York University Senate

Notice of Meeting

Thursday, 23 November 2023, 3:00pm-5:00pm

Dr. Robert Everett Senate Chamber, N940 Ross Building

AGENDA

Page

1. Chair's Remarks (P. Puri)

5min

2. Business Arising from the Minutes
3. Inquiries and Communications

20min

4. President's Items (R. Lenton)
   a. Updates on ongoing developments
   b. Sustainability policy and applications

Committee Reports

5. Executive Committee (L. Sergio) 1

15min

   a. Election of Members of Non-Designated Senate Committees
   b. Extension of waiver of required *Attending Physician's Statement* for deferred standing / petitions

Note: Executive may recommend other candidates prior to the meeting. In accordance with Senate Rules, additional nominations must be communicated to the Secretary prior to the start of the meeting to confirm eligibility and agreement to stand.

6. Academic Policy, Planning and Research (A. Davis) 7

40min

   a. Provost's Autumn Report on Enrolments and Faculty Complement (L. Philipps)

7. Academic Standards, Curriculum and Pedagogy (K. Michasiw) 80

15min

   a. Establishment of a Cross-Disciplinary Certificate in Mechatronics, Department of Earth & Space Science Engineering, Lassonde (Appendix A, P. 84)
   b. Addition of Co-op Option to Bachelor of Environmental Studies and Bachelor of Arts degree programs, Environmental & Urban Change (Appendix B, P. 111)

8. Appeals (J. Sutherland) 133

10min

   a. 2022-2023 Annual Report on Petitions and Appeals

9. Other Business

Consent Agenda

10. Minutes of the Meeting of 26 October 2023..... 141

P. Robichaud, Secretary

Executive Committee – Report to Senate

At its meeting of 23 November 2023

FOR ACTION

a. Election of Members to Non-Designated Senate Committee Seats

Senate Executive recommends that Senate confirm the following candidates for election to a Senate Committee (non-designated seats) for a three-year term, effectively immediately and ending 30 June 2026. Nominations are also accepted "from the floor" if the nominee has consented and is available for the published meeting time of the committee. Under Senate Rules, nominators must report prospective nominees to the Secretary prior to the start of the Senate meeting to determine their eligibility.

The Committee confirms that the candidates nominated have the experience for the relevant committee. Additional nominees may be forwarded prior to the Senate meeting of 23 November 2023.

Tenure and Promotions (Full-time faculty members; 4 vacancies; meets in panels on Thursdays at 3:00pm when Senate is not in session; members participate in the deliberations of committees constituted at the Faculty level; candidates must fulfil all membership criteria).

Jeremy Trevett, Associate Professor, Faculty of Liberal Arts & Professional Studies
William Jenkins, Associate Professor, Faculty of Liberal Arts & Professional Studies

Final approval for a slate of nominees is given by Senate on a motion "that nominations be closed" as moved by the Vice-Chair of Senate.

b. Interim Extension of the Waiver of Required Attending Physician's Statements

Senate Executive recommends:

That Senate extend the waiver of required Attending Physician Statements to support requests for petitions, appeals and deferred standing for an additional six months beyond the current waiver, from 31 December 2023 to 30 June 2024.

Rationale

The request to extend the current waiver originates from the Academic Standards, Curriculum and Pedagogy Committee (ASCP), and is supported by the Executive Committee. Additional time is needed by ASCP to finalize for Senate approval of a Senate-level policy on *Attending Physician Statements* for the University's petitions, appeals and deferred standing processes. The policy initiative is well underway with ASCP and the Senate Appeals Committee (SAC), and a recommendation to Senate is anticipated in May 2023.

Background on the Existing Waiver
One of the forms of accommodation provided by Senate Executive from the outset of the pandemic disruption in 2020 was that students will not be required to submit an Attending Physician's Statement (APS) in support of requests for deferred standing or petitions; it remained in place for the entirety of the disruption to support fairness to students (one of the principles of the Senate Disruptions Policy) and to not contribute to the overburdened healthcare system resulting from the COVID-19 pandemic.

There is no Senate-level policy on APS, but the requirement for them has been a longstanding part of the University's robust petitions framework, dating back to 1999 and the Senate-led initiative to harmonize petitions and appeals procedures across the University. The Faculty-level petitions and appeals committees and SAC continue to be guided by these policies and procedures in their consideration of student petitions and appeals.

Following Senate Executive's decision to put in abeyance the requirement for an APS effective March 2020, questions surfaced about the value of this form of documentation. Notably, the York Federation of Students (YFS), the Provost and the Vice-Provost Students raised the question of removing the requirement for an APS for missed assignment deadlines, tests or exams. Key considerations were rooted in equity of access to, and associated costs of, medical services. In response, ASCP and SAC have been reviewing the requirement and the concerns about it; the Senate committees launched a University-wide consultation on the practice of requiring doctors' note in Spring 2021.

As a bridge between the period of the end of the disruption in Fall 2022 and the approval and implementation of the forthcoming policy, Senate approved an interim extension of the waiver of the requirement to December 2023.

FOR INFORMATION

c. Approval of Committee Members Nominated by Faculty Councils

The Executive Committee has approved the following individual nominated by a Faculty Council for membership on a Senate committee / Sub-committee for the term of 1 July 2023 – 30 June 2026.

Sub-committee on Honorary Degrees

Melanie Cao, Professor, Schulich School of Business / Faculty of Graduate Studies as the FGS candidate

d. Senate Committee Priorities for 2023-2024

The Academic Policy, Planning & Research Committee has transmitted its 2023-2024 priorities; they are attached as Appendix A to this report. The initiatives identified this year reflect the priorities of the *University Academic Plan 2020-2025* and key academic initiatives in focus this year, including for example the future of pedagogy, and planning for the Markham campus launch in 2024 and a possible school of medicine.

Executive Committee – Report to Senate

e. Approval of Members of Senate Committees Nominated by Student Senators

The Executive Committee has approved the individuals listed below as nominated by student Senators to serve on Senate committees for the 2022-2023 governance year.

Academic Policy, Planning & Research

Philip Lynch, graduate, Faculty of Environment and Urban Change, 1st year.
Hale Mahon, undergraduate, LAPS, Public Policy & Administration, 3rd Year.

Executive

Ryan Whiston, graduate, PhD, Social & Political Thought, Faculty of Graduate Studies
Rose Wang, Osgoode Hall Law School, Juris Doctor, 3rd Year.

Appeals

Aila Narimani, undergraduate, Faculty of Health, Psychology, 3rd Year.
Grace Rao, Osgoode Hall Law School, Juris Doctor, 2nd Year.

Awards

Louis Nguyen, graduate, Schulich School of Business, MBA, , 1st Year.
Yuna Hwang, undergraduate, Faculty of Science, Biology, 2nd year.

Honorary Degrees & Ceremonials

Marissa Buttigieg, undergraduate, Glendon, French Studies/BEd, 6th Year.

The Committee looks forward to receiving nominations for the remaining student positions on Senate committees.

f. Review of the Senate Policy on Academic Implications of Disruptions or Cessations of University Business Due to Labour Disputes or Other Causes

As reported to Senate last month, Executive confirmed among its 2023-2024 priorities a review of the "Disruptions" policy to broaden its scope beyond the specific context of labour disruptions. A small working group composed of Executive committee members will lead the policy review and identify recommended revisions for approval by the full Committee and recommendation to Senate for approval thereafter. The composition of the working group has been confirmed and it is being populated. It is planned to convene the group in late November / early December. Executive will keep Senate apprised of progress on the initiative.

g. Topics of Broad Academic Interest

Another of Executive's priorities for this academic year is enhancing Senator participation in Senate meetings. Shared with Senate in October is a new initiative to help advance this priority: the *Topics of Broad Academic Interest* (TBAI) option. The goal of the TBAI is to support the vitality of collegial governance and provide opportunities for Senators to discuss and share views on key academic initiatives, academic planning issues of import to Faculties, faculty members or within the post-secondary sector, and emerging matters that are relevant to Senate's responsibility for University academic policy.

Executive Committee – Report to Senate

In January, Executive will issue a call to Senators for submissions of *Topics of Broad Academic Interest* for possible inclusion on a future Senate agenda. A topic(s) confirmed by Executive for discussion at a Senate meeting will be scheduled at an appropriate time in conjunction with the Committee's responsibility for the preparation of Senate agendas.

h. Review of Faculty Council Rules and Procedures

The Executive Committee approved a change to the Faculty Council Rules and Procedures of the *School of Arts, Media, Performance & Design* to align the name of a Council committee with the common University nomenclature of decolonizing, equity, diversity and inclusion.

i. Communication to Chair of Senate

A communication to the Chair of Senate from the Department of Sociology, LAPS and the graduate program in Sociology on the topic of the defense of academic freedom at York University was shared with the Executive Committee for its information. No action was requested of the Chair, Executive or Senate. The communication generated a thoughtful discussion of the matter among the members in which views were respectfully shared.

j. December Meeting of Senate

Based on a forecast of pending business for Senate, it is anticipated that it will be necessary for Senate to convene in December. Confirmation of a meeting of Senate will be made well before the scheduled date of Thursday, 14 December 2023. Accordingly, Senators are asked to reserve the 3:00pm meeting time on that date until a definitive announcement is made. If proceeding, the meeting will be delivered virtually.

Poonam Puri*, Chair*
Lauren Sergio, *Vice-Chair*

APPRC 2023-2024 Priorities

UAP Priority	APPRC Priority Area	Specific Outcomes for 2023-2024	Actions in 2023-2024
21st Century Learning: Diversifying Whom, What, and How We Teach **From Access to Success**	Future of Pedagogy	The *Joint APPRC-ASCP Task Force on the Future of Pedagogy* continues in progress. A Consultation Paper to be released in early Fall for pan-university discussion. A final report with recommendations targeted for December 2023. APPRC and ASCP to review recommendations, take action / oversee steps to implementation of recommendations.	Consultation Paper to APPRC and ASCP for initial review in early Fall, followed by pan-university consultation process. APPRC Review of final report scheduled for January 2024.
Knowledge for the Future: From Creation to Application **Learning**: Diversifying Whom, What, and How We Teach	Support furthering the teaching and research goals of the UAP and SRP	Revised Senate *Regular Named Chairs Policy* and the Board-Senate *Research & Teaching Chairs, Professorships and Distinguished Fellowships* Policy to enhance recruitment and retention of high performing scholars and ensure that searches for Named Chairs will support performance of chairholders. Review *Senate Policy on Organized Research Units* to identify necessary revisions to enhance the ORU charter application process.	Revisions to the Chairs policies are in preparation. APPRC review of revisions anticipated in the fall. To Senate and Board as required thereafter for approval. Draft revisions for ORU Policy to be discussed with Sub-committee on ORUs, with recommendation to full committee, thereafter Senate for approval.

UAP Priority	APPRC Priority Area	Specific Outcomes for 2023-2024	Actions in 2023-2024
21st Century Learning **Knowledge for the Future** **From Access to Success** **Advancing Global Engagement** **Living Well Together** **Working in Partnership**	Monitoring / contributing to major academic planning and research initiatives in 2023-2024	Regular reports from Provost and /or Vice-President Research & Innovation on initiatives in progress, including: • Markham Campus planning • establishment of a school of medicine • Vaughan Healthcare Precinct • Glendon administrative restructuring • external developments with the Provincial micro-credential framework • performance enhancement on international rankings • SRP implementation plan • Discover York Academics implementation • enhanced external research partnerships Engagement of Senate in planning discussions / decisions on initiatives.	**MC:** Interim Deputy Provost to attend APPRC monthly to provide progress reports on academic planning aspects of campus. **School of Medicine:** briefings from Provost on status of the proposal with the Province; governance planning in step **VHCP:** briefings from Provost in conjunction with SoM discussions. **Glendon:** facilitate consultations and planning; review and present to Senate recommendations for revised academic unit structure **Micro-credentials:** coordinate with ASCP on development of university policy / plans **SRP Implementation Plan:** input on the plan itself and oversight of progress on actions. **Discover York Academics:** input and oversight on its implementation **External research partnerships:** input on planning and framework.

Academic Policy, Planning and Research Committee

Report to Senate

At its meeting of 23 November 2023

FOR INFORMATION

a. Provost's Autumn Report on Complement and Enrolment

Included among APPRC's responsibilities are monitoring and reporting on the implementation of UAP priorities, facilitating Senate consultation on academic plans, allocation of academic resources, and consideration of annual reports from the President / Vice-Presidents. In that broad context, the report on faculty complement plan and enrolments is a key annual item of business. The Provost reports to APPRC and Senate on enrolments and faculty complements to share information on and facilitate discussion of trends in these two areas critical to program delivery, success in implementing academic strategies, and progress on advancing UAP priorities. Provost Philipps previewed the report with APPRC on 16 November and gathered feedback from members. Background slides are attached as Appendix A, and Senators are encouraged to review them in advance of the meeting. Drawing on the information in the slides, the Provost will provide an oral report for discussion with Senators at the meeting.

Despite gains in some categories, overall the FW 2023-2024 enrolment results are below targets, most acutely the international undergraduate student enrolments. Paired with the impact of the pandemic on enrolments and retention over the past two years, the cumulative effect has led to significant fiscal challenges materializing at this time for the University. APPRC noted with concern the notable decline in student retention and encouraged a continuation of the study underway to learn the concrete reasons behind the drop to be able to effectively address them. It was also suggested that the University concurrently examine the areas and types of programming in which enrolment demands are high (e.g, considering lessons from the in-demand suite of continuing education programs) to inform program, recruitment and retention planning.

On faculty complement, the Committee noted the good strides being made on the objectives set out in the Faculty Complement Renewal Strategy. The data from recent years illustrate advancements toward the growth, renewal, and diversification of the tenure stream faculty, the assessment of which is significantly aided by the disaggregation of data made possible by the self-identification form adopted in recent years. Other key indicators of progress toward the objectives include:

- steady net growth in the number of tenure-stream faculty since 2020
- the increasing number of Assistant Professors over the last four years to support the need for faculty renewal
- improving faculty: student ratios (due to a combination of enrolment changes and increased faculty hiring)
- the achievement of the defined 10% proportion of faculty members in the Teaching-stream
- the 80%+ hiring success rate for authorized appointments

Following the intense period of hiring over the past several years, authorized appointments for this next cycle have been moderated, although strategic hires will continue in support of core academic priorities and research plans and projects (e.g., Canada Research Chairs, Markham campus, endowed chairs etc.).

b. University Budget Consultation

The SHARP budget model implemented in 2017-2018 and enhanced (SHARP 2.0) in 2021 has as a component a central *University Fund* to enable coordinated action on institutional strategic priorities. Under the auspices of the President, budget consultations with the University community have been conducted in recent years to gather views on the areas where investments of monies from the University Fund should be made to further the University's academic priorities and aspirations. The consultation exercise with the University community is being conducted this year. Commencing the exercise with APPRC, the Provost and Vice-President Finance and Administration provided a comprehensive briefing on the context and environment for the University's budget at its meeting on 16 November.

The Committee offered suggestions on the form of the presentation with a view to enhancing the clarity of some of the information, expanding it in other areas and highlighting core messages and plans to address the significant budget challenges to provide the fundamental grounding needed to collect the community's input. There is concurrence on the need for the University to prioritize actions among the cost reduction options and revenue generation opportunities.

Members also offered input on the key question of where resources should be allocated to support academic initiatives. The University Academic Plan is always the foundation for the work of APPRC. Through that lens, the Committee shared its advice on where strategic investments ought to be directed.

Deferred maintenance remains a significant challenge for the University as its buildings age. Emphasized in this budget consultation was the nearing critical state of some research labs and spaces in the older Science buildings, the impact of which carries risk to research equipment and faculty members' work in progress. On planning for a potential school of medicine, the need for careful assessment of resourcing the initiative in the upcoming years given the continuing fiscal pressures was emphasized, as was the benefit of defining its place in both the short and long-term academic plans of the University.

The Committee looks forward to hearing the community's feedback on where resources from the University Fund should be directed to help advance progress on York's academic goals.

c. Organized Research Units Sub-Committee Report

The APPRC *Sub-committee on Organized Research Units* met in October and provided a report to APPRC on actions taken and planned for the year.

The Sub-committee concurred with the request from the Vice-President Research & Innovation to approve one-year charter extensions for two ORUs. As a result, the charter for the *Centre for Innovation in Computing at Lassonde* will continue through to 30 June 2025 to provide time for a new Director search to be conducted this academic year and, thereafter, for that person to lead the rechartering process and have a role in defining the ORU direction over the next five years. The charter for the *CITY Institute at York University* (CITY) will conclude on 30 June 2024 to provide the necessary time for the new Director (who joined 1 July 2023) to properly consult with the CITY membership, students, and sponsoring Faculty Deans on the vision for the Institute for the next five years.

The Sub-committee also reported on its anticipated items of business for this academic year. Five ORU charter applications are scheduled for review, including for a new unit. The proposed charters are expected to come forward in the spring.

As decided by APPRC, one of the priorities for 2023-2024 is a review of the *Senate Policy on Organized Research Units* and the companion *Guidelines and Procedures on Organized Research Units*. Over the past few years, the Sub-committee and the Office of the VPRI have identified recommendations to enhance the ORU charter process. The Sub-committee will focus on the policy and procedures review in the fall-winter, ahead of the charter applications in the spring. APPRC will review any proposed policy changes and subsequently bring them forward to Senate for approval.

Andrea Davis
Chair, APPRC

Enrolment and Complement Update for Senate

Lisa Philipps, Provost & VP Academic

NOVEMBER 23, 2023

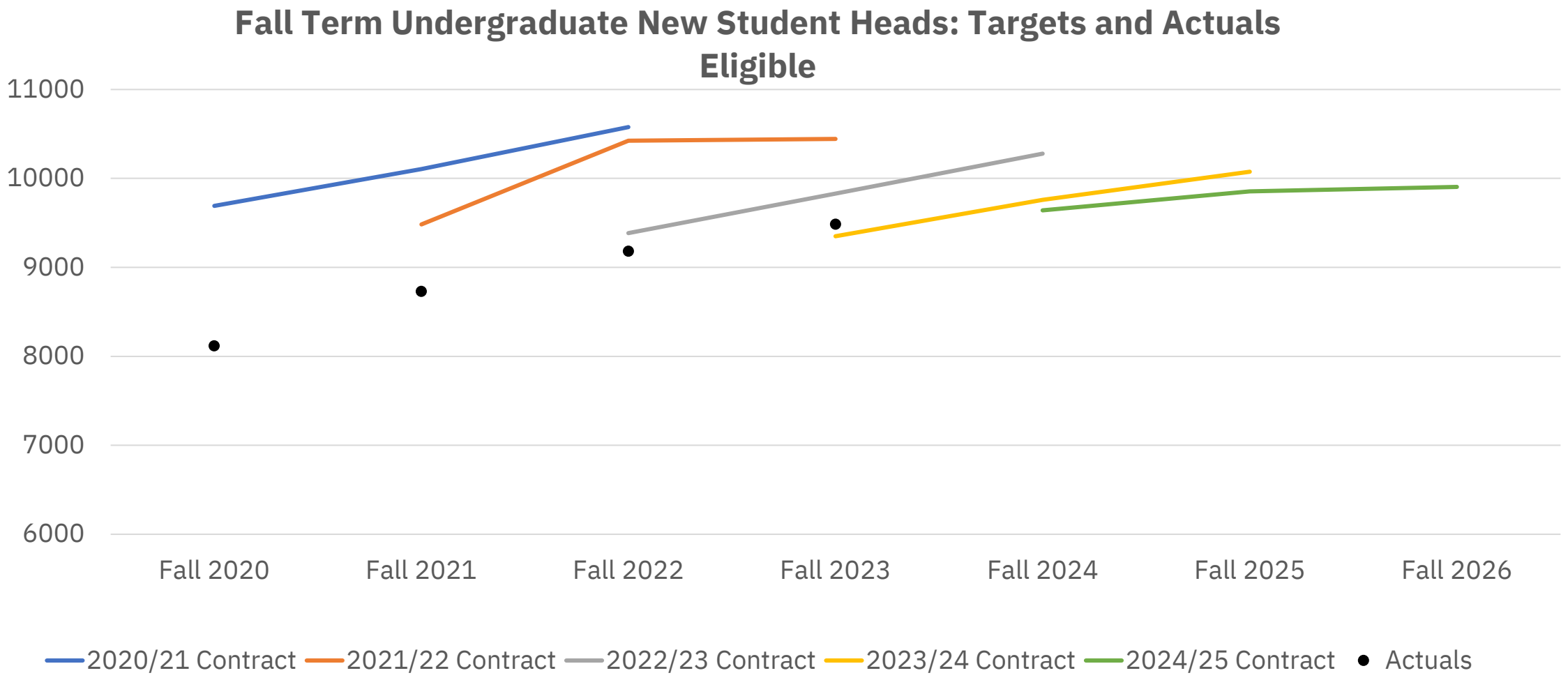
YORK U

Enrolment

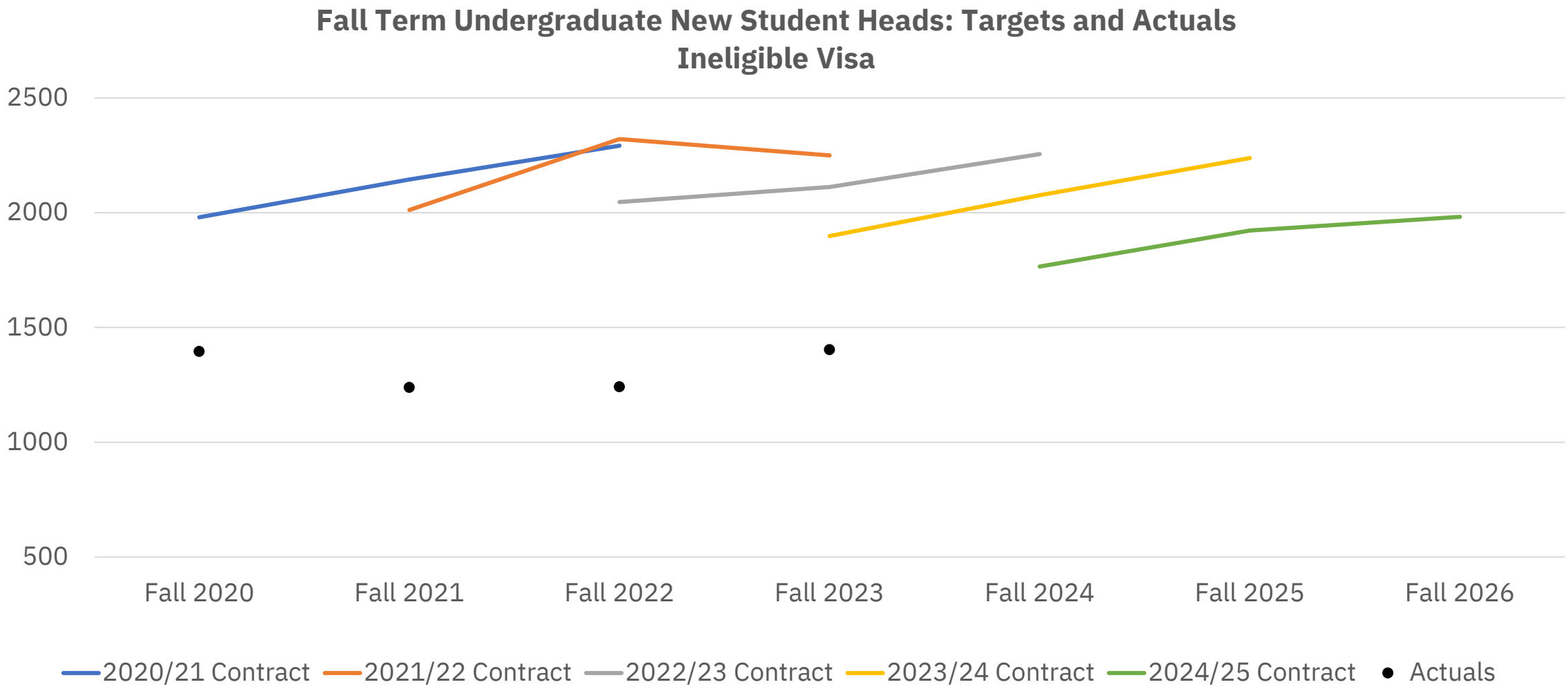
Enrolment Summary

- Budgets are based on enrolment targets for each Faculty, based on a contract agreed with the Provost.
- Intake of new undergraduate students, and especially international students, was below enrolment contract target in both Fall 2020 and Fall 2021.
- In 2022-23, York experienced a more serious shortfall in undergraduate enrolments due to multiple factors: low intakes from fall 2020 and fall 2021 flowing through into smaller upper year cohorts; a drop in retention of continuing students; a drop in course loads; a third year of decline in new international students, caused by visa delays and stronger competition from other GTA universities.
- This combination of factors caused a miss in the overall undergraduate domestic contract Fiscal Full-Time Equivalent (FFTE) projection by 2.6%, and in the international projection by 20.5% in 2022-23.
- In Fall 2023, preliminary figures indicate a 17.4% shortfall in undergraduate international student enrolment. However, we are expected to moderately surpass the overall domestic projection, with an increase of 2.7%.* Enrolment continues to fluctuate; enrolment numbers will be finalized on December 1.
- The cumulative effects of enrolment challenges over the past three years, especially on the international front, are now impacting the University's bottom line. This has led to a significant projected deterioration in the University's fiscal situation for the 2023-2024 academic year and beyond.

Undergraduate Enrolment: Fall Term New Eligible Student Heads Targets vs Actuals



Undergraduate Enrolment: Fall Term New Ineligible Visa Student Heads Targets vs Actuals



Undergraduate (Eligible) Total Full Year FFTEs – Actuals Compared to Contract Target Projections for Last Five Years

Targets	2019/20	2020/21	2021/22	2022/23	2023/24
AMPD	1,969	1,835	1,853	1,888	1,897
Education	1,381	1,529	1,598	1,569	1,710
EUC	357	470	550	443	422
Glendon	1,707	1,508	1,441	1,286	1,178
Health	8,880	8,608	8,573	8,852	8,872
LAPS	14,071	13,233	12,718	12,259	11,919
Lassonde	2,712	2,799	3,051	3,262	3,226
Osgoode	948	952	951	968	982
Schulich	1,720	1,760	1,777	1,764	1,733
Science	3,123	3,153	3,270	3,260	3,216
Total	**36,870**	**35,847**	**35,783**	**35,552**	**35,156**

Actuals	2019/20	2020/21	2021/22	2022/23	2023/24 prelim
AMPD	1,793	1,860	1,831	1,826	2,035
Education	1,575	1,625	1,784	1,839	1,848
EUC	334	455	379	359	379
Glendon	1,611	1,468	1,268	1,129	1,106
Health	8,630	9,200	8,980	8,571	8,956
LAPS	13,959	13,957	12,733	12,114	12,553
Lassonde	2,635	2,994	3,095	3,034	3,332
Osgoode	937	943	965	972	975
Schulich	1,709	1,820	1,715	1,682	1,708
Science	3,140	3,381	3,235	3,099	3,216
Total	**36,323**	**37,702**	**35,985**	**34,625**	**36,107**

Difference	2019/20	2020/21	2021/22	2022/23	2023/24 prelim
AMPD	-177	25	-23	-62	138
Education	194	96	186	270	138
EUC	-23	-14	-171	-84	-42
Glendon	-97	-40	-173	-156	-72
Health	-250	591	408	-281	84
LAPS	-113	723	14	-145	633
Lassonde	-77	195	44	-228	106
Osgoode	-11	-9	14	4	-8
Schulich	-11	60	-62	-82	-25
Science	16	228	-35	-160	-0
Total Difference	**-547**	**1,855**	**202**	**-927**	**951**
Difference as % of Target	-1.5%	5.2%	0.6%	-2.6%	2.7%

These preliminary 2023/24 figures are reflected in the 2024-25 enrolment contracts and budget envelopes and are based on the September projection of Fall 2023 intakes.

Undergraduate (Ineligible Visa) Total Full Year FFTEs – Actuals Compared to Contract Target Projections for Last Five Years

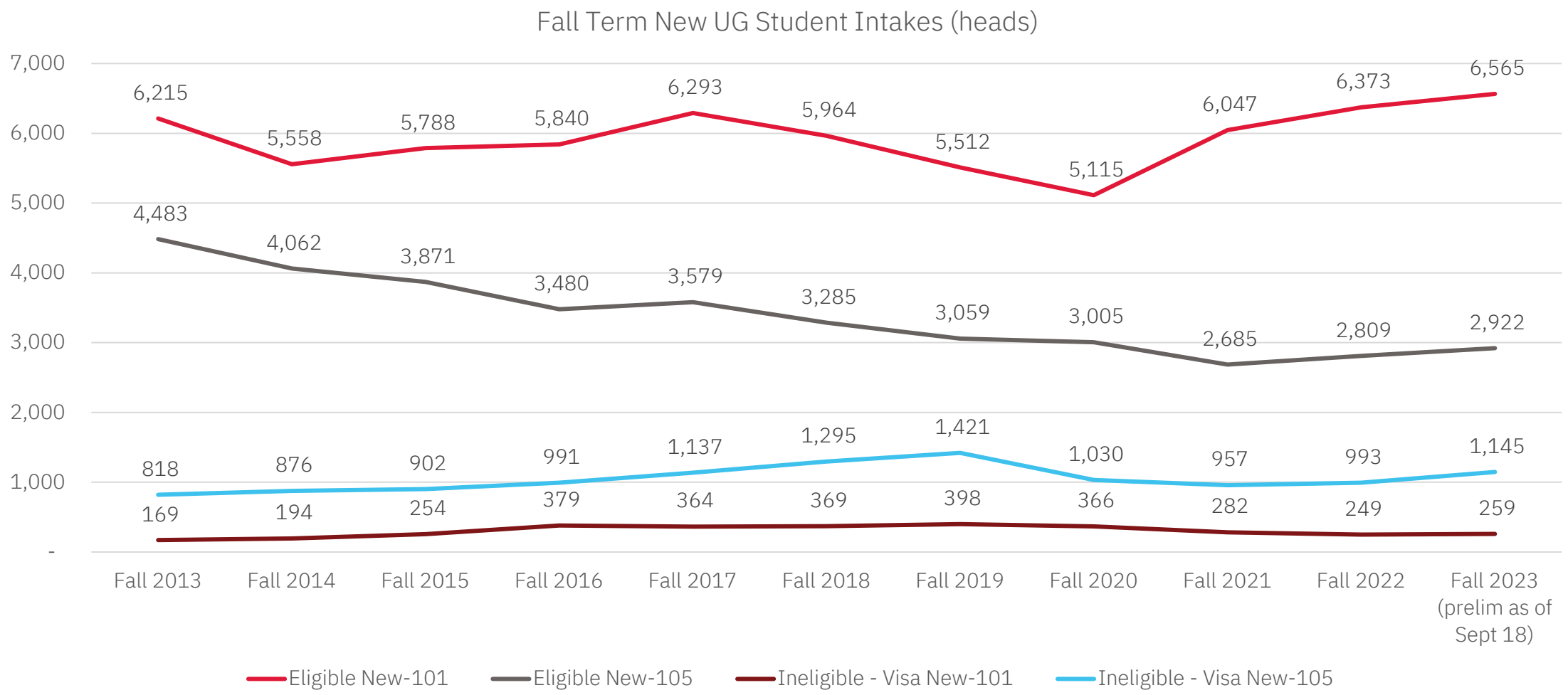
Targets	2019/20	2020/21	2021/22	2022/23	2023/24
AMPD	372	462	504	565	544
Education	1	1	6	11	20
EUC	76	104	130	127	102
Glendon	212	220	208	191	156
Health	487	636	657	710	704
LAPS	4,751	5,037	5,079	4,971	4,183
Lassonde	743	927	1,040	1,166	1,151
Osgoode	21	18	22	29	26
Schulich	145	172	196	221	255
Science	619	832	921	870	823
Total	**7,428**	**8,407**	**8,763**	**8,862**	**7,963**

Actuals	2019/20	2020/21	2021/22	2022/23	2023/24 prelim
AMPD	369	435	460	424	425
Education	8	8	18	20	14
EUC	65	95	82	63	70
Glendon	195	169	131	114	113
Health	534	621	596	581	616
LAPS	4,698	5,104	4,740	3,932	3,328
Lassonde	876	970	978	964	1,058
Osgoode	16	25	28	29	36
Schulich	144	157	170	199	237
Science	733	800	749	721	682
Total	**7,638**	**8,384**	**7,952**	**7,047**	**6,578**

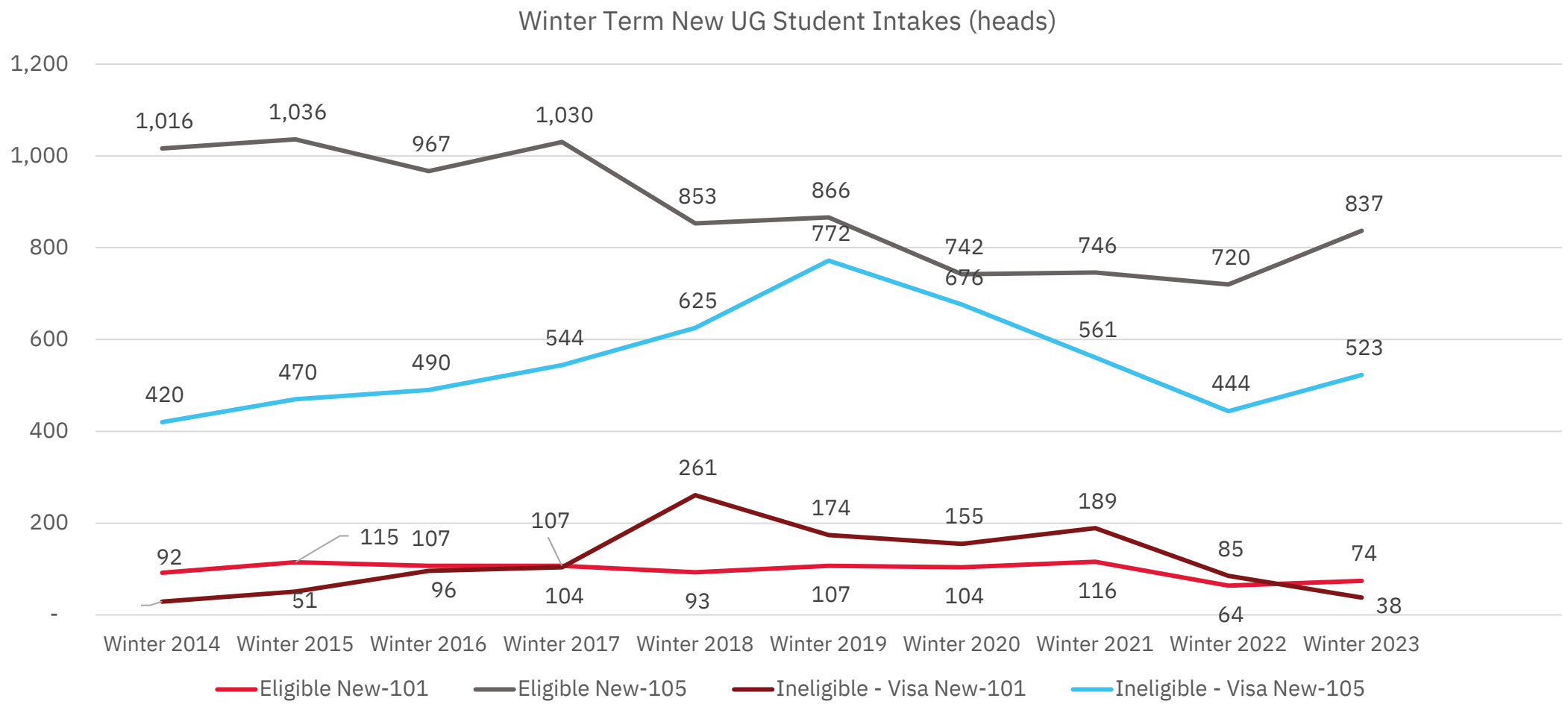
Difference	2019/20	2020/21	2021/22	2022/23	2023/24 prelim
AMPD	-3	-27	-44	-141	-119
Education	7	7	12	9	-5
EUC	-11	-9	-48	-64	-33
Glendon	-17	-52	-78	-77	-43
Health	47	-15	-60	-129	-88
LAPS	-54	67	-338	-1,039	-855
Lassonde	133	44	-62	-202	-93
Osgoode	-5	7	6	0	11
Schulich	-1	-15	-26	-22	-18
Science	113	-31	-172	-149	-142
Total Difference	**210**	**-24**	**-811**	**-1,815**	**-1,385**
Difference as % of Target	2.8%	-0.3%	-9.3%	-20.5%	-17.4%

These preliminary 2023/24 figures are reflected in the 2024-25 enrolment contracts and budget envelopes and are based on the September projection of Fall 2023 intakes.

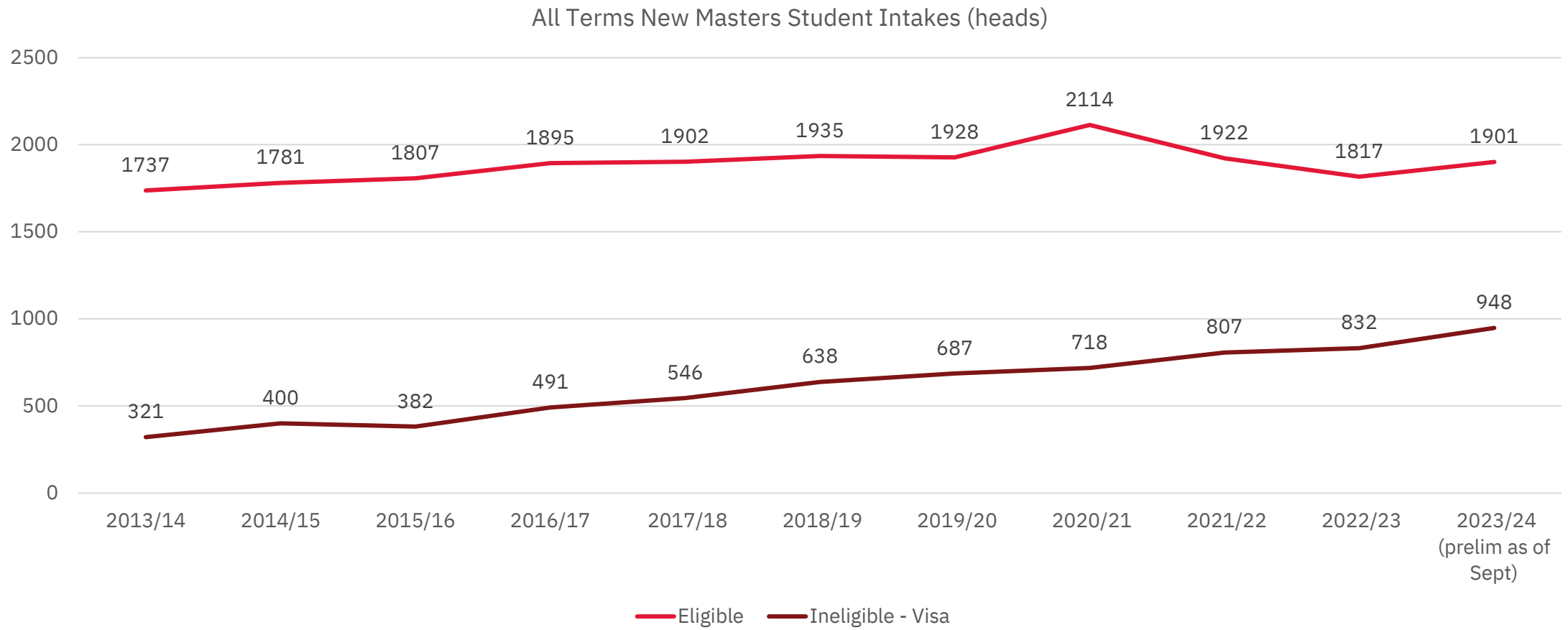
Undergraduate Fall Term New Student Headcount



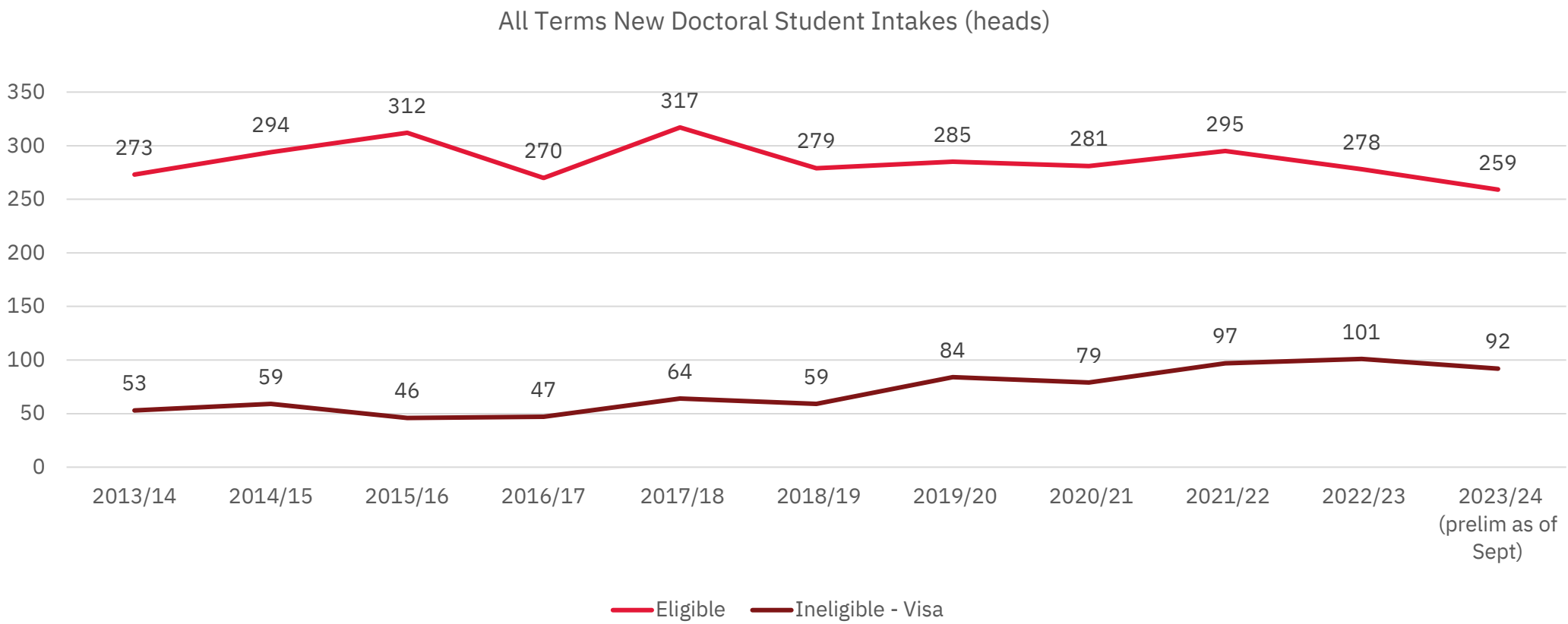
Undergraduate Winter Term New Student Headcount



Masters All Terms New Student Headcount



Doctoral All Terms New Student Headcount



Enrolment - Fall 2023 Undergraduate New Student Heads

Informed by OUAC application data, the York application data and self-declaration of applicant type (101/105). Data as of October 5, 2023

Population		Applicants	Offers	Accepts	% Accept to Target	Enrolled	% Enrolled to Target	Enrolment Contract Targets	Nov. 1 Projections as of September
Domestic	**101**	**32,978**	**29,735**	**7,442**	**116.2%**	**6,870**	**107.3%**	**6,405**	6,705
	105	**10,318**	**6,511**	**3,153**	**113.5%**	**2,487**	**89.5%**	**2,779**	2,620
International	**101**	**3,313**	**2,541**	**484**	**115.0%**	**351**	**83.4%**	**421**	259
	105	**10,273**	**7,170**	**3,044**	**205.5%**	**1,263**	**85.3%**	**1,481**	1,131
TOTALS		**56,882**	**45,957**	**14,123**	**127.4%**	**10,971**	**99.0%**	**11,086**	10,715

While hitting our Domestic 101 and International 105 "% accept to target" targets; conversion to enrolment didn't materialize.

Targets and Nov 1 Projections are based on students' eligibility status whereas other columns are based on students' immigration status.

Enrolment - Fall 2023 Undergraduate New Student Heads – REVISED

Informed by OUAC application data, the York application data and self-declaration of applicant type (101/105). Data as of November 1, 2023. Not including non-degree students.

Population		Applicants	Offers	Accepts	% Accept to Target	Enrolled	% Enrolled to Target	Enrolment Contract Targets	Nov. 1 Preliminary Actuals as of November 06
Domestic	**101**	**32,981**	**40,427**	**7,445**	**116.2%**	**6,845**	**106.9%**	**6,405**	6,637
	105	**10,029**	**8,774**	**3,094**	**111.3%**	**2,297**	**82.7%**	**2,779**	2,548
International	**101**	**3,310**	**3,483**	**481**	**114.3%**	**345**	**81.9%**	**421**	251
	105	**9,911**	**8,899**	**2,866**	**193.5%**	**1,227**	**82.8%**	**1,481**	1,090
TOTALS		**56,231**	**61,583**	**13,886**	**125.3%**	**10,724**	**96.7%**	**11,086**	10,526

While hitting our "accept-to-target" across all categories, only the 101 Domestic enrolment target was met.

Targets and Nov 1 Projections are based on students' eligibility status whereas other columns are based on students' immigration status and inclusive of non-degree students.

Preliminary Expected Undergraduate Enrolment Performance for Fall 2023 Term

Fall 2023 New and Continuing Students UG FFTEs based on Preliminary Actuals as of November 1, Compared to Enrolment Contract Target Projection and September 2023 Projection for Fall 2023/24

Fall 2023-24 (New and Continuing Student FFTEs)	Enrolment Contract 2023-24 (Sept 2022)	Sept 2023 Projection	Gap between Sept 2023 and Enrolment Contract Projection
Eligible	15,666	15,952	+286 (+1.8%)
Ineligible Visa	3,323	2,743	-580 (-17.4%)
Total (Eligible + Ineligible Visa)	**18,988**	**18,695**	-293 (-1.5%)

Fall 2023-24 (New and Continuing Student FFTEs)	Preliminary Actuals as of Nov 1, 2023	Gap between Nov 1 Actuals and Sept 2023 Projection	Overall Gap between Nov 1 Actuals and Enrolment Contract Projection
Eligible	15,839	-112 (-0.7%)	**+174 (+1.1%)**
Ineligible Visa	2,582	-161 (-5.9%)	**-741 (-22.3%)**
Total (Eligible + Ineligible Visa)	**18,421**	-273 (-1.5%)	**-567 (-3.0%)**

Eligible:

- +174 FFTEs (+1.1%) compared to contract targets.

Ineligible-Visa:

- -741 FFTEs (-22.3%) compared to contract targets due to a combination of:
  - Flow-through impact of lower-than-projected ineligible-visa enrolments in Winter 2023
  - Missed ineligible-visa intake targets in Fall 2023
  - Retention of continuing ineligible-visa students into Fall 2023 that was lower than retention assumptions used in the enrolment contract for 2023/24.

Preliminary Expected Graduate Enrolment Performance for Fall 2023 Term

Fall 2023 New and Continuing Students Graduate (Masters and Doctoral) FTEs based on Preliminary Actuals as of November 1, Compared to Enrolment Contract Target Projection and September 2023 Projection for Fall 2023/24

Fall 2023-24 (New and Continuing Student FTEs)	Enrolment Contract 2023-24 (Sept 2022)	Sept 2023 Projection	Gap between Sept 2023 and Enrolment Contract Projection
Eligible	3,454	3,061	-393 (-11.4%)
Ineligible Visa	1,644	1,479	-165(-10.0%)
Total (Eligible + Ineligible Visa)	**5,098**	**4,540**	-558 (-10.9%)

Fall 2023-24 (New and Continuing Student FTEs)	Preliminary Actuals as of Nov 1, 2023	Gap between Nov 1 Actuals and Sept 2023 Projection	Overall Gap between Nov 1 Actuals and Enrolment Contract Projection
Eligible	3,062	+2 (0.1%)	**-392 (-11.3%)**
Ineligible Visa	1,503	+24 (1.6%)	**-141 (-8.6%)**
Total (Eligible + Ineligible Visa)	**4,565**	+25 (0.6%)	**-533 (-10.5%)**

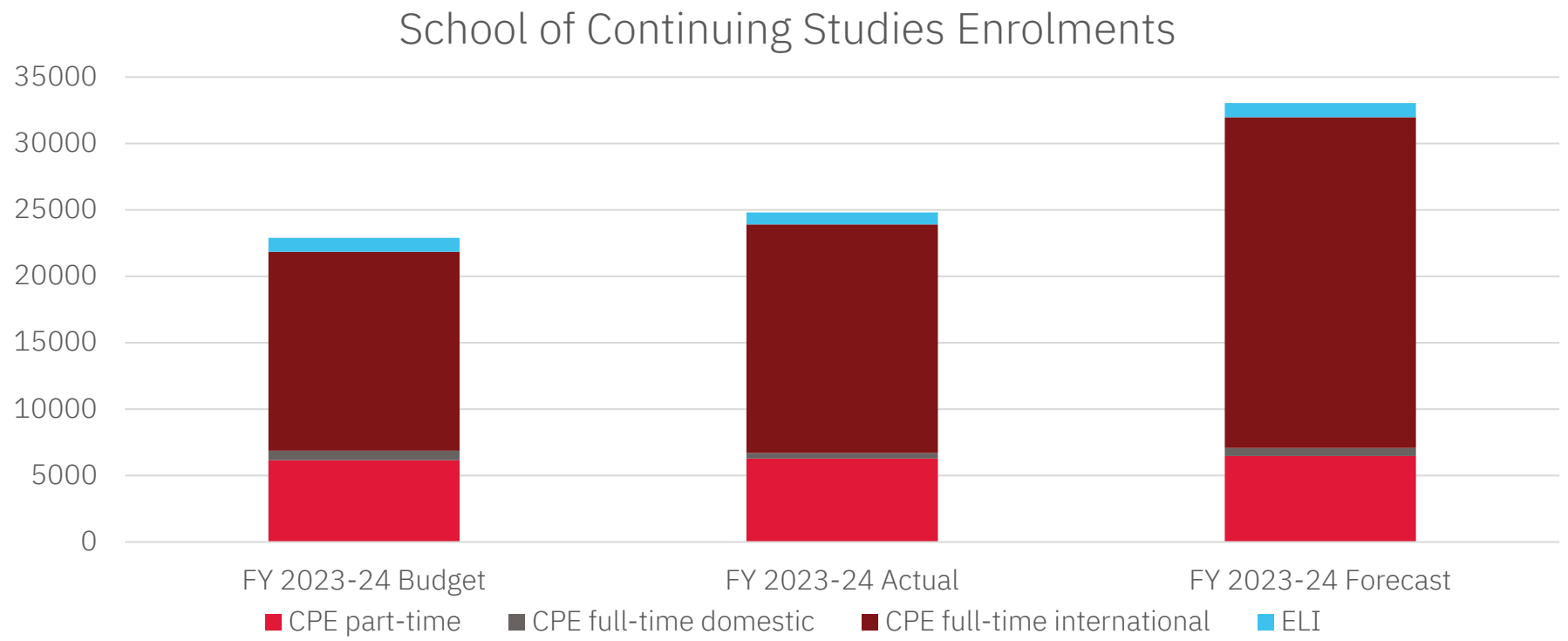
Eligible:

- -392 FTEs (-11.3%) compared to contract targets.
  - Flow-through impact of lower-than-projected eligible (masters and doctoral) enrolments in Winter 2023
  - Missed domestic intake targets in Fall 2023, both masters and doctoral

Ineligible-Visa:

- -141 FTEs (-8.6%) compared to contract targets due to a combination of:
  - Flow-through impact of lower-than-projected masters visa enrolments in Winter 2023
  - Missed ineligible-visa intake targets in Fall 2023, both masters and doctoral

School of Continuing Studies Enrolment Running Ahead of Enrolment Target



Current actual revenue is within $0.5 million of annual budget so there is a high degree of comfort that we will exceed targeted revenue. However, this growth is primarily enrolment from India with a high degree of risk in current climate.

Enrolment Recovery – Strengthen Recruitment and Retention

The following initiatives were introduced in the Fall 2023 cycle and will continue through the Fall 2024 cycle:

- New marketing campaign timelines: **ads in market year-round** (Sept – Aug)
- **24 new priority programs** in digital program marketing
- New '**Study in Canada / Study at York' campaign** was developed and launched, with a goal of better introducing cold audiences to our community before serving program ads
- New **program cluster ads** were launched for international markets to boost discoverability and the halo effect
- Added **deadline of August 15 for new students to clear conditions**. Fall students will be removed from Winter courses if they do not clear their conditions by November 1 (several reminders are sent prior to this date). Significant increase in students clearing conditions before Fall classes began.
- In collaboration with LA&PS, launched the **Math for LA&PS course to allow students missing a math pre-requisite to receive and maintain offers** to several of their business-related programs.
- Separated the President's International Scholarship of Excellence (PISE) and Tentanda Via application to produce better quality applicants and manage volume. **Awards granted to 30 recipients across 16 countries.**
- Published application deadline for international applicants moved earlier to February 1. This allowed for **increased offers given earlier, allowing international students more time to apply for their study permit**.
- **Enhanced Transition Support through** York International. Intentional transition support to ensure students' arrival to York's campuses are culturally sensitive, inclusive, and welcoming.

Enrolment Recovery – Strengthen Recruitment and Retention Cont'd

New for Fall 2024 Cycle

- **Faculty-specific recruitment meetings** completed in September/October.
- Insight enhancements for **improved data**
- **International Recruitment Hub** – resource tool for external partners
- Increased on-the-ground and in-country representation in more **emergent international markets**
- Increase targeted **engagement with Ontario international high schools**
- Using the **new CRM** to track engagements
- Official York **WeChat** and **Douyin** account launched in China
- Not accepting predicted grades for India high school curriculum for admission to **decrease rescinds**
- Enhanced digital marketing highlighting **targeted programs in select regions**

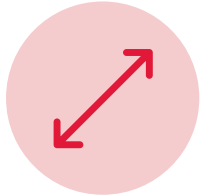
Enrolment Recovery – Strengthen Recruitment and Retention Cont'd

Re-engagement campaigns

Housing (short and long term)

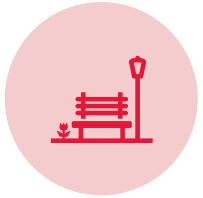
2nd year Transition

Wellness/Prevention initiatives (SCHWB/Athletics & Recreation)



Expansion of DEDI programming/supports

Peer Mentoring



Re-imagining of Learning Commons model

Collaboration with Colleges


International Recovery

International Outlook

Key International Market Conditions

India
- Visa processing delays
- Potential that uncertainty caused by tensions between Canada – India are negatively impacting applications

China
- Overall decrease in students from China
- Elevated youth unemployment rates prompting scrutiny regarding the
- value of higher education.
- Regional preference

Geopolitics & Global Uncertainty (Wars in Middle East, Ukraine)

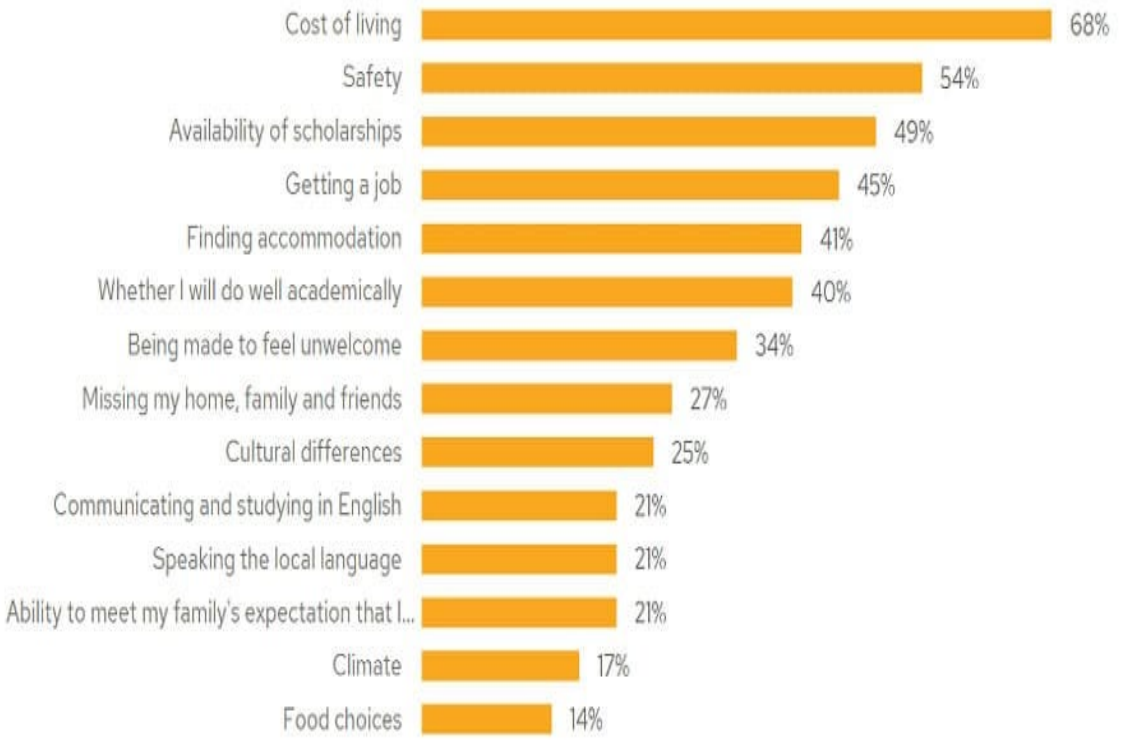
Affordability
- Inflation
- Price-Sensitivity in emerging markets
- Currency Devaluation

Career Outcomes

Competition
- Competition for international students from traditional and and new markets
- Reputation and rankings particularly important
- Need to clarify unique value proposition of choosing York

70%

For about 70% of students interested in North America, their biggest worry about studying in a different country is the cost of living.



Percentage International Fall Term Headcount by Institution 2012-13 to 2022-23

Institution	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Algoma	19%	24%	27%	29%	25%	23%	23%	51%	43%	62%	73%
Brock	9%	10%	10%	10%	10%	11%	12%	13%	13%	13%	13%
Carleton	11%	11%	12%	13%	14%	14%	14%	15%	14%	14%	15%
Guelph	3%	3%	4%	4%	4%	5%	5%	6%	6%	6%	7%
Lakehead	3%	4%	6%	8%	11%	13%	16%	18%	16%	17%	18%
Laurentian	7%	6%	6%	6%	6%	6%	5%	6%	6%	7%	8%
McMaster	8%	8%	9%	9%	10%	12%	13%	15%	16%	17%	18%
Nipissing	1%	1%	1%	1%	2%	1%	1%	2%	1%	2%	3%
OCADU	7%	8%	9%	10%	12%	14%	17%	21%	25%	26%	27%
Ontario Tech	5%	6%	7%	7%	7%	6%	6%	7%	8%	10%	11%
Ottawa	8%	9%	11%	12%	13%	15%	17%	19%	19%	21%	22%
Queen's	7%	7%	8%	9%	10%	11%	12%	13%	12%	12%	12%
TMU	3%	3%	4%	4%	5%	6%	7%	8%	8%	9%	10%
Toronto	14%	15%	17%	18%	20%	21%	23%	25%	26%	28%	29%
Trent	7%	7%	7%	7%	7%	6%	7%	9%	9%	11%	13%
Waterloo	14%	15%	17%	18%	20%	21%	23%	23%	23%	22%	22%
Western	8%	9%	10%	11%	12%	12%	14%	15%	15%	15%	14%
Wilfrid Laurier	3%	4%	5%	6%	6%	7%	7%	7%	7%	6%	6%
Windsor	12%	15%	16%	17%	18%	20%	22%	22%	22%	25%	29%
York	**8%**	**9%**	**11%**	**12%**	**13%**	**14%**	**16%**	**19%**	**19%**	**19%**	**19%**

Source: MCU Enrolment Dataset
Notes: International includes IMMSTAT <>'0','1'
Data includes UG and Grad

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Percentage International, Undergraduate Year 1 Intake, Fall Term Headcount by Institution, 2012-13 to 2022-23

Institution	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Algoma	31%	33%	32%	31%	23%	26%	36%	74%	60%	78%	87%
Brock	7%	7%	7%	8%	9%	9%	10%	12%	13%	11%	9%
Carleton	12%	12%	15%	16%	16%	16%	16%	15%	16%	14%	13%
Guelph	2%	2%	3%	4%	4%	4%	4%	6%	5%	6%	5%
Lakehead	3%	5%	9%	12%	15%	16%	18%	18%	14%	13%	13%
Laurentian	7%	6%	6%	7%	8%	6%	7%	7%	7%	7%	6%
McMaster	6%	6%	7%	7%	11%	13%	14%	17%	18%	19%	15%
Nipissing	1%	0%	1%	1%	1%	0%	0%	1%	2%	3%	6%
OCADU	9%	9%	10%	12%	15%	19%	24%	29%	33%	30%	26%
OntarioTech	8%	8%	9%	8%	8%	7%	9%	8%	8%	12%	11%
Ottawa	7%	8%	11%	13%	15%	19%	21%	25%	23%	22%	22%
Queen's	4%	4%	6%	6%	8%	10%	10%	12%	8%	6%	8%
TMU	5%	5%	6%	7%	9%	11%	13%	14%	12%	13%	12%
Toronto	18%	20%	23%	25%	27%	29%	30%	31%	34%	34%	34%
Trent	6%	7%	5%	8%	5%	5%	8%	10%	9%	8%	11%
Waterloo	11%	11%	14%	15%	16%	19%	18%	18%	20%	15%	15%
Western	9%	10%	10%	10%	12%	13%	16%	14%	13%	10%	11%
Wilfrid Laurier	5%	6%	7%	7%	7%	7%	8%	8%	7%	5%	4%
Windsor	9%	9%	9%	9%	8%	8%	8%	7%	6%	7%	8%
York	**10%**	**11%**	**13%**	**14%**	**16%**	**17%**	**20%**	**23%**	**22%**	**19%**	**16%**

Source: MCU Enrolment Dataset
Notes: International includes IMMSTAT <>'0','1'
Data includes UG and Grad

YORK U

Total International Fall Term Headcount by Institution 2012-13 to 2022-23

Institution	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	% increase from 2012-13 to 2022-23
Algoma	280	379	413	405	321	278	286	983	748	1,719	2,670	854%
Brock	1,651	1,765	1,880	1,817	1,903	2,020	2,228	2,584	2,482	2,529	2,441	48%
Carleton	2,906	3,142	3,551	3,857	4,091	4,356	4,473	4,696	4,620	4,489	4,518	55%
Guelph	837	966	1114	1163	1271	1,447	1,514	1,763	1,781	1,930	2,139	156%
Lakehead	242	355	523	621	879	1098	1331	1525	1330	1500	1563	546%
Laurentian	609	574	582	600	577	571	434	547	597	563	620	2%
McMaster	2,235	2,453	2,619	2,582	3,091	3,775	4,456	5,387	5,839	6,541	6,803	204%
Nipissing	60	55	55	59	88	62	64	78	52	85	135	125%
OCADU	301	369	414	463	529	619	765	987	1,220	1,306	1,366	354%
Ontario Tech	I487	584	689	691	671	655	637	744	805	1081	1252	157%
Ottawa	3,494	4,083	4,852	5,182	5,772	6,471	7,354	8,547	8,918	9,974	10,904	212%
Queen's	1728	1,836	2,142	2,356	2,646	3,112	3,600	4,043	3,660	4,161	4,196	143%
TMU	1,304	1,401	1,557	1,749	2,098	2,589	3,125	3,784	4,086	4,448	4,677	259%
Toronto	11,473	12,778	14,574	16,092	17,479	19,185	20,926	23,008	24,671	27,109	28,422	148%
Trent	579	603	601	580	589	622	747	999	1070	1,321	1,682	191%
Waterloo	4,952	5,477	5,985	6,634	7,493	8,402	9,074	9,522	9,712	9,564	9,086	83%
Western	2,985	3,384	3,863	4,206	4,471	4,772	5,426	6,052	6,127	6,240	6,158	106%
Wilfrid Laurier	666	829	975	1101	1,186	1,344	1,433	1,544	1,462	1,476	1,369	106%
Windsor	1,955	2,404	2,542	2,687	2,855	3167	3595	3645	3780	4265	5100	161%
York	**4,584**	**5,032**	**5,806**	**6,288**	**6,827**	**7,681**	**9,034**	**10,393**	**10,694**	**10,653**	**9,938**	**117%**

Source: MCU Enrolment Dataset
Notes: International includes IMMSTAT <>'0','1'
Data includes UG and Grad

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International Recovery

- Heading into the pandemic, York was on a solid trajectory regarding our international enrolment strategy by increasing the visa fall term headcount by approximately 1.5% each year on average, with an initial goal of obtaining 20%.
- Considerations for the growth of international included enrolment stability especially in areas where domestic demand was insufficient, attracting the best talent from around the world, our GEI Strategy as an internationally-recognized university, our ability to provide the necessary supports for the success of international students, accommodating housing needs, etc.
- Pressures emerging from the inability to grow domestic enrolment resulted in the PSE sector increasing international targets
- York similarly had started discussions about shifting to a 25% international target as part of the new GEI Strategy
- We reached 19% in the Fall term Headcount in 2019-2020 but have been flat ever since
- Also witnessed late melt that appears to be associated with late offers by competitors
- Highlights importance of intensifying our GEI Strategy, articulating York's unique value proposition, and strengthening York's global reputation

International Current State

- York's Enrolment Model, with current intakes, estimates a **18.35%** international student body by 2026/27 (Fall Ineligible Visa Headcount, Undergraduate and Graduate).

By Fall 2024/25:

- To reach 20% by Fall 2024/25, York would need to admit approximately 2,010 additional international undergraduate students in that term. This represents **2.14 times** the current international undergraduate contract target for Fall 2024/25.

By Fall 2026/27:

- Multiplying both Fall and Winter undergraduate international contract targets **1.1 times** each year (2024/25, 2025/26, 2026/27), international enrolment will surpass 20% by Fall 2026/27 (achieve 20.05%).
- For Fall, this entails an additional 352, 384, and 395 international undergraduate students for the three years, respectively.
- For Winter, this entails an additional 137, 149, and 162 international undergraduate students for the three years, respectively.

International Enrolment – Top 10 Source Countries 2012 vs 2022 – Graduate and Undergraduate (Ineligible Visa)

2012	Ineligible Visa Heads	% of Total Heads
China	1,715	39.49%
India	267	6.15%
Korea, South	224	5.16%
Pakistan	201	4.63%
Nigeria	169	3.89%
United States	142	3.27%
Viet Nam	99	2.28%
Hong Kong	89	2.05%
Bangladesh	86	1.98%
France	77	1.77%
Others	454	10.45%
Total	4,343	100.00%

2022	Ineligible Visa Heads	% of Total Heads
China	3,618	39.62%
India	1,445	15.82%
Iran	592	6.48%
Nigeria	414	4.53%
Bangladesh	349	3.82%
Viet Nam	282	3.09%
Korea, South	191	2.09%
Pakistan	182	1.99%
United States	131	1.43%
Hong Kong	110	1.20%
Others	628	6.88%
Total	9,132	100.00%

Source: Nov ERE
Note: Include Ineligible Visa UG and Grad Heads only.

Global Engagement and Internationalization Strategy

- Strengthen York’s research, education, and innovation agenda enhancing our impact on the UN SDGs
- Develop a diversified set of global fluency and perspectives of students.
- Attract high quality students from around the world with the additional benefit of establishing a global network of ambassadors and champions and creating a virtuous circle for the ongoing recruitment of outstanding international students.
- Continue to strengthen York's reputation as a leading research-intensive institution ranked among the top universities worldwide enhancing our profile in targeted regions, countries and partners for York to be a destination of choice.
- Increase access to international resources supporting research, education, scholarship, and mobility.
- Engage with alumni and friends around the world in support of York’s goals.

Achieving the GEI Strategy

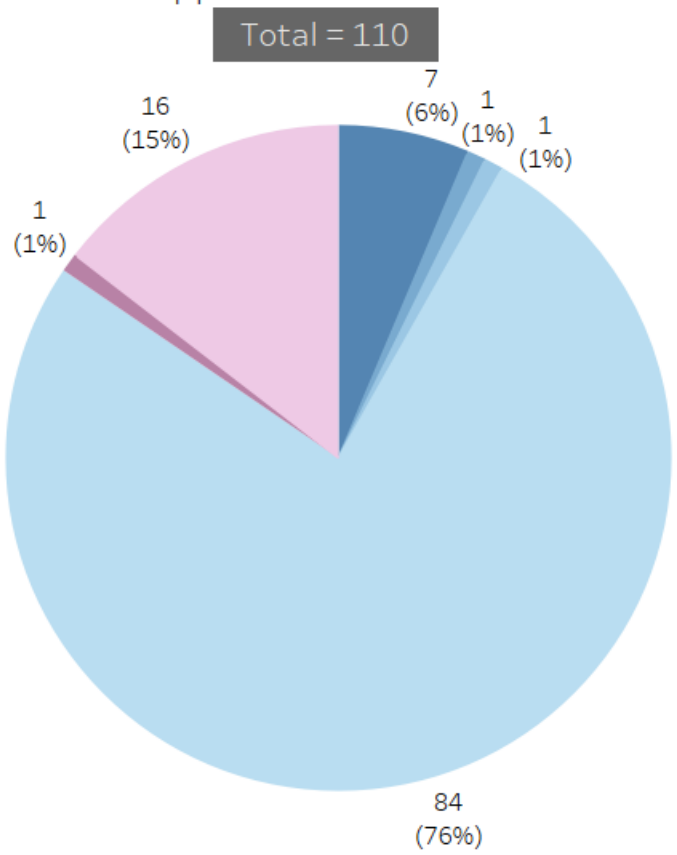
- Continue to strengthen York's reputation and position in world rankings
- Raise awareness of York internationally:
  - Utilize alumni and other ambassadors
  - York delegations
  - Enhance partnerships
- Develop unique value proposition for York relative to major competitors in Ontario and Canada
- Develop Faculty-level and program level strategies
- Continue to diversify source countries and enhance country-specific recruitment strategies
- Continue to strengthen:
  - Flexible degree options e.g., 3-year degrees, online offerings
  - Professional Masters targeting international students
  - Pathways to degree programs
  - WIL/EE activities
  - Enhanced offers including housing options

Complement Update Tenure Track Appointments Starting 2023-24

Searches Authorized for Tenure Track Appointments to Start 2023-24

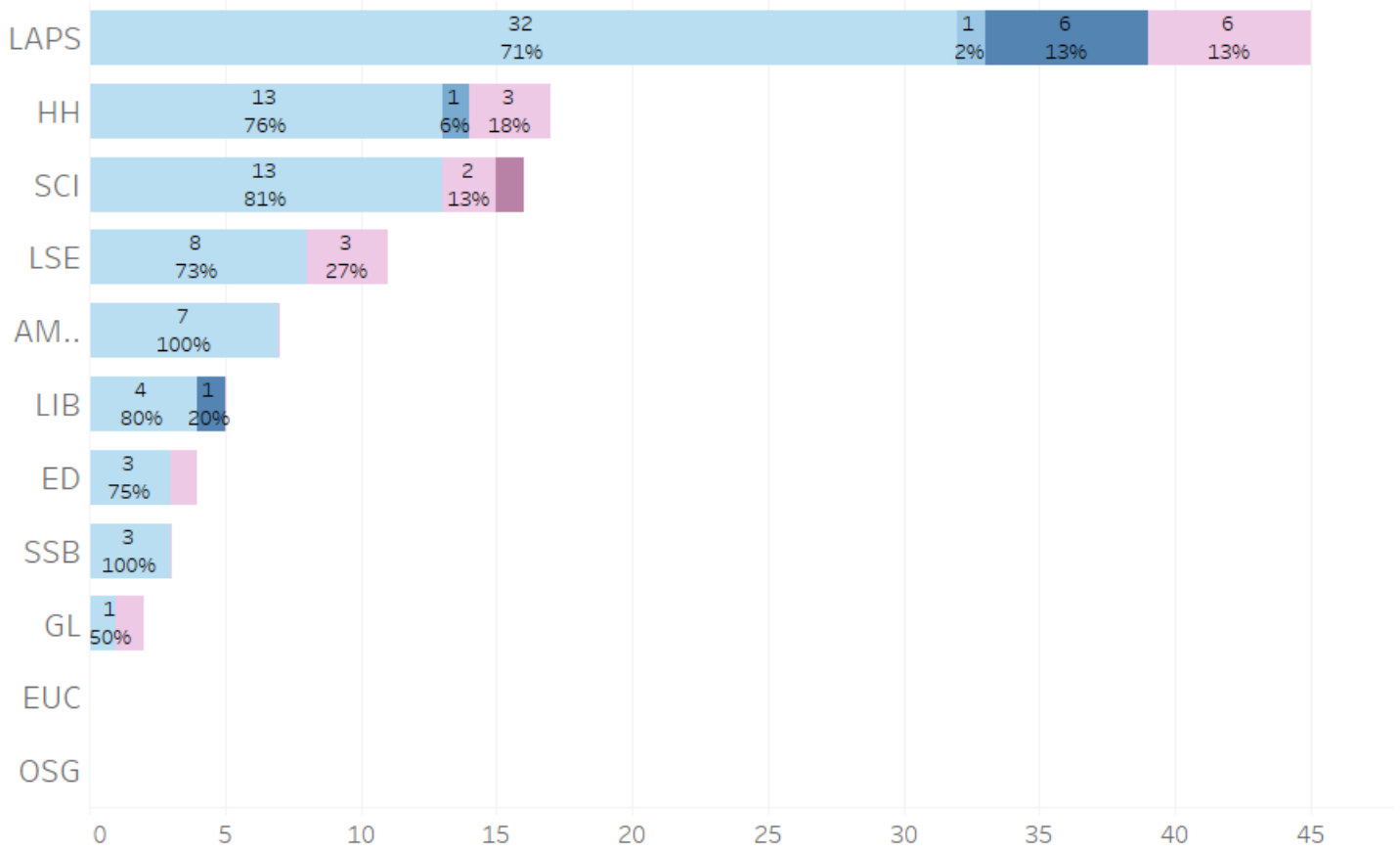
Institutional

23-24 Authorized Appointments: Professorial vs Teaching



By Faculty

23-24 Authorized Appointments: Professorial vs Teaching



Professorial Authorized - Markham
Professorial Authorized - VISTA
Professorial Authorized -Endowment
Professorial Authorized - Other
Teaching Authorized - Markham
Teaching Authorized - Other

Source: Office of the P&VPA

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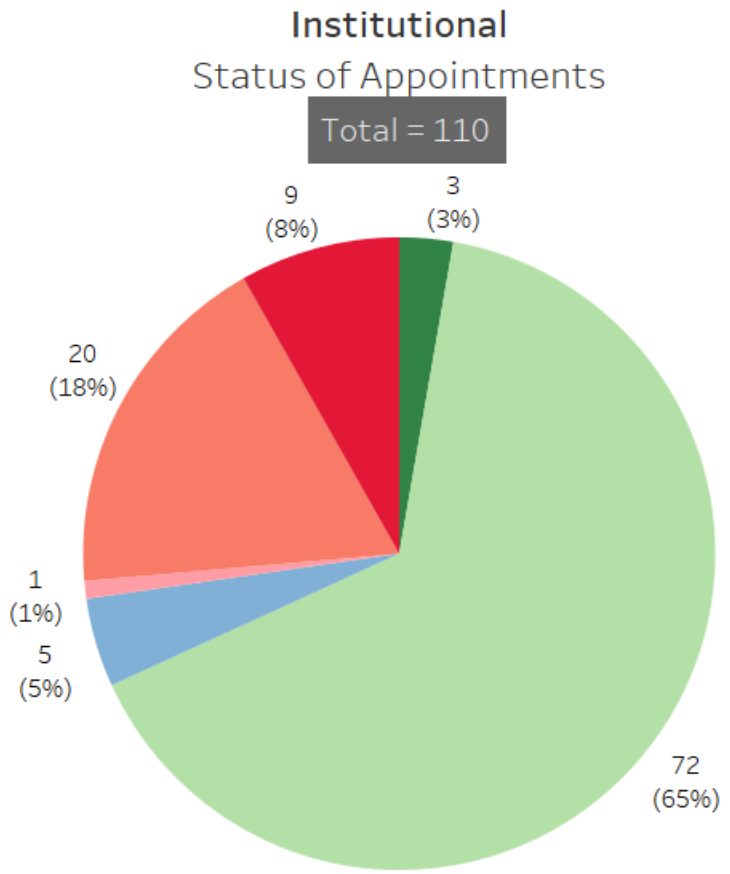
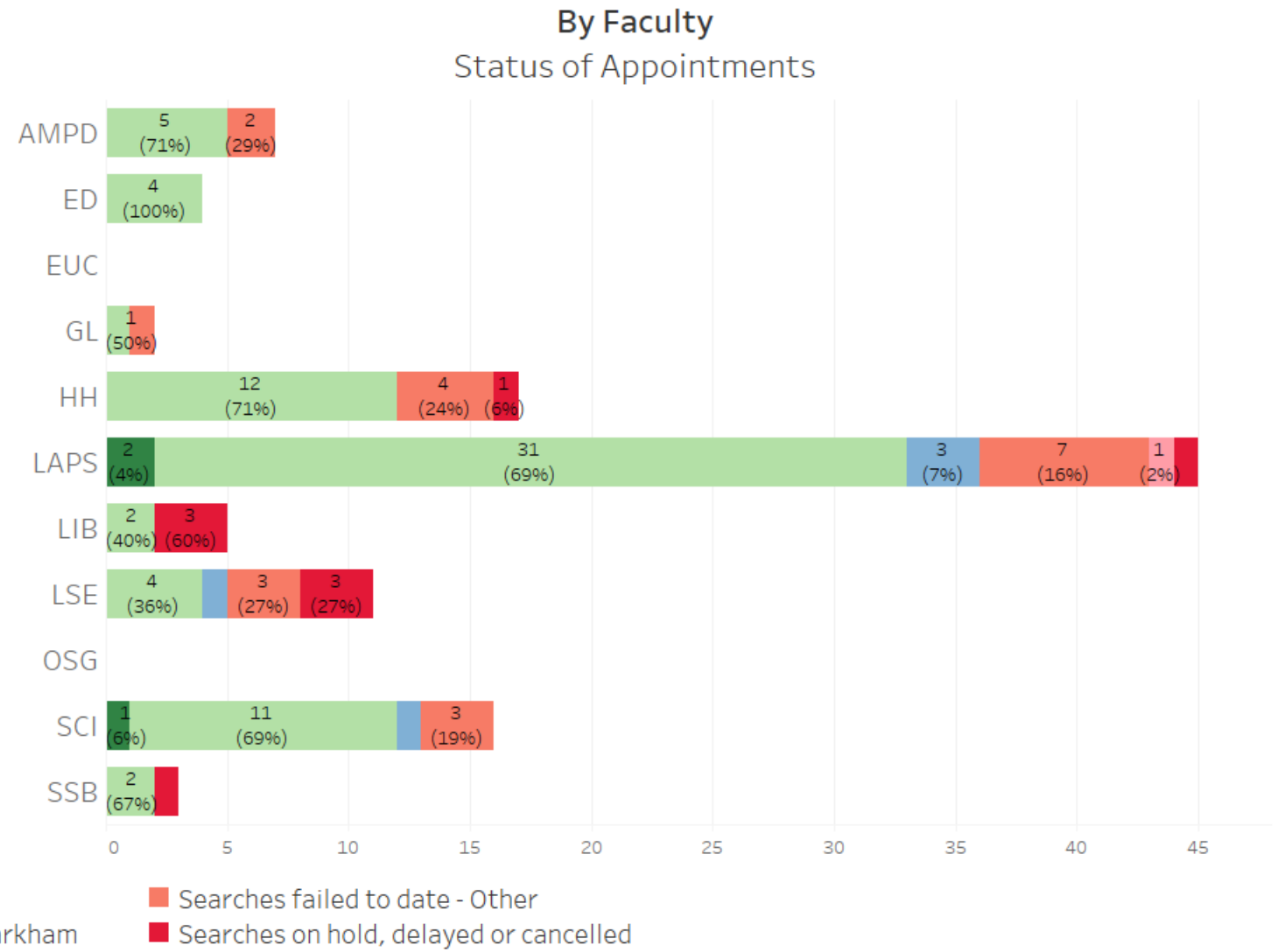
Status of 2023-24 Tenure Track Appointments (as of Nov 1, 2023)





Note: 'Searches failed to date – Other include 8 rolled over to 2024-25. 'Searches on hold, delayed or cancelled include 2 rolled over to 2024-25. Three of the five searches in progress are Markham appointments.

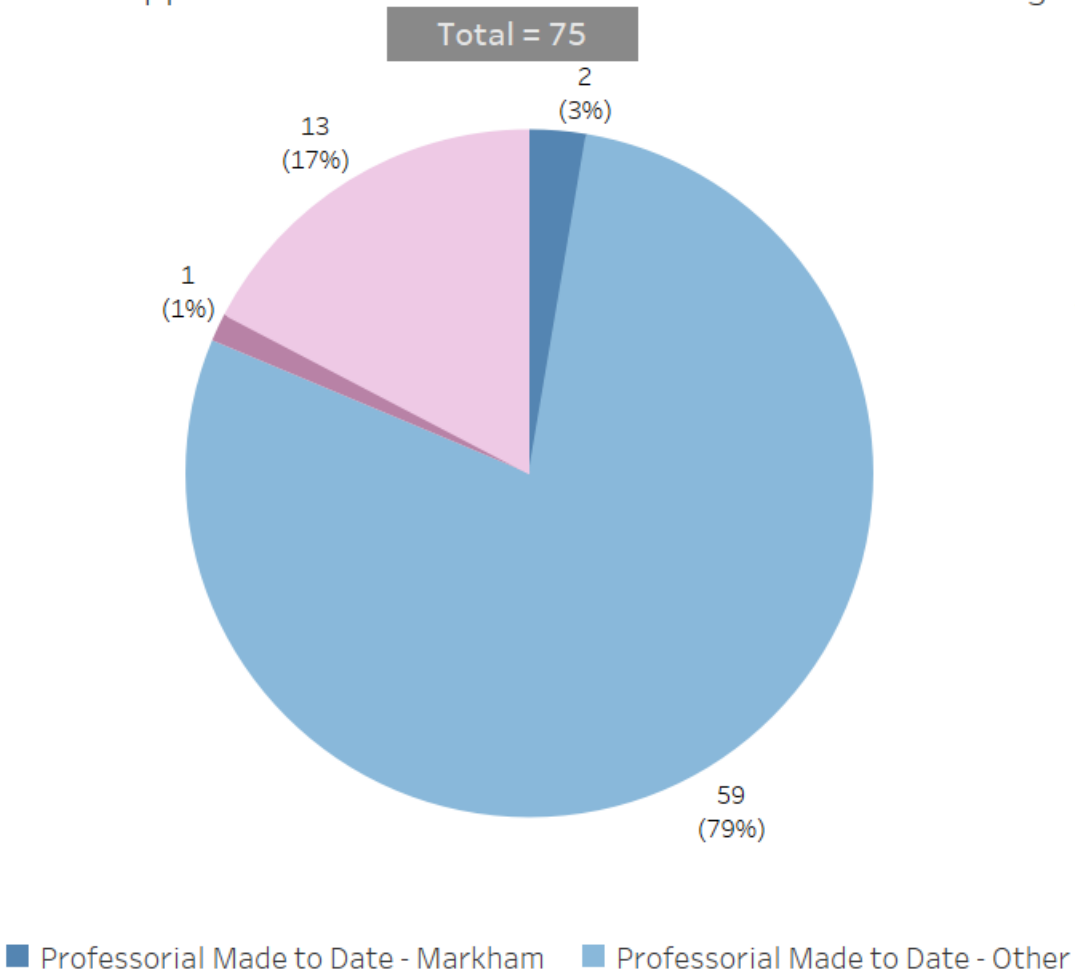
Source: Office of the P&VPA

YORK U

Tenure Track Appointments Made to Start 2023-24 (as of Nov 1, 2023)

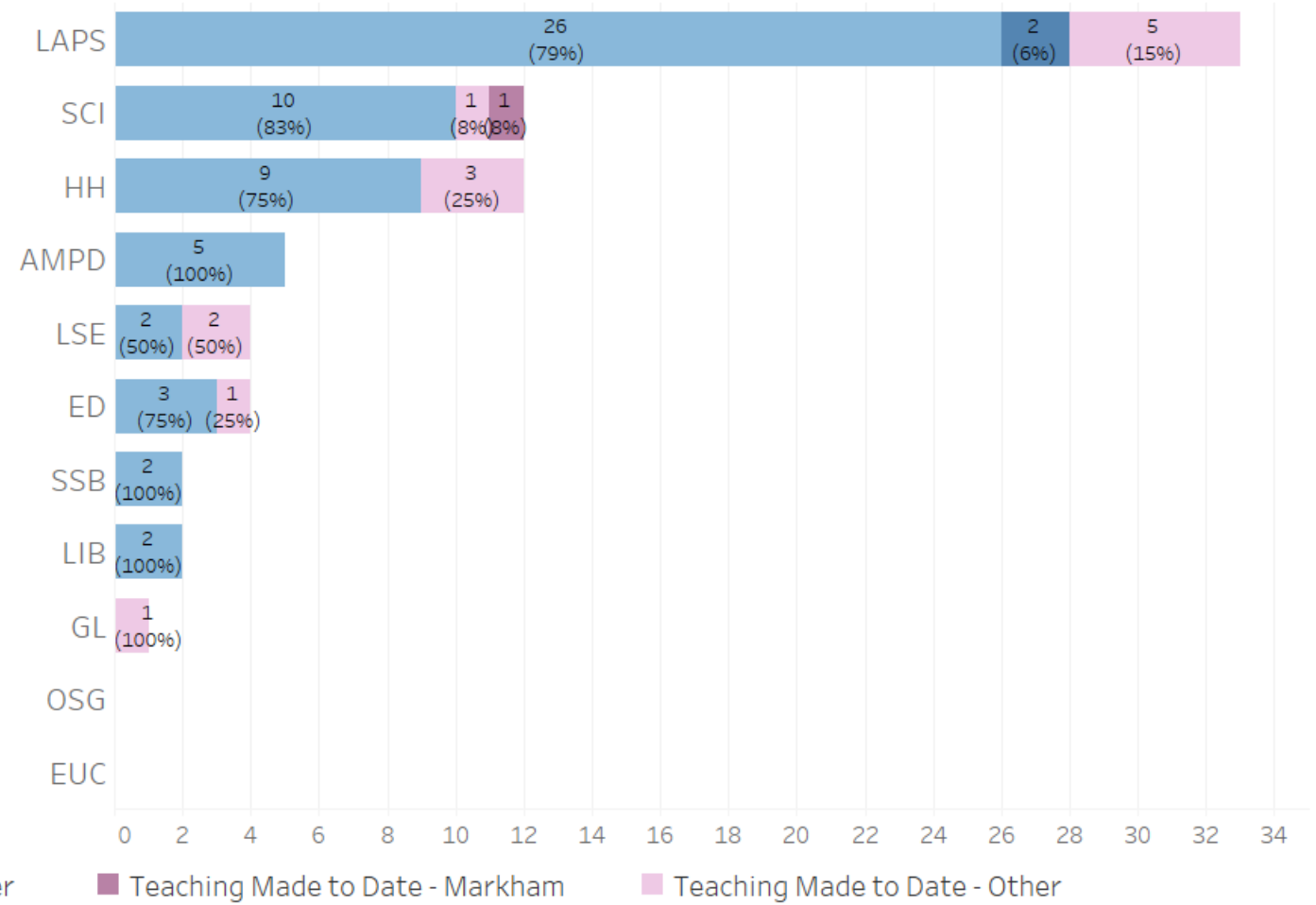
Institutional

23-24 Appointments Made to Date: Professorial vs Teaching



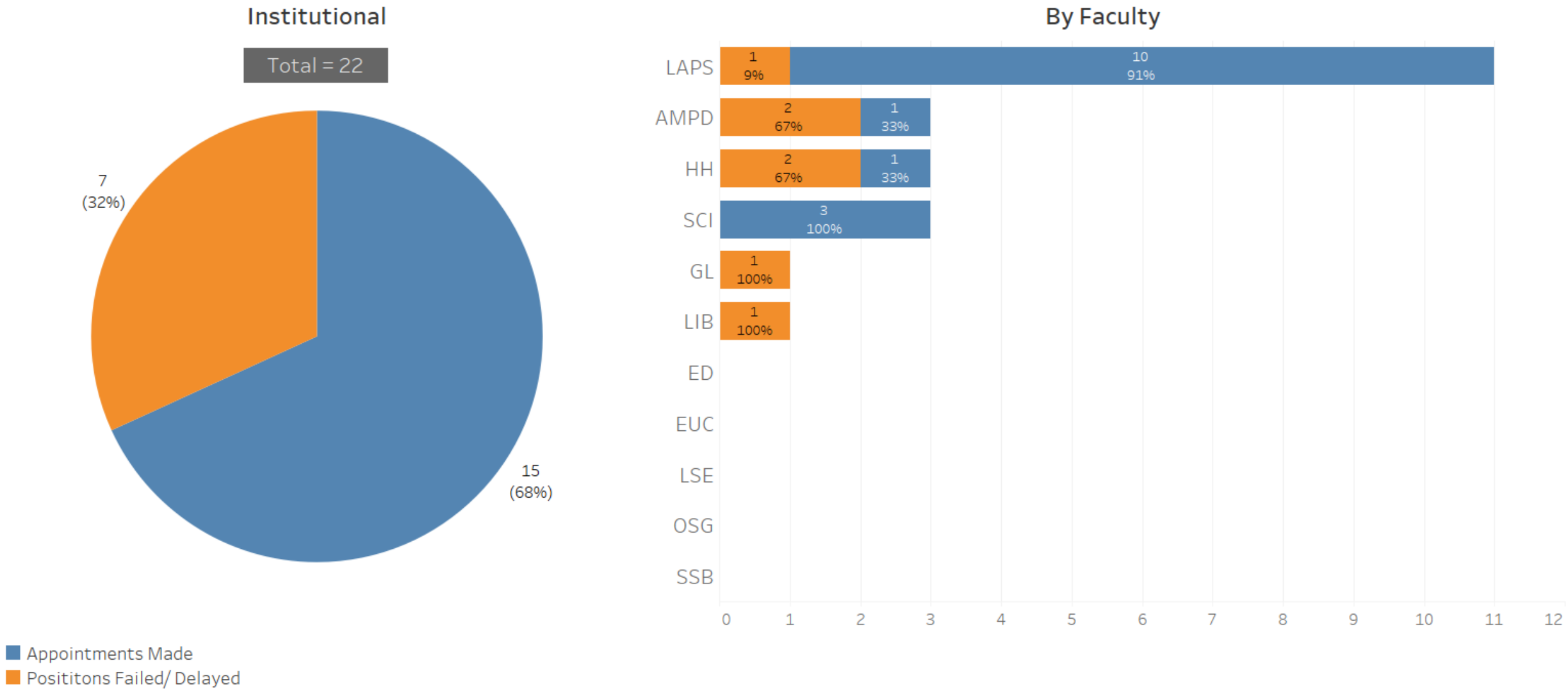
By Faculty

23-24 Appointments Made to Date: Professorial vs Teaching



Source: Office of the P&VPA

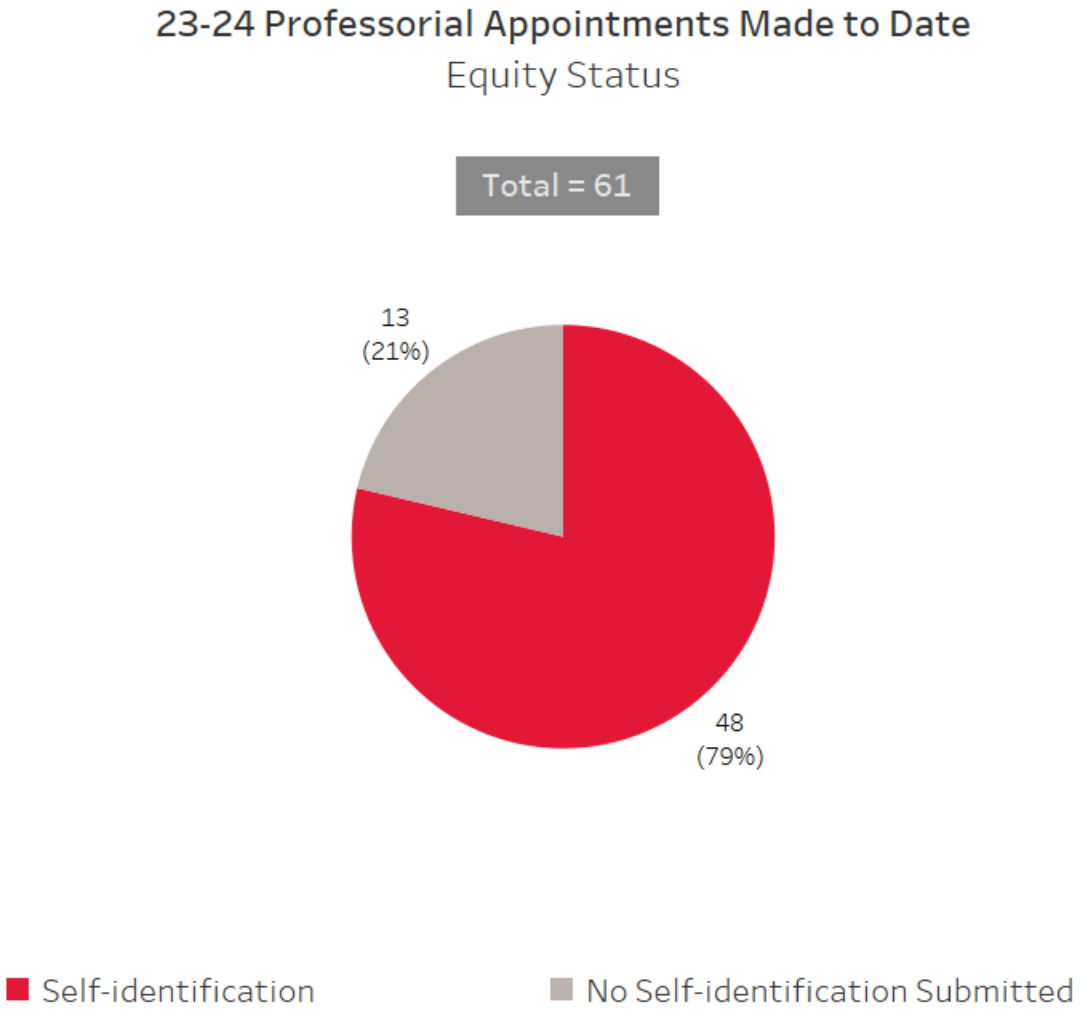
Centrally Supported Strategic Research Tenure Track Appointments 2023-24

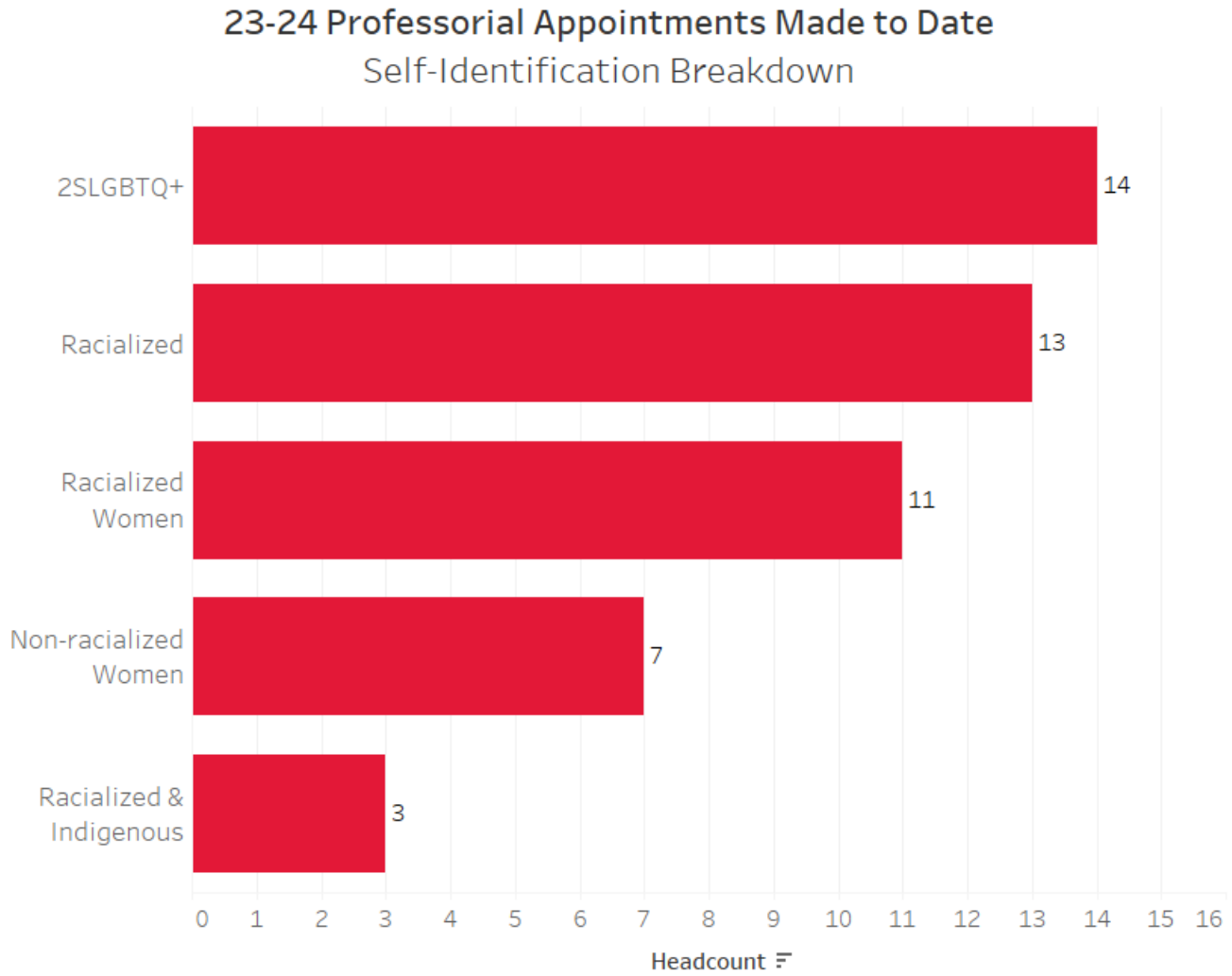


Source: Office of the P&VPA

November 2023

Breakdown by Equity Status of 2023-24 Tenure Track Appointments Made to Date (as of Nov 1, 2023)
Professorial Stream

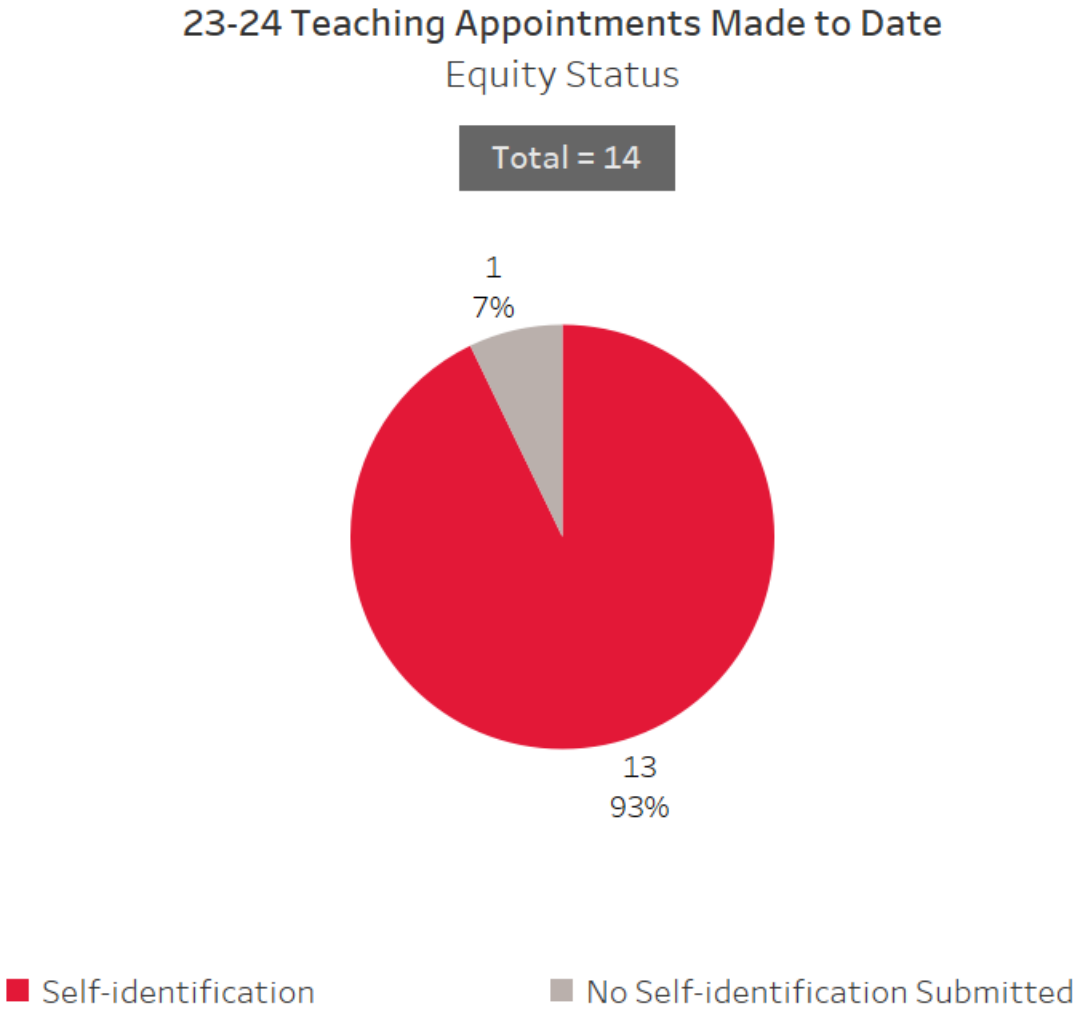


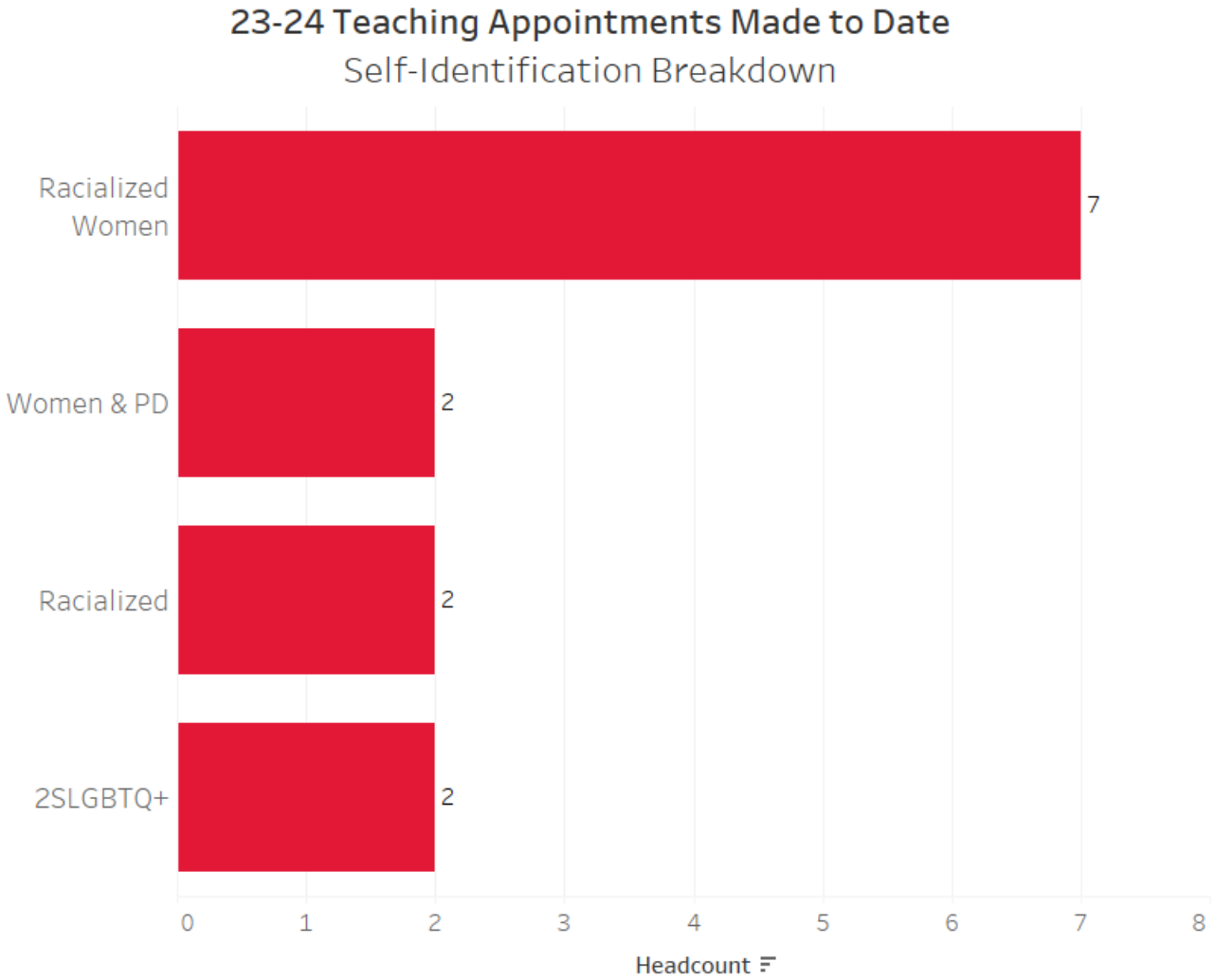


Note: Equity statistics are based on self-identification in the hiring process; self identification may be in more than one category. Not all intersectional self-identifications could be broken out for confidentiality reasons.

Source: Office of the P&VPA

Breakdown by Equity Status of 2023-24 Tenure Track Appointments Made to Date (as of Nov 1, 2023)
Teaching Stream



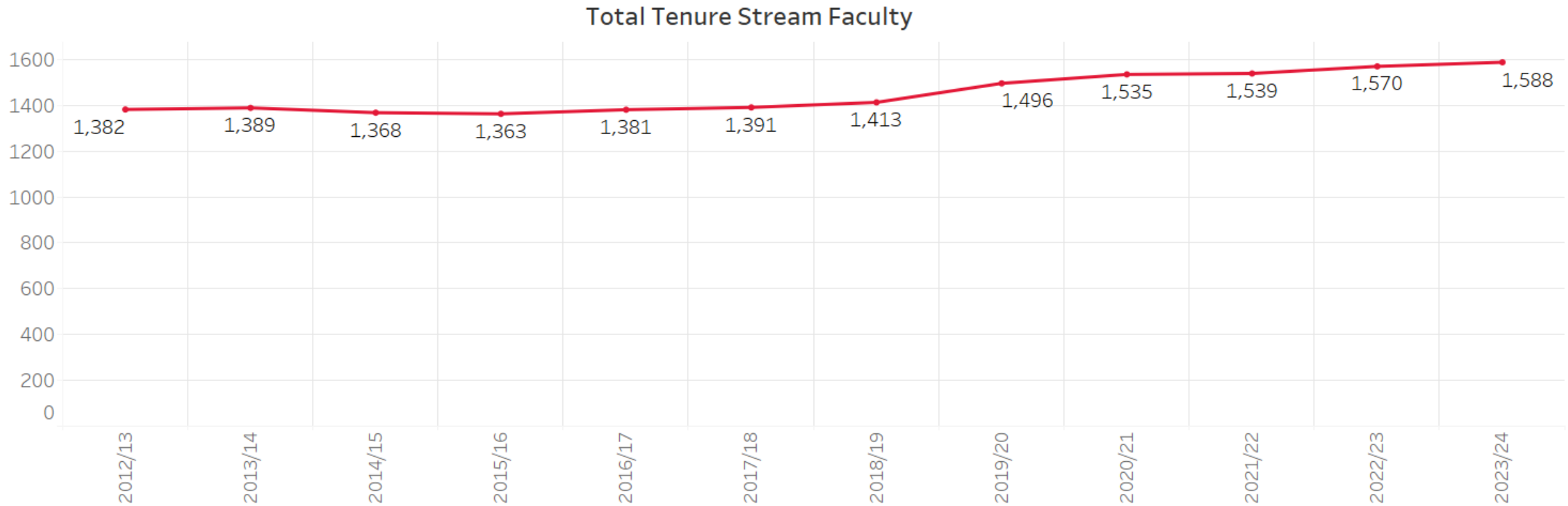


Note: Equity statistics are based on self-identification in the hiring process; self identification may be in more than one category. Not all intersectional self-identifications could be broken out for confidentiality reasons.

Source: Office of the P&VPA

Tenure Track Complement and Appointment Trends

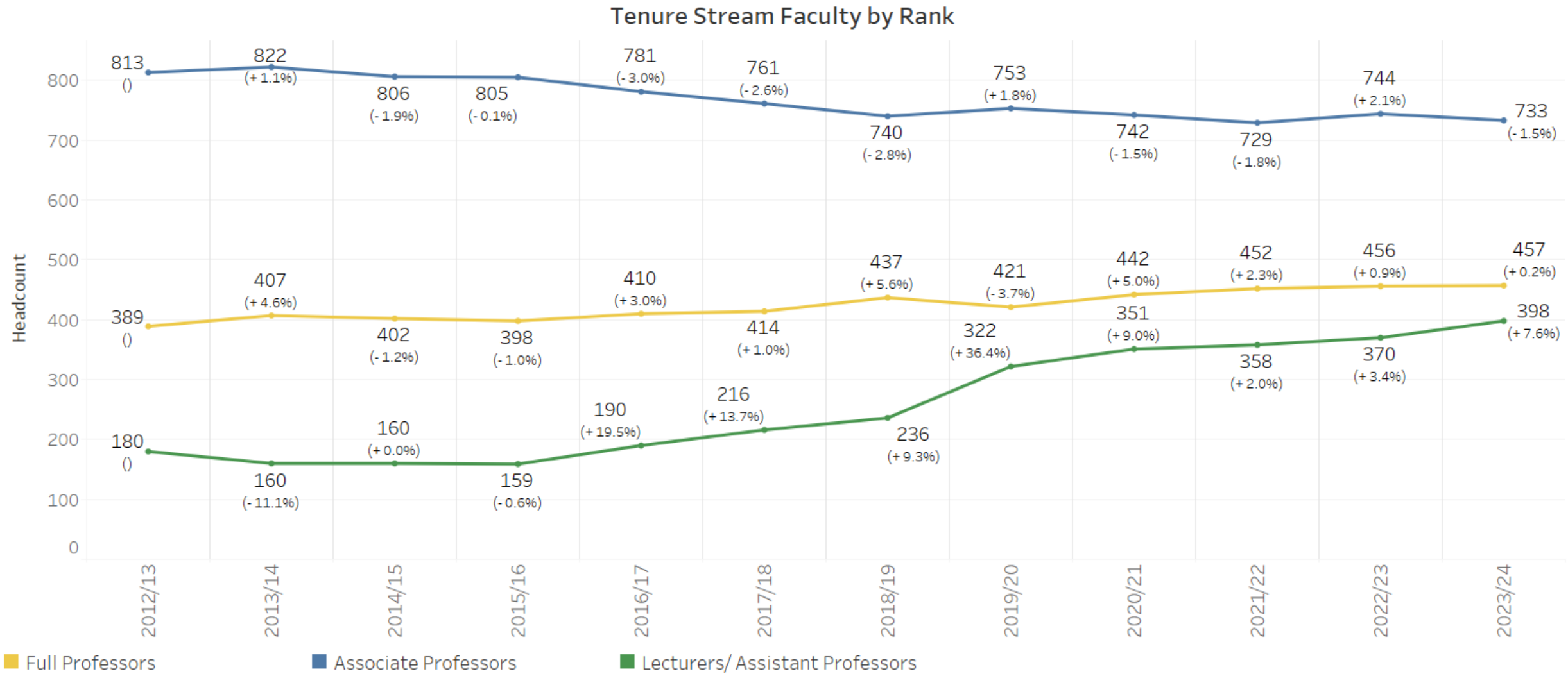
Tenure Stream Faculty Complement (Heads) and Breakdown by Streams and Gender, 2012-13 to 2023-24 (per October 1, excluding Librarians)



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Professorial	1,341 (97%)	1,348 (97%)	1,325 (97%)	1,308 (96%)	1,314 (95%)	1,316 (95%)	1,334 (94%)	1,370 (92%)	1,394 (91%)	1,395 (91%)	1,411 (90%)	1,422 (90%)
Teaching	41 (3%)	41 (3%)	43 (3%)	54 (4%)	67 (5%)	75 (5%)	79 (6%)	126 (8%)	141 (9%)	144 (9%)	159 (10%)	166 (10%)
Men	54%	55%	55%	55%	55%	55%	54%	53%	52%	52%	52%	51%
Women	46%	45%	45%	45%	45%	45%	46%	47%	48%	48%	48%	48%

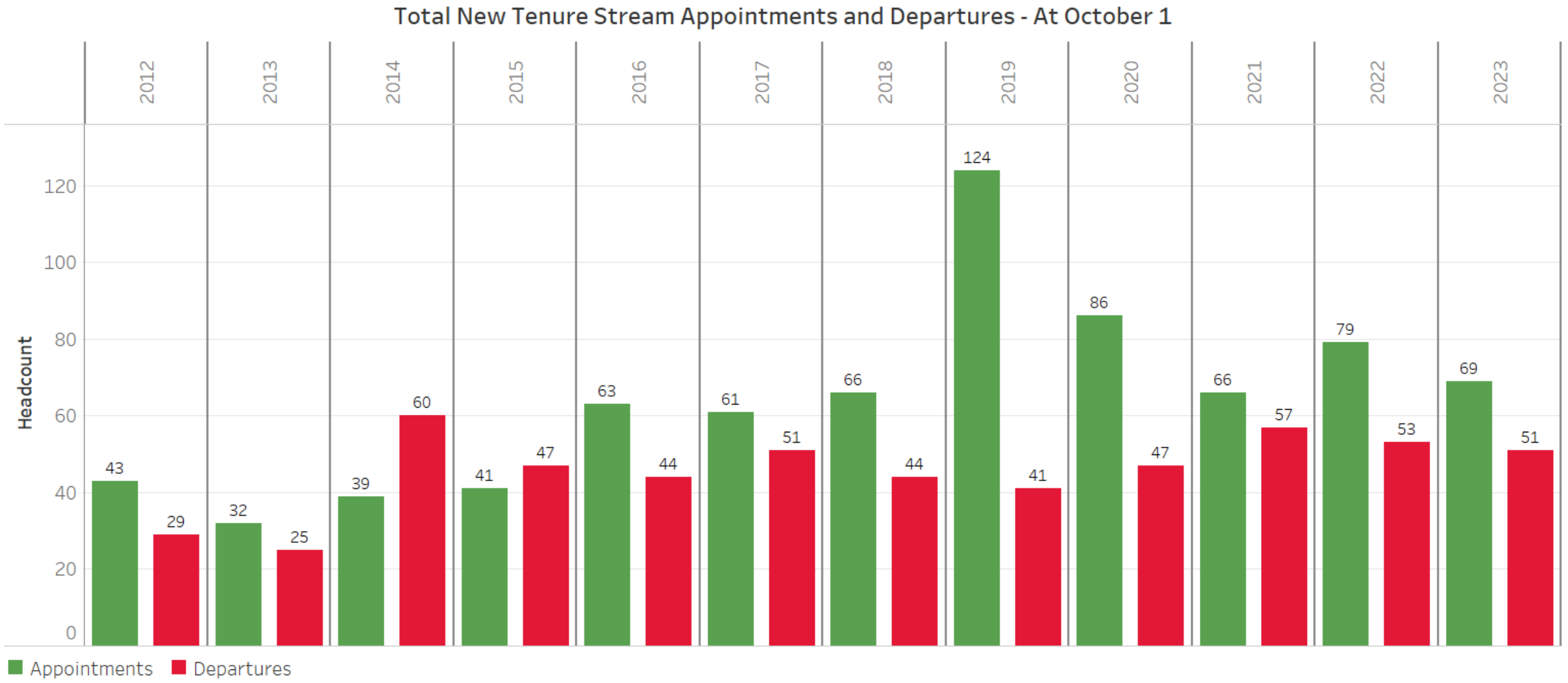
Notes: An additional 2021-22 appointee and two additional 2023-24 appointees identify as nonbinary.
Since the 2017/18 benchmark year, there has been a gradual increase in net new faculty members: increase of 22 (+2%) in 18/19; increase of 83 (+6%) in 19/20; increase of 39 (+3%) in 20/21; increase of 4 (+0.3%) in 21/22; increase of 31 (+2%) in 22/23; and increase of 18 (+1%) in 23/24. The overall increase from 2017/18 to 2023/24 is 197 (+14%).
Source: Office of the P&VPA

Tenure Stream Faculty Complement (Heads) by Rank, 2012-13 to 2023-24
(per October 1, excluding Librarians)



Source: Office of the P&VPA

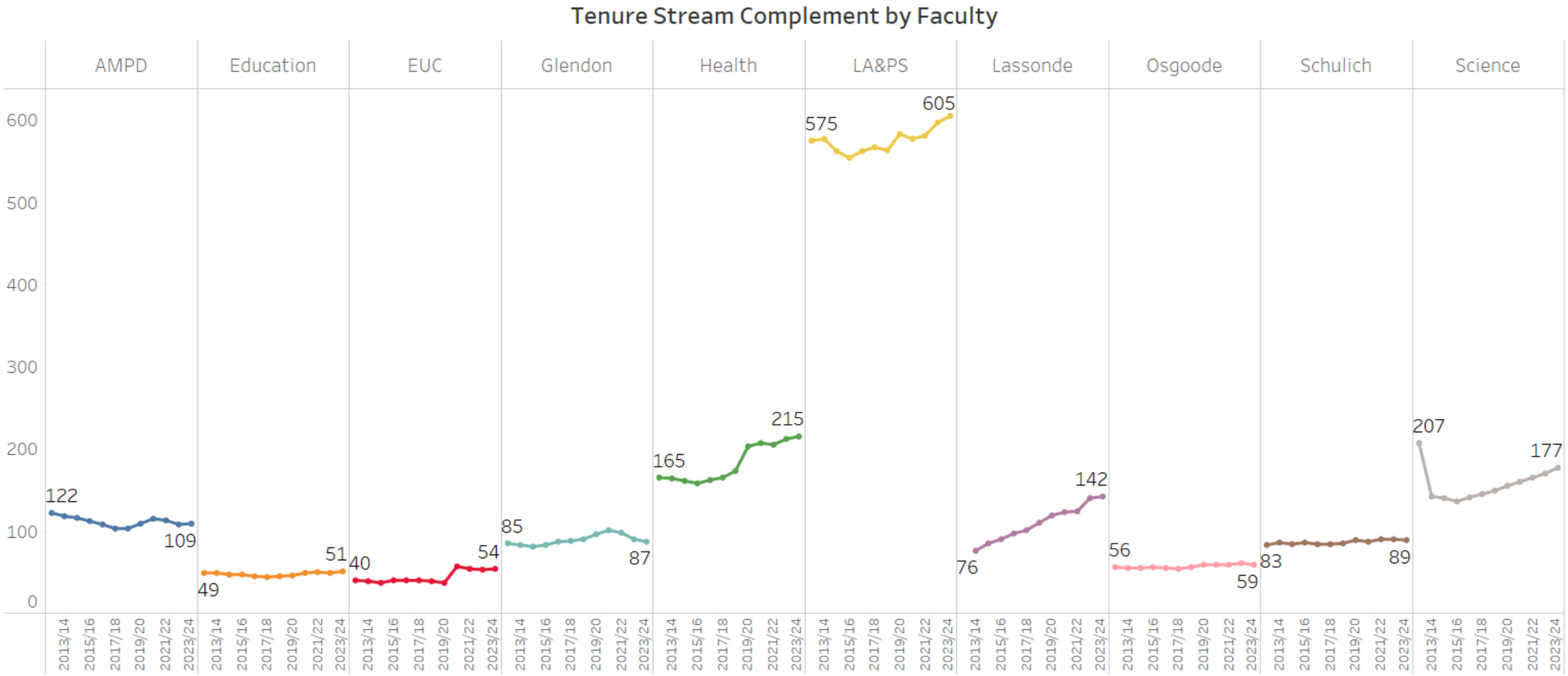
Total Appointments and Departures of Tenure Stream Faculty Complement (Heads), 2012-13 to 2023-24
(per October 1, excluding Librarians)



Note: See appendix slide 55 for a detailed breakdown by Faculty.

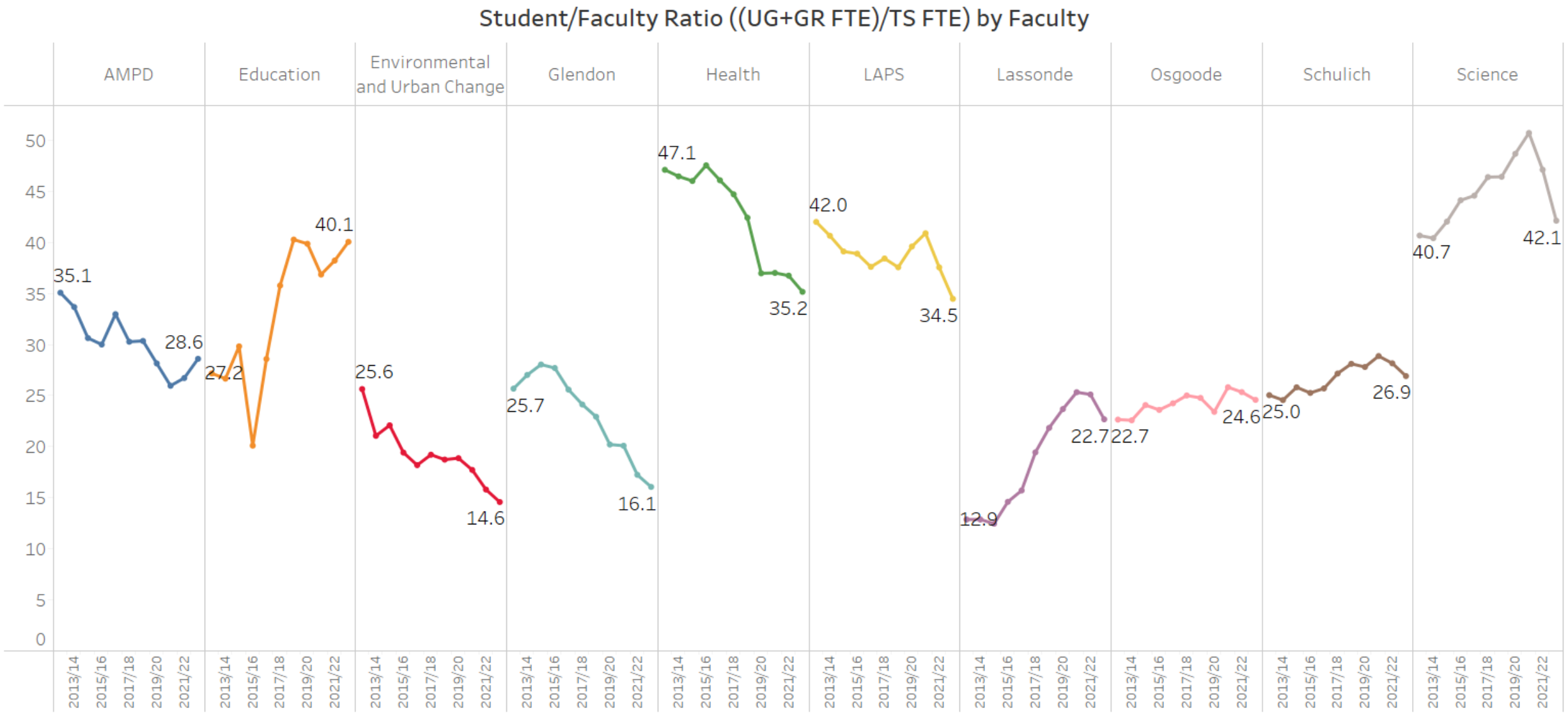
Source: Office of the P&VPA

Tenure Stream Faculty Complement (Heads) breakdown by Faculty, 2012-13 to 2023-24
(per October 1, excluding Librarians)



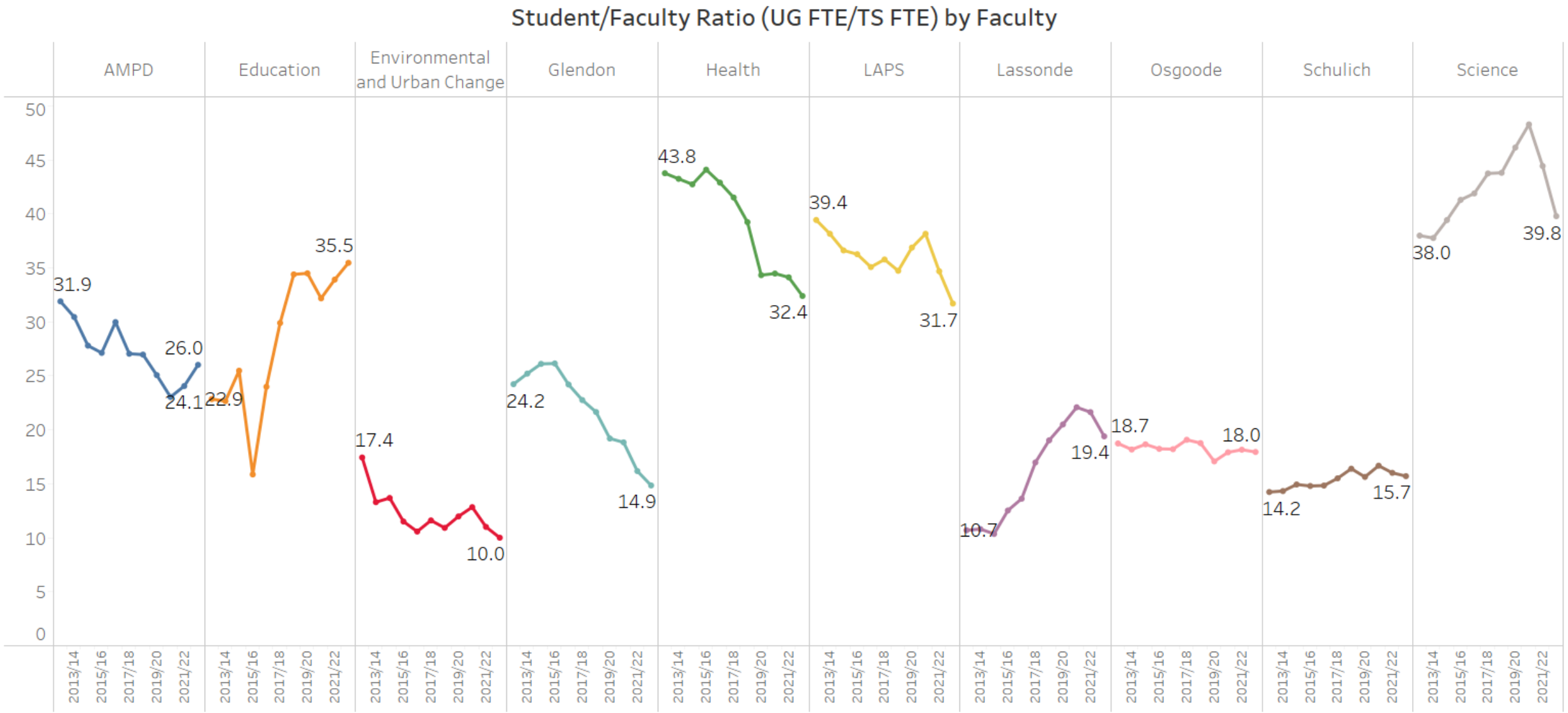
Source: Office of the P&VPA

Student/Faculty Ratio (Total FTE/Tenure Stream FTE) **by Faculty**, 2012-23 to 2022-23



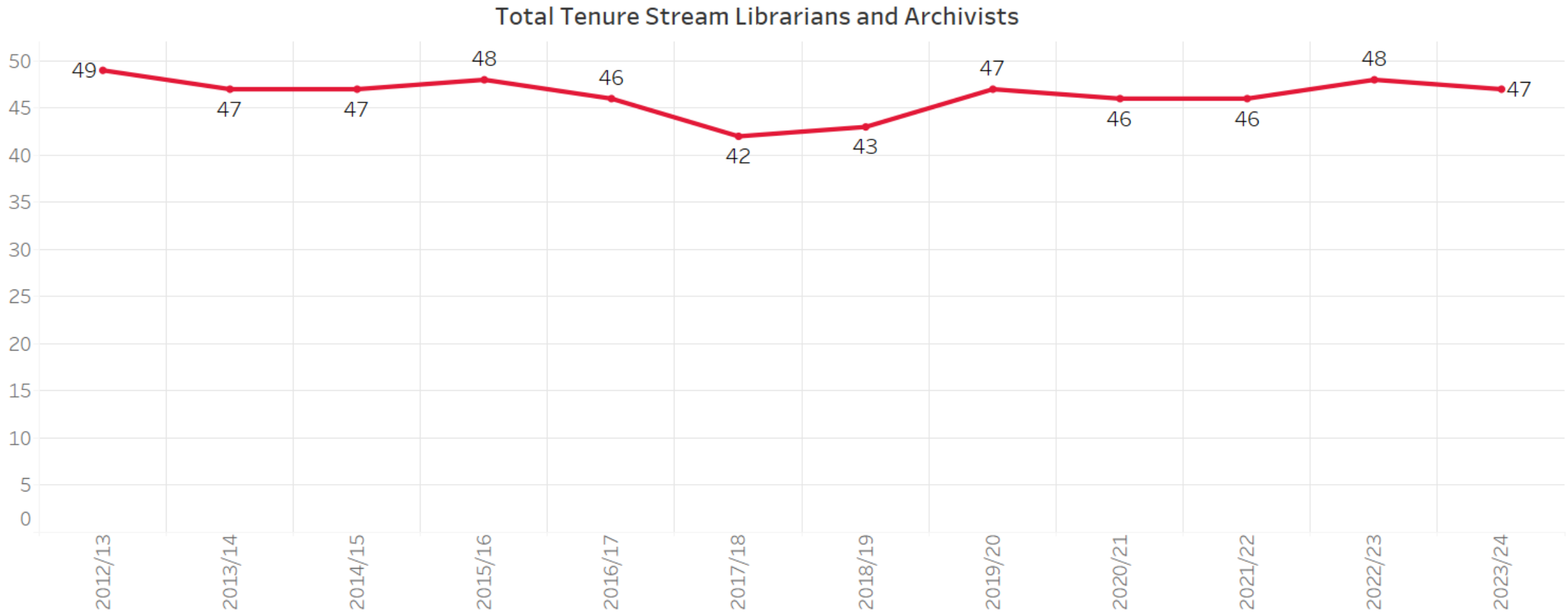
Source: Office of the P&VPA

Student/Faculty Ratio (UG FTE/Tenure Stream FTE) **by Faculty**, 2012-13 to 2022-23



Source: Office of the P&VPA

Tenure Stream Librarian Complement (Heads), 2012-13 to 2023-24 (per October 1)

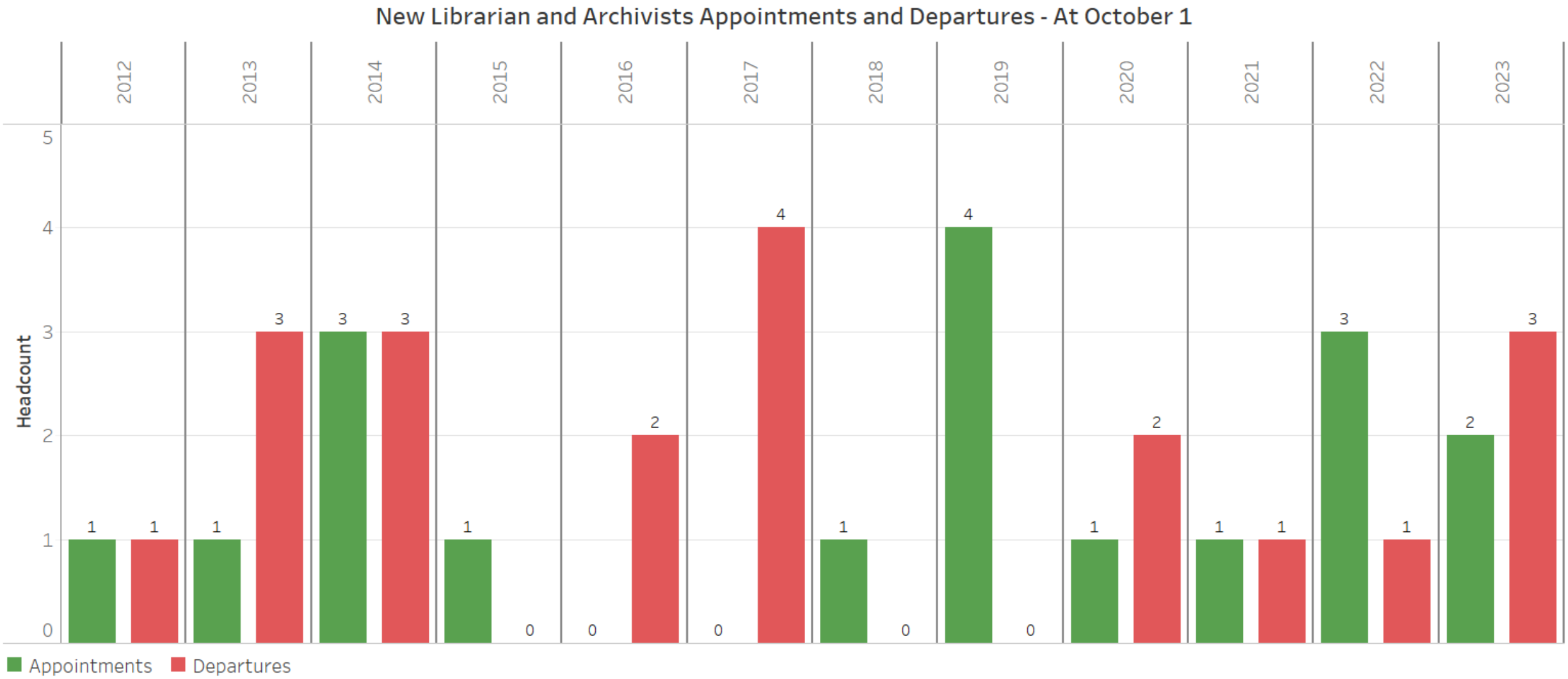


	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Men	37%	38%	36%	35%	35%	33%	35%	36%	37%	35%	33%	34%
Women	63%	62%	64%	65%	65%	67%	65%	64%	63%	65%	67%	66%

Note: Totals include Osgoode Law Librarians

Source: Office of the P&VPA

Total Appointments and Departures of Tenure Stream Librarian Complement (Heads), 2012-13 to 2023-24 (per October 1)

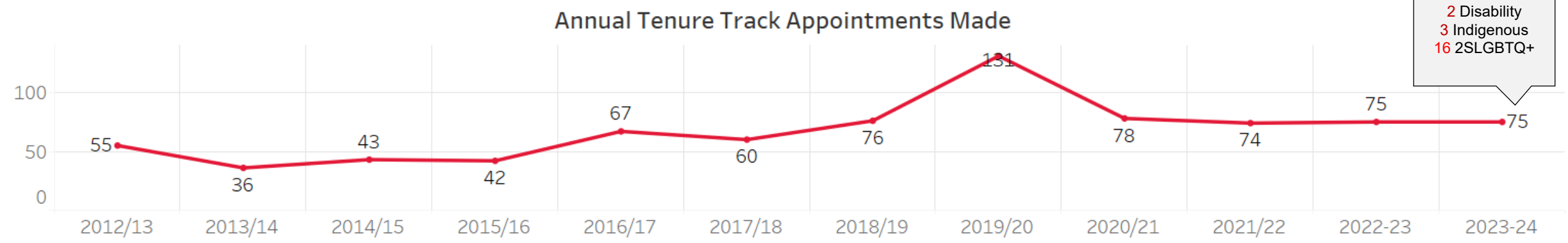


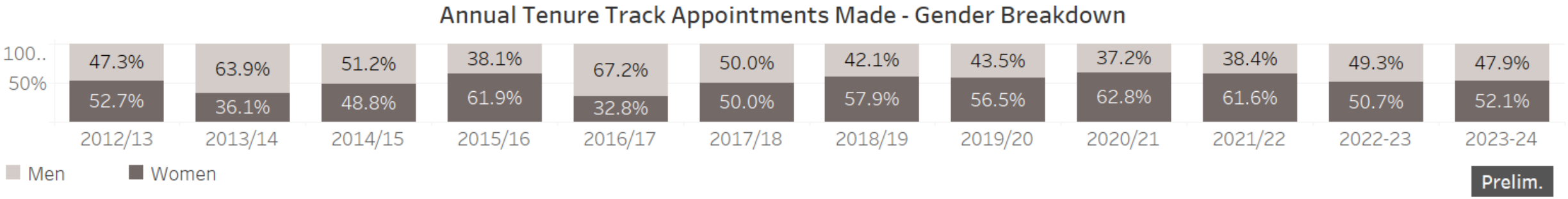
Note: Includes Osgoode Law Librarians

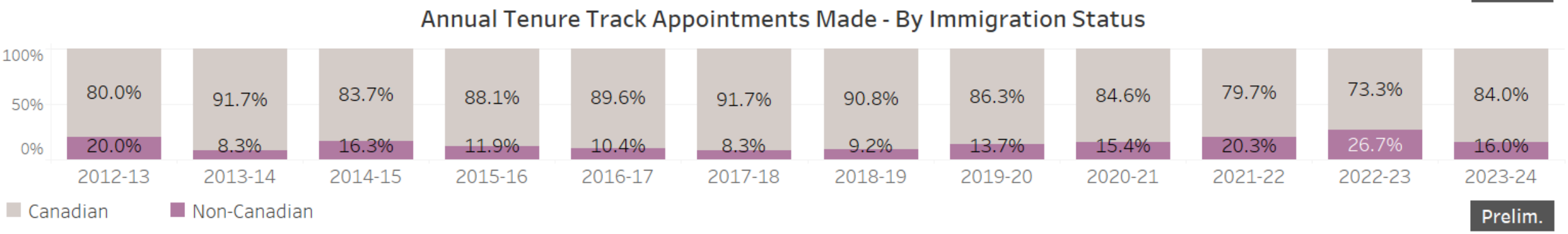
Source: Office of the P&VPA

Trends 2012-13 to 2023-24: Annual Tenure Track Appointments Made to Date
(as of Nov. 1, 2023)

2023-24
63 Canadian
12 International
36 Racialized
2 Disability
3 Indigenous
16 2SLGBTQ+





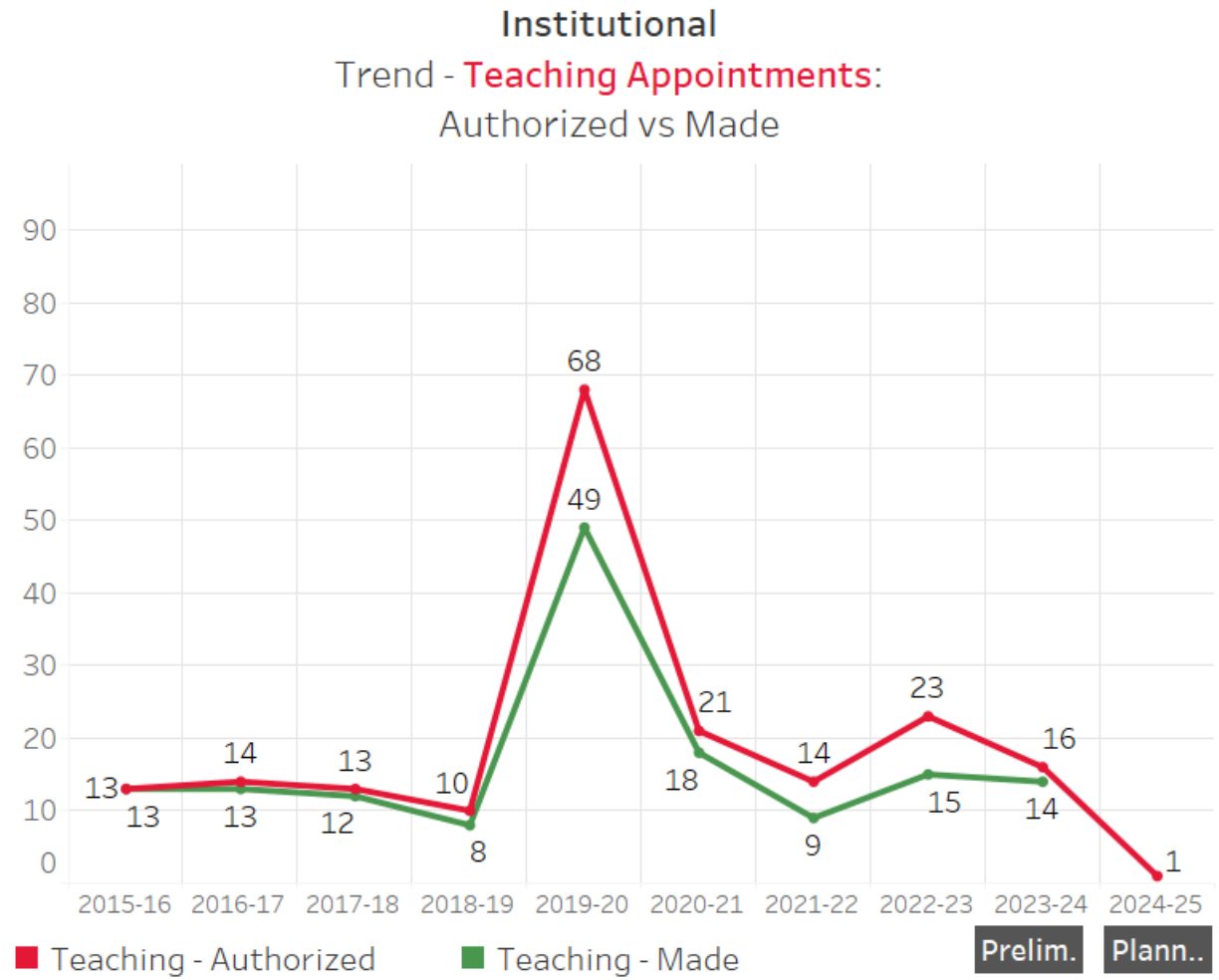


Note: An additional 2021-22 appointee and two additional 2023-24 appointees identify as nonbinary.

Source: Office of the P&VPA

Annual Tenure Track Appointments Authorized vs Made

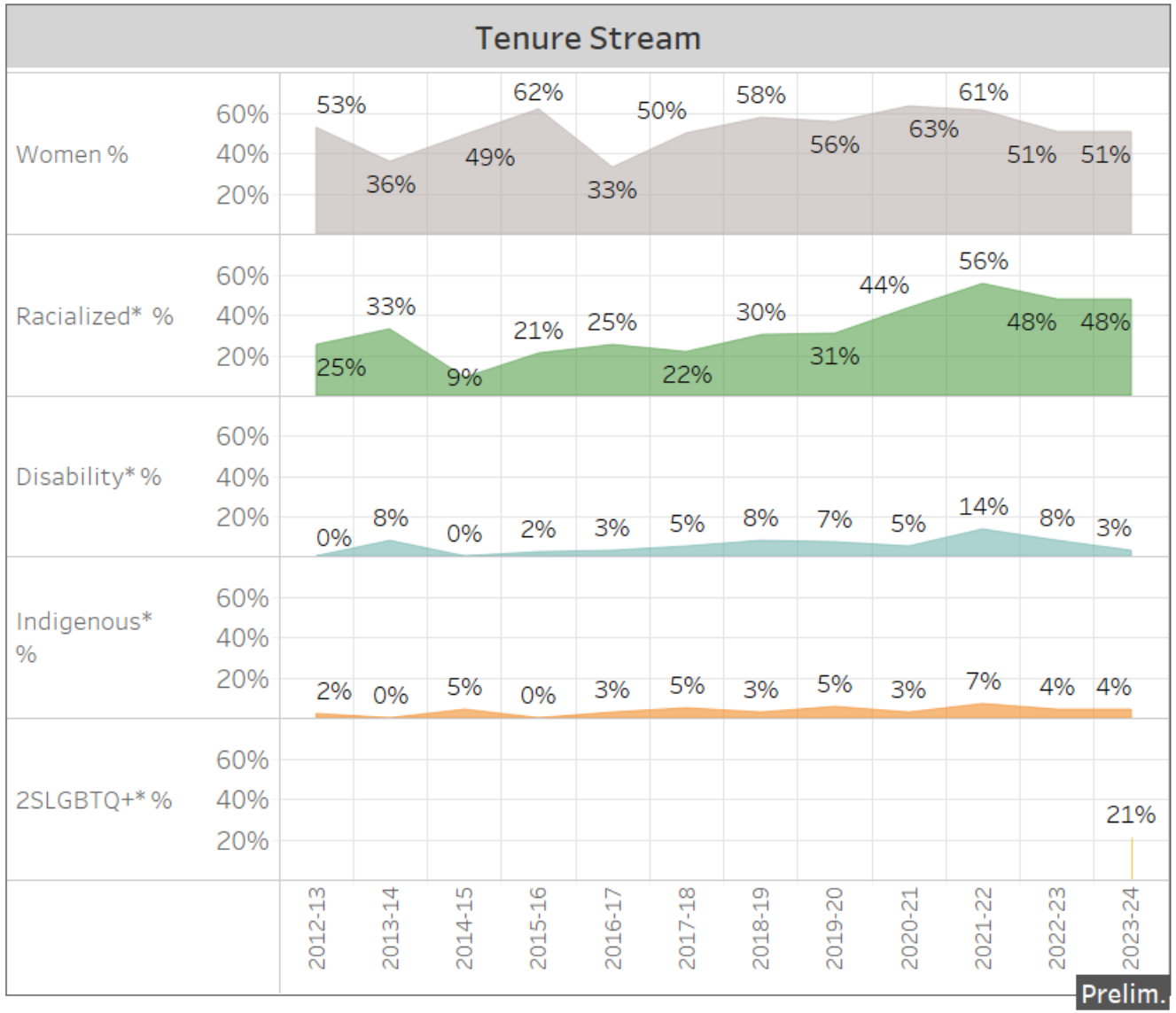
10 Year Trend

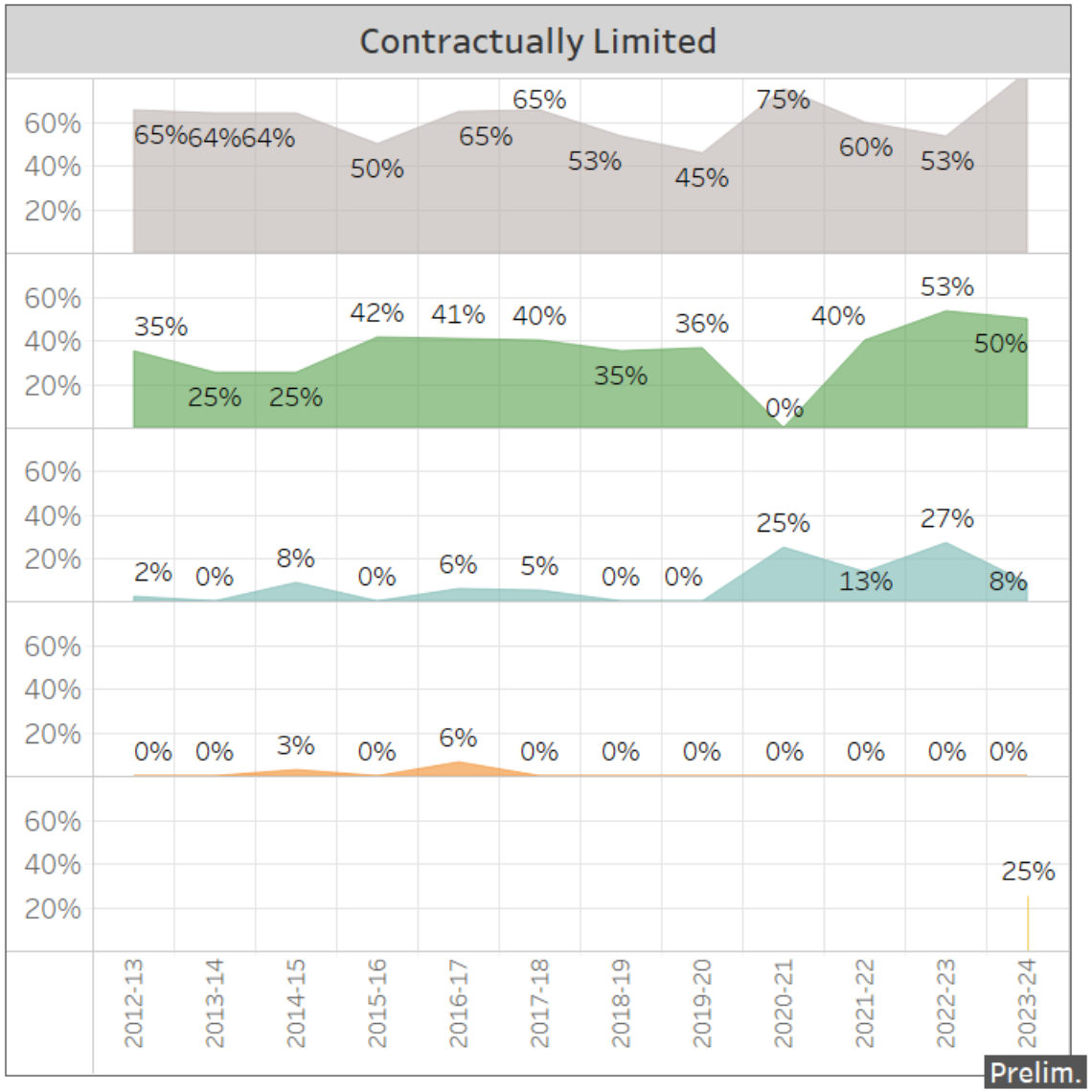


Source: Office of the P&VPA

YORK U

Trends 2012-13 to 2023-24: Annual Appointments Made (as of Nov. 1, 2023) - Equity Status

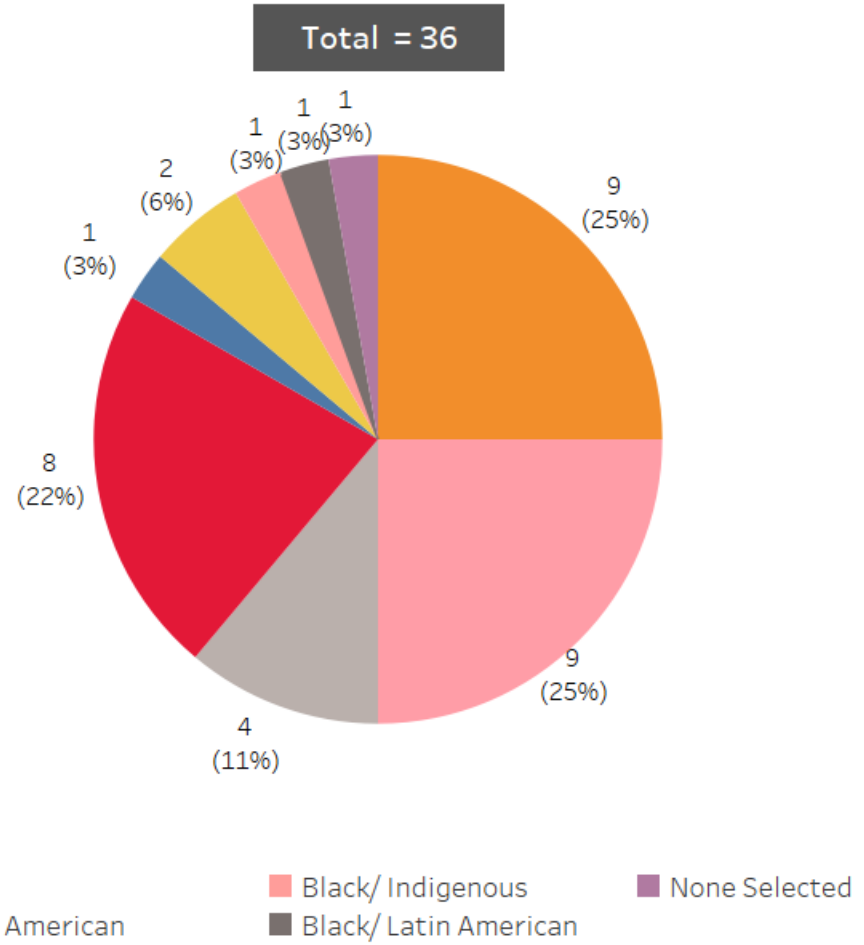




Note: Equity statistics (aside from the Women category) are based on self-identification in the hiring process; self identification may be in more than one category

Source: Office of the P&VPA

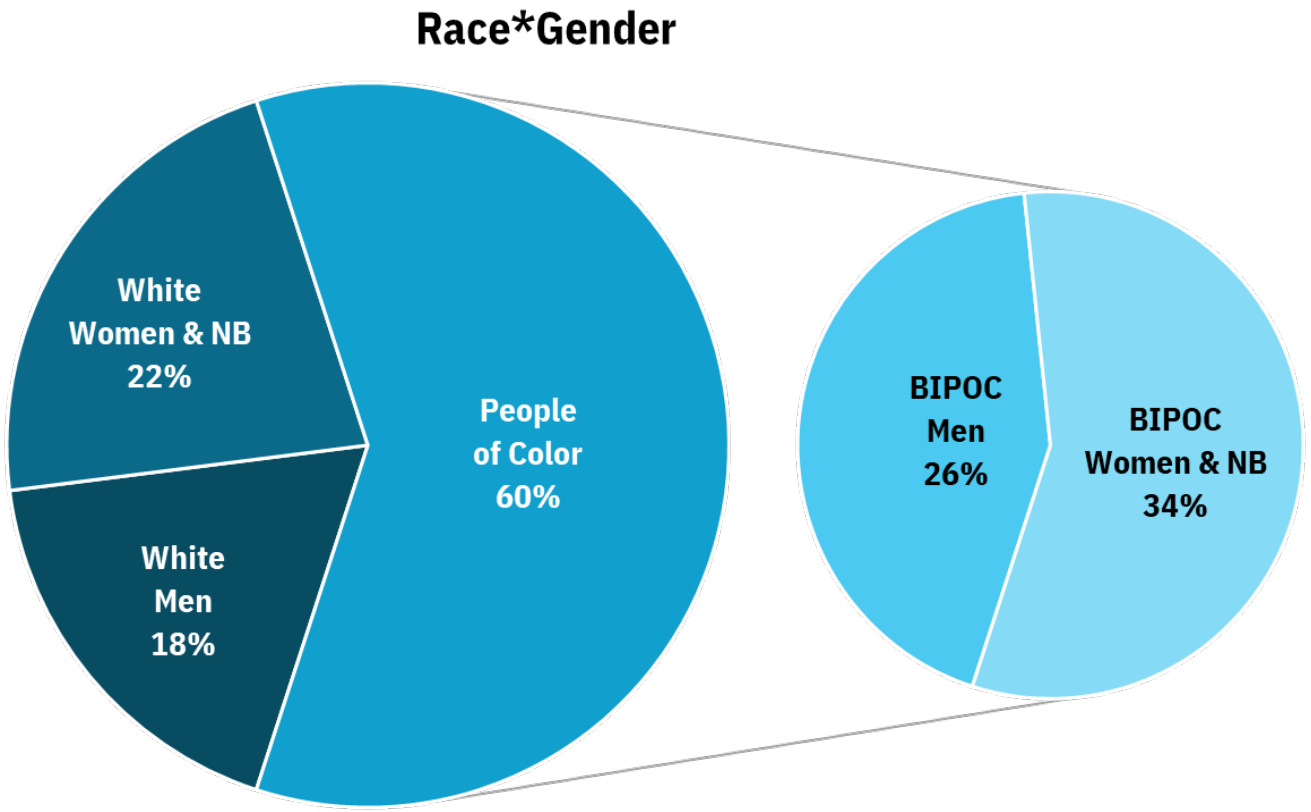
Breakdown by Sub-Groups of 2023-24 Self-Identified Racialized Tenure Track Appointments Made to Date (as of Nov 1, 2023)

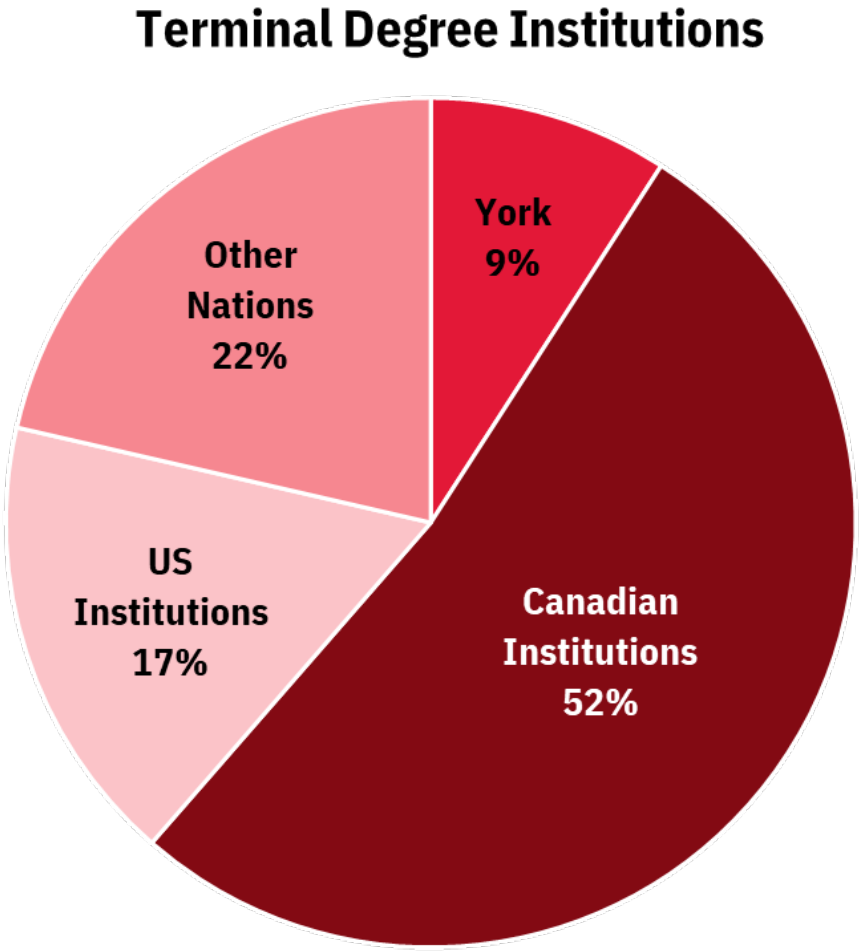


Note: Equity statistics are based on self-identification in the hiring process; self-identification may be in more than one category.

Source: Office of the P&VPA

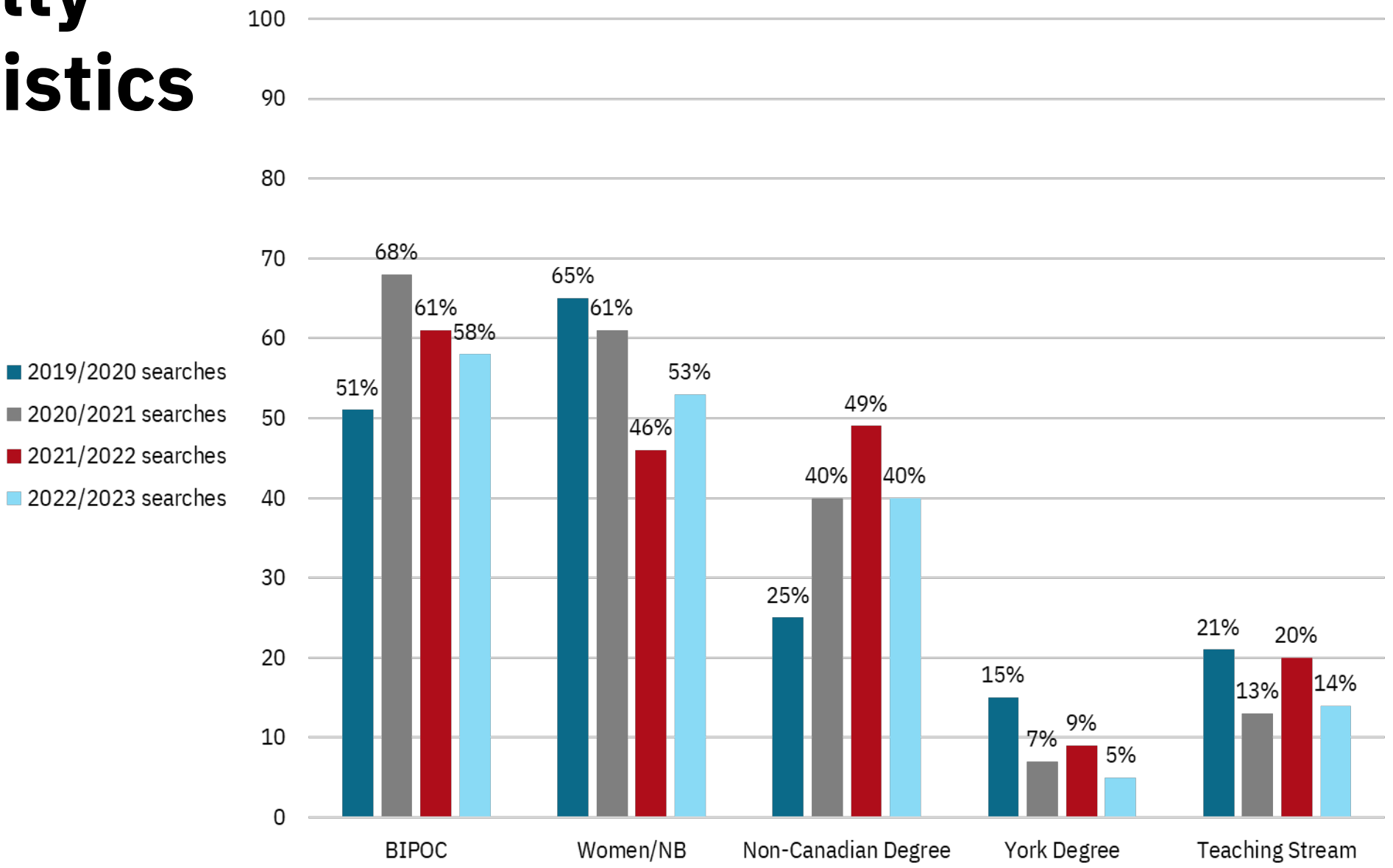
New Faculty Characteristics
(4-Year Summary)





*excl. CLAs & Librarians.

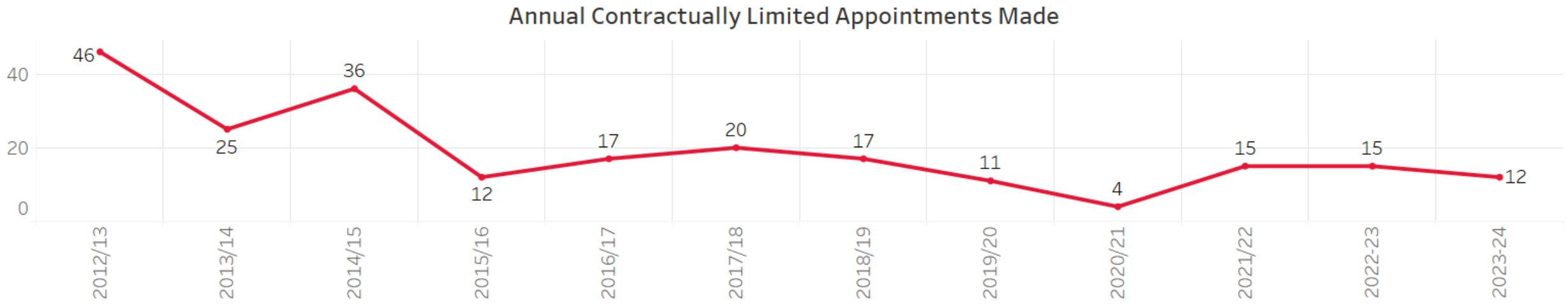
New Faculty Characteristics (by year)

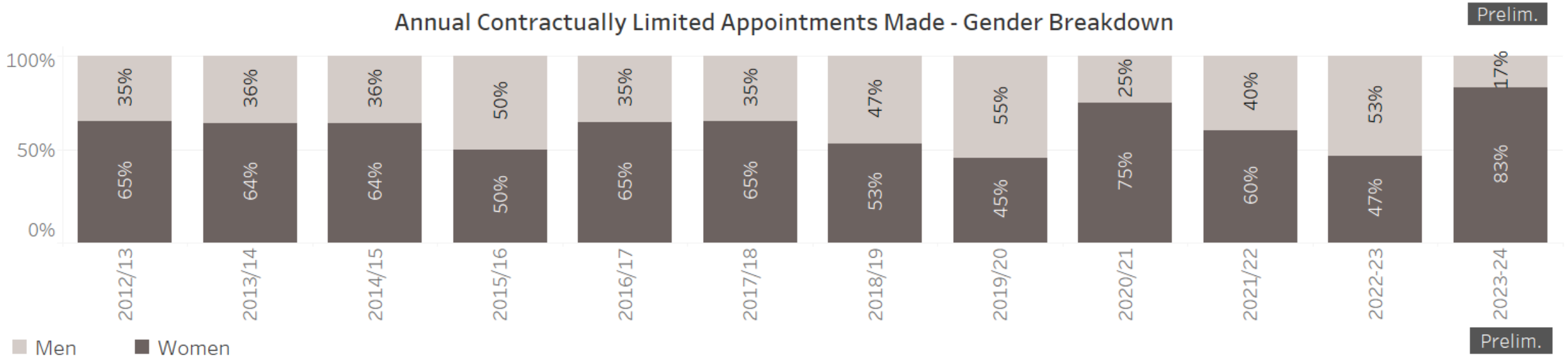


*excl. CLAs & Librarians.

Annual Contractually Limited Appointments Trends

Trends 2012-13 to 2023-24: Annual Contractually Limited Appointments Made to Date
(as of Nov. 1, 2023)





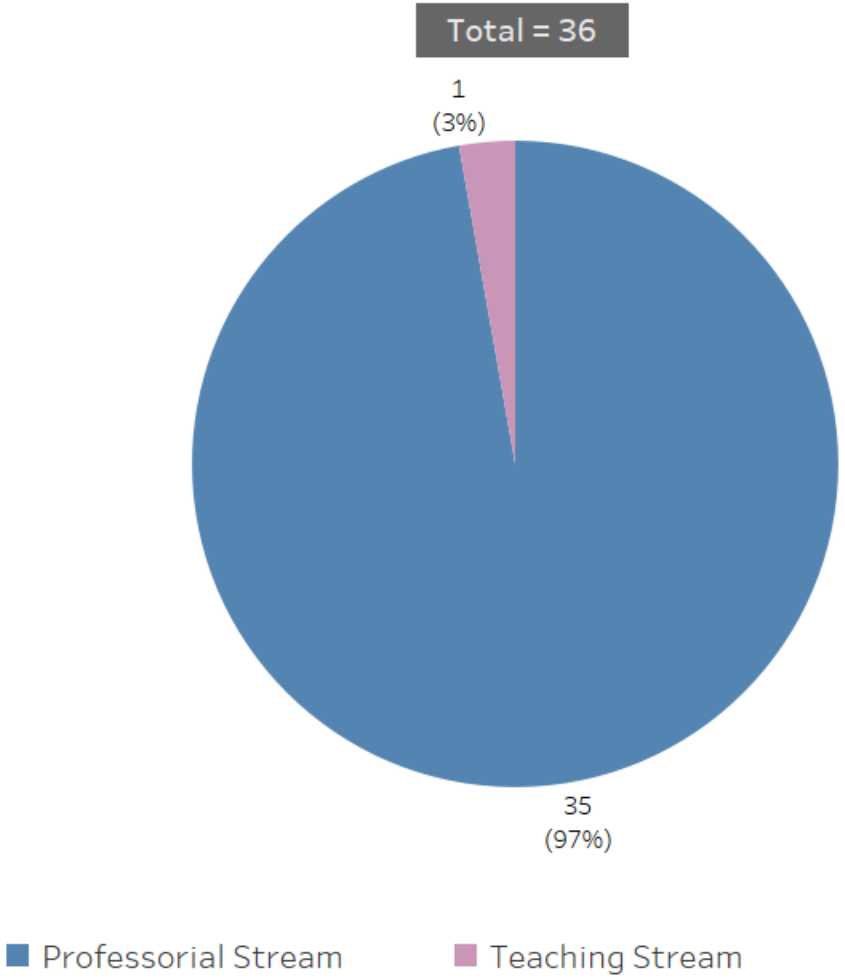
Source: Office of the P&VPA

Tenure Track Authorized Searches for Appointments in 2024-25

Breakdown of 2024-25 Tenure Track Appointments Authorized To Date (as of Nov. 1, 2023)

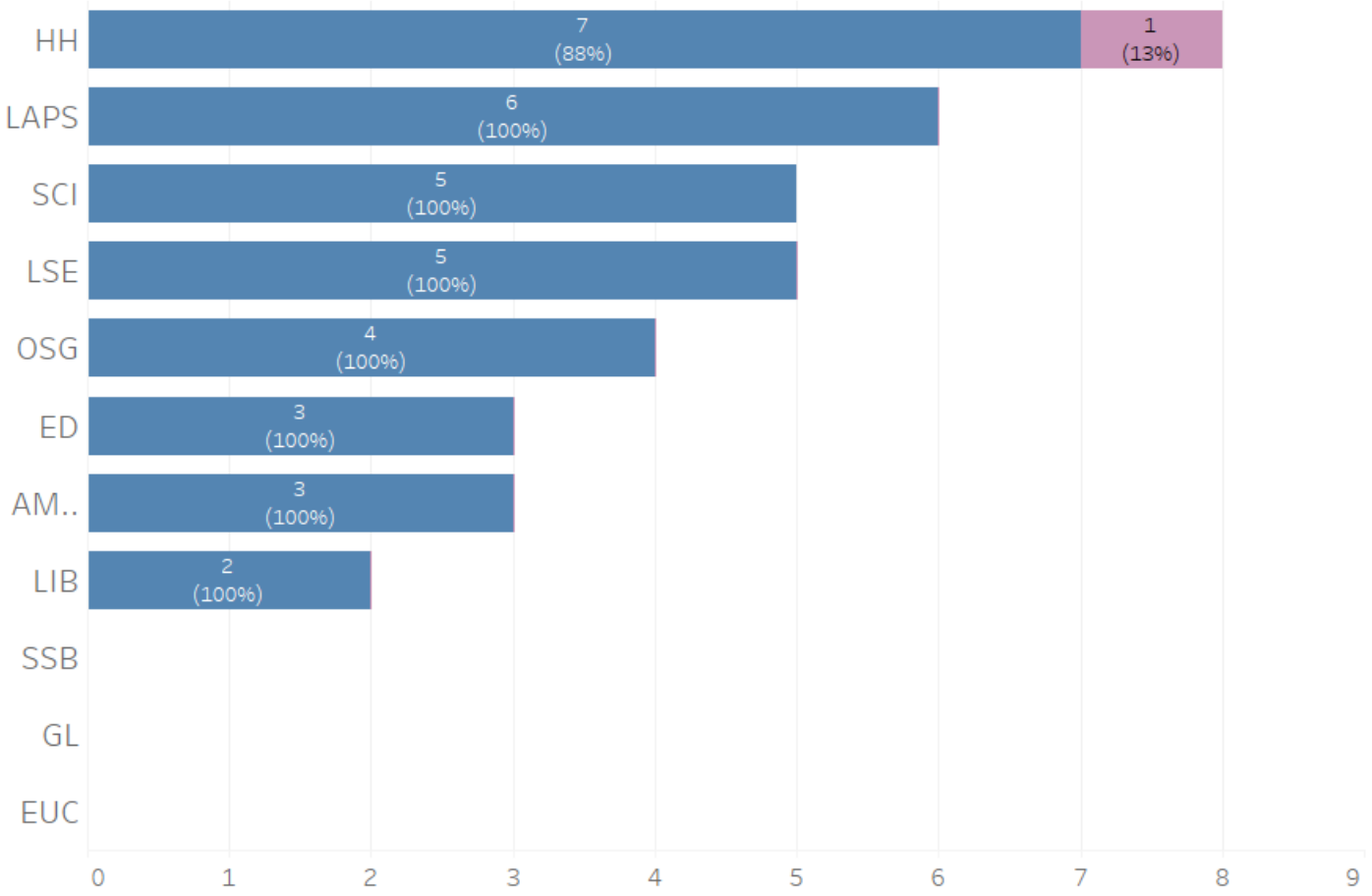
Institutional

24-25 Authorized Appointments: Professorial vs Teaching



By Faculty

24-25 Authorized Appointments: Professorial vs Teaching



Note: The 36 overall total to date includes 10 rolled over from 2023-24.

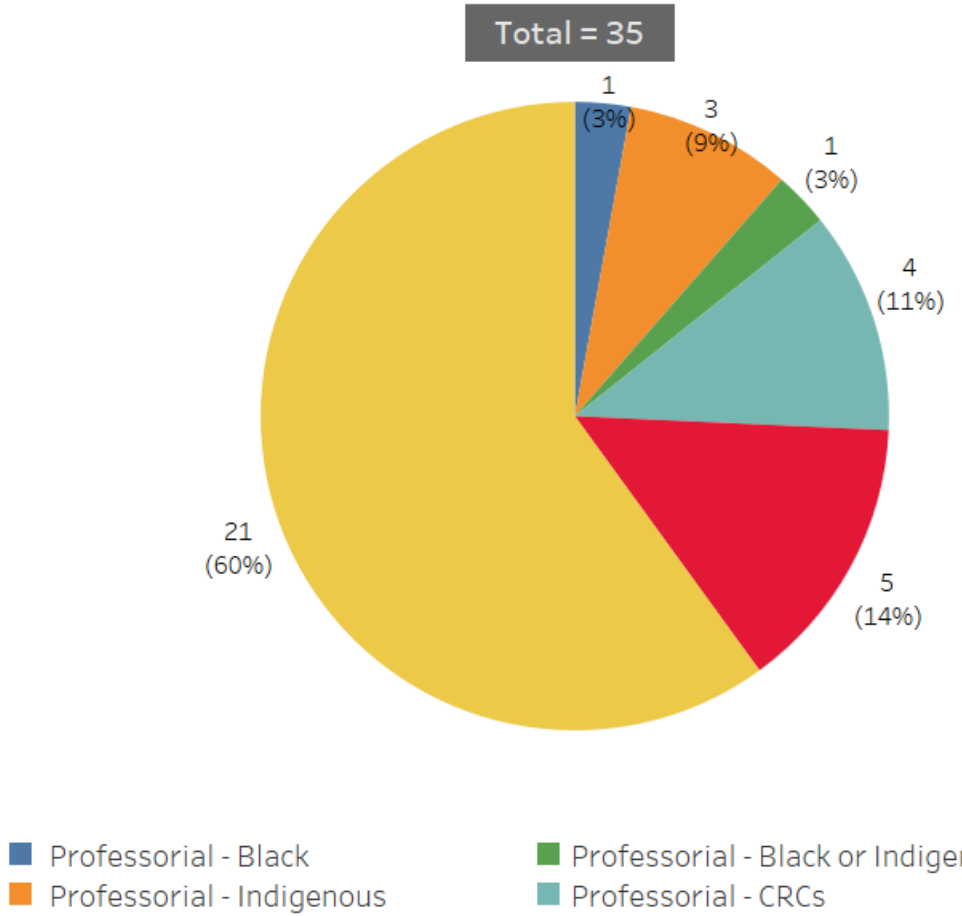
Source: Office of the P&VPA

YORK U

Breakdown of 2024-25 Professorial Stream Tenure Track Appointment Authorized To Date (as of Nov. 1, 2023)

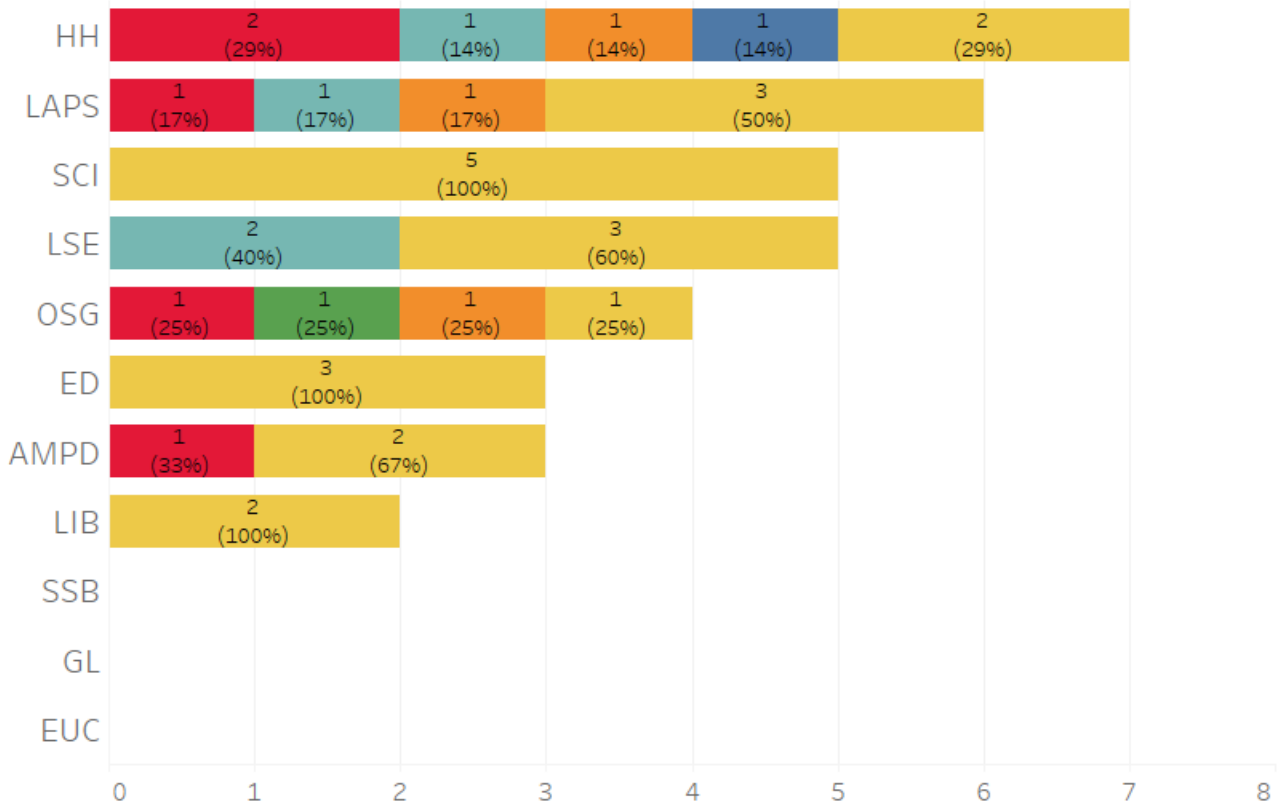
Institutional

24-25 Authorized Appointments: Professorial Stream Breakdown



By Faculty

24-25 Authorized Appointments: Professorial Stream Breakdown



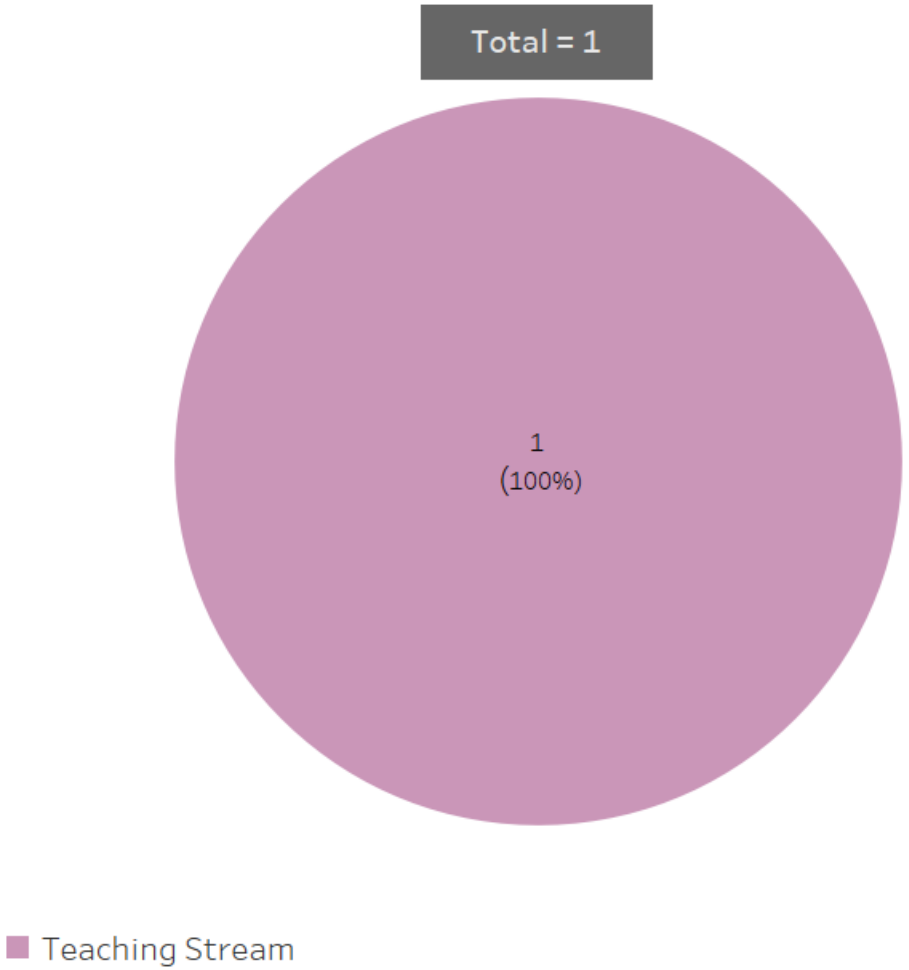
Professorial - Black
Professorial - Black or Indigenous
Professorial - Indigenous CRCs
Professorial - Indigenous
Professorial - CRCs
Professorial - Other

Source: Office of the P&VPA

Breakdown of 2024-25 Teaching Stream Tenure Track Appointment Authorized To Date (as of Nov. 1, 2023)

Institutional

24-25 Authorized Appointments: Teaching Stream Breakdown



By Faculty

24-25 Authorized Appointments: Teaching Stream Breakdown

Source: Office of the P&VPA

Appendix - Complement Update Tenure Track Appointments Starting 2023-24

Tenure Stream Faculty Complement (Heads) and Breakdown of Appointments and Departures by Faculty for 2009-2010 to 2023-2024 (per October 1, excluding Librarians)

Total Tenure Stream Faculty Complement (excluding Librarians)

2008 (Base Year)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (prelim)
1424	1379	1364	1368	1382	1389	1368	1362	1381	1391	1413	1496	1535	1544	1,570	1588

Tenure Stream Faculty Complement (Heads) by Faculty, 2009-2010 to 2023-24 (October 1 to October 1) (excluding

New Tenure Stream Appointments by Faculty Breakdown

Faculty	New Appts. @ Oct. 1, 2009	New Appts. @ Oct. 1, 2010	New Appts. @ Oct. 1, 2011	New Appts. @ Oct. 1, 2012	New Appts. @ Oct. 1, 2013	New Appts. @ Oct. 1, 2014	New Appts. @ Oct. 1, 2015	New Appts. @ Oct. 1, 2016	New Appts. @ Oct. 1, 2017	New Appts. @ Oct. 1, 2018	New Appts. @ Oct. 1, 2019	New Appts. @ Oct. 1, 2020	New Appts. @ Oct. 1, 2021	New Appts. @ Oct. 1, 2022 (prelim)	New Appts. @ Oct. 1, 2023 (prelim)	Totals
LA&PS	5	2	12	17	17	10	9	20	20	18	38	34	23	31	32	288
AMPD	1	0	2	4	1	2	1	2	2	2	10	9	6	4	5	51
Education	4	1	1	4	0	1	2	0	1	3	4	4	2	2	4	33
EUC	0	0	0	3	1	1	3	2	0	1	0	20	2	3	0	36
Glendon	2	0	1	2	2	3	5	8	4	4	9	5	3	0	1	49
Health	1	6	5	11	0	3	2	10	9	14	35	8	6	14	11	135
Lassonde					76	10	7	10	11	11	10	6	7	17	3	168
Osgoode	1	1	4	1	3	2	3	2	4	5	3	2	3	3	0	37
Schulich	1	0	2	1	3	3	4	0	5	5	8	2	4	0	2	40
Science	0	3	10	6	4	3	5	7	6	7	13	10	10	5	11	100
Total:	**15**	**13**	**37**	**49**	**107**	**38**	**41**	**61**	**62**	**70**	**130**	**100**	**66**	**79**	**69**	**937**

Departures - by Faculty Breakdown

Faculty	Departures @ Oct. 1, 2009	Departures @ Oct. 1, 2010	Departures @ Oct. 1, 2011	Departures @ Oct. 1, 2012	Departures @ Oct. 1, 2013	Departures @ Oct. 1, 2014	Departures @ Oct. 1, 2015	Departures @ Oct. 1, 2016	Departures @ Oct. 1, 2017	Departures @ Oct. 1, 2018	Departures @ Oct. 1, 2019	Departures @ Oct. 1, 2020	Departures @ Oct. 1, 2021	Departures @ Oct. 1, 2022 (prelim)	Departures @ Oct. 1, 2023 (prelim)	Totals
LA&PS	24	11	16	16	15	25	17	12	15	22	18	40	19	20	19	289
AMPD	6	3	0	4	5	4	5	6	7	2	4	3	8	8	4	69
Education	0	0	1	5	0	3	2	2	2	2	3	1	2	3	4	30
EUC	3	1	3	0	2	3	0	2	0	2	2	0	3	4	0	25
Glendon	8	1	2	1	4	5	3	4	3	2	3	0	6	7	5	54
Health	8	6	3	2	1	6	5	6	6	6	5	4	9	4	8	79
Lassonde						1	2	3	7	2	1	2	6	2	2	28
Osgoode	2	2	1	0	4	2	2	3	5	3	0	2	1	2	2	31
Schulich	2	1	1	4	0	5	2	2	5	4	4	4	0	0	3	37
Science	7	3	6	3	69	5	9	2	2	3	7	5	3	3	4	131
Total:	**60**	**28**	**33**	**35**	**100**	**59**	**47**	**42**	**52**	**48**	**47**	**61**	**57**	**53**	**51**	**773**

Source: Office of the P&VPA

November 2023

Ratio: Undergraduate FTE / Tenure Stream FTE

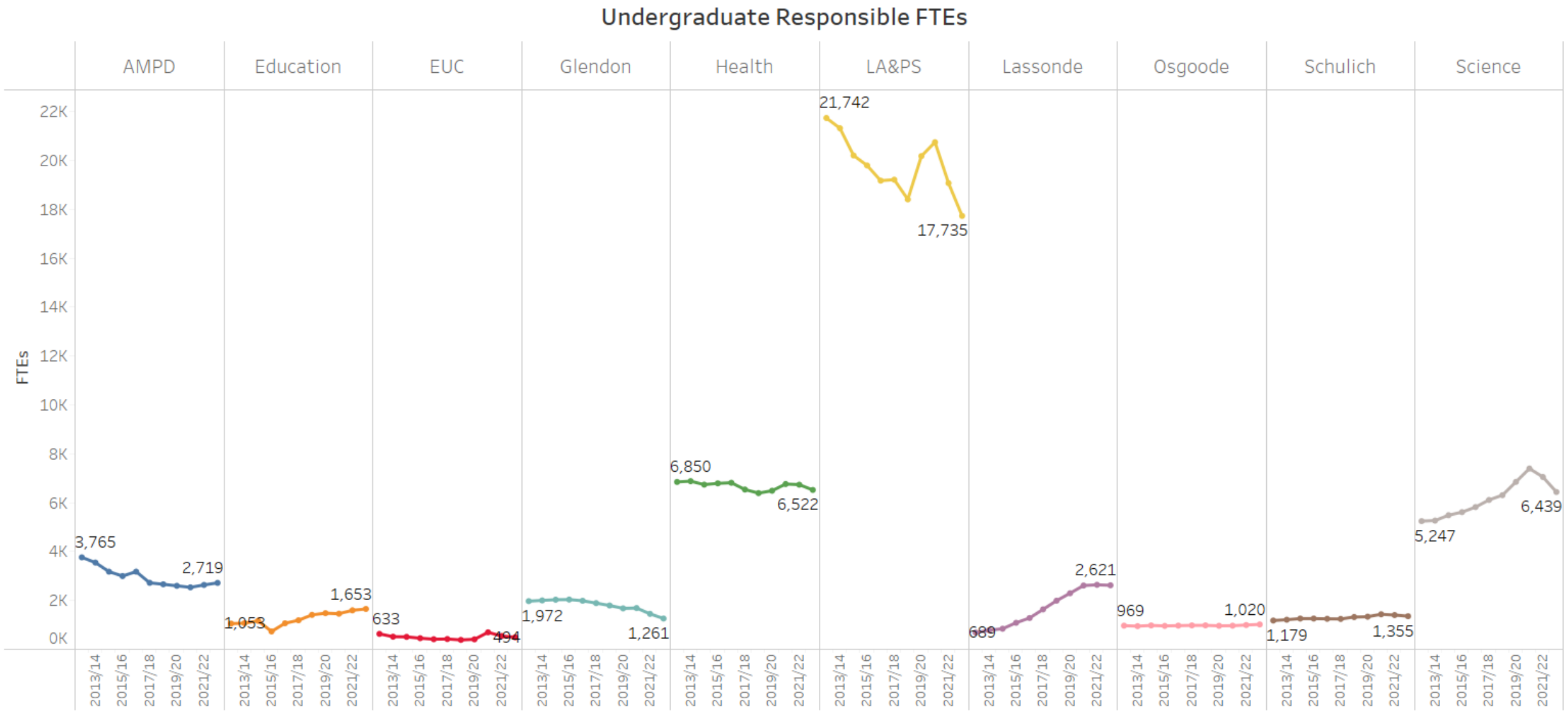
	YEAR										
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
AMPD	31.9	30.45	27.8	27.13	29.98	27.05	26.97	25.07	23.04	24.06	26.02
Education	22.85	22.66	25.48	15.87	23.99	29.9	34.4	34.5	32.18	33.92	35.47
Environmental and Urban Change	17.44	13.3	13.69	11.51	10.58	11.61	10.92	11.98	12.84	11.01	10.01
Glendon	24.23	25.21	26.11	26.15	24.2	22.76	21.65	19.2	18.84	16.18	14.85
Health	43.77	43.25	42.74	44.1	42.9	41.52	39.24	34.33	34.48	34.13	32.4
LAPS	39.44	38.16	36.62	36.27	35.08	35.78	34.73	36.88	38.16	34.69	31.7
Lassonde	10.7	10.81	10.36	12.53	13.62	16.98	19.03	20.5	22.09	21.64	19.4
Osgoode	18.74	18.18	18.66	18.24	18.21	19.08	18.77	17.08	17.92	18.16	17.95
Schulich	14.24	14.33	14.94	14.8	14.84	15.51	16.4	15.64	16.68	16.02	15.71
Science	37.99	37.77	39.43	41.3	41.9	43.75	43.81	46.15	48.29	44.44	39.79
Total	33.38	32.43	31.73	31.43	31.26	31.88	31.4	31.6	31.93	30.13	28.23

Ratio: Total (Undergraduate + Graduate) FTE / Tenure Stream FTE

	YEAR										
	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
AMPD	35.07	33.67	30.63	30	32.97	30.27	30.35	28.15	25.96	26.72	28.6
Education	27.17	26.66	29.82	20.1	28.58	35.77	40.27	39.86	36.85	38.22	40.05
Environmental and Urban Change	25.64	21.06	22.09	19.42	18.19	19.21	18.73	18.87	17.72	15.8	14.58
Glendon	25.68	27.02	28.04	27.7	25.58	24.13	22.93	20.21	20.09	17.24	16.06
Health	47.1	46.46	46.01	47.54	46.08	44.7	42.41	36.97	37.01	36.74	35.16
LAPS	42	40.65	39.11	38.89	37.6	38.42	37.56	39.59	40.89	37.55	34.47
Lassonde	12.87	12.87	12.46	14.6	15.71	19.44	21.84	23.68	25.33	25.11	22.68
Osgoode	22.65	22.58	24.07	23.6	24.24	25.01	24.77	23.41	25.82	25.34	24.58
Schulich	25.04	24.56	25.81	25.26	25.7	27.16	28.11	27.8	28.87	28.16	26.91
Science	40.67	40.41	42.03	44.12	44.57	46.39	46.42	48.67	50.71	47.11	42.12
Total	36.79	35.79	35.17	34.9	34.69	35.44	35.08	35.15	35.46	33.69	31.65

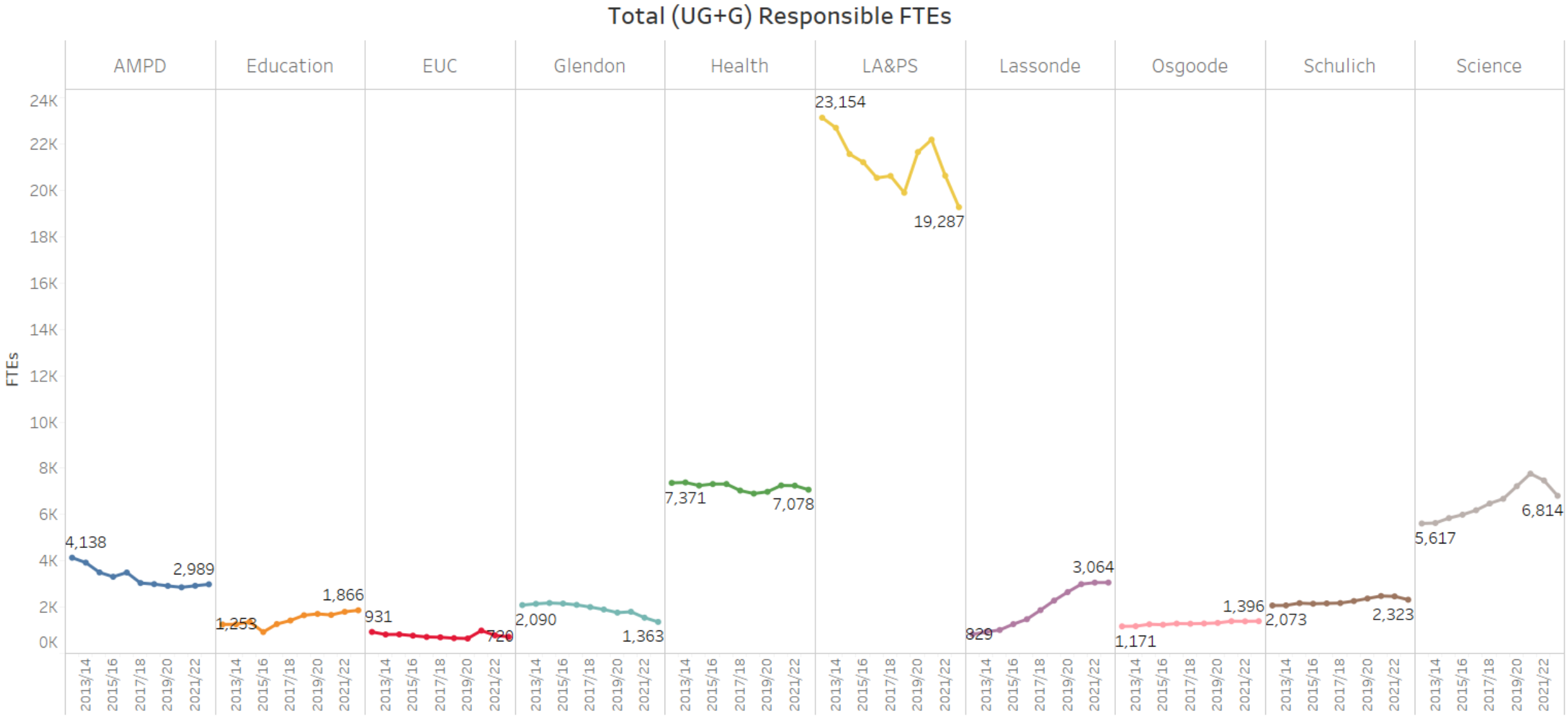
Source: OIPA MCU Enrolment Reporting and Full-time Faculty File

Undergraduate Responsible FTEs breakdown by Faculty, 2012-13 to 2022-23



61 Source: OIPA MCU Enrolment Reporting

Total Responsible FTEs breakdown **by Faculty**, 2012-13 to 2022-23



Source: OIPA MCU Enrolment Reporting

Complement: Details on 2023-24 Tenure Track Appointments Made to Date (As of Nov. 1, 2023)

FACULTY	Tenure Track (professorial) Authorized for 2023-24	Tenure Track (teaching) Authorized for 2023-24	Total Authorized 2023-24	Total 2023-24 Appointments Made to Date	Total Professorial Stream Appointments Made to Date	Total Teaching Stream Appointments Made to Date	Total 2023-24 Appointments In Progress	Total 2023-24 Appointments Failed/Cancelled / Delayed
AMPD	7	0	7	5	5	0	0	2
ED	3	1	4	4	3	1	0	0
EUC	0	0	0	0	0	0	0	0
GL	1	1	2	1	0	1	0	1
HH	14	3	17	12	9	3	0	5
LAPS	39	6	45	33	28	5	3	9
LIB	5	0	5	2	2	0	0	3
LSE	8	3	11	4	2	2	1	6
OSG	0	0	0	0	0	0	0	0
SCI	14	2	16	12	10	2	1	3
SSB	3	0	3	2	2	0	0	1
TOTALS	94	16	110	75	61	14	5	30

Source: Office of the P&VPA

November 2023

2023-24 Tenure Track Appointments Made to Date (Nov. 1 2023): Immigration and Equity Status

FACULTY	APPTS MADE (to date)	MALE	FEMALE*	CANADIAN	INTERNA-TIONAL	VISIBLE MINORITY/ RACIALIZED *	DISABILITY*	ABORIGINAL/ INDIGENOUS*	2SLGBTQ+*
AMPD	5	1	4	5	-	2	-	-	2
Education	4	2	2	4	-	-	-	-	-
EUC	0	-	-	-	-	-	-	-	-
Glendon	1	-	1	1	-	-	-	-	-
Health	12	5	7	11	1	5	-	-	-
LAPS	33	15	16	24	9	20	-	-	11
Libraries	2	1	1	2	-	-	-	-	-
Lassonde	4	2	2	4	-	2	-	-	-
Osgoode	0	-	-	-	-	-	-	-	-
Science	12	8	4	10	2	6	-	-	-
Schulich	2	1	1	2	-	-	-	-	-
TOTAL	75	35	38	63	12	36	2	3	16

Note. *Equity statistics are based on self-identification in the hiring process; self-identification may be in more than one category. Not all intersectional self-identifications could be broken out for confidentiality reasons.

Note: Two appointee identify as non-binary gender.

Source: Office of the P&VPA

Trends 2010-11 to 2023-24: Tenure Track Appointments Made to Date (Nov. 1, 2023): Gender Breakdown

APPT. YEAR	MALE		FEMALE		TOTAL APPTS.
2010-11	5	35.7%	9	64.3%	14
2011-12	26	65%	14	35%	40
2012-13	26	47%	29	53%	55
2013-14	23	64%	13	36%	36
2014-15	22	51%	21	49%	43
2015-16	16	35.7%	26	64.3%	42
2016-17	45	67%	22	33%	67
2017-18	30	50%	30	50%	60
2018-19	32	42%	44	58%	76
2019-20	57	44%	74	56%	131
2020-21	29	37%	49	63%	78
2021-22	28	37.8%	45	61%	74
2022-23	37	49.3%	38	50.7%	75
2023-24	35	46.6%	38	50.7%	75
TOTAL	411	47.4%	452	52%	866

Note: One 2021-22 appointee and two 2023-24 appointees identify as non-binary gender.

Source: Office of the P&VPA

November 2023

Trends 2010-11 to 2023-24: Tenure Track Appointments Made to Date (Nov. 1, 2023): Immigration and Equity Status

APPT. YEAR	CANADIAN		INTERNA-TIONAL		VISIBLE MINORITY/ RACIALIZED*		DISABILITY*		ABORIGINAL/ INDIGENOