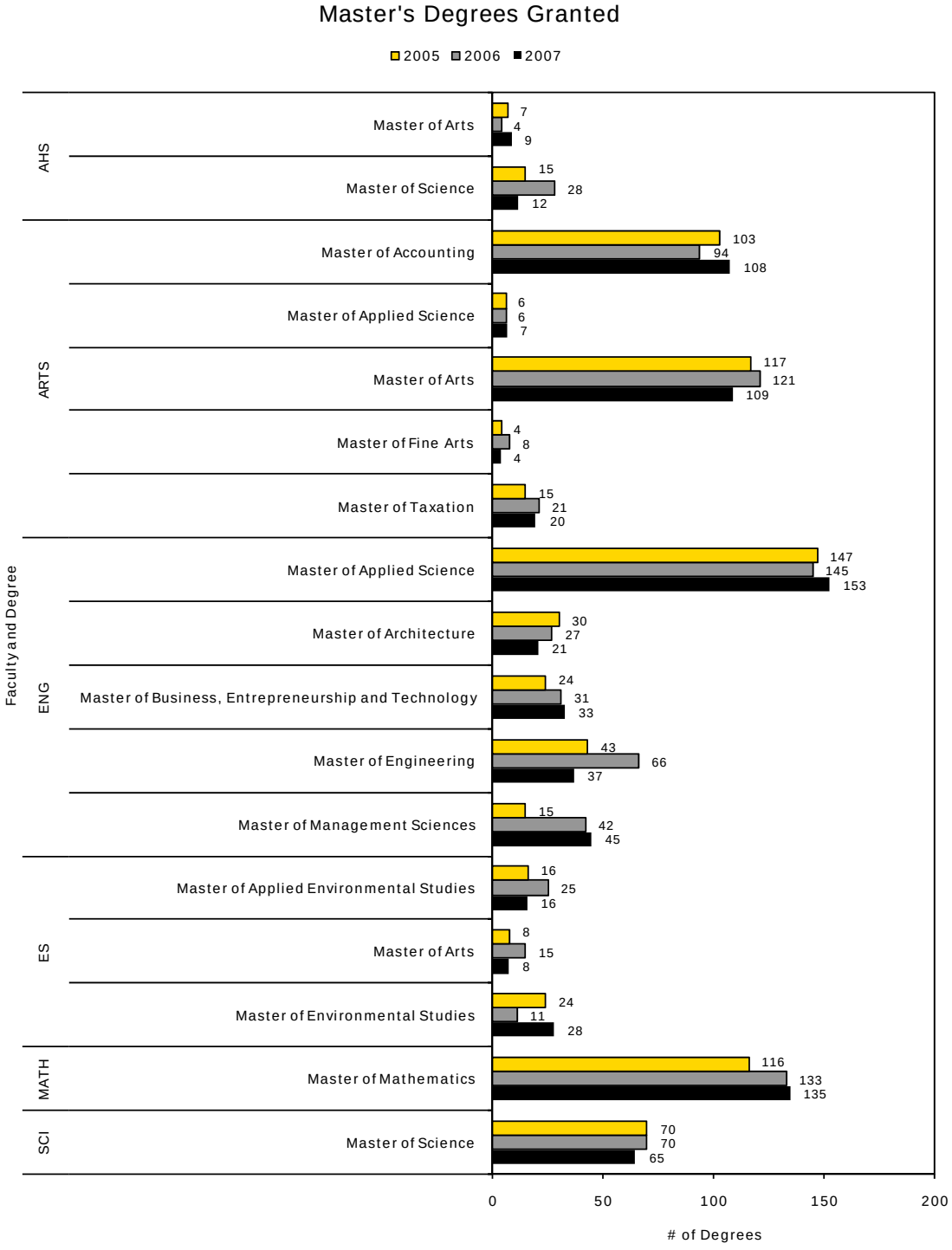
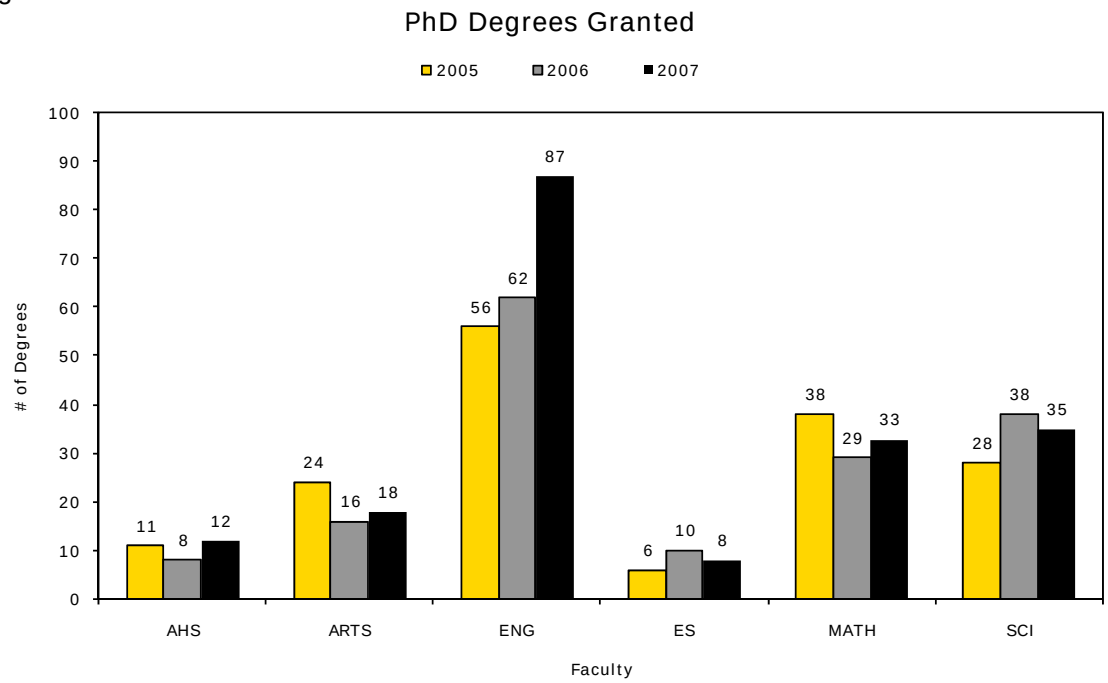


Figure 2.8.J



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

3. RESEARCH

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

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

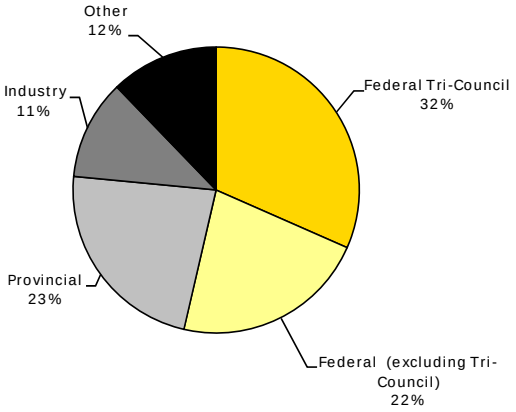
In this section, we examine total research awards, including those from international sources, awards from the Tri-Council agencies and the government of Ontario.

3.1. Research Awards

Research awards for the 2007/08 year were up by three per cent from 2006/07, totalling $131 million. Funding from Federal government agencies made up roughly half of all funding with 59 per cent of that coming from the Tri-Council.

Figure 3.1.A[27]

Total Sponsored Research Awards by Source 2007/08
$131,446,000



[27] "Other" includes, for example, funding from inter-university sub-awards, foundations, private agencies and other governmental bodies.

Figure 3.1.B[28]

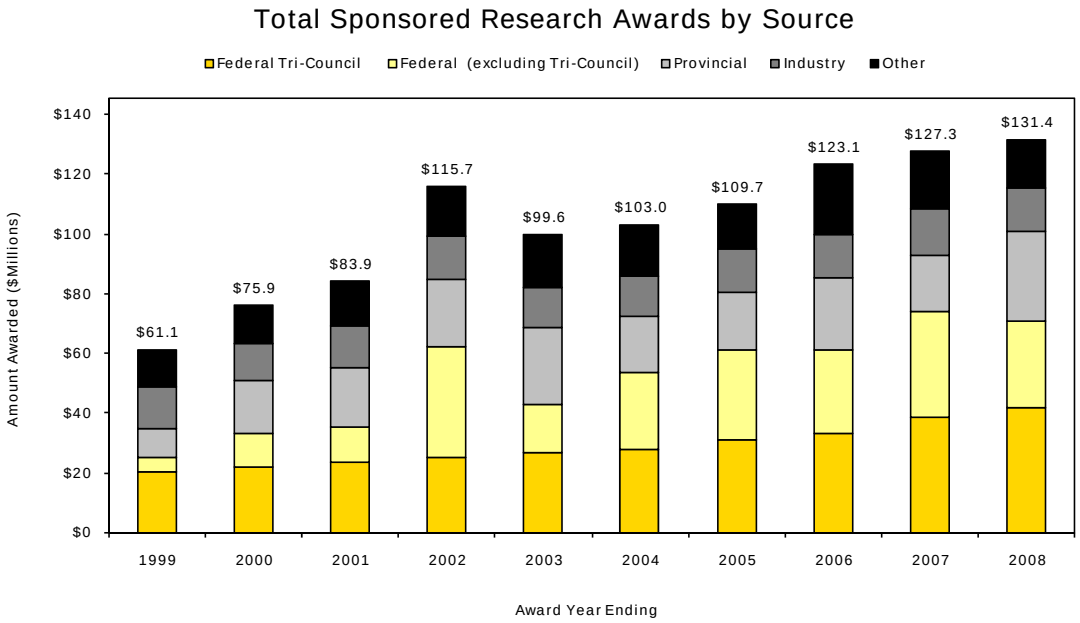
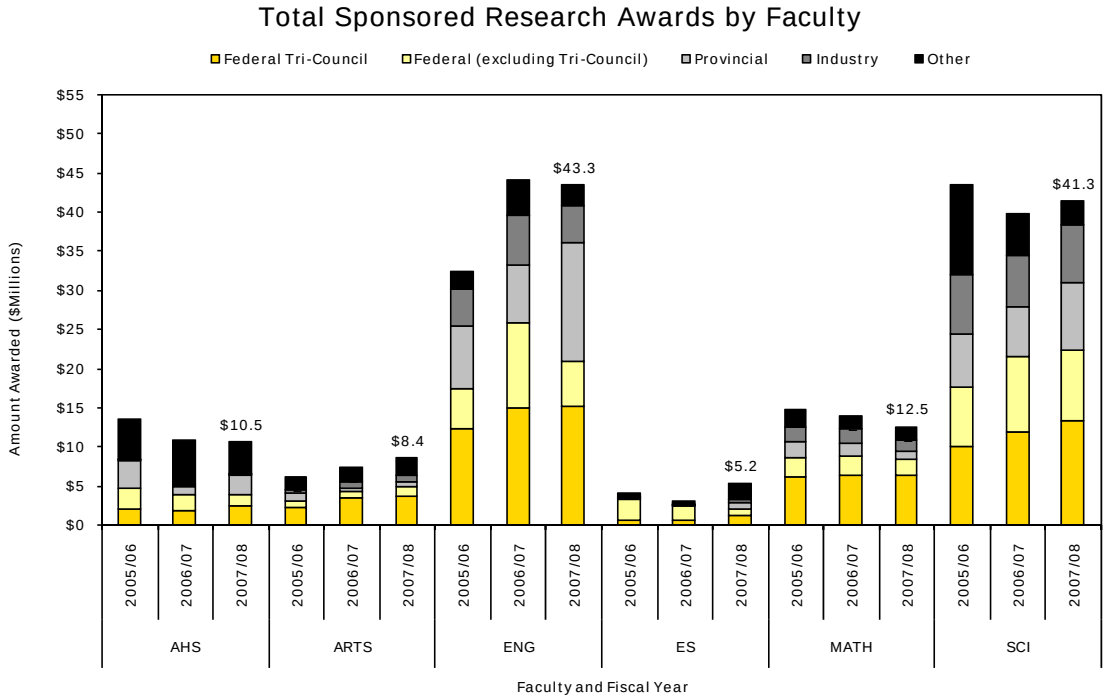


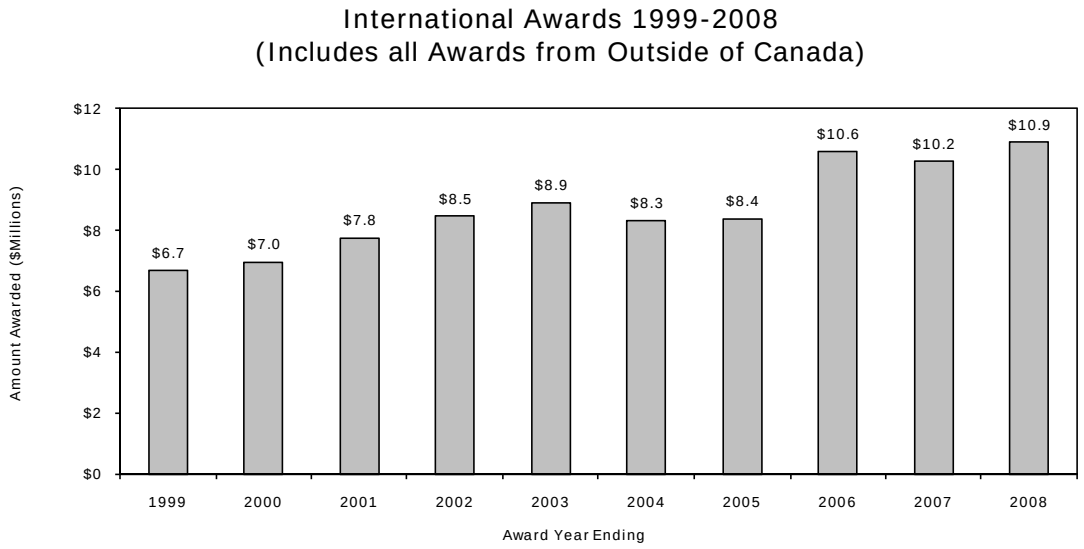
Figure 3.1.C excludes about $10.1 million in awards to the federated and affiliated colleges and universities and/or non-academic units at UW.

Figure 3.1.C



[28] 2002 was an unusual year in Federal (excluding Tri-Council) funding due to a large number of Canada Foundation for Innovation awards.

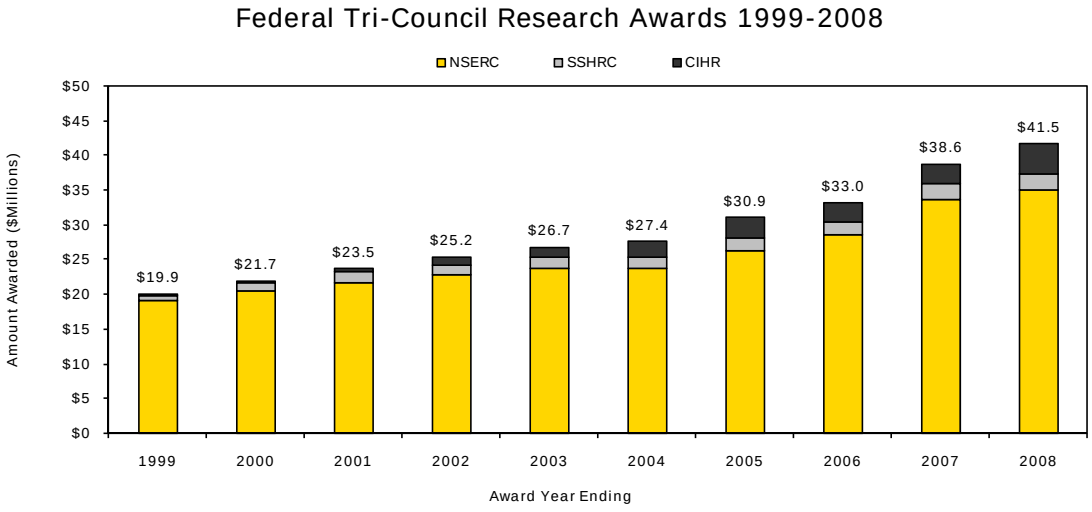
Figure 3.1.D[29]



3.2. Federal Tri-Council

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

Figure 3.2.A



[29] In 2007/08, 82 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.

Figure 3.2.B

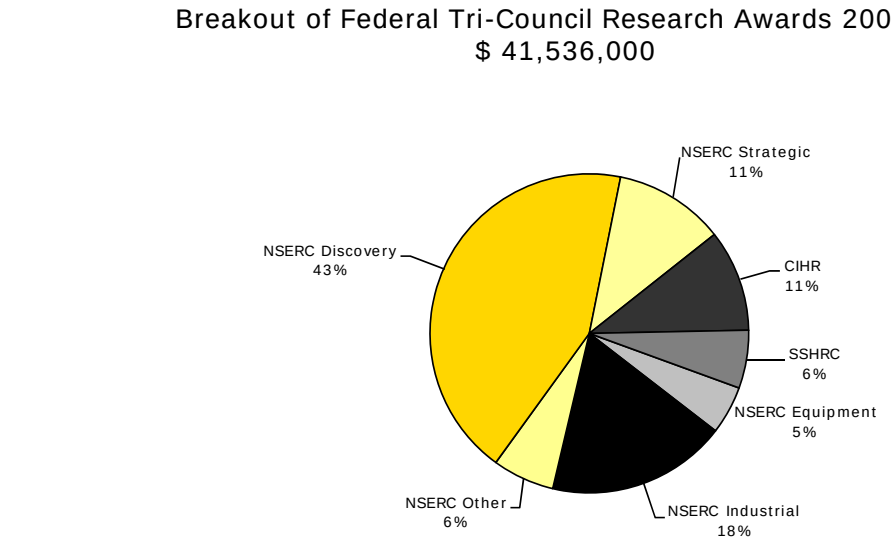


Figure 3.2.C

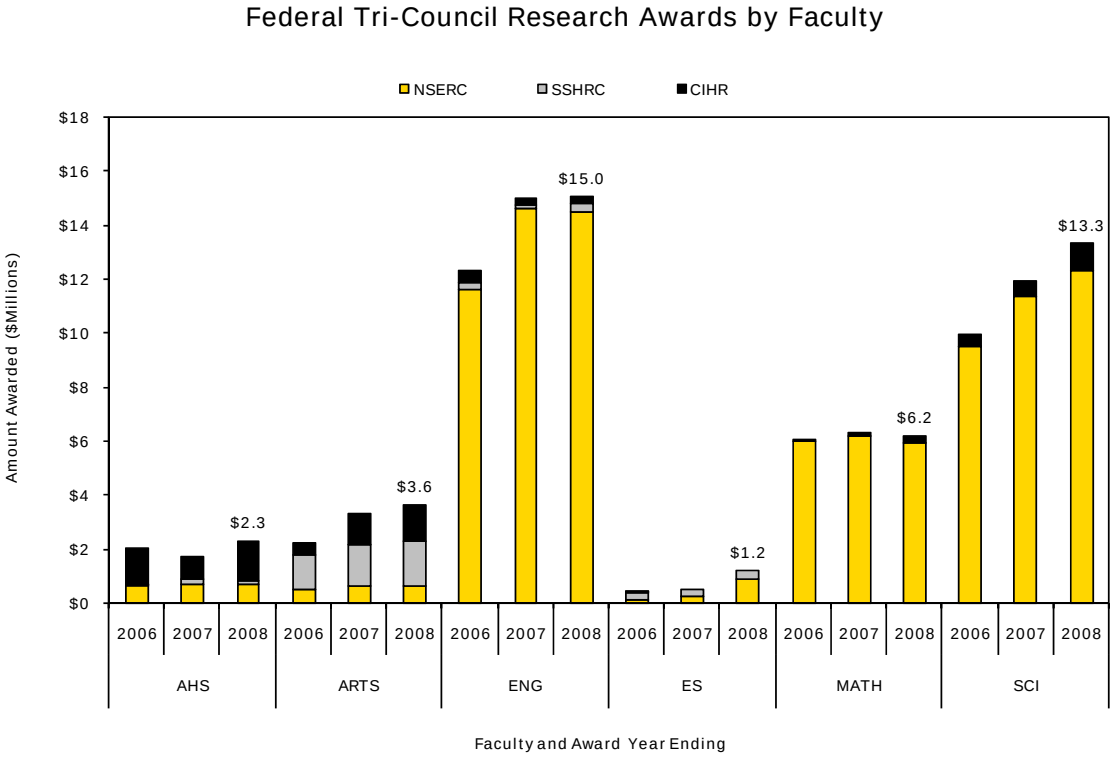


Figure 3.2.D

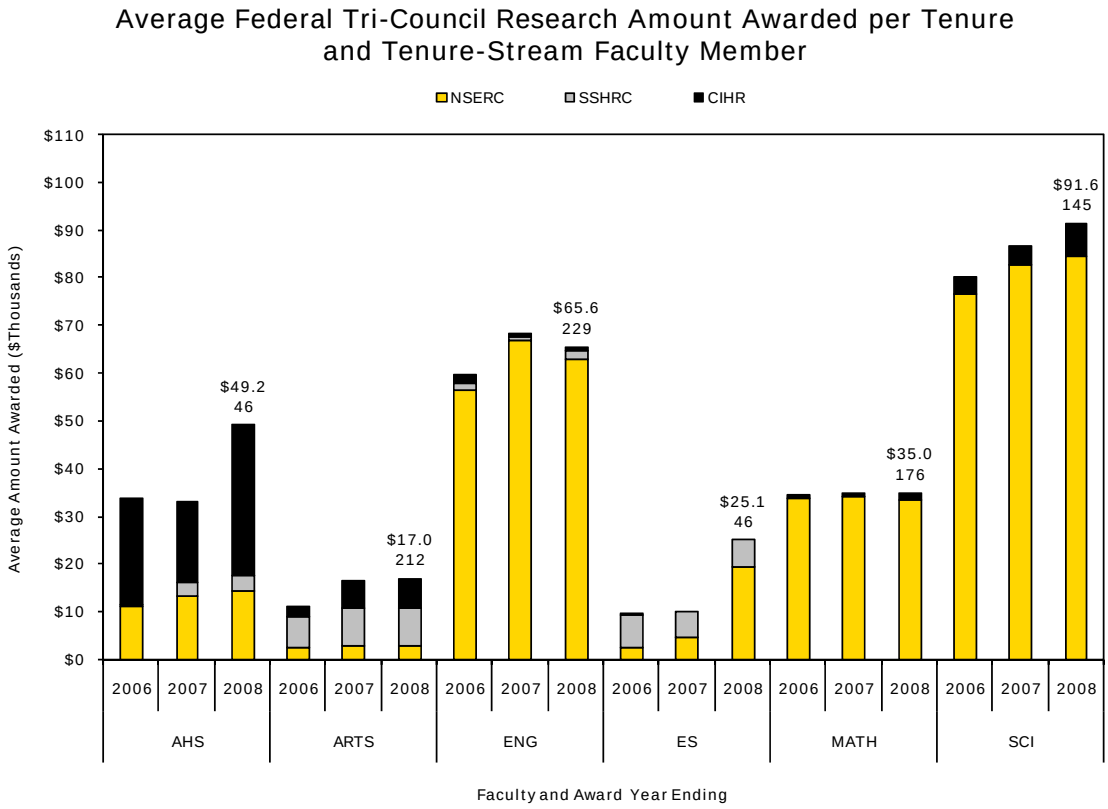
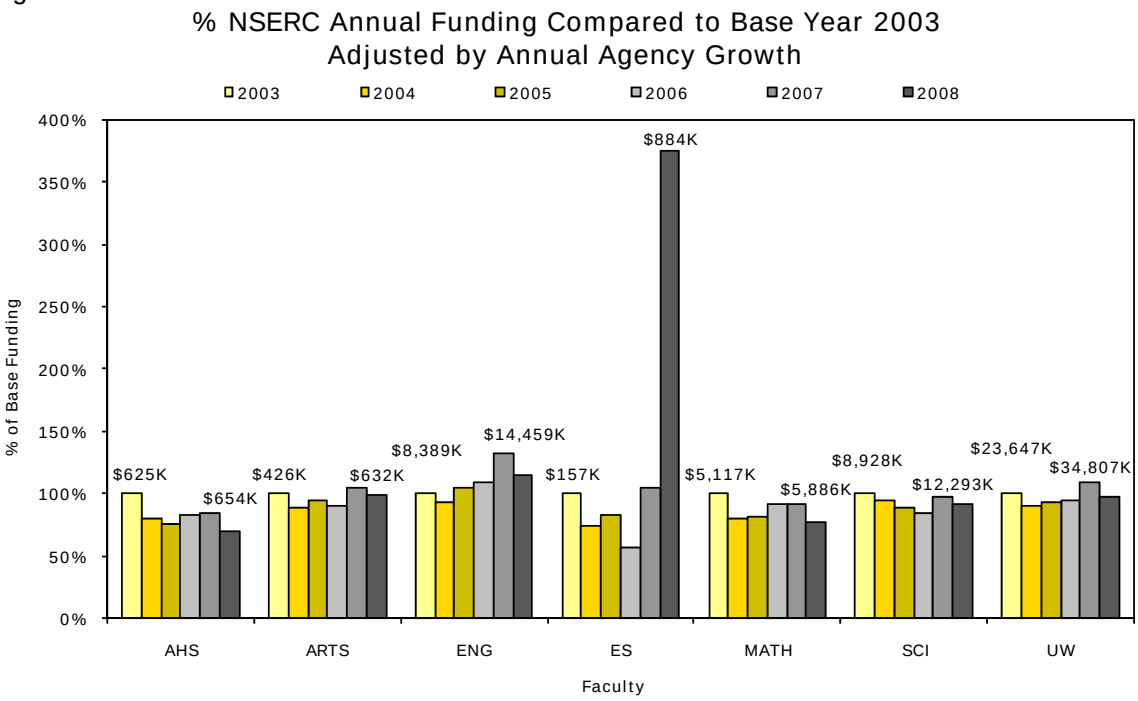


Figure 3.2.E through Figure 3.2.G illustrate the change in funding, relative to the base year[30], from each of the Tri-Council agencies. For example, if the funds available from NSERC in 2004 increased by 5 per cent from 2003 and AHS's 2004 funding remained at the 2003 level, then AHS's 2004 funding would be 95.2 per cent of the 2003 level. If AHS's 2004 level increased by 5 per cent then it would be at 100 per cent funding relative to its 2003 base year.

[30] The base year is 2003. NSERC charts show only five years of data as the NSERC database had not been updated with 2008 data as of our print date.

Figure 3.2.E



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

Figure 3.2.F

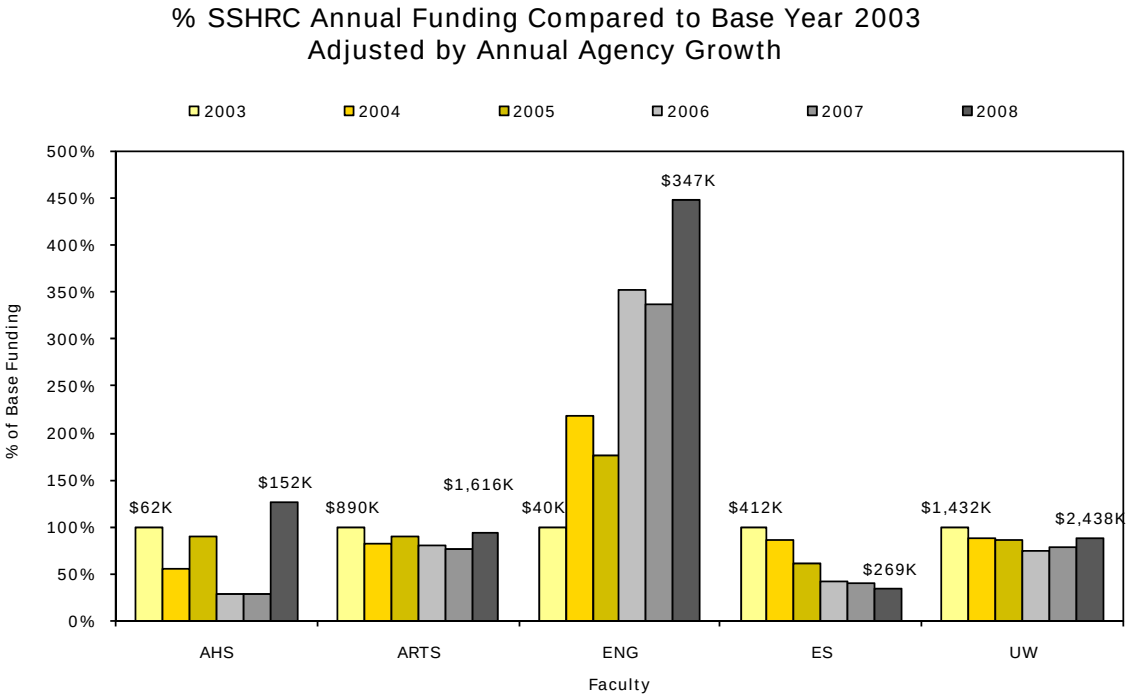


Figure 3.2.G

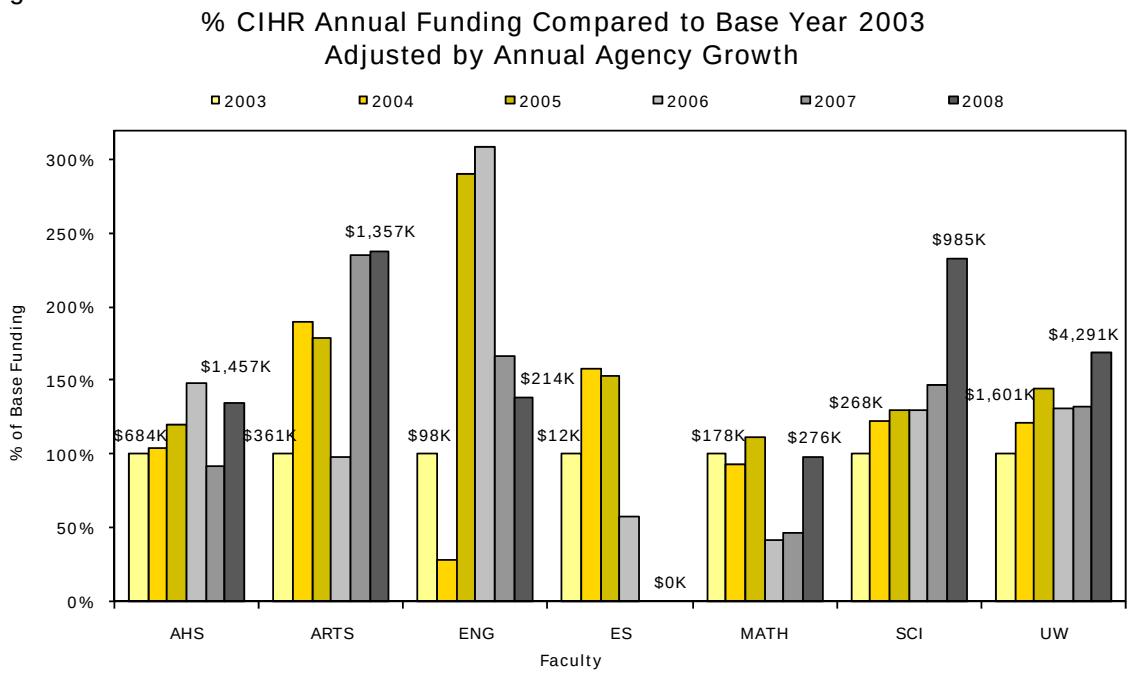


Figure 3.2.H through Figure 3.2.J show the total dollars allocated by the tri-councils to the G13 universities in 2001 and 2006 for NSERC and 2002 and 2007 for SSHRC and CIHR, and the percentage change for each institution. The data in these tables have been taken from the council databases.

Figure 3.2.H

NSERC - % Change in $ to G13 2002-2007					
	G13 University	2002/03 $ x 000s	2007/08 $ x 000s	Change $ x 000s	Change %
1	Ottawa	11,937	20,988	9,051	75.8%
2	Queen's	20,446	35,381	14,935	73.0%
3	UBC	39,281	62,786	23,505	59.8%
4	Waterloo	27,993	44,543	16,550	59.1%
5	McMaster	17,350	25,613	8,263	47.6%
6	McGill	29,568	41,044	11,476	38.8%
7	Laval	29,836	40,963	11,127	37.3%
8	Toronto	50,245	66,873	16,628	33.1%
9	Western	16,288	21,651	5,363	32.9%
10	Calgary	19,679	25,473	5,794	29.4%
11	Alberta	37,091	45,274	8,183	22.1%
12	Dalhousie	15,451	18,507	3,056	19.8%
13	Montréal	20,408	22,821	2,413	11.8%
	G13 Total	335,573	471,917	136,344	40.6%
	Total/all Institutions	584,746	852,826	268,080	45.8%

Figure 3.2.I

SSHRC - % Change in $ to G13 2002-2007					
	G13 University	2002/03 $ x 000s	2007/08 $ x 000s	Change $ x 000s	Change %
1	McGill	6,056	15,955	9,899	163.5%
2	Calgary	3,292	7,481	4,189	127.2%
3	Dalhousie	1,843	4,161	2,318	125.8%
4	Waterloo	2,754	5,730	2,976	108.1%
5	Queen's	4,103	8,204	4,101	100.0%
6	Western	6,222	12,096	5,874	94.4%
7	UBC	11,187	21,540	10,353	92.5%
8	Toronto	15,825	28,447	12,622	79.8%
9	Ottawa	7,325	13,096	5,771	78.8%
10	McMaster	4,705	7,786	3,081	65.5%
11	Montréal	10,457	16,620	6,163	58.9%
12	Laval	8,967	13,756	4,789	53.4%
13	Alberta	9,983	13,074	3,091	31.0%
	G13 Total	92,719	167,946	75,227	81.1%
	Total/all Institutions	148,807	287,823	139,016	93.4%

Figure 3.2.J below, shows a 214 per cent change in funding to UW from 2002/03. In 2000, the Medical Research Council (MRC) was replaced by the Canada Institutes for Health Research (CIHR) which provided research awards to a much wider spectrum of research fields. CIHR not only included funding for Biomedical and Clinical research, but also the areas of Health Services and Policy, and Public and Population Health. This explains the large increase in funding from 2002/03 – 2007/08. Unlike the other G13 universities, UW has no medical school, limiting the funds that were available through MRC. The change to CIHR has made available a wider range of grants for which UW researchers are eligible.

Figure 3.2.J

CIHR - % Change in $ to G13 2002-2007					
	G13 University	2002/03 $ x 000s	2007/08 $ x 000s	Change $ x 000s	Change %
1	Waterloo	1,470	4,616	3,146	214.0%
2	McMaster	24,944	44,317	19,373	77.7%
3	Laval	24,885	38,503	13,618	54.7%
4	UBC	57,933	87,337	29,404	50.8%
5	Toronto	121,028	179,344	58,316	48.2%
6	McGill	73,342	104,458	31,116	42.4%
7	Ottawa	31,236	44,190	12,954	41.5%
8	Dalhousie	14,679	20,525	5,846	39.8%
9	Queen's	13,903	19,058	5,155	37.1%
10	Montréal	52,527	71,439	18,912	36.0%
11	Alberta	36,041	47,283	11,242	31.2%
12	Calgary	29,692	33,381	3,689	12.4%
13	Western	55,480	34,103	- 21,377	-38.5%
	G13 Total	537,160	728,554	191,394	35.6%
	Total/all Institutions	586,826	926,716	339,890	57.9%

Figure 3.2.K through Figure 3.2.M show the distribution of the total dollars by the tri-councils to the G13 universities in 2006/07 for NSERC and 2007/08 for SSHRC and CIHR, and the percentage of those dollars for each institution.

Figure 3.2.K

NSERC - Distribution of $ to G13				
	G13 University	2007/078$ x 000s	% of Total G13 $	% of Total $
1	Toronto	66,873	14.17%	7.84%
2	UBC	62,786	13.30%	7.36%
3	Alberta	45,274	9.59%	5.31%
4	Waterloo	44,543	9.44%	5.22%
5	McGill	41,044	8.70%	4.81%
6	Laval	40,963	8.68%	4.80%
7	Queen's	35,381	7.50%	4.15%
8	McMaster	25,613	5.43%	3.00%
9	Calgary	25,473	5.40%	2.99%
10	Montréal	22,821	4.84%	2.68%
11	Western	21,651	4.59%	2.54%
12	Ottawa	20,988	4.45%	2.46%
13	Dalhousie	18,507	3.92%	2.17%
	Total	471,917	100.00%	55.34%
	Total/all Institutions	852,826		

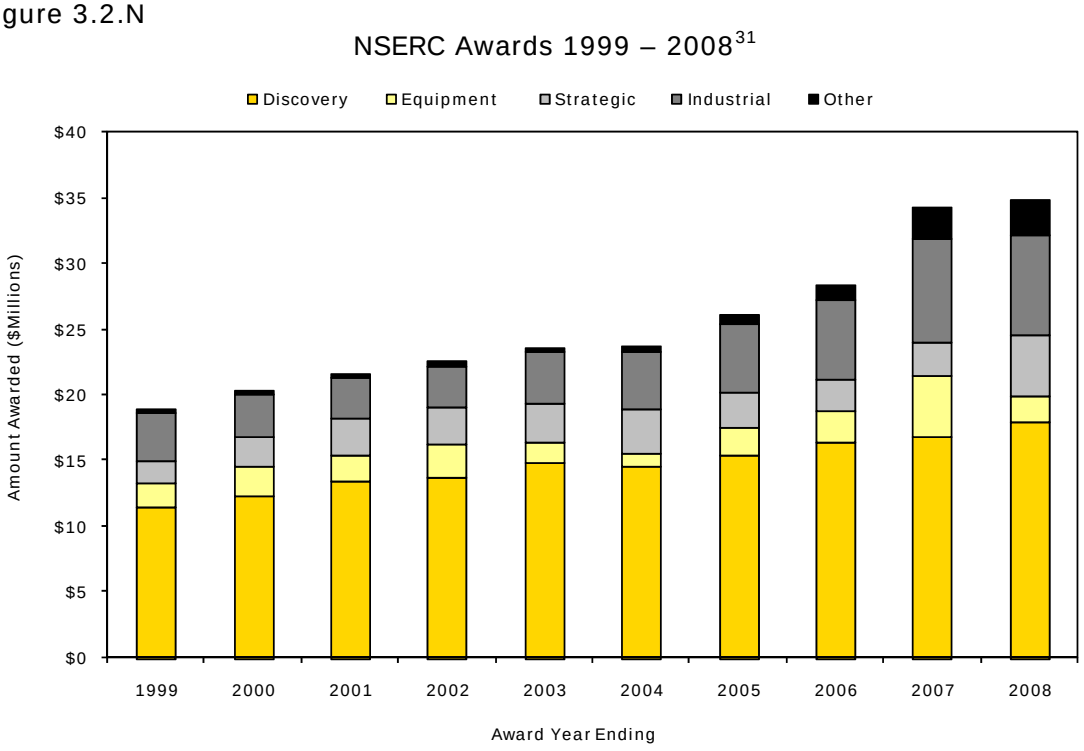
Figure 3.2.L

SSHRC - Distribution of $ to G13				
	G13 University	2007/08 $ x 000s	% of Total G13 $	% of Total $
1	Toronto	28,447	16.94%	9.88%
2	UBC	21,540	12.83%	7.48%
3	Montréal	16,620	9.90%	5.77%
4	McGill	15,955	9.50%	5.54%
5	Laval	13,756	8.19%	4.78%
6	Ottawa	13,096	7.80%	4.55%
7	Alberta	13,074	7.78%	4.54%
8	Western	12,096	7.20%	4.20%
9	Queen's	8,204	4.88%	2.85%
10	McMaster	7,786	4.64%	2.71%
11	Calgary	7,481	4.45%	2.60%
12	Waterloo	5,730	3.41%	1.99%
13	Dalhousie	4,161	2.48%	1.45%
	Total	167,946	100.00%	58.35%
	Total/all Institutions	287,823		

Figure 3.2.M

CIHR - Distribution of $ to G13				
	G13 University	2007/08 $ x 000s	% of Total G13 $	% of Total $
1	Toronto	179,344	24.62%	19.35%
2	McGill	104,458	14.34%	11.27%
3	UBC	87,337	11.99%	9.42%
4	Montréal	71,439	9.81%	7.71%
5	Alberta	47,283	6.49%	5.10%
6	McMaster	44,317	6.08%	4.78%
7	Ottawa	44,190	6.07%	4.77%
8	Laval	38,503	5.28%	4.15%
9	Western	34,103	4.68%	3.68%
10	Calgary	33,381	4.58%	3.60%
11	Dalhousie	20,525	2.82%	2.21%
12	Queen's	19,058	2.62%	2.06%
13	Waterloo	4,616	0.63%	0.50%
	Total	728,554	100.00%	78.62%
	Total/all Institutions	926,716		

Figure 3.2.N



[31] Funds available for the NSERC equipment (Research Tools and Instruments) grants fluctuate significantly on an annual basis. In 2007 UW awards increased 52% over the previous year.

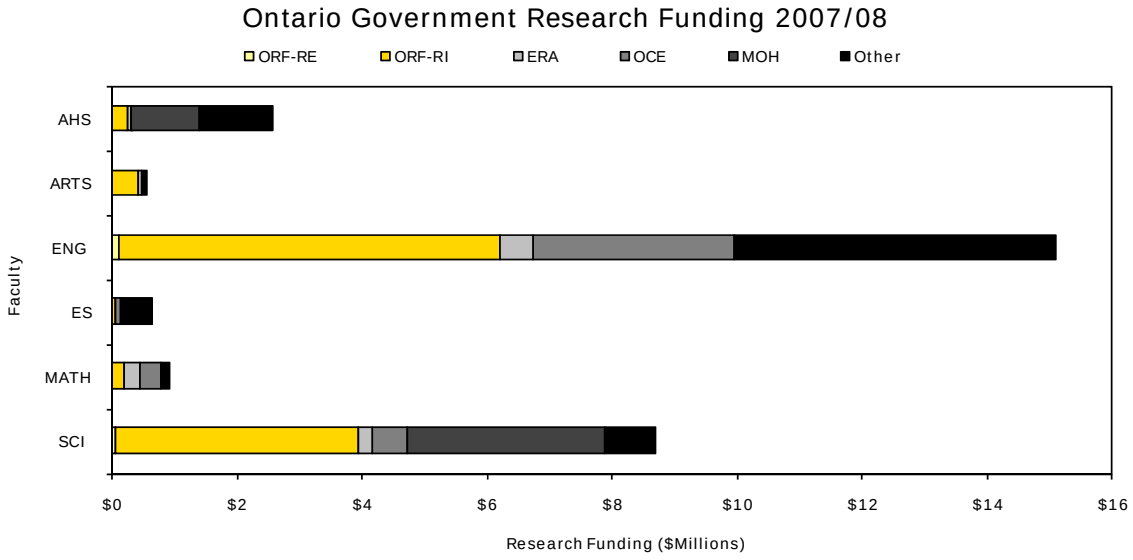
Figure 3.2.O

NSERC Discovery Grants 2007/08					
G13 University	Number		Amount		Average Award ($)
	N	%	$	%	
Toronto	740	7.37%	$27,132,407	8.98%	$36,665
UBC	666	6.63%	$22,954,203	7.60%	$34,466
Alberta	550	5.48%	$18,588,016	6.15%	$33,796
McGill	521	5.19%	$17,608,123	5.83%	$33,797
Waterloo	553	5.51%	$16,943,564	5.61%	$30,639
Calgary	386	3.84%	$11,453,138	3.79%	$29,671
Western	382	3.80%	$11,266,571	3.73%	$29,494
McMaster	345	3.43%	$11,261,851	3.73%	$32,643
Laval	353	3.51%	$10,551,275	3.49%	$29,890
Montréal	290	2.89%	$10,125,810	3.35%	$34,917
Queen's	289	2.88%	$10,084,636	3.34%	$34,895
Dalhousie	301	3.00%	$9,203,950	3.05%	$30,578
Ottawa	276	2.75%	$8,349,740	2.76%	$30,253
G13 Total	5,652	56.27%	$185,523,284	61.40%	$32,439
Total Awarded	10,044	100.00%	$302,156,326	100.00%	$30,083

3.3. Ontario

The next indicators[32] show research awards from the Ontario Research Fund[33] – 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.

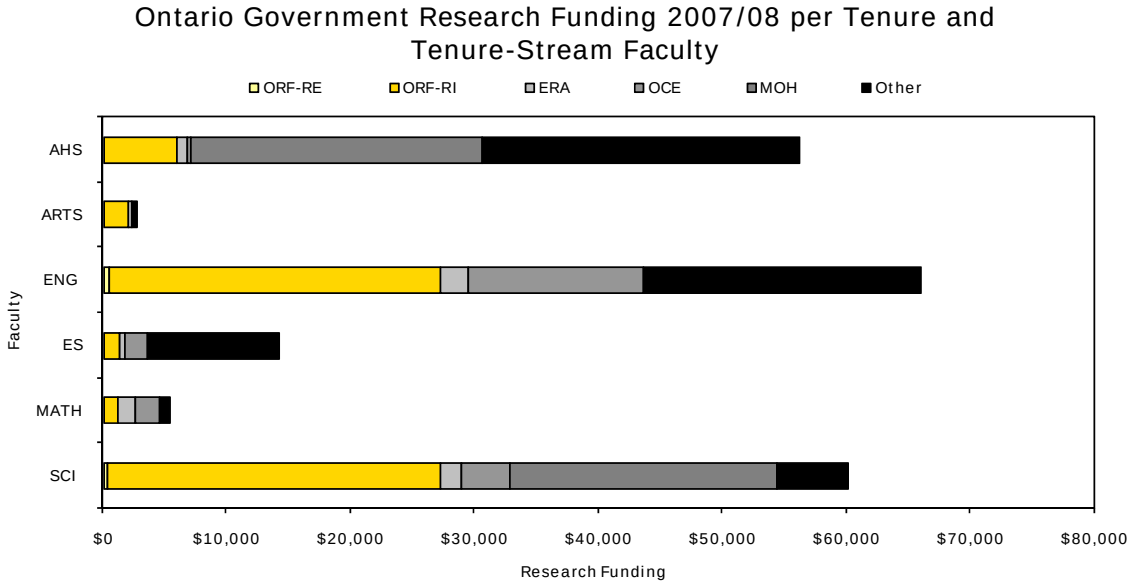
Figure 3.3.A



[32] Excludes funds received for overhead expenses through the Research Performance Fund.

[33] The Ontario Research and Development Challenge Fund (ORDCF), the Ontario Innovation Trust (OIT) and the Premier's Research Excellence Awards (PREA) funding programs have been cancelled, and were superseded by ORF-RE, ORF-RI and ERA, respectively. Any residual award balances from the cancelled programs have been combined and listed with the current programs.

Figure 3.3.B



From its beginning, UW has been a leader in conducting research in partnership with the private sector and transferring new knowledge and advances in technology to society for the benefit of all. In 2007/08, we had 14 active industrially sponsored NSERC Research Chairs, and our Intellectual Property Management Group helps researchers commercialize the results of their research. The University of Waterloo's inventor-owned intellectual property policy provides a stimulus for attracting faculty members and offers great incentive for the entrepreneurial graduate student who may want to create a spin-off company.

The University of Waterloo's sixth decade planning is dedicated to achieving increased research intensity and the vigorous promotion and encouragement of frontier and reflective research.

4. FACULTY

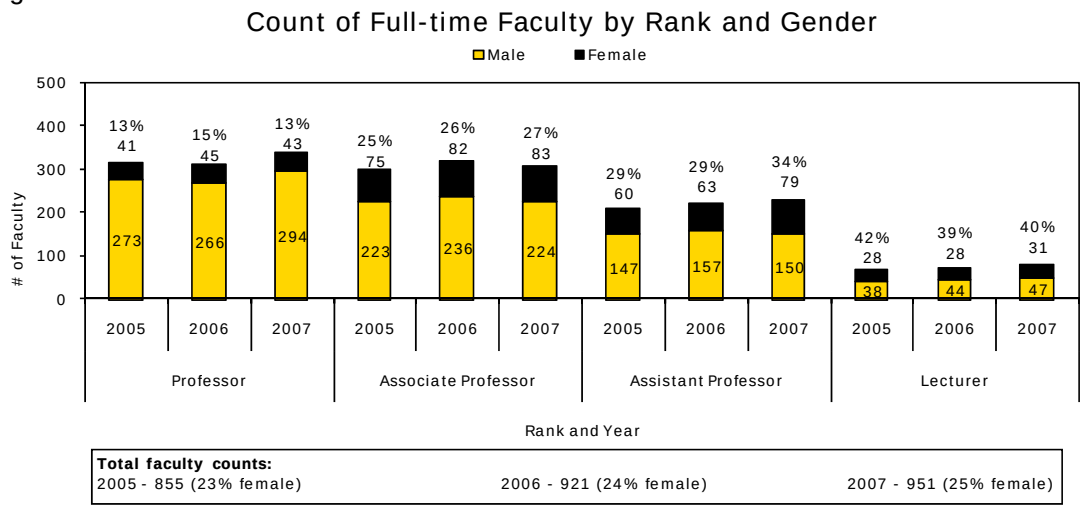
The University of Waterloo recognizes the importance of our innovative, collaborative, and committed leaders—our academic faculty who teach, engage in research, and serve our students and our community. In this section we highlight our faculty appointments and our hiring practices; and we monitor the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

Total Faculty Count by Gender - October 1, 2007[34]				
Faculty	Male	Female	% Female	Total
Applied Health Sciences	32	20	38%	52
Arts	143	88	38%	231
Engineering	210	34	14%	244
Environmental Studies	31	16	34%	47
Mathematics	163	39	19%	202
Science	136	39	22%	175
Colleges	43	30	41%	73
Total	758	266	26%	1,024

4.1. Faculty Counts by Gender

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

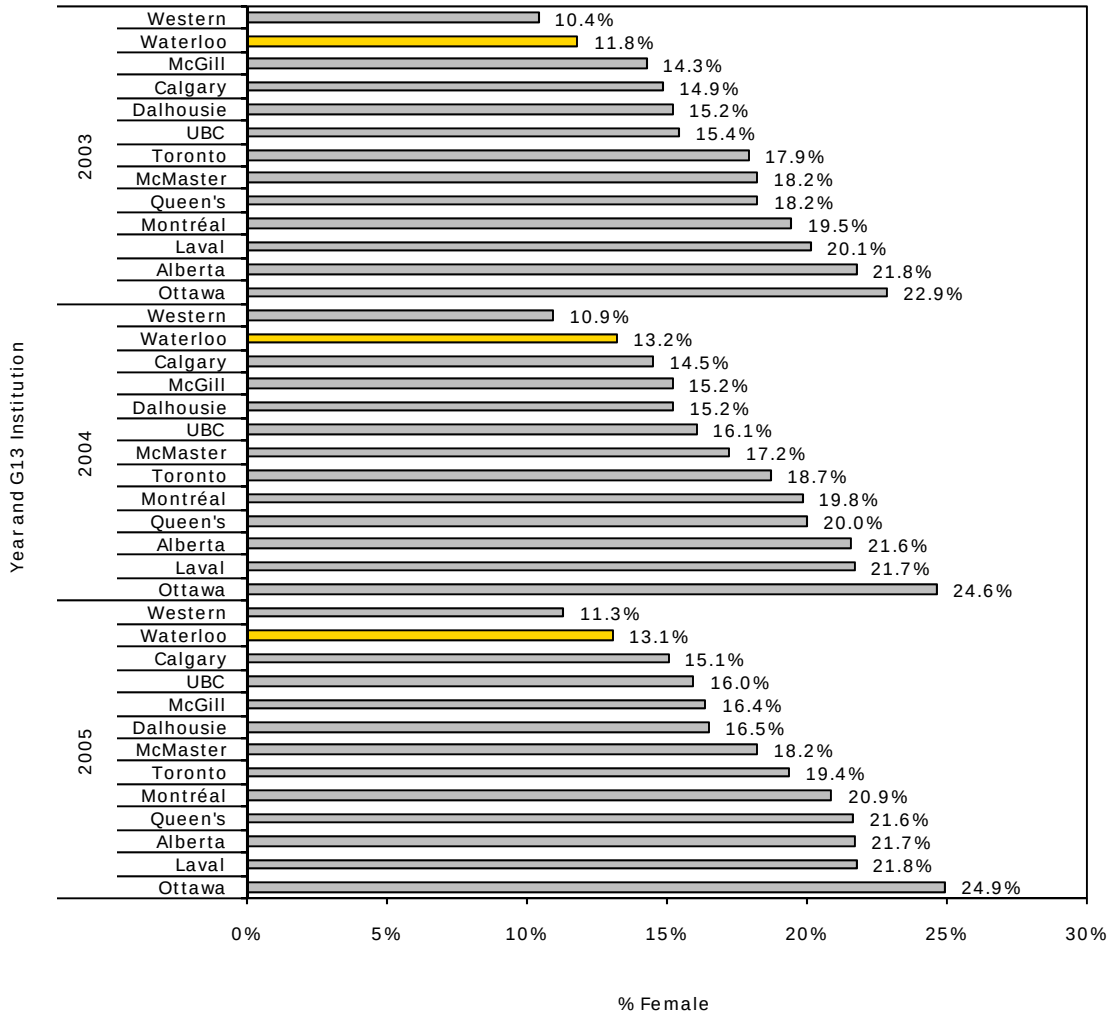
Figure 4.1.A[34]



