Annual Performance Indicators

October 2006

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INTRODUCTION

The circumstance precipitating UW's establishment in 1957 was the space race and the critical unmet need for engineers. Half a century later a very different circumstance, global competition, is informing how UW needs to direct its energies. To compete successfully in the global arena, excellence is a sine qua non. And our Sixth Decade will be the decade where a new kind of boldness and daring will ensure UW achieves the excellence required to make it a premier global competitor.

—Amit Chakma, Vice-President, Academic & Provost

The University of Waterloo's central mandate is to offer excellent undergraduate and graduate programs and to carry out cutting-edge research. The University also serves its community and society at large through the transfer of knowledge and cultural enrichment beyond the borders of campus.

Waterloo has a reputation for excellence in undergraduate education, and in particular for supporting a vibrant undergraduate co-operative education program. We have invested in resources that support learning, research and innovation. As we move into our sixth decade, we recognize the increasing role of research and will work to further engage our undergraduate students in research. We also recognize the crucial role of graduate studies in a research intensive university, and the enriching effect graduate studies can have on the undergraduate experience. Therefore, we will be seeking to increase our graduate student enrolment. We will be aided in this endeavour by the Ontario government, which has invested directly in graduate education for the first time. At Waterloo, we will maintain our strengths in undergraduate studies through strategic investments and recruitment, while taking advantage of this provincial funding to improve the quality, impact and visibility of our graduate studies and research portfolios.

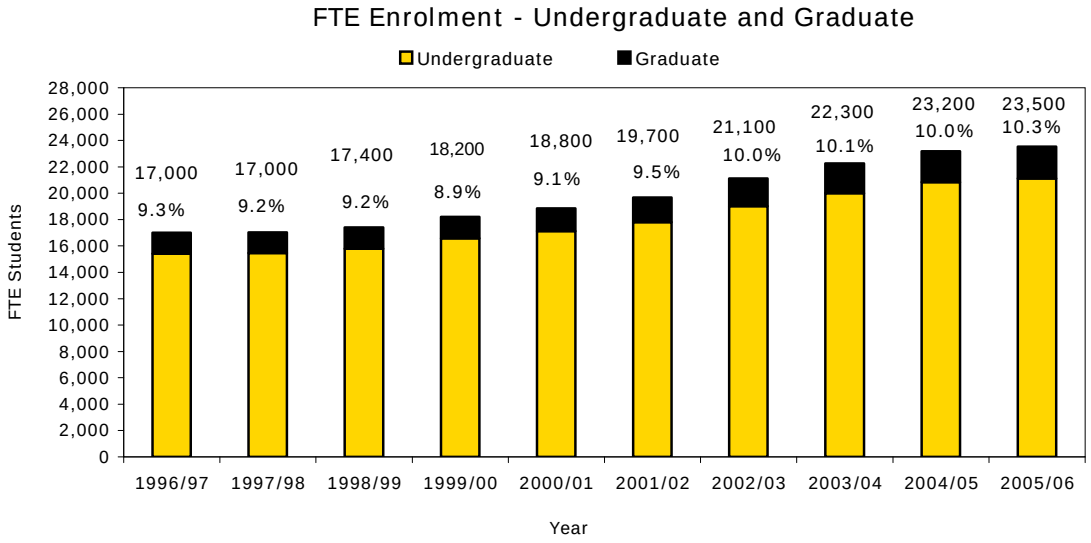
Waterloo is concerned about performance, quality, accountability and transparency. We recognize that institutional performance measurement is key to the strategic management of our resources and to sound planning for our future. Like other universities, we first undertook this performance indicator exercise for our own benefit. Recent developments in government accountability and reporting will also render this exercise both timely and useful at the provincial level.

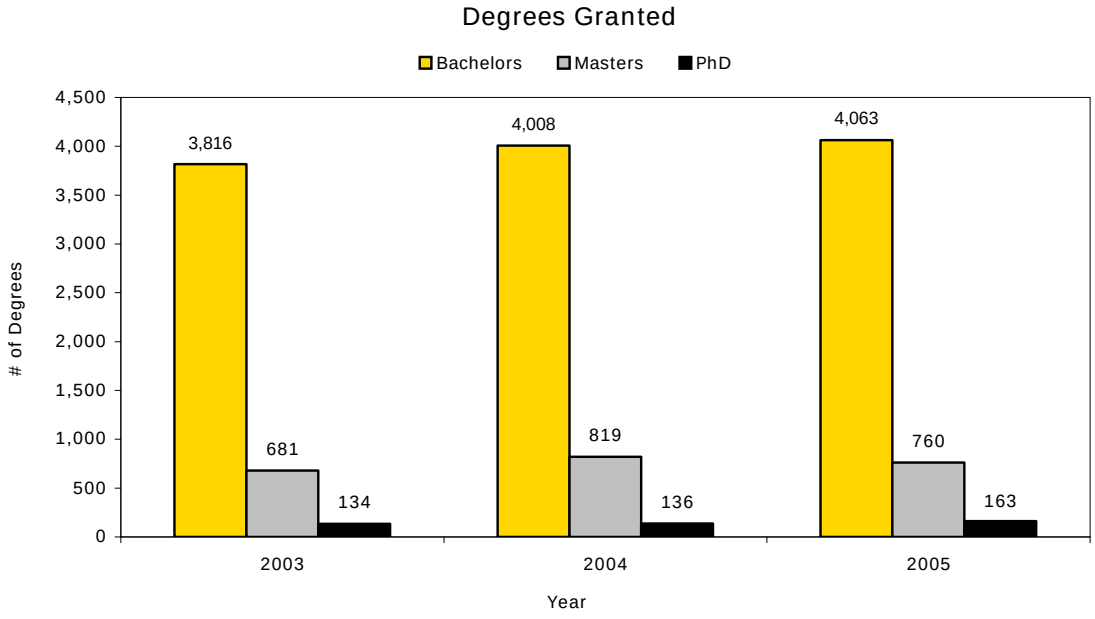
Prepared by the Task Force on Performance Indicators, with the support of the Data Working Group, this second annual Performance Indicator Report highlights measures in the following key areas: undergraduate studies, graduate studies, research, faculty, staff, co-operative education, resources, fundraising, and the library. This report is one 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 2006 REPORT

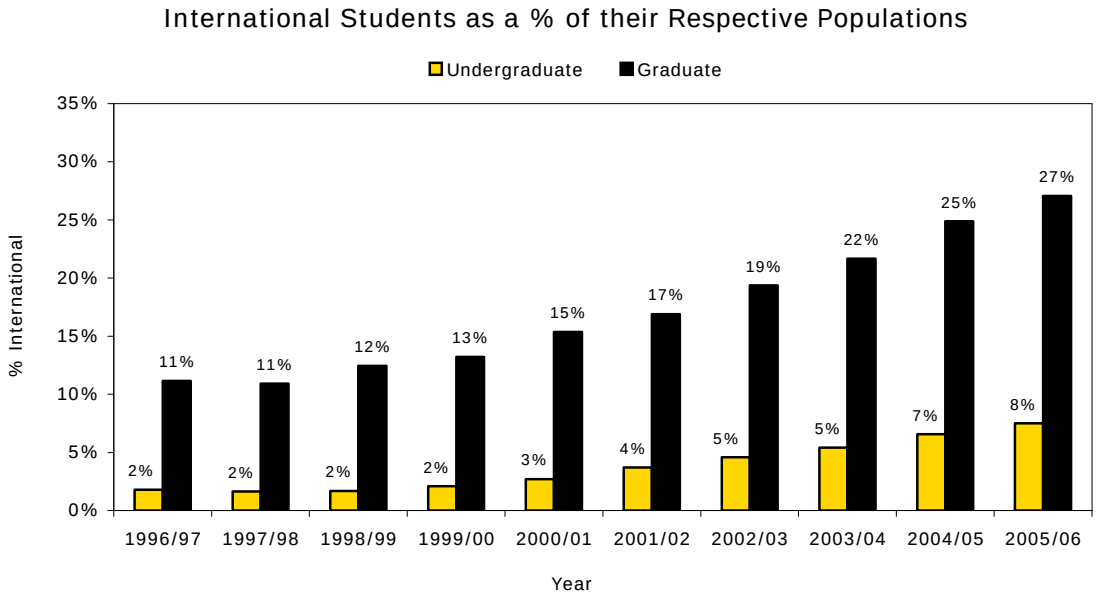
The University of Waterloo has long been recognized as the most innovative university in Canada. Like many universities, Waterloo is committed to the advancement of learning and knowledge through teaching, research, and scholarship. Below you will find twelve indicators selected to illuminate the Waterloo experience, our strengths and our challenges.

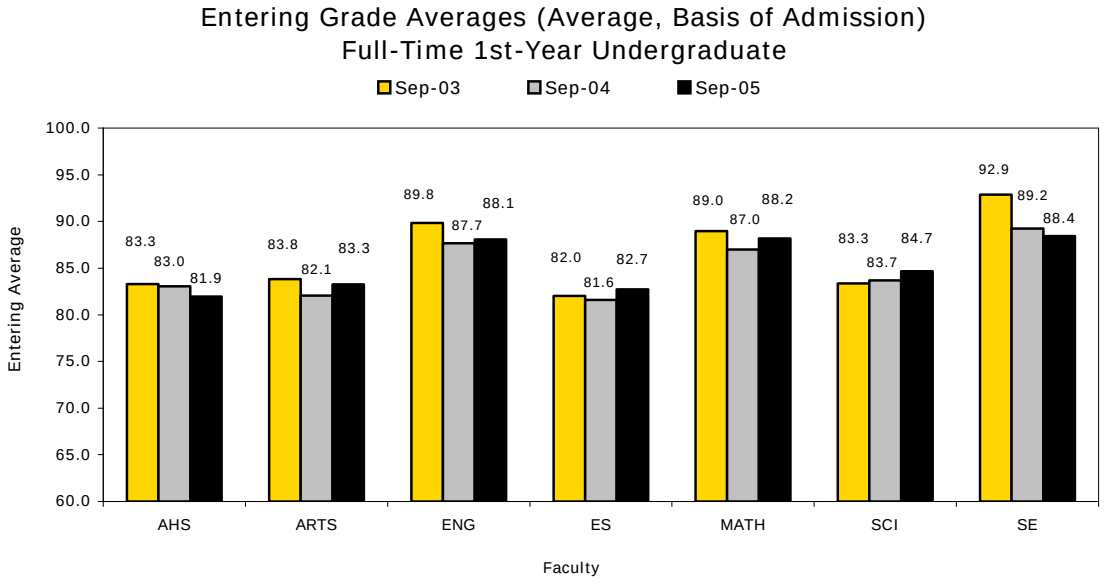
Our Students[1]





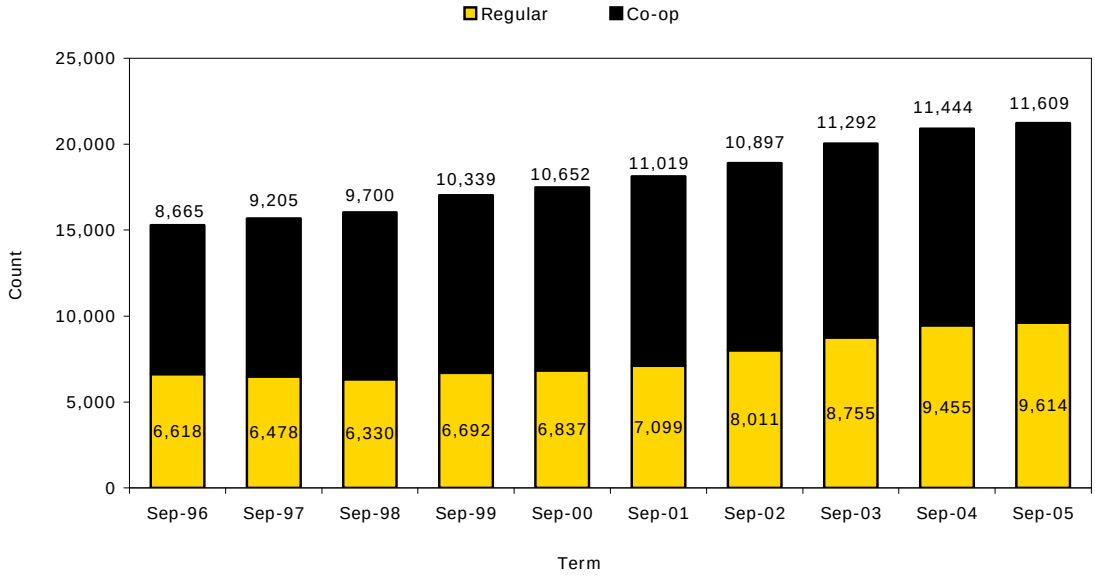
[1] FTE = full-time equivalent.





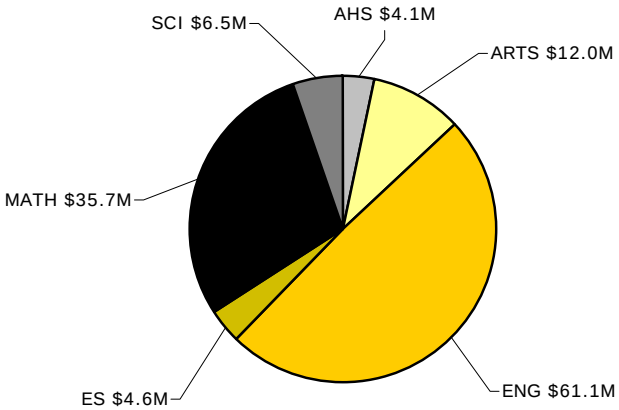
Note: AHS = Applied Health Sciences; ENG = Engineering; ES = Environmental Studies; SCI = Science; SE = Software Engineering.

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



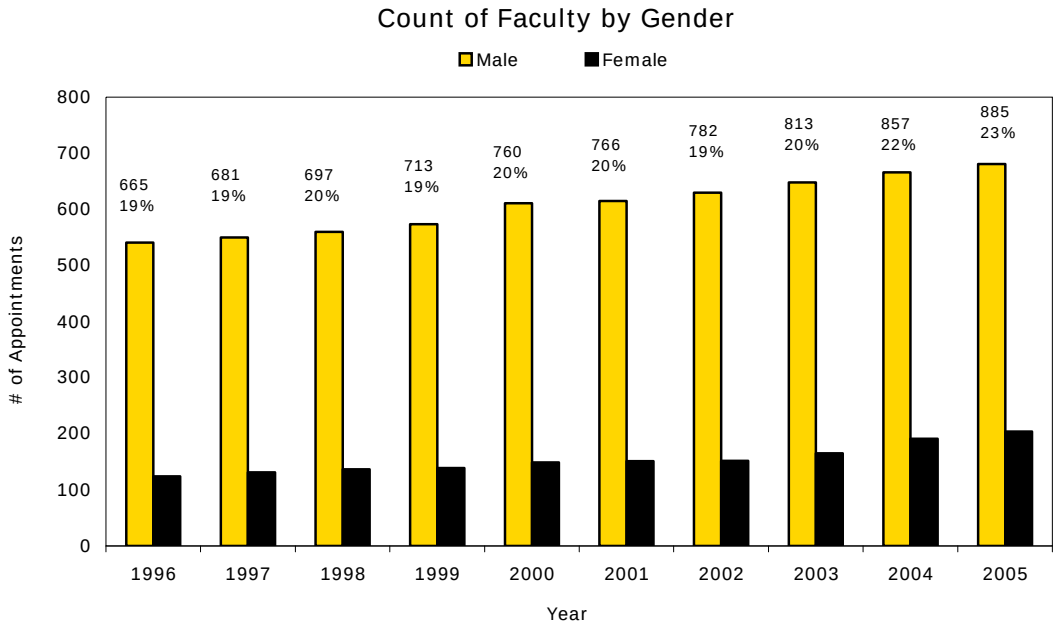
When we count students in the fall term, we also include those in our co-operative education programs who are off-campus on a work term, so, our fall count is higher than our annual FTE count. Based on the count of students in the fall term, about 11,600 or 55 per cent of undergraduates were registered in co-operative programs in the fall of 2005.

Total Earnings by Students on Co-op Work Term 2005/06
$124,000,000

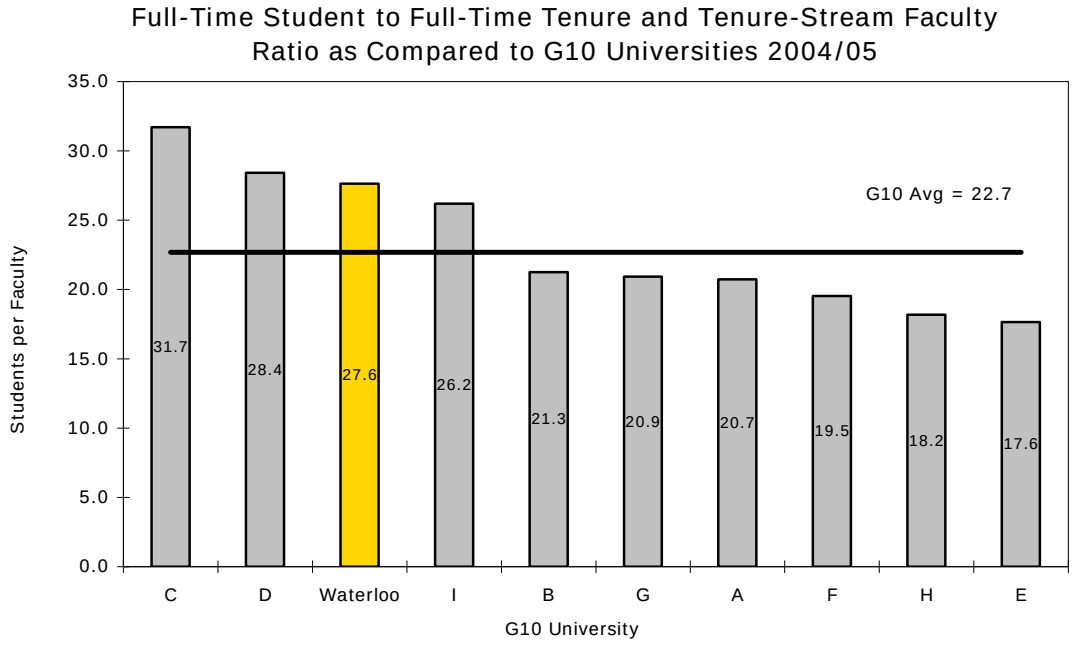


Note: Co-operative education is a corner stone of the Waterloo experience. The graph above demonstrates the significant economic contribution of our students' earnings.

Our Faculty

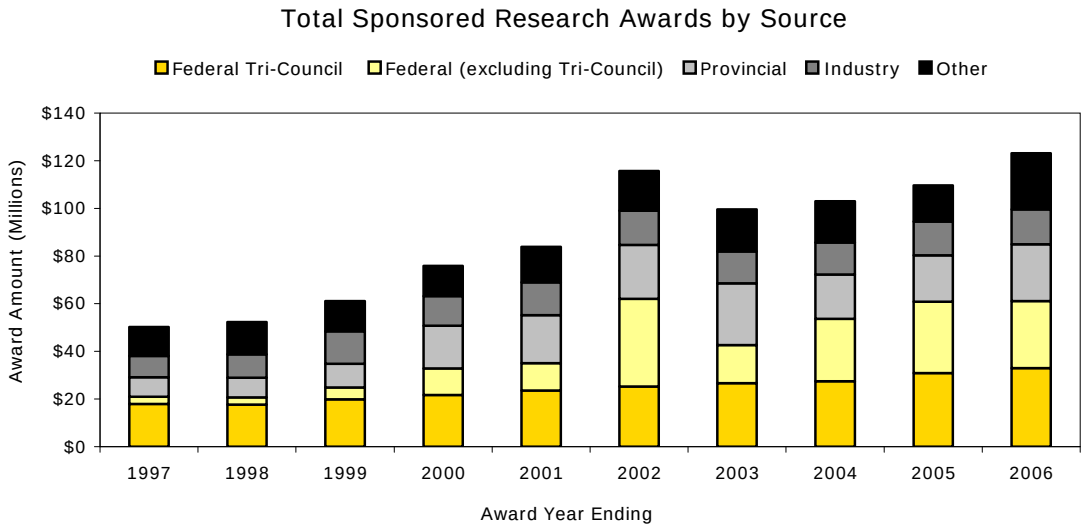


Note: Excludes researchers and visitors. The numbers on the chart indicate the count of male and female full-time regular faculty and per cent female faculty.

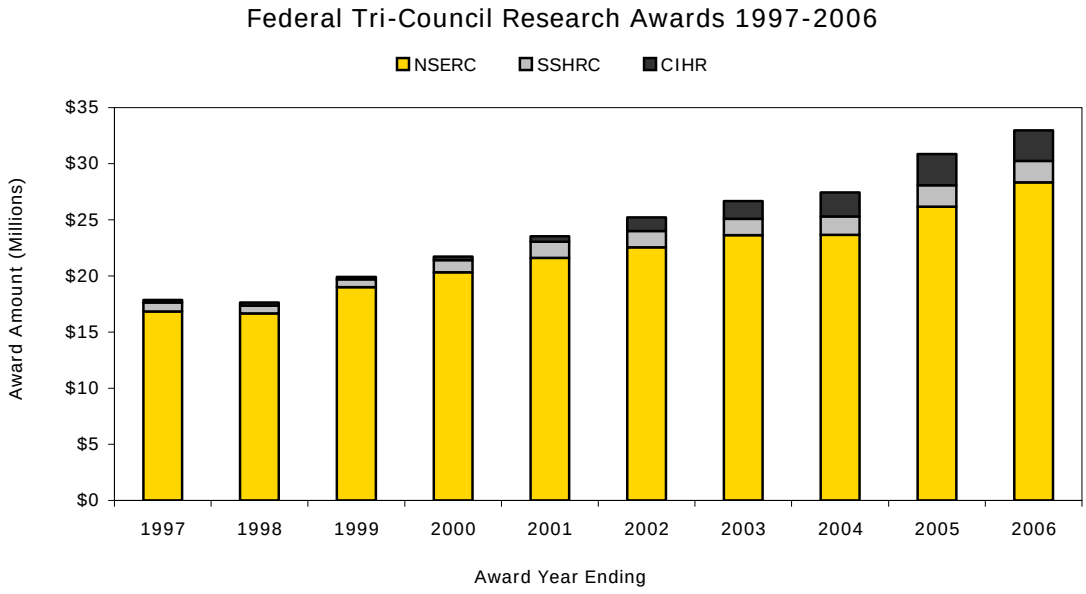


Note: The G10 Universities are the University of British Columbia, Alberta, Western, Waterloo, McMaster, Toronto, Queens, McGill, Montréal, and Laval. The protocol under which the G10 members exchange data requires us to randomly re-label the other individual G10 members when results are published, as in this document.

Our Research

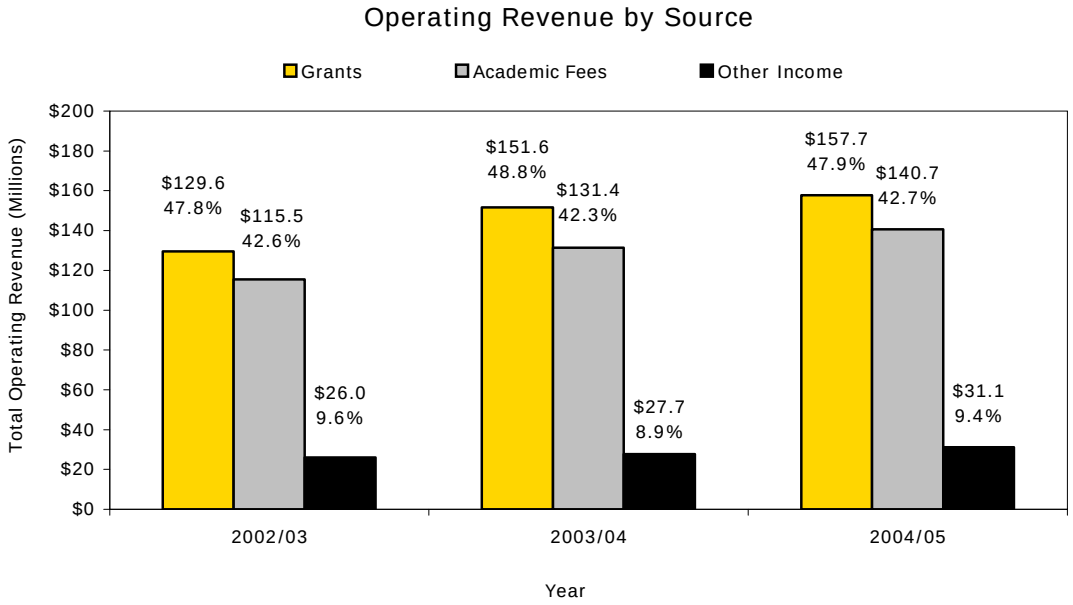


Note: 2002 was an unusual year in Federal (excluding Tri-Council) funding due to a large number of Canada Foundation for Innovation awards.

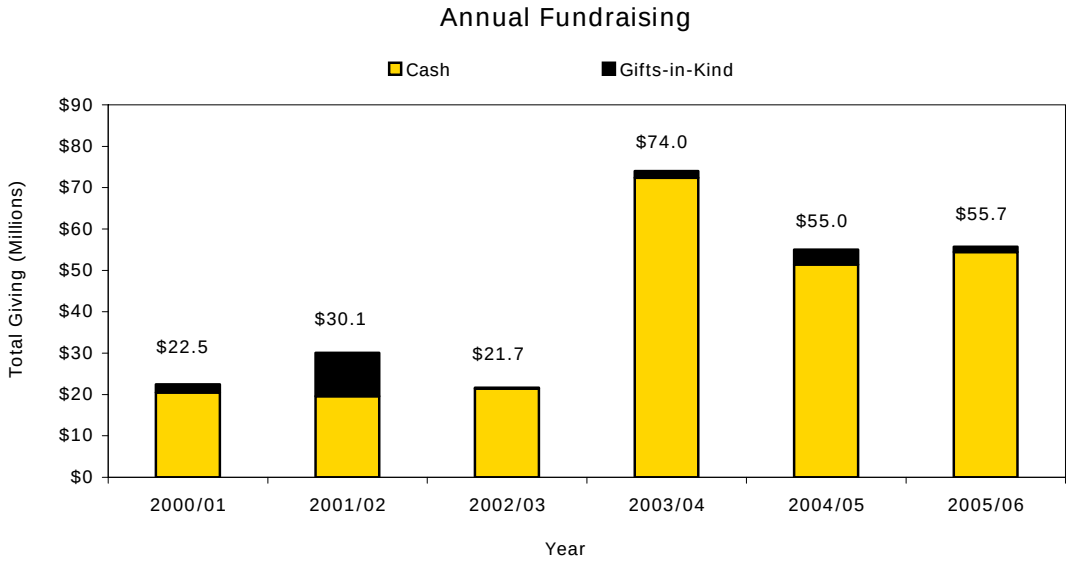


Note: NSERC = National Sciences and Engineering Research Council; SSHRC = Social Sciences and Humanities Research Council; CIHR = Canadian Institutes of Health Research.

Our Resources



Note: 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.



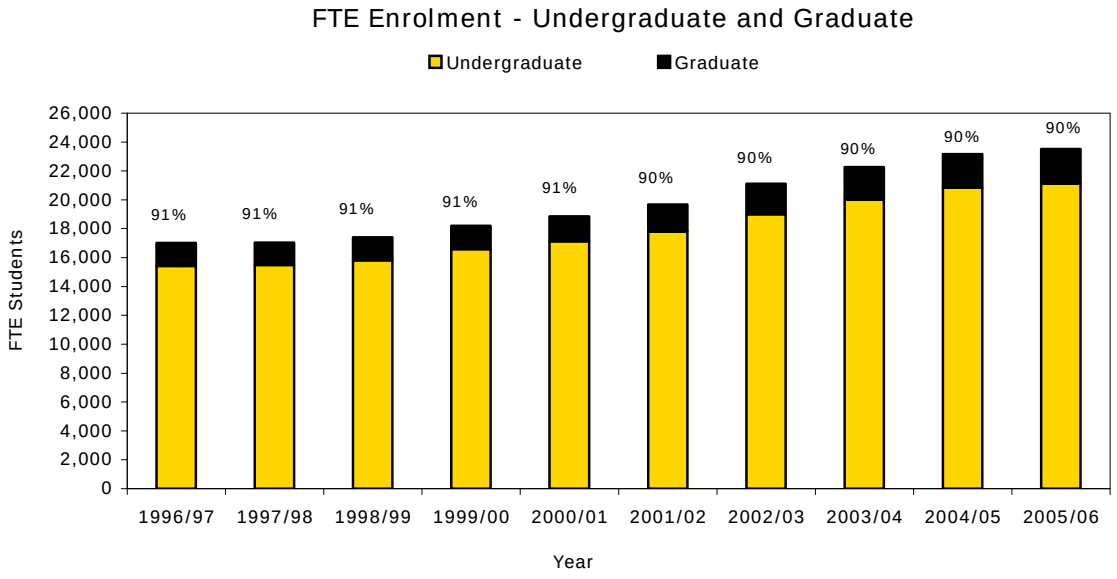
Note: Annual fundraising achievements measure overall performance of advancement activities across the entire University and are important indicators of how well we are doing to raise private-sector gifts. The graph above shows a rise in private-sector giving to the University from 2000 to 2004, with a dramatic leap in 2003/04 part of which can be accounted for by a single gift of $32.8 million.

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[2]

Figure 1.1.A



For most schools with 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 Waterloo, because of co-op, we count students in two ways: annual full-time equivalent students, and term counts of students. In an academic year, full-time 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 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.

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. Based on the count of students in the fall term, about 55 per cent of undergraduates were registered in co-operative programs in the fall of 2005.

[2] Percentage of undergraduate FTE students displayed.

Figure 1.1.B[3]

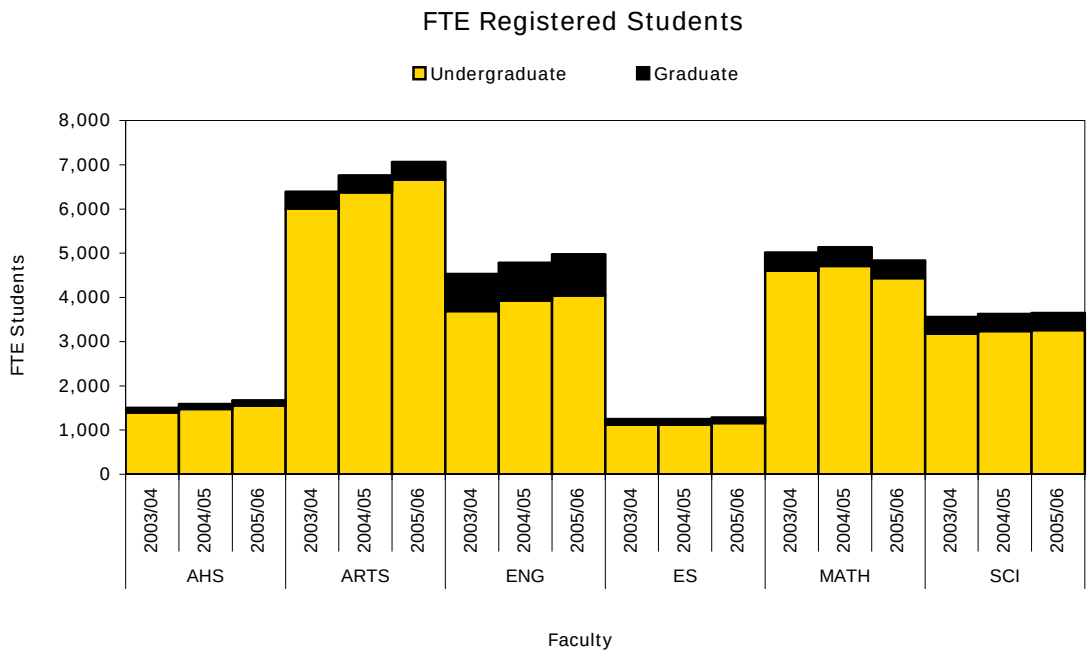
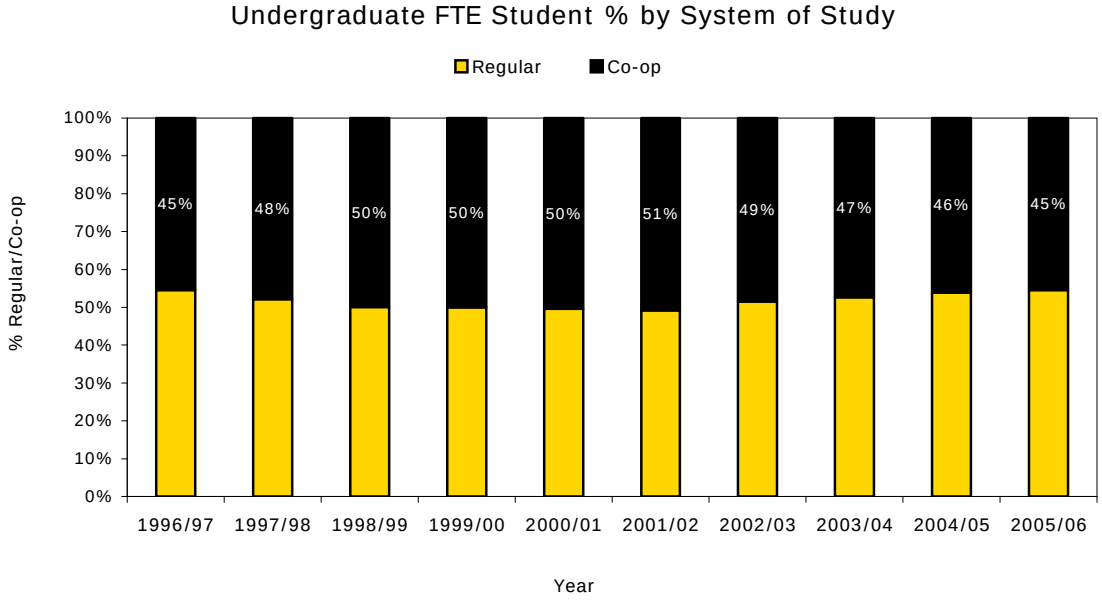


Figure 1.1.C to Figure 1.1.E show the distribution, over time and by Faculty, of co-op and regular students.

Figure 1.1.C



[3] Software Engineering is offered jointly by the Faculties of Engineering and Mathematics and enrolment is split evenly between these two Faculties. Bachelor of Social Work, Independent Studies and Inter-disciplinary Studies are included in the total for the Faculty of Arts.

Figure 1.1.D

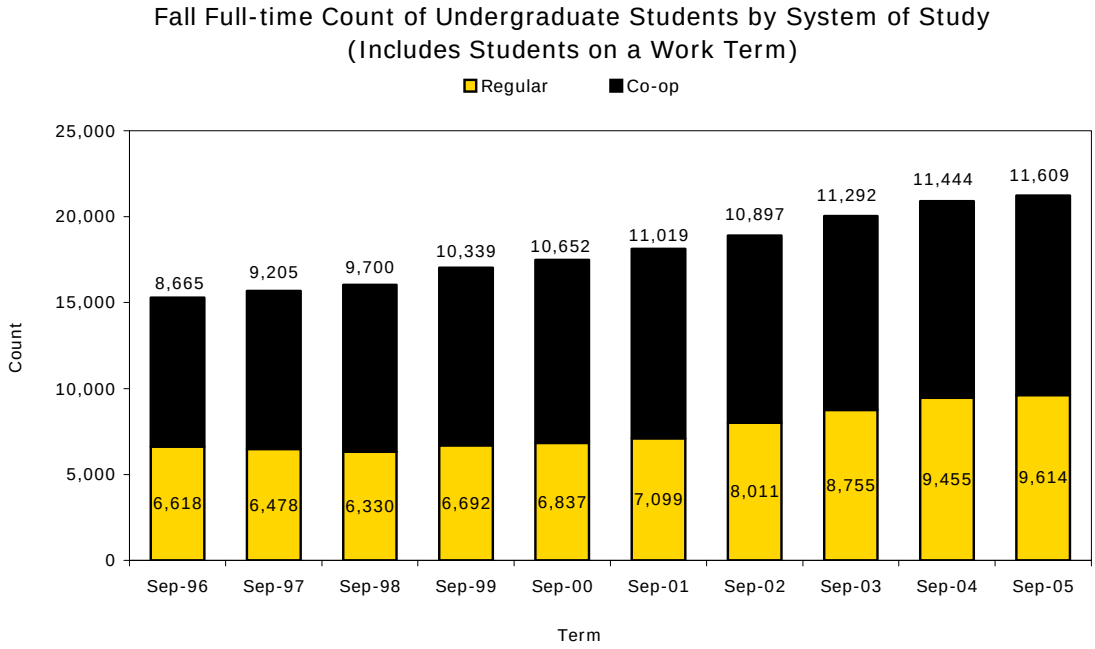
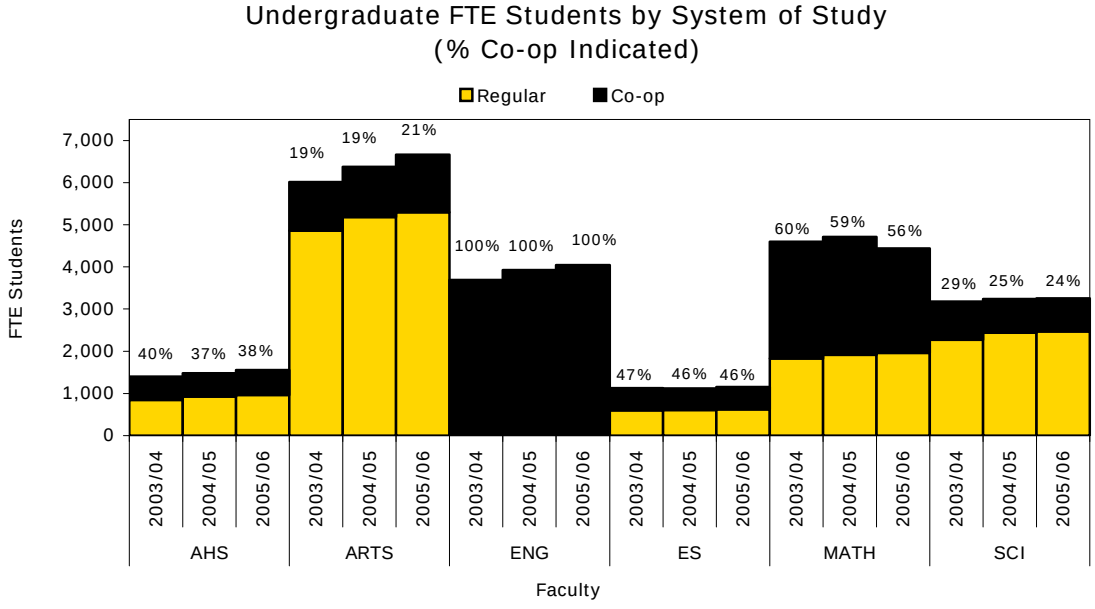


Figure 1.1.E



The international percentages in Figure 1.1.F will help us to assess our annual progress on the University's priority of increased internationalization. We see that in Mathematics, international students make up 38 per cent of graduate students and 22 per cent of undergraduate students. At the University level, international students make up 8 per cent of undergraduate enrolment and 27 per cent of graduate enrolment.

