Research Committee

• Supplemental Report: Phase 1



CACB Research Committee, Lisa Landrum (Academic Lead), Eva Rodriguez (Student Researcher).



September 12, 2022 (Draft 4)

BACKGROUND

In 2017, the CACB Research Initiatives Task Force was established to develop research in support of the CACB's mandate. This task force became a regular CACB committee to oversee and undertake research programs, to develop research questions and funding plans, and to report to the CACB Board. In 2018, the CACB committed \$7,500 towards a successful MITACS grant application, earning an additional \$7,500 in matching funds to support Phase 1 research.

2019 - RESEARCH - PHASE 1

Canadian Architectural Education, Accreditation, and Certification trends in a Changing Environment

Led by Prof. Anne Bordeleau with a graduate student research assistant at the University of Waterloo, Jessica Hanzelkova. Phase 1 research focused on:

- gathering and organizing data from 2003-2019 establishing a solid base for future work;
- preliminarily plotting the data graphically;
- identifying significant data gaps and challenges that impact the ability to compare and interpret the data;
- advancing understanding of certain trends and articulating overarching questions about architectural education in changing academic and social-cultural environment.

A Phase 1 Research Report was published in September 2021. (1.5 page narrative - with no graphs).



2022 - RESEARCH - PHASE 2

A second successful MITACS grant in 2022 is supporting continued work - led by Prof. Lisa Landrum with a graduate student research assistant at the University of Manitoba, Eva Rodriguez.

Aims:

* to prepare and publish supplemental graphics and analysis in support of the 2021 Phase 1 Report; (this presentation is a draft).

• to review, incorporate and analyze additional data from 2019-2022;

• to advance qualitative assessment of available documents and articulate further research questions and directions

2019 - RESEARCH - PHASE 1

Canadian Architectural Education, Accreditation, and **Certification trends in a Changing Environment**

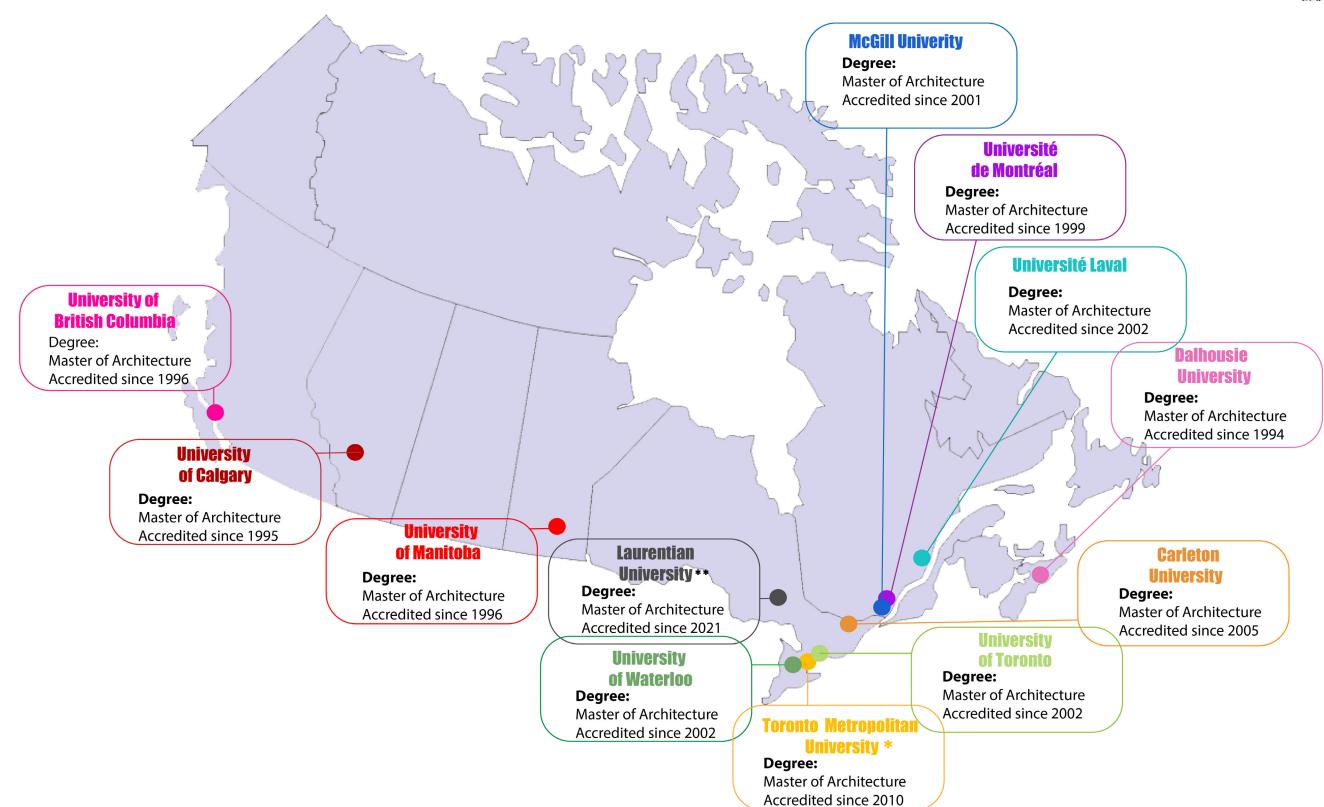
Led by Prof. Anne Bordeleau with a graduate student research assistant at the University of Waterloo, Jessica Hanzelkova. Phase 1 research focused on:

- gathering and organizing data from 2003-2019 establishing a solid base for future work;
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MAP OF CACB ACCREDITED PROGRAMS



* Toronto Metropolitan University formerly Ryerson University.

**Laurentian University not included in the Phase 1 data analysis, which covers years 2003-2019 (ie. before the program was accredited).



DATA EXAMINED FROM:



faculty.

The VTR conveys the Visiting Team's assessment of the Program and APR as measured by the student's performance and the overall learning environment.





TOPICS EXPLORED FOR PRE-PROFESSIONAL AND PROFESSIONAL DEGREES



1. Student Application Data













NOTES ON INCONSISTENCIES

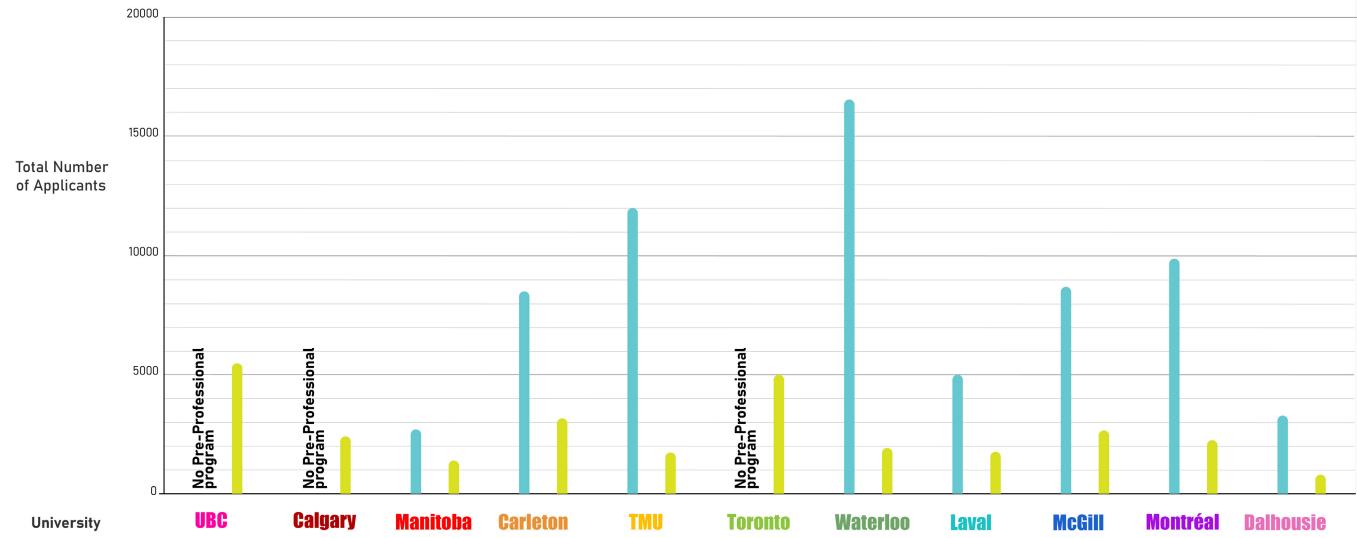
While every effort has been made to accurately convey data provided by schools in the AR and APR documents and to normalize some differences in program structures, certain gaps and irregularities on the original documentation have resulted in inconsistencies. In particular, please note the following:

- ARs are not available for every year for every school.
- Some data reported in the ARs is approximate.
- •There are some gaps in the data.
- For the application data, sometimes it is unclear if "Advanced Standing" students are *included* in the "Total Admitted" or *in addition to* the "Total Admitted".
- Numbers provided in the breakdown of student and faculty numbers do not always add up to the totals reported.
- Some schools did not report gender balances for degrees awarded and enrollment data, just totals.
- AR template changed in 2018-2019, and the data reported in 2019 for the previous 2 years does not match the data provided in the previous reports.