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

Figure 4.1.B

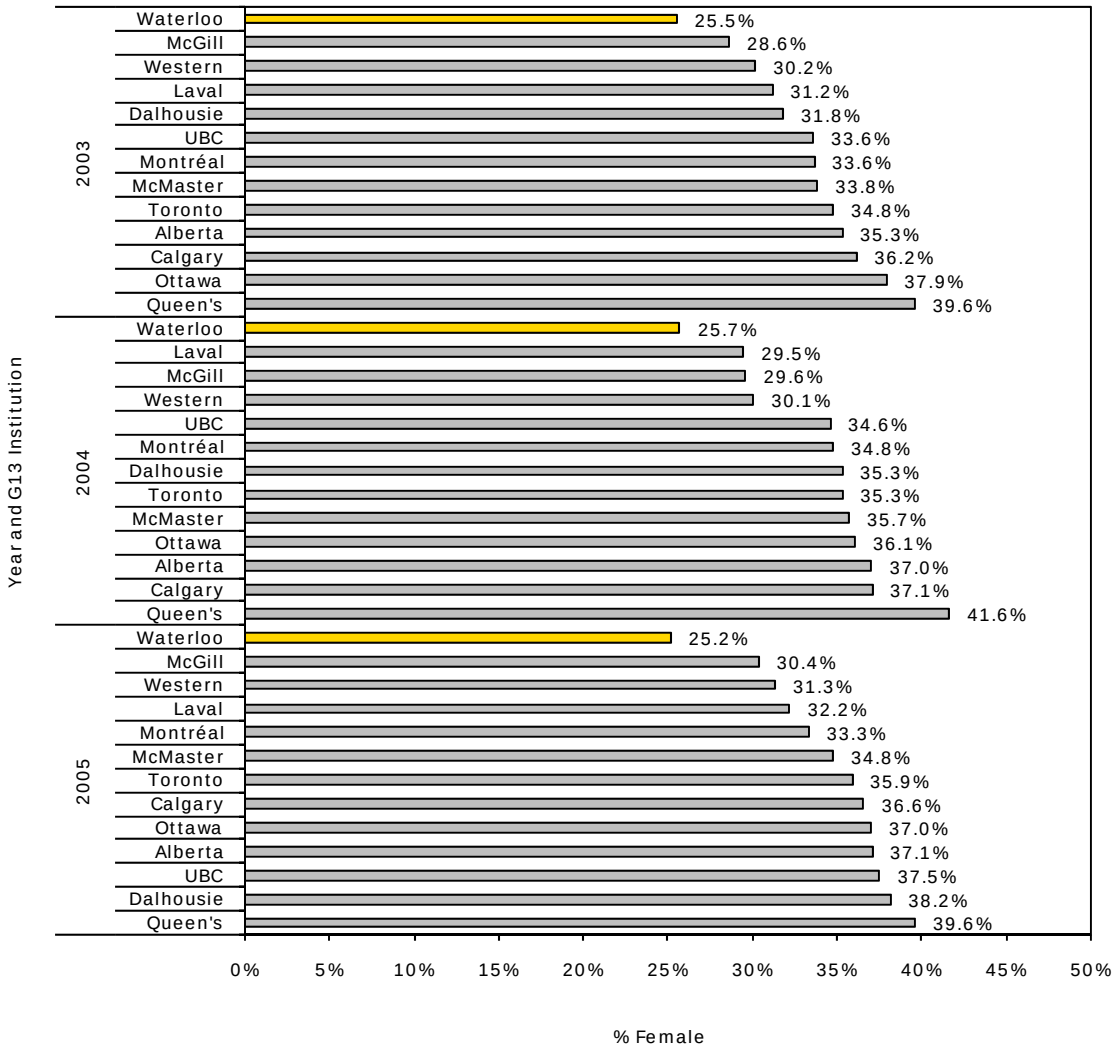
% of Faculty with Rank of Professor[35] who are Female as Compared to G13 Universities



[35] Stats Canada UCASS rank 1.

Figure 4.1.C

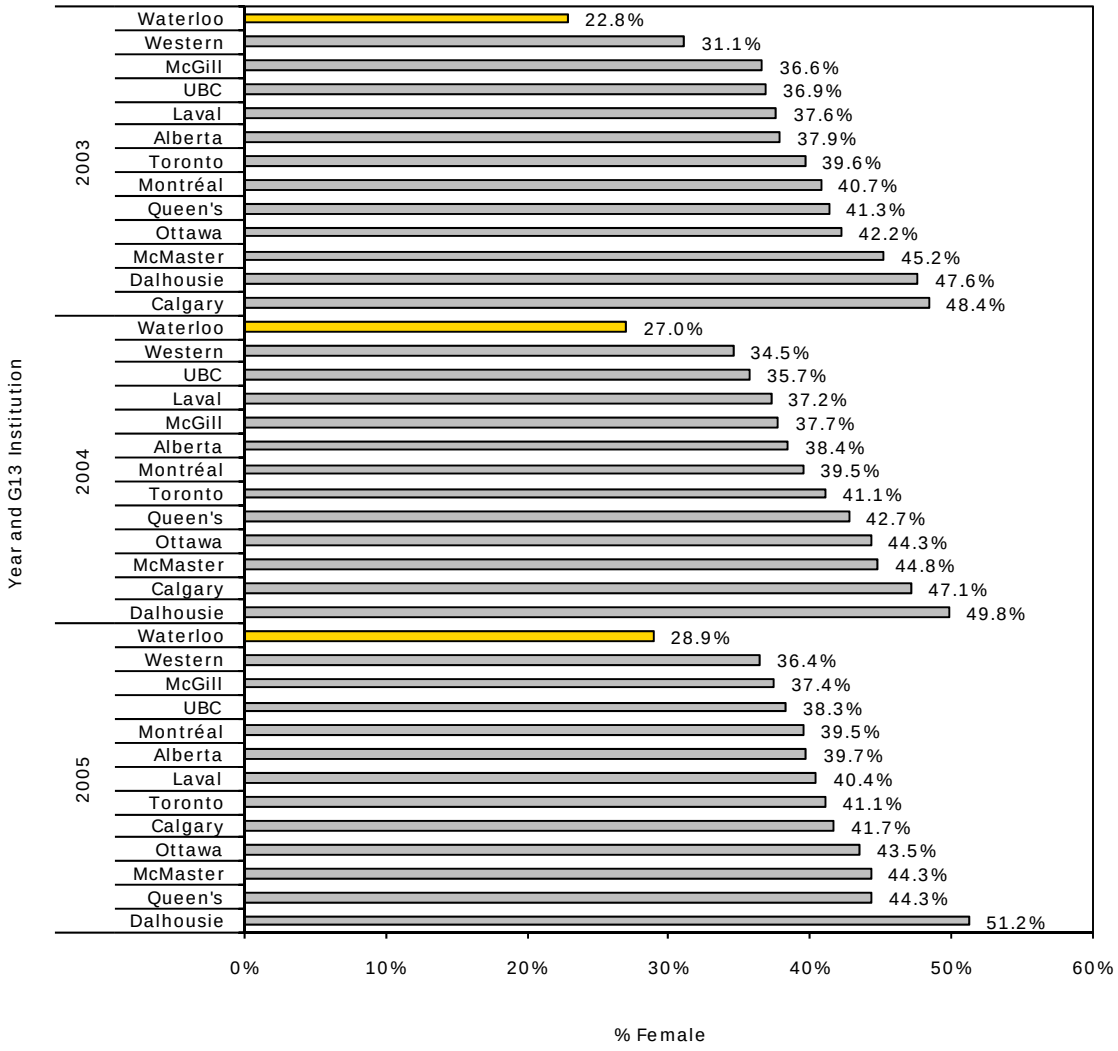
% Faculty with Rank of Associate Professor[36] who are Female as Compared to G13 Universities



[36] Stats Canada UCASS rank 2.

Figure 4.1.D

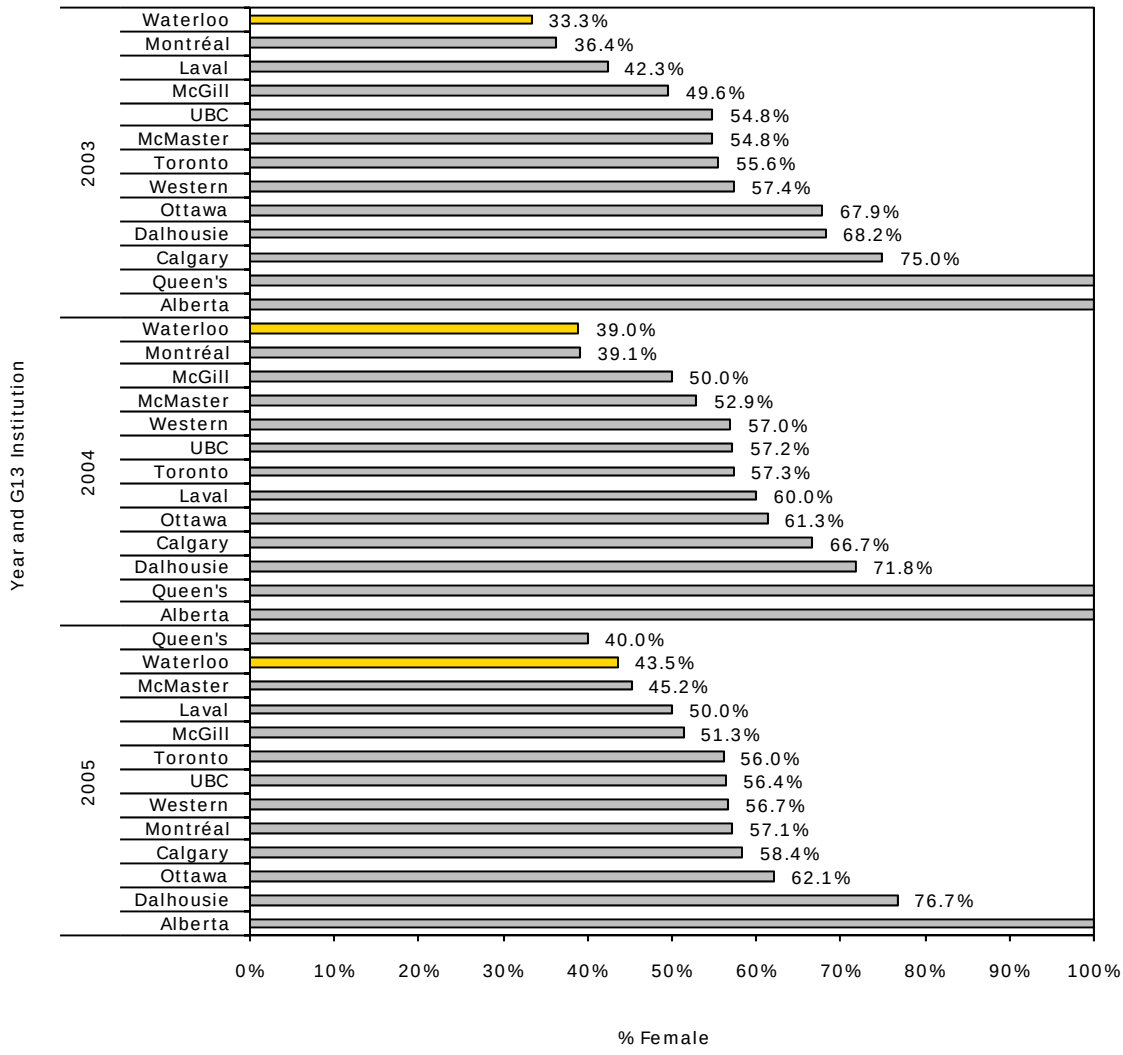
% of Faculty with Rank of Assistant Professor[37] who are Female as Compared to G13 Universities



[37] Stats Canada UCASS rank 3.

Figure 4.1.E

% of Faculty with Rank of Lecturer[38] who are Female as Compared to G13 Universities



[38] Stats Canada UCASS ranks 4, 5, and 6.

Figure 4.1.F[39]

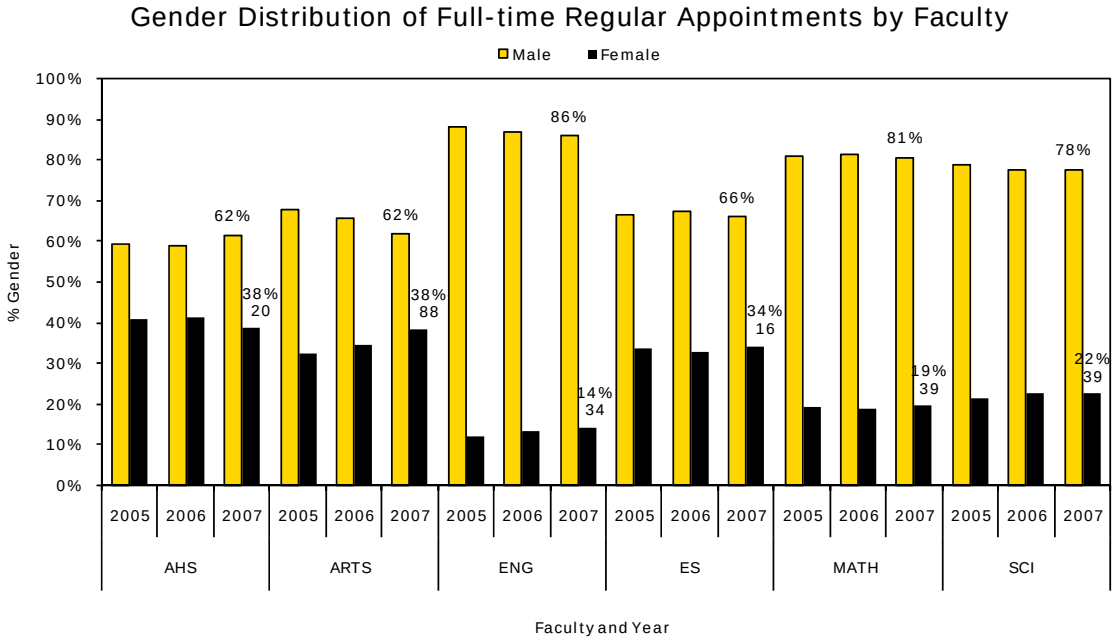
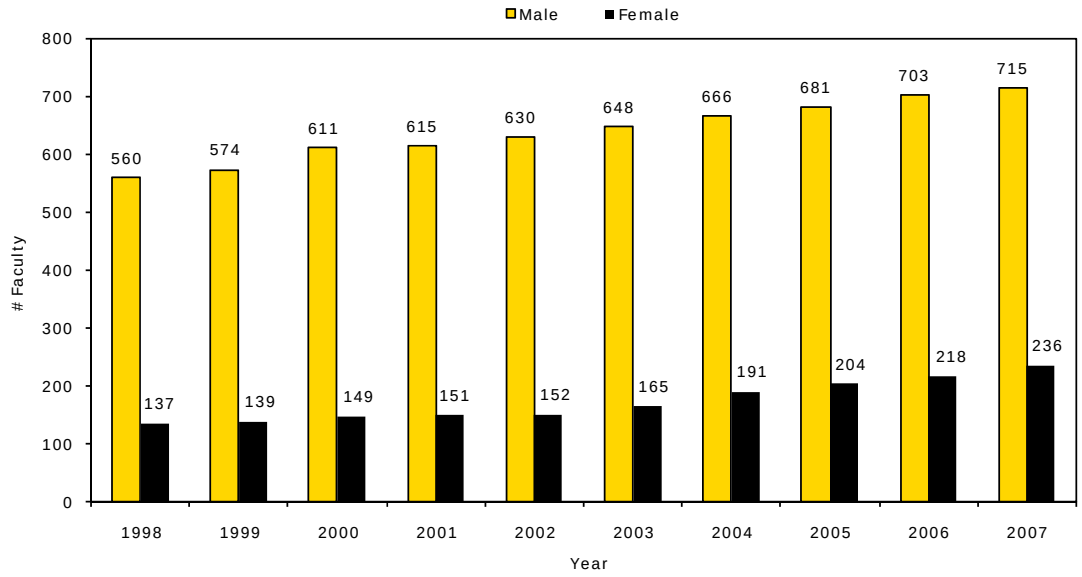


Figure 4.1.G[40]

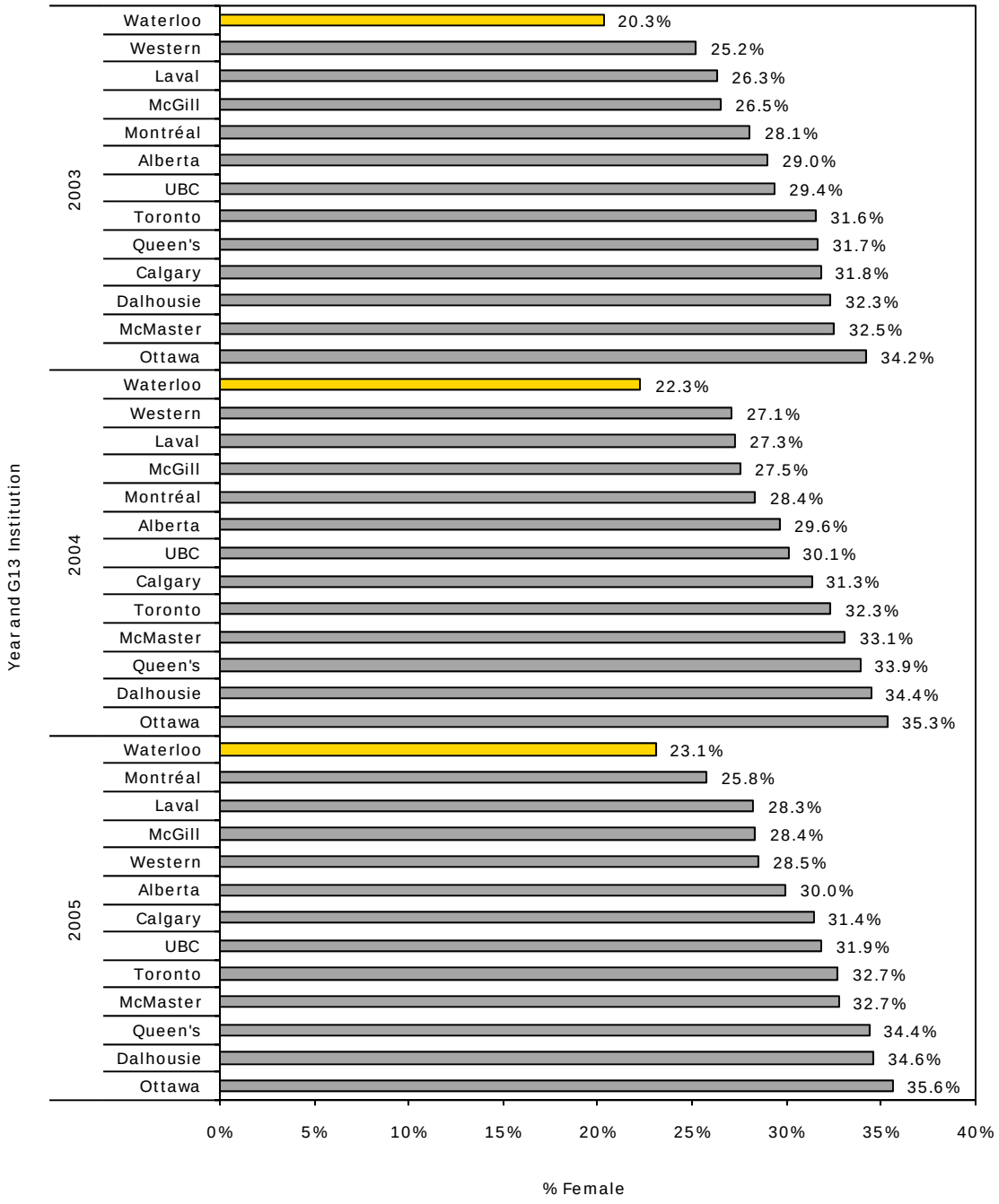


[39] Source: Stats Canada UCASS, as of October 1st of each survey year.