Figure 1.1.F

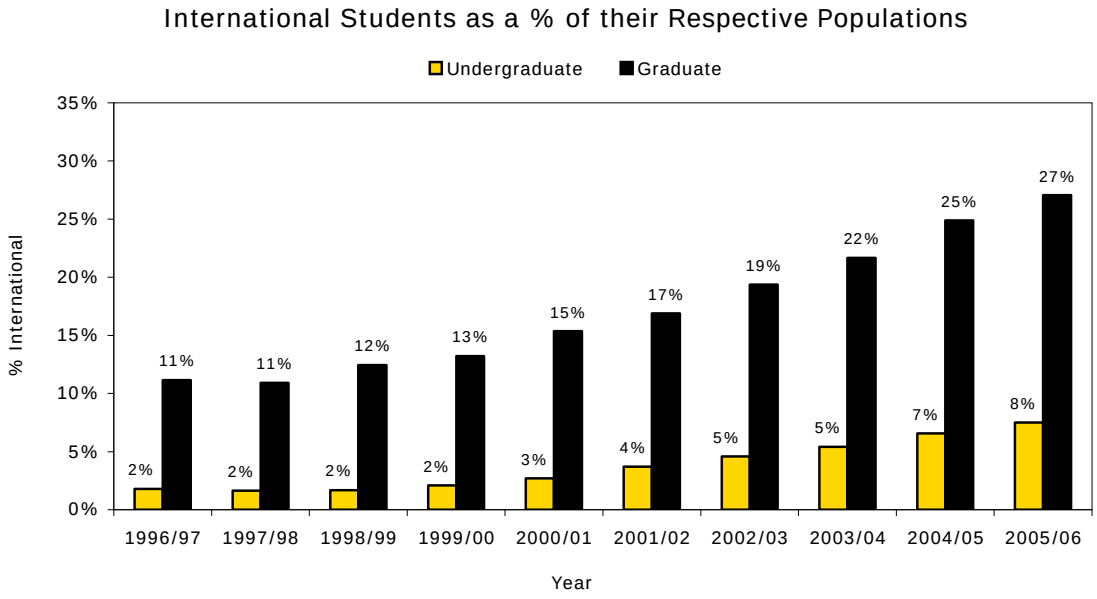
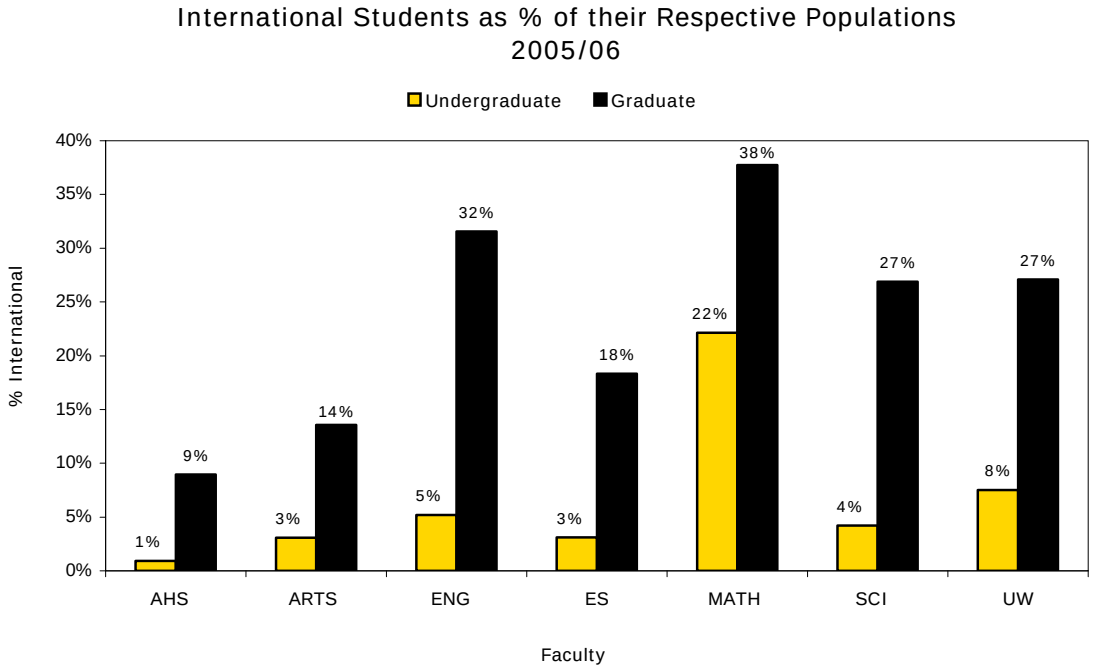


Figure 1.1.G

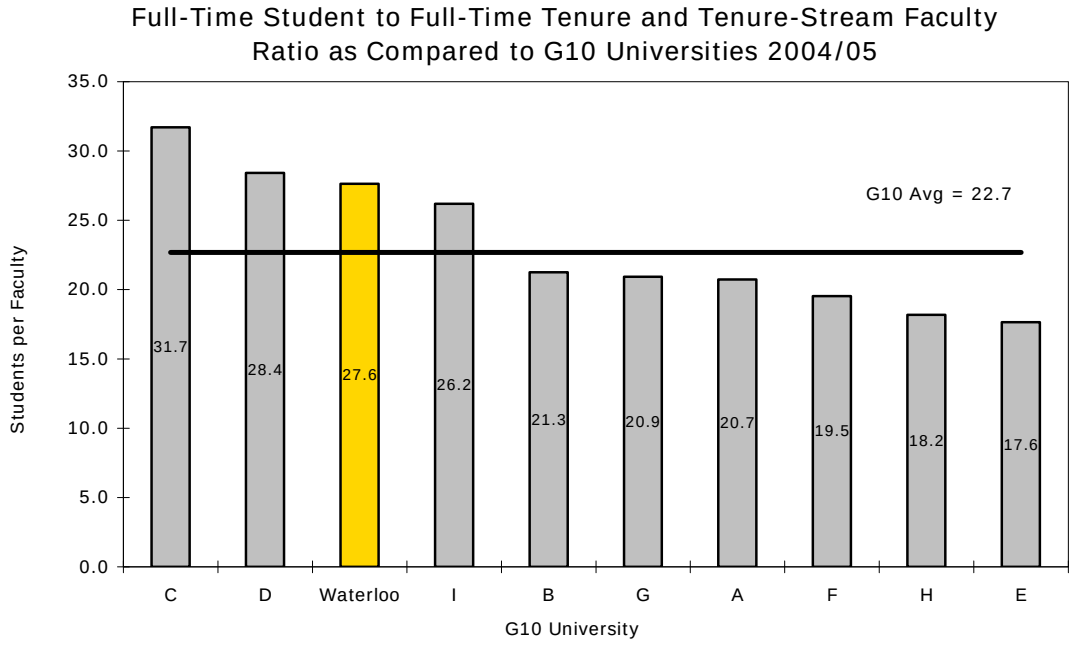


1.2. Student to Faculty Ratio

The student-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-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—8 per cent since 2002/03—our student-faculty ratio remains one of the highest of the G10 universities since FTE student enrolment increased by 9 per cent in the same period.

Figure 1.2.A[4]



At Waterloo, 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 unit teaching units, or BTUs. We then take ratios of these measures to the size of our complement faculty, which is the number of ongoing faculty positions (filled and open) for which the University has made a budgetary commitment.

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

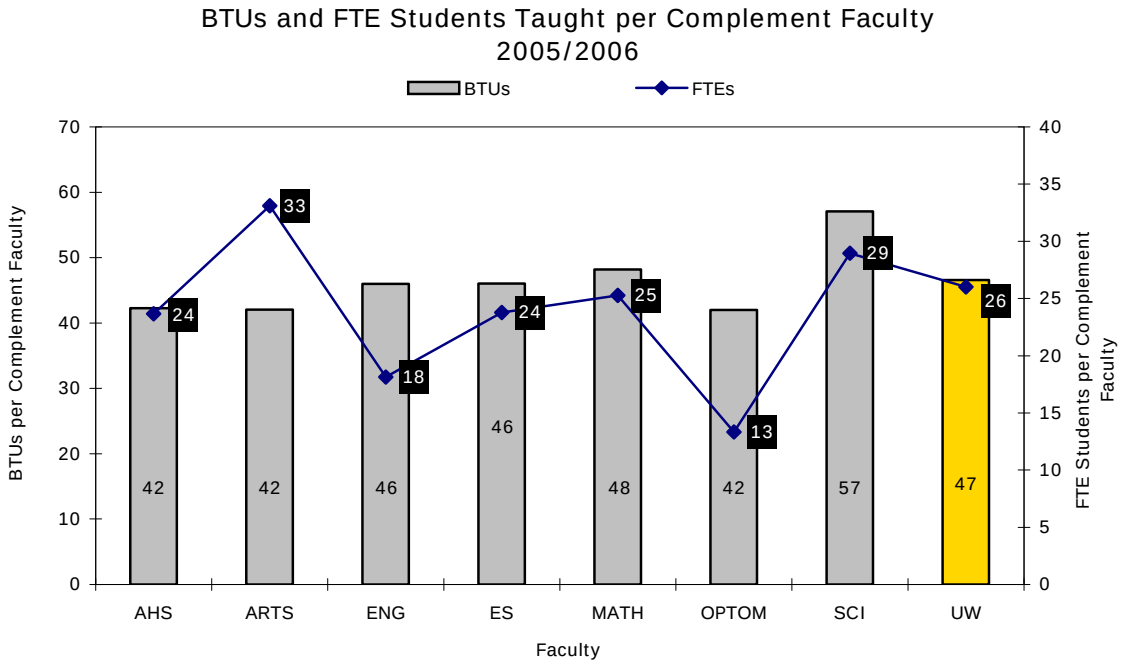
[4] Source: G10 Data Exchange, G10 university names are suppressed in accordance with our data exchange protocol.

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 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.

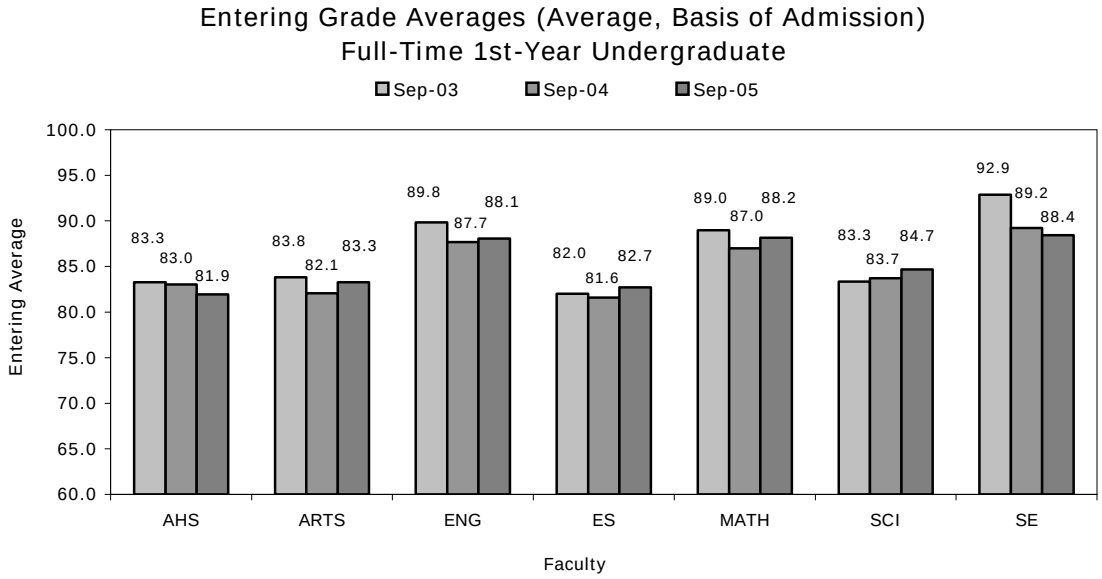
Figure 1.2.B



1.3. Grade Averages

Entering grade average is one indicator of the quality of the student. The first chart shows the average entering grades of students registered in each Faculty, for the most recent three years.

Figure 1.3.A



To better understand the range of entering averages we present the break out of the 25th and 75th percentiles. For example, in 2005, for the Faculty of Arts, we see that the average entering grade was 83.3 per cent; we see the 25th percentile entering grade average was 78.8 per cent and the 75th percentile entering grade average was 87.8 per cent. These measures tell us that 75 per cent of the students registered in the Faculty of Arts, in fall 2005, had a grade average higher than 78.8 per cent and 25 per cent had a grade average higher than 87.8 per cent.

Figure 1.3.B[5]

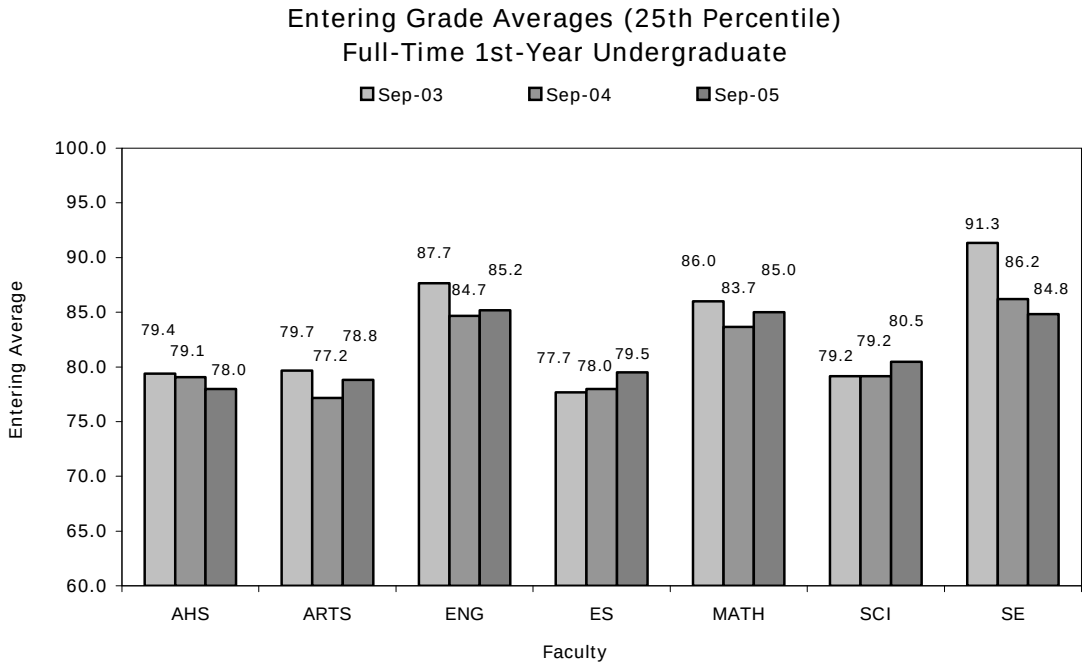
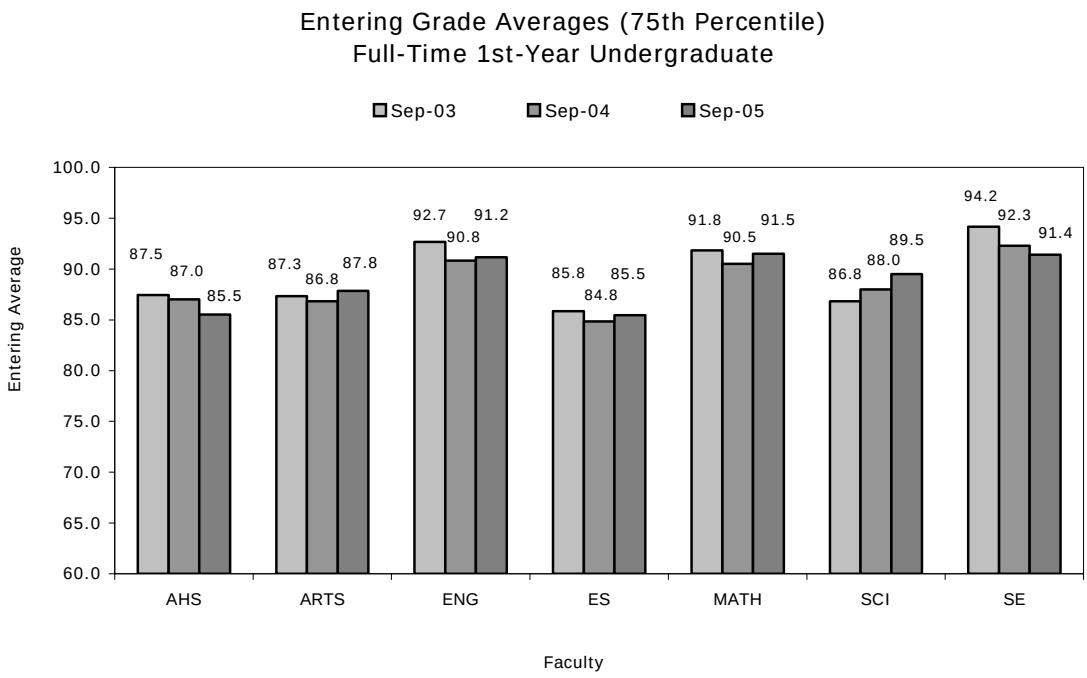


Figure 1.3.C[6]

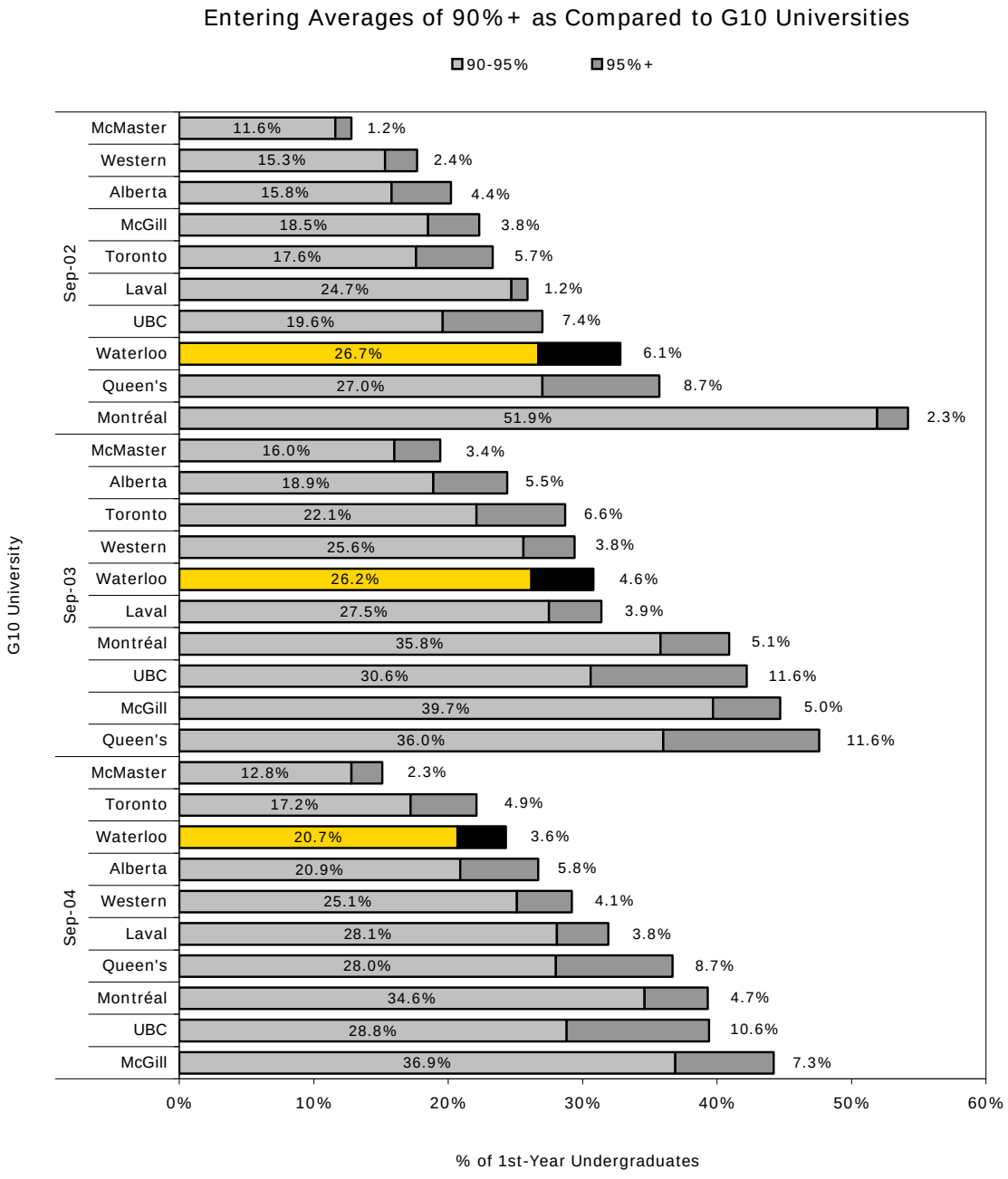


[5] The 25th Percentile means that 75 per cent of students entered with grade averages higher than the mark indicated.

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

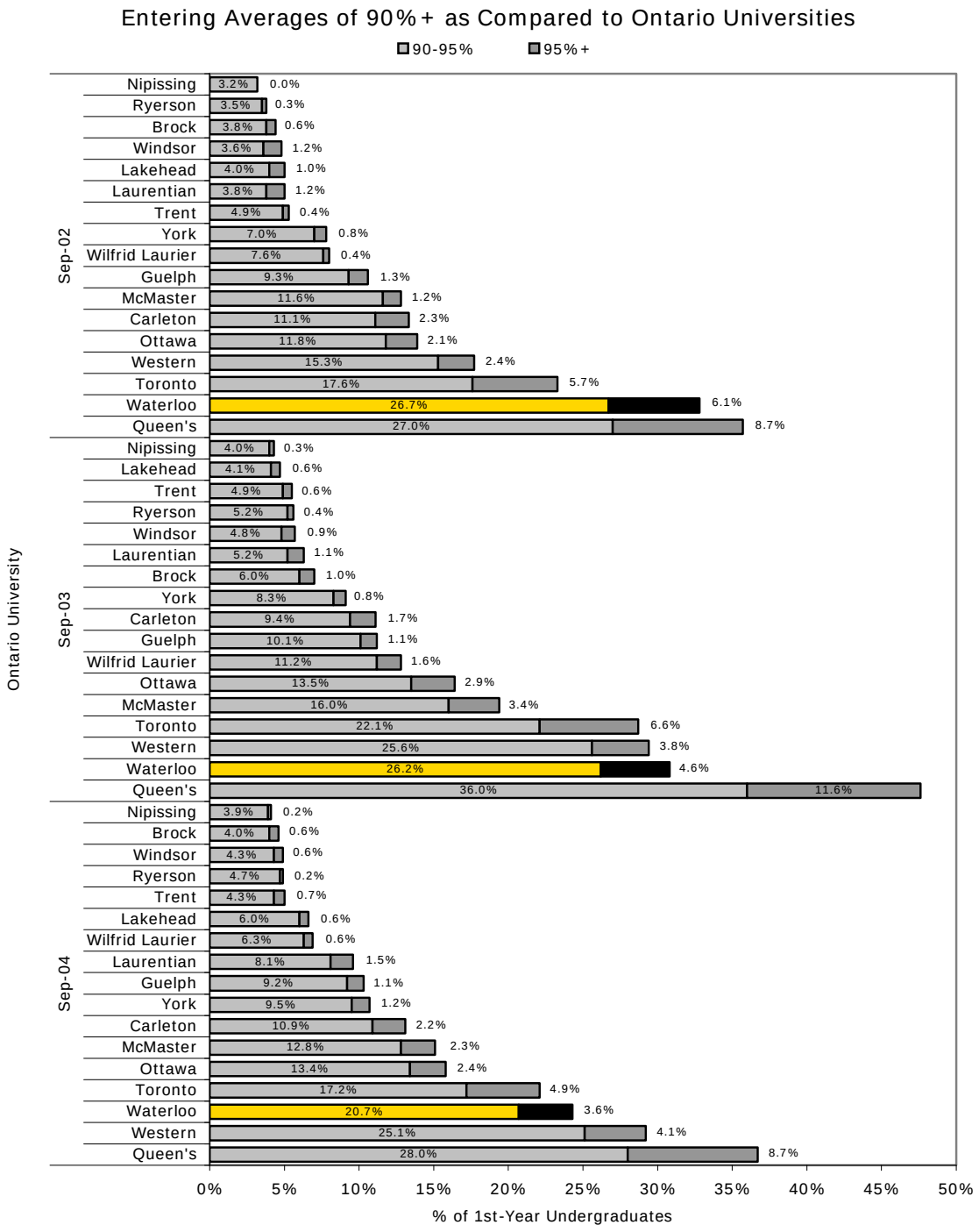
At Waterloo we seek to admit the brightest students possible. In fall 2005, Waterloo established The President's Scholarship to guarantee a minimum $2,000 scholarship to all students with an incoming average of over 90 per cent. In fall 2006, Waterloo established a $1,000 scholarship for students with an 85-90 per cent average.

Figure 1.3.D[7]



[7] Source: Maclean's Rankings 2003, 2004 and 2005.

Figure 1.3.E[8]



[8] Source: Maclean's Rankings 2003, 2004, 2005.

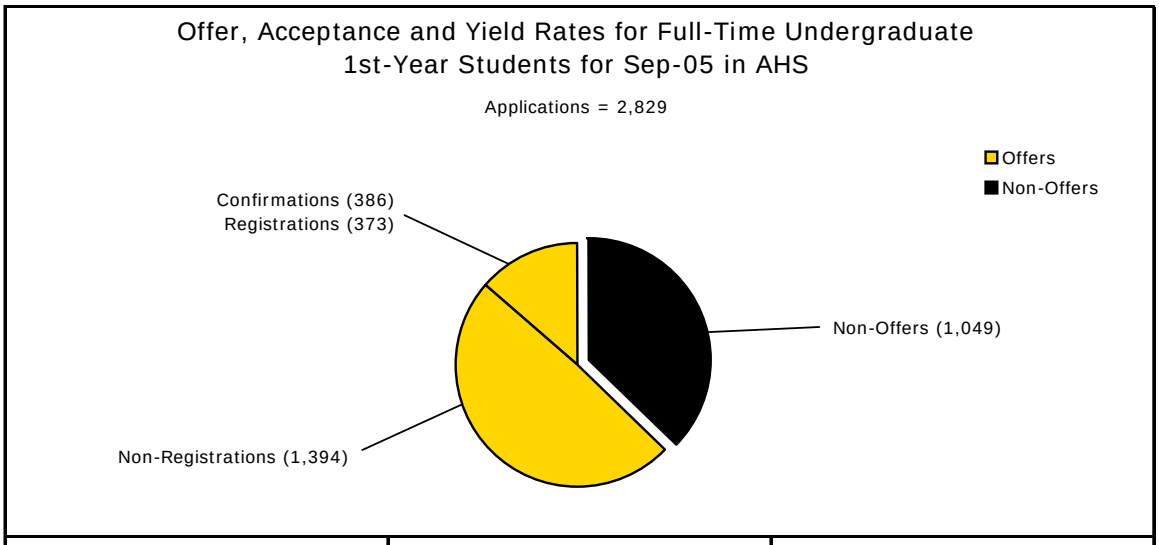
1.4. Offer, Acceptance, and Yield Rates

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 to whom to make offers. Depending on the anticipated acceptance rate, the answer may be 150, 200 or even 600 students.

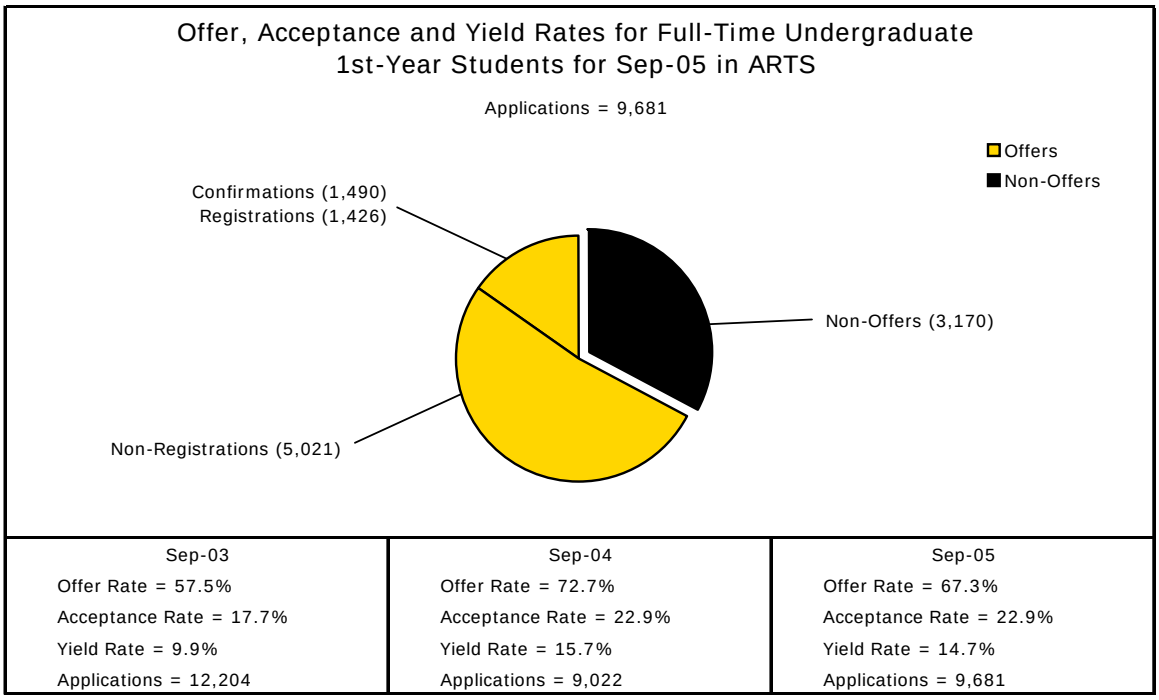
Figure 1.4.A through Figure 1.4.G show three recent years of application activity including changes in activity levels in each Faculty. The 2003 rates may seem anomalous at first, but 2003 was the final year of Ontario's elimination of the fifth year of secondary school, resulting in graduates of Grade 12 and Grade 13 applying to university at the same time—the so-called 'double cohort.'