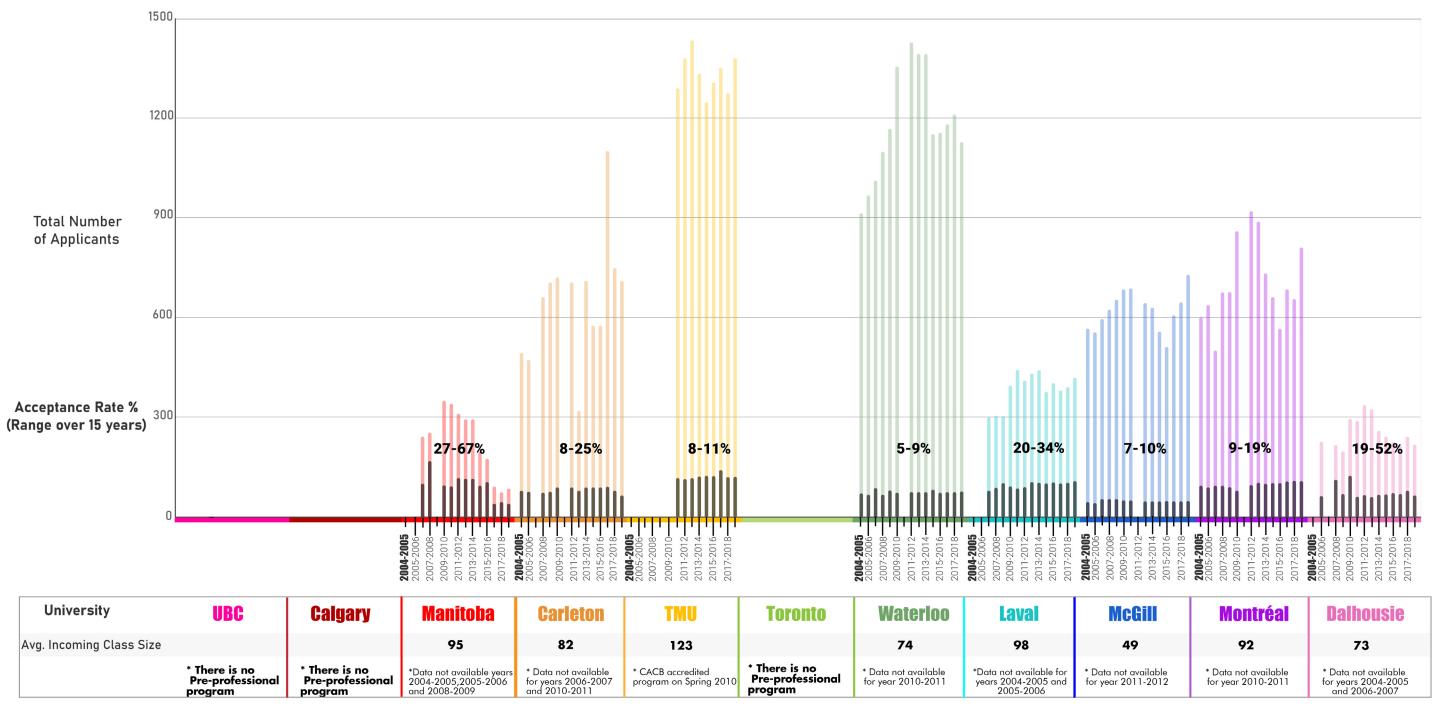






1.2 PRE-PROFESSIONAL PROGRAM

Total Applicants And Students Admitted 2004-2019



Notes:* Data Collected from ARs.

* Significant changes may be due to program changes and the program years reported.

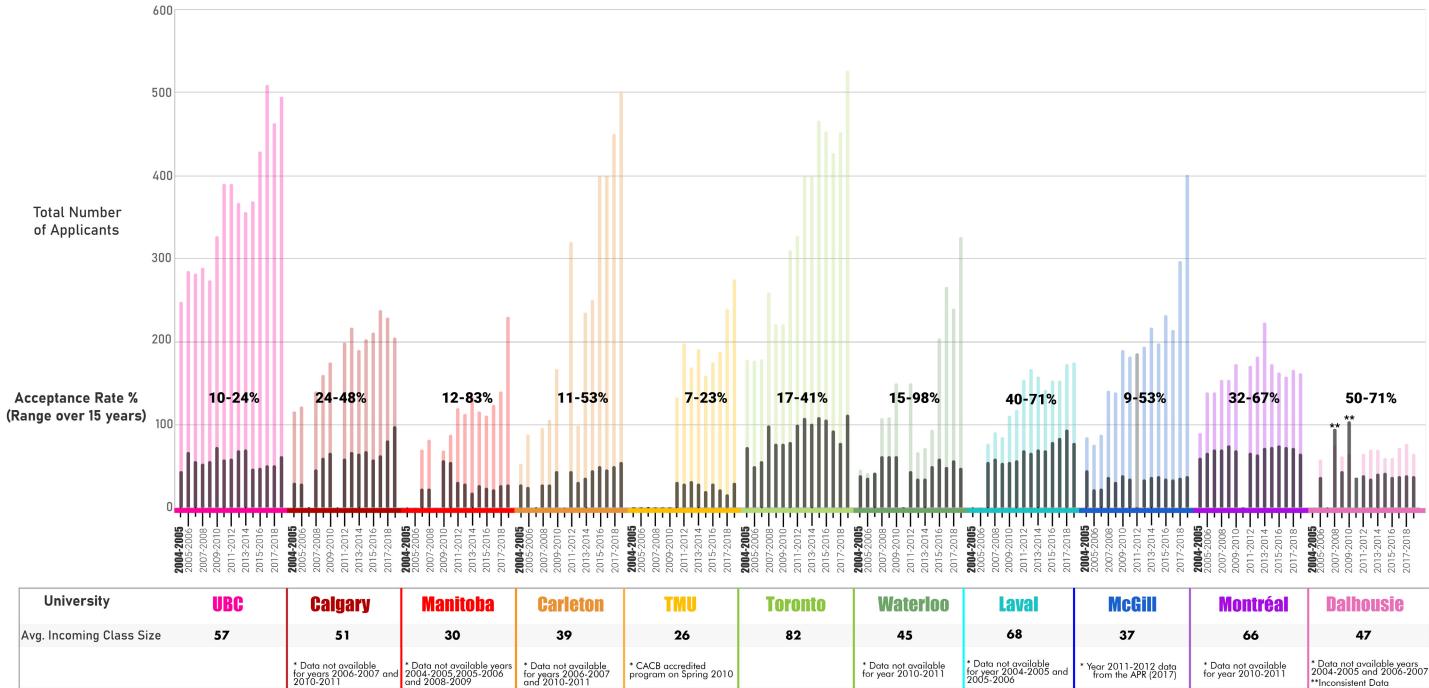






1.3 PROFESSIONAL M.ARCH PROGRAM

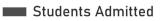
Total Applicants And Students Admitted 2004-2019



University	UBC	Calgary	algary Manitoba		TMU	Toronto	Waterloo	Laval	McGill		
Avg. Incoming Class Size	57	51	30	39	9 26 82 45		45	68	37		
		* Data not available for years 2006-2007 and 2010-2011	* Data not available years 2004-2005,2005-2006 and 2008-2009	* Data not available for years 2006-2007 and 2010-2011	* CACB accredited program on Spring 2010		* Data not available for year 2010-2011	* Data not available for year 2004-2005 and 2005-2006	* Year 2011-2012 da from the APR (201		