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

Figure 4.1.H[41]

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

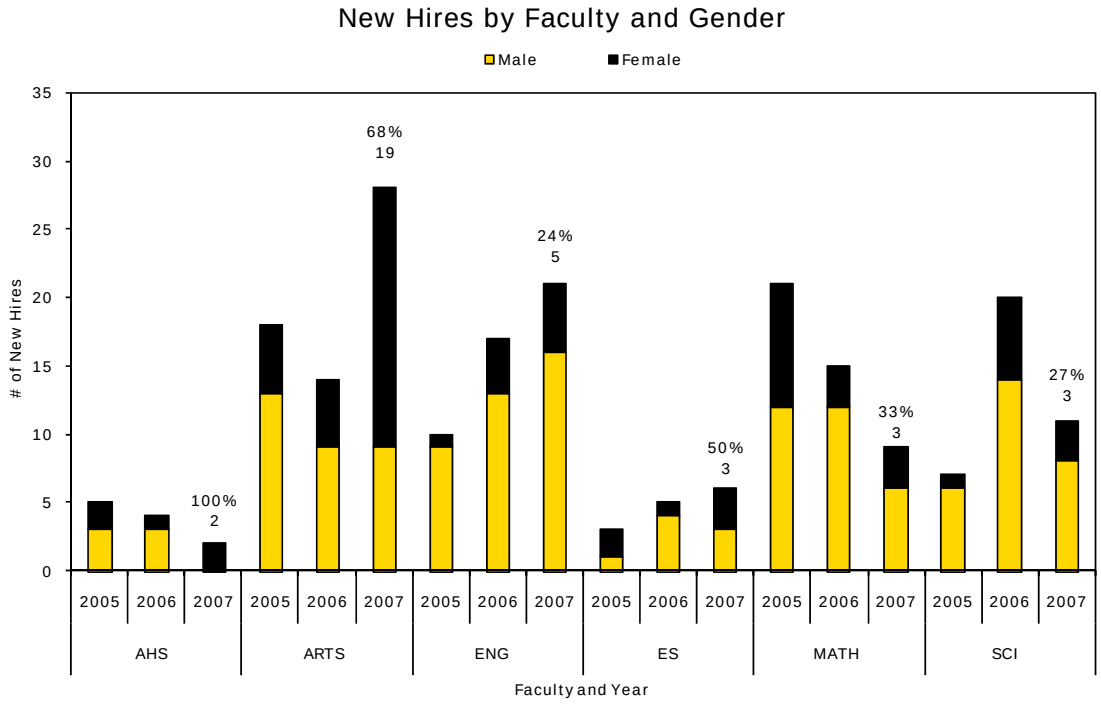


[41] Source: Stats Canada UCASS, as of October 1st of each survey year.

4.2. New Hires by Gender

Each decade, UW establishes a target for the hiring of female faculty by forecasting retirements and reviewing the proportion of females in discipline pools of PhD candidates. Two factors contribute to UW's seemingly low percentage of female faculty, particularly in the areas of mathematics, engineering and science: UW has higher proportions of faculty in these disciplines than other universities, and the percentage of female doctoral graduates of mathematics, engineering and science is smaller than the percentage of females in other disciplines. Data available from the Association of Universities and Colleges of Canada indicate, over the past several years, the available pool of females in mathematics has been about 5 per cent, in engineering 15 per cent and in science 20 per cent. At the University of Waterloo our percentage of female faculty in Mathematics is close to 20 per cent, in Engineering about 14 per cent and in Science about 22 per cent. For 2010, our female faculty target is 199; as of 2007, we have already surpassed the target with 236 female faculty.

Figure 4.2.A[42]



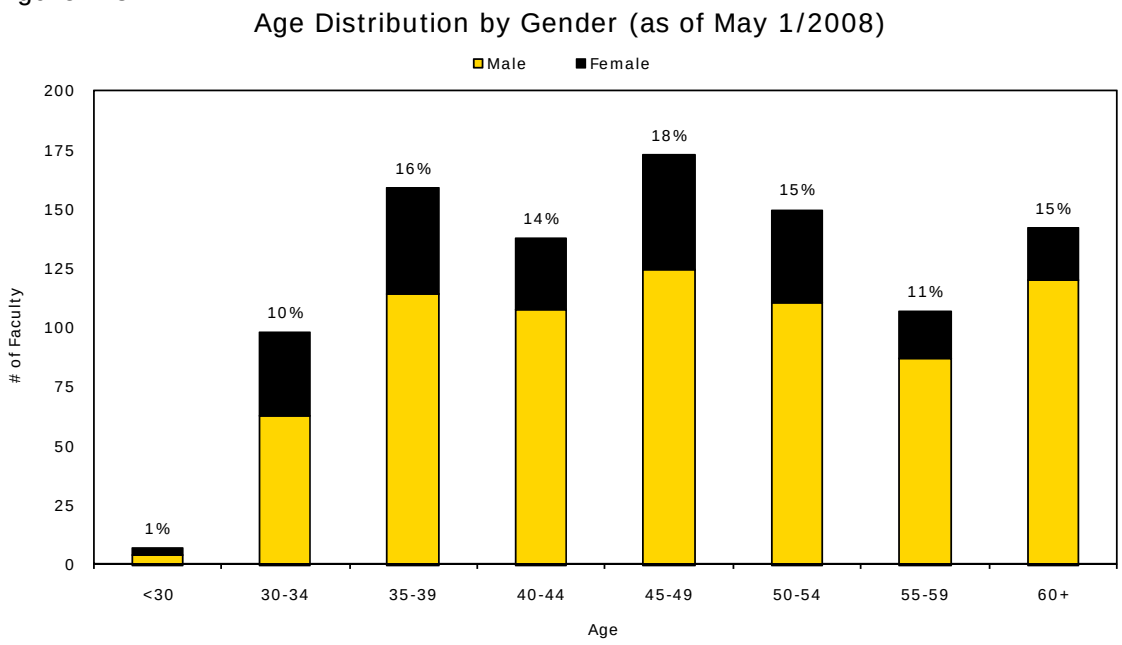
Total new faculty hires:		
2005 - 64 (31% female)	2006 - 74 (27% female)	2007 - 77(46% female)

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

4.3. Age Distribution

As of May 2008, 41 per cent of Waterloo's faculty population was age 50 years or older.

Figure 4.3.A[43]



4.4. Retirement Projections

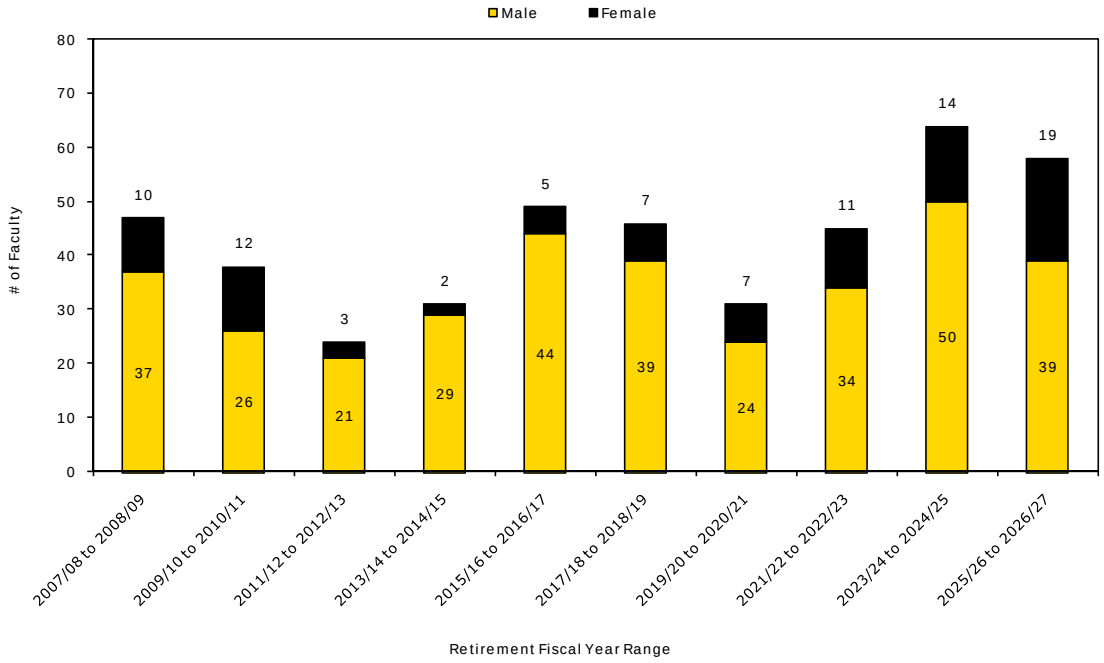
Retirement projections are for those faculty members who have tenured, probationary, or continuing appointments holding a complement[44] position at the University of Waterloo. Faculty holding definite term appointments have been removed from the data. Full-time visitors or researchers are excluded from the data. The data includes those who have stated what their expected retirement date will be. With the abolition of mandatory retirement, a retirement age of 68 has been assumed.

[43] Source: Human Resource Management System.

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

Figure 4.4.A[45]

Faculty Retirement Projections to 2027/28



Based on retirement projections, UW faces a significant loss of experienced faculty members in the next 10 to 15 years. By 2017, we project that 189 faculty members will retire. This is 21 per cent of the 2007 complement. This emphasizes the need to attract and mentor younger faculty members in sufficient time to assume the duties of retiring faculty.

[45] Source: Human Resource Management System.

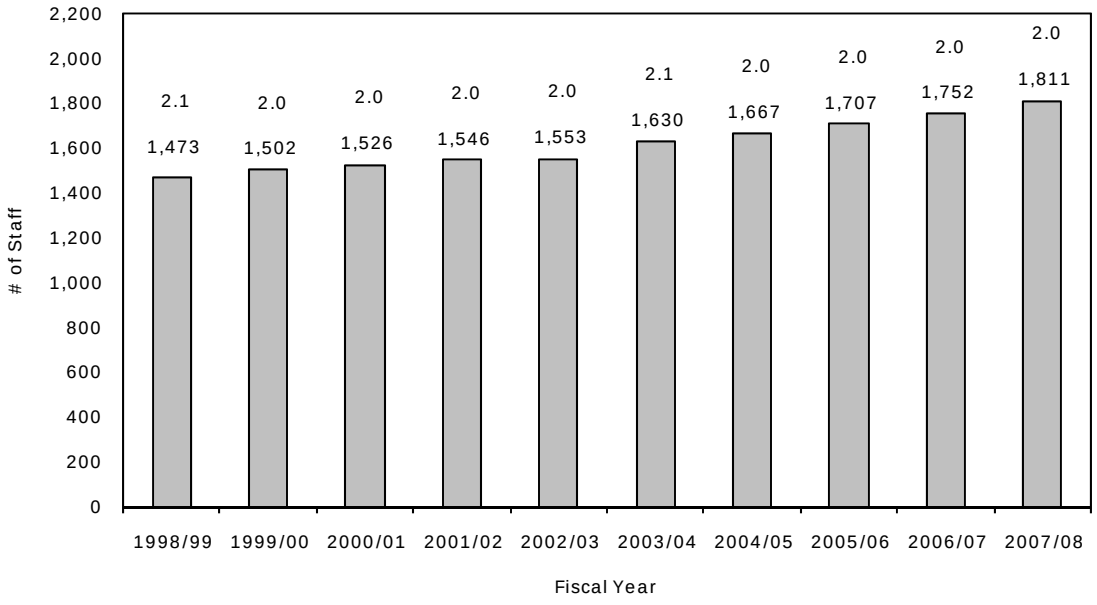
5. STAFF

A world-leading university needs highly competent staff. The University of Waterloo promotes the recruitment of staff of the highest quality and recognizes the importance of staff involvement in, and contribution to, the educational process. The University of Waterloo seeks to engage staff in all aspects of our student and campus life. In this section, we highlight our staff complement[46], over time, and monitor the age distribution recognizing the need to revitalize the pool of individuals so important to our overall operations.

5.1. Operating Staff Complement

Figure 5.1.A

Academic Support Staff in Operating Complement and Staff-Faculty Ratio

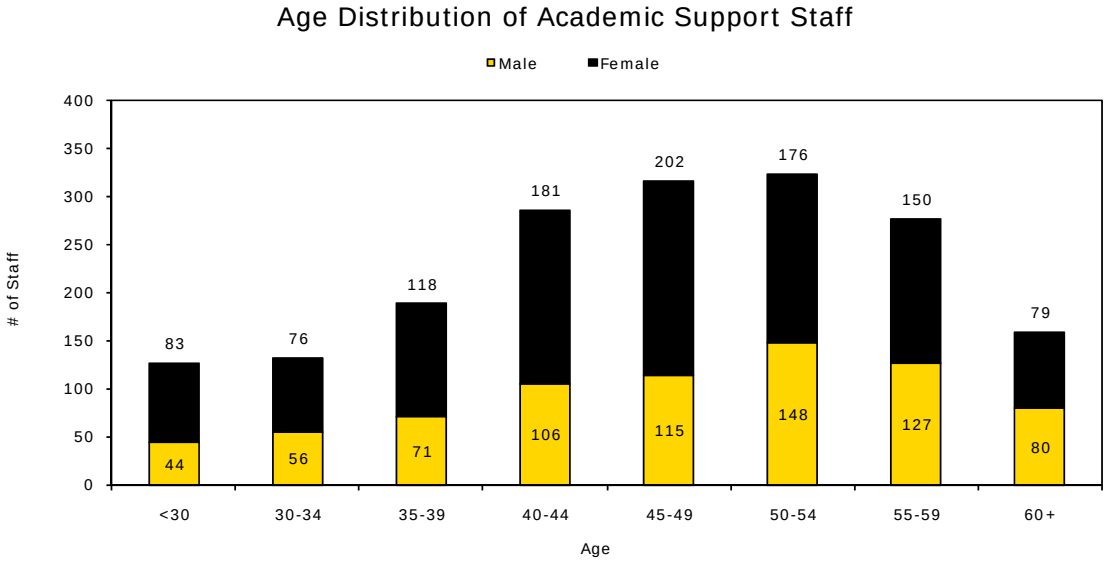


[46] Source: Finance. Staff complement positions are ongoing positions—filled and open—supported by operating funds, for which the University has made a budgetary commitment. A position may have two incumbents sharing the responsibilities.

5.2. Staff Age Distribution

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

Figure 5.2.A[47]



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

6. CO-OPERATIVE EDUCATION

From its inception in 1957, the University of Waterloo has committed to the model of co-operative education. From the early days when Engineering was the only Faculty with co-operative programs—in fact, 100 per cent of Engineering was co-op—Waterloo has continued to invest in co-operative education. In fall 2007, about 58 per cent of the full-time undergraduate student population registered in more than 100 co-operative education programs across six academic Faculties. Waterloo maintains relationships with more than 3,500 employers, and has 4,000 to 5,000 students looking for employment each term. The first university to use the co-op model in Canada, Waterloo has the largest public university-based co-operative education program in the world.

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

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

- A mission statement, vision and business and culture principles.
- An employer relations and marketing strategy.
- Definition of and stabilization of core processes using process management methodology including the core employment process and the unemployed student management process.
- A framework for employment feasibility studies, new programs and program changes.
- The development of a new information technology system is well underway and on target for fall 2009.
- Increased data analysis and measurement to support projects and business decisions.
- Establishment of an International Working Group to address issues unique to students going on international work terms and incoming visa students, and the development of a risk management framework for the international programs in CECS.

6.1. Employment Summary

Co-op employment measures help us to 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. The overall employment rate at the beginning of the term of 91 per cent remains consistent with 92 per cent in 2006/07 and 90 per cent in 2005/06. Overall final employment rate remains high at 98 per cent.

