



**UNIVERSITY OF ALBERTA**  
**FACULTY OF GRADUATE**  
**STUDIES & RESEARCH**

# **Graduate Student Enrolment Report**

## **2017-18**

**January 2018**

## Message from the Vice-Provost and Dean, Faculty of Graduate Studies and Research (FGSR)

It is a pleasure to present the third annual report on graduate enrolment at the University of Alberta from the Faculty of Graduate Studies and Research (FGSR). This report provides a snapshot view of graduate education at the university and highlights the diversity of disciplines and specializations that we offer.

Overall, total applications are up from 9,700 in 2016-17 to an estimated 14,500 in 2017-18, an increase of nearly 50%. While there is no question that interest in our graduate programs is growing, applicant numbers must be interpreted with caution.

One important factor is the new graduate admissions system implemented in October 2017 as part of the Graduate Studies Management Solution (GSMS). The new system has eliminated the practice adopted by some departments of pre-screening applications. Because we now process more applicants within the shared system, there has been a marked increase in observable applications, particularly international applications, to certain departments.

Another important insight is that the increase in total applications is primarily driven by a large increase in applications to course-based Master's programs. The University of Alberta now has nearly 30% more course-based Master's students than we had a decade ago. Of particular note, the Faculty of Engineering reopened enrolment to course-based Master of Engineering programs for Fall 2017, attracting nearly 2,000 applicants.

Eliminating applications that can be directly attributed to the migration to GSMS and the reopening of the Master of Engineering programs, overall applications for Fall 2017 were up by approximately 15%. Using the same method, international applications increased by 38%. This is in line with what our CALDO counterparts have been reporting for the same period.

Looking ahead, we know that global conditions will continue to affect applicant behaviour and graduate enrolment. The current climate around immigration makes Canada an attractive option for many international graduate students. We've already had experience with this change in the geopolitical environment. Last March, FGSR waived graduate application fees for applicants from the seven countries affected by the US travel ban to support students whose plans were disrupted by a change in US visa policies in the middle of the application cycle. Similarly, Brexit might also make British graduate programs more expensive for, or inaccessible to, international students. Australia has tightened rules for temporary workers that may make the country less attractive to international students who plan to work in Australia after graduating.

Local factors will also affect graduate applications and enrolments. One significant factor in students' decisions about where to go for graduate school is funding packages. Minimum funding guarantees are under discussion at the University of Alberta as they are across the U15. In the fall of 2017, FGSR surveyed our primary graduate contacts and found that of the 64 PhD programs responding, 35 guarantee funding. This information is serving as a springboard for discussions on financial impact (overall impact may be small, but timing may be poor), recruitment (funding guarantees make a difference to students as they choose a place to study), and completion times (likely not a silver bullet, but consistent funding should impact some of the factors behind attrition).

FGSR is also concerned with what happens as our graduates move beyond their degrees. We are working diligently on a number of fronts to ensure graduate students acquire marketable and relevant professional skills. Attainment of graduate degrees and employability of those with advanced degrees is a concern across the country. The Conference Board of Canada has consistently given Canada a 'D' grade for its relatively low levels of PhD graduates in comparison to OECD countries\*. PhDs are critical in supporting a national and provincial innovation ecosystem, as well as fueling social and economic prosperity, and it is important that these graduates are ready and able to contribute to the economy in Alberta and in Canada.

FGSR is taking an evidence-based approach to demonstrating the value of a PhD across multiple employment and social sectors. The PhDiversification project, launched in 2016 with funding from the Government of Alberta, uses Lean Six Sigma principles to visualize the current employability process for PhDs with the intent of focusing our energies on how we can improve employability outcomes for our students. This will give the University of Alberta the opportunity to set ourselves apart from our Canadian peers by establishing a strategy that supports our doctoral students' transition from degree to broader career paths outside academia.

FGSR welcomes the opportunity to be a key partner in strategic enrolment management and presents this report with great pride in our students, our supervisors and our departmental partners. I appreciate the contributions of Gurpinder Gandhara, Cristiana Caramihai, Denise Giles, Ramona Czakert, Connie Bryson and Amy Dambrowitz.

I look forward to the conversations this report will spark.

Heather Zwicker, PhD

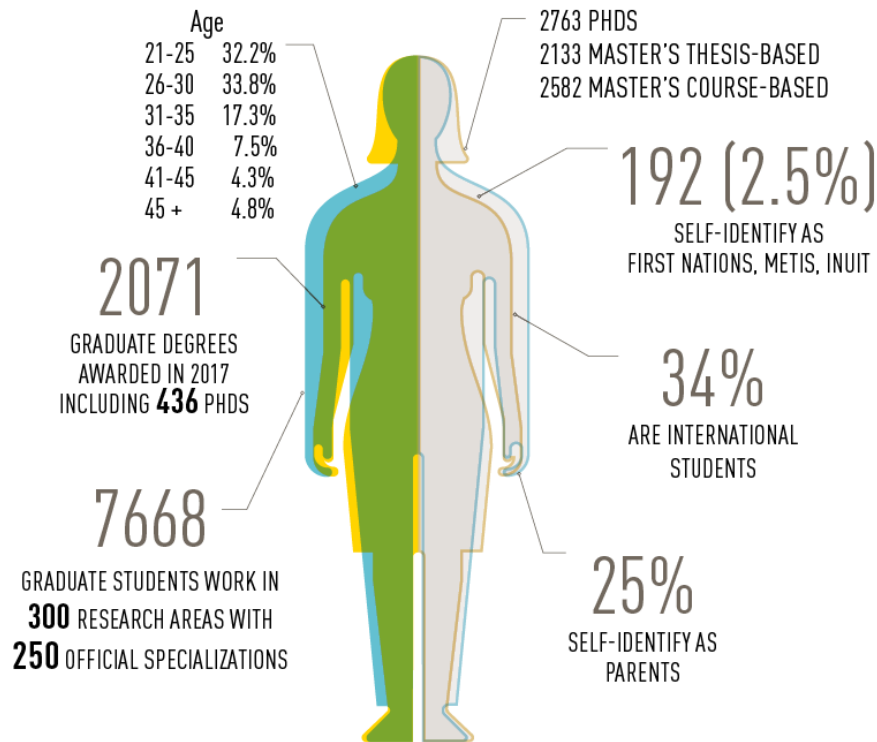
Vice-Provost and Dean, Faculty of Graduate Studies and Research

January 2018

\*as reported in "PhD Graduates," How Canada Performs, 2013: <http://www.conferenceboard.ca/hcp/provincial/education/phd.aspx>

## Graduate Students at a Glance

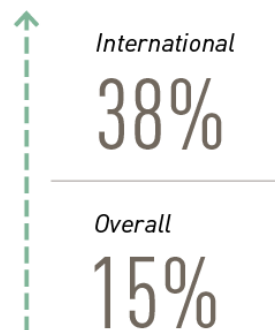
20% OF UNIVERSITY OF ALBERTA STUDENTS ARE GRADUATE STUDENTS



### AVERAGE COMPLETION TIMES BY DEGREE

<i>Domestic</i>	<i>International</i>
<b>2.6</b> years MASTER'S COURSE-BASED	<b>1.7</b> years MASTER'S COURSE-BASED
<b>3.0</b> years MASTER'S THESIS-BASED	<b>2.7</b> years MASTER'S THESIS-BASED
<b>6.2</b> years DOCTORAL	<b>5.1</b> years DOCTORAL

### INCREASE IN APPLICATIONS (FALL 2017)



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# 1. Enrolment

This section presents enrolment numbers based on the standard December 1 headcounts, as reported to Statistics Canada and the Government of Alberta. Enrolment is a point-in-time snapshot and the December headcounts capture fall term registrations only. As a result, enrolment reported here does not reflect the total number of graduate students who have been on campus at various points during the year.

Variation in graduate enrolment from one academic year to the next is due to three independent factors (new registrations, convocation, and attrition) and is best considered in reference to all three.

## 1.1. Graduate Enrolment by Degree Type

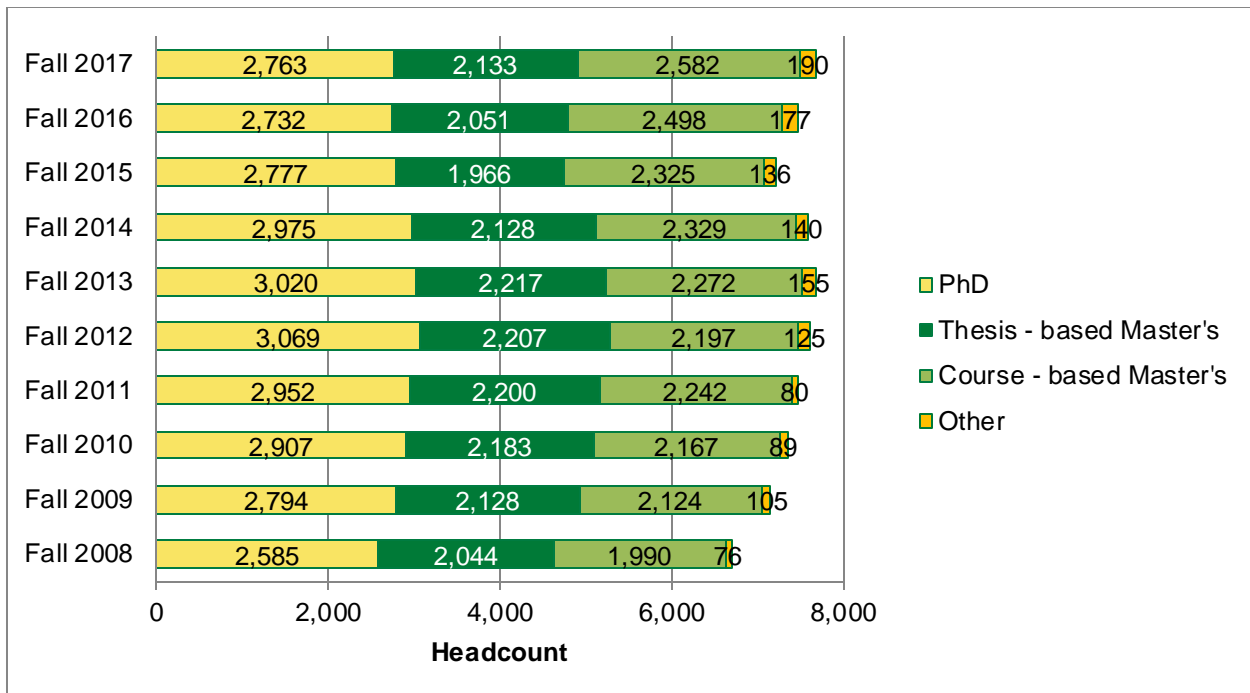
Overall graduate enrolment has risen, but as the following tables and figures demonstrate, the changes are not uniform. Doctoral enrolments are somewhat higher, and certificate programs have risen considerably. Enrolment in course-based Master's programs has risen consistently over this period, with a notable increase over the past two years.

**Table 1.1. Graduate enrolment by degree type.**

Degree	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
PhD	2,585	2,794	2,907	2,952	3,069	3,020	2,975	2,777	2,732	2,763
Thesis - based Master's	2,044	2,128	2,183	2,200	2,207	2,217	2,128	1,966	2,051	2,133
Course - based Master's	1,990	2,124	2,167	2,242	2,197	2,272	2,329	2,325	2,498	2,682
Other	76	105	89	80	125	155	140	136	177	190
<b>Total</b>	<b>6,695</b>	<b>7,151</b>	<b>7,346</b>	<b>7,474</b>	<b>7,598</b>	<b>7,664</b>	<b>7,572</b>	<b>7,204</b>	<b>7,458</b>	<b>7,668</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

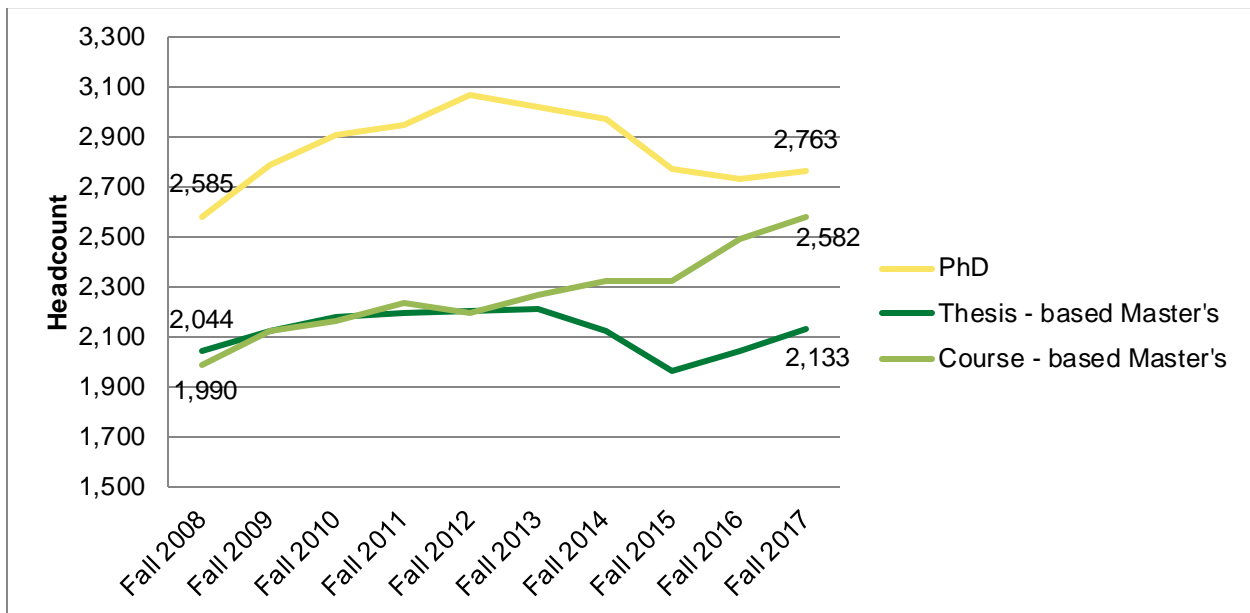
Notes: 1) Other = students in post Master's and post-baccalaureate certificates, postgraduate diplomas, qualifying, special graduate, visiting and probationary students; 2) Students who have FGSR listed as their department are included.



**Figure 1.1. Graduate enrolment by degree type.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) Other = students in post Master's and post-baccalaureate certificates, postgraduate diplomas, qualifying, special graduate, visiting and probationary students; 2) Students who have FGSR listed as their department are included.



**Figure 1.2. Trends in graduate enrolment by degree type.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Note: Students who have FGSR listed as their department are included.



Fall term enrolment headcounts by Faculty are shown in Tables 1.2-1.5. We are particularly proud to welcome the five students registered in our innovative condensed PhD in Indigenous Studies, offered for the first time this fall in the Faculty of Native Studies.

Reviewing the data by Faculty reveals that recent declines in PhD numbers are concentrated in Arts, Science, Business and Education (Table 1.2).

**Table 1.2. Doctoral degree, fall headcount by Faculty.**

<b>Faculty</b>	<b>Fall 2013</b>	<b>Fall 2014</b>	<b>Fall 2015</b>	<b>Fall 2016</b>	<b>Fall 2017</b>
<b>ALES</b>	235	237	230	221	220
<b>Arts</b>	478	452	413	412	394
<b>Business</b>	61	51	45	46	49
<b>Education</b>	291	295	257	246	255
<b>Engineering</b>	702	711	678	679	709
<b>Extension</b>					
<b>Faculté Saint-Jean</b>					
<b>Faculty of Native Studies</b>					5
<b>Kinesiology, Sport, and Rec.</b>	65	55	56	49	58
<b>Law</b>	8	7	7	8	7
<b>Medicine and Dentistry</b>	316	340	342	329	308
<b>Nursing</b>	65	68	64	68	66
<b>Pharmacy</b>	33	32	32	28	23
<b>Public Health</b>	42	45	50	47	57
<b>Rehabilitation Medicine</b>	38	36	37	35	45
<b>Science</b>	686	646	566	564	567
<b>Total</b>	<b>3,020</b>	<b>2,975</b>	<b>2,777</b>	<b>2,732</b>	<b>2,763</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Over the same time period, there has been a consistent growth in course-based Master's programs (Table 1.3) as a result of a growing interest in professional Master's degrees, including the course-based Master of Engineering programs in the Faculty of Engineering (which were reopened for Fall 2017 admissions) and the course-based programs in the Faculty of Rehabilitation Medicine.

**Table 1.3. Master's degree, fall headcount by Faculty.**

Faculty	Fall 2013			Fall 2014			Fall 2015			Fall 2016			Fall 2017		
	M-T	M-C	Total	M-T	M-C	Total	M-T	M-C	Total	M-T	M-C	Total	M-T	M-C	Total
ALES	258	26	284	261	21	282	244	22	266	255	35	290	254	39	293
Arts	311	97	408	269	90	359	240	81	321	255	87	342	258	67	325
Business		499	499	1	543	544		558	558		556	556	0	572	572
Education	85	496	581	80	546	626	70	567	637	70	576	646	65	529	594
Engineering	566	148	714	545	93	638	527	36	563	544	111	655	557	235	792
Extension	2	49	51	1	54	55		54	54	8	52	60	15	39	54
Faculté Saint-Jean	16	24	40	13	16	29	8	20	28	5	13	18	10	18	28
Faculty of Native Studies	10		10	7		7	12		12	20		20	12		12
Kinesiology, Sport, and Rec.	57	16	73	49	18	67	44	18	62	41	15	56	41	17	58
Law	6	2	8	4		4	5		5	5	1	6	4		4
Medicine and Dentistry	265	2	267	281		281	260	2	262	277	4	281	296	4	300
Nursing	33	43	76	29	47	76	20	45	65	18	36	54	18	32	50
Pharmacy	13		13	17		17	18		18	22		22	20		20
Public Health	99	146	245	100	144	244	80	131	211	71	120	191	68	119	187
Rehabilitation Medicine	41	633	674	39	667	706	48	680	728	49	779	828	51	787	838
Science	455	91	546	432	90	522	390	111	501	411	113	524	464	124	588
<b>Total</b>	<b>2,217</b>	<b>2,272</b>	<b>4,489</b>	<b>2,128</b>	<b>2,329</b>	<b>4,457</b>	<b>1,966</b>	<b>2,325</b>	<b>4,291</b>	<b>2,051</b>	<b>2,498</b>	<b>4,549</b>	<b>2,133</b>	<b>2,582</b>	<b>4,715</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

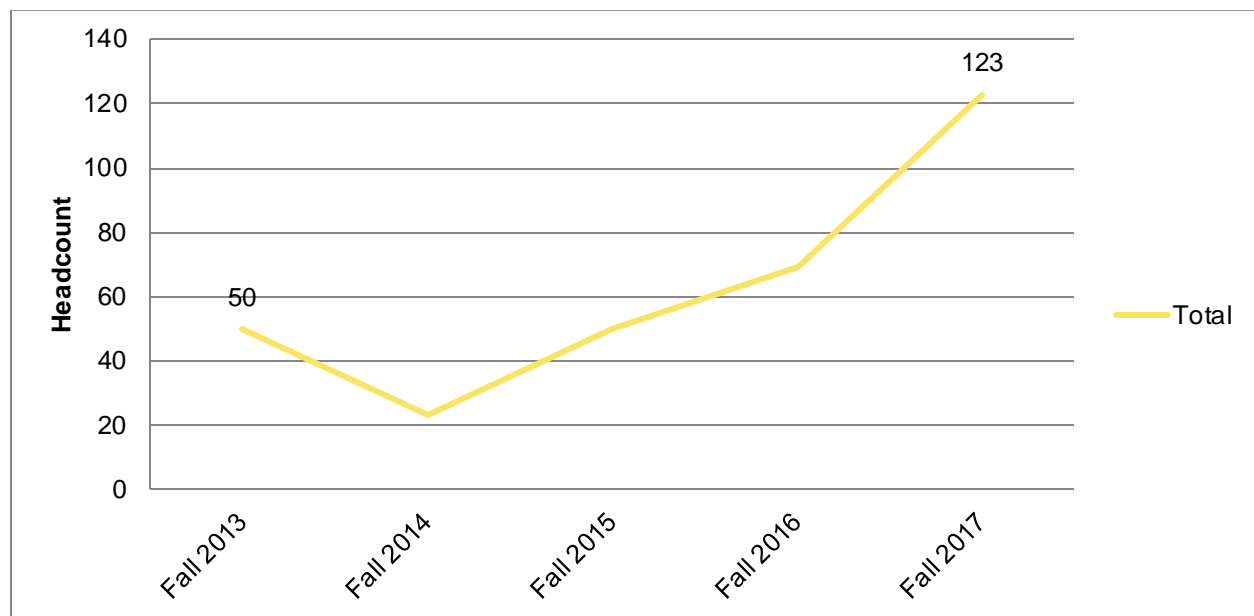
Note: M-T = thesis-based Master's, M-C = course-based Master's;

Enrolment in certificate programs (post-Master’s and post-baccalaureate certificates and postgraduate diplomas) remains small, but has been growing consistently since 2014 (Table 1.4 and Figure 1.3). Notably, 2017 was the first year that the certificate in Indigenous Sport and Recreation was offered by the Faculty of Kinesiology, Sport, and Recreation (formerly the Faculty of Physical Education and Recreation). These programs are of interest to professionals looking to upgrade their skills, and similar programs might offer future possibilities for laddering into degrees.

**Table 1.4. Certificate programs, fall headcount by Faculty.**

Faculty	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Business				1	2
Education		1	1		
Kinesiology, Sport, and Rec.					17
Public Health	1				
Rehabilitation Medicine	49	22	49	68	104
<b>Total</b>	<b>50</b>	<b>23</b>	<b>50</b>	<b>69</b>	<b>123</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.



**Figure 1.3. Certificate programs, fall headcount by Faculty.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Table 1.5 shows graduate enrolment in other programs, including qualifying, special, visiting and probationary students.

**Table 1.5. Other programs\*, fall headcount by Faculty.**

Faculty	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
<b>ALES</b>	5	8	4	4	2
<b>Arts</b>	14	23	17	16	12
<b>Business</b>	21	19	10	15	11
<b>Education</b>	1	3	6	4	2
<b>Engineering</b>	12	9	9	9	18
<b>Extension</b>	1		1		
<b>Faculté Saint-Jean</b>	6	1	3	9	1
<b>Faculty of Native Studies</b>		1			
<b>Kinesiology, Sport, and Rec.</b>	1	3	3	1	4
<b>Law</b>					
<b>Medicine and Dentistry</b>	3	7	7	8	2
<b>Nursing</b>	5	4	2	2	4
<b>Pharmacy</b>	2			1	1
<b>Public Health</b>	3	4	1	3	2
<b>Rehabilitation Medicine</b>	26	23	19	32	3
<b>Science</b>	5	12	4	4	5
<b>Total</b>	<b>105</b>	<b>117</b>	<b>86</b>	<b>108</b>	<b>67</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

\* Other programs include qualifying, special graduate, visiting and probationary students.

## 1.2. Faculty to Graduate Students Ratio

Tables 1.6-1.9 give an overview of the ratio of professors to graduate students in each Faculty. The goal is to express a supervisory ratio: thus all full, associate and assistant professors (those in academic category A1.1) are included in the faculty number. Medicine and Dentistry figures include contingent faculty members, who represent (on average for the past five years) 66.3% of the total professoriate.

We have reported on every Faculty in this dataset and there are important nuances that come to light: Faculties with large course-based Master's programs (Business's MBA, most graduate programs in the Faculty of Rehabilitation Medicine, a substantial proportion of Engineering's graduate offerings) appear to be carrying a disproportionately heavy supervisory responsibility. The value of Table 1.6 is principally in tracking whether student numbers and faculty complement are moving in tandem. Tables 1.7-1.9 offer breakdowns by degree.

On balance, the graduate student to faculty ratio has stayed relatively constant over the last five years.

**Table 1.6. Faculty to graduate students ratio, by Faculty.**

Faculty	Fall 2013			Fall 2014			Fall 2015			Fall 2016			Fall 2017		
	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio
ALES	104	524	1:5	108	527	1:4.9	111	500	1:4.5	113	515	1:4.6	108	515	1:4.8
Arts	347	900	1:2.6	319	834	1:2.6	322	751	1:2.3	323	770	1:2.4	320	731	1:2.3
Business	73	581	1:8	74	614	1:8.3	72	613	1:8.5	71	618	1:8.7	71	634	1:8.9
Education	109	873	1:8	100	925	1:9.3	104	901	1:8.7	107	896	1:8.4	111	851	1:7.7
Engineering	200	1,428	1:7.1	194	1,358	1:7	201	1,250	1:6.2	204	1,343	1:6.6	208	1,519	1:7.3
Extension	17	52	1:3.1	16	55	1:3.4	17	55	1:3.2	15	60	1:4	17	54	1:3.2
Faculté Saint-Jean	30	46	1:1.5	25	30	1:1.2	29	31	1:1.1	30	27	1:1.1	30	29	1:1
Faculty of Native Studies	8	10	1:1.3	8	8	1:1	10	12	1:1.2	11	20	1:1.8	11	17	1:1.5
Kinesiology, Sport, and Rec.	43	139	1:3.2	39	125	1:3.2	38	121	1:3.2	41	106	1:2.6	38	137	1:3.6
Law	32	16	2:1	29	11	2.6:1	27	12	2.3:1	28	14	2:1	28	11	2.5:1
Medicine and Dentistry	635	586	1.1:1	627	628	1:1	643	611	1.1:1	644	618	1:1	635	610	1:1
Nursing	51	146	1:2.9	49	148	1:3	47	131	1:2.8	47	124	1:2.6	45	120	1:2.7
Pharmacy	20	48	1:2.4	20	49	1:2.5	22	50	1:2.3	24	51	1:2.1	22	44	1:2
Public Health	28	291	1:10.4	25	293	1:11.7	26	262	1:10.1	27	241	1:8.9	25	246	1:9.8
Rehabilitation Medicine	48	787	1:16.4	42	787	1:18.7	44	833	1:18.9	44	963	1:21.9	42	990	1:23.6
Science	300	1,237	1:4.1	288	1,180	1:4.1	286	1,071	1:3.7	288	1,092	1:3.8	288	1,160	1:4
<b>Total</b>	<b>2,045</b>	<b>7,664</b>	<b>1:3.7</b>	<b>1,963</b>	<b>7,572</b>	<b>1:3.9</b>	<b>1,999</b>	<b>7,204</b>	<b>1:3.6</b>	<b>2,017</b>	<b>7,458</b>	<b>1:3.7</b>	<b>1,999</b>	<b>7,668</b>	<b>1:3.8</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017, for student enrolment and January 10, 2018, for faculty numbers.

Notes: 1) information reflects faculty with Active, Leave With Pay, or Leave of Absence statuses on October 1 of each respective year; 2) contingent faculty, administrative faculty, and faculty on long-term disability are not captured; 3) Medicine and Dentistry figures also include contingent faculty members, who represent (on average for the past 5 years) 66.3% of the total professoriate figures; 4) All types of students are included in this table.

The ratio of both doctoral and thesis-based Master's students to faculty (Tables 1.7 and 1.8) has been relatively stable, indicating that the decrease in the number of doctoral and thesis-based Master's candidates has moved in parallel with the number of faculty members. The individual tables are worth examining closely, as there is significant variation between Faculties.

**Table 1.7. Faculty to doctoral students ratio, by Faculty.**

Faculty	Fall 2013			Fall 2014			Fall 2015			Fall 2016			Fall 2017		
	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio
<b>ALES</b>	104	235	1:2.3	108	237	1:2.2	111	230	1:2.1	113	221	1:2	108	220	1:2
<b>Arts</b>	347	478	1:1.4	319	452	1:1.4	322	413	1:1.3	323	412	1:1.3	320	394	1:1.2
<b>Business</b>	73	61	1:2:1	74	51	1.5:1	72	45	1.6:1	71	46	1.5:1	71	49	1.4:1
<b>Education</b>	109	291	1:2.7	100	295	1:3	104	257	1:2.5	107	246	1:2.3	111	255	1:2.3
<b>Engineering</b>	200	702	1:3.5	194	711	1:3.7	201	678	1:3.4	204	679	1:3.3	208	709	1:3.4
<b>Extension</b>	17	-	-	16	-	-	17	-	-	15	-	-	17	-	-
<b>Faculté Saint-Jean</b>	30	-	-	25	-	-	29	-	-	30	-	-	30	-	-
<b>Faculty of Native Studies</b>	8	-	-	8	-	-	10	-	-	11	-	-	11	5	2.2:1
<b>Kinesiology, Sport, and Rec.</b>	43	65	1:1.5	39	55	1:1.4	38	56	1:1.5	41	49	1:1.2	38	58	1:1.5
<b>Law</b>	32	8	4:1	29	7	4.1:1	27	7	3.9:1	28	8	3.5:1	28	7	4:1
<b>Medicine and Dentistry</b>	635	316	2:1	627	340	1.8:1	643	342	1.9:1	644	329	2:1	635	308	2.1:1
<b>Nursing</b>	51	65	1:1.3	49	68	1:1.4	47	64	1:1.4	47	68	1:1.4	45	66	1:1.5
<b>Pharmacy</b>	20	33	1:1.7	20	32	1:1.6	22	32	1:1.5	24	28	1:1.2	22	23	1:1
<b>Public Health</b>	28	42	1:1.5	25	45	1:1.8	26	50	1:1.9	27	47	1:1.7	25	57	1:2.3
<b>Rehabilitation Medicine</b>	48	38	1.3:1	42	36	1.2:1	44	37	1.2:1	44	35	1.3:1	42	45	1:1.1
<b>Science</b>	300	686	1:2.3	288	646	1:2.2	286	566	1:2	288	564	1:2	288	567	1:2
<b>Total</b>	<b>2,045</b>	<b>3,020</b>	<b>1:1.5</b>	<b>1,963</b>	<b>2,975</b>	<b>1:1.5</b>	<b>1,999</b>	<b>2,777</b>	<b>1:1.4</b>	<b>2,017</b>	<b>2,732</b>	<b>1:1.4</b>	<b>1,999</b>	<b>2,763</b>	<b>1:1.4</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017, for student enrolment and January 10, 2018, for faculty numbers.

Notes: 1) information reflects faculty with Active, Leave With Pay, or Leave of Absence statuses on October 1 of each respective year; 2) contingent faculty, administrative faculty, and faculty on long-term disability are not captured; 3) Medicine and Dentistry figures also include contingent faculty members, who represent (on average for the past 5 years) 66.3% of the total professoriate figures.

**Table 1.8. Faculty to thesis-based Master's students ratio, by Faculty.**

Faculty	Fall 2013			Fall 2014			Fall 2015			Fall 2016			Fall 2017		
	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio
ALES	104	258	1:2.5	108	261	1:2.4	111	244	1:2.2	113	255	1:2.3	108	254	1:2.4
Arts	347	311	1:1	319	269	1:2:1	322	240	1.3:1	323	255	1.3:1	320	258	1.2:1
Business	73	-	-	74	1	74:1	72	-	-	71	-	-	71	-	-
Education	109	85	1.3:1	100	80	1.3:1	104	70	1.5:1	107	70	1.5:1	111	65	1.7:1
Engineering	200	566	1:2.8	194	545	1:2.8	201	527	1:2.6	204	544	1:2.7	208	557	1:2.7
Extension	17	2	8.5:1	16	1	16:1	17	-	-	15	8	1.9:1	17	15	1.1:1
Faculté Saint-Jean	30	16	1.9:1	25	13	1.9:1	29	8	3.6:1	30	5	6:1	30	10	3:1
Faculty of Native Studies	8	10	1:1.3	8	7	1.1:1	10	12	1:1.2	11	20	1:1.8	11	12	1:1.1
Kinesiology, Sport, and Rec.	43	57	1:1.3	39	49	1:1.3	38	44	1:1.2	41	41	1:1	38	41	1:1.1
Law	32	6	5.3:1	29	4	7.3:1	27	5	5.4:1	28	5	5.6:1	28	4	7:1
Medicine and Dentistry	635	265	2.4:1	627	281	2.2:1	643	260	2.5:1	644	277	2.3:1	635	296	2.1:1
Nursing	51	33	1.5:1	49	29	1.7:1	47	20	2.4:1	47	18	2.6:1	45	18	2.5:1
Pharmacy	20	13	1.5:1	20	17	1.2:1	22	18	1.2:1	24	22	1.1:1	22	20	1.1:1
Public Health	28	99	1:3.5	25	100	1:4	26	80	1:3.1	27	71	1:2.6	25	68	1:2.7
Rehabilitation Medicine	48	41	1.2:1	42	39	1.1:1	44	48	1:1.1	44	49	1:1.1	42	51	1:1.2
Science	300	455	1:1.5	288	432	1:1.5	286	390	1:1.4	288	411	1:1.4	288	464	1:1.6
<b>Total</b>	<b>2,045</b>	<b>2,217</b>	<b>1:1.1</b>	<b>1,963</b>	<b>2,128</b>	<b>1:1.1</b>	<b>1,999</b>	<b>1,966</b>	<b>1:1</b>	<b>2,017</b>	<b>2,051</b>	<b>1:1</b>	<b>1,999</b>	<b>2,133</b>	<b>1:1.1</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017, for student enrolment and January 10, 2018, for faculty numbers.

Notes: 1) information reflects faculty with Active, Leave With Pay, or Leave of Absence statuses on October 1 of each respective year; 2) contingent faculty, administrative faculty, and faculty on long-term disability are not captured; 3) Medicine and Dentistry figures also include contingent faculty members, who represent (on average for the past 5 years) 66.3% of the total professoriate figures; 4) students in post Master's and post-baccalaureate certificates, postgraduate diplomas, qualifying, special graduate, visiting and probationary students are excluded.

The number of course-based Master's students has been growing across the university, while the number of faculty has decreased. Across the campus as a whole, this has resulted in a slight increase in the number of students per faculty member (Table 1.9). As noted with the tables above, there is significant variation among Faculties.

**Table 1.9. Faculty to course-based Master's students ratio, by Faculty.**

Faculty	Fall 2013			Fall 2014			Fall 2015			Fall 2016			Fall 2017		
	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio	Prof	Grad	Ratio
ALES	104	26	4:1	108	21	5.1:1	111	22	5:1	113	35	3.2:1	108	39	2.8:1
Arts	347	97	3.6:1	319	90	3.5:1	322	81	4:1	323	87	3.7:1	320	67	4.8:1
Business	73	499	1:6.8	74	543	1:7.3	72	558	1:7.8	71	556	1:7.8	71	572	1:8.1
Education	109	496	1:4.6	100	546	1:5.5	104	567	1:5.5	107	576	1:5.4	111	529	1:4.8
Engineering	200	148	1.4:1	194	93	2.1:1	201	36	5.6:1	204	111	1.8:1	208	235	1:1.1
Extension	17	49	1:2.9	16	54	1:3.4	17	54	1:3.2	15	52	1:3.5	17	39	1:2.3
Faculté Saint-Jean	30	24	1.3:1	25	16	1.6:1	29	20	1.5:1	30	13	2.3:1	30	18	1.7:1
Faculty of Native Studies	8	-	-	8	-	-	10	-	-	11	-	-	11	-	-
Kinesiology, Sport, and Rec.	43	16	2.7:1	39	18	2.2:1	38	18	2.1:1	41	15	2.7:1	38	17	2.2:1
Law	32	2	16:1	29	-	-	27	-	-	28	1	28:1	28	-	-
Medicine and Dentistry	635	2	317.5:1	627	-	-	643	2	321.5:1	644	4	161:1	635	4	158.8:1
Nursing	51	43	1.2:1	49	47	1:1	47	45	1:1	47	36	1.3:1	45	32	1.4:1
Pharmacy	20	-	-	20	-	-	22	-	-	24	-	-	22	-	-
Public Health	28	146	1:5.2	25	144	1:5.8	26	131	1:5	27	120	1:4.4	25	119	1:4.8
Rehabilitation Medicine	48	633	1:13.2	42	667	1:15.9	44	680	1:15.5	44	779	1:17.7	42	787	1:18.7
Science	300	91	3.3:1	288	90	3.2:1	286	111	2.6:1	288	113	2.5:1	288	124	2.3:1
<b>Total</b>	<b>2,045</b>	<b>2,272</b>	<b>1:1.1</b>	<b>1,963</b>	<b>2,329</b>	<b>1:1.2</b>	<b>1,999</b>	<b>2,325</b>	<b>1:1.2</b>	<b>2,017</b>	<b>2,498</b>	<b>1:1.2</b>	<b>1,999</b>	<b>2,582</b>	<b>1:1.3</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017, for student enrolment and January 10, 2018, for faculty numbers.

Notes: 1) information reflects faculty with Active, Leave With Pay, or Leave of Absence statuses on October 1 of each respective year; 2) contingent faculty, administrative faculty, and faculty on long-term disability are not captured; 3) Medicine and Dentistry figures also include contingent faculty members, who represent (on average for the past 5 years) 66.3% of the total professoriate figures; 4) students in post Master's and post-baccalaureate certificates, postgraduate diplomas, qualifying, special graduate, visiting and probationary students are excluded.



### 1.3. Graduate/Undergraduate Enrolment Comparison

Graduate students make up approximately 20% of the total student population at the University of Alberta. Table 1.10 demonstrates how graduate-intensive we are.

**Table 1.10. Undergraduate to graduate student ratio.**

Academic Career	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Undergraduate	29,338	29,642	30,087	30,419	30,986	30,700	30,172	29,625	29,841	30,755
Graduate	6,695	7,151	7,346	7,474	7,598	7,664	7,572	7,204	7,458	7,668
Ratio	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1
<b>Total</b>	<b>36,033</b>	<b>36,793</b>	<b>37,433</b>	<b>37,893</b>	<b>38,584</b>	<b>38,364</b>	<b>37,744</b>	<b>36,829</b>	<b>37,299</b>	<b>38,423</b>
<b>Graduate % of total</b>	<b>18.6%</b>	<b>19.4%</b>	<b>19.6%</b>	<b>19.7%</b>	<b>19.7%</b>	<b>20.0%</b>	<b>20.1%</b>	<b>19.6%</b>	<b>20.0%</b>	<b>20.0%</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) graduate students include all possible graduate degree types; 2) undergraduate students exclude career preparation (17 students in Fall 2014, 24 students in Fall 2015, 27 students in Fall 2016, 27 students in Fall 2017).

Table 1.11 expresses how graduate-intensive individual Faculties are. While there is variation between units, the number of graduate students is also an indication of the capacity that these junior colleagues add to the university, supporting teaching and research across our campuses.

**Table 1.11. Percentage of graduate students in total by Faculty.**

Program Faculty	Fall 2013		Fall 2014		Fall 2015		Fall 2016		Fall 2017	
	Total	Grad %	Total	Grad %	Total	Grad %	Total	Grad %	Total	Grad %
ALES	2,148	24%	2,086	25%	2,028	25%	2,067	25%	2,105	24%
Arts	6,902	13%	6,610	13%	6,463	12%	6,459	12%	6,571	11%
Augustana Faculty	1,002	0%	1,068	0%	1,016	0%	1,008	0%	1,044	0%
Business	2,627	22%	2,638	23%	2,631	23%	2,635	23%	2,678	24%
Education	3,921	22%	3,611	26%	3,659	25%	3,781	24%	3,800	22%
Engineering	5,608	25%	5,762	24%	5,588	22%	5,579	24%	5,960	25%
Extension	52	100%	55	100%	55	100%	60	100%	54	100%
Faculté Saint-Jean	598	8%	592	5%	578	5%	602	4%	684	4%
Faculty of Native Studies	141	7%	166	5%	163	7%	198	10%	219	8%
Kinesiology, Sport, and Rec.	1,118	12%	1,092	11%	1,059	11%	1,085	10%	1,133	12%
Law	542	3%	537	2%	561	2%	577	2%	572	2%
Medicine and Dentistry	1,614	36%	1,653	38%	1,651	37%	1,654	37%	1,659	37%
Nursing	1,753	8%	1,747	8%	1,617	8%	1,466	8%	1,404	9%
Open Studies	1,062	0%	1,025	0%	1,054	0%	1,120	0%	1,238	0%
Pharmacy	565	8%	569	9%	577	9%	594	9%	590	7%
Public Health	291	100%	293	100%	262	100%	241	100%	246	100%
Rehabilitation Medicine	809	97%	807	98%	860	97%	984	98%	995	99%
Science	7,611	16%	7,433	16%	7,007	15%	7,189	15%	7,471	16%
<b>Total</b>	<b>38,364</b>	<b>20%</b>	<b>37,744</b>	<b>20%</b>	<b>36,829</b>	<b>20%</b>	<b>37,299</b>	<b>20%</b>	<b>38,423</b>	<b>20%</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) graduate students include all possible graduate degree types; 2) undergraduate students exclude career preparation (17 students in Fall 2014, 24 students in Fall 2015, 27 students in Fall 2016, 27 students in Fall 2017).

## 1.4. Graduate Students by Citizenship

With over one third of our graduate students coming from outside Canada, ours is a highly international student body. The total number of international graduate students (students on a student visa, work permit or study permit) has remained stable over time. However, as Table 1.12 shows, international students are distributed unevenly across Faculties. It is important to remember that there are citizenship implications for funding: Tri-Agency awards, for example, are available only to Canadian citizens and permanent residents (who are grouped together here).

**Table 1.12. Graduate students by citizenship and Faculty.**

Program Faculty	Fall 2013		Fall 2014		Fall 2015		Fall 2016		Fall 2017	
	Total	Int. %	Total	Int. %	Total	Int. %	Total	Int. %	Total	Int. %
ALES	524	51%	527	49%	500	52%	515	51%	515	51%
Arts	900	30%	834	33%	751	33%	770	34%	731	34%
Business	581	26%	614	33%	613	34%	618	28%	634	28%
Education	873	7%	925	9%	901	9%	896	7%	851	7%
Engineering	1428	60%	1358	63%	1250	64%	1343	61%	1519	61%
Extension	52	2%	55	4%	55	4%	60	3%	54	3%
Faculté Saint-Jean	46	2%	30	7%	31	3%	27	4%	29	4%
Faculty of Native Studies	10	0%	8	0%	12	0%	20	0%	17	0%
Kinesiology, Sport, and Rec.	139	23%	125	21%	121	22%	106	20%	137	20%
Law	16	25%	11	18%	12	25%	14	29%	11	29%
Medicine and Dentistry	586	35%	628	35%	611	34%	618	33%	610	33%
Nursing	146	14%	148	15%	131	16%	124	20%	120	20%
Pharmacy	48	65%	49	53%	50	58%	51	65%	44	65%
Public Health	291	14%	293	13%	262	11%	241	11%	246	11%
Rehabilitation Medicine	787	4%	787	4%	833	3%	963	3%	990	3%
Science	1237	54%	1180	52%	1071	51%	1092	53%	1160	53%
<b>Total</b>	<b>7664</b>	<b>34%</b>	<b>7572</b>	<b>35%</b>	<b>7204</b>	<b>34%</b>	<b>7458</b>	<b>34%</b>	<b>7668</b>	<b>34%</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) graduate students include all possible graduate degree types; 2) total = total domestic + international students, Int % = percentage international students out of the total enrolled.

The international graduate population is much more diversified than the undergraduate population. We have graduate students from over 160 countries, although the vast majority are represented by very few individuals. Table 1.13 shows the 15 countries with the largest numbers of citizens enrolled at the university (by headcount) over the 10-year period from 2008 to 2017. These 15 countries represent 90% of the graduate student headcount for Fall 2017. The precise list of countries varies over time, but China, Iran and India have been the top three for over a decade.

**Table 1.13. Top 15 source countries by student citizenship.**

Country of Citizen	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Canada	4203	4287	4224	4238	4246	4249	4085	3967	4236	4,335
China	640	662	687	781	849	933	1021	963	922	973
Iran	288	397	477	510	538	493	477	445	428	397
India	204	285	331	305	288	314	308	287	302	325
United States	105	116	139	158	178	175	169	156	150	165
Bangladesh	95	126	134	129	125	150	137	105	105	113
Brazil	31	32	36	41	47	47	58	71	75	92
Pakistan	93	133	145	136	130	98	86	74	78	88
Mexico	61	63	67	77	80	65	49	51	62	79
Nigeria	52	58	63	53	55	72	79	68	73	70
Egypt	77	87	94	90	83	82	79	62	62	65
Colombia	34	36	43	53	55	54	47	45	50	58
Saudi Arabia	24	34	49	47	63	63	77	71	59	56
South Korea	50	48	51	40	37	41	43	41	51	50
Ghana	18	27	23	28	35	36	43	45	49	44

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) includes graduate students in all possible graduate degree types; 2) top 15 out of 276 independent sovereignties, territories, and nations listed in UAlberta enterprise solution, PeopleSoft; 3) top 15 listed in sequence according to Fall 2017 figures.

## 1.5. Sponsored Students

Sponsored students are international students who are either partially or fully supported by their governments, national or multinational companies, or third-party entities such as Fulbright. Support normally includes tuition, associated fees, and living expenses for the duration of the degree. Sponsored student numbers vary year to year, predominantly as a result of factors beyond our control. University of Alberta International administers the Sponsored Student Program.

The University of Alberta receives sponsored graduate students from a total of 43 countries, the top 11 of which are listed in sequence in Table 1.14 below. Although sponsored students represent only about 5% of international graduate students, it is a segment of the student population that has grown.

Historically, almost 70% of sponsored students have been in doctoral programs. The duration of sponsorships has been between one and six years, although the majority of them last three or four years.

**Table 1.14. Citizenship of sponsored graduate students.**

Country	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total
China	29	39	27	49	30	29	32	235
Saudi Arabia	18	24	13	18	11	16	13	113
Mexico	4	9	4	6	14	11	19	67
Libya	0	3	5	10	7	2	2	29
Columbia	3	2	3	4	6	4	4	26
Vietnam	8	4	5	2	4	0	1	24
Brazil	2	3	1	9	6	0	3	24
Chile	6	2	1	0	0	3	2	14
Kazakhstan	1	3	2	0	0	1	4	11
Pakistan	4	2	0	0	0	4	0	10
Jordan	0	2	0	1	1	3	2	9

Source: University of Alberta International Statistics – accessed November 21, 2017.

Notes: 1) students listed in each column are new students who started in that academic year; 2) Winter 2018 projections have been included in the 2017-18 numbers and are based on current confirmed admissions; these numbers are subject to change.

### 1.6. Enrolment by Gender

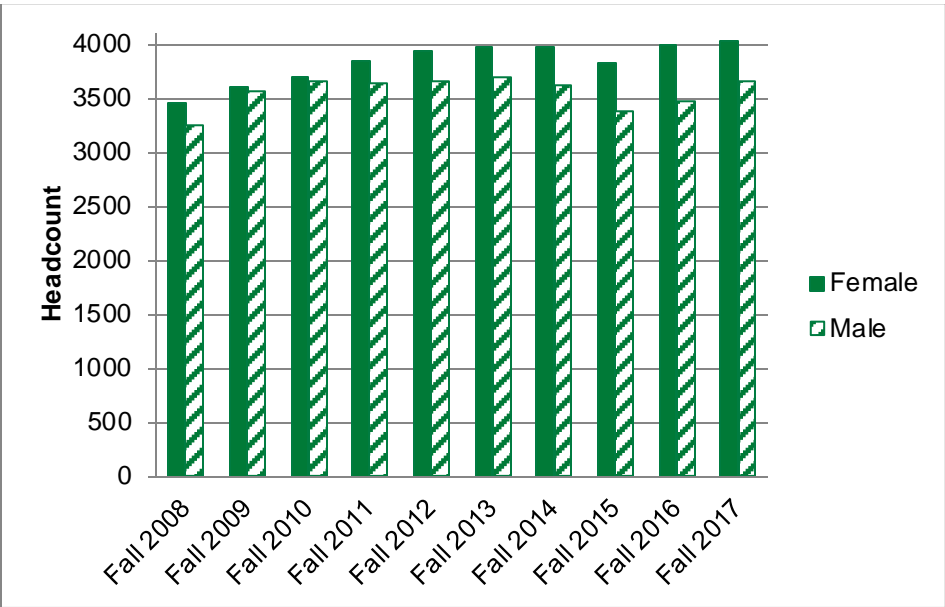
Table 1.15 and Figure 1.4 show enrolment by gender for all graduate students including PhD, Master's, students in other categories, and students with a home department of FGSR. Overall, women continue to outnumber men in graduate studies.

The new graduate admissions software allows applicants to self-identify as male or female, or to choose not to disclose. In 2017-2018, the first year of the software implementation, seven students did not declare a gender, as shown in Table 1.15. Over time, this change in practice will allow us to reflect our students' gender diversity with more nuance.

**Table 1.15. Fall term graduate enrolment by gender.**

Total	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Female	3456	3595	3692	3840	3945	3977	3967	3828	4000	4020
Male	3239	3556	3654	3634	3653	3687	3605	3376	3458	3641
Undeclared										7

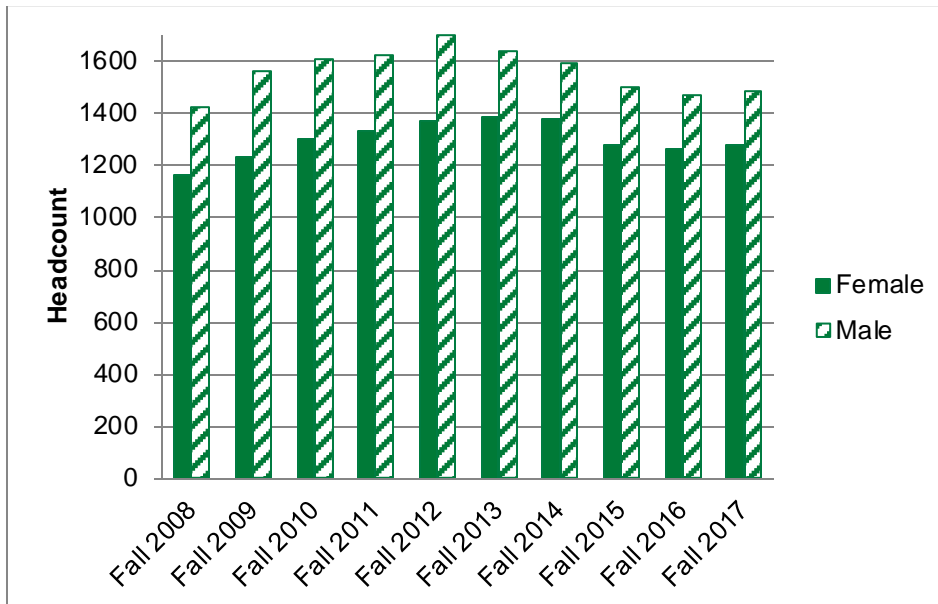
Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.



**Figure 1.4. Fall term graduate enrolment by gender.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

The following figures include students registered in graduate certificates and diplomas in addition to the three degree program types offered. Figure 1.5 shows that women comprise an increasing percentage of doctoral students. The percentage of female doctoral students currently stands at 46%. The national percentage of women enrolled full-time in doctoral programs was 47.8% in 2013 as reported by the Canadian Association of Graduate Studies<sup>1</sup> (CAGS). Women have remained at approximately 47% in this category since 2008.

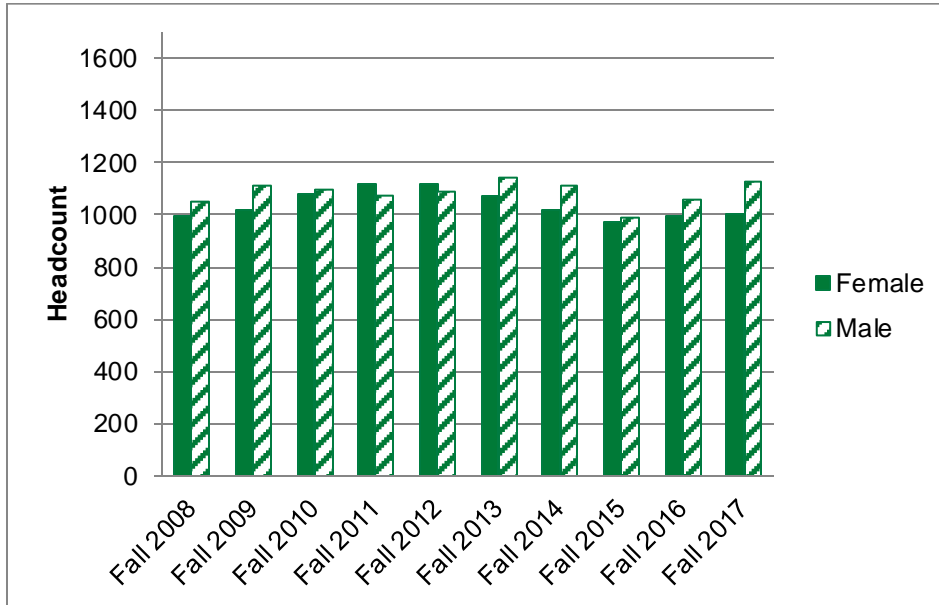


**Figure 1.5 Doctoral enrolment by gender.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

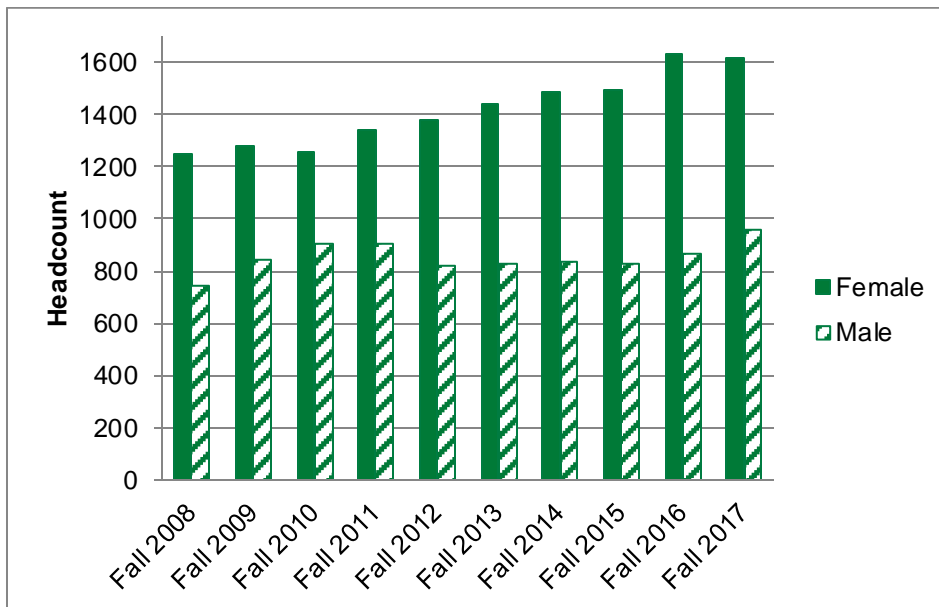
<sup>1</sup> Canadian Association of Graduate Students, 42<sup>nd</sup> Statistical Report, 2016

Women are close to parity in thesis-based Master's programs (Figure 1.6) and exceed men by nearly 2:1 in course-based Master's programs (Figure 1.7). The CAGS data does not differentiate between course-based and thesis-based Master's programs. CAGS reports that women comprised 53-54% of full-time Master's enrolments nationally in all years from 2009 to 2013.



**Figure 1.6. Thesis-based Master's enrolment by gender.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

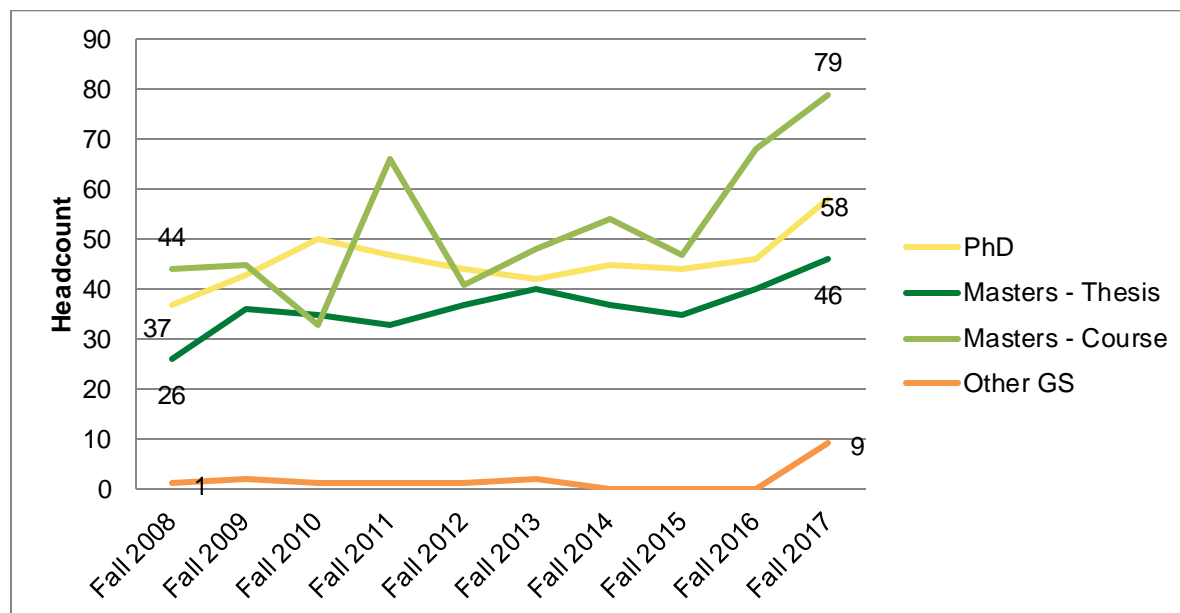


**Figure 1.7. Course-based Master's enrolment by gender.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

## 1.7. First Nations, Métis and Inuit Enrolment

It is exciting to report an all-time high (192) in the number of self-declared First Nations, Métis and Inuit (FNMI) students registered in our programs (Figure 1.8). Although the figures here are obviously volatile and the overall number is small, this number represents 2.5% of all graduate students. The highest numbers of FNMI students are in course-based Master's programs.



**Figure 1.8. FNMI enrolment.**

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Note: "Other" includes qualifying, visiting and probationary students as well as people registered in post-baccalaureate certificates or postgraduate diplomas.

The distribution of FNMI students is not consistent across the academy. Table 1.16 highlights those faculties with the highest numbers of self-declared FNMI students.

**Table 1.16 FNMI enrolment by Faculty.**

Program Faculty	Fall 2017	Fall 2017	Fall 2017	Fall 2017	Total
	Master's Thesis	Master's Course	PhD	Other GS	
Agric, Life & Environ Sciences	6		4		10
Arts	12	1	12		25
Business		13	1		14
Education	3	31	28		62
Kinesiology, Sport, and Rec.	3			8	11
Rehabilitation Medicine		23		1	24
Science	9	1	1		11
All Other Faculties	13	10	12	0	35

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Note: "Other" includes qualifying, visiting and probationary students as well as people registered in post-baccalaureate certificates or postgraduate diplomas.



## 2. Applications and Admissions

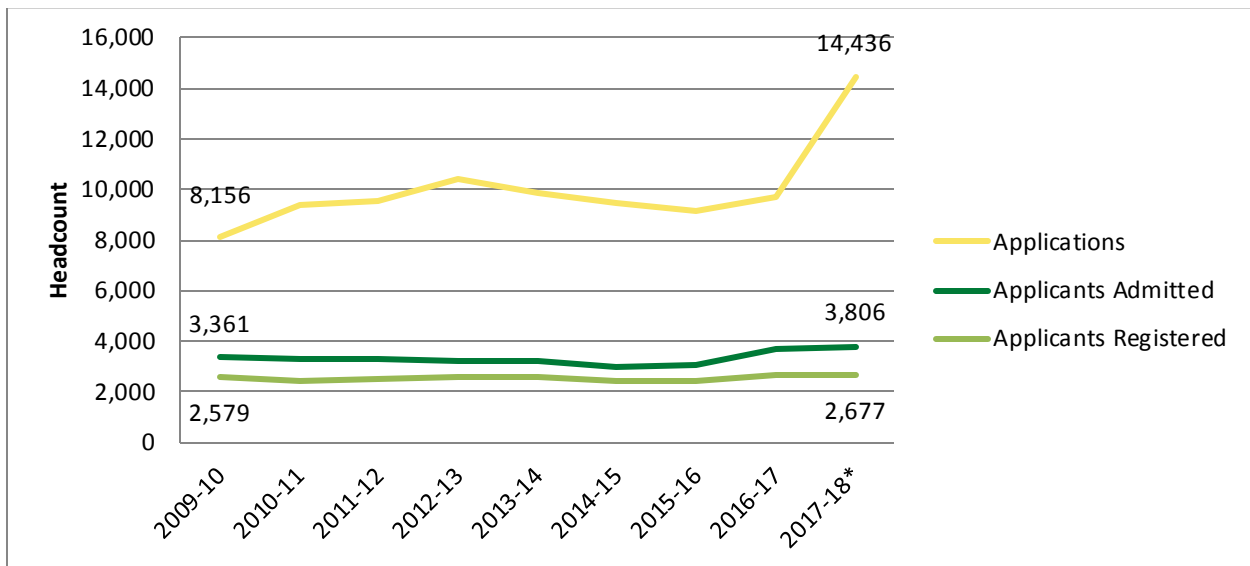
Graduate applications for 2017-18 reached an all-time high.

As noted in the Dean’s message, an important factor behind the marked increase in the total number of applicants is the new graduate admissions system implemented as part of the Graduate Studies Management Solution (GSMS). Previously, some departments pre-screened applicants and did not send them on to the university admissions system if they were not qualified. Migration to the new system allows the university to better understand the true demand for our programs, a key measure for our quality assurance processes. All applications processed in the new system have been included in this analysis.

### 2.1. Graduate Admissions

Figure 2.1 shows the total number of applications for admission to graduate programs, the number of admissions offered and the number of subsequent registrations. This approach counts applications, not applicants: some applicants may have submitted multiple applications (though this is more likely at the undergraduate level).

We continue to be competitive, admitting only about one third of the students who apply to our graduate programs. The yield rate (percentage of registrations resulting from offers of admission) moves in tandem with the rate of admission, which gives stability and predictability – factors that are especially important for funding projections.



**Figure 2.1. Total number of applications to graduate programs.**

Source: Strategic Analysis and Data Warehousing – accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were estimated based on the average proportion of fall admissions to total admissions over the preceding three-year period.

Unlike the vast majority of undergraduate students, approximately 25% of graduate students do not start in the fall term. In Figures 2.1 to 2.4, we have estimated 2017-18 numbers based on the overall proportion of fall admissions in the previous 3 years. Table 2.1 shows what percentage of yearly applications, admissions and registrations occur in the fall term.

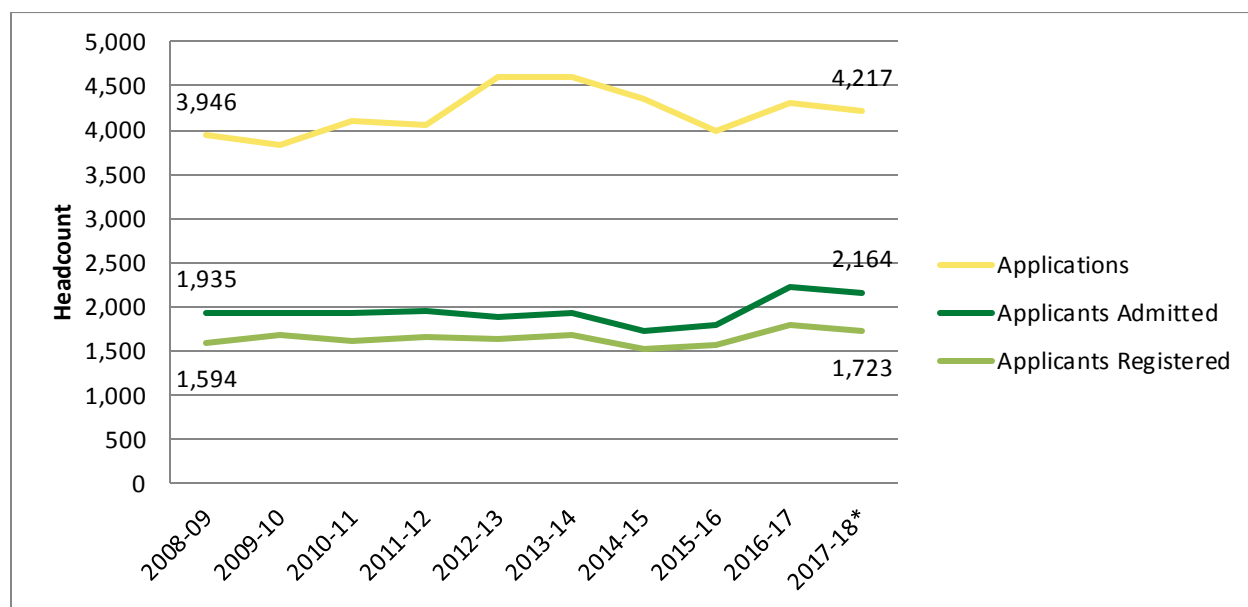
**Table 2.1 Percentage of yearly applications, admissions and registrations in the fall term.**

Fall Proportion in total year	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Applications	85%	86%	85%	85%	82%	81%	81%	81%	81%
Applicants Admitted	80%	81%	80%	78%	75%	77%	74%	73%	76%
Applicants Registered	78%	80%	79%	76%	73%	75%	72%	74%	74%

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

Note: Applicants Admitted = students who applied and were admitted in the fall term of each year; Applicants Registered = students who registered at the U of A after being accepted.

Domestic graduate applications decreased slightly in 2017-18 (Canadian citizens and permanent residents) with a high yield rate, as shown in Figure 2.2. Overall yield rates are shown in the tables in Section 2.2.

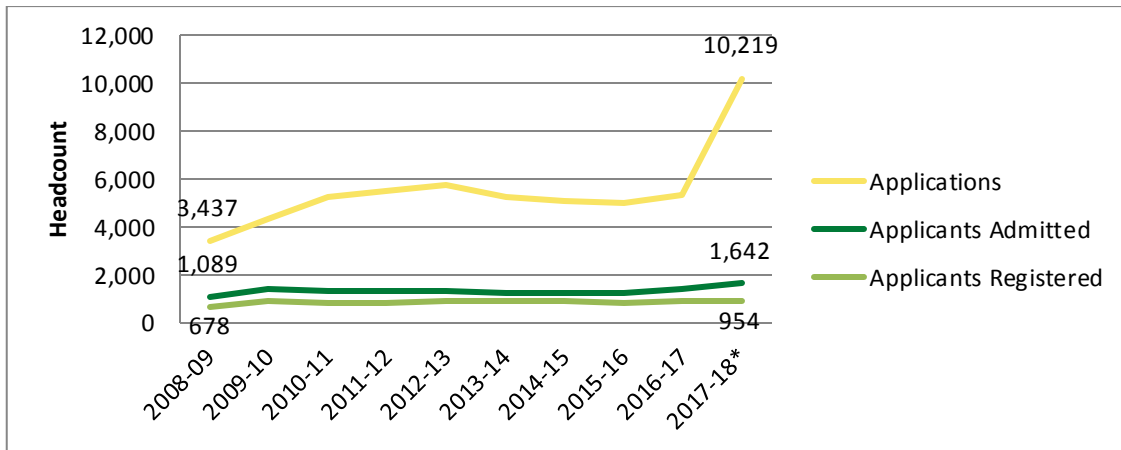


**Figure 2.2. Domestic graduate admissions.**

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were estimated based on the average proportion of fall admissions to total admissions over the preceding three-year period.

International applicants (students attending the university on a study/work visa) form an increasingly large part of the total graduate applicant pool. While domestic applications are showing modest changes, international applications have tripled since 2008 (Figure 2.3). Since admission rates are staying relatively constant, this graph suggests that our programs are becoming more highly sought after and competitive. As can also be seen in the graph, the increase in demand has not translated into a proportional increase in offers of admission or enrolments.

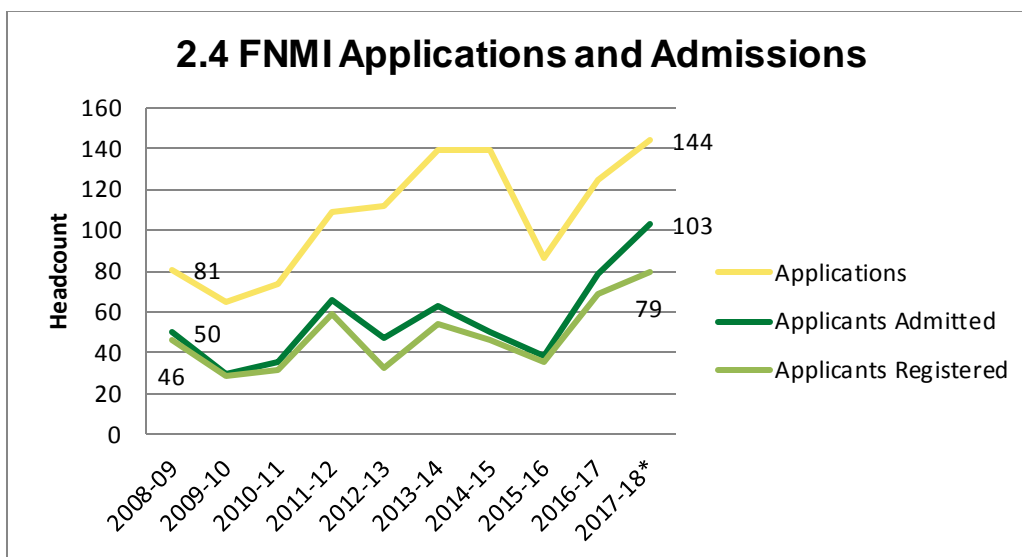


**Figure 2.3. International graduate applications and admissions.**

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were estimated based on the average proportion of fall admissions to total admissions over the preceding three-year period.

For FMNI students, the gap between applications and admissions (Figure 2.4) is smaller than in non-Indigenous students (60% of FMNI applicants are admitted, as opposed to 21% overall), suggesting that our pool of FMNI applicants is well-qualified. The pool is still very small and numbers fluctuate significantly. FGSR is working to identify and pursue wrap-around efforts to recruit and support Indigenous graduate students.



**Figure 2.4. FMNI applications and admissions.**

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were estimated based on the average proportion of fall admissions to total admissions over the preceding three-year period.

## 2.2. Admissions Grade Point Average

The admissions grade point average (AGPA)<sup>2</sup> is one of the basic eligibility criteria for graduate admissions, although it is not usually a final determining factor.

Tables 2.2-2.4 show the average AGPA for all applicants admitted by program type. They demonstrate consistently high entry AGPAs over the last decade. Only a small group of applicants are admitted with AGPAs below 3.0; this remains our highest-yielding group.

This section considers only those students in doctoral and Master's programs. Students in other program categories (qualifying, visiting and probationary students) and those registered in post-baccalaureate certificates or postgraduate diplomas are not included.

**Table 2.2. Doctoral average AGPA**

	Average AGPA	Applicants Admitted	Applicants Registered	Percentage Yield
2008-09	3.67	663	487	73%
2009-10	3.68	724	561	77%
2010-11	3.69	691	527	76%
2011-12	3.70	716	518	72%
2012-13	3.65	711	548	77%
2013-14	3.66	610	477	78%
2014-15	3.66	587	466	79%
2015-16	3.72	596	469	79%
2016-17	3.73	646	435	67%
Fall 2017*	3.68	548	373	68%

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were extracted from December archive, which includes fall term numbers only.

**Table 2.3. Thesis-based Master's average AGPA**

	Average AGPA	Applicants Admitted	Applicants Registered	Percentage Yield
2008-09	3.57	1,012	735	73%
2009-10	3.59	1,060	813	77%
2010-11	3.57	923	707	77%
2011-12	3.59	974	749	77%
2012-13	3.58	985	799	81%
2013-14	3.60	912	767	84%
2014-15	3.62	886	759	86%
2015-16	3.66	930	778	84%
2016-17	3.61	1,106	848	77%
Fall 2017*	3.63	896	648	72%

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were extracted from December archive, which includes fall term numbers only.

<sup>2</sup> The Admission Grade Point Average (AGPA) is calculated from the grades on the most recent 60 course credits taken by the applicant. Please note that with the paper-based application system in use until December 2014, FGSR could only see the transcripts and calculate the AGPA for the applicants being offered admission. The AGPAs of the applicants who were not admitted is unknown.

**Table 2.4. Course-based Master's average AGPA.**

	<b>Average AGPA</b>	<b>Applicants Admitted</b>	<b>Applicants Registered</b>	<b>Percentage Yield</b>
<b>2008-09</b>	3.46	1,161	892	77%
<b>2009-10</b>	3.51	1,366	1,040	76%
<b>2010-11</b>	3.53	1,430	1,053	74%
<b>2011-12</b>	3.49	1,425	1,129	79%
<b>2012-13</b>	3.49	1,235	981	79%
<b>2013-14</b>	3.49	1,403	1,136	81%
<b>2014-15</b>	3.53	1,247	991	79%
<b>2015-16</b>	3.56	1,263	1,002	79%
<b>2016-17</b>	3.51	1,637	1,182	72%
<b>Fall 2017*</b>	3.56	1,216	806	66%

Source: Strategic Analysis and Data Warehousing, December 1, 2017 archive, accessed December 8, 2017.

\*Academic year figures (Sept to Aug) for 2017-18 were extracted from December archive, which includes fall term numbers only.

### 3. Convocation

This section provides information on graduate degrees by graduating cohort, which includes all individuals who graduate in a given calendar year. The method used here provides the most accurate picture of completion times based on the information available to us.

It is also important to note that since convocation numbers are reported by calendar year, they cannot be precisely correlated with admissions, which operate on an academic year.

#### 3.1. Graduate Degrees Granted

When our programs are working well, the lines in the following graph should follow the lines in our overall enrolment tables, at a lag consistent with the average number of years per program.

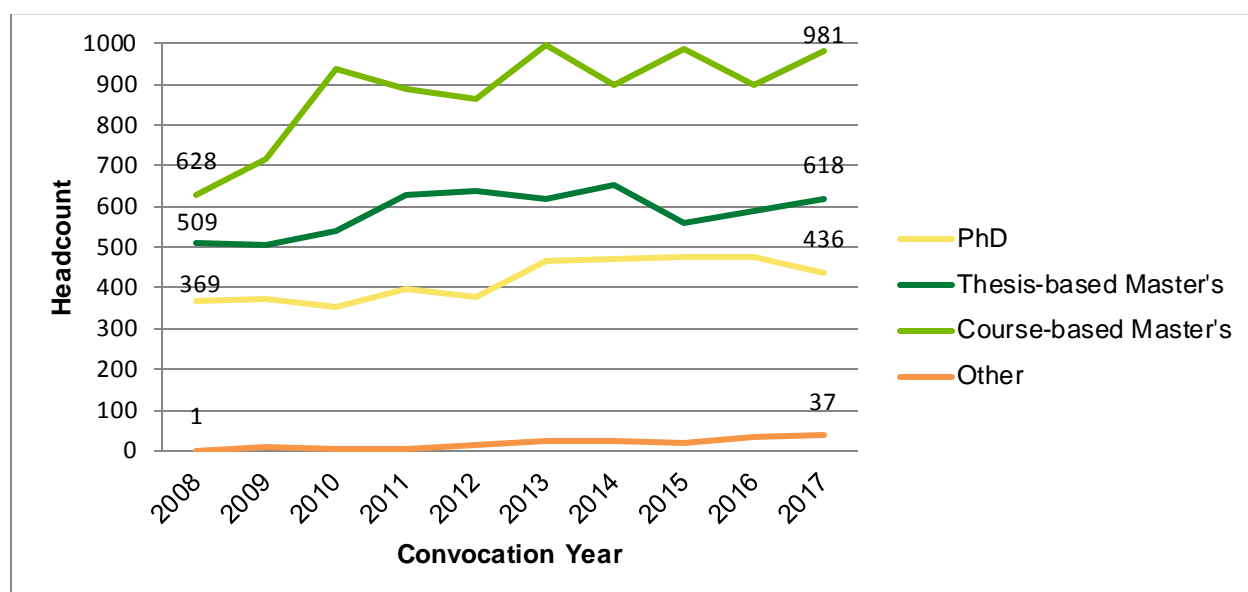


Figure 3.1. Convocants by degree.

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) convocation year = calendar year (January 1 to December 31); 2) includes June and November convocations of a particular year; 3) “other” includes qualifying, visiting and probationary students as well as people registered in post-baccalaureate certificates or postgraduate diplomas.

Table 3.1. Total convocants.

Degree	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
PhD	369	371	352	395	376	464	469	478	477	436
Thesis-based Master's	509	505	542	628	639	618	652	558	589	618
Course-based Master's	628	719	939	890	862	998	897	987	900	981
Other	1	9	2	5	16	22	23	17	35	37
<b>Total</b>	<b>1507</b>	<b>1602</b>	<b>1835</b>	<b>1914</b>	<b>1890</b>	<b>2095</b>	<b>2038</b>	<b>2037</b>	<b>1998</b>	<b>2072</b>

Source: Strategic Analysis and Data Warehousing – accessed December 7, 2017.

Notes: 1) convocation year = calendar year (January 1 to December 31); 2) includes June and November convocations of a particular year; 3) “other” includes qualifying, visiting and probationary students as well as people registered in post baccalaureate certificates or postgraduate diplomas.

## 3.2. Completion Times

Good programs focus on completion rates, completion times, and quality of experience. Sometimes these can pull in different directions. For instance, since Fall 2016, graduate students who are pursuing internships or similar opportunities have had the option to take professional leaves. Graduate students may also take medical, childbirth, parental and compassionate leaves. We view these as important concessions, and the analysis below demonstrates that time on leave has increased only slightly. Research suggests that being eligible for leaves can increase completion rates, which is good.

As shown in Table 3.2, the time to completion for doctoral students is approaching six years and time for thesis-based Master's degrees approaches three years, in spite of efforts to reduce completion times. At a time when our graduate students are moving predominantly to careers that are not academic in nature, the trend is worrying. We need to start analyzing the reasons behind completion times and ensure that funding, program requirements and time to degree have a rational relationship.

Completion times for course-based Master's programs have become somewhat shorter (Table 3.2), possibly because they have a higher proportion of international students, who consistently demonstrate shorter completion times (Table 3.3).

Readers of previous graduate enrolment reports will note that all average completion times presented this year are shorter than those from past reports. This is due to a change in the methodology used to calculate completion times. This new calculation measures individual students' completion time to the nearest month, rather than to the next full year. This updated method reflects a change being led by Strategic Analysis and Data Warehousing to reflect our graduate students' completion times more precisely.

**Table 3.2. Average completion time in years by degree type.**

Convocation Year	PhD	M-T	M-C	Average LOA
2008	5.76	2.94	2.65	0.70
2009	5.73	2.93	2.56	0.79
2010	6.01	2.87	2.39	0.74
2011	5.76	2.79	2.31	0.71
2012	5.75	2.81	2.39	0.66
2013	5.71	2.77	2.37	0.79
2014	5.60	2.79	2.31	0.84
2015	5.76	2.78	2.32	0.74
2016	5.73	2.84	2.37	0.84
2017	5.72	2.84	2.36	0.85

*M-T = Thesis-Based Master's, M-C = Course-Based Master's (D=Domestic) (Int.=International), LOA = Leave of Absence*

Source: Strategic Analysis and Data Warehousing – accessed January 26, 2018.

Notes: 1) convocation year = calendar year (January 1 to December 31); 2) completion time calculated as: first term of attendance to milestone completion date; 3) time spent in an official leave of absence (LOA) has not been deducted from the total completion time; 4) excludes students in other program categories (qualifying, visiting and probationary students and those registered in post-baccalaureate certificates or postgraduate diplomas); 5) this represents a methodological change. Historical data has been restated, with number of years now calculated to one decimal place at the individual student level.

As shown in Table 3.3, international graduate students complete their degrees faster than domestic students in every single year, in every type of degree. International students also take fewer/shorter leaves of absence, on average.

**Table 3.3. Average completion times in years by citizenship.**

Convocation Year	PhD		M-T		M-C		Average LOA	
	D	Int	D	Int	D	Int	D	Int
2008	5.82	5.27	3.05	2.54	2.70	2.04	0.67	0.67
2009	5.81	4.96	3.04	2.65	2.60	2.17	0.81	0.50
2010	6.11	5.37	3.00	2.54	2.44	1.97	0.76	0.50
2011	5.89	4.96	2.91	2.59	2.42	1.80	0.71	0.50
2012	5.97	4.83	2.94	2.58	2.53	1.80	0.70	0.38
2013	5.92	5.01	2.96	2.51	2.52	1.74	0.82	0.64
2014	5.92	4.90	2.98	2.53	2.43	1.68	0.91	0.58
2015	6.05	5.11	3.01	2.55	2.47	1.70	0.79	0.56
2016	6.07	5.17	3.00	2.58	2.56	1.71	0.88	0.60
2017	6.15	5.10	2.96	2.66	2.56	1.67	0.93	0.58

*M-T = Thesis-Based Master's, M-C = Course-Based Master's (D=Domestic) (Int.=International), LOA = Leave of Absence*

Source: Strategic Analysis and Data Warehousing – accessed January 26, 2018.

Notes: 1) convocation year = calendar year (January 1 to December 31); 2) completion time calculated as: first term of attendance to milestone completion date; 3) time spent in an official Leave of Absence (LOA) has not been deducted from the total completion time; 4) domestic = Canadian citizens and permanent residents; 5) international = students attending the university on a study/work visa at time of completion; (6) excludes students in other program categories (qualifying, visiting and probationary students and those registered in post-baccalaureate certificates or postgraduate diplomas); 7) this represents a methodological change. Historical data has been restated, with number of years now calculated to one decimal place at the individual student level.



### 3.3. Attrition and Completion Rates

To determine our completion and attrition rates, we first divide each cohort of graduate students starting in a given academic year into three groups: those who were still active as of the end of spring term; those who have convocated; and those who have left the university without any credential. Students currently recorded as active may either convocate or leave their program without a degree. Thus attrition rates become increasingly speculative as we move toward the present.

In Table 3.4, we did not calculate attrition and completion rates for cohorts that fall within the average time to completion of a PhD (~6 years, or 2012-2013) and this masks the Master's rates. The program-specific tables (Tables 3.5-3.7) break out this information more fully.

**Table 3.4. Attrition and completion rates by year.**

	Applicants Registered	Completed	Still Active	Program Not Completed	Attrition Rate	Completion Rate
1999-00	1,284	1,035	0	249	19%	81%
2000-01	1,351	1,143	0	208	15%	85%
2001-02	1,441	1,209	0	232	16%	84%
2002-03	1,630	1,379	0	251	15%	85%
2003-04	1,739	1,481	0	258	15%	85%
2004-05	1,654	1,403	2	249	15%	85%
2005-06	1,601	1,361	5	235	15%	85%
2006-07	1,825	1,539	10	276	15%	84%
2007-08	2,026	1,719	17	290	14%	85%
2008-09	2,085	1812	16	257	12%	87%
2009-10	2,367	2032	69	266	~11%	~86%
2010-11	2222	1865	114	243	~11%	~84%
2011-12	2337	1891	210	236	~10%	~81%
2012-13	2275	1609	435	231	N/A	N/A
2013-14	2331	1523	608	200	N/A	N/A
2014-15	2171	1042	991	138	N/A	N/A
2015-16	2200	451	1631	118	N/A	N/A
2016-17	2458	38	2374	46	N/A	N/A
Fall 2017*	1882	0	1882	0	N/A	N/A

Source: Extracted from PeopleSoft; internal script, accessed November 21, 2017.

\*Fall term data only.

Notes: 1) figures are calculated taking into account the convocat's program at the time of admission; 2) excludes students in other program categories (qualifying, visiting and probationary students as well as people registered in post baccalaureate certificates or postgraduate diplomas).

Table 3.5 presents doctoral attrition and completion rates. As noted above, we do not report the rates for cohorts that fall within the six-year completion time for a PhD. Tracking the absolute number of convocating, still active and remaining students is useful to view over time, and that is why those figures have been reported here.

Doctoral attrition remains an area of concern. PhD completion rate should never be 100% because a PhD is not for everybody—some students do not have the ability and some students have the ability but choose not to finish. Importantly, these tables do not indicate *when* students leave the PhD program. It is particularly expensive to both students and the institution when doctoral students leave late in their programs. The rule that students complete candidacy exams within the first 36 months of a PhD program is designed to provide a solid checkpoint before students get too far along.

**Table 3.5. Doctoral attrition and completion rates.**

	Applicants Registered	Completed	Still Active	Program Not Completed	Attrition Rate	Completion Rate
1999-00	327	231	0	96	29%	71%
2000-01	351	267	0	84	24%	76%
2001-02	386	300	0	86	22%	78%
2002-03	413	325	0	88	21%	79%
2003-04	440	354	0	86	20%	80%
2004-05	392	283	2	107	27%	72%
2005-06	376	280	3	93	25%	74%
2006-07	455	344	9	102	22%	76%
2007-08	450	347	14	89	20%	77%
2008-09	477	384	9	84	18%	81%
2009-10	547	412	57	78	~14%	~75%
2010-11	508	351	83	74	~15%	~69%
2011-12	502	293	134	75	~15%	~58%
2012-13	532	168	285	79	N/A	N/A
2013-14	469	66	352	51	N/A	N/A
2014-15	458	19	391	48	N/A	N/A
2015-16	452	5	405	42	N/A	N/A
2016-17	429	0	414	15	N/A	N/A
Fall 2017*	390	0	390	0	N/A	N/A

Source: PeopleSoft; internal script, accessed November 21, 2017.

\*Fall term data only.

Note: figures are calculated taking into account the convocant's program at the time of admission, which has implications for students who move from Master's to PhD programs without formally reapplying (and, conversely, for students who are repositioned in Master's programs from the doctoral programs they entered, usually as a result of a failed candidacy exam).

In general, Master's completion rates are rising (Tables 3.6 and 3.7). Over the past 10 years, average completion times for thesis-based and course-based Master's degrees, respectively are approximately 2.8 years and 2.4 years. We have not reported attrition and completion rates for cohorts within the average three-year completion time of a Master's degree.

**Table 3.6. Thesis-based Master's attrition and completion rates.**

	Applicants Registered	Completed	Still Active	Program Not Completed	Attrition Rate	Completion Rate
1999-00	534	451	0	83	16%	84%
2000-01	556	487	0	69	12%	88%
2001-02	585	504	0	81	14%	86%
2002-03	674	581	0	93	14%	86%
2003-04	643	560	0	83	13%	87%
2004-05	646	566	0	80	12%	88%
2005-06	613	532	1	80	13%	87%
2006-07	649	562	1	86	13%	87%
2007-08	702	599	3	100	14%	85%
2008-09	726	638	4	84	12%	88%
2009-10	801	718	9	74	9%	90%
2010-11	689	598	18	73	11%	87%
2011-12	740	612	55	73	10%	83%
2012-13	782	597	109	76	10%	76%
2013-14	752	533	156	63	~8%	~71%
2014-15	748	426	282	40	~5%	~57%
2015-16	762	127	601	34	N/A	N/A
2016-17	840	1	825	14	N/A	N/A
Fall 2017*	673	0	673	0	N/A	N/A

Source: PeopleSoft; internal script, accessed November 21, 2017.

\*Fall term data only.

Notes: (1) figures are calculated taking into account the convocant's program at the time of admission; (2) excludes students in other program categories (qualifying, visiting and probationary students and those registered in post-baccalaureate certificates or postgraduate diplomas).

**Table 3.7. Course-based Master's attrition and completion rates.**

	Applicants Registered	Completed	Still Active	Program Not Completed	Attrition Rate	Completion Rate
1999-00	423	353	0	70	17%	83%
2000-01	444	389	0	55	12%	88%
2001-02	470	405	0	65	14%	86%
2002-03	543	473	0	70	13%	87%
2003-04	656	567	0	89	14%	86%
2004-05	616	554	0	62	10%	90%
2005-06	612	549	1	62	10%	90%
2006-07	721	633	0	88	12%	88%
2007-08	874	773	0	101	12%	88%
2008-09	882	790	3	89	10%	90%
2009-10	1,019	902	3	114	11%	89%
2010-11	1025	916	13	96	9%	89%
2011-12	1095	986	21	88	8%	90%
2012-13	961	844	41	76	8%	88%
2013-14	1110	924	100	86	~8%	~83%
2014-15	965	597	318	50	~5%	~62%
2015-16	986	319	625	42	N/A	N/A
2016-17	1189	37	1135	17	N/A	N/A
Fall 2017*	819	0	819	0	N/A	N/A

Source: PeopleSoft; internal script, accessed November 21, 2017.

\*Fall term data only.

Notes: (1) figures are calculated taking into account the convocat's program at the time of admission; (2) excludes students in other program categories (qualifying, visiting and probationary students and those registered in post-baccalaureate certificates or postgraduate diplomas).

## 4. Implications

Graduate education at the University of Alberta is in good shape. Demand for our programs is high, as evidenced by a marked increase in total applications. Enrolment in certificate programs has grown considerably. Our course-based Master's programs are tapping into a market demand and proving very popular. Enrolment of Indigenous students is at an all-time high. As noted in the Dean's message, applications from international students rose significantly from the previous year, almost 40%. Increasing international applications for graduate studies is a Canada-wide trend and reflects the rising tide of isolationism and exclusion in the United States and Europe.

While we take delight in the good news about demand, to focus solely on enrolment numbers would discount important issues that affect the quality of graduate education. These include minimum funding guarantees for PhD students (FGSR is leading this discussion on campus) and offering programs and supports that open up a broad range of career pathways to graduate students. We continue to draw insights and learning from the PhDiversification project, now in its second year. It is developing a strategy that supports our doctoral students' transition from degree to broader career paths outside academia. FGSR is also leading the conversation about learning outcomes, which have a positive effect on completion rates.

Another area of interest is completion and attrition. These measures are indicators of the "health" of graduate programs, particularly student success and student experience. Graduate study is a significant commitment and failure to complete a degree or a lengthy completion time may indicate a negative experience. Of course not all students complete their degrees, and in some cases this is the most reasonable outcome for the student, either academically or personally.

For perspective, we compared graduate student completion rates and times with our U15 peers. For Master's programs, the University of Alberta completion rate (degree completion after five years) is 9% higher than the U15 average, and average completion time is one term longer. Similarly, for doctoral programs, our completion rate (degree completion after nine years) is 6% higher than the U15 average, with average completion times similar to the U15 average. While we are generally in line with our Canadian peers, our completion times (an average 6.3 years to complete a PhD by U15 calculation methods) remain concerning and we at FGSR believe that this issue merits further study.

In the coming months, FGSR will study and report on completion times in an effort to bring more clarity to the issue. We will look for relationships between completion time and program, field of study, international vs domestic students, time to doctoral candidacy exam completion, and point of incompletion. We hope this information will be a catalyst for a university-wide discussion about completion times and what actions are appropriate to improve them. We can use this understanding to better support graduate students throughout their studies so they can successfully complete their degrees.

Graduate education is a vital component of economic development and an investment in solutions for the future. It's critical that we get it right, for Alberta and Canada. To this end, the Graduate Enrolment Report is designed as a resource, illuminating trends and providing insights into where we should focus efforts to support the critical thinkers and innovators who will be essential to Canada's continued prosperity.