Figure 1.4.A



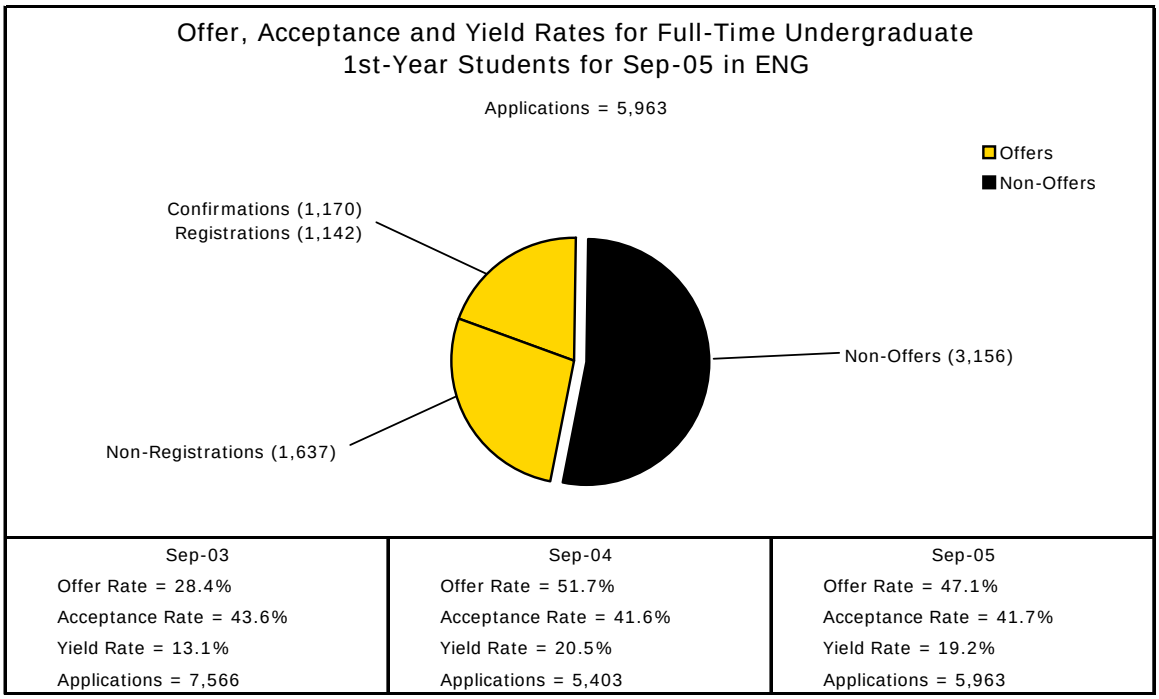
Sep-03	Sep-04	Sep-05
Offer Rate = 57.6%	Offer Rate = 54.1%	Offer Rate = 62.9%
Acceptance Rate = 28.0%	Acceptance Rate = 23.2%	Acceptance Rate = 21.7%
Yield Rate = 15.7%	Yield Rate = 12.0%	Yield Rate = 13.2%
Applications = 3,241	Applications = 3,183	Applications = 2,829

Figure 1.4.B



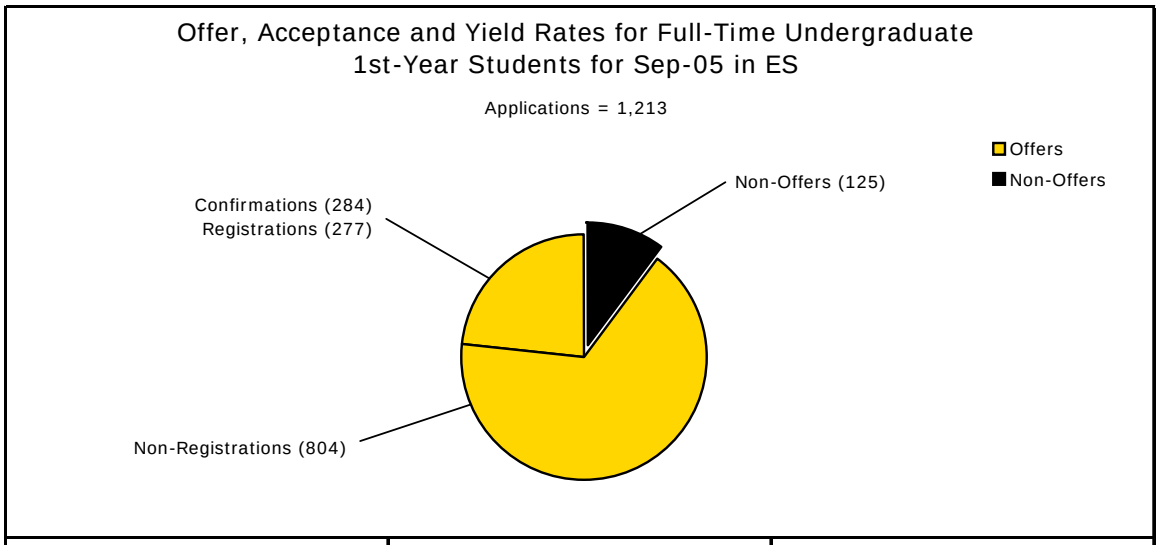
Sep-03	Sep-04	Sep-05
Offer Rate = 57.5%	Offer Rate = 72.7%	Offer Rate = 67.3%
Acceptance Rate = 17.7%	Acceptance Rate = 22.9%	Acceptance Rate = 22.9%
Yield Rate = 9.9%	Yield Rate = 15.7%	Yield Rate = 14.7%
Applications = 12,204	Applications = 9,022	Applications = 9,681

Figure 1.4.C



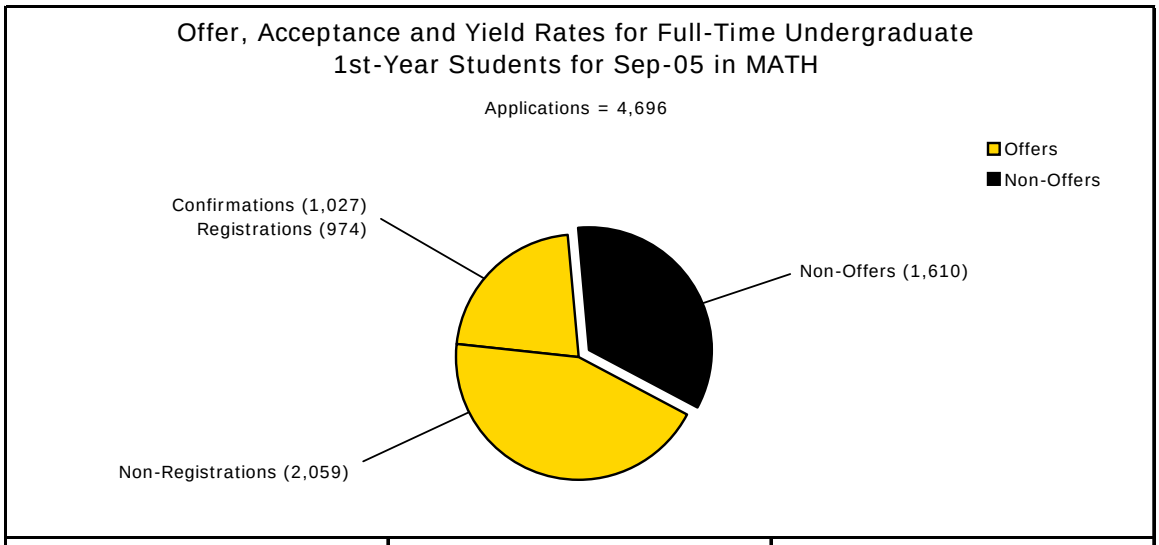
Sep-03	Sep-04	Sep-05
Offer Rate = 28.4%	Offer Rate = 51.7%	Offer Rate = 47.1%
Acceptance Rate = 43.6%	Acceptance Rate = 41.6%	Acceptance Rate = 41.7%
Yield Rate = 13.1%	Yield Rate = 20.5%	Yield Rate = 19.2%
Applications = 7,566	Applications = 5,403	Applications = 5,963

Figure 1.4.D



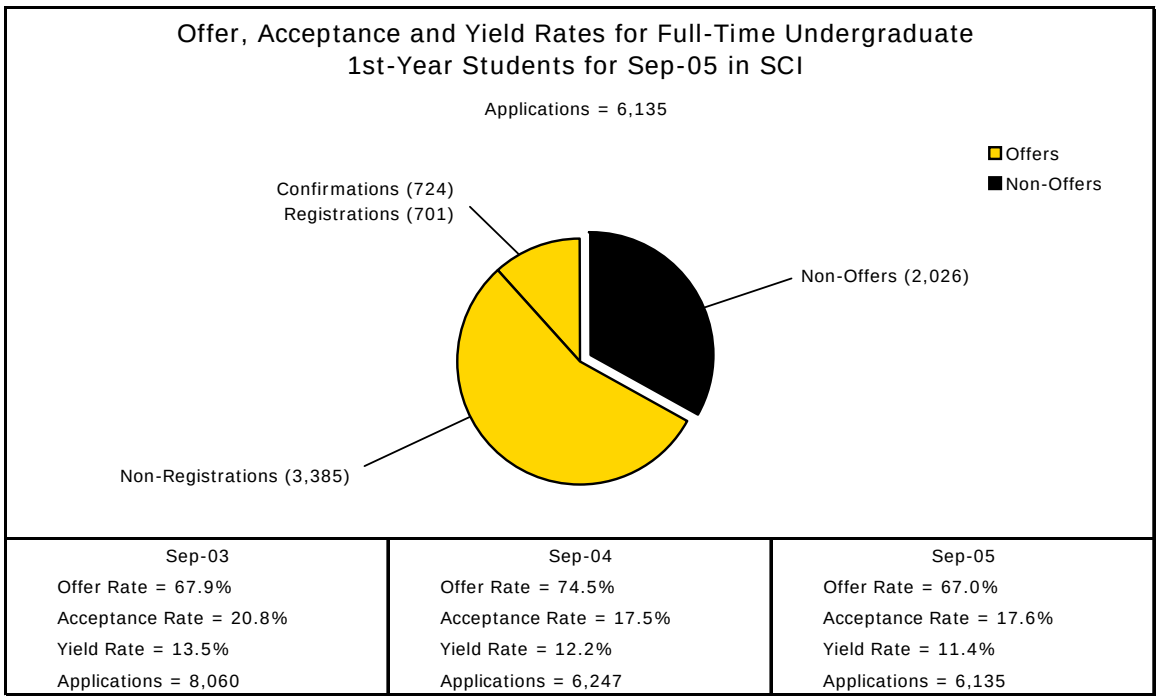
Sep-03	Sep-04	Sep-05
Offer Rate = 95.4%	Offer Rate = 89.8%	Offer Rate = 89.7%
Acceptance Rate = 27.7%	Acceptance Rate = 24.7%	Acceptance Rate = 26.1%
Yield Rate = 25.6%	Yield Rate = 21.2%	Yield Rate = 22.8%
Applications = 1,391	Applications = 1,230	Applications = 1,213

Figure 1.4.E



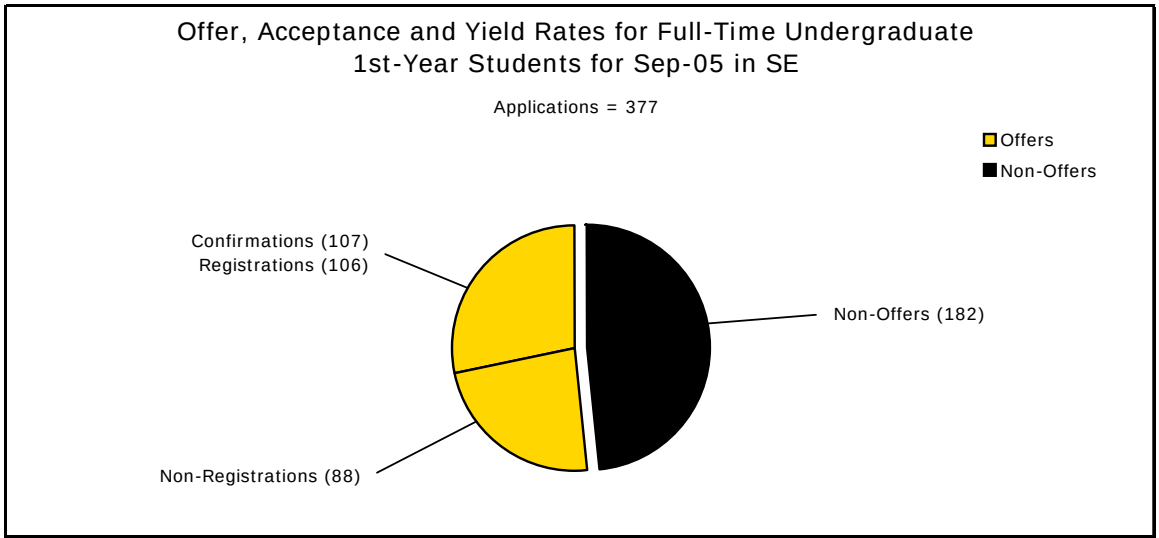
Sep-03	Sep-04	Sep-05
Offer Rate = 59.3%	Offer Rate = 72.6%	Offer Rate = 65.7%
Acceptance Rate = 30.7%	Acceptance Rate = 32.2%	Acceptance Rate = 33.3%
Yield Rate = 16.9%	Yield Rate = 21.6%	Yield Rate = 20.7%
Applications = 6,501	Applications = 4,901	Applications = 4,696

Figure 1.4.F



Sep-03	Sep-04	Sep-05
Offer Rate = 67.9%	Offer Rate = 74.5%	Offer Rate = 67.0%
Acceptance Rate = 20.8%	Acceptance Rate = 17.5%	Acceptance Rate = 17.6%
Yield Rate = 13.5%	Yield Rate = 12.2%	Yield Rate = 11.4%
Applications = 8,060	Applications = 6,247	Applications = 6,135

Figure 1.4.G



Sep-03	Sep-04	Sep-05
Offer Rate = 23.2%	Offer Rate = 46.8%	Offer Rate = 51.7%
Acceptance Rate = 58.4%	Acceptance Rate = 58.2%	Acceptance Rate = 54.9%
Yield Rate = 14.8%	Yield Rate = 28.9%	Yield Rate = 28.1%
Applications = 695	Applications = 363	Applications = 377

1.5. Geographic Source

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

Figure 1.5.A[9]

Geographic Distribution of 1st-Year Registrants as Reported by City of School Last Attended Sep-05

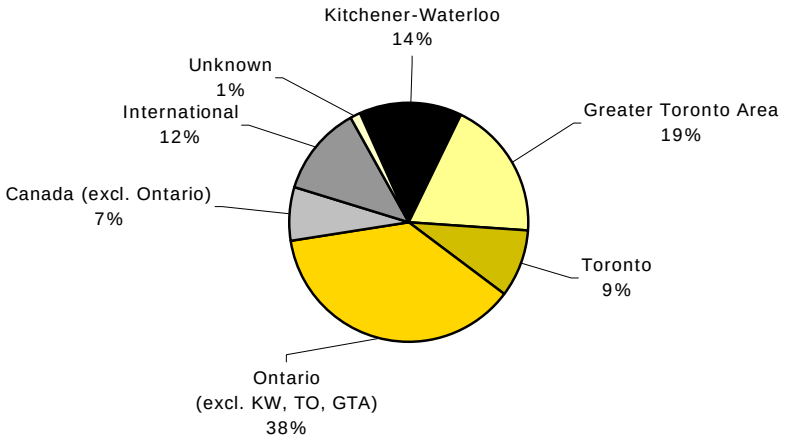
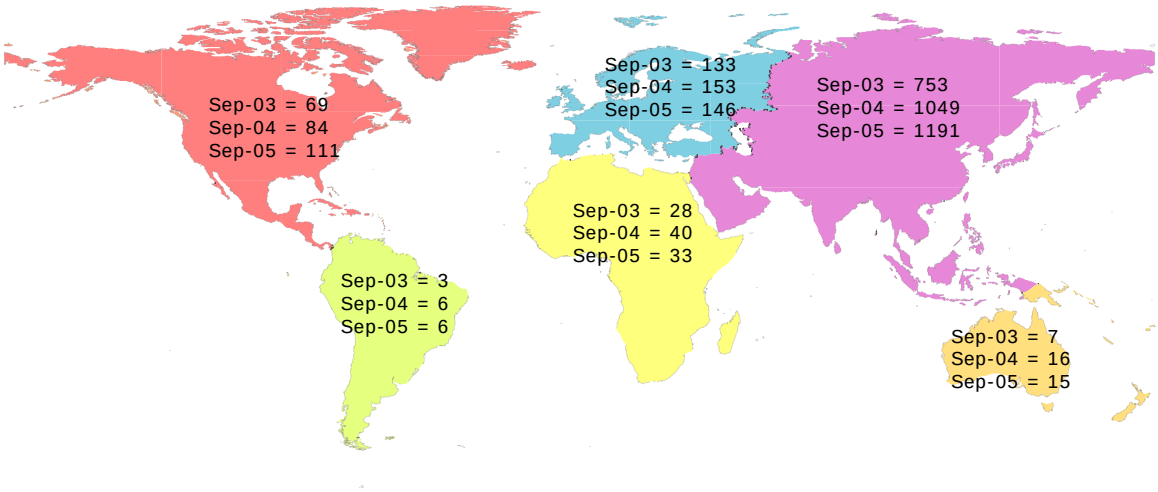


Figure 1.5.B[10]

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



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

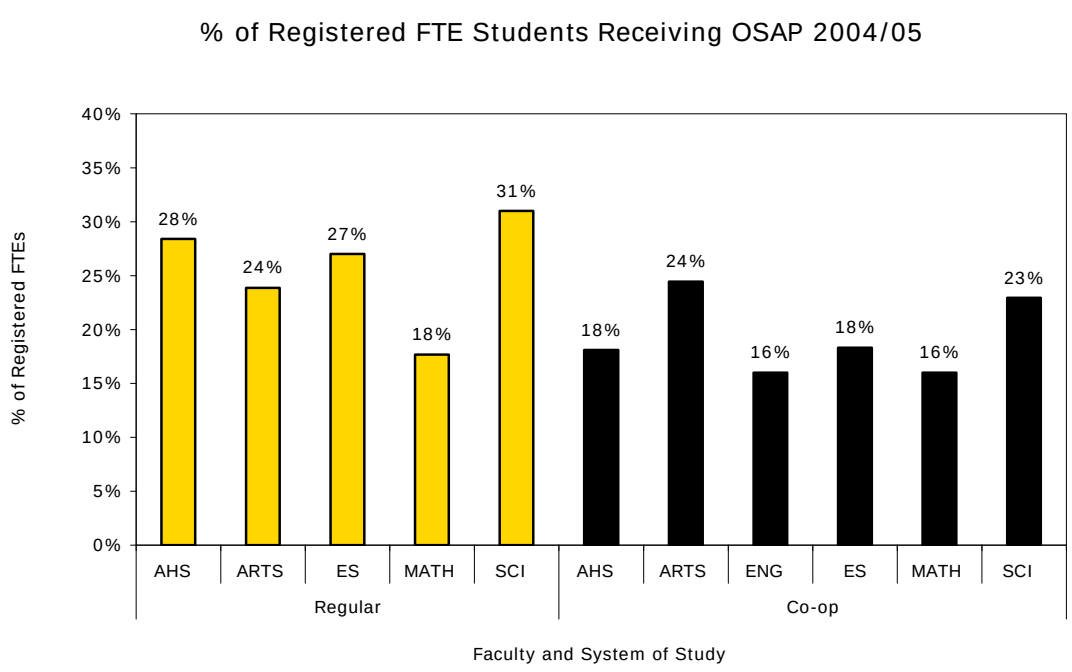
[10] Permanent Residents are not included in this chart because Waterloo's definition of international involvement focuses more on students who have recently come from another country than those students who have been in Canada for a number of years and have become Permanent Residents. Continental North America excludes Canada. Source: USIS 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, Waterloo 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



We expect lower participation rates from our students in co-operative education. Surprisingly, in 2004/05 the average OSAP paid to co-op students was higher than that paid to students studying in the regular stream. This is a change from last year and warrants monitoring and further analyses.

Figure 1.6.B

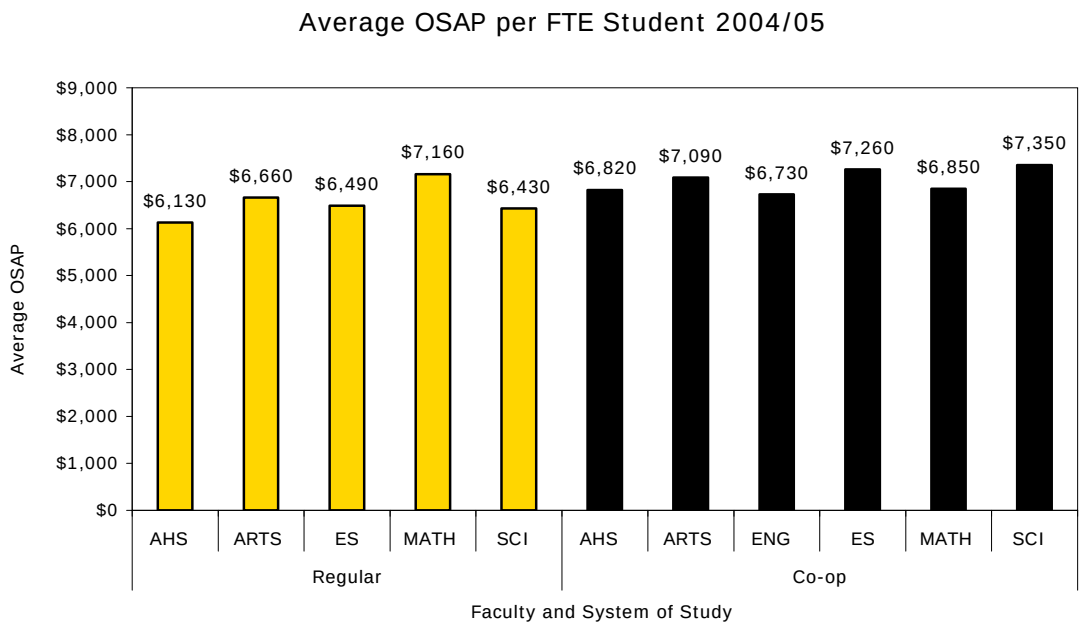


Figure 1.6.C

Financial Support to Undergraduate Regular FTE Students 2004/05							
Faculty	OSAP	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$1,648,000	$61,000	$193,000	$177,000	$2,078,000	$6,521	34%
ARTS	$8,301,000	$408,000	$1,314,000	$748,000	$10,770,000	$6,910	30%
ES	$1,055,000	$15,000	$154,000	$61,000	$1,286,000	$7,082	30%
MATH	$2,619,000	$360,000	$575,000	$147,000	$3,701,000	$8,050	22%
SCI	$5,027,000	$131,000	$672,000	$408,000	$6,238,000	$7,144	35%

Figure 1.6.D

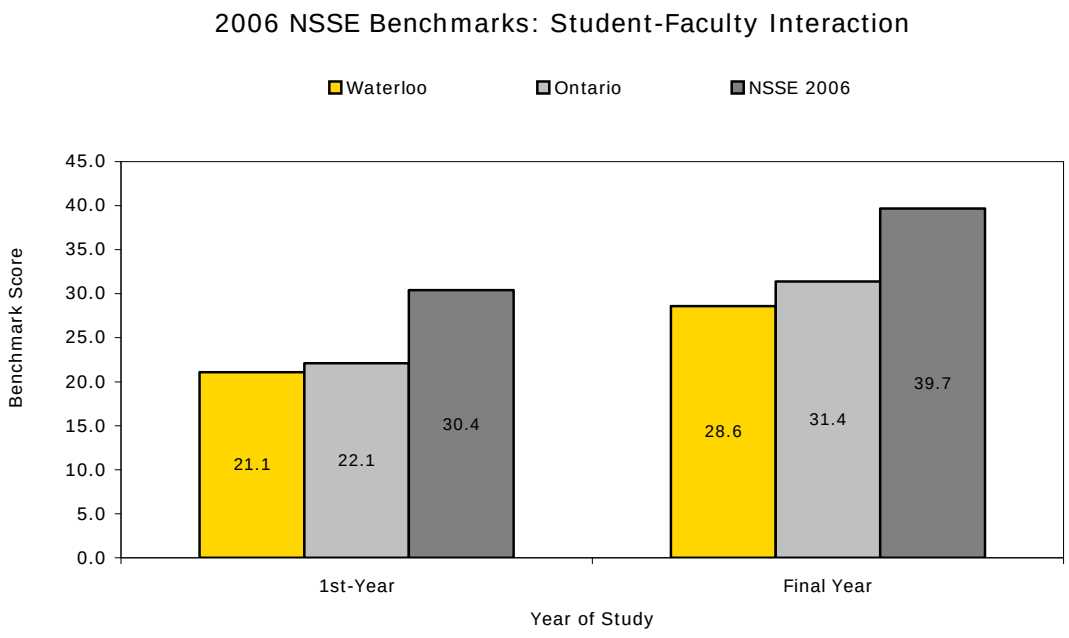
Financial Support to Undergraduate Co-op FTE Students 2004/05							
Faculty	OSAP	Scholarships	Bursaries	Other (Non-UW)	Total Support	Average Support	% Supported
AHS	$700,000	$90,000	$187,000	$196,000	$1,173,000	$7,535	27%
ARTS	$1,855,000	$266,000	$447,000	$567,000	$3,135,000	$7,235	40%
ENG	$4,143,000	$1,305,000	$1,841,000	$1,370,000	$8,659,000	$7,558	31%
ES	$673,000	$56,000	$145,000	$97,000	$970,000	$7,270	26%
MATH	$3,040,000	$1,120,000	$787,000	$966,000	$5,913,000	$7,444	29%
SCI	$1,427,000	$135,000	$351,000	$259,000	$2,173,000	$7,697	33%

1.7. Student Engagement

Knowing and understanding how engaged students are with the educational process is the first step toward building a better environment. Student interaction is complex and multi-faceted. Being able to compare ourselves with other institutions helps us to see where we do well, and where we fall behind in terms of student engagement. In 2006, all Ontario universities participated in the National Survey of Student Engagement (NSSE) administered through Indiana University. With 557 universities participating in total, NSSE assesses the extent to which students are involved in campus life and their academic program. NSSE gathers the responses to approximately 125 questions into five benchmarks, which can then be used to compare results among peer institutions.

Students learn firsthand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom. As a result, their instructors become role models, mentors, and guides for continuous life-long learning institutions. Figure 1.7.A measures the extent to which students work directly with individual faculty members. These interactions might include discussing grades or assignments, talking about career plans, discussing ideas from readings or lectures outside of class, and working with faculty members on activities other than coursework. Waterloo's performance is roughly average in the student-faculty interaction benchmark as compared with other Ontario institutions, but falls below the total NSSE institutions. These results have been cited by former Premier Bob Rae in his postsecondary review as evidence that Ontario universities are significantly under-resourced as compared to U.S. institutions.

Figure 1.7.A[11]

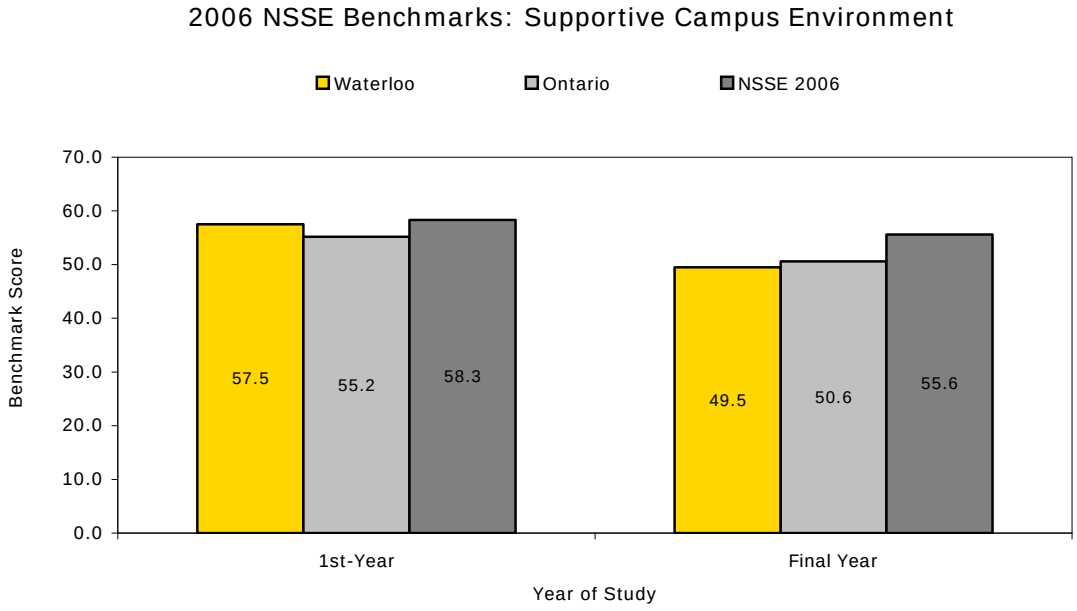


[11] Source: The National Survey of Student Engagement.

Students perform better and are more satisfied at institutions that are committed to their success and cultivate positive working and social relations among different groups on campus. Figure 1.7.B measures the extent to which students receive support from the rest of the campus, including faculty members, administrative staff and other students. In this area we ask many questions, such as: Does the campus environment provide the support mechanisms necessary for academic success? For coping with non-academic responsibilities? For thriving socially? What is the quality of the relationship with other students, faculty members or administrative staff?

On the supportive campus environment measure, Waterloo performs quite well, presenting the highest value for year-one students in our peer group. This performance drops slightly with upper-year students. When we examine the questions underlying this benchmark for co-op and regular students, we find a much larger drop in ratings between first-year and upper-year co-op students than between first-year and upper-year regular students. This is clearly something to which we should pay close attention moving forward.

Figure 1.7.B[12]

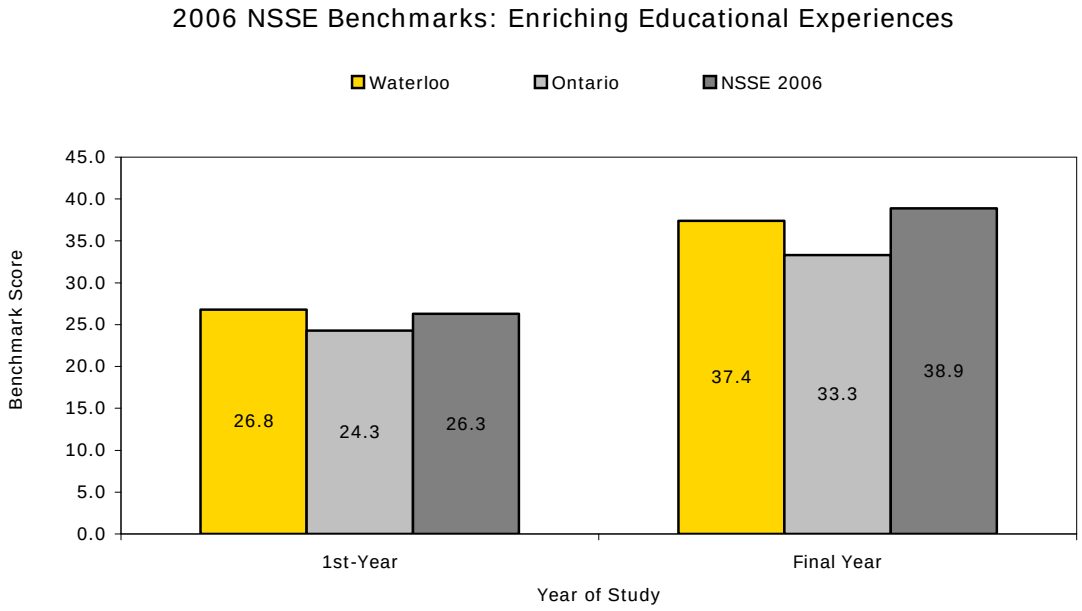


Complementary learning opportunities in and out of class augment academic programs. Diversity experiences teach students valuable things about themselves and others. Technology facilitates collaboration between peers and instructors. Internships, community service, senior capstone courses, and especially co-operative education, provide opportunities to integrate and apply knowledge. Involvement in co-curricular activities such as campus clubs, publications, student government, and sports are measures that contribute to the overall campus experience.

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

Figure 1.7.C measures the breadth of student involvement and the type of educational environment experienced. With the enriching educational experience benchmark, Waterloo has the highest value for first-year students. For upper-year students, we fare better than the other Ontario universities, but fall a bit short of the total NSSE institutions. We believe our students give us significantly higher results because co-op experiences are part of this benchmark. Since we are the largest co-op institution in the North America, we expect to do well in this measure.

Figure 1.7.C[13]



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

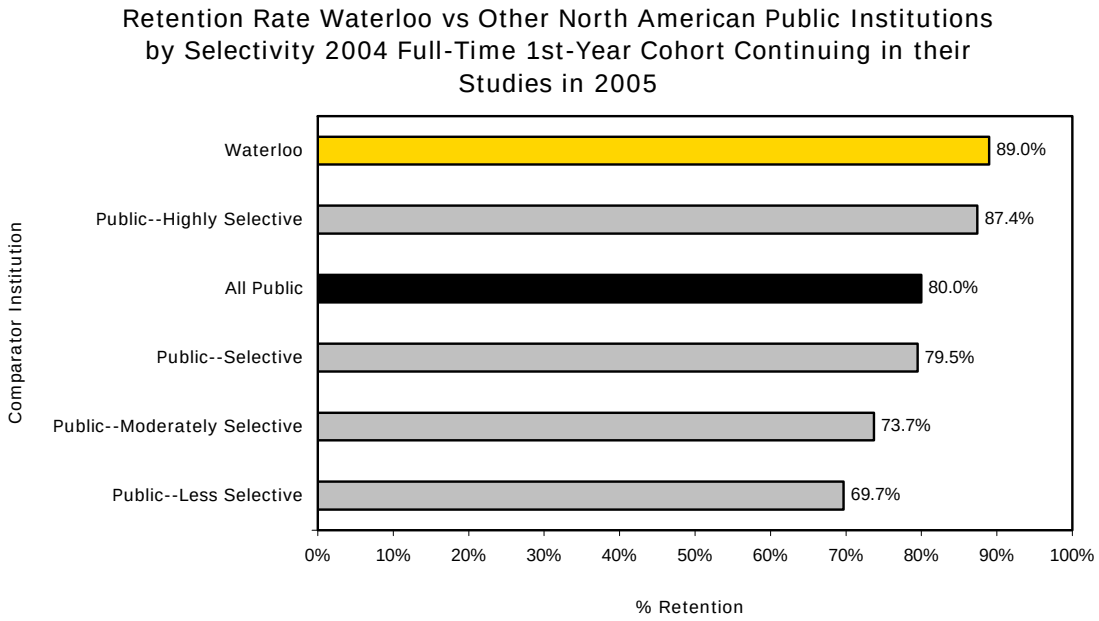
1.8. Retention, Graduation, Degrees Granted and Degree Distribution

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, Waterloo will use the CSRDE results to help us measure our performance against similar institutions across North America.

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

Figure 1.8.A indicates that 89 per cent of Waterloo's full-time, first-year students who entered into a first-entry undergraduate program in 2004 continued their studies in 2005. This is compared to an 87.4 per cent retention rate cited at highly selective public institutions.

Figure 1.8.A[14]



[14] For the purposes of CSRDE, Software Engineering is split 50:50 between Math and Engineering, Architecture is in Engineering, and includes those students who graduated with a three-year degree.

Figure 1.8.B

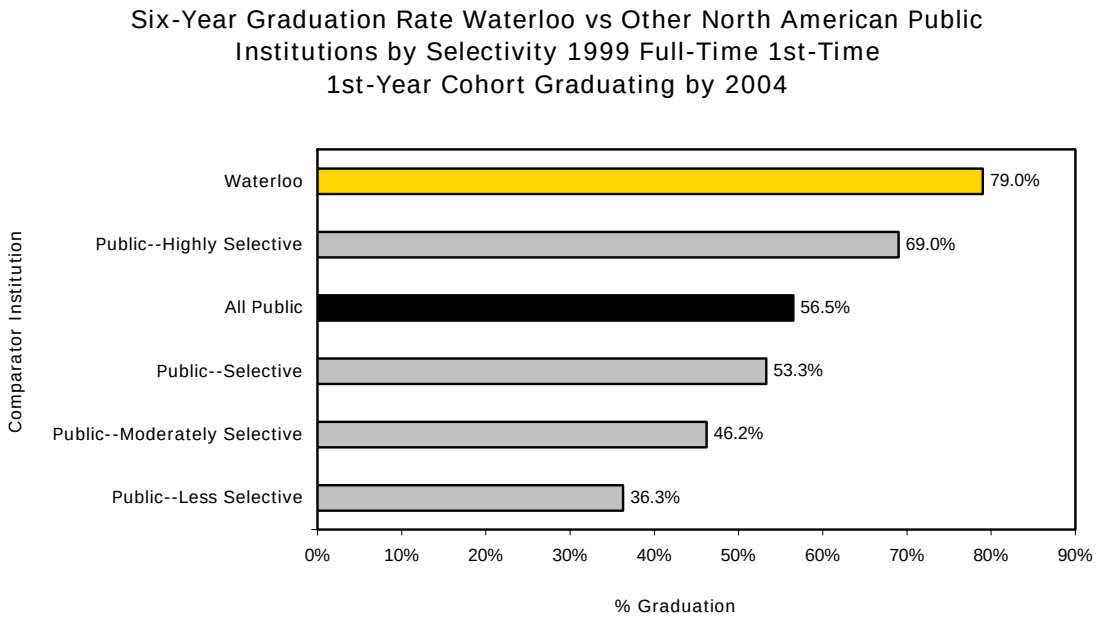
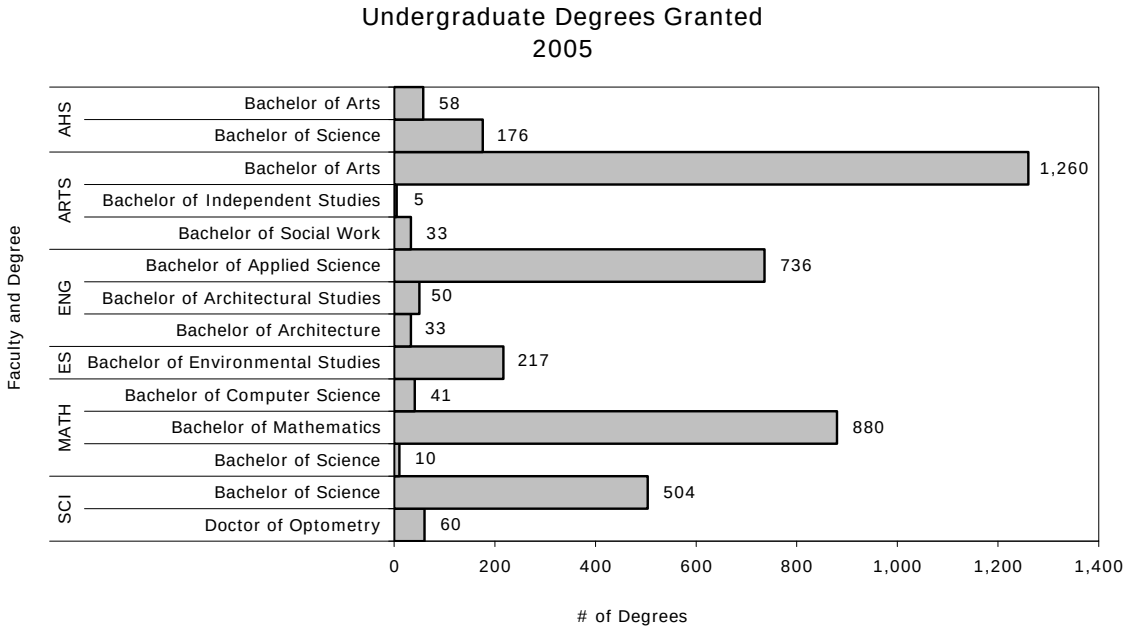


Figure 1.8.C shows the number of undergraduate degrees conferred in 2005 by Faculty and the type of degree granted.

Figure 1.8.C



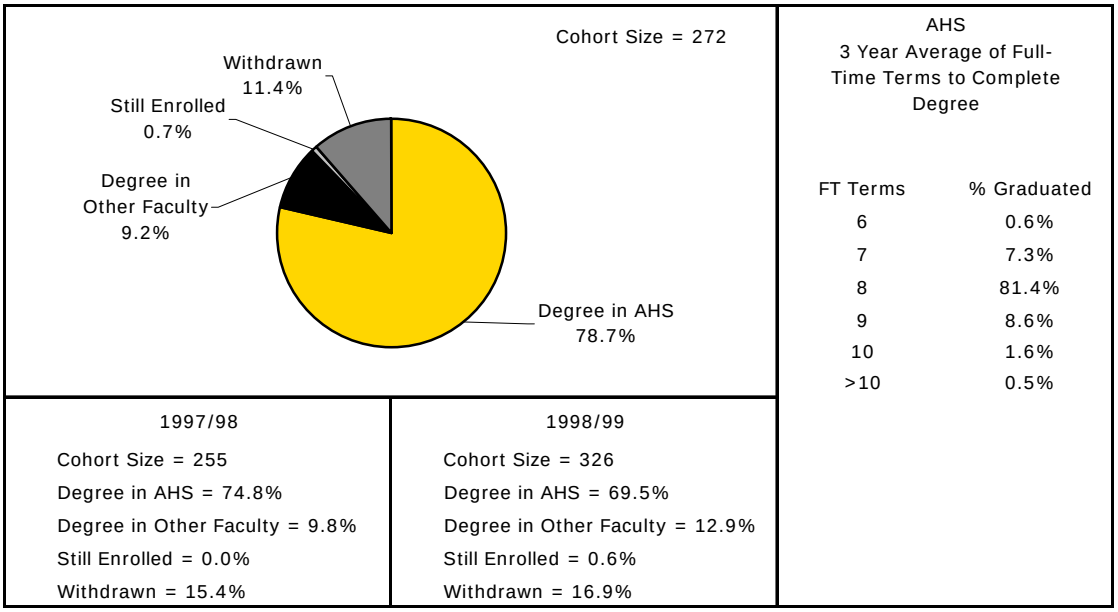
Waterloo also monitors undergraduate degree distribution by academic Faculty. We track each cohort of students to determine the percent who graduate with a degree from their Faculty of first registration, who graduate from another Waterloo Faculty, who are still studying, or who have withdrawn. We also 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 1999/00 cohort.