Figure 6.1.A

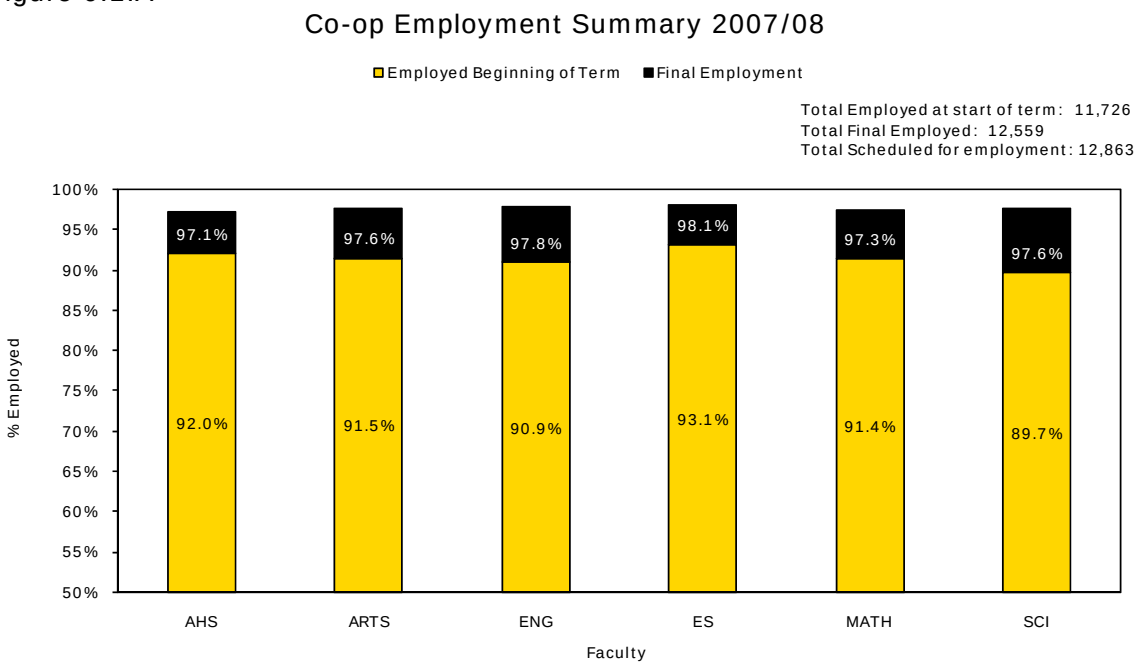
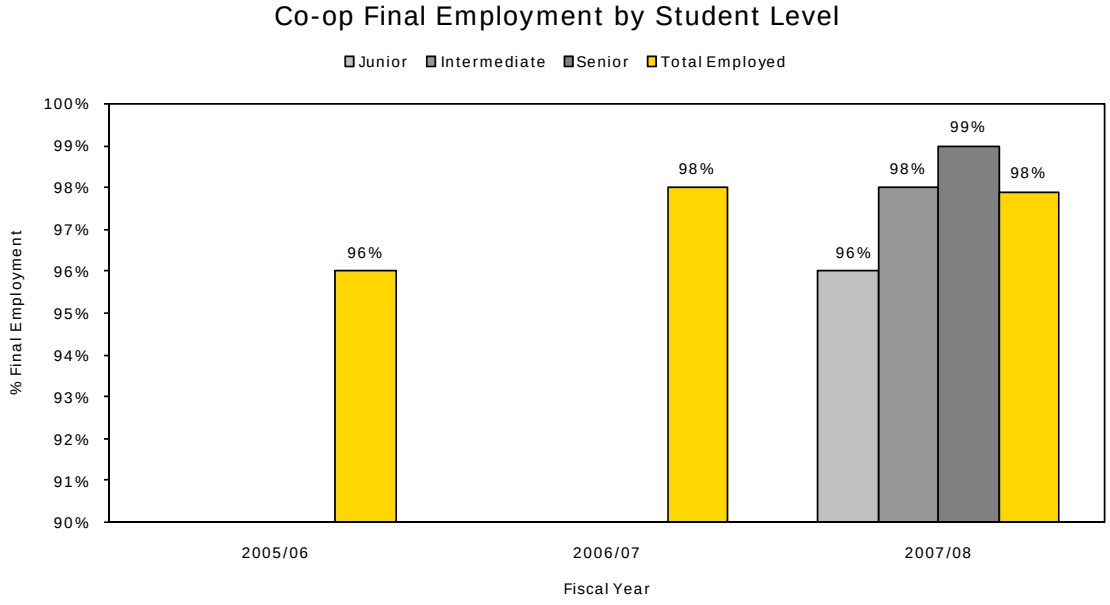


Figure 6.1.B shows final employment rates by level. CECS tracks employment rates as early as the middle of the academic term preceding the work term. We have identified junior students (1st or 2nd work term) as being hired later in the process and are working to understand how to help them gain employment earlier in the process.

Figure 6.1.B[48]



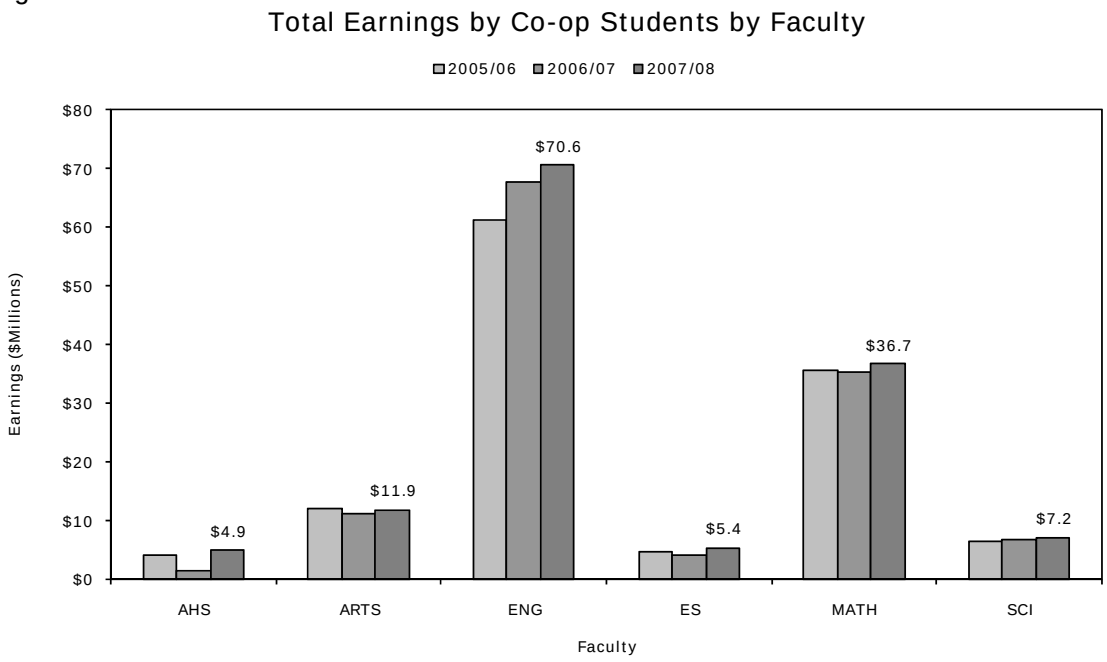
[48] 2005/06 and 2006/07 do not show level data as tracking of students by level was initiated in 2007/08.

6.2. Earnings by Co-op Students

Total earnings by co-op students indicate the economic impact of the co-operative program in the workforce. In support of the benefits that co-operative education brings, the government of Ontario introduced, in 1996, the Co-operative Education Tax Credit[49], providing a refundable tax credit of up to $1,000 per student for each four months of employment.

Total earnings of our co-op students in 2007/08 were $136 million[50], an increase of seven million dollars over 2006/07.

Figure 6.2.A

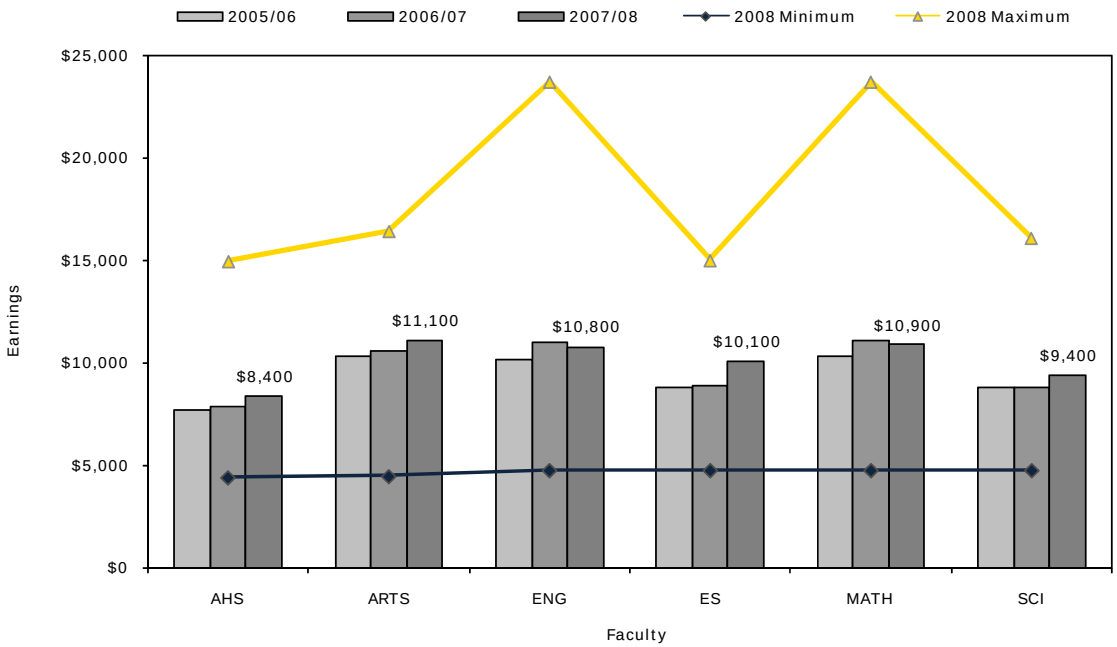


Co-operative work term income is an important measure for students, letting them know what to expect from the co-operative employment experience. Figure 6.2.B shows the average work term salary by faculty over the past three years. On average a student would earn $10,600 during the work term.

[49] http://www.trd.fin.gov.on.ca/userfiles/page_attachments/Library/3/Ctie_3021c.pdf
[50] Total student earnings are estimated using average salaries.

Figure 6.2.B

Average Co-op Earnings per Work Term by Faculty 2007/08



In addition to a salary premium two years after graduation of approximately 12 per cent[51], 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.

[51] 2002 Waterloo study Co-operative Education: Greater Benefits, Greater Costs.

7. RESOURCES

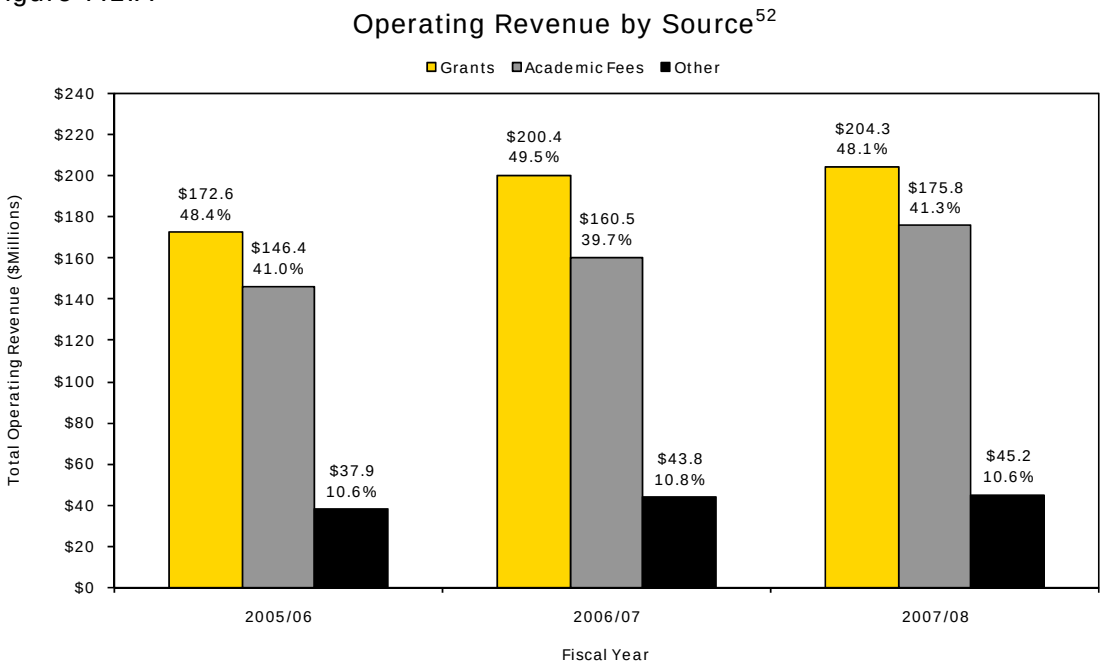
Financial stability and the flexibility to respond to new initiatives and opportunities are paramount to UW's success. Over the last decade and a half, reduced per student government operating grants have resulted in higher student-faculty ratios. At the same time, students are paying more for their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

7.1. Operating Revenue by Source

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

Figure 7.1.A illustrates that government grants continue to be less than half of the University's total funding and 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



[52] 2007/08 numbers are subject to Board approval.

Scholarships and bursaries as a percentage of operating expenses have increased dramatically over the past 10 years, from about 3 per cent in 1994/95 to almost 12 per cent in 2007/08 due, in most part, to UW's response to the increased financial demands placed on students.

Figure 7.1.B

Scholarships and Bursaries as % of Operating Expenses[53]

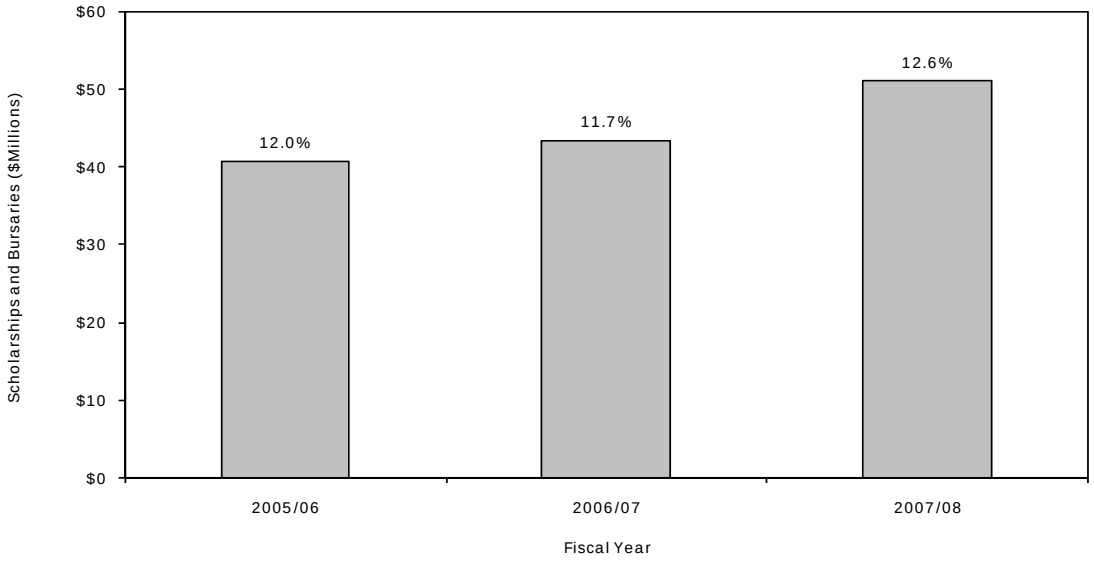
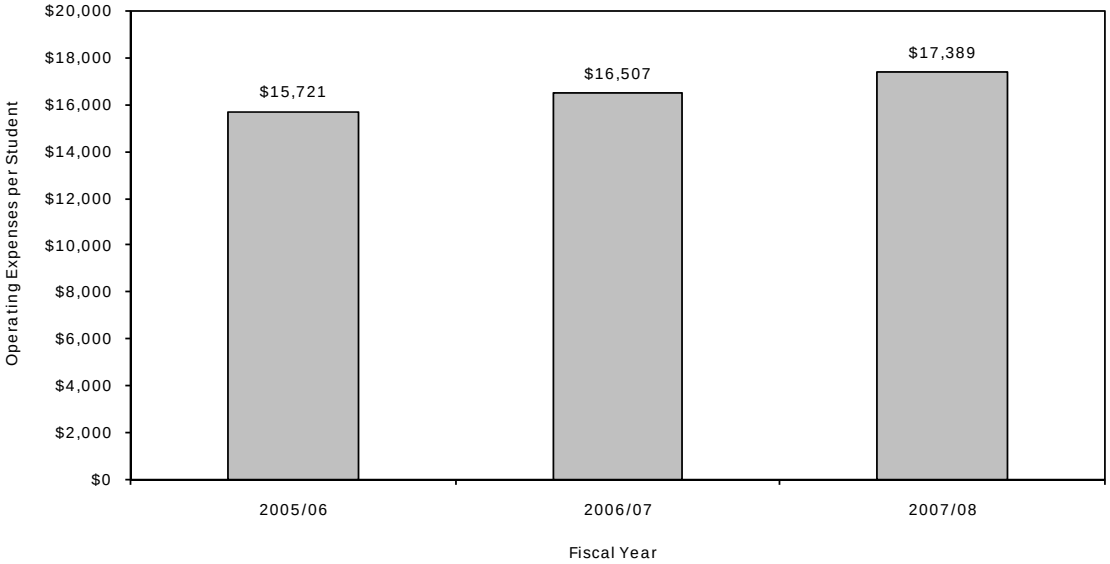


Figure 7.1.C

Operating Expenses per FTE Student[54]



[53] 2007/08 numbers are subject to Board approval.

[54] 2007/08 numbers are subject to Board approval.