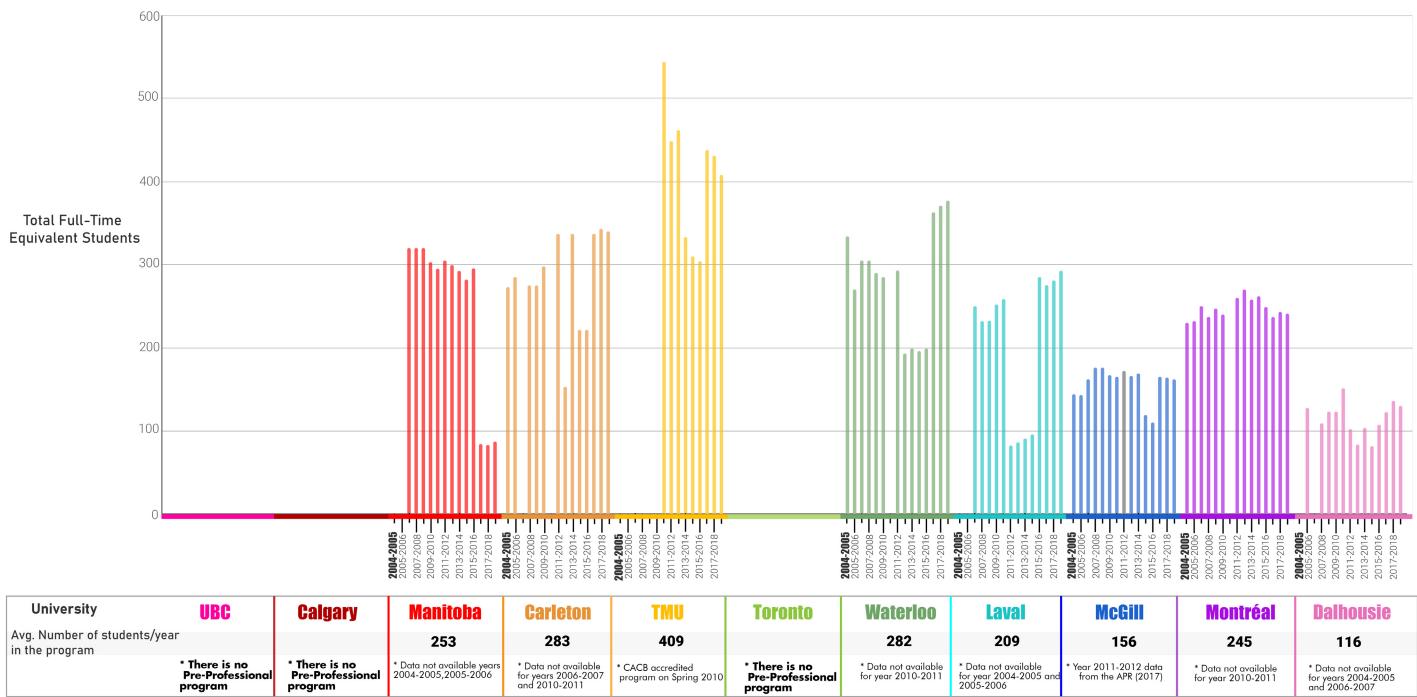
Notes:* Data Collected from ARs.







2.1 PRE- PROFESSIONAL PROGRAM 2004-2019



University	UBC	Calgary	Manitoba	Carleton	TMU	Toronto	Waterloo	Laval	McGill
Avg. Number of students/yea in the program	ar		253	283	409		282	209	156
	* There is no Pre-Professional program	* There is no Pre-Professional program	* Data not available years 2004-2005,2005-2006	* Data not available for years 2006-2007 and 2010-2011	* CACB accredited program on Spring 2010	* There is no Pre-Professional program	* Data not available for year 2010-2011	* Data not available for year 2004-2005 and 2005-2006	* Year 2011-2012 date from the APR (2017

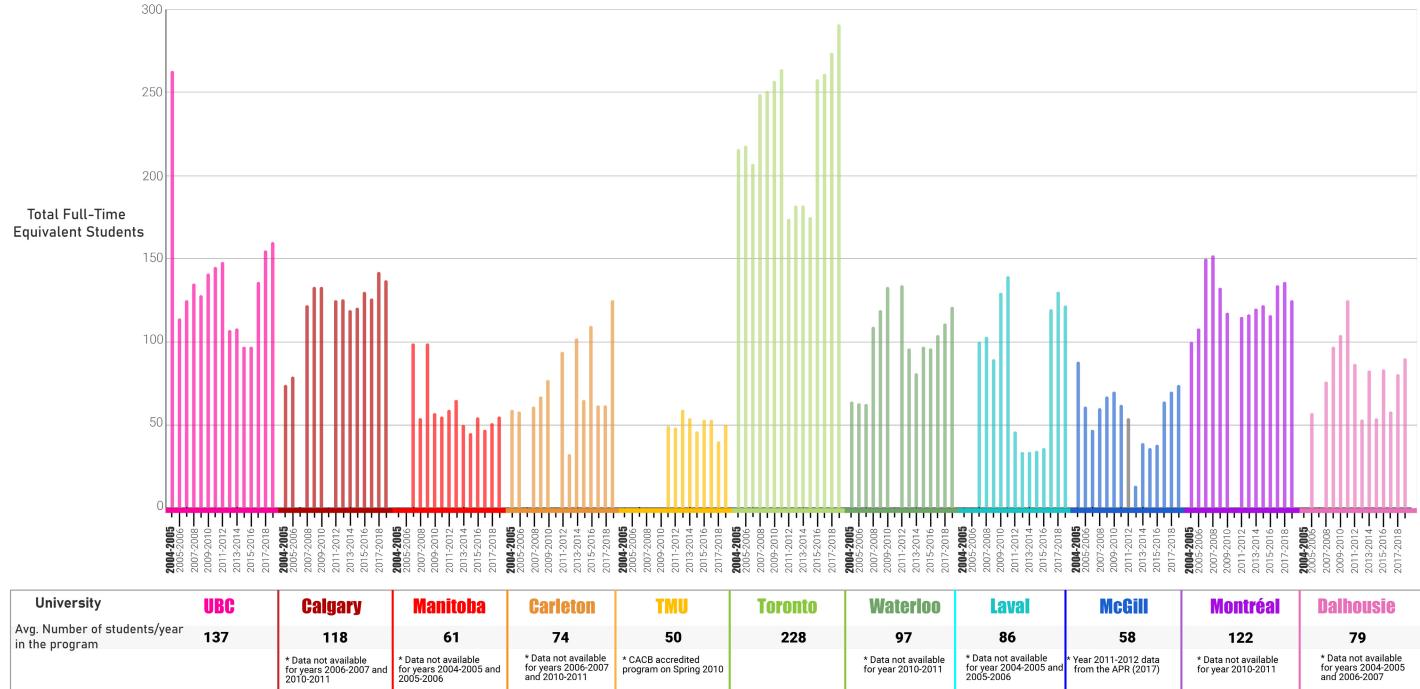
Notes:* Data Collected from ARs.

*Significant changes may be due to program changes and the program years reported.





2.2 PROFESSIONAL M.ARCH PROGRAM 2004-2019



University	UBC	Calgary	Manitoba	Carleton	TMU	Toronto	Waterloo	Laval	McGill	
Avg. Number of students/year in the program	137	118	61	74	50	228	97	86	58	
		* Data not available for years 2006-2007 and 2010-2011	* Data not available for years 2004-2005 and 2005-2006	* Data not available for years 2006-2007 and 2010-2011	* CACB accredited program on Spring 2010		* Data not available for year 2010-2011	* Data not available for year 2004-2005 and 2005-2006	* Year 2011-2012 data from the APR (2017)	

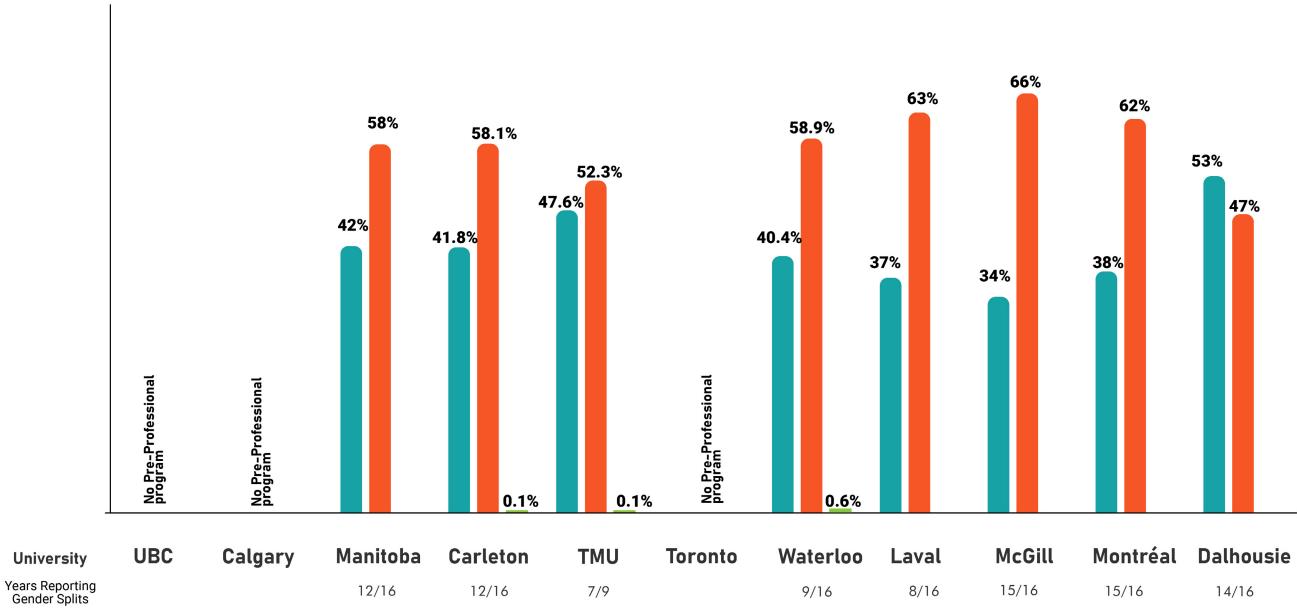
Notes: *Data Collected from ARs.

* Significant changes may be due to program changes and the program years reported.





2.3 PRE-PROFESSIONAL PROGRAM **Gender Balance** 2003-2019



Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

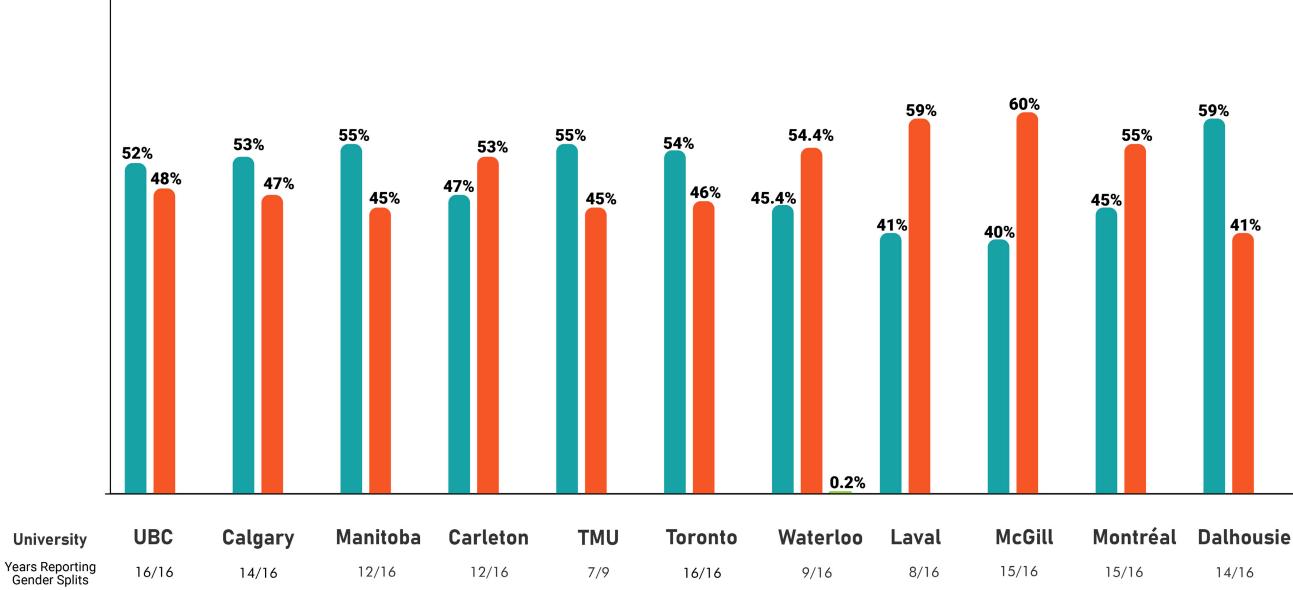
• Format of the Annual Reports from 2018-2019 started including non-binary data .







2.4 PROFESSIONAL PROGRAM Gender Balance 2003-2019



Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

• Format of the Annual Reports from 2018-2019 started including non-binary data .



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Dalhousie

2. STUDENT ENROLMENT DATA

2.5 STUDENT GENDER BALANCE For All Schools in Aggregate 2003-2019

BACHELOR'S (Pre-Professional Degree)

Men	Women	Non-Binary 0.30%		Men
36.1%	63.6%	0.40%	2018-2019	45.6%
38.2%	61.4%	0.30%	2017-2018	48%
39%	60.7%		_ 2016-2017	47%
40%	60%		_ 2015-2016	51%
45%	55%		- 2014-2015	51%
46%	54%		- 2013-2014	51%
49%	51%		- 2012-2013	49%
46%	54%		_ 2011-2012	47%
47%	53%		- 2010-2011	52%
41%	59%		_ 2009-2010	48%
40%	60%		- 2008-2009	51%
40%	60%		_ 2007-2008	53%
38%	62%		- 2006-2007	54%
45%	55%		_ 2005-2006	55%
44%	56%		_ 2004-2005	55%
44%	56%		- 2003-2004	56%

Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

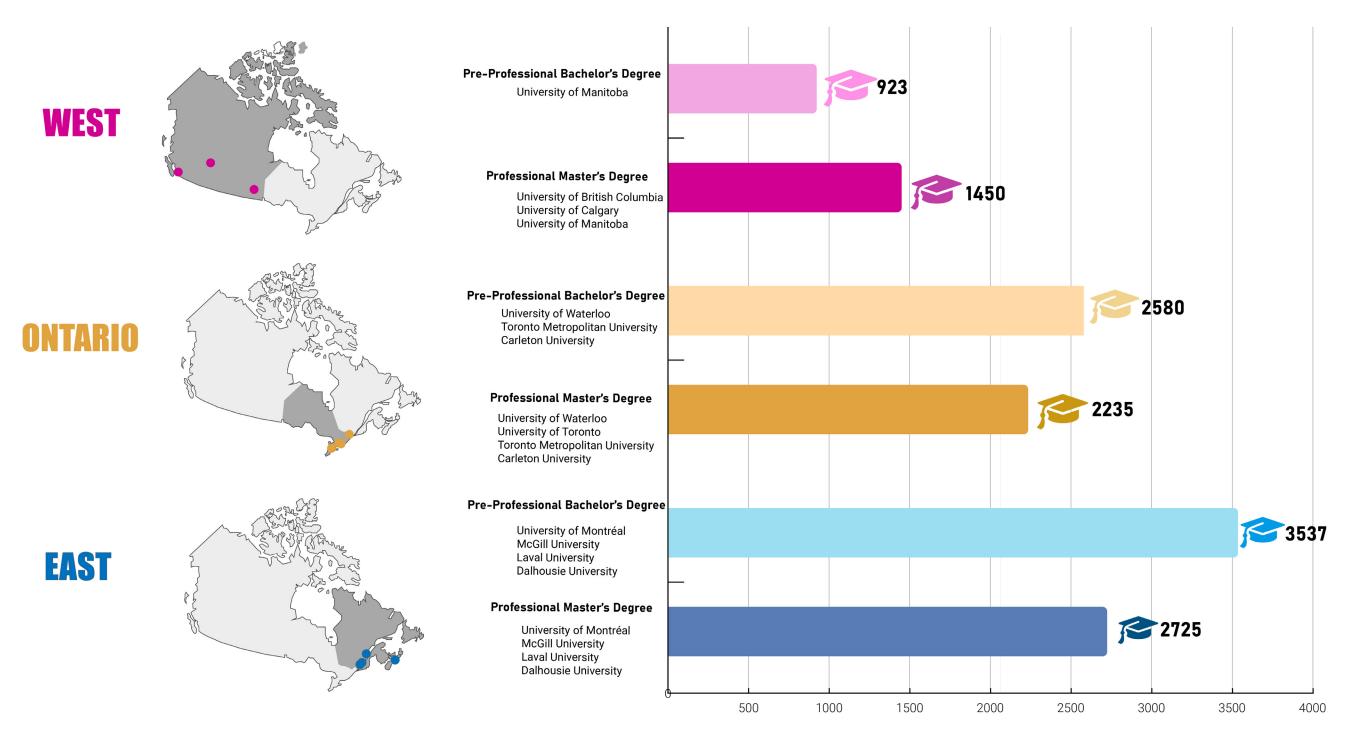
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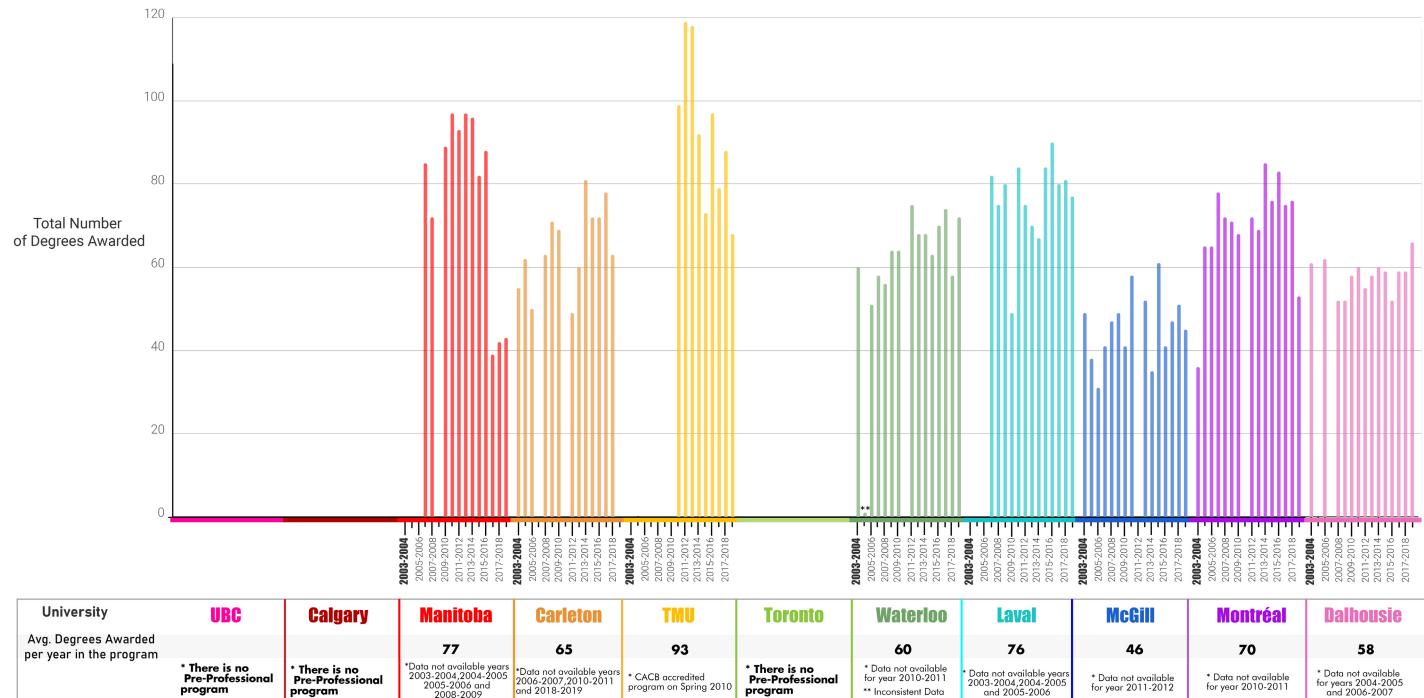
3.1 DEGREES AWARDED BY REGION FOR BOTH PROGRAMS 2003-2019







3.2 PRE-PROFESSIONAL PROGRAM 2003-2019



University	UBC	Calgary	Manitoba	Carleton	TMU	Toronto	Waterloo	Laval	McGill
Avg. Degrees Awarded per year in the program			77	65	93		60	76	46
F ,	* There is no Pre-Professional program	* There is no Pre-Professional program		"Data not available years	* CACB accredited program on Spring 2010	* There is no Pre-Professional program	* Data not available for year 2010-2011 ** Inconsistent Data	* Data not available years 2003-2004,2004-2005 and 2005-2006	

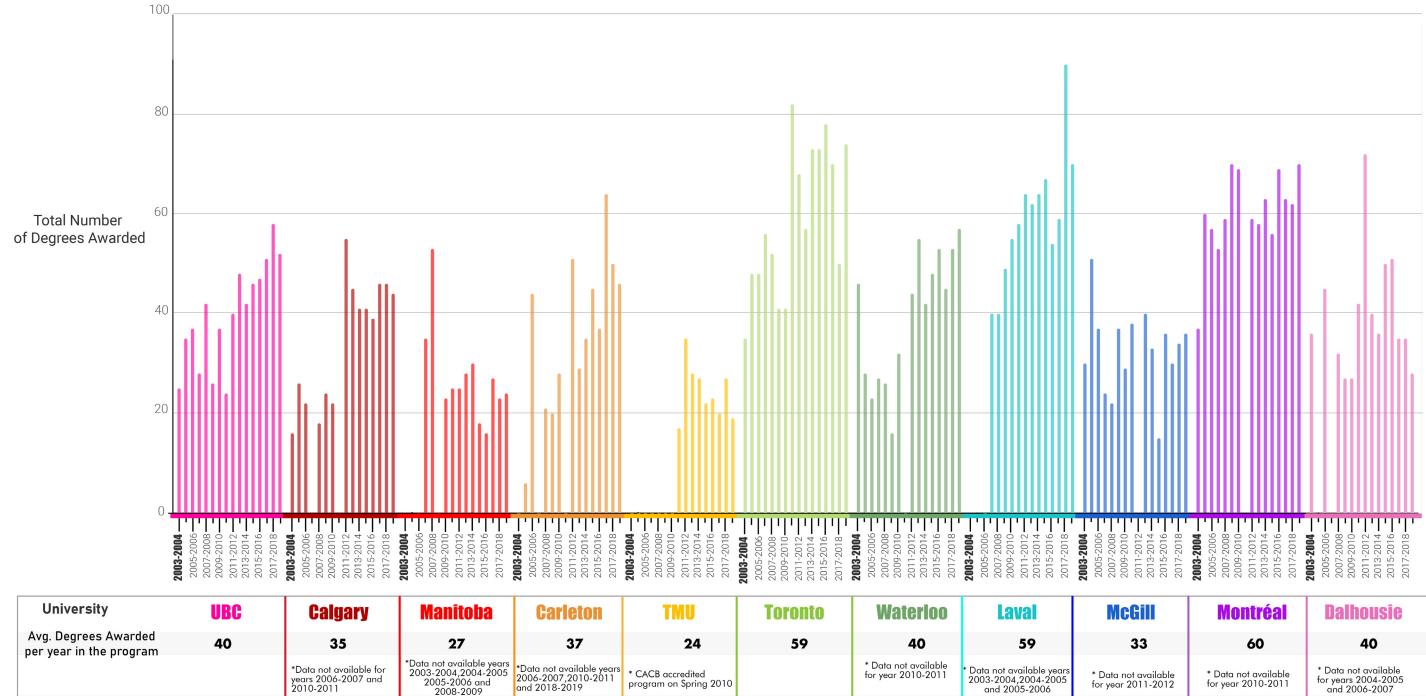
Notes: *Data Collected from ARs.

* Significant changes may be due to program changes and the program years reported.





3.3 PROFESSIONAL M.ARCH PROGRAM 2003-2019



University	UBC	Calgary	Manitoba	Carleton	TMU	Toronto	Waterloo	Laval	McGill
Avg. Degrees Awarded per year in the program	40	35	27	37	24	59	40	59	33
		*Data not available for years 2006-2007 and 2010-2011		*Data not available years 2006-2007,2010-2011 and 2018-2019	* CACB accredited program on Spring 2010		* Data not available for year 2010-2011	* Data not available years 2003-2004,2004-2005 and 2005-2006	* Data not available for year 2011-2012

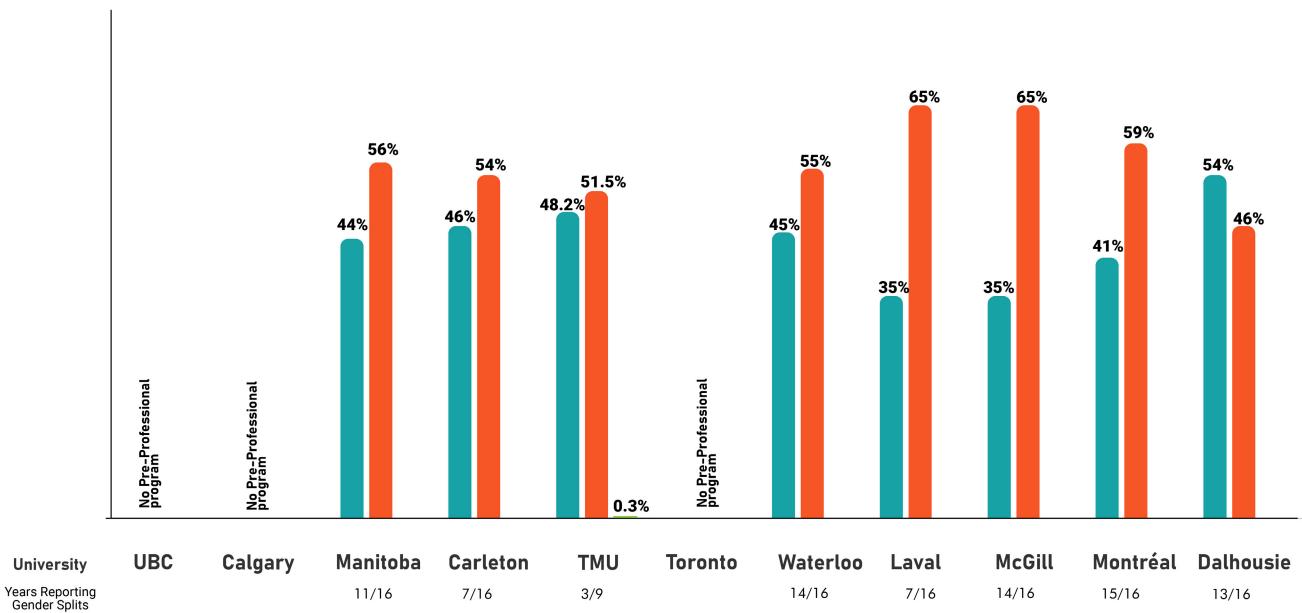
Notes: *Data Collected from ARs.

* Significant changes may be due to program changes and the program years reported.





3.4 PRE-PROFESSIONAL PROGRAM **Gender Balance** 2003-2019



Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

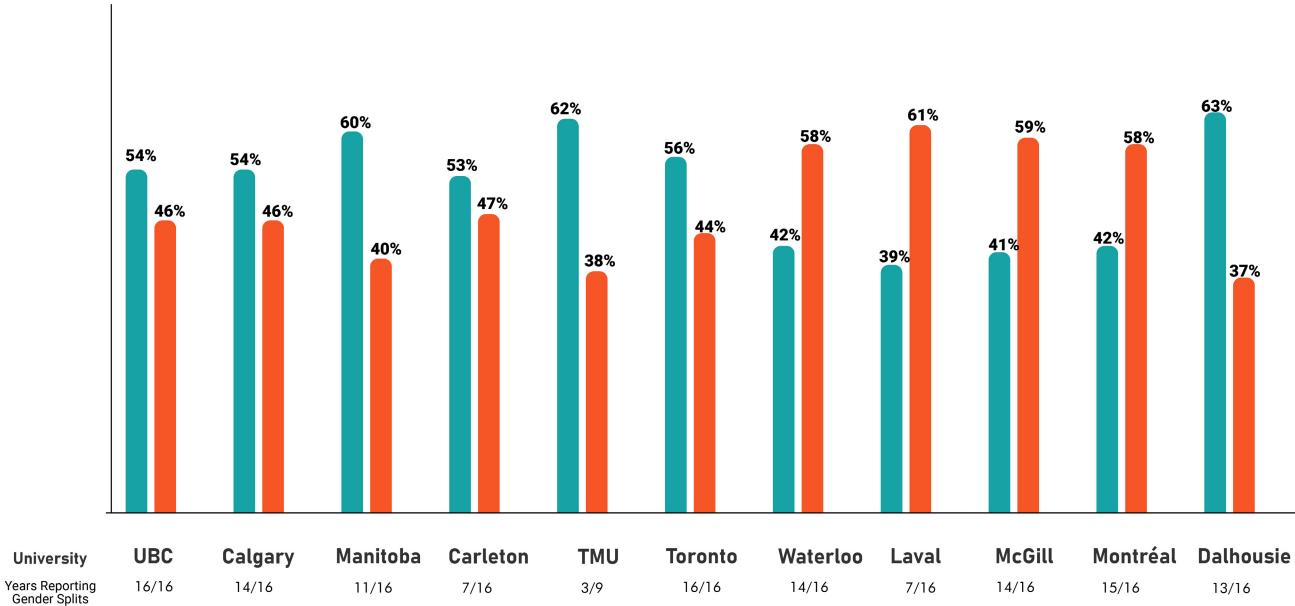
•Format of the Annual Reports from 2018-2019 started including non-binary data .







3.5 PROFESSIONAL M.ARCH PROGRAM **Gender Balance** 2003-2019



Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

•Format of the Annual Reports from 2018-2019 started including non-binary data .







3.6 STUDENT GENDER BALANCE For All Schools in Aggregate 2003-2019

BACHELOR'S (Pre-Professional Degree)

Men	Women	Non-Binary 0.20%	Men	Women
38.9%	60.9%	2018-2019	48%	52%
43%	57%	2017-2018	49%	51%
43%	57%	2016-2017	50%	50%
44%	56%	2015-2016	50%	50%
48%	52%	2014-2015	48%	52%
44%	56%	2013-2014	47%	53%
46%	54%	2012-2013	41%	59%
38%	62%	2011-2012	46%	54%
44%	56%	2010-2011	55%	45%
45%	55%	2009-2010	53%	47%
39%	61%	2008-2009	53%	47%
41%	59%	2007-2008	51%	49%
37%	63%	2006-2007	46%	54%
49%	51%	2005-2006	56%	44%
39%	61%	2004-2005	54%	46%
52%	48%	2003-2004	58%	42%

Notes: *Data Collected from ARs.

•Not all schools reporting, gender balance was optional in the ARs from 2011-2017.

•Format of the Annual Reports from 2018-2019 started including non-binary data .

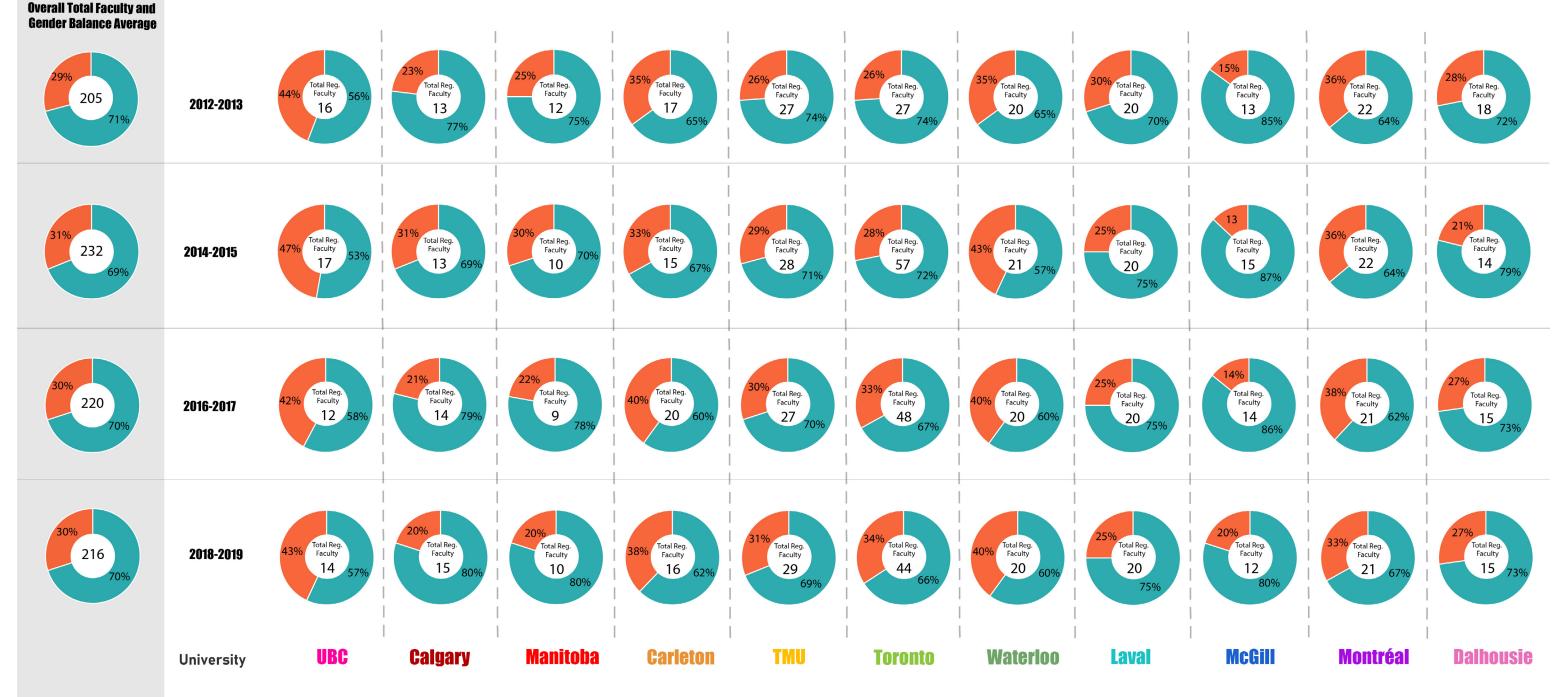


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MASTER'S (Professional Degree)



4.1 FACULTY TOTALS AND GENDER BALANCE Regular Faculty (Full Time) 2012-2019



Notes: *Data Collected from ARs. *Gender data for faculty members required on ARs as of 2012.

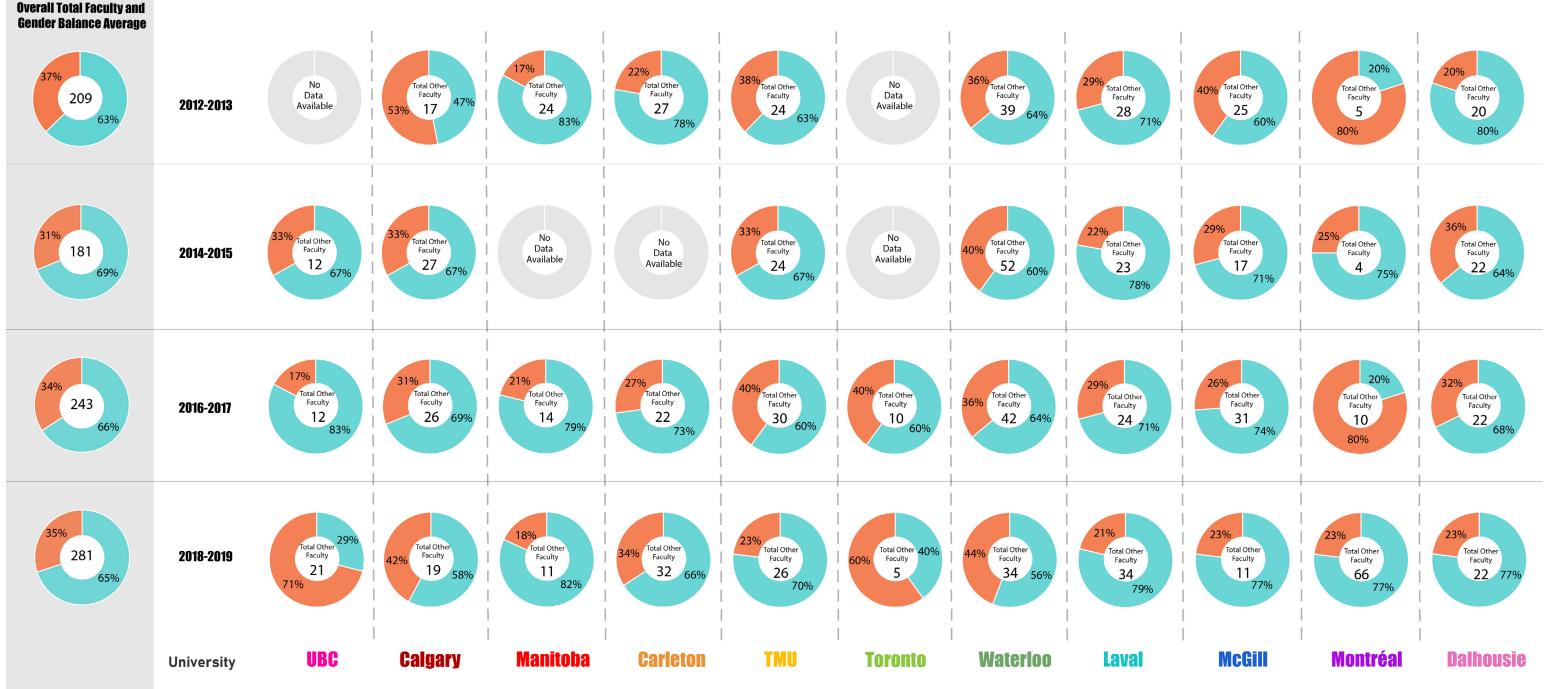


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Men - Regular Faculty
 Women - Regular Faculty



4.2 FACULTY TOTALS AND GENDER BALANCE Other Faculty 2012-2019



Notes: *Data Collected from ARs. *Gender data for faculty members required on ARs as of 2012.

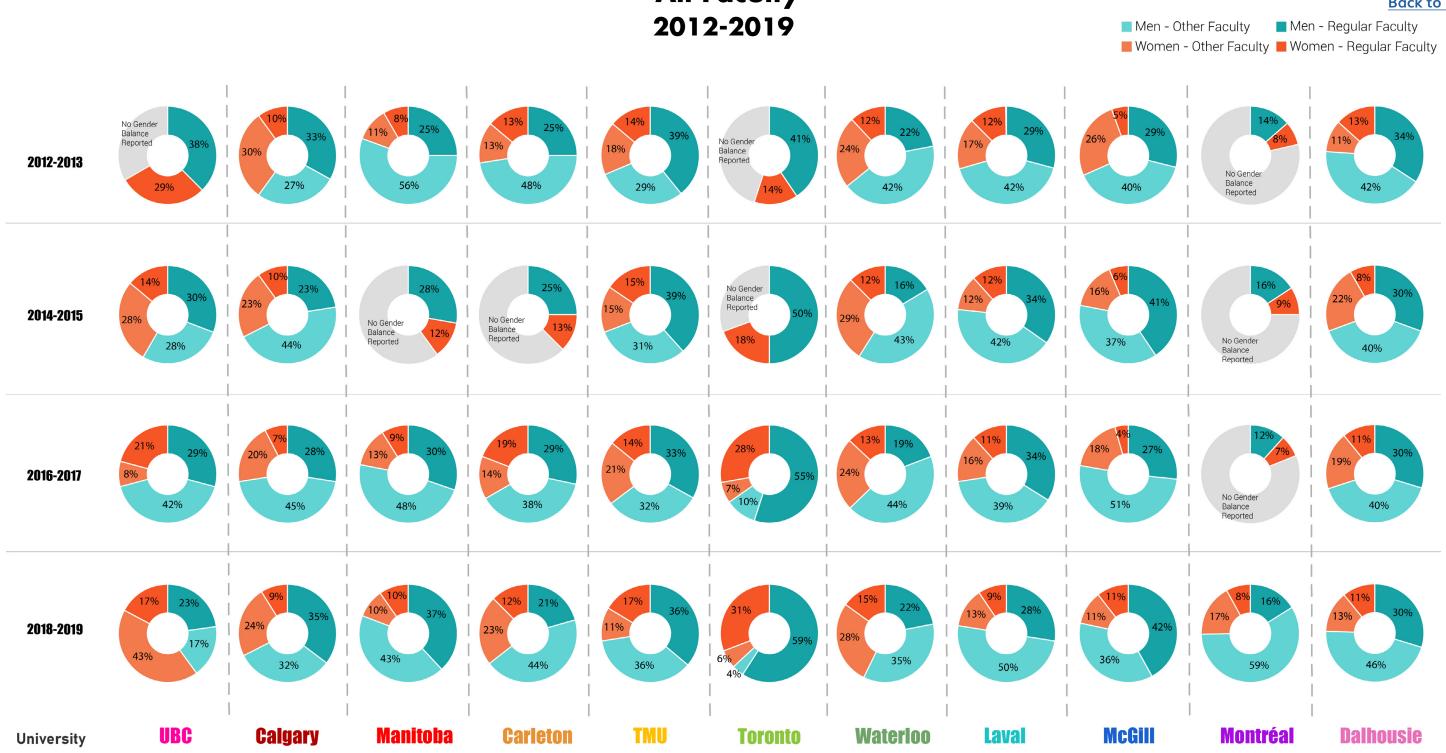


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Men - Other FacultyWomen - Other Faculty



4.3 GENDER BALANCE All Faculty 2012-2019



Notes: *Data Collected from ARs.

*Gender data for faculty members required on ARs as of 2012.





4.4 FACULTY LICENSURE Regular Faculty (Full Time) 2004-2005, 2010-2011, 2018-2019

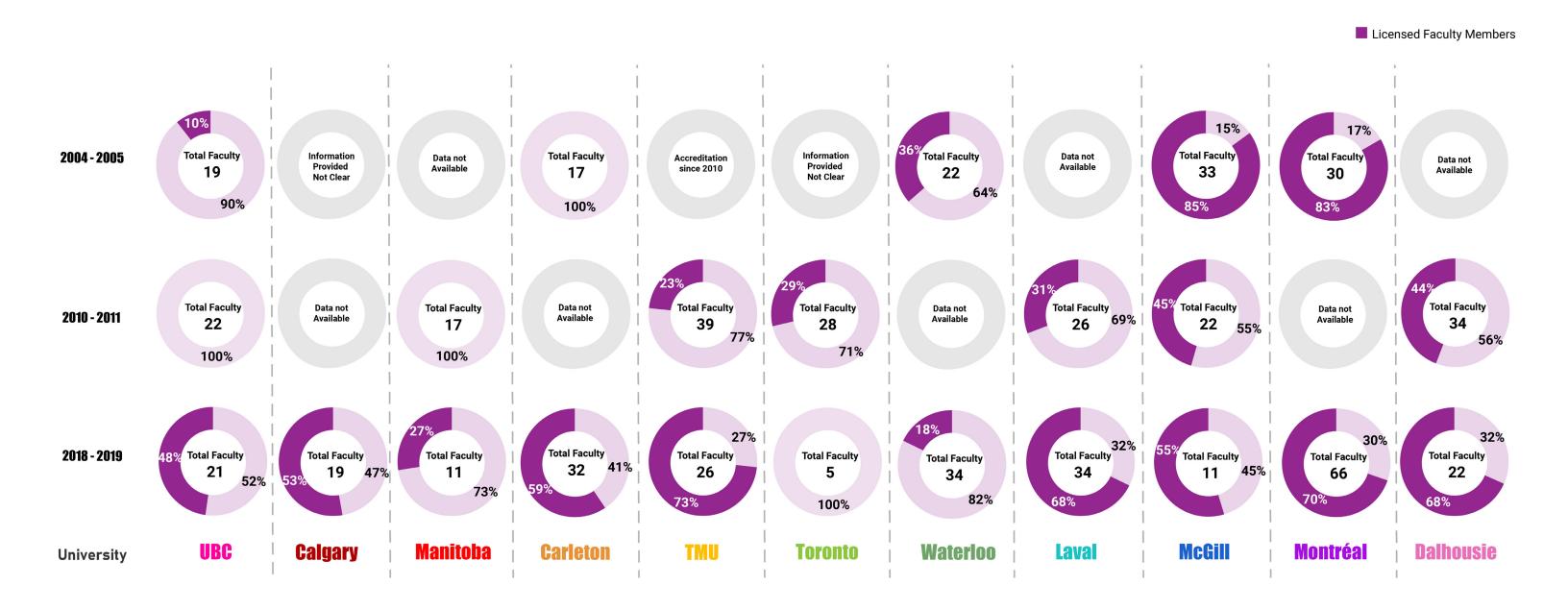


Notes: *Data Collected from ARs.





4.5 FACULTY LICENSURE Other Faculty 2004-2005, 2010-2011, 2018-2019



Notes: *Data Collected from ARs.







5.1 Analysis of Unmet Conditions and Accreditation Back to Text 2007-2018: Two Accreditation Cycles by School

Met
Not Met

Years	2012 2018	2012017	2015 2018	20172017	2010 2013	2001 2013	2011 2014	2001 2013	2012 2018	2011 2014	20 ⁰⁹ 20 ¹⁵ Most SPCs not met
1. Program Response to the CACB P		12 22	2 2	2° 2°	ŶŶ	22 22	22 22	28 28	22 22	20 20	$v^{\circ} v^{\circ}$ not met
	-										
A Architecture Education & Academic ContextB Architecture Education & Students											
C Architecture Education & Registration											0
D Architecture Education & the Profession											0
E Architecture Education & Society											0
2. Program Self-Assessment											4
3. Public Information											5
4. Social Equity	• •										1
5. Human Resources											4
6. Human Resource Development											2
7. Physical Resources											9
8. Information Resources & Information Tech.											1
9. Financial Resources											3
10. Administrative Structure											3
11. Professional Degrees & Curriculum											1
A. Critical Thinking & Communicatio	n										
A1 Critical Thinking Skills			• •								1
A2 Research Skills		\bullet	• •				\bullet				2
A3 Graphic Skills		••									1
A4 Verbal & Written Skills											1
A5 Collaborative Skills											3
A6 Human Behavior			• •								3
A7 Cultural Diversity								• •			• • 7
A8 History & Theory											1
A9 Precedents											2
B. Design & Technical Skills											
B1Design SkillsB2Program Preparation											0 6
B3 Site Design											2
B4 Sustainable Design				ŏŏ							4
B5 Accessibility			00	• •		00					0 10
B6 Life Safety Systems, Building Codes, Standards			• •						• •	• •	0
B7 Structural Systems											0
B8 Environmental Systems			• •								5
B9 Building Envelopes	• •										2
B10 Building Service Systems											4
B11 Building Materials & Assemblies											
B12 Building Economies & Cost Control									• •		4
C. Comprehensive Design	-										
C1 Detailed Design Development	•										1
C2 Building Systems Integration											6
C3 Technical Documentation C4 Comprehensive Design											3 • • 9
											3
D. Leadership & Practice											
D1 Leadership & Advocacy									• •		
D2 Ethics & Professional Judgment D3 Legal Responsibilities		• •									3
D3 Legal Responsibilities D4 Project Delivery											0 2
D5 Practice Organization											
D6 Professional Internship									• •		3
Total not met	6 8	8 2	7 2	6 3	7 3	4 8	2 6	3 6	9 11	94	3 4
			1		, 3						
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University	V.	salls Ma	III- Cal		1.	TON ME	10.	ro. W	-101	In all	Ille
			-						In	Der	

Notes: *Data collected from Visit Reports in two Accreditation Cycles .





5.2 Analysis of Unmet Conditions and Accreditation Back to Text 2007-2018: Two Accreditation Cycles-Chronological

Met Not Met

Years	2007	2009	2010		2011		201	2	20	13	201	4	2015	2017		20	18	Most SPCs not met
1. Program Response to the CACB P A Architecture Education & Academic Context	erspective																	
B Architecture Education & Academic Context B Architecture Education & Students																		0
C Architecture Education & Registration																		0
D Architecture Education & the Profession																		0
E Architecture Education & Society								ŏ										0
2. Program Self-Assessment								ŏ										4
3. Public Information							-											5
4. Social Equity								ŏ				_	i i	ŏ				1
5. Human Resources																		4
6. Human Resource Development								ŏ										2
7. Physical Resources						•										•		9
8. Information Resources & Information Tech.																		1
9. Financial Resources																		3
10. Administrative Structure																		3
11. Professional Degrees & Curriculum																		1
Α.																		
A1 Critical Thinking Skills																		1
A2 Research Skills																		2
A3 Graphic Skills																		1
A4 Verbal & Written Skills																		1
A5 Collaborative Skills																		3
A6 Human Behavior																		3
A7 Cultural Diversity																		1
A8 History & Theory																		1
A9 Precedents																		2
B. Design & Technical Skills B1 Design Skills																		0
B2 Program Preparation																		0 6
B3 Site Design								ŏ										2
B4 Sustainable Design								ŏ					i i	ŏ	ŏ			4
B5 Accessibility																•		10
B6 Life Safety Systems, Building Codes, Standards																		0
B7 Structural Systems																		0
B8 Environmental Systems							_											5
B9 Building Envelopes							-											2
B10 Building Service SystemsB11 Building Materials & Assemblies																		4
B11 Building Materials & Assemblies B12 Building Economies & Cost Control																		4
C. Comprehensive DesignC1 Detailed Design Development																		1
C1 Detailed Design Development C2 Building Systems Integration															•			6
C3 Technical Documentation																		3
C4 Comprehensive Design								ŏ							•			9
D. Londonshin & Dunation																		
D. Leadership & Practice D1 Leadership & Advocacy																		1
D2 Ethics & Professional Judgment																		3
D3 Legal Responsibilities								ŏ										0
D4 Project Delivery								ŏ					ŏŏ		ě			2
D5 Practice Organization								ŏ						ŏ	ŏ	ŏ		1
D6 Professional Internship		Ŏ																3
Total not met	3 4	3	7		8 9	2		6		6 3	6	4	4 7	2	3	11		
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University	~ ~~ <u>`</u>	mor	The Colle	Collo .	onthing	7	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~	, √°,	11 NO	e on	MO	dritto C	310 ch	2 4	7 N.	JULIO -	
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Notes: *Data collected from Visit Reports in two Accreditation Cycles .