Figure 1.8.D

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in AHS

(Degree Completion as of May 2006 Convocation)



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

FT Terms	% Graduated
6	0.6%
7	7.3%
8	81.4%
9	8.6%
10	1.6%
>10	0.5%

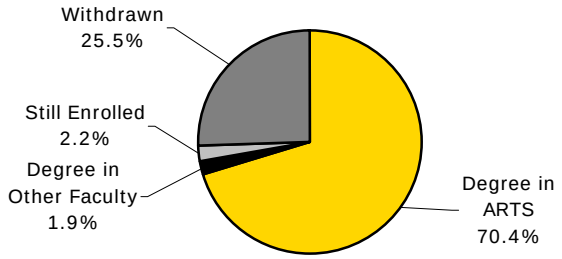
1997/98	1998/99
Cohort Size = 255	Cohort Size = 326
Degree in AHS = 74.8%	Degree in AHS = 69.5%
Degree in Other Faculty = 9.8%	Degree in Other Faculty = 12.9%
Still Enrolled = 0.0%	Still Enrolled = 0.6%
Withdrawn = 15.4%	Withdrawn = 16.9%

Figure 1.8.E

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ARTS

(Degree Completion as of May 2006 Convocation)

Cohort Size = 1,162



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

FT Terms	% Graduated
4	0.7%
5	1.6%
6	12.8%
7	7.5%
8	55.9%
9	14.3%
10	5.6%
>10	1.6%

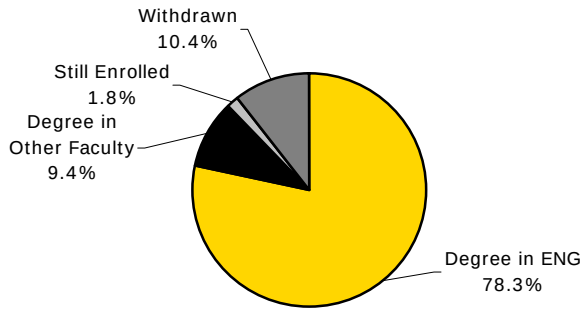
1997/98	1998/99
Cohort Size = 891	Cohort Size = 956
Degree in ARTS = 71.3%	Degree in ARTS = 70.1%
Degree in Other Faculty = 2.5%	Degree in Other Faculty = 2.2%
Still Enrolled = 1.1%	Still Enrolled = 1.6%
Withdrawn = 25.1%	Withdrawn = 26.2%

Figure 1.8.F

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ENG

(Degree Completion as of May 2006 Convocation)

Cohort Size = 978



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

FT Terms	% Graduated
7	1.7%
8	85.5%
9	8.8%
10	3.0%
>10	0.9%

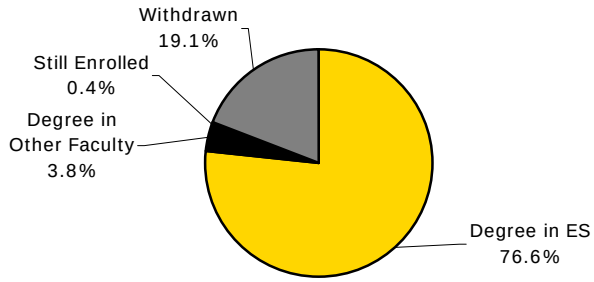
1997/98	1998/99
Cohort Size = 838	Cohort Size = 795
Degree in ENG = 78.2%	Degree in ENG = 79.7%
Degree in Other Faculty = 10.1%	Degree in Other Faculty = 10.3%
Still Enrolled = 0.6%	Still Enrolled = 0.4%
Withdrawn = 11.1%	Withdrawn = 9.6%

Figure 1.8.G

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in ES

(Degree Completion as of May 2006 Convocation)

Cohort Size = 235



1997/98	1998/99
Cohort Size = 230	Cohort Size = 217
Degree in ES = 72.6%	Degree in ES = 66.8%
Degree in Other Faculty = 6.5%	Degree in Other Faculty = 9.2%
Still Enrolled = 0.0%	Still Enrolled = 0.9%
Withdrawn = 20.9%	Withdrawn = 23.0%

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

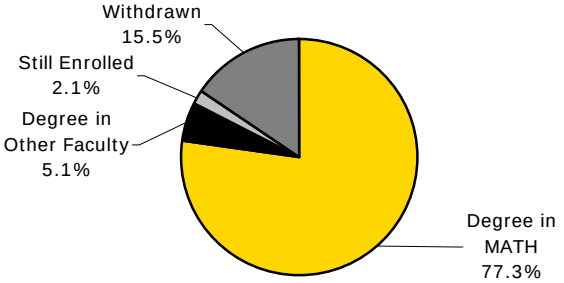
FT Terms	% Graduated
4	0.4%
5	0.4%
6	4.5%
7	6.3%
8	68.9%
9	14.6%
10	2.6%
>10	2.0%

Figure 1.8.H

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in MATH

(Degree Completion as of May 2006 Convocation)

Cohort Size = 975



1997/98	1998/99
Cohort Size = 953	Cohort Size = 898
Degree in MATH = 74.7%	Degree in MATH = 78.8%
Degree in Other Faculty = 5.2%	Degree in Other Faculty = 6.0%
Still Enrolled = 0.6%	Still Enrolled = 0.4%
Withdrawn = 19.4%	Withdrawn = 14.7%

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

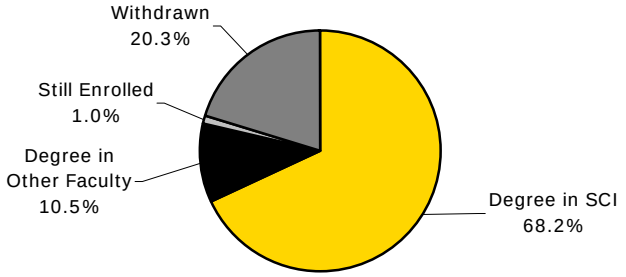
FT Terms	% Graduated
5	0.3%
6	1.6%
7	5.3%
8	61.9%
9	23.6%
10	5.8%
>10	1.5%

Figure 1.8.I

Degree Distribution of the 1999/00 Full-Time, 1st-Time, 1st-Year Undergraduate Cohort in SCI

(Degree Completion as of May 2006 Convocation)

Cohort Size = 688



1997/98	1998/99
Cohort Size = 664	Cohort Size = 560
Degree in SCI = 68.7%	Degree in SCI = 64.3%
Degree in Other Faculty = 7.1%	Degree in Other Faculty = 9.5%
Still Enrolled = 0.3%	Still Enrolled = 1.1%
Withdrawn = 23.9%	Withdrawn = 25.2%

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

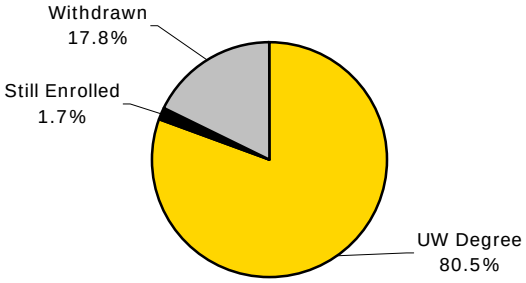
FT Terms	% Graduated
4	0.3%
5	0.4%
6	6.0%
7	4.4%
8	58.8%
9	15.3%
10	7.5%
>10	7.2%

Figure 1.8.J[15]

Degree Distribution of the 1999/00 Full-time, 1st-Time, 1st-Year Undergraduate Cohort for UW

(Degree Completion as of May 2006 Convocation)

Cohort Size = 4,310



1997/98	1998/99
Cohort Size = 3,830	Cohort Size = 3,751
UW Degree = 79.9%	UW Degree = 80.4%
Still Enrolled = 0.6%	Still Enrolled = 0.8%
Withdrawn = 19.5%	Withdrawn = 18.8%

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

FT Terms	% Graduated
4	0.2%
5	0.5%
6	5.9%
7	5.3%
8	63.8%
9	15.3%
10	5.9%
>10	3.0%

[15] 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'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, global engagement, student to faculty ratio, degree completion rates, degrees granted, student support, and the recruitment and retention of excellent students.

2.1. Enrolment

Figure 2.1.A

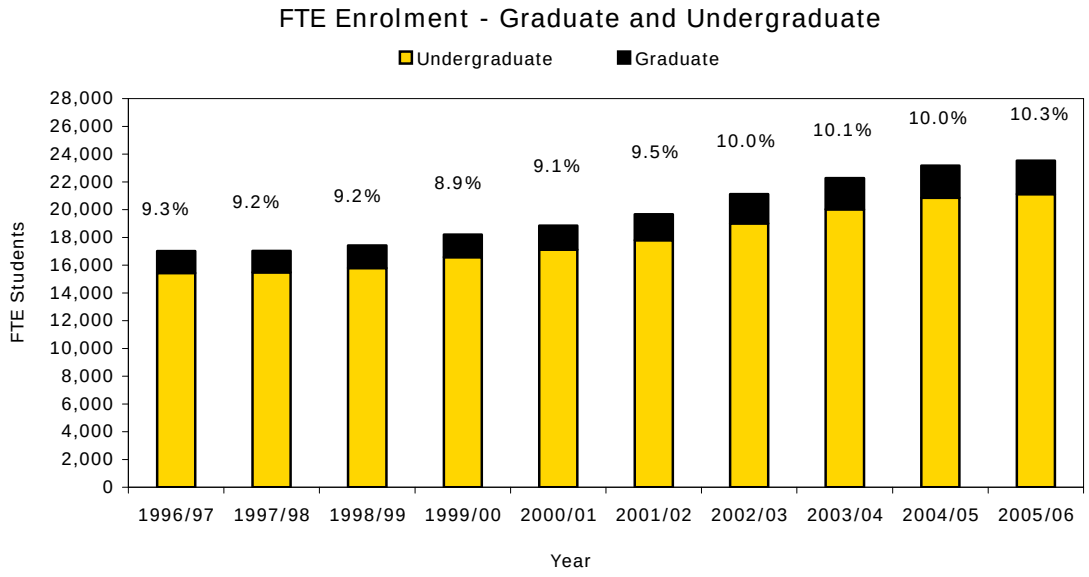


Figure 2.1.B

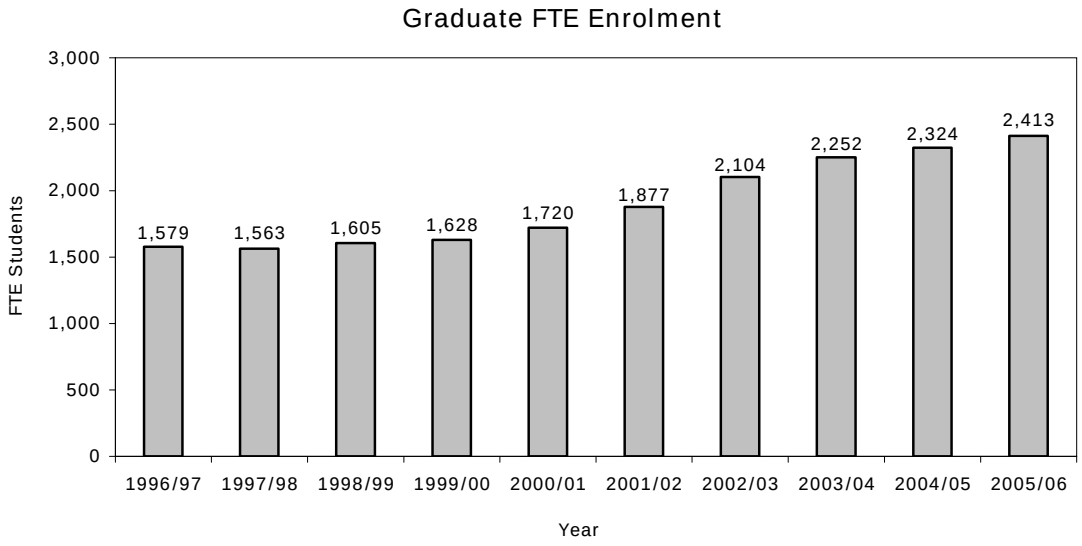


Figure 2.1.C[16]

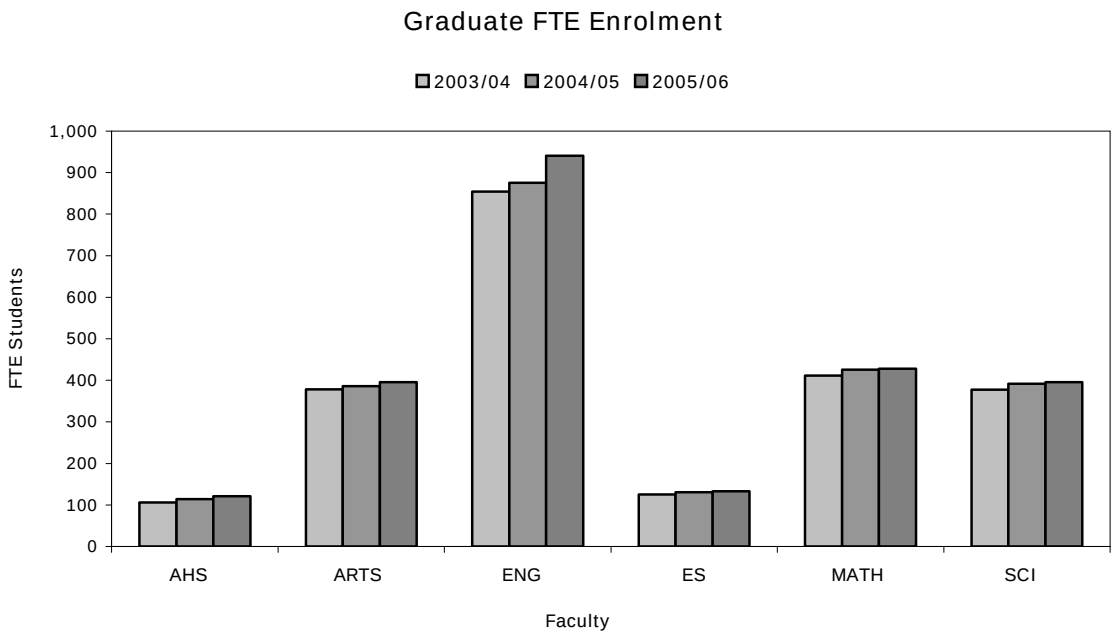
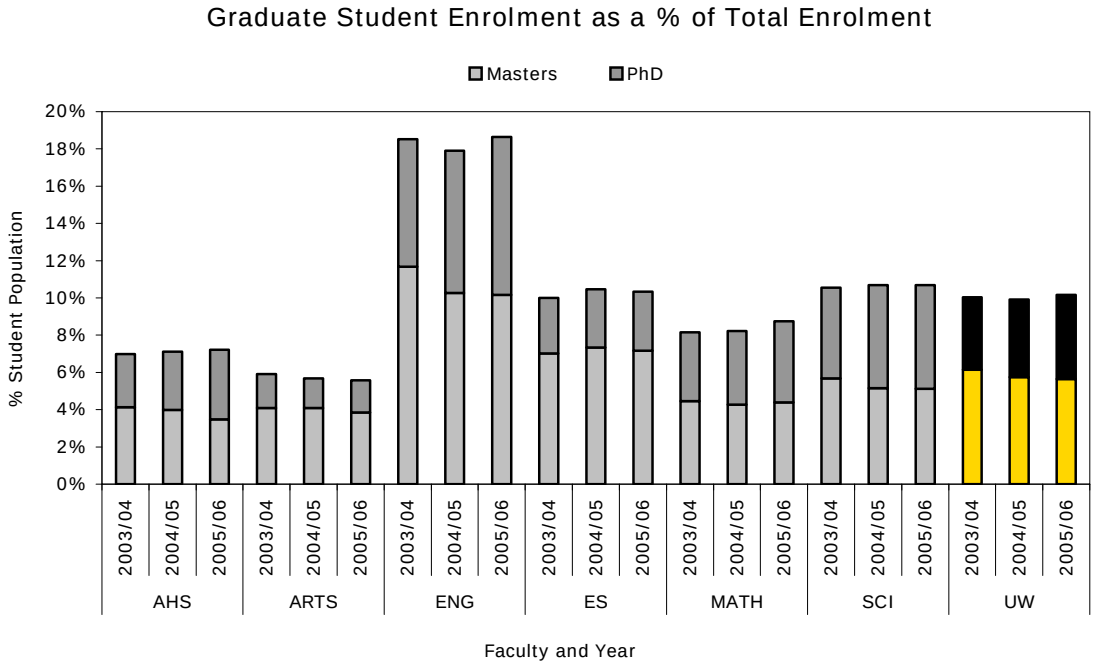


Figure 2.1.D

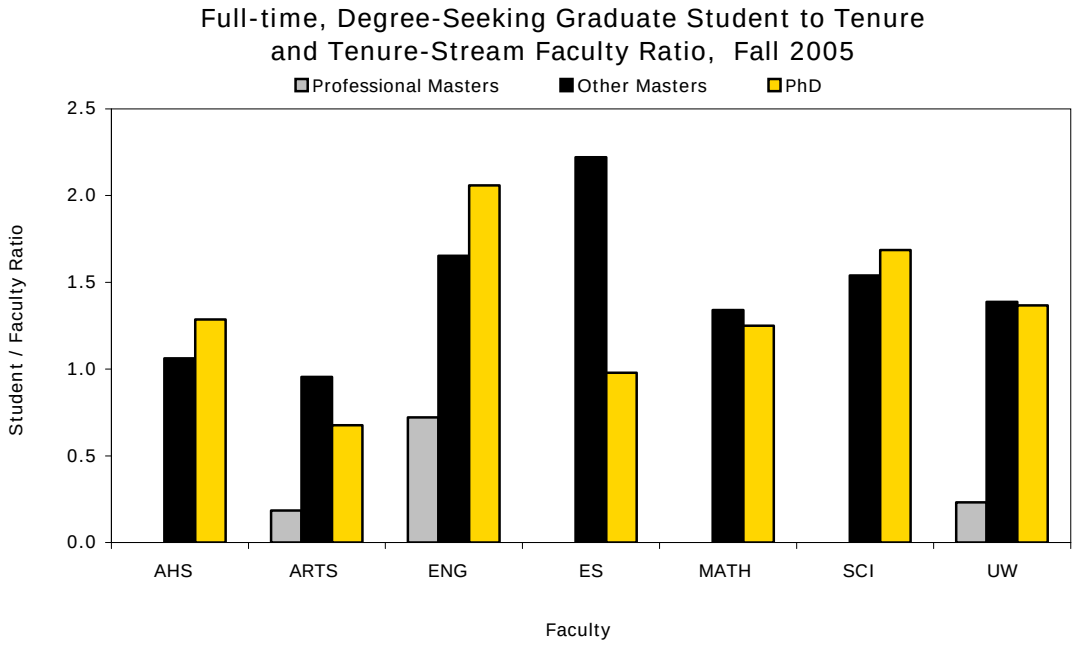


[16]Software Engineering is offered jointly by the Faculties of Engineering and Mathematics and enrolment is split between these two Faculties.

2.2. Student to Faculty Ratio

The student-faculty ratio is considered a reasonable indicator of the quality of education at universities. The more 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 ratios below are intended to represent the approximate availability of faculty members to supervise graduate students. However, we recognize that some faculty members supervise as many as six 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[17]



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 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 RA for two terms in a year, then we would say that he or she received 0.66 FTEs of RA support.

[17] Professional Master's programs at Waterloo 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 FTE students (who are Canadians or Permanent Residents) in a particular Faculty at the master's or doctoral level receiving an external scholarship.

Figure 2.3.A

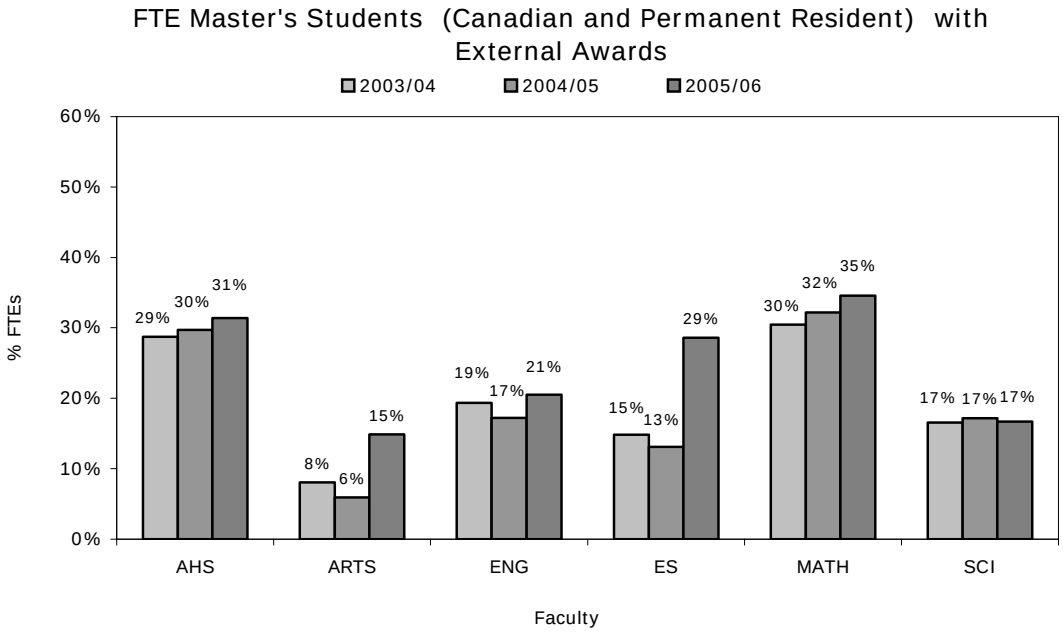


Figure 2.3.B

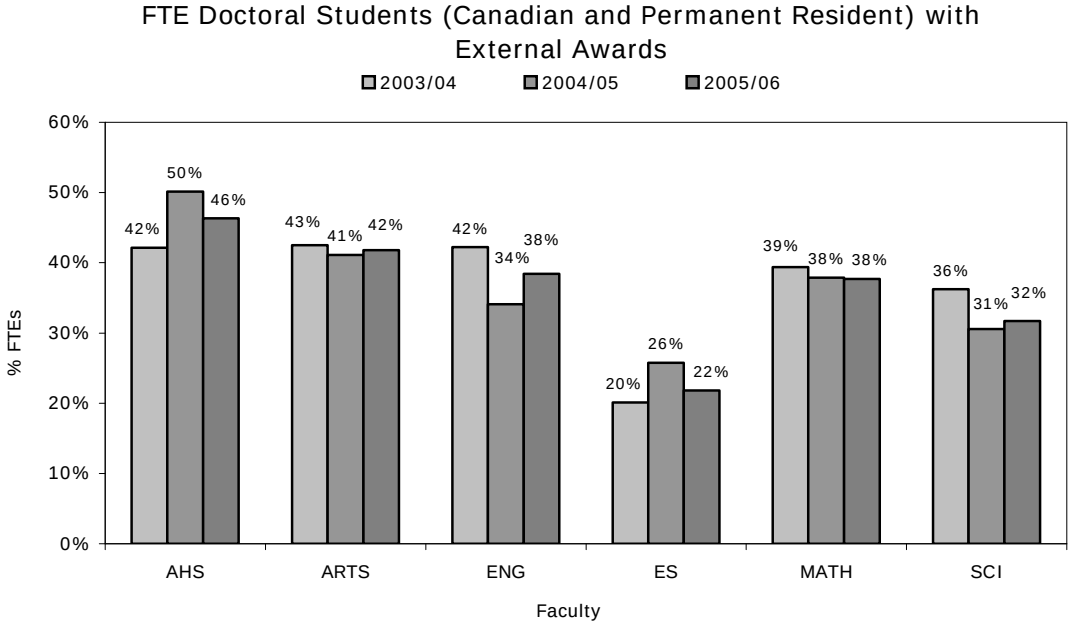
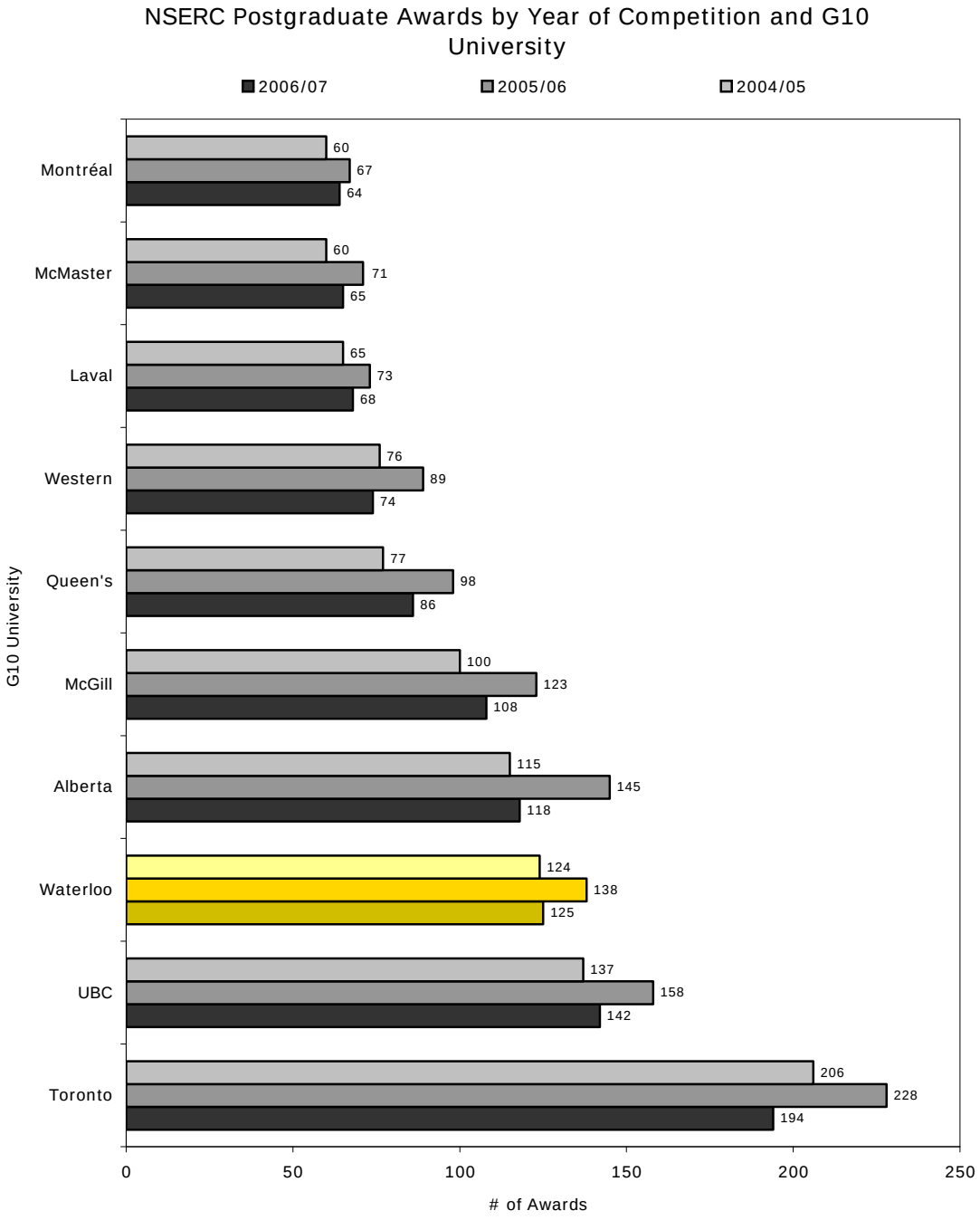


Figure 2.3.C[18]



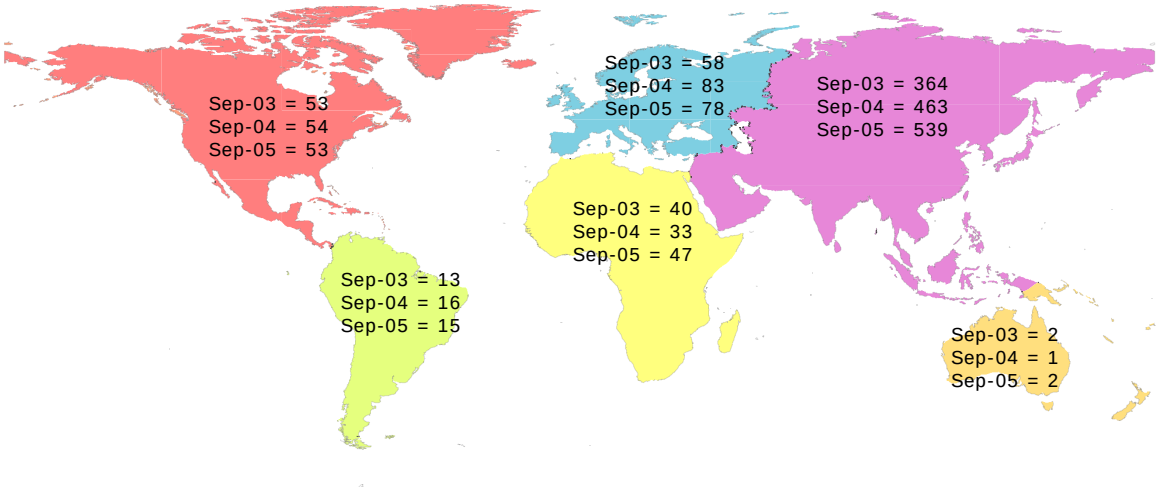
[18] This chart shows National Sciences and Engineering Research Council postgraduate awards to Waterloo students, including those who may have gone on to graduate studies at other institutions. In 2004/05, Canada Graduate Scholarship (CGS) awards were introduced. In 2006/07, fewer awards were made available system-wide due to the higher CGS award value—$200 increase in CGS Master's awards and $14,000 increase in CGS Doctoral awards.

2.4. Geographic Source

Understanding the geographical outreach of the University of Waterloo allows us to determine 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[19]

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



2.5. Graduate Application, Offer and Yield Rates

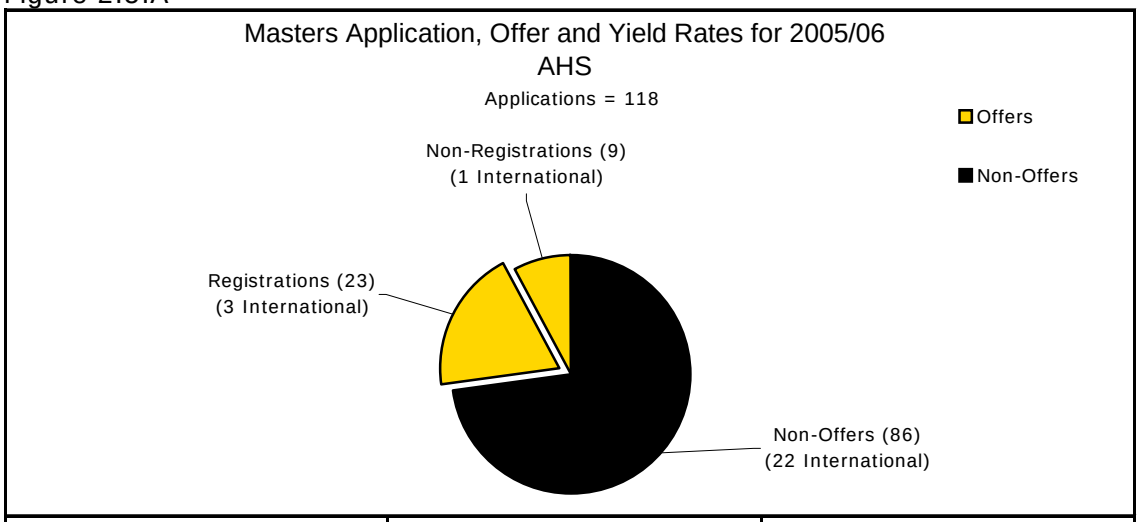
Entry to graduate studies is fundamentally different from the undergraduate experience, particularly in the area of offer and yield rates. Similar to the undergraduate indicator, we track the offer rate (number of offers versus number of applications), and the yield rate (number of registrations versus 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 many 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.

[19] Permanent Residents are not included in this chart because Waterloo'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.

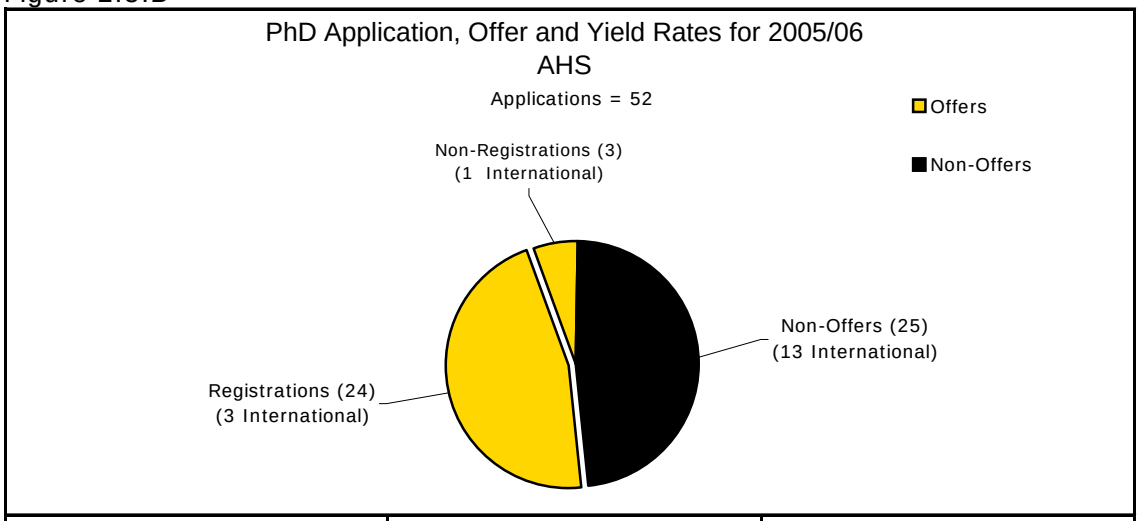
Figure 2.5.A through Figure 2.5.L show numbers of applications and the offer and yield rates for each of the most recent three years, by level of study (Master's or PhD) for each Faculty.

Figure 2.5.A



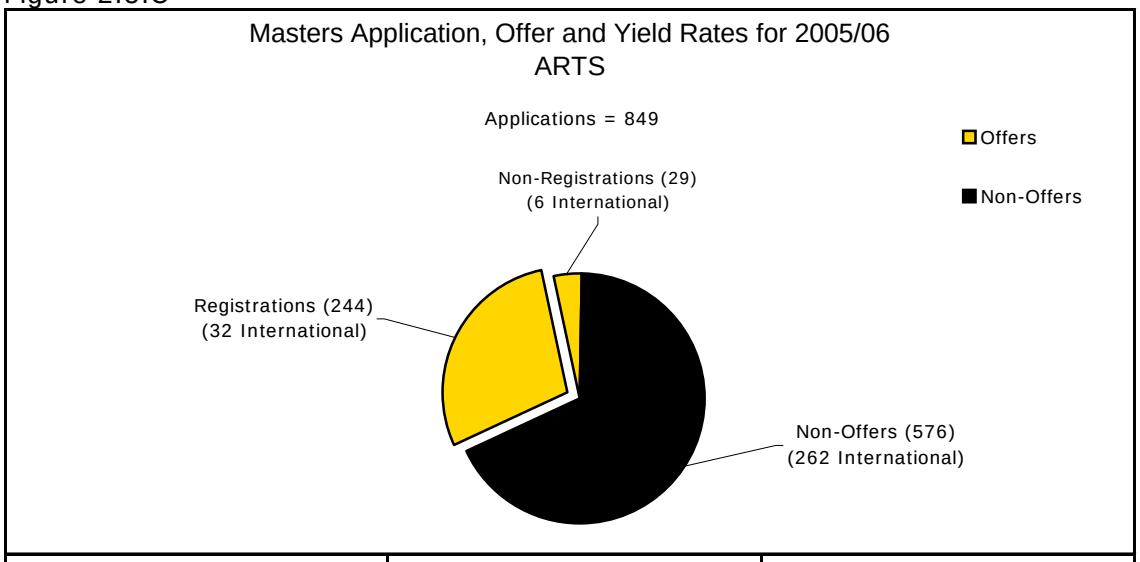
2003/04	2004/05	2005/06
Offer Rate = 34.1%	Offer Rate = 28.9%	Offer Rate = 27.1%
Yield Rate = 27.5%	Yield Rate = 25.6%	Yield Rate = 19.5%
Applications = 138	Applications = 121	Applications = 118

Figure 2.5.B



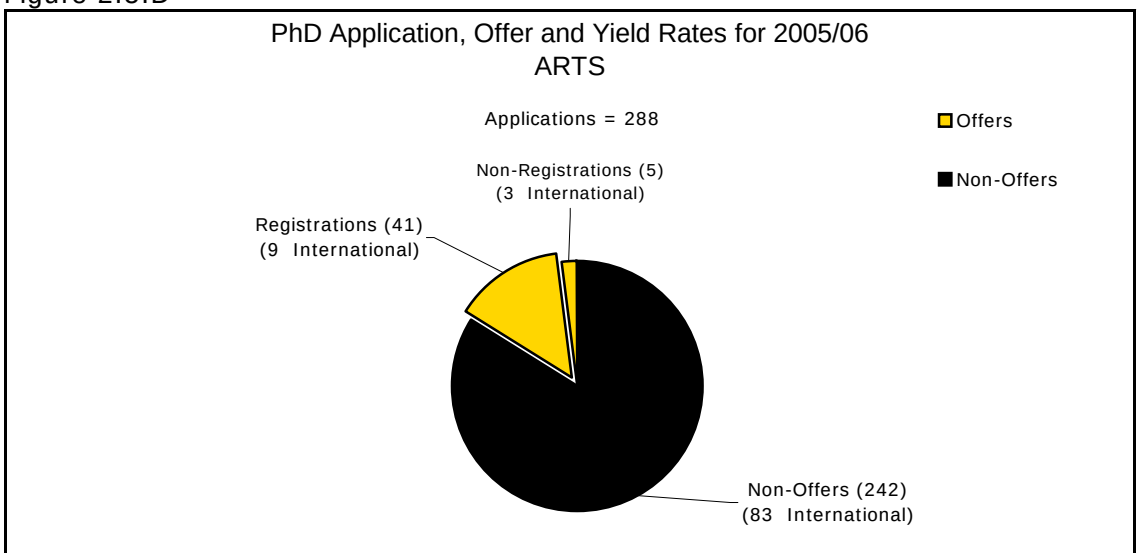
2003/04	2004/05	2005/06
Offer Rate = 47.1%	Offer Rate = 40.6%	Offer Rate = 51.9%
Yield Rate = 35.3%	Yield Rate = 35.9%	Yield Rate = 46.2%
Applications = 51	Applications = 64	Applications = 52

Figure 2.5.C



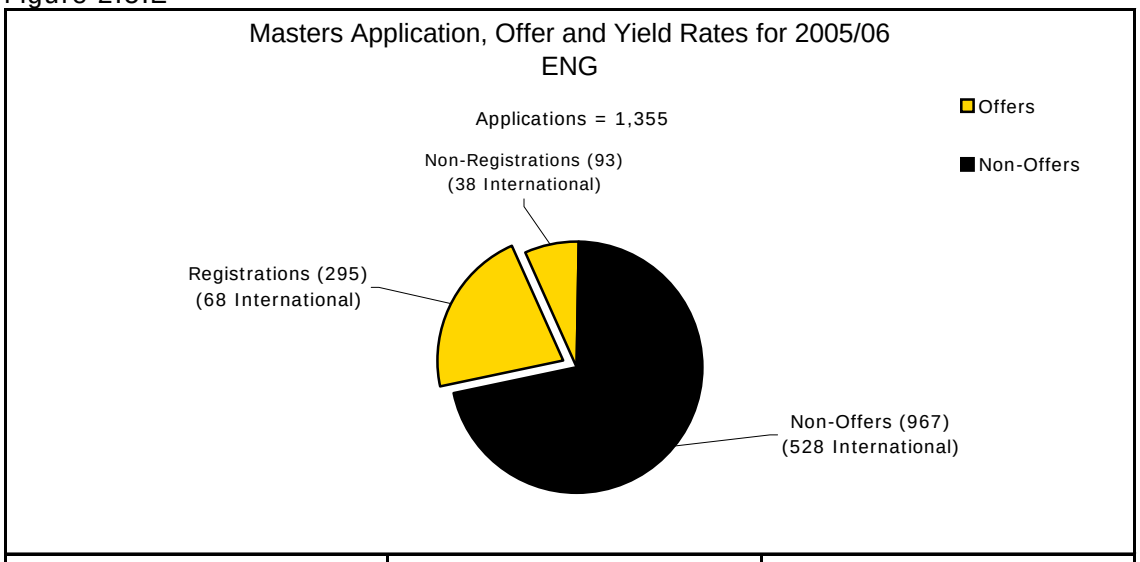
2003/04	2004/05	2005/06
Offer Rate = 28.2%	Offer Rate = 28.4%	Offer Rate = 31.8%
Yield Rate = 23.9%	Yield Rate = 24.9%	Yield Rate = 28.7%
Applications = 1,106	Applications = 1,050	Applications = 849

Figure 2.5.D



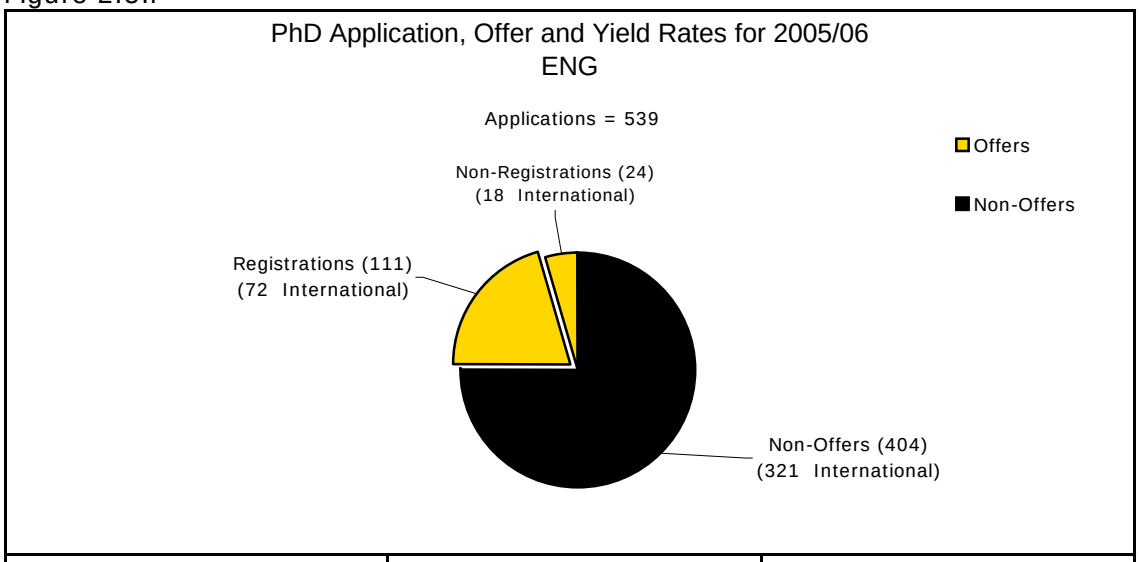
2003/04	2004/05	2005/06
Offer Rate = 13.4%	Offer Rate = 13.2%	Offer Rate = 16.0%
Yield Rate = 12.6%	Yield Rate = 11.6%	Yield Rate = 14.2%
Applications = 238	Applications = 242	Applications = 288

Figure 2.5.E



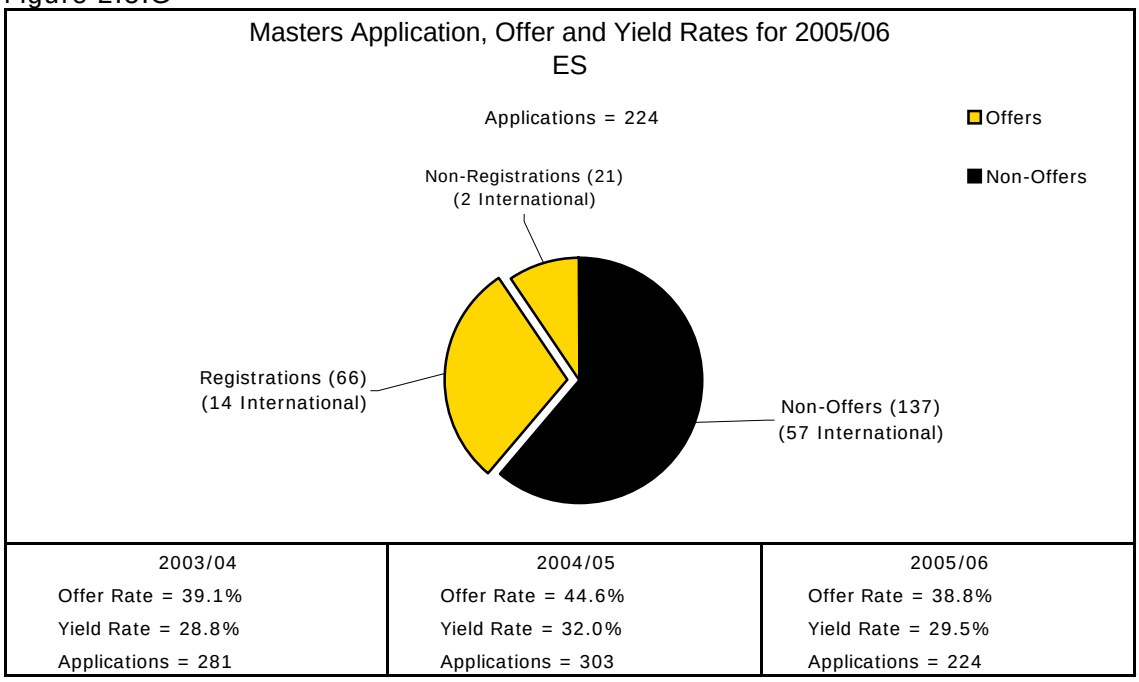
2003/04	2004/05	2005/06
Offer Rate = 20.2%	Offer Rate = 21.6%	Offer Rate = 28.6%
Yield Rate = 15.0%	Yield Rate = 17.6%	Yield Rate = 21.8%
Applications = 1,676	Applications = 1,410	Applications = 1,355

Figure 2.5.F



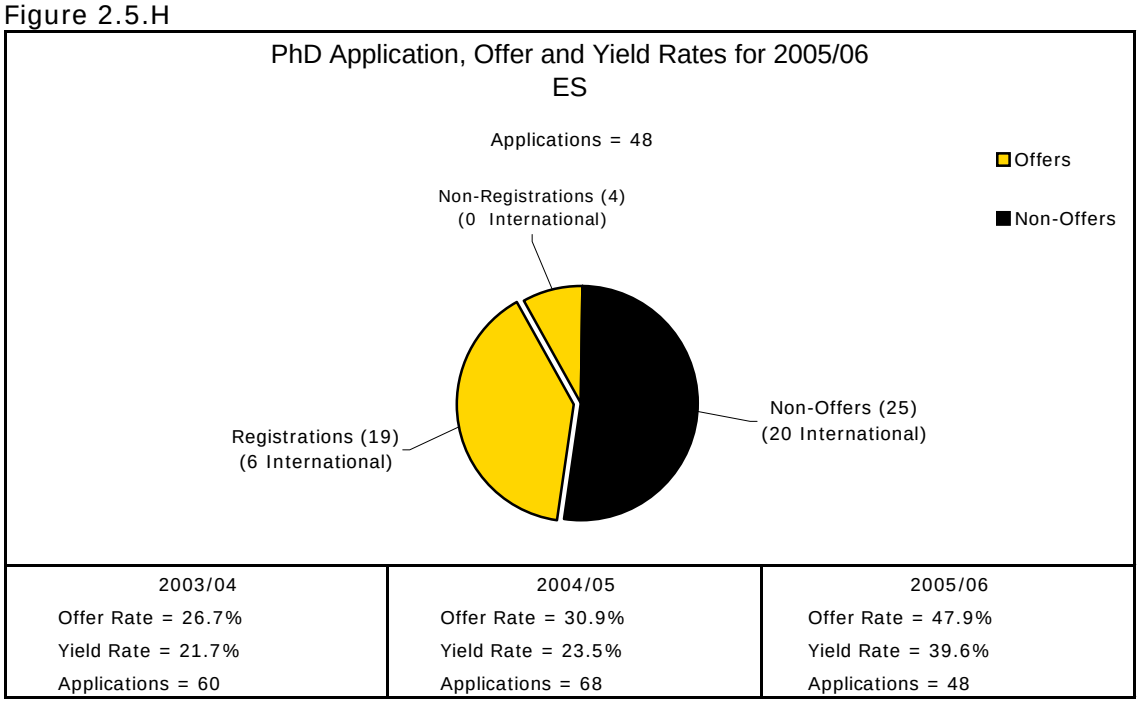
2003/04	2004/05	2005/06
Offer Rate = 15.1%	Offer Rate = 22.5%	Offer Rate = 25.0%
Yield Rate = 12.1%	Yield Rate = 19.5%	Yield Rate = 20.6%
Applications = 775	Applications = 595	Applications = 539

Figure 2.5.G



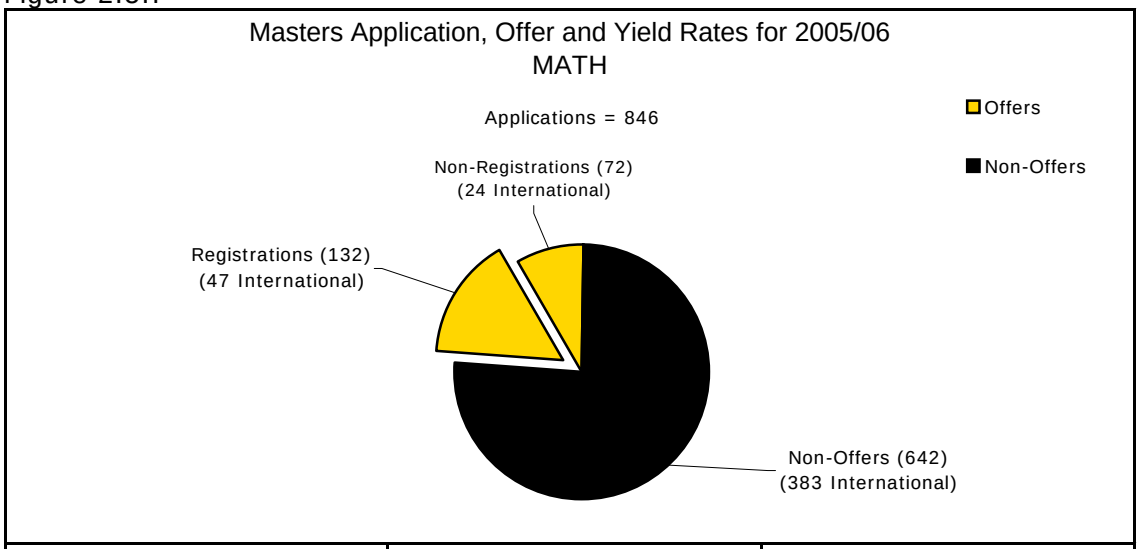
2003/04	2004/05	2005/06
Offer Rate = 39.1%	Offer Rate = 44.6%	Offer Rate = 38.8%
Yield Rate = 28.8%	Yield Rate = 32.0%	Yield Rate = 29.5%
Applications = 281	Applications = 303	Applications = 224

Figure 2.5.H



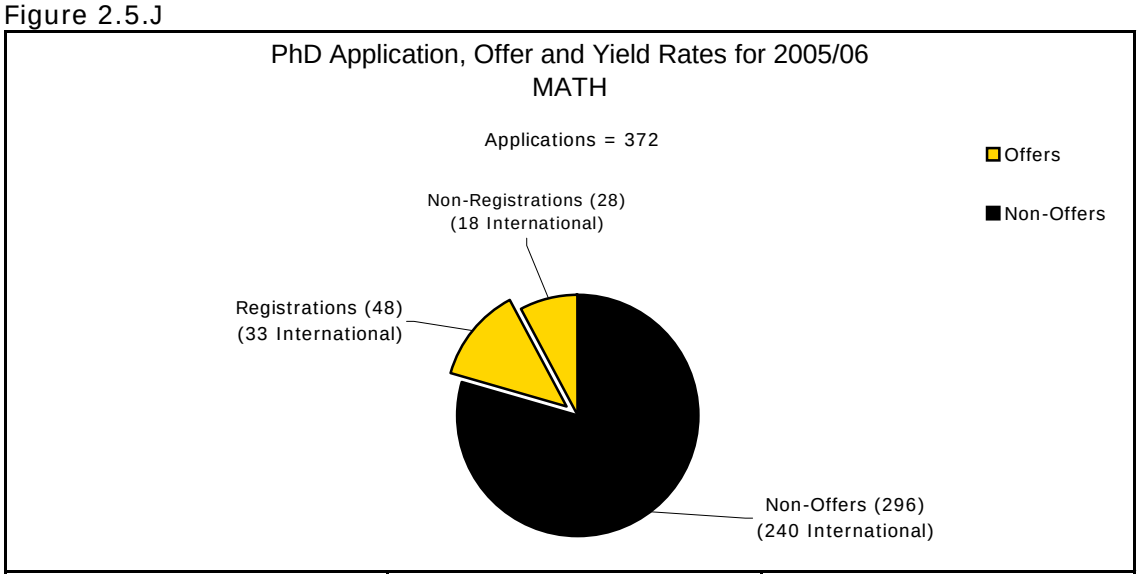
2003/04	2004/05	2005/06
Offer Rate = 26.7%	Offer Rate = 30.9%	Offer Rate = 47.9%
Yield Rate = 21.7%	Yield Rate = 23.5%	Yield Rate = 39.6%
Applications = 60	Applications = 68	Applications = 48

Figure 2.5.I



2003/04	2004/05	2005/06
Offer Rate = 21.6%	Offer Rate = 24.7%	Offer Rate = 24.1%
Yield Rate = 12.5%	Yield Rate = 15.1%	Yield Rate = 15.6%
Applications = 977	Applications = 933	Applications = 846

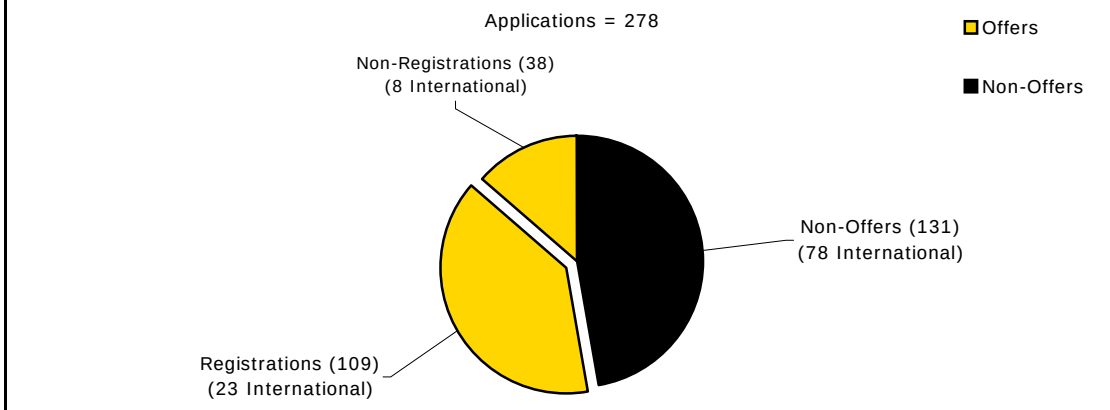
Figure 2.5.J



2003/04	2004/05	2005/06
Offer Rate = 11.8%	Offer Rate = 21.8%	Offer Rate =20.4 %
Yield Rate = 8.3%	Yield Rate = 14.8%	Yield Rate = 12.9%
Applications = 551	Applications = 427	Applications = 372

Figure 2.5.K

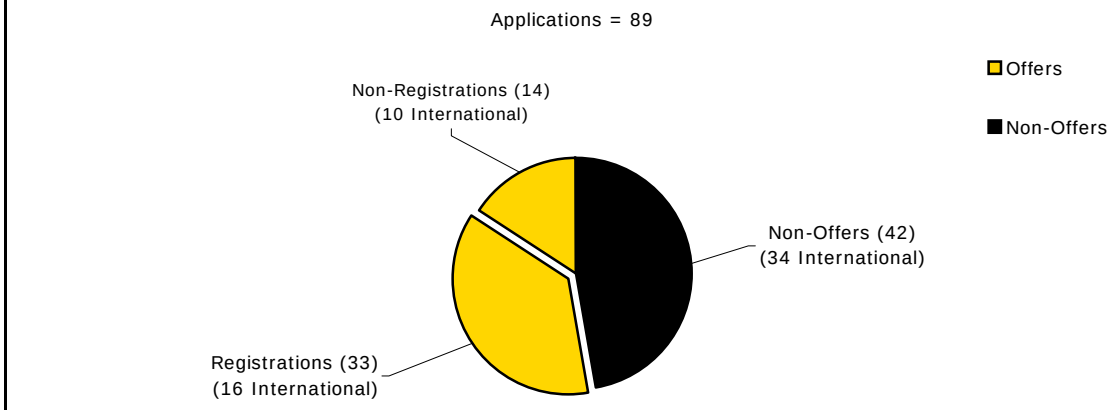
Masters Application, Offer and Yield Rates for 2005/06
SCI



2003/04	2004/05	2005/06
Offer Rate = 38.7%	Offer Rate = 41.7%	Offer Rate = 52.9%
Yield Rate = 30.4%	Yield Rate = 30.2%	Yield Rate = 39.2%
Applications = 253	Applications = 242	Applications = 278

Figure 2.5.L

PhD Application, Offer and Yield Rates for 2005/06
SCI



2003/04	2004/05	2005/06
Offer Rate = 21.7%	Offer Rate = 41.3%	Offer Rate = 52.8%
Yield Rate = 29.1%	Yield Rate = 32.9%	Yield Rate = 37.1%
Applications = 175	Applications = 155	Applications = 89

2.6. Student Support

Graduate student support is provided in a number of ways, including scholarships ($15.8 million) and pay for work as teaching assistants ($10.5 million) and research assistants ($14.6 million). Graduate students are the third-largest pay group at Waterloo, after staff and faculty.

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.

The figures below (Figure 2.6.A and Figure 2.6.B)[20] show differences in the levels of graduate student support across Faculties for master's and PhD 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 2005/06 Waterloo graduate students received in excess of $54 million, up from $45 million in 2003/04.

Figure 2.6.A

Financial Support to Master's Students 2005/06							
Faculty	External Scholarships	Internal Scholarships	Teaching Assistantships	Research Assistantships	Other	Total	Average Income / Supported Student
AHS	$286,000	$130,000	$334,000	$282,000	$78,000	$1,110,000	$23,147
ARTS	$605,000	$706,000	$1,072,000	$167,000	$240,000	$2,790,000	$18,291
ENG	$2,222,000	$1,076,000	$1,001,000	$2,755,000	$938,000	$7,992,000	$21,190
ES	$423,000	$298,000	$509,000	$173,000	$120,000	$1,524,000	$21,724
MATH	$919,000	$1,025,000	$1,818,000	$1,471,000	$244,000	$5,477,000	$26,565
SCI	$458,000	$526,000	$922,000	$1,893,000	$377,000	$4,176,000	$23,031
Total	$4,914,000	$3,761,000	$5,655,000	$6,741,000	$1,996,000	$23,068,000	$22,283

Figure 2.6.B

Financial Support to Doctoral Students 2005/06							
Faculty	External Scholarships	Internal Scholarships	Teaching Assistantships	Research Assistantships	Other	Total	Average Income / Supported Student
AHS	$642,000	$198,000	$247,000	$278,000	$111,000	$1,476,000	$30,980
ARTS	$1,064,000	$918,000	$964,000	$286,000	$470,000	$3,702,000	$30,868
ENG	$3,466,000	$2,319,000	$1,477,000	$4,890,000	$1,089,000	$13,242,000	$31,768
ES	$225,000	$226,000	$217,000	$104,000	$59,000	$830,000	$25,007
MATH	$1,193,000	$1,386,000	$1,582,000	$1,988,000	$424,000	$6,574,000	$31,284
SCI	$894,000	$925,000	$1,073,000	$2,183,000	$477,000	$5,552,000	$27,101
Total	$7,484,000	$5,973,000	$5,561,000	$9,728,000	$2,630,000	$31,376,000	$30,385

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

2.7. Graduate Student Satisfaction

In 2005, seven of the G10 institutions, including Waterloo, participated in the Graduate and Professional Student Survey (GPSS), administered by the Massachusetts Institute of Technology (MIT). This survey of our entire graduate student population was customized for Canada, in the same way that NSSE customized their instrument for Canadian use. The GPSS represents a very rich dataset: responses to approximately 170 questions about the graduate student experience from over 10,000 respondents.

Unlike NSSE, MIT does not analyze the survey results and provide comparative benchmark reports – they simply act as a survey administration service and return a file of responses to the institutions for analysis. A sub-group of the G10 institutions produced a high-level picture of the graduate student experience at our institutions, grouping together student responses to a number of similar questions into benchmark areas.

For purposes of this presentation, three benchmarks are presented, comparing Waterloo responses to the G10. These benchmarks represent responses from 615 doctoral students at Waterloo asked simply to rate the quality of the academic program, the quality of student life experience, and the quality of their overall experience. Further analyses will be completed and disseminated.

Figure 2.7.A

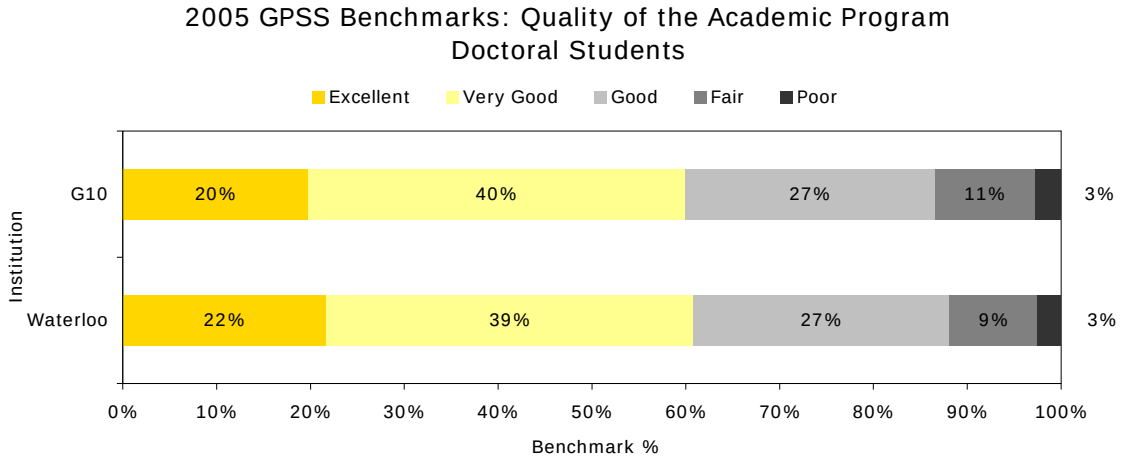


Figure 2.7.B

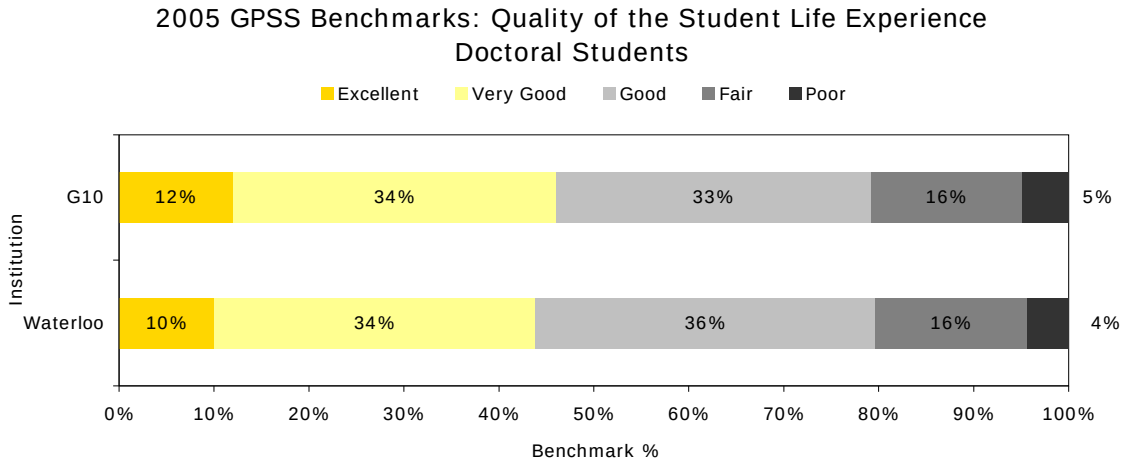
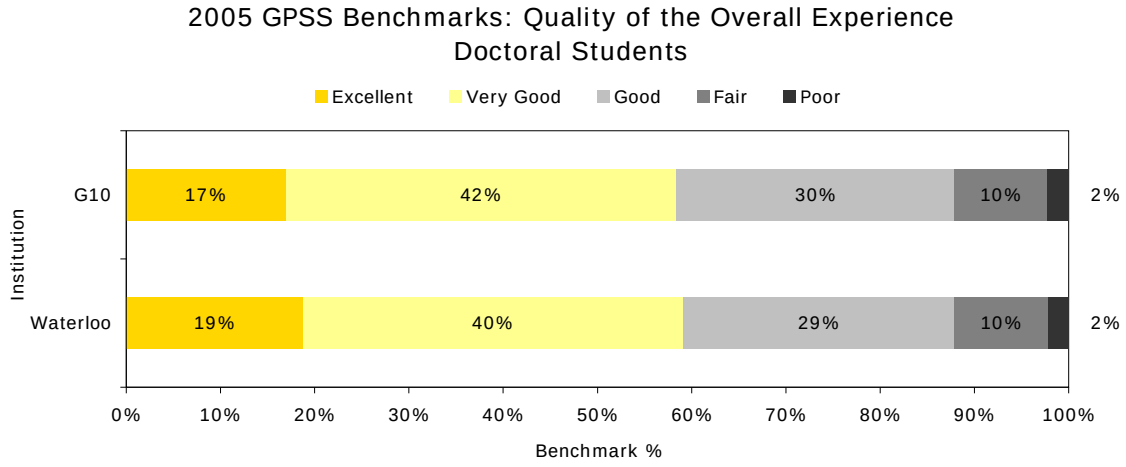


Figure 2.7.C



2.8. Completion Rates and Degrees Granted

This indicator shows the 1995 cohort completion rates of University of Waterloo graduate students as compared to the nine other universities in the G10 (identities masked as per G10 DE protocol). Specifically, Figure 2.8.A through Figure 2.8.F show the size and progress of the 1995 starting Master's and PhD 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 2004 term, and the number of study terms for those who withdrew.

Figure 2.8.A

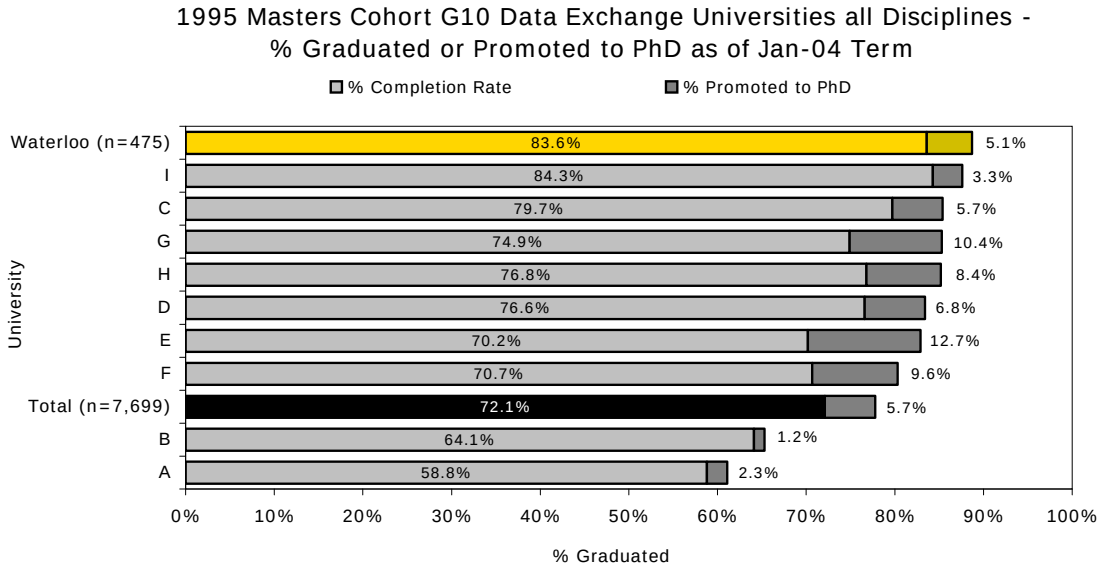


Figure 2.8.B

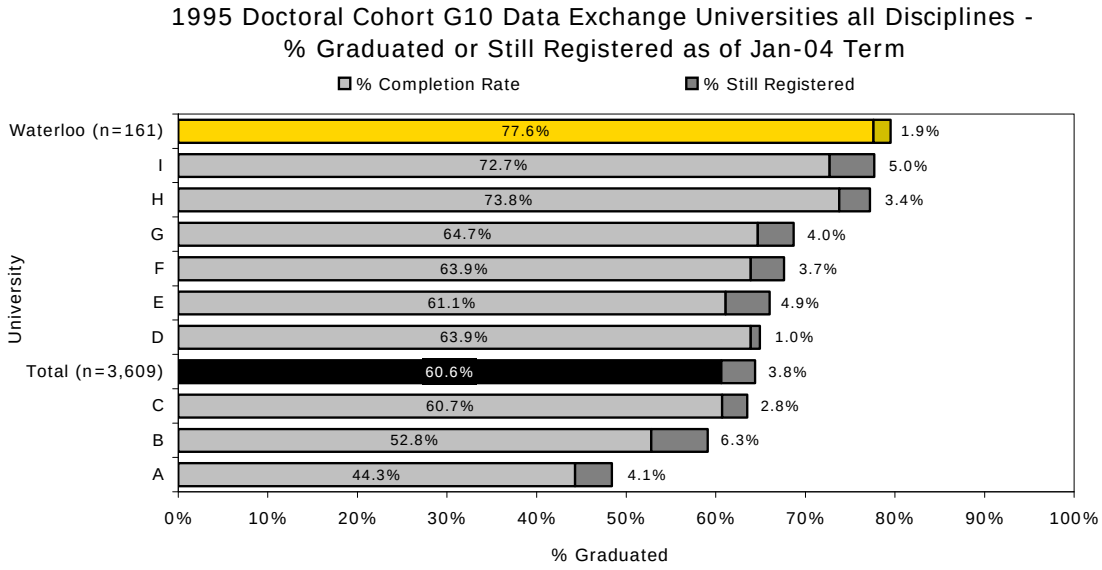


Figure 2.8.C

1995 Masters Cohort G10 Data Exchange Universities all Disciplines - Median Number of Terms Registered to Degree Completion

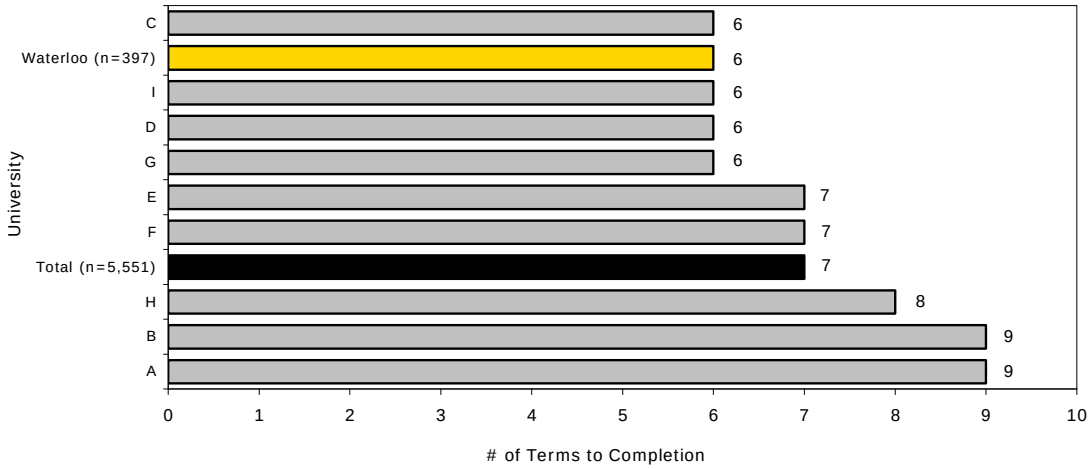


Figure 2.8.D

1995 Doctoral Cohort G10 Data Exchange Universities all Disciplines - Median Number of Terms Registered to Degree Completion

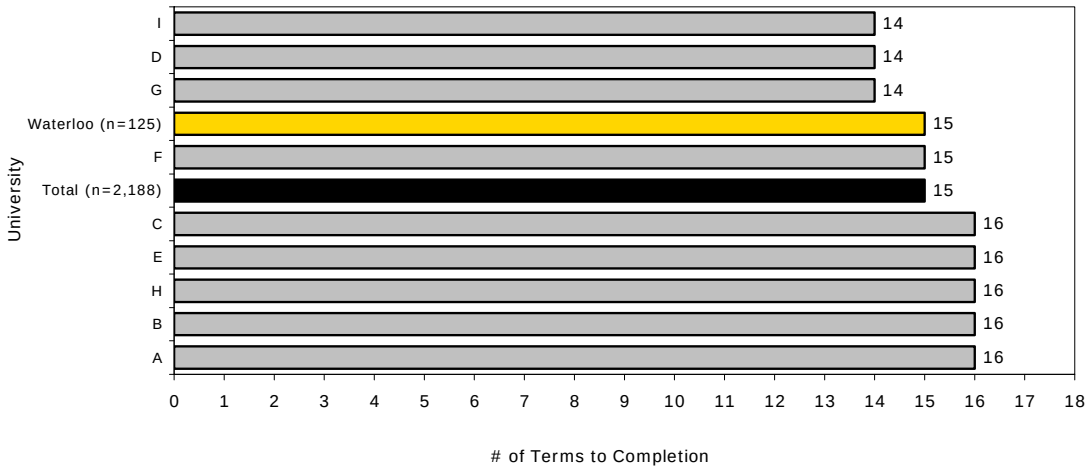


Figure 2.8.E

1995 Masters Cohort G10 Data Exchange Universities all Disciplines - Median Number of Terms Registered for Withdrawn Students

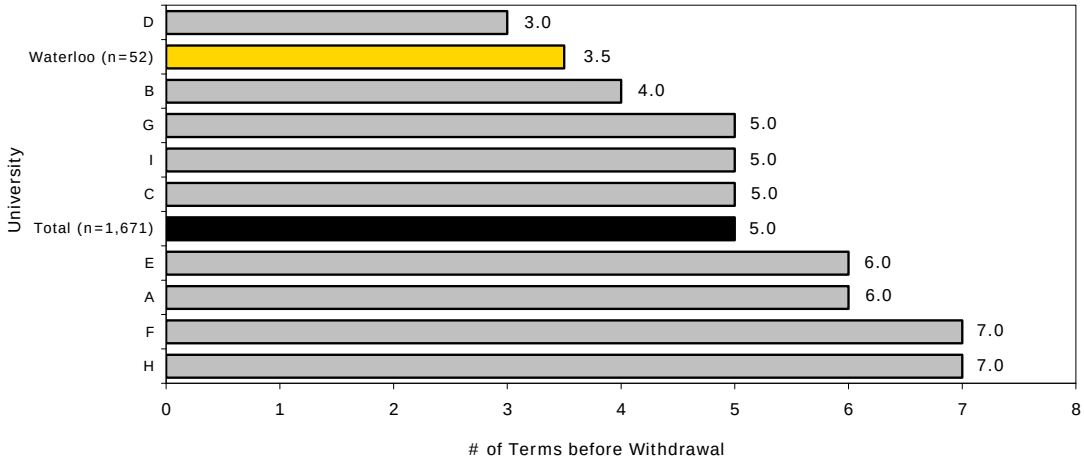
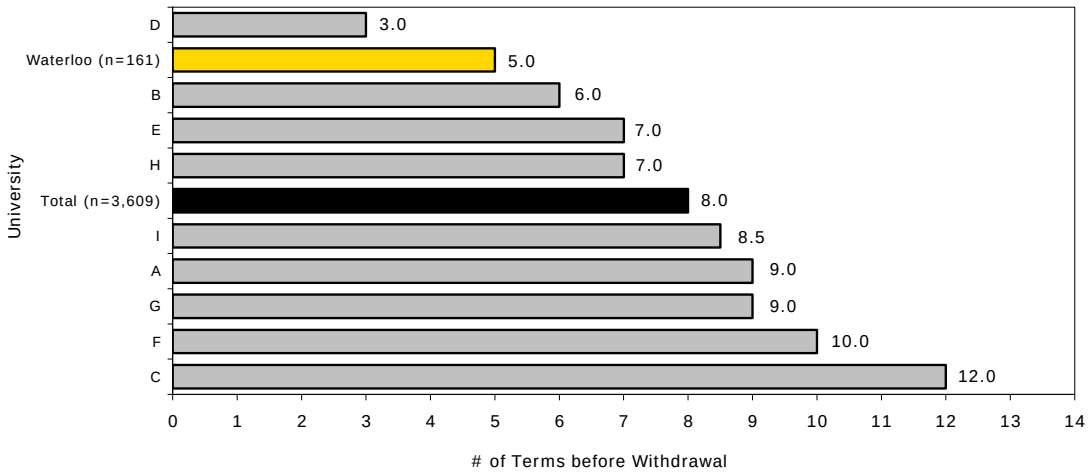


Figure 2.8.F

1995 Doctoral Cohort G10 Data Exchange 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 2003 and 2005, distinct from the cohort analyses above.

Figure 2.8.G

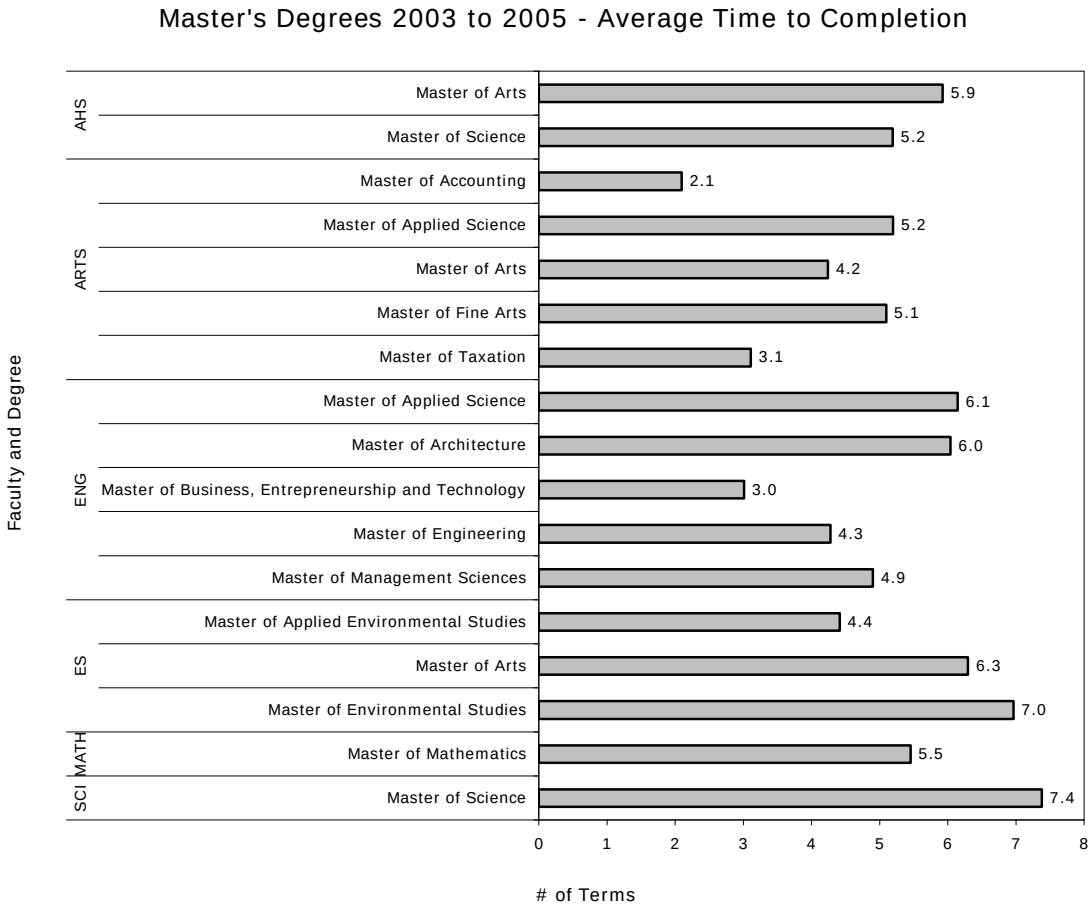


Figure 2.8.H

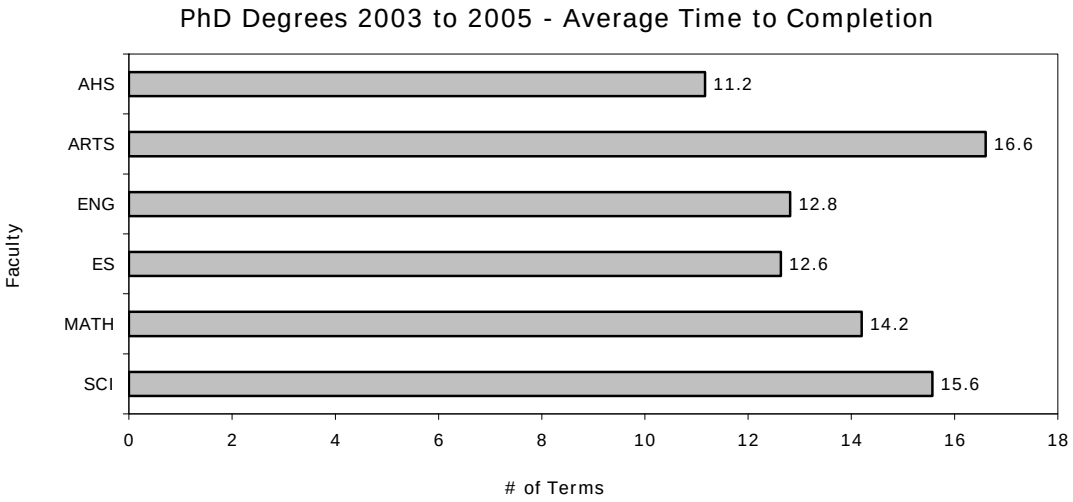


Figure 2.8.I

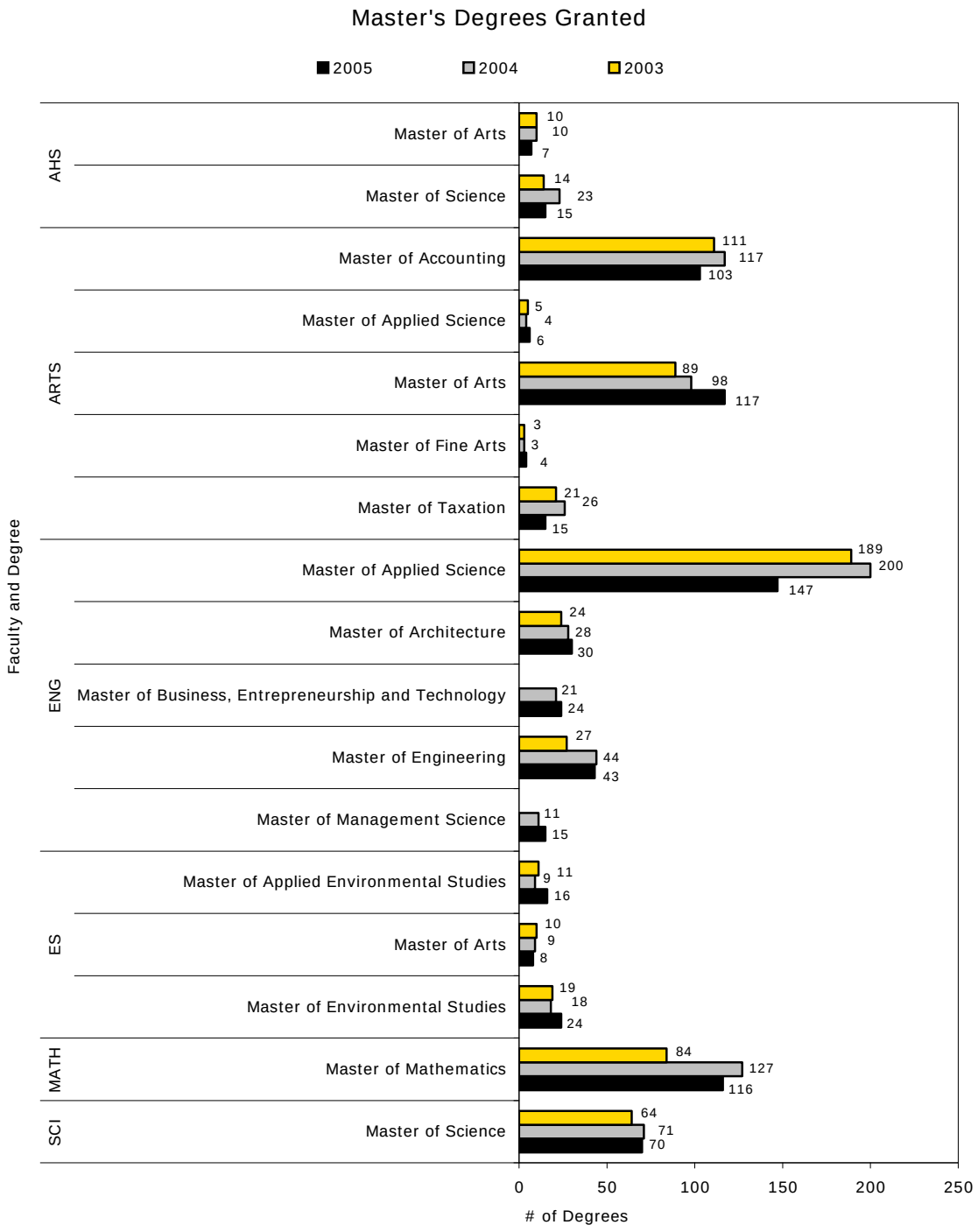
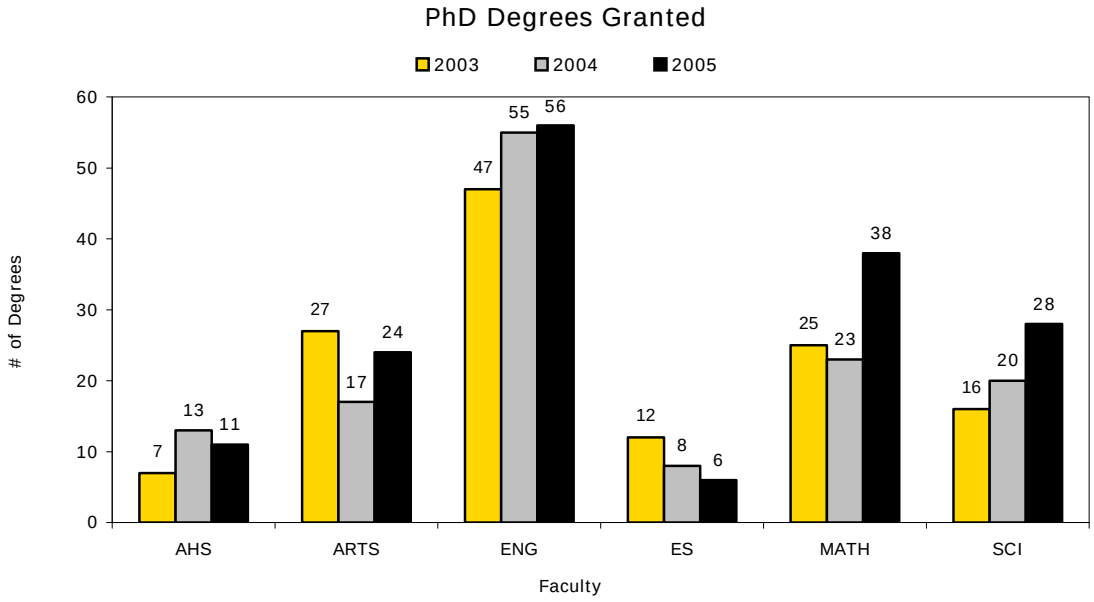

Master's Degrees Granted
2005
2004
2003
Faculty and Degree
AHS
Master of Arts
10
10
7
Master of Science
14
23
15
ARTS
Master of Accounting
111
117
103
Master of Applied Science
5
4
6
Master of Arts
89
98
117
Master of Fine Arts
3
3
4
Master of Taxation
21
26
15
ENG
Master of Applied Science
189
200
147
Master of Architecture
24
28
30
Master of Business, Entrepreneurship and Technology
21
24
Master of Engineering
27
44
43
Master of Management Science
11
15
ES
Master of Applied Environmental Studies
9
11
16
Master of Arts
10
9
8
Master of Environmental Studies
19
18
24
MATH
Master of Mathematics
84
127
116
SCI
Master of Science
64
71
70
0
50
100
150
200
250
# of Degrees

Figure 2.8.J



As our double-cohort students complete their undergraduate education, Waterloo 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

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. Waterloo is committed both to basic research, which is essential to the discovery of new knowledge, and to applied research, which seeks novel ways to use that knowledge for the benefit of society and the world around us.

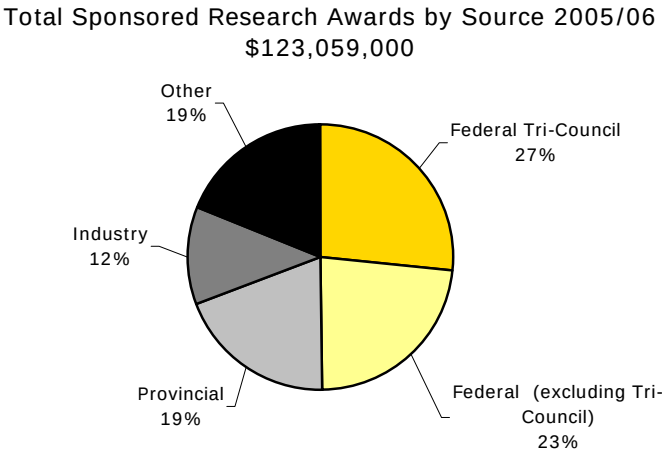
A distinguishing feature of Waterloo's research profile is its outstanding record of contract research with both private and public sectors. The University has an unparalleled record of spawning new companies and otherwise capitalizing on its many research accomplishments for the benefit of society. Research at Waterloo 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 2005/06 year were up by 12 per cent, totalling $123M. Funding from Federal government agencies made up 50 per cent of all funding with roughly half of that coming from the Tri-Councils.

Figure 3.1.A[21]



[21] "Other" includes a 6.3M subgrant from the University of Western Ontario in support of SHARCNET, recorded in the Faculty of Science in 2005/06 for multi-faculty research, as well as $3.6M revenue in support of University Research Institutes and Groups and other miscellaneous activities.

Figure 3.1.B[22]

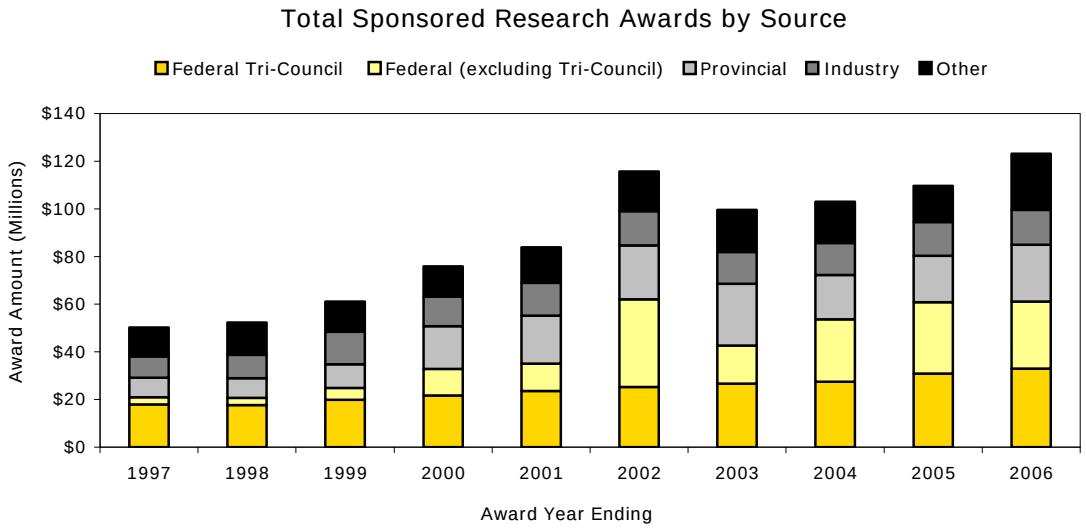
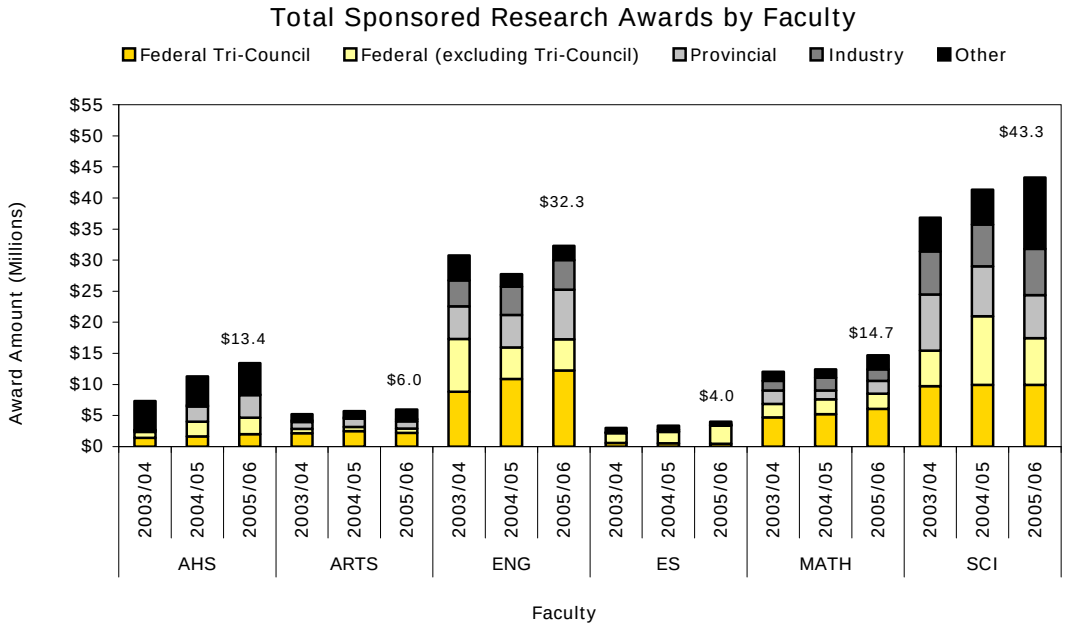


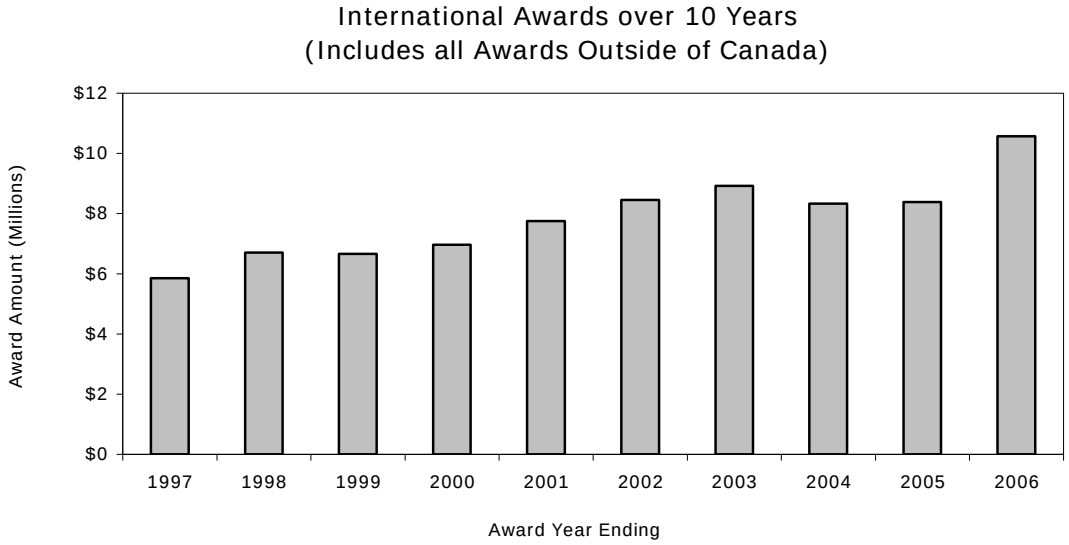
Figure 3.1.C excludes about $9.2 million in awards to the federated and affiliated colleges and universities and/or non-academic units at Waterloo.

Figure 3.1.C



[22] 2002 was an unusual year in Federal (excluding Tri-Council) funding due to a large number of Canada Foundation for Innovation awards.

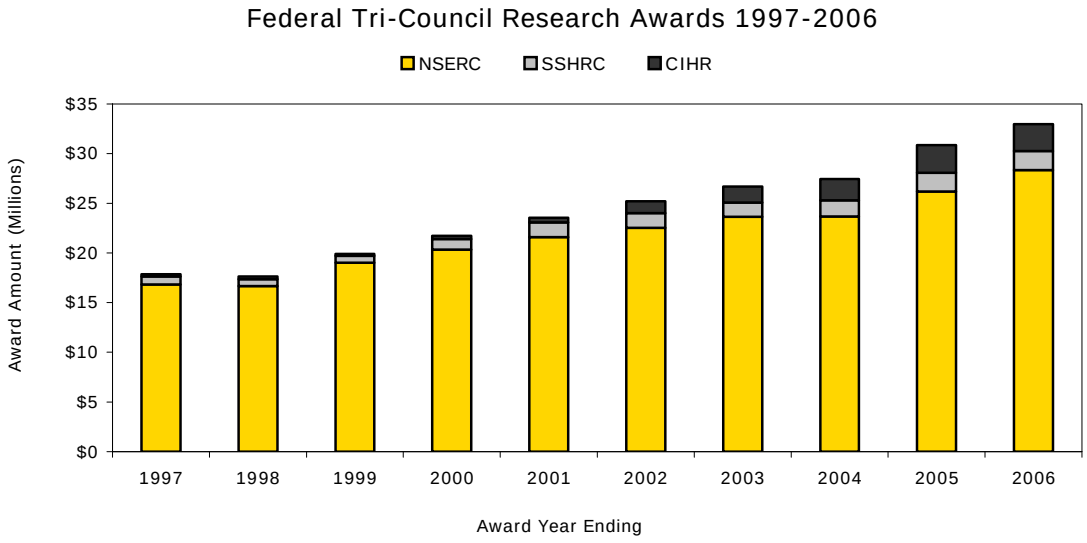
Figure 3.1.D[23]



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 ten years.

Figure 3.2.A



[23] On average, about 85 per cent of international awards are from sponsors in the United States, the majority of which come from industry. The Canadian International Development Agency (CIDA) sponsors research in other countries but is not included in these figures.

Figure 3.2.B

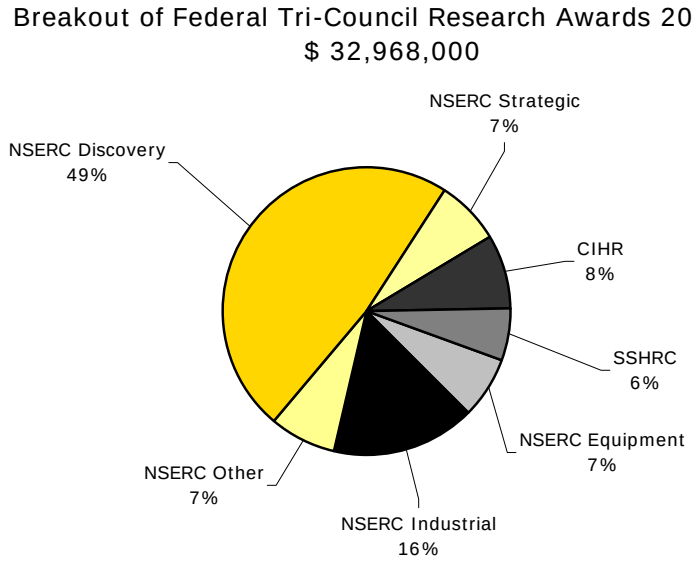


Figure 3.2.C

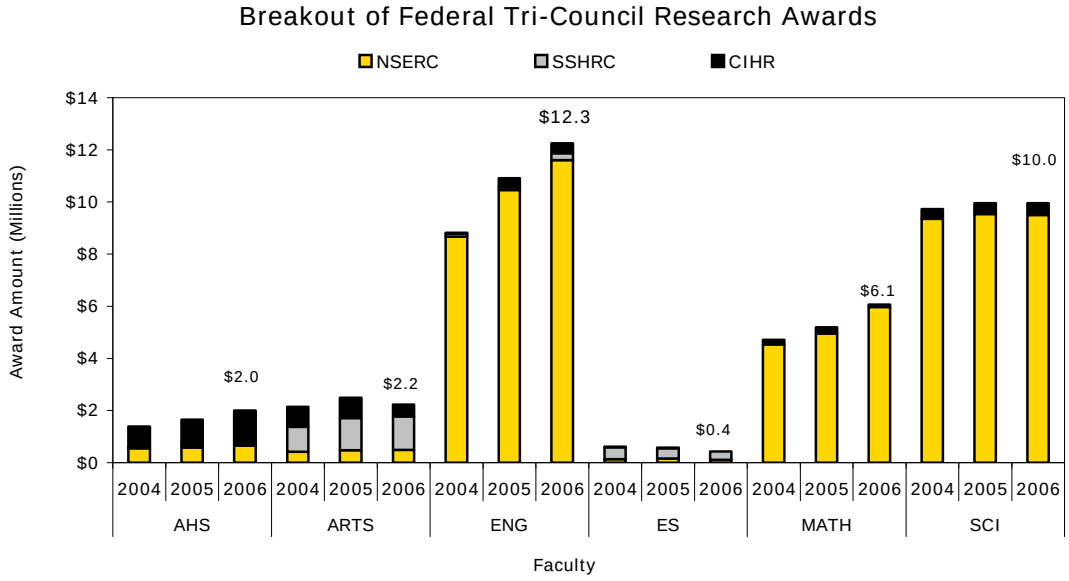
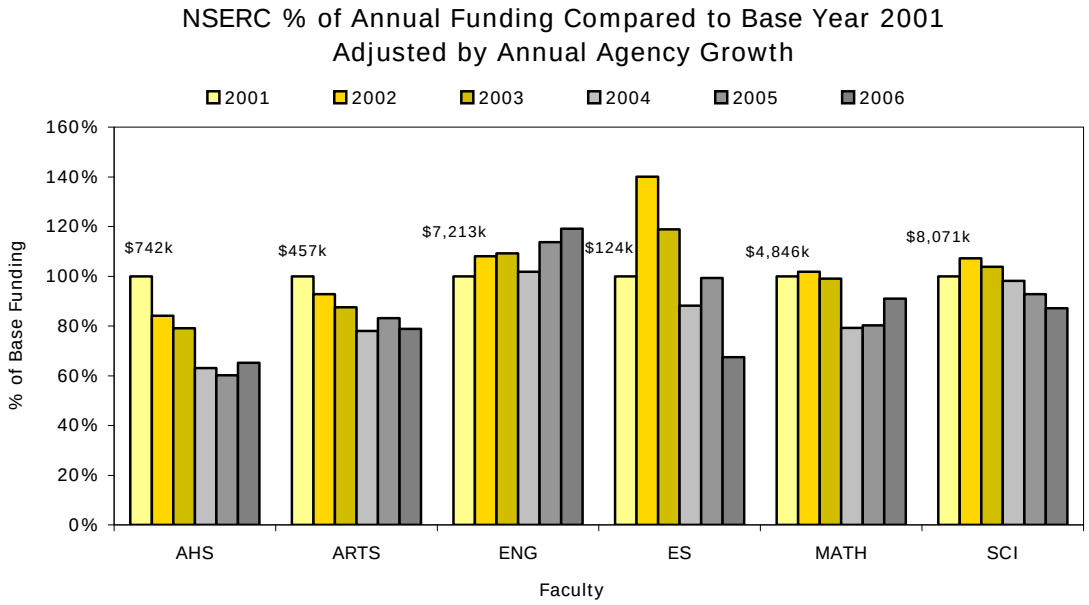


Figure 3.2.D to Figure 3.2.F illustrate the change in funding, relative to the base year[24], from each of the tri-council agencies. For example, if the funds available from NSERC in 2002 increased by 5 per cent from 2001 and AHS's 2002 funding remained at the 2001 level, then AHS's 2002 funding would be 95.2 per cent of the 2001 level.

[24] The base year for NSERC and SSHRC is 2001, the base year for CIHR is 2003.

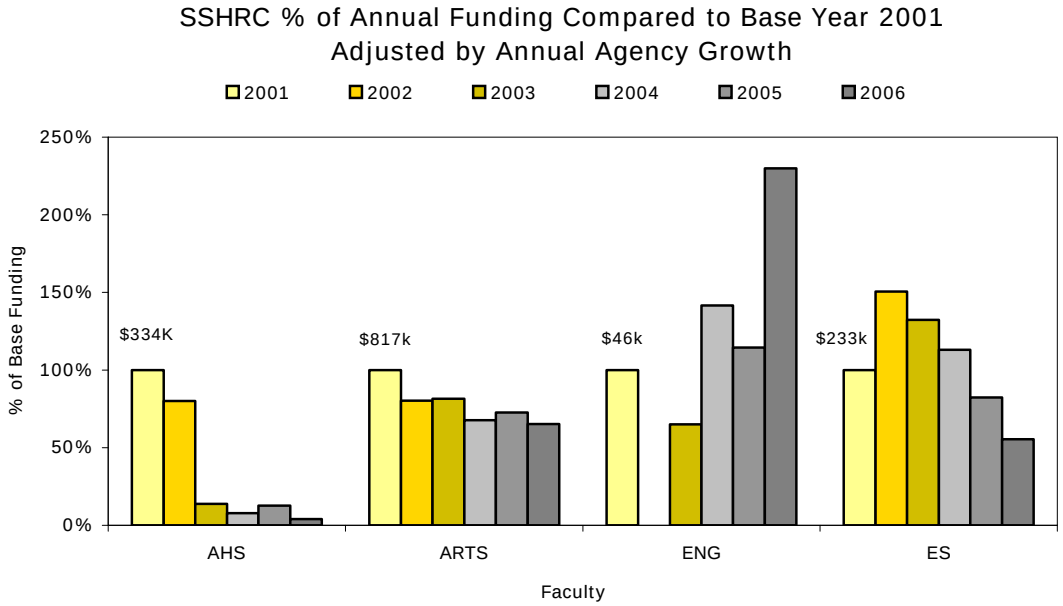
If AHS's 2002 level *increased* by 5 per cent then it would be at 100 per cent funding relative to its 2001 base year.

Figure 3.2.D



Though Figure 3.2.E shows a general decline in "adjusted" SSHRC awards over the past six years in all Faculties, except Engineering, caution needs to be exercised when interpreting these figures 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.E



Three of the five Faculties show an increase in their 2005/06 "adjusted" CIHR awards relative to their 2002/03 base year funding (Figure 3.2.F). Again, in the case of several Faculties the number of awards was too low to draw reliable conclusions.

Figure 3.2.F

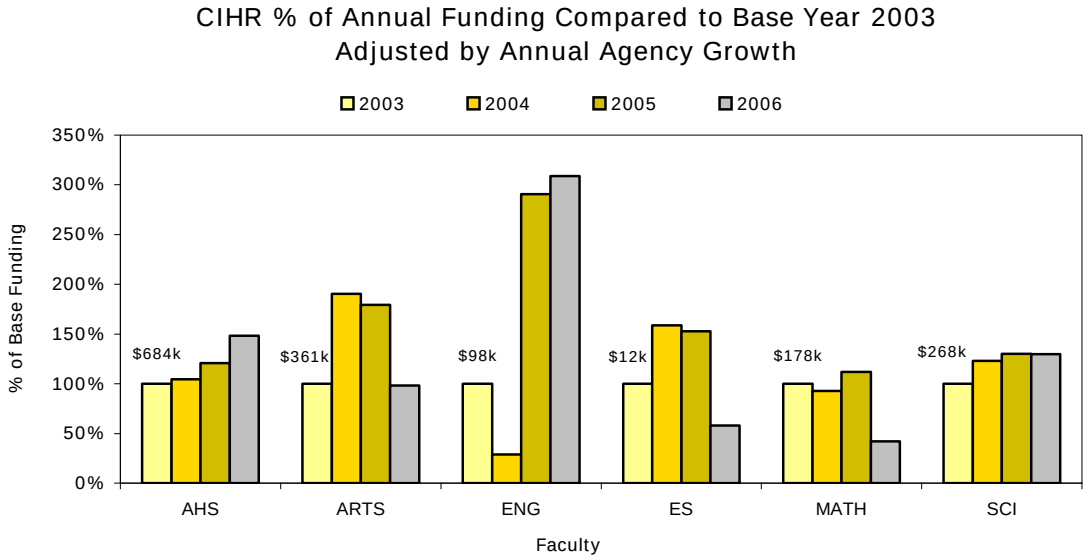


Figure 3.2.G through Figure 3.2.I show the total dollars allocated by the tri-councils to the G10 universities in 2000 and 2005, and the percentage change for each institution. The data in these tables have been taken from the council databases.

Figure 3.2.G

NSERC - % Change in $ to G10 2000-2005				
G10 University	2000/2001 $ x 000s	2005/2006 $ x 000s	Change $ x 000s	Change %
McMaster	16,464	25,165	8,701	52.8%
McGill	26,534	40,057	13,523	51.0%
UBC	36,719	53,314	16,595	45.2%
Laval	28,934	40,151	11,217	38.8%
Waterloo	27,207	36,621	9,414	34.6%
Western	15,685	20,129	4,444	28.3%
Toronto	49,120	61,313	12,193	24.8%
Queen's	17,940	22,349	4,409	24.6%
Montréal	18,652	23,184	4,532	24.3%
Alberta	37,322	41,275	3,953	10.6%
G10 Total	274,577	363,558	88,981	32.4%
Total/all Institutions	532,909	720,393	187,484	35.2%

Figure 3.2.H

SSHRC - % Change in $ to G10 2000-2005				
G10 University	2000/2001 $ x 000s	2005/2006 $ x 000s	Change $ x 000s	Change %
McGill	4,379	14,355	9,976	227.8%
Queen's	3,043	7,515	4,472	147.0%
Toronto	12,307	28,839	16,532	134.3%
Western	4,837	11,097	6,260	129.4%
UBC	8,965	20,030	11,065	123.4%
Montréal	6,827	14,990	8,163	119.6%
Alberta	7,000	13,777	6,777	96.8%
Waterloo	2,447	4,653	2,206	90.2%
McMaster	4,149	7,258	3,109	74.9%
Laval	7,436	12,277	4,841	65.1%
G10 Total	61,390	134,791	73,401	119.6%
Total/all Institutions	111,319	268,500	157,181	141.2%

Figure 3.2.I shows a 540 per cent increase in funding from 2000/2001. 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 2000/01 – 2005/06. Unlike the other G10 universities, Waterloo has no medical school, limiting the funds available through MRC. The change to CIHR has made available a wider range of grants for which Waterloo researchers are eligible.

Figure 3.2.I

CIHR - % Change in $ to G10 2000-2005				
G10 University	2000/2001 $ x 000s	2005/2006 $ x 000s	Change $ x 000s	Change %
Waterloo	418	2,673	2,255	539.5%
UBC	31,490	76,219	44,729	142.0%
Laval	16,039	37,684	21,645	135.0%
Queen's	7,816	17,443	9,627	123.2%
Western	15,302	31,801	16,499	107.8%
Toronto	77,404	151,227	73,823	95.4%
McMaster	17,611	34,269	16,658	94.6%
Montréal	33,860	64,903	31,043	91.7%
McGill	50,502	91,808	41,306	81.8%
Alberta	24,867	43,441	18,574	74.7%
G10 Total	275,309	551,468	276,159	100.3%
Total/all Institutions	369,833	758,146	388,313	105.0%

Figure 3.2.J through Figure 3.2.L show the distribution of the total dollars by the tri-councils to the G10 universities in 2005/06, and the percentage of those dollars for each institution.

Figure 3.2.J

NSERC - Distribution of $ to G10			
G10 University	2005/2006 $ x 000s	% of Total G10 $	% of Total $
Toronto	61,313	16.86%	8.51%
UBC	53,314	14.66%	7.40%
Alberta	41,275	11.35%	5.73%
Laval	40,151	11.04%	5.57%
McGill	40,057	11.02%	5.56%
Waterloo	36,621	10.07%	5.08%
McMaster	25,165	6.92%	3.49%
Montréal	23,184	6.38%	3.22%
Queen's	22,349	6.15%	3.10%
Western	20,129	5.54%	2.79%
Total	363,558	100.00%	50.47%
Total/all Institutions	720,393		

Figure 3.2.K

SSHRC - Distribution of $ to G10			
G10 University	2005/2006 $ x 000s	% of Total G10 $	% of Total $
Toronto	28,839	21.40%	10.74%
UBC	20,030	14.86%	7.46%
Montréal	14,990	11.12%	5.58%
Laval	12,277	9.11%	4.57%
Alberta	13,777	10.22%	5.13%
McGill	14,355	10.65%	5.35%
Western	11,097	8.23%	4.13%
Queen's	7,515	5.58%	2.80%
McMaster	7,258	5.38%	2.70%
Waterloo	4,653	3.45%	1.73%
Total	134,791	100.00%	50.20%
Total/all Institutions	268,500		

Figure 3.2.L

CIHR - Distribution of $ to G10			
G10 University	2005/2006 $ x 000s	% of Total G10 $	% of Total $
Toronto	151,227	27.42%	19.95%
McGill	91,808	16.65%	12.11%
UBC	76,219	13.82%	10.05%
Montréal	64,903	11.77%	8.56%
Alberta	43,441	7.88%	5.73%
Laval	37,684	6.83%	4.97%
McMaster	34,269	6.21%	4.52%
Western	31,801	5.77%	4.19%
Queen's	17,443	3.16%	2.30%
Waterloo	2,673	0.48%	0.35%
Total	551,468	100.00%	72.74%
Total/all Institutions	758,146		

Figure 3.2.M

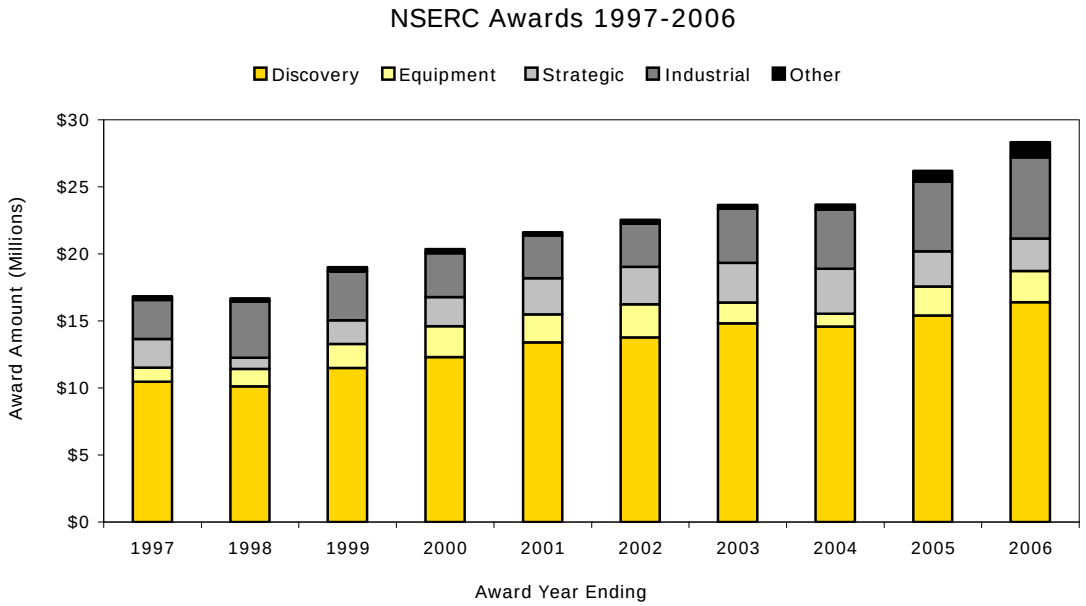


Figure 3.2.N

NSERC Discovery Grants					
G10 University	Number		Amount		Average Award ($)
	N	%	$	%	
Toronto	705	*7.45%*	$26,768,945	*9.21%*	$37,970
UBC	623	*6.58%*	$22,061,861	*7.59%*	$35,412
Alberta	528	*5.58%*	$18,052,096	*6.21%*	$34,190
Waterloo	495	*5.23%*	$15,675,745	*5.39%*	$31,668
McGill	492	*5.20%*	$16,956,788	*5.83%*	$34,465
McMaster	349	*3.69%*	$11,732,796	*4.04%*	$33,618
Laval	345	*3.64%*	$10,460,181	*3.60%*	$30,319
Western	337	*3.56%*	$10,119,740	*3.48%*	$30,029
Queen's	293	*3.09%*	$10,132,278	*3.49%*	$34,581
Montréal	271	*2.86%*	$9,561,173	*3.29%*	$35,281
G10 Total	4,438	*46.87%*	$151,521,603	*52.14%*	$33,753
Total Awarded	9,469	100.00%	$290,622,553	100.00%	$30,692

3.3. Ontario

The next indicators[25] show the annual income from the Ontario Research and Development Challenge Fund (ORDCF), the Ontario Innovation Trust (OIT), the Premier's Research Excellence Awards (PREA), the Ontario Centres of Excellence (OCE), Ministry of Health (MOH), and other sources for each Faculty.

Figure 3.3.A

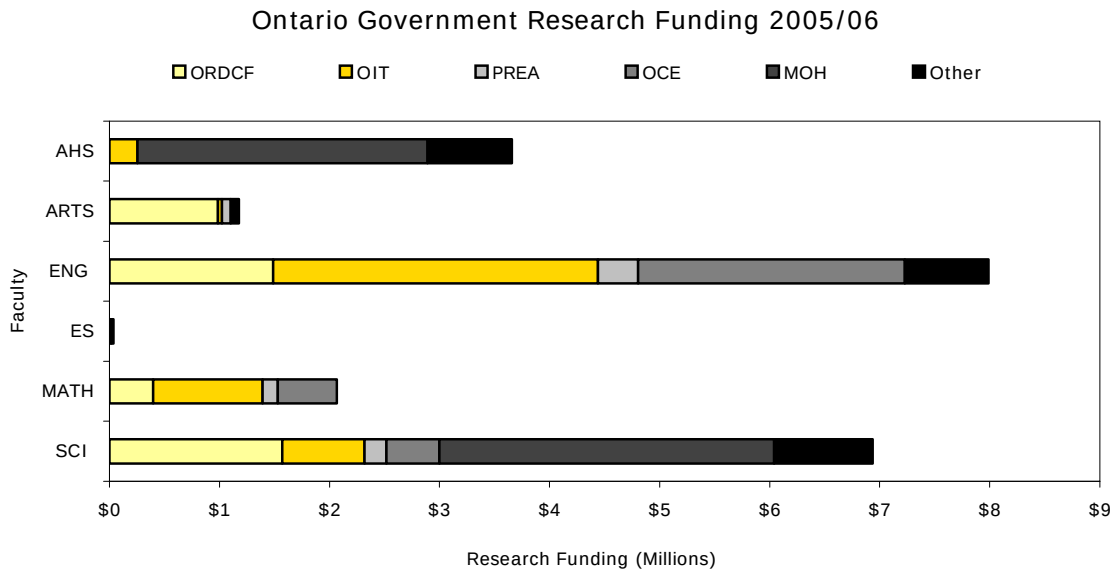
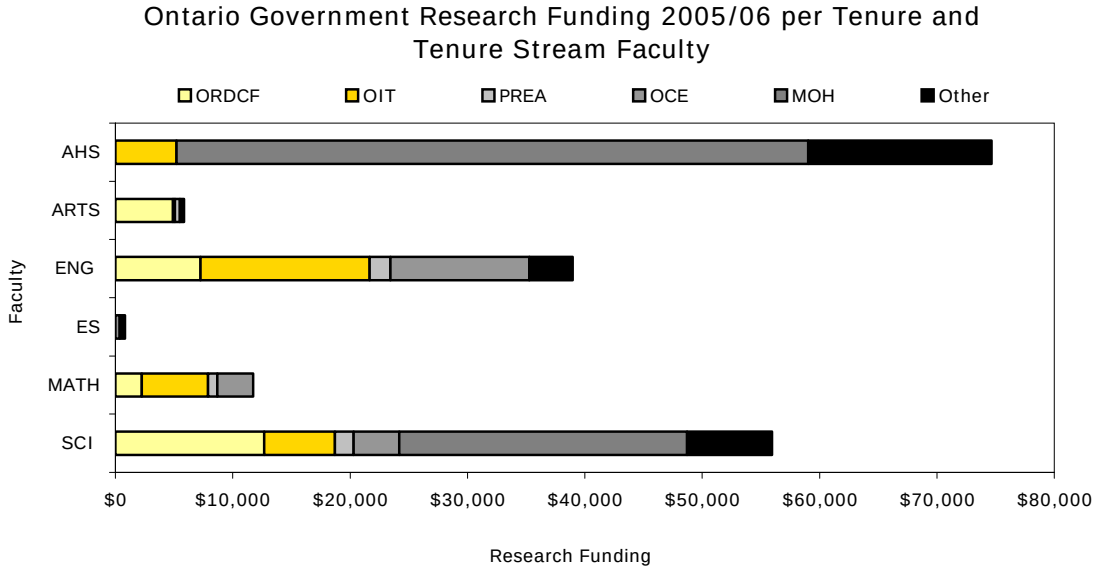


Figure 3.3.B



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

In the May 5, 1998 Ontario budget speech, the Minister of Finance announced the Premier's Research Excellence Awards (PREA) to help gifted researchers (at universities, colleges, hospitals and research institutions) attract talented graduate students, post-doctoral fellows and research associates to their research teams. The objectives of the PREA are: to improve Ontario's ability to attract and keep highly talented young researchers and graduate students, and conduct state-of-the-art research; and to enhance the development of promising researchers and students. PREA ended in 2004 but has been replaced by a similar program called the Early Researcher Award (ERA).

Figure 3.3.C

PREA Recipients - Rounds 1 - 9										
Institution	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Round 7	Round 8	Round 9	Total
Toronto	30	28	19	17	19	30	8	23	15	189
Western	7	7	7	6	3	13	9	8	13	73
Waterloo	4	3	9	4	13	5	8	7	9	62
Ottawa	7	3	10	8	5	8	10	6	3	60
Queen's	5	6	6	4	6	6	7	5	7	52
McMaster	2	9	6	5	5	1	4	7	9	48
Guelph	3	2	2	3	5	4	3	4	1	27
York	2	2	2	3	2	3	0	4	3	21
Carleton	1	1	1	0	0	1	4	1	1	10
Windsor	1	0	1	0	0	0	1	2	3	8
Brock	0	0	0	0	2	0	1	2	1	6
Ryerson	0	0	0	1	2	0	2	0	1	6
Wilfrid Laurier	1	0	0	1	0	1	0	2	0	5
Lakehead	2	0	0	0	0	0	1	0	1	4
Laurentian	0	0	0	0	0	1	2	0	0	3
Trent	1	1	0	0	0	0	0	0	0	2
UOIT	0	0	0	0	0	0	0	0	0	0
Nipissing	0	0	0	0	0	0	0	0	0	0
TOTAL	66	62	63	52	62	73	60	71	67	576

From its beginning, Waterloo 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. Today we have fifteen active industrially sponsored NSERC Research Chairs, and our Technology Transfer and Licensing Office helps researchers commercialize the results of their research. Waterloo's inventor-owned intellectual property 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.

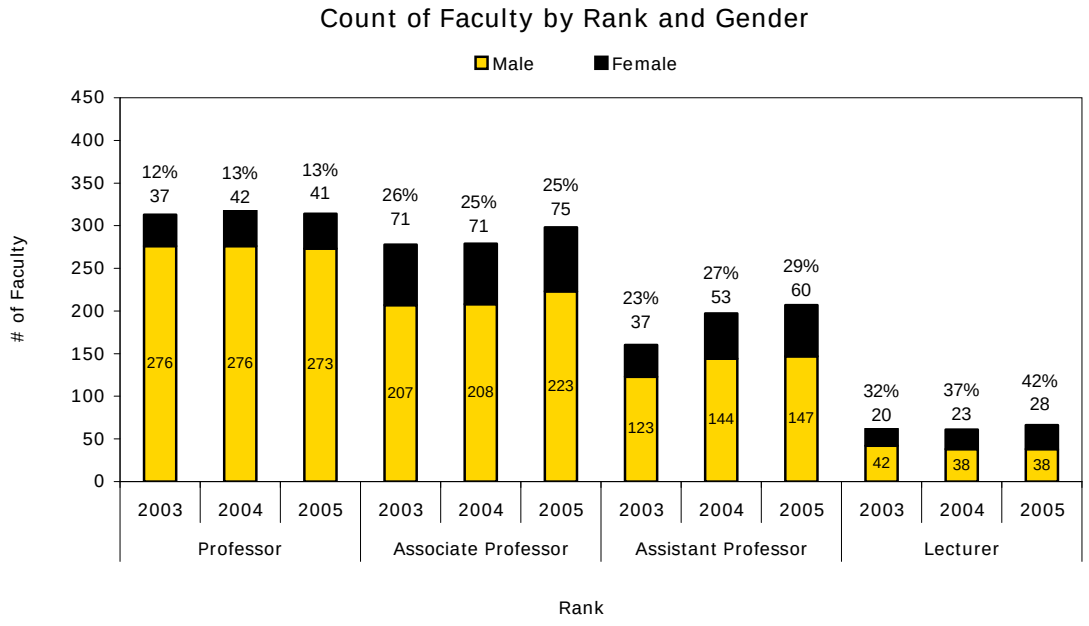
Waterloo's sixth decade planning is dedicated to achieving increased research intensity and the vigorous promotion and encouragement of frontier and reflective research.

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. In this section we examine the count of our total faculty by rank and gender and, our new faculty hires.

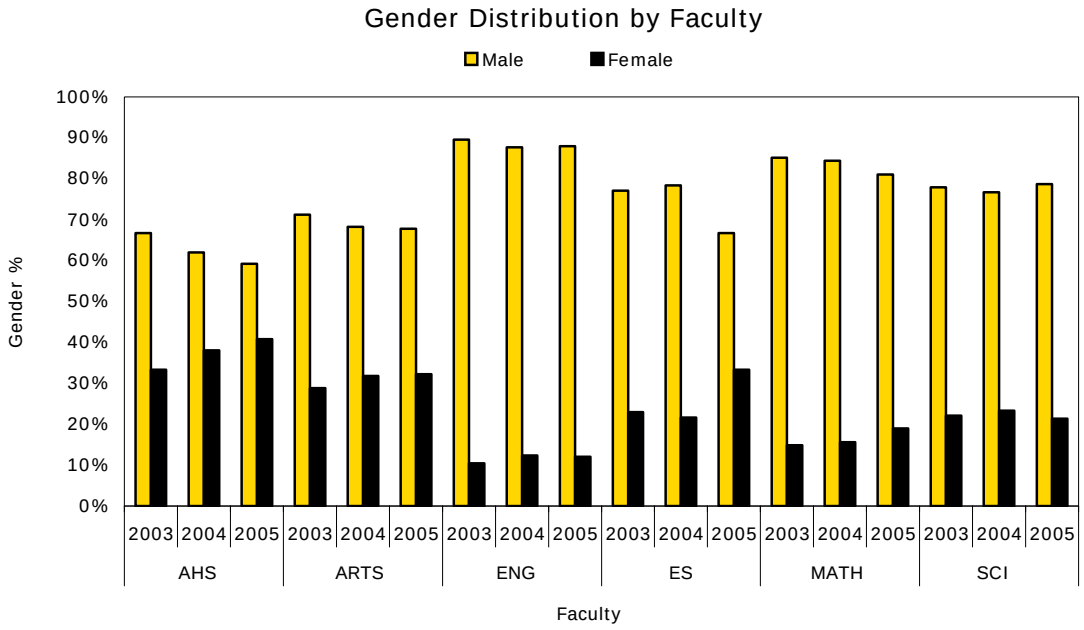
4.1. Faculty Counts by Gender

Figure 4.1.A[26]



[26] The percent displayed represents the total percent female. Count of all full-time regular appointments, excluding researchers and visitors. Source: Stats Canada UCASS.

Figure 4.1.B



4.2. New Hires by Gender

Waterloo is committed to faculty renewal, in particular highly qualified female faculty. To support our goal to achieve the highest-quality learning environment for our students, we actively seek out the best and the brightest in their fields of study.

Two factors contribute to Waterloo's seemingly low percentage of female faculty, particularly in the areas of math, engineering and science: Waterloo has higher proportions of faculty in these disciplines than other universities; and the percentage of female PhD 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 indicates, over the past three years, the available pool of females in mathematics has been about 4.5 per cent, in engineering 15 per cent and in science 20 per cent. At Waterloo our percentage of female faculty in Mathematics is close to 20 per cent, in Engineering about 12 per cent and in Science over 20 per cent. Each decade, Waterloo establishes female hiring targets. For 2010, our female faculty target is 199; as of 2005, we have already surpassed the target with 204 female faculty.

Figure 4.2.A

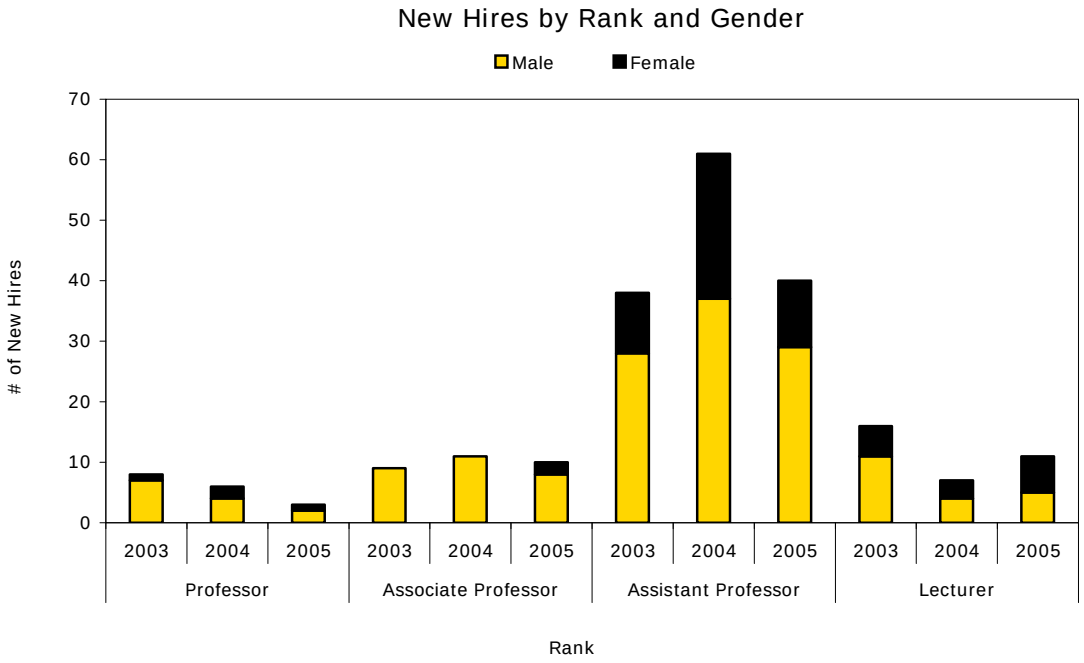
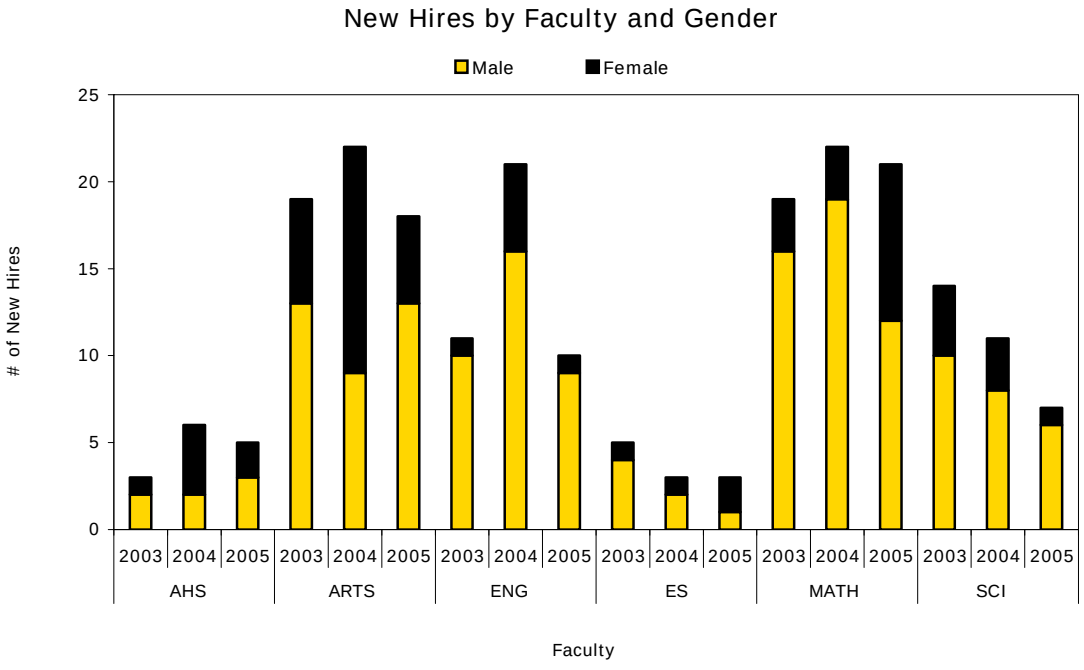


Figure 4.2.B

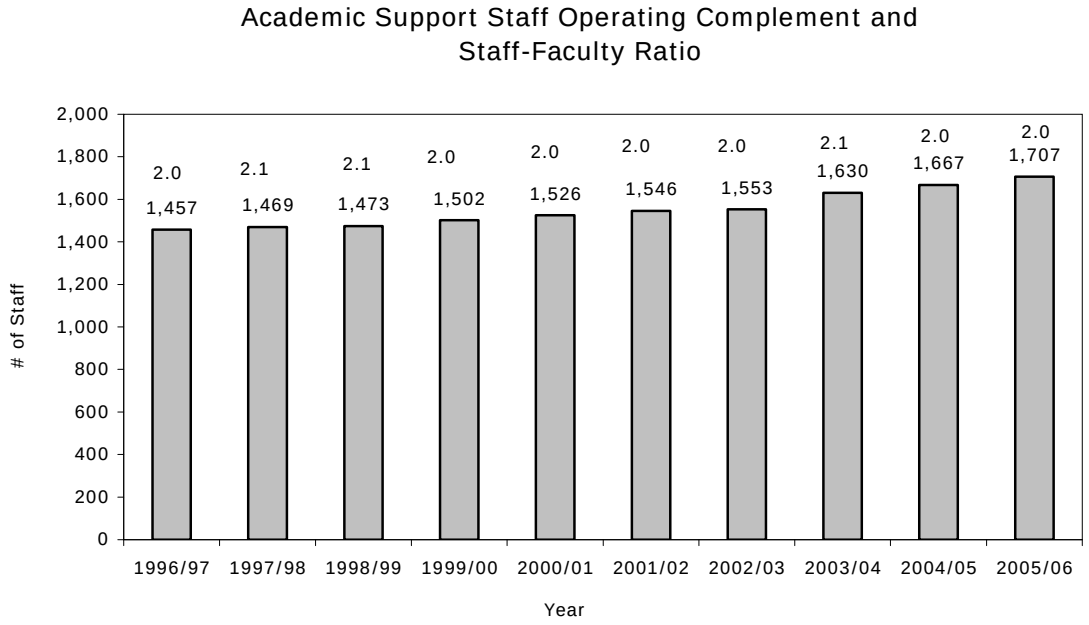


5. STAFF

A world-leading university needs highly competent staff. Waterloo promotes the recruitment of staff of the highest quality; recognizes the importance of staff involvement in, and contribution to, the educational process; and seeks to engage staff in all aspects of our student and campus life. In this section, we highlight our staff complement[27], 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

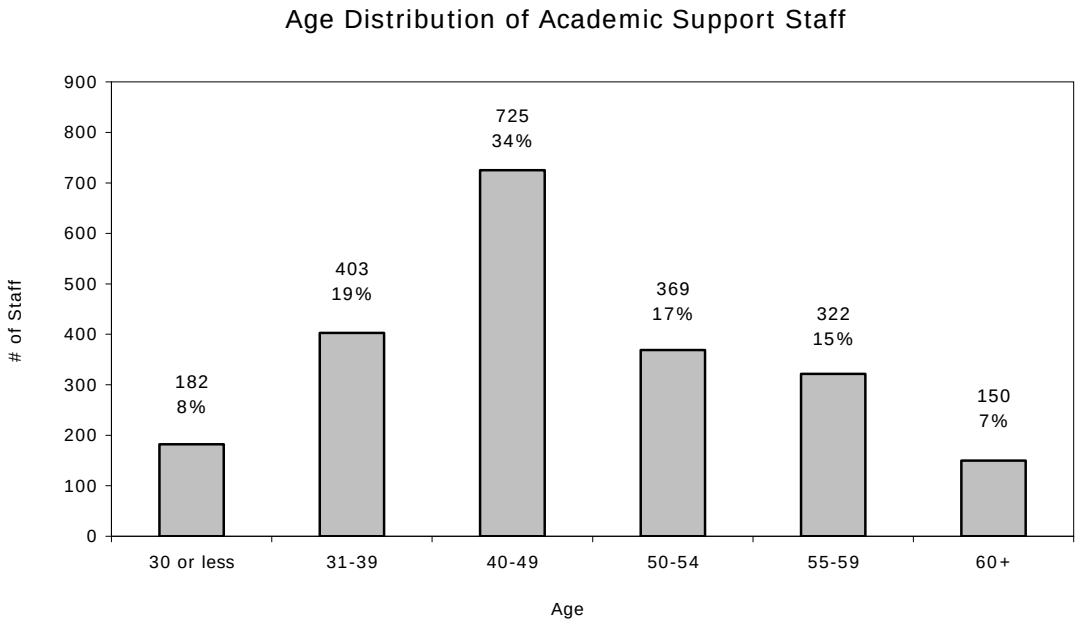


5.2. Staff Age Distribution

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.

[27] Staff complement positions are ongoing positions—filled and open—supported by operating funds, for which the University has made a budgetary commitment. Source: Finance.

Figure 5.2.A


Age Distribution of Academic Support Staff
# of Staff
900
800
700
600
500
400
300
200
100
0
182
8%
403
19%
725
34%
369
17%
322
15%
150
7%
30 or less
31-39
40-49
50-54
55-59
60+
Age

6. CO-OPERATIVE EDUCATION

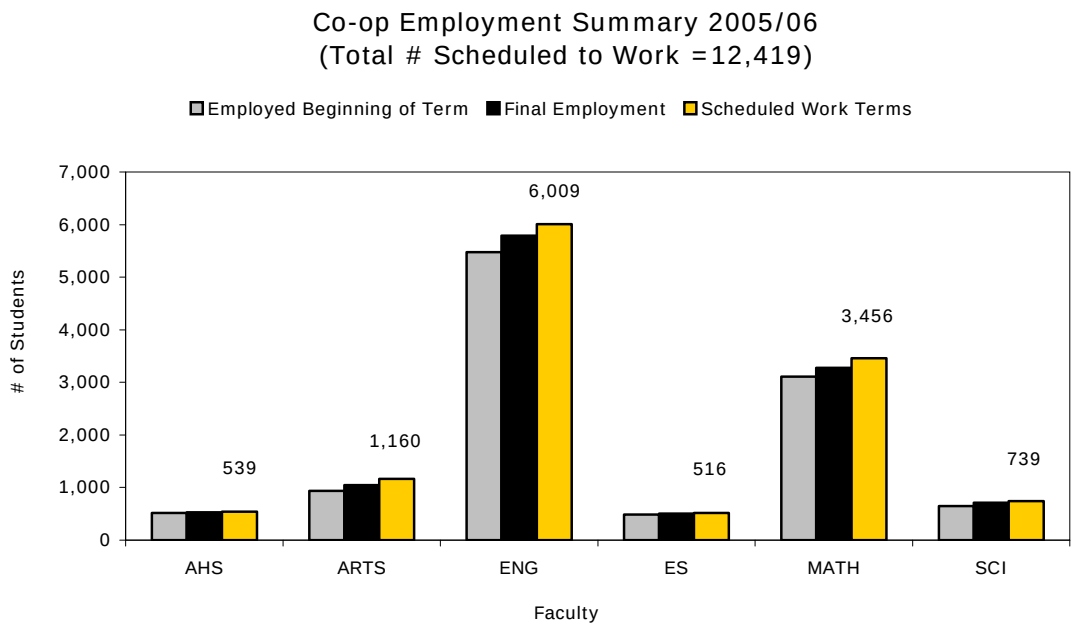
From its inception in 1957, the University of Waterloo has committed to the model of co-operative education. From the early days when engineering was the only faculty with co-operative programs—in fact, 100 per cent of engineering was co-op—Waterloo has continued to invest in co-operative education. In fall 2005, about 55 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 3,000 employers, and has 3,500 to 4,500 students looking for employment each term. While not the first university to try the co-op model, Waterloo is reputed to have the largest university-based program in the world.

In 2005, Waterloo completed a comprehensive review of Co-operative Education and Career Services; the committee which conducted this review put forward several observations and recommendations. Currently, an intensive study of the co-op employment process is underway. As a result of these reviews, we expect additional indicators will be added to future reports.

6.1. Employment Summary

We measure co-op employment to better understand how and when our students are employed throughout each term. Figure 6.1.A is a summary of the number of students scheduled to work in a term and the number employed at the beginning and at the middle of term, by Faculty.

Figure 6.1.A[28]



This indicator gives us a sense of how well we are meeting the needs of our students by making sure they have jobs. Our co-op employment rate at the final date (eight weeks into the term)

[28] Software Engineering is offered jointly by the Faculties of Engineering and Mathematics and enrolment is split evenly between these two Faculties. The number of students scheduled to work per Faculty is displayed.

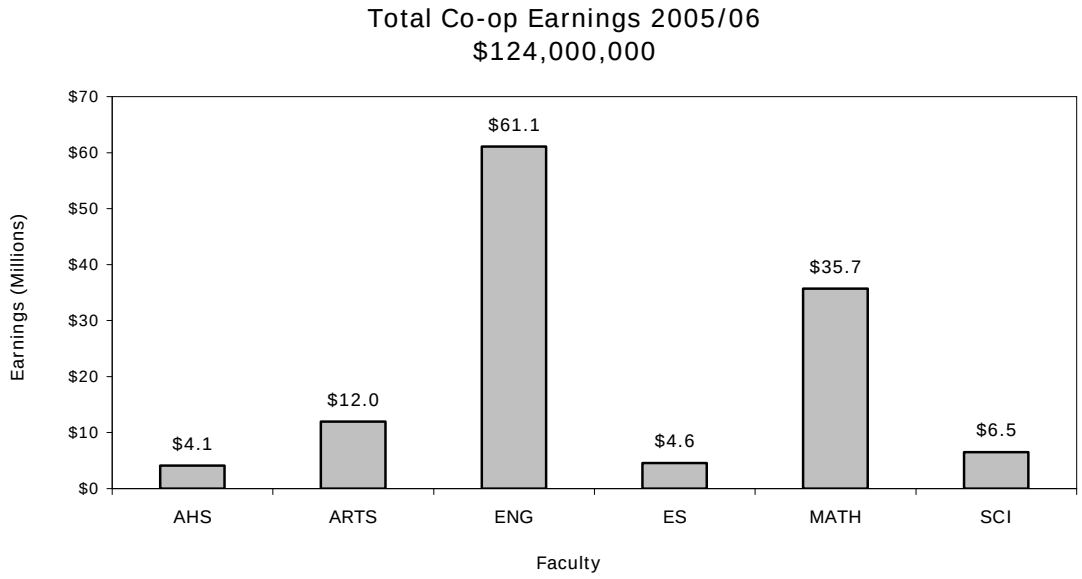
remains impressive at 96 per cent (95 per cent in 2004/05). Despite an improvement in the percent of students scheduled to work at the *beginning* of term, from 86 per cent in 2004/05 to 90 per cent in 2005/06, we recognize the need to improve job opportunities that begin at the start of term. Challenges in early employment stem from a number of factors, including the rapid expansion of our co-op programs, the general state of the job market, the technology sector slump, and increasing competition from other universities and colleges offering co-operative education opportunities.

6.2. Earnings by Co-op Students

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.A shows total earnings of our co-op students in 2005/06 of $124 million, an increase of $13 million over the 2004/05 figure.

In addition to a salary premium two years after graduation of approximately 12 per cent, students who study in the co-operative education system gain valuable work experience, 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.

Figure 6.2.A[29]



In support of the benefits that co-operative education brings, the government of Ontario introduced, in 1996, the Co-operative Education Tax Credit[30], providing a refundable tax credit of up to $1,000 dollars per student for each four months of employment.

[29] 2002 Waterloo study Co-operative Education: Greater Benefits, Greater Costs.

[30] http://www.trd.fin.gov.on.ca/userfiles/page_attachments/Library/3/Ctie_3021c.pdf

7. RESOURCES

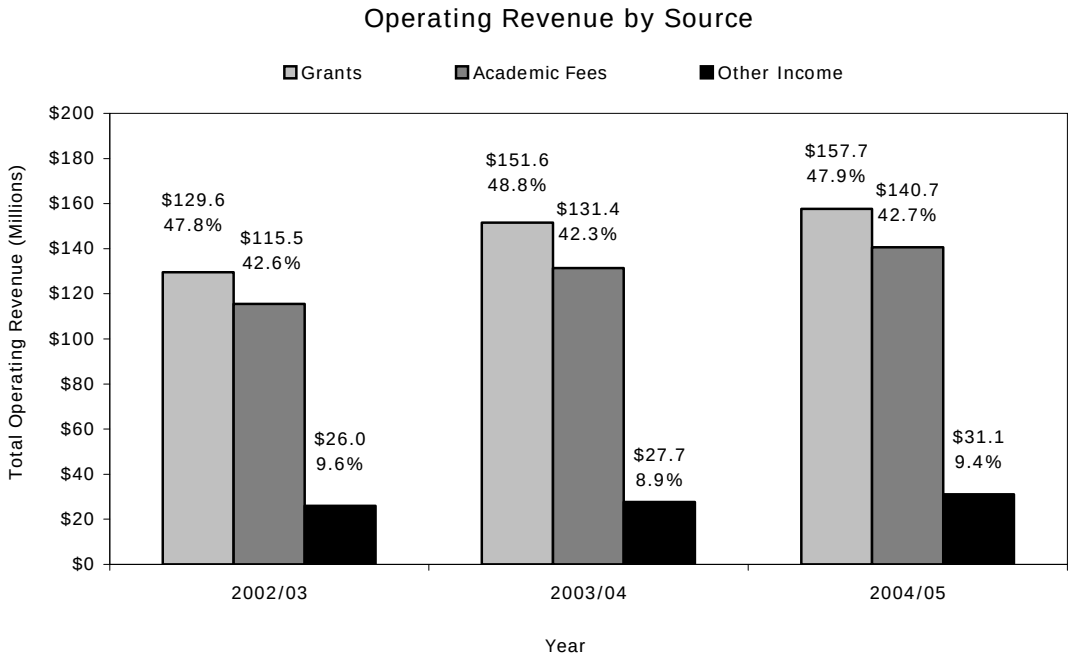
Financial stability and the flexibility to respond to new initiatives and opportunities are paramount to Waterloo's success. Over the last decade and a half, reduced per student government operating grants have resulted in higher student-faculty ratios. At the same time, students are paying more for their education. As a result, students and parents expect better programs and services, and a greater voice in decisions that affect them. 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 ten years as government grants have not kept pace with inflationary pressures.

Figure 7.1.A



Scholarships and bursaries as a per cent of operating expenses have increased dramatically over the past 10 years, from about 3 per cent in 1994/95 to 11 per cent in 2004/05 due, in most part, to Waterloo's response to the increased financial demands placed on students.

Figure 7.1.B

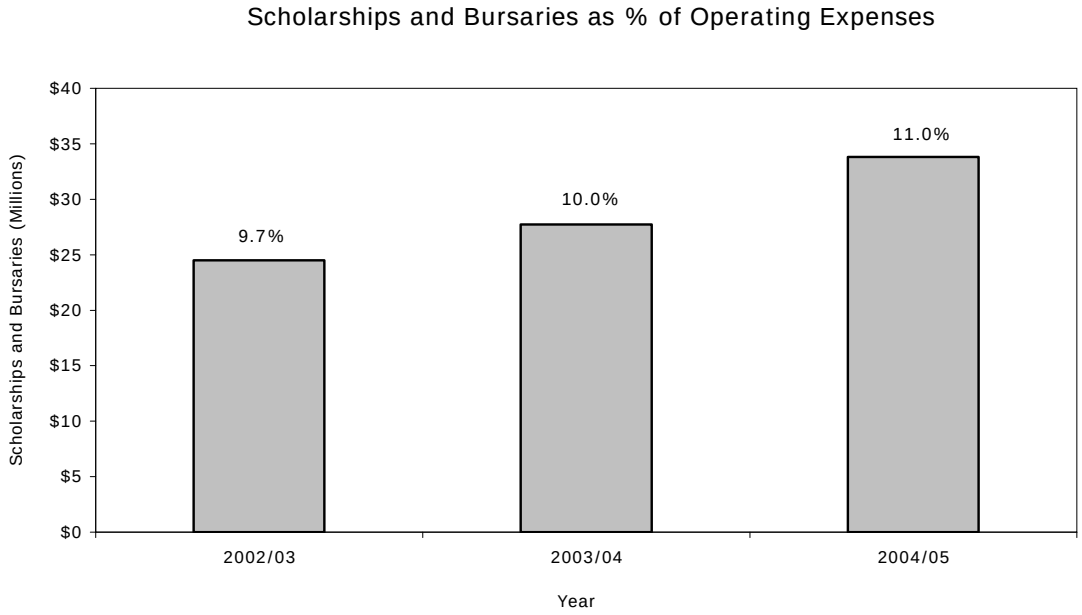
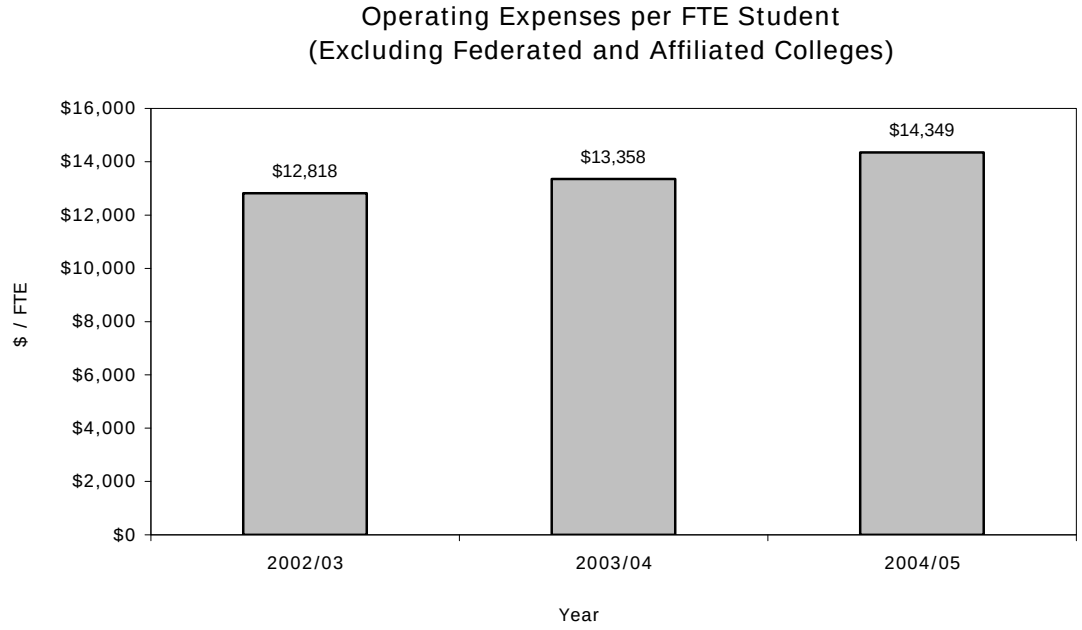


Figure 7.1.C

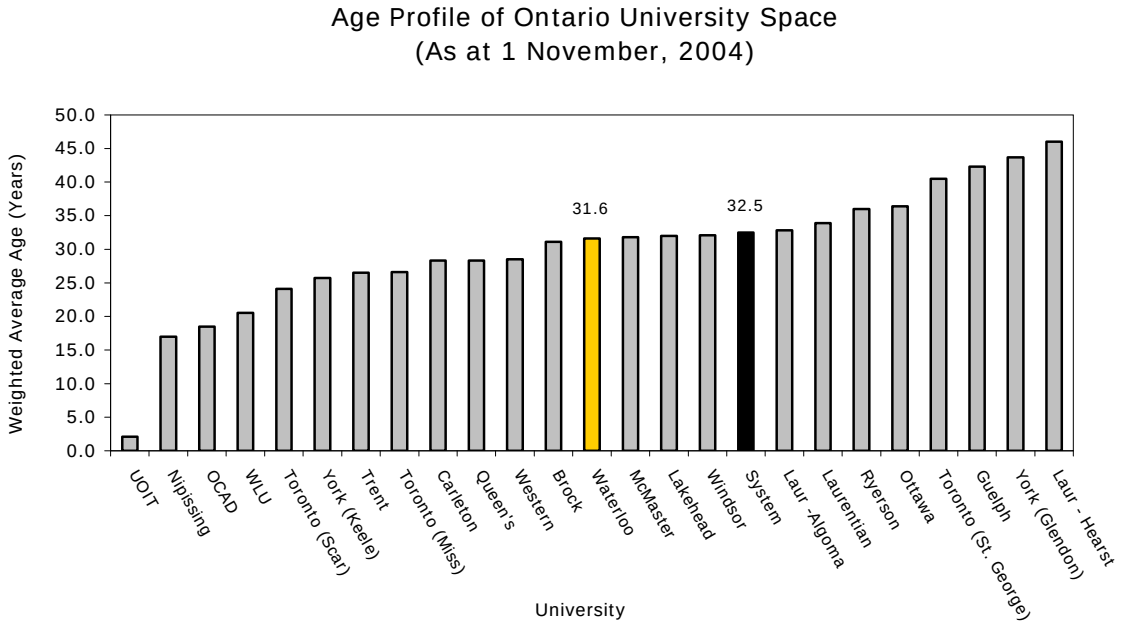


7.2. Age of Facilities Profile

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[31] 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.

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.[32]

Figure 7.2.A[33]



7.3. Space Inventory to Formula

Every three years, the COU also generates a "space entitlement" for each Ontario university—that is, 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.

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[31] 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.

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

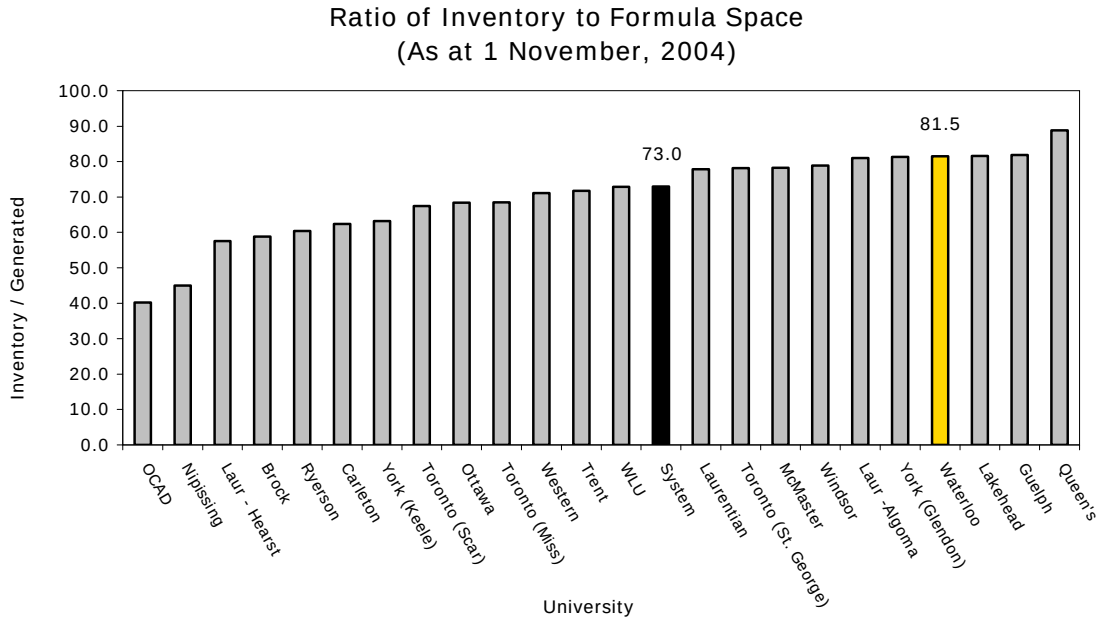
[33] Source: COU Inventory of Physical Facilities of Ontario Universities 2004-05, Age Profile of Ontario University Space.

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 percent is less than 100, then the university has less space than it needs, according to the formula.

Co-op programs allow for a more efficient use of the University's physical plant, by shifting enrolment from fall and winter terms to the spring term. At Waterloo, 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, Waterloo 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, Waterloo's ratio of inventory to formula space drops from 81.5 per cent to 71.7 per cent, less than the system average.

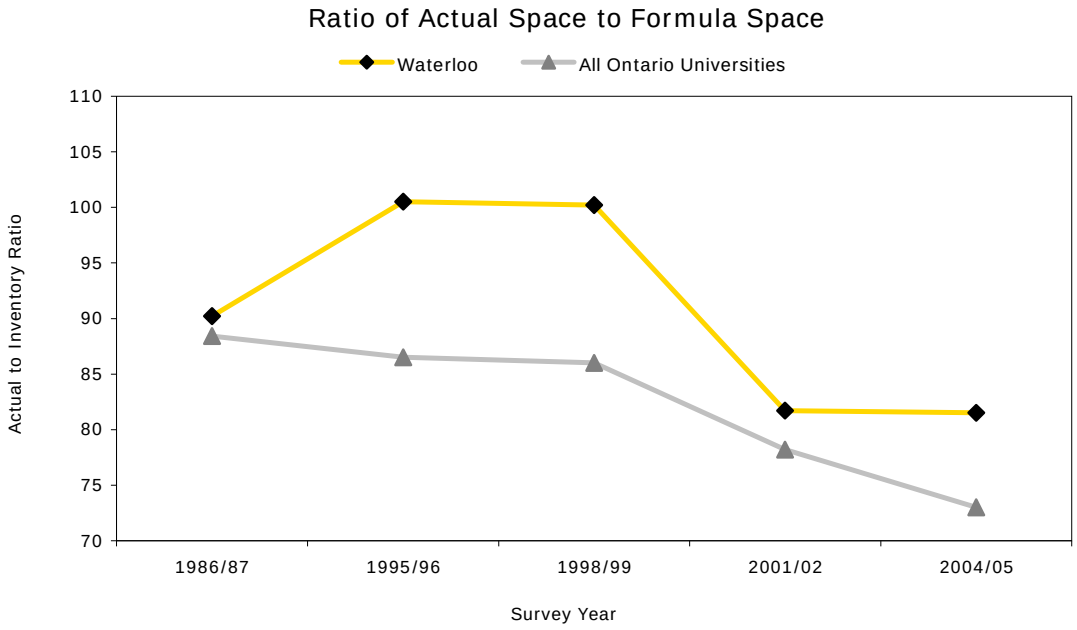
Figure 7.3.A[34]



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, Waterloo had adequate space to conduct University business, according to the formula shown in the chart below. 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.

[34] Source: COU Inventory of Physical Facilities of Ontario Universities 2004-05 Total Space (1-15): Generated Space and Inventory 2004/05.

Figure 7.3.B[35]



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

8. FUNDRAISING

Though Waterloo's outstanding reputation attracts many talented faculty members, staff members, and students, budget constraints hamper our ability to offer competitive salaries, and to keep student-faculty ratios low.

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

As part of its annual ranking of Canadian universities, Maclean's magazine asks for two figures each year from each university: 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.

Maclean's uses the first two numbers as benchmarks for alumni affinity and support of their universities. In the 2005 Maclean's University Rankings issue, Waterloo was ranked first among comprehensive universities, and first overall, in alumni participation.

Figure 8.1.A

Maclean's Alumni Donations Statistics		
	2000-2004	2001-2005
# Alumni with valid contact information (cumulative 5-year total)	374,234	383,209
# Alumni Donors (cumulative 5-year total)	71,426	72,524
% Participation	19.1%	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; excludes pledge expectancies. Excludes honourary degree holders.		

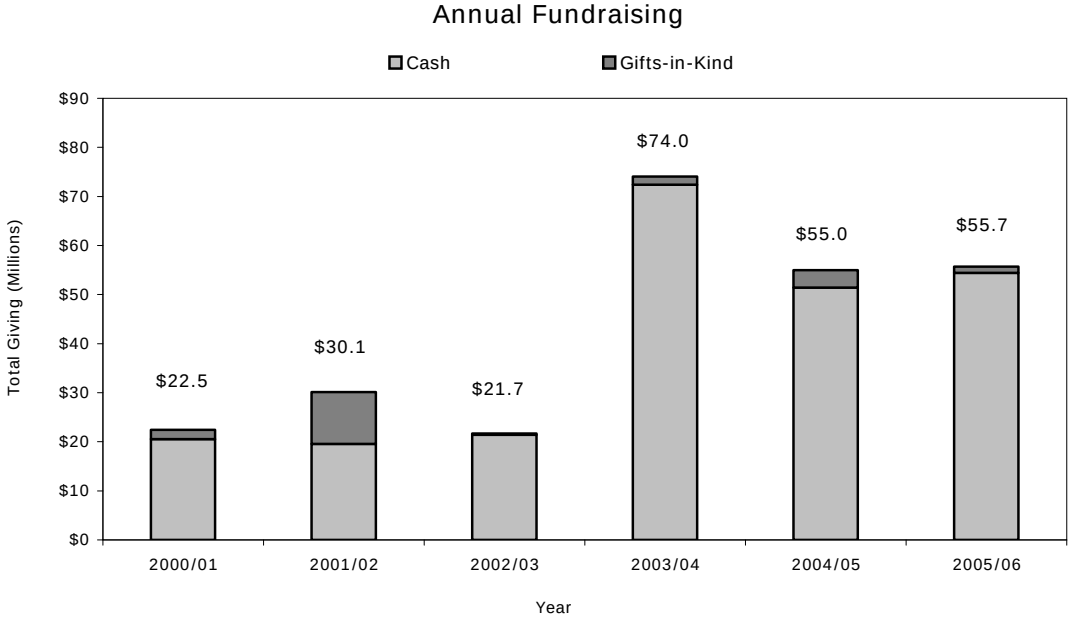
8.2. Annual Fundraising

A summary of funds raised from the private sector is shown, year-by-year, from 2000/01 to 2005/06. 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 Waterloo programs, scholarships, buildings, and research. Combined with other analysis, annual fundraising achievements are tangible indications of support for Waterloo by its alumni, faculty, staff, and friends.

Figure 8.2.A shows a rise in private-sector giving to the University from 2000 to 2006, with a dramatic leap in 2003/04 part of which can be accounted for by a single gift of $32.8 million from Mike and Ophelia Lazaridis. In April 2005, Mike and Ophelia donated an additional $17.2 million, bringing their individual giving to $50.1 million. In 2005/06, Waterloo received a gift of $25 million from David Cheriton (MMath '74, PhD '78) establishing the David R. Cheriton Endowment for Excellence in Computer Science. In recognition of this distinguished gift, the school has been named in his honour.

Figure 8.2.A

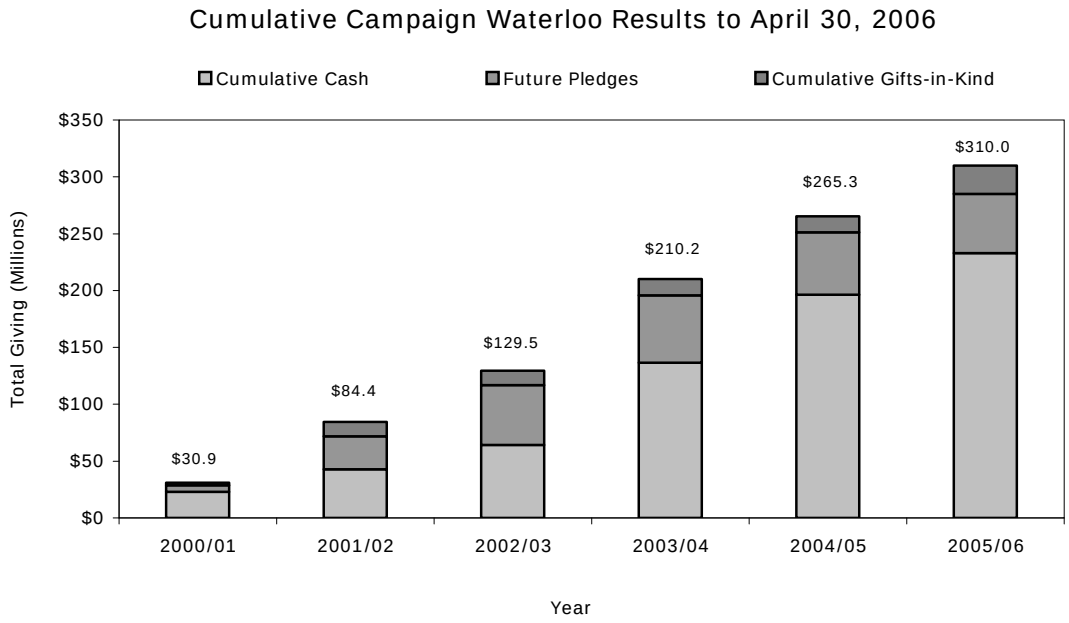


8.3. Cumulative Campaign Results

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 and will continue to 2007, the University's fiftieth anniversary year. The revised goal is to raise $350 million (an increase from $260 million).

Figure 8.3.A illustrates our cumulative fundraising achievements to April 2006, representing 89 per cent of the campaign goal. Funds raised are being used to support priority projects, including new buildings ($80 million), chairs and professorships ($58.1 million), the library ($4.5 million), programs ($113.7 million), and scholarships ($53.3 million).

Figure 8.3.A



In addition to the 2003/04 major cash gift from Mike and Ophelia Lazaridis, in 2004/05 a major cash gift of $3 million was received from the Hallman Foundation. In 2005/06, $25 million was received from David Cheriton for the School of Computer Science.

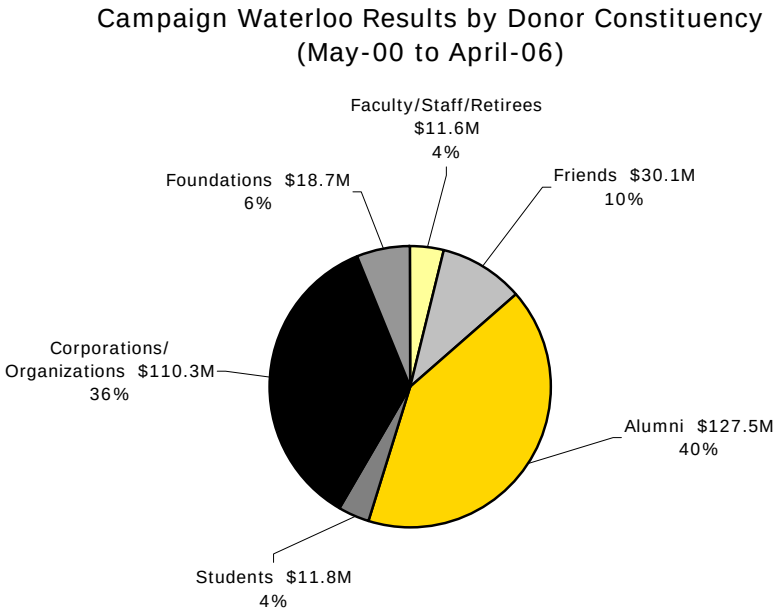
With income well ahead of schedule, we are continuing to raise funds and planning new and extended campaign priorities to keep the momentum of the campaign going through to 2007.

8.4. Donor Constituency

It is important to know not just how successful we have been in raising funds, but who our donors are. Figure 8.4.A shows campaign results by donor source or constituency, cumulated from the beginning of Campaign Waterloo in May 2000 to April 2006.

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—and less than half from foundations, corporations, and organizations.

Figure 8.4.A



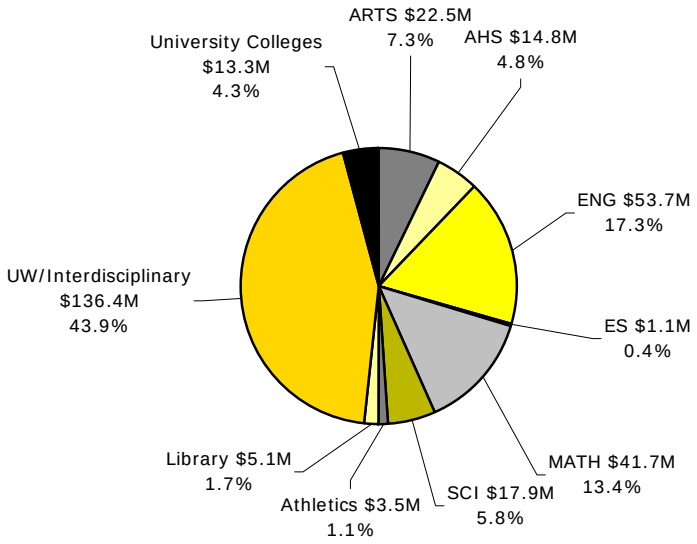
8.5. Gift Designation

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 2006 have been directed according to the wishes of donors.

Figure 8.5.A

Campaign Waterloo Results by Gift Designation
(May-00 to April-06)



The "UW/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 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

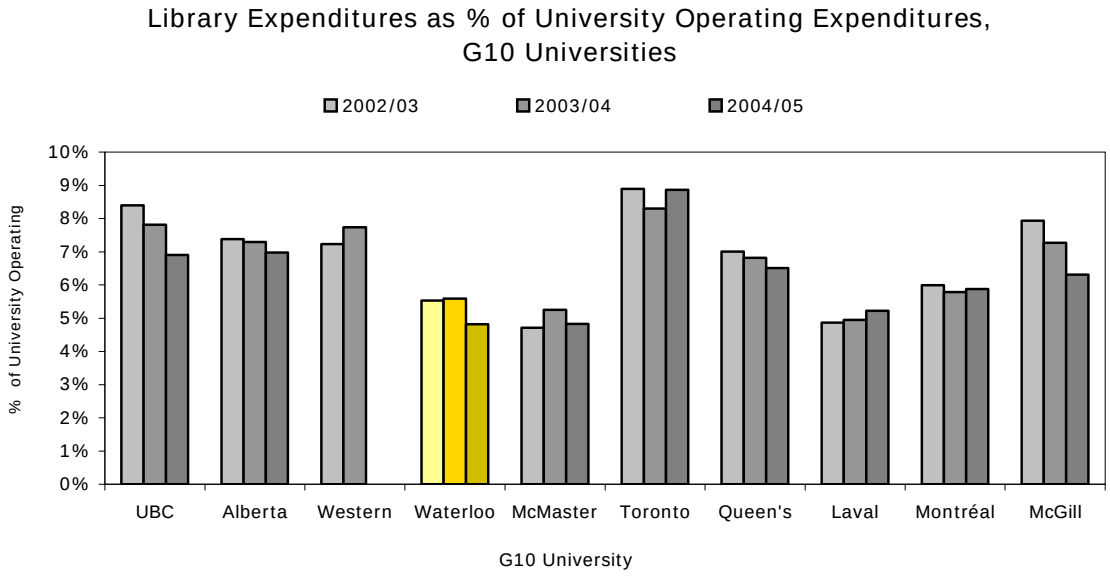
A strong and vibrant library is a vital component of an excellent teaching and research intensive university. The University of Waterloo Library fosters and is a model of collaboration, connectedness and partnerships. The Library's goal is to rank among the top research libraries in Canada, as evidenced by the quality and strength of information resources to support research, learning and teaching; the impact of its educational programs; high faculty, staff and student satisfaction with information resources, services and facilities; and the innovative and effective use of technology to support delivery of services and information resources.

9.1. 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 G10 libraries for three consecutive fiscal years. Waterloo's library expenditures amounted to 5.5 per cent in 2002/03, placing it below the average of 6.8 per cent, and eighth out of the ten. In 2003/04 the figure increased slightly to 5.6 per cent, placing us seventh out of ten, with a drop to 4.8 per cent in 2004/05 and a return to eighth place.

Figure 9.1.A[36]



[36] Source: Association of Universities and Colleges of Canada (AUCC).

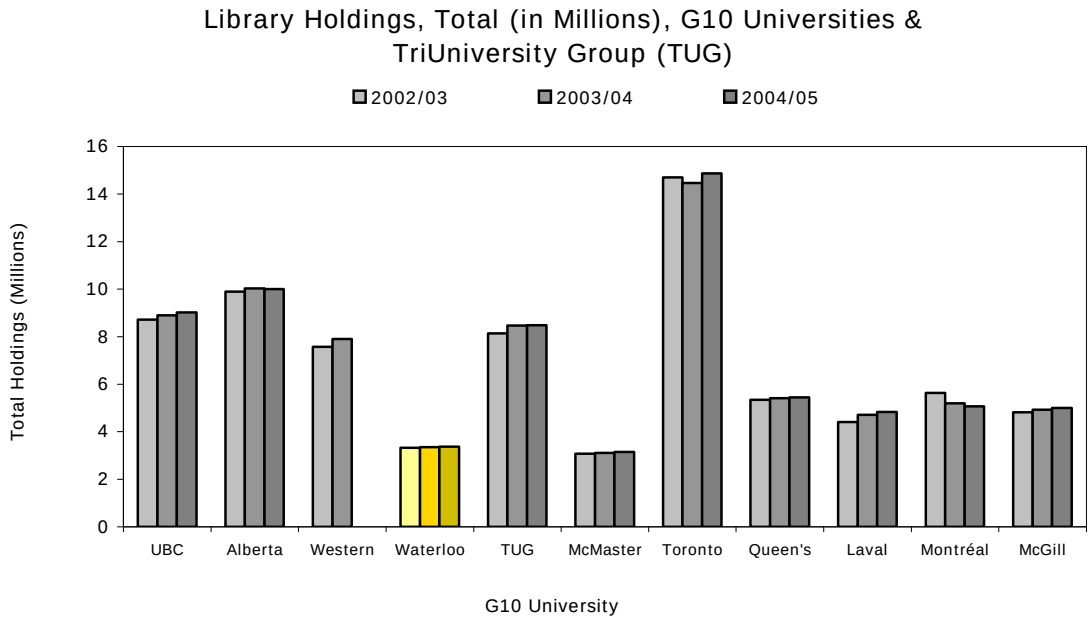
"Waterloo library expenditures" includes data for the libraries of Waterloo's federated university and affiliated colleges. The data for this chart come from the Association of Universities and Colleges of Canada (AUCC) which collects, on behalf of its members, the data used in the annual Maclean's magazine survey.

9.2. Holdings: Print and Electronic

We know that strong university library collections are essential to support teaching, learning, and research. The size of the collection is one indication 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 G10 libraries as well as the TriUniversity Group (TUG).

While Waterloo ranks low in total holdings at ninth out of ten, 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 fourth placed G10 university.

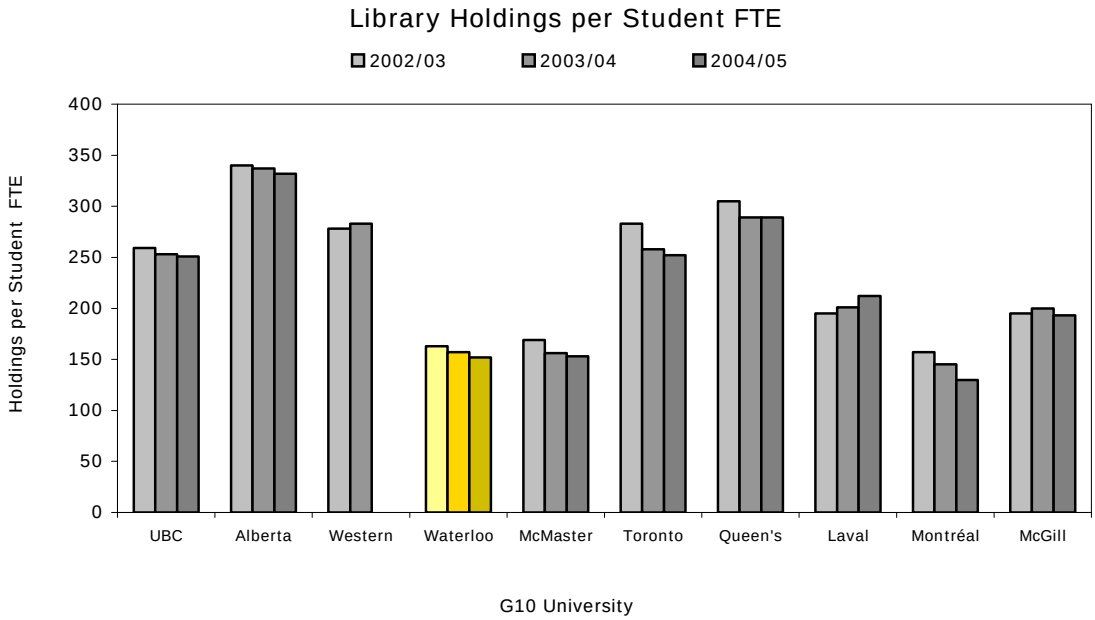
Figure 9.2.A[37]



[37] Source: Association of Universities and Colleges of Canada (AUCC).

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.

Figure 9.2.B[38]



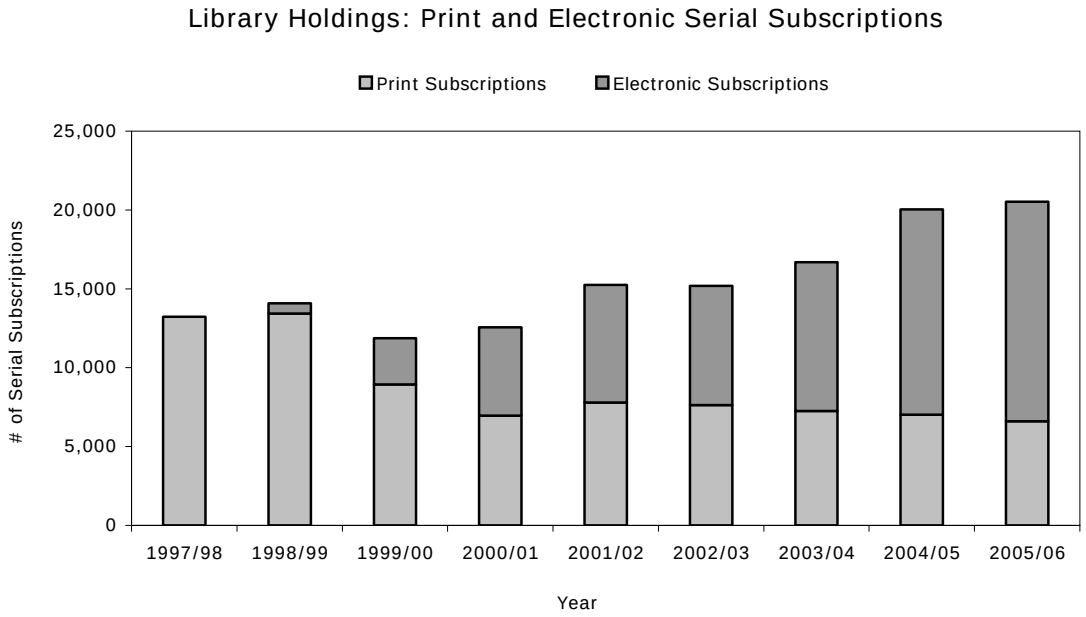
The data in Figure 9.2.A and Figure 9.2.B do not take into account the significance of electronic resources, which are playing an increasingly important role at all universities.

The figures in these two charts include the holdings of the libraries of Waterloo's federated university and affiliated colleges. The count includes printed materials (monographs, bound serial volumes, government documents) and micro-materials, but not electronic, cartographic, or audio-visual materials.

In 2004/05 the Waterloo Library spent a greater proportion of its acquisitions budget on electronic resources than any other research library in Canada. Figure 9.2.C shows that Waterloo's electronic serials holdings have continued to grow substantially.

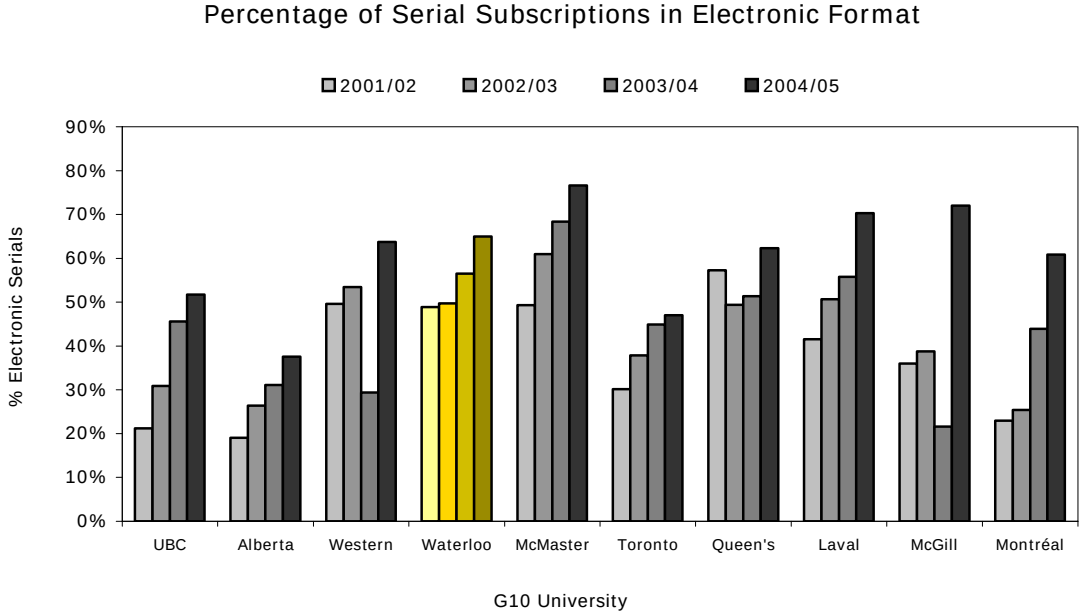
[38] Source: Association of Universities and Colleges of Canada (AUCC).

Figure 9.2.C



As Figure 9.2.D shows, while total serial subscriptions remain lower than at the other G10 University libraries, Waterloo's strength in electronic serials has placed Waterloo in third or fourth place in percentage of serial subscriptions in electronic format. In 2004/05 Waterloo's ranking dropped to fifth position, with 65 per cent of serials received in electronic format.

Figure 9.2.D



10. CONCLUSION

The Performance Indicators Task Force and the Data Working Group will 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 look to 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, 2006

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We extend special recognition to Kerry Tolson and Sam Schmidt of Institutional Analysis and Planning for their dedicated efforts in the production of the 2006 report. Please direct questions, comments and concerns to analysis@uwaterloo.ca.