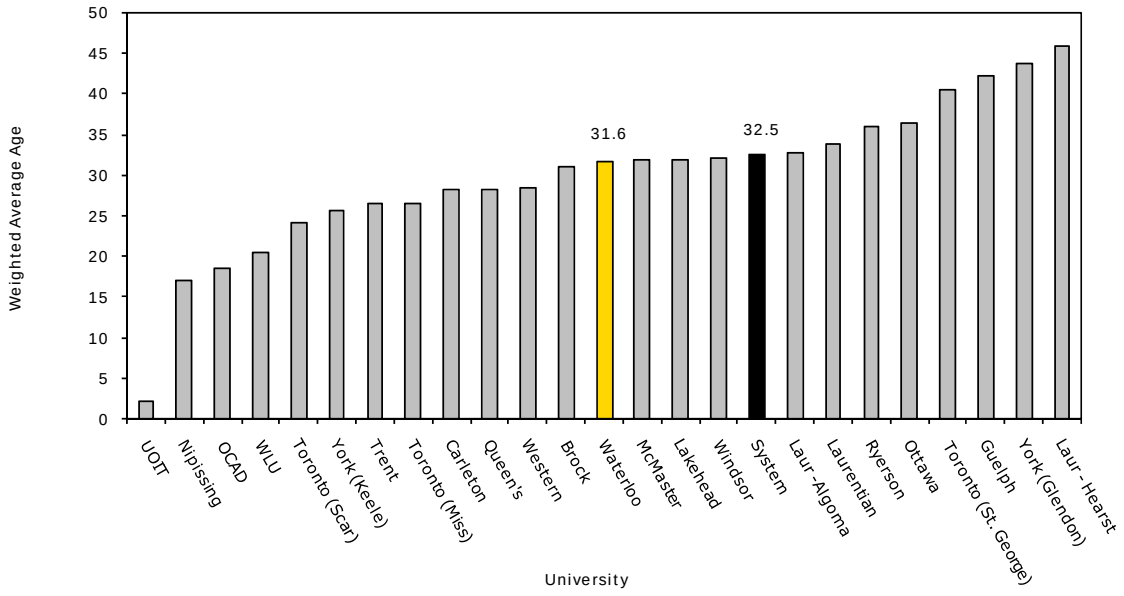
7.2. Age of Facilities Profile

Every three years, the Council of Ontario Universities (COU) gathers information to compute the average age of the province's university facilities. The weighted average age of an institution[55] is a better measure of the age of physical facilities than the age of the campus taken by itself, since the weighted age includes recently added building space. When a university constructs a large new building, for example, the weighted average age of the campus will decline—that is, the campus will "grow younger"—in proportion to the ratio of the new space to the existing space. The next survey year is 2008 and new data will be available in the 2009 report.

Figure 7.2.A presents the weighted average ages of 23 Ontario universities. The University of Waterloo stands roughly in the middle of the pack. In 2004, our physical facilities had a weighted average age of 31.6, up from 30.7 in 2001.[56]

Figure 7.2.A

Age Profile of Ontario University Space



7.3. Space Inventory

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

[55] Computed 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.

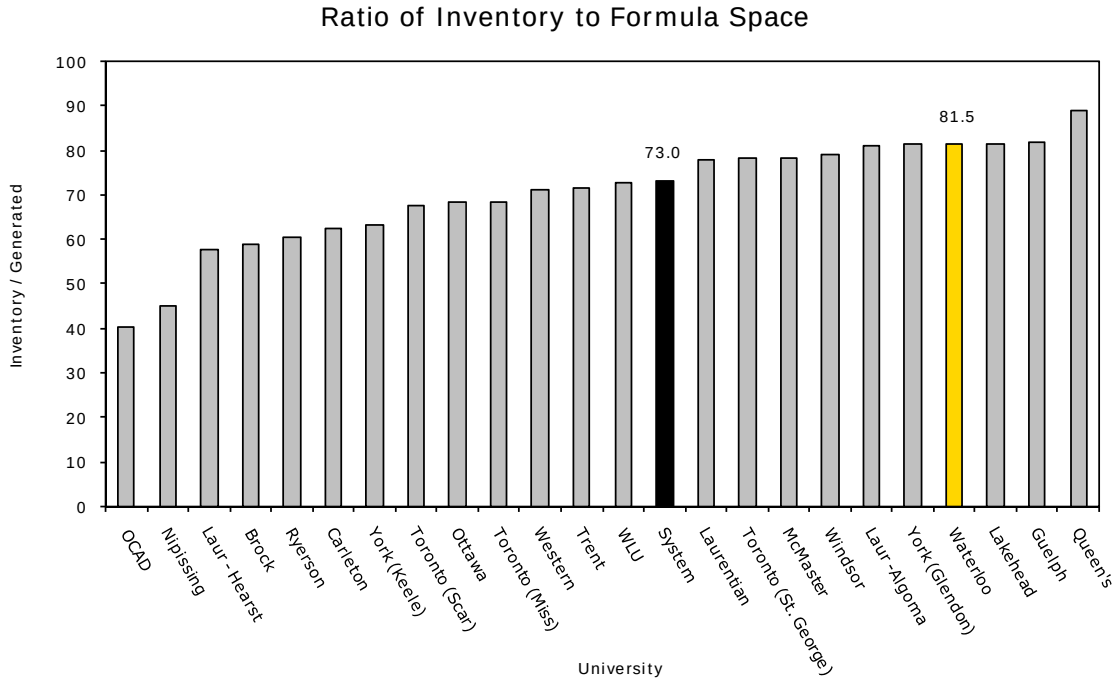
[56] Figures published in the 2005 University of Waterloo Performance Indicator report were based on a preliminary report from the Council of Ontario Universities.

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

Co-operative education programs allow for a more efficient use of the University of Waterloo's physical plant, by shifting enrolment from fall and winter terms to the spring term. At UW, average full-time enrolment is distributed over the three terms as follows: 17 per cent in spring, 44 per cent in fall, and 39 per cent in winter. A "non-co-op" institution's ideal enrolment is split 50/50 in fall and winter. Because the space formula measures only fall enrolment, our space entitlement generates only 44/50 or 88 per cent of a regular institution with the same annual enrolment.

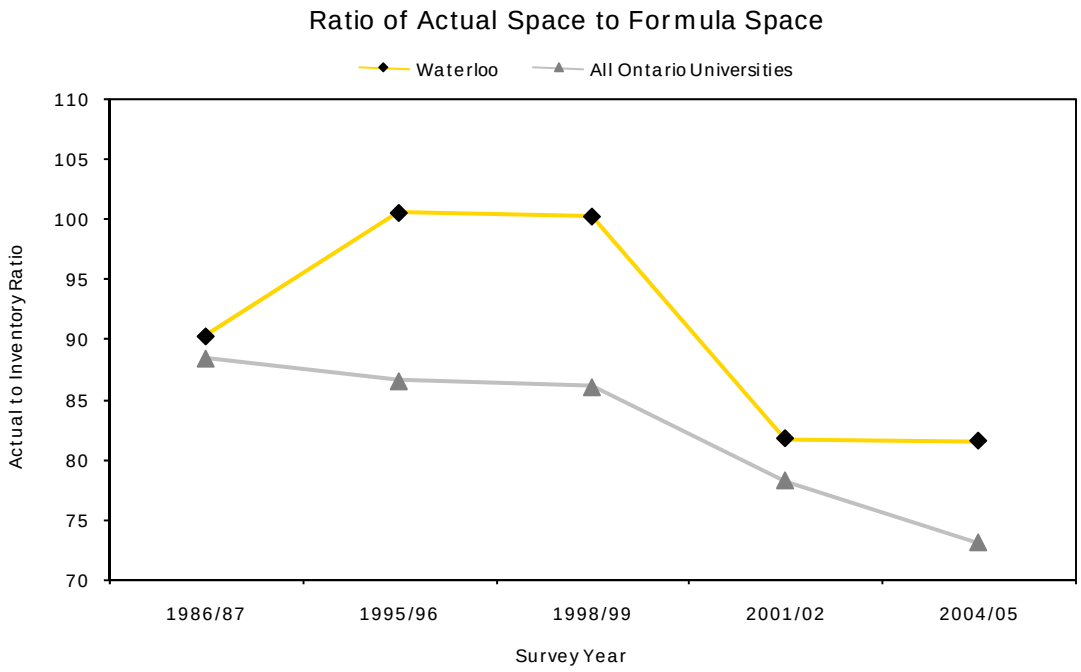
As of November 2004, UW was slightly better off than the system as a whole: we had 81.5 per cent of the space we needed, compared to an average figure of 73 per cent. If we adjust our entitlement to account for the difference resulting from our co-operative education programs, UW's ratio of inventory to formula space drops from 81.5 per cent to 71.7 per cent, less than the system average.

Figure 7.3.A



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

Figure 7.3.B[57]



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

8. FUNDRAISING

The University of Waterloo has responded to decreased government funding by reducing costs, implementing administrative efficiencies, and securing new sources of revenue. Despite significant cutbacks, we have found innovative ways to introduce new programs and initiatives, in part through Campaign Waterloo: Building a Talent Trust, the University's $350 million fundraising effort.

8.1. Alumni Donations

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

From these two figures we can calculate the percentage of alumni who make gifts to the University - approximately 19 per cent. This percentage may be seen as an indicator of how well the University served the alumni while they were students, the depth of their continuing affection for the University, and a measure of their support for higher education in general. Our success in earning and retaining the loyalty of alumni may be measured over time by monitoring this indicator.

Figure 8.1.A

Alumni Donations Statistics	
	2002-2007
# of Alumni with valid contact information (cumulative 5-year total)	395,599
# of Alumni Donors (cumulative 5-year total)	74,725
% Participation	18.9%
Includes Faculty, Staff and retirees who are also alumni, and includes both spouses in the case of joint gifts. Includes cash or gifts-in-kind donations and/or pledge expectancies. Excludes honourary degree holders.	

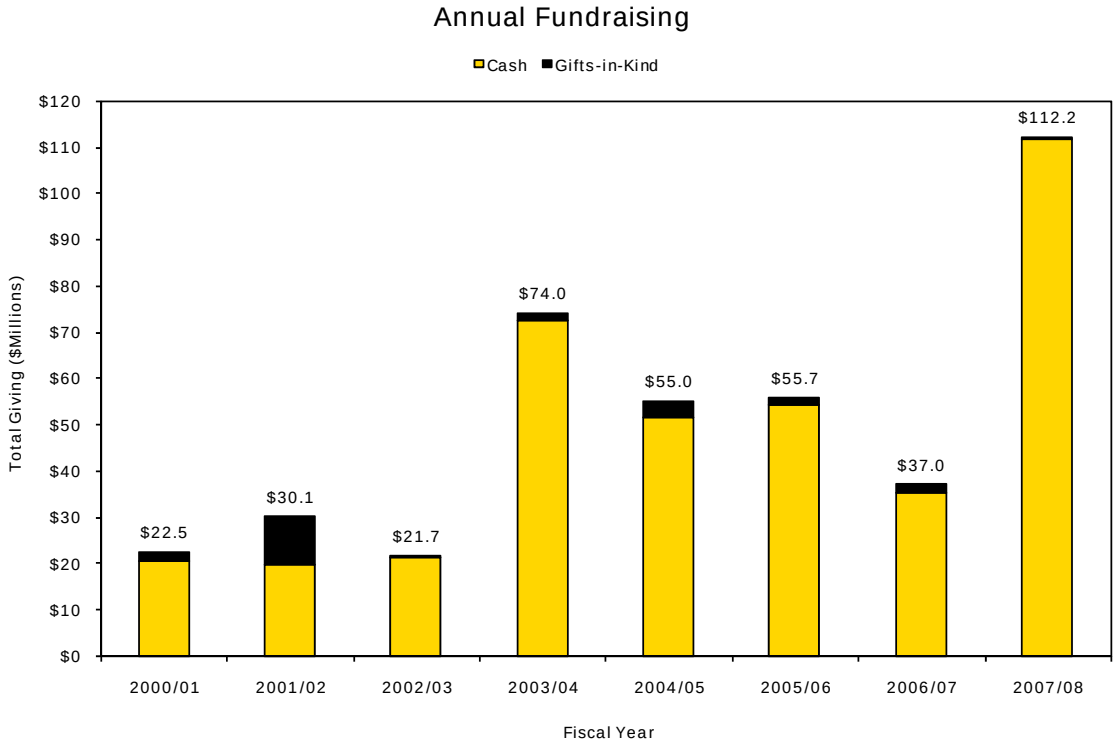
8.2. Annual Fundraising

A summary of funds raised from the private sector is shown, year-by-year, from 2000/01 to 2007/08. Income in millions of dollars is broken out by cash and gifts-in-kind. It includes gifts to the University and to the four federated and affiliated university colleges from all sources, including alumni, parents, students, friends, faculty, staff, retirees and organizations. This demonstrates a broad base of private support.

Annual fundraising achievements are used to measure overall performance of advancement activities across the entire University and are important indicators of how well we are doing to raise private sector gifts for the University. Results published annually in the Donor Report show donors how much was raised, how their funds were used, and the impact of their giving on UW programs, scholarships, buildings, and research. Combined with other analysis, annual fundraising achievements are tangible indications of support for UW by its alumni, faculty, staff, and friends.

Figure 8.2.A shows a rise in private-sector giving to the University from 2000 to 2008, with dramatic leaps in both 2003/04 and in 2007/08. These can be accounted for by several significant pacesetter gifts. Mike and Ophelia Lazaridis donated $32.8 million in 2003/04, an additional $17.2 million in 2004/05, and $25 million in 2007/08, bringing their total giving to $75 million. In recognition of this extraordinary support, the Mike & Ophelia Lazaridis Quantum Nano Centre has been established. In 2005/06, UW received a gift of $25 million from David Cheriton (MMath '74, PhD '78) establishing the David R. Cheriton Endowment for Excellence in Computer Science. Also, in 2007/08, pacesetting gifts were received from Jim Balsillie ($20.8 million), the Bill & Melinda Gates Foundation ($12 million), and an anonymous gift of $25.5 million.

Figure 8.2.A



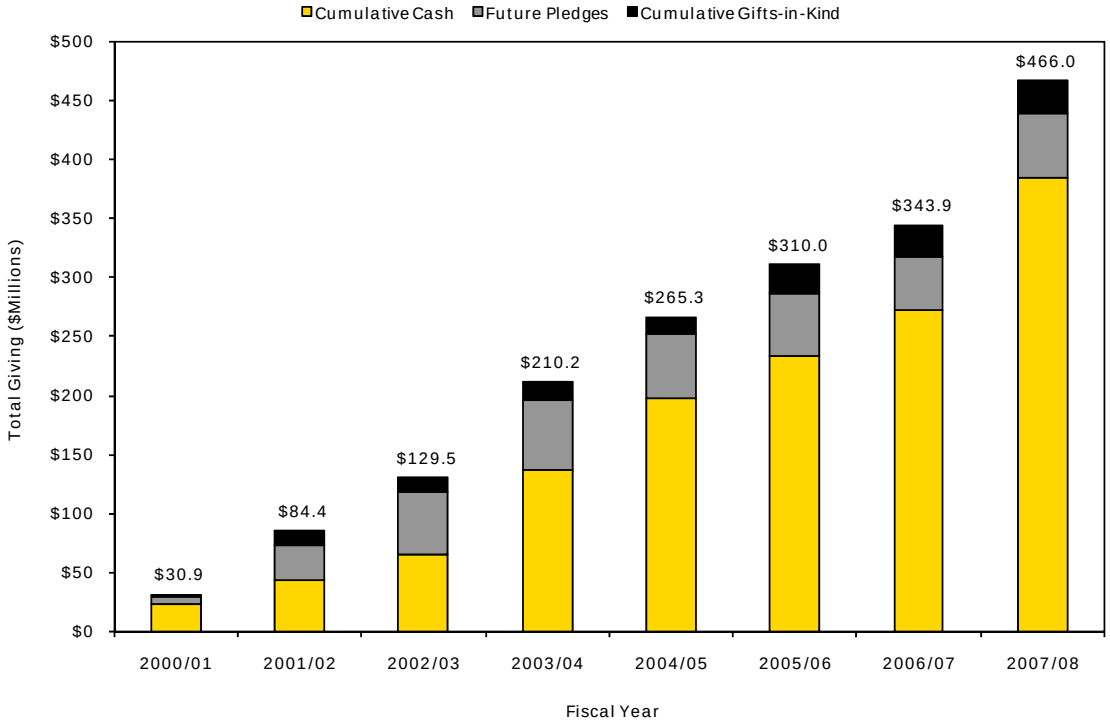
8.3. Cumulative Campaign Results

A good way to measure our fundraising progress is to show an annual cumulation, with results classified by cash, gifts-in-kind, and pledges. Campaign Waterloo officially began in May 2000 with a goal of $260M. This goal was revised to $350M in 2007.

Figure 8.3.A illustrates our cumulative fundraising achievements to April 2008, representing 130 per cent of the 2007 campaign goal. Funds raised are being used to support priority projects including new buildings ($109.4 million), chairs and professorships ($107.2 million), the library ($6.5 million), programs ($170.5 million), and scholarships ($72.4 million).

Figure 8.3.A

Cumulative Campaign Waterloo Results to April 30, 2008



With significant momentum and ambitious sixth decade objectives to achieve, Campaign Waterloo continues with a goal to sustain annual fundraising at the $100 million level.

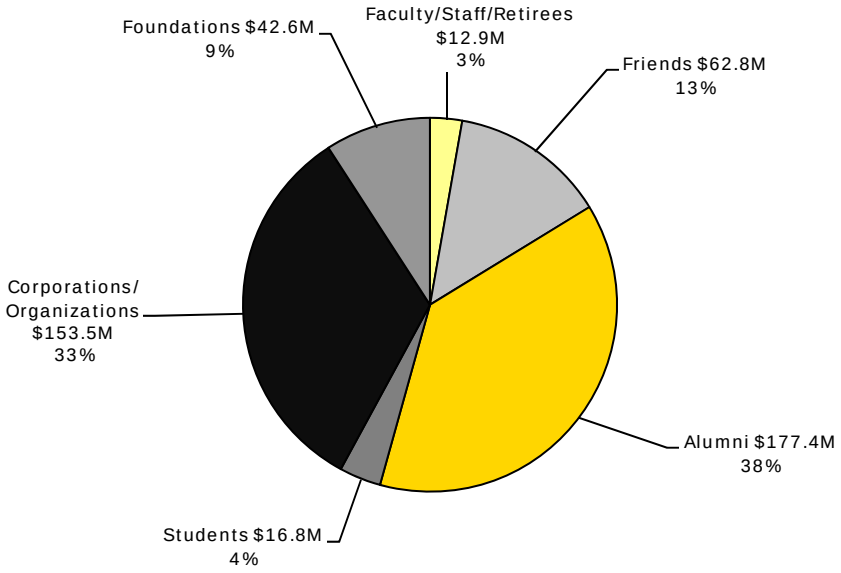
8.4. Donor Constituency

Figure 8.4.A shows campaign results by donor source or constituency, cumulated from the beginning of Campaign Waterloo in May 2000 to April 2008.

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

Figure 8.4.A

Campaign Waterloo Results by Donor Constituency
(May-00 to April-08)



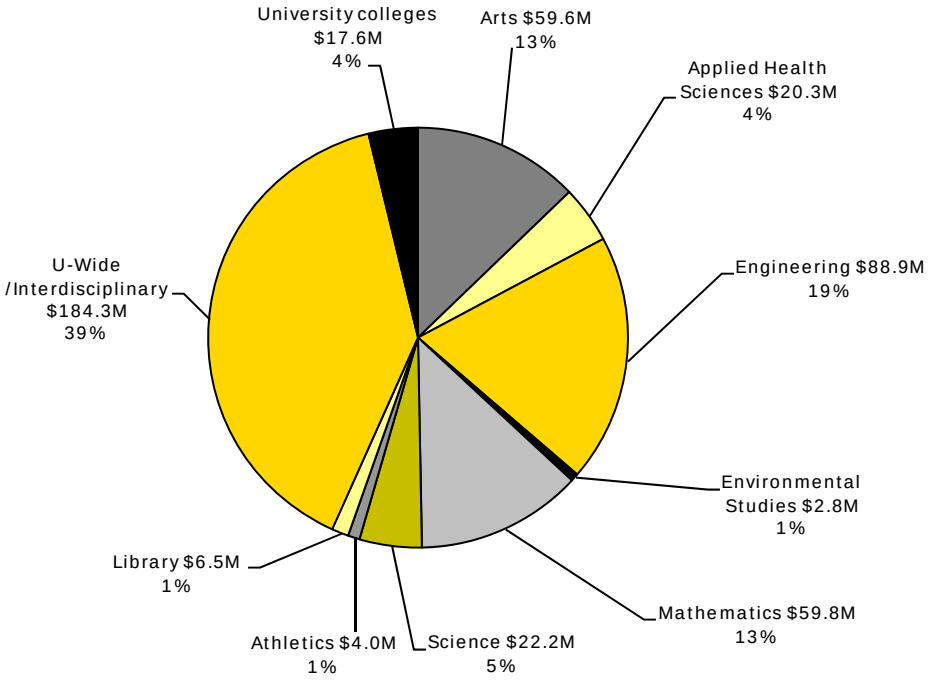
8.5. Gift Designation

Another way of measuring advancement is to show cumulative campaign fundraising results by the Faculty or unit that ultimately receives the funds. Most donors designate their gifts to benefit a specific Faculty, program, college, scholarship, or the like. Internally, this information gives volunteers, administrators and deans an indication of their fundraising progress. Externally, it shows donors where their contributions have made an impact.

Figure 8.5.A shows how funds raised through Campaign Waterloo between May 2000 and April 2008 have been directed according to the wishes of donors.

Figure 8.5.A

Campaign Waterloo Results by Gift Designation
(May-00 to April-08)



The "U-Wide/Interdisciplinary" sector may include scholarships that are open to students in two or more disciplines, or 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, and gifts to the School of Accountancy in the Faculty of Arts sector. Of note, in 2005/06, the School of Architecture moved from the Faculty of Environmental Studies to the Faculty of Engineering.

9. LIBRARY

The University of Waterloo's goal is to rank among the top research libraries in Canada. We continue to strengthen our information resources by taking advantage of opportunities through our active participation in the Canadian Research Knowledge Network (CRKN) and the Ontario Council of University Libraries (OCUL). Our electronic monograph holdings have increased notably over the last few years, and the current round of CKRN negotiations will allow us to enrich and expand our electronic content further by the significant acquisition of even more e-books. As we move towards 2010, we will focus our efforts under three umbrella themes: e-initiatives, enriching the student experience, and space. Striving for a high level of user satisfaction with the services and resources we provide remains an overarching objective.

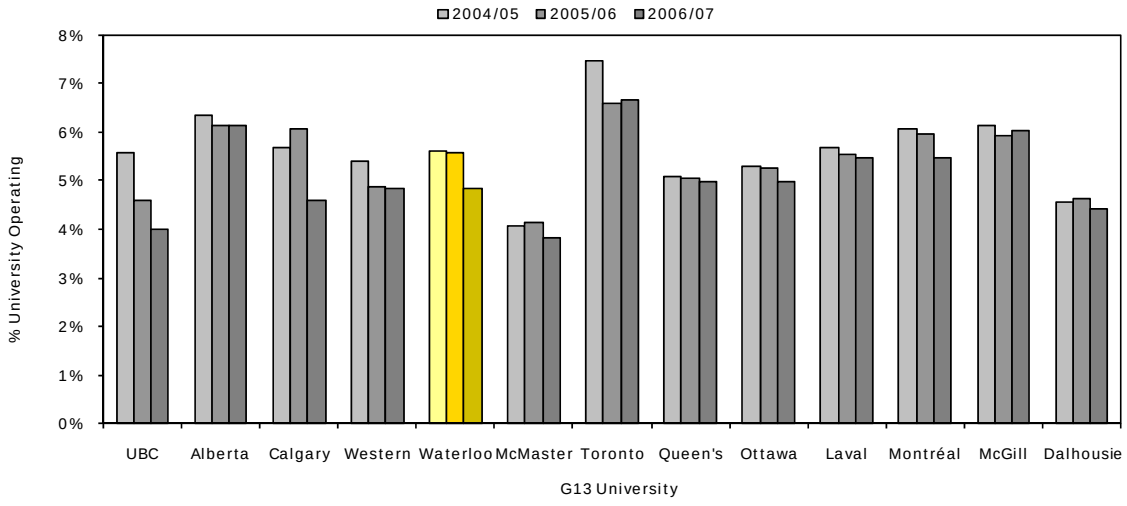
9.1. Library Expenditures as Percentage of Operating Expenditures

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

Figure 9.1.A shows library expenditures as a percentage of the University operating budget for each of the G13 universities for the three latest fiscal years. Waterloo's library expenditures amounted to 5.62 per cent in 2004/05, placing it seventh, exactly at the average of 5.62 per cent. In 2005/06 the figure dropped slightly to 5.57 per cent, placing Waterloo sixth. In 2006/07 we saw a further decrease to 4.85 per cent and a placing of eighth among the G13 universities.

Figure 9.1.A

Library Expenditures[58] as % of University Operating Expenditures, G13 Universities



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

9.2. Holdings: Print and Electronic

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

While Waterloo ranks low in 2006/07 in total holdings at eleventh, the holdings count of the TriUniversity Group shows the benefit of making the collections of our University of Guelph and Wilfrid Laurier University partners readily available to our users through TRELLIS (the online catalogue of the combined collections of the TriUniversity Group of Libraries). When total TUG holdings are taken into account, the ranking is similar to the third-placed G13 university.

Figure 9.2.A

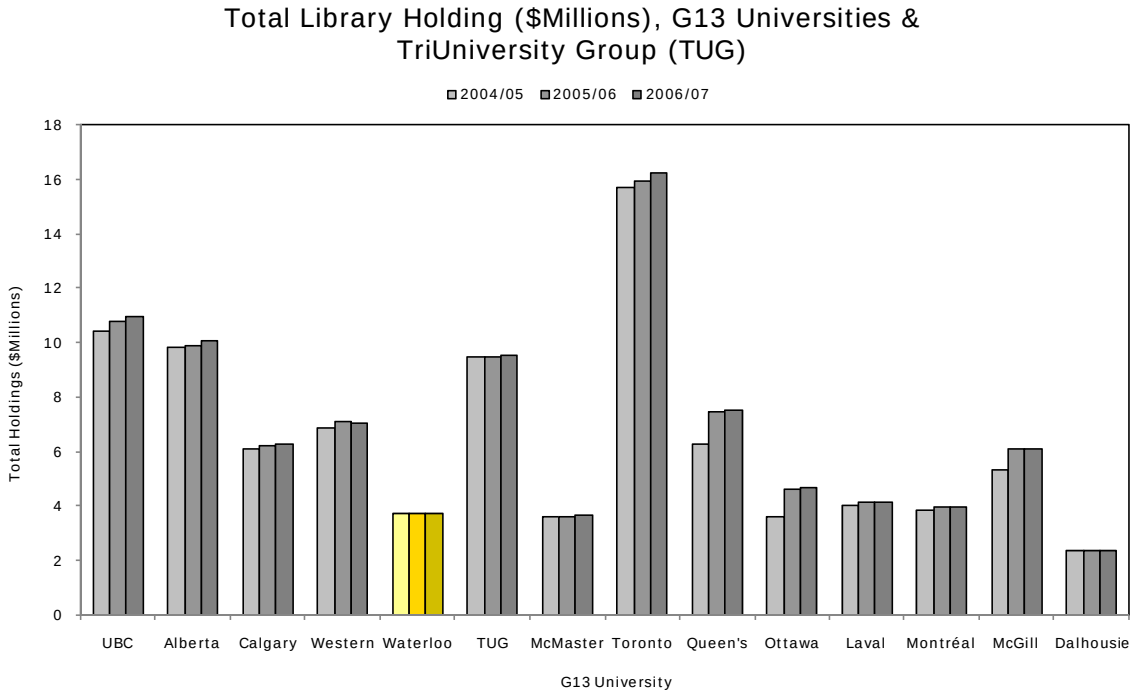


Figure 9.2.B shows the libraries' holdings in terms of items per full-time equivalent student (FTE), which takes into account the level of demand. Waterloo tied for eighth among the G13 universities in 2005/06 and then tied for ninth in 2006/07.

Figure 9.2.B

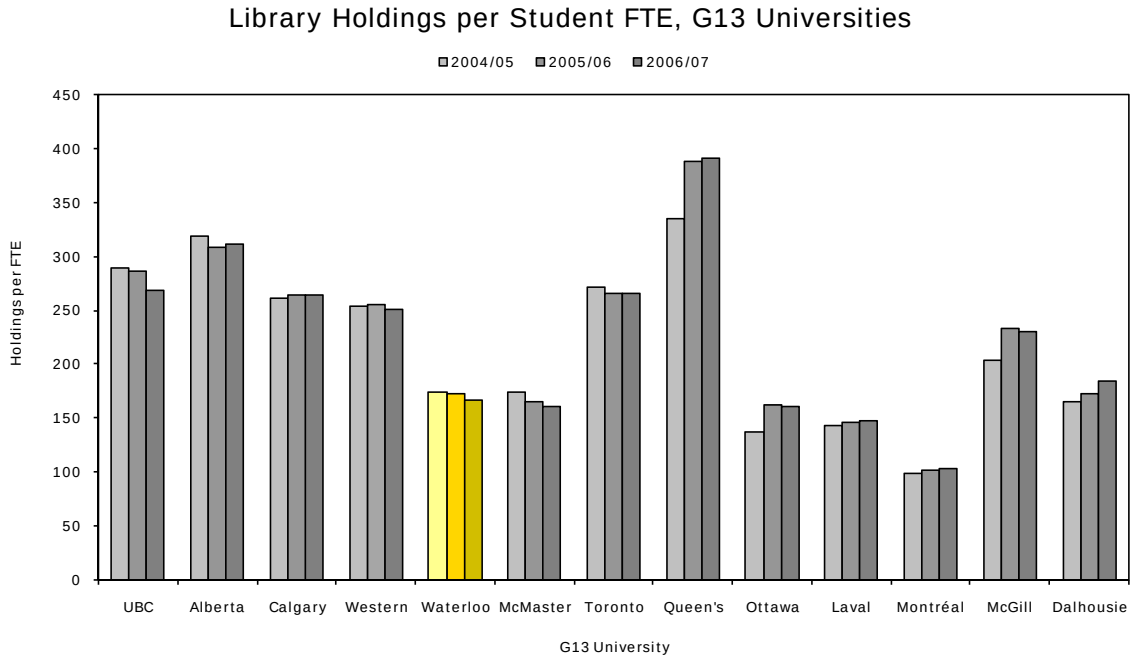


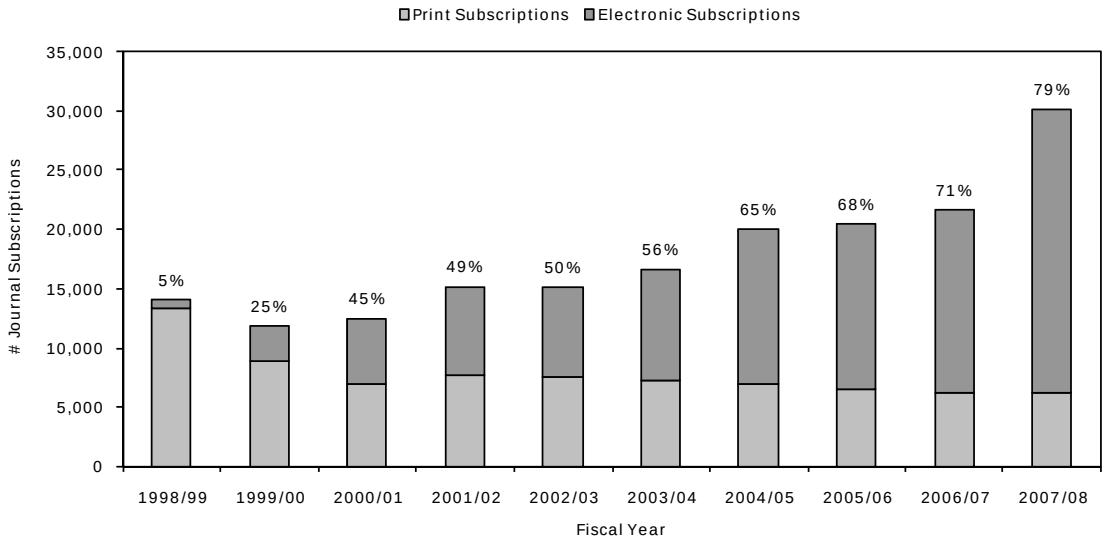
Figure 9.2.A and Figure 9.2.B include counts of printed materials (monographs, bound journal volumes, government documents) and micro-materials, but not electronic, cartographic, or audio-visual materials. The counts do not include the holdings of the libraries of Waterloo's federated university and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

The data in these charts does not take into account the significance of electronic resources, which are playing an increasingly important role at all universities. Electronic monograph holdings have grown from 5,747 titles in 2000/01 to 259,821 titles in 2007/08 and now represent over 15 per cent of the total monograph collection.

Figure 9.2.C shows that Waterloo's electronic journal holdings have also continued to grow substantially. Waterloo subscribed to 30,165 journals in 2007/08, of which 23,951 (i.e., 79 per cent) are in electronic format.

Figure 9.2.C

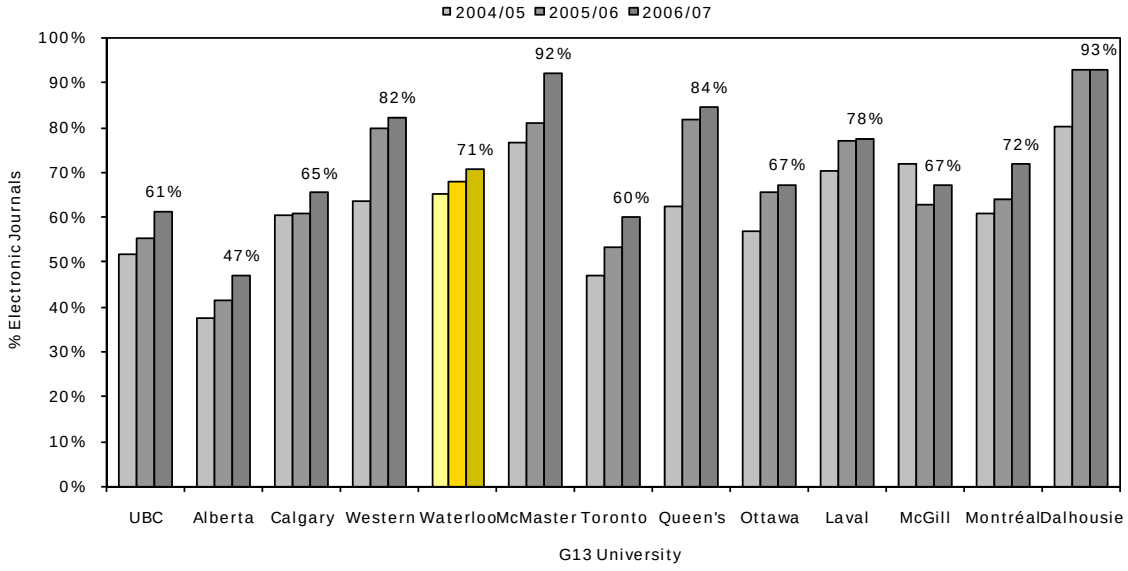
Library Holdings: Print and Electronic Journal Subscriptions



While total journal subscriptions for UW placed us lower than eleven of the other G13 university libraries, Waterloo's strength in electronic journals placed us in 5th place in percentage of journal subscriptions in electronic format in 2004/05. In 2005/06 Waterloo's ranking dropped to 6th position, with 68 per cent of journals received in electronic format and in 2006/07 to 7th, with 71 per cent in electronic format.

Figure 9.2.D

% Journal Subscriptions in Electronic Format



10. CONCLUSION

The Performance Indicators Task Force and the Data Working Group continue their efforts to shed more light on important activities of the University. In particular, we will continue to work with our provincial and national peers to define, collect and build data sets and indicators that will allow meaningful comparisons and benchmarking.

As we make progress in our sixth decade, Waterloo has a clear goal to cultivate, nurture and promote global excellence in teaching, learning and research, ensuring academic and social relevance and adequate resources to support our endeavours.

Prepared by the Performance Indicator Task Force, with the help of the Data Working Group, this report will facilitate strategic institutional planning and public accountability. We are committed to the review and production of future reports.

University of Waterloo Performance Indicators Task Force, 2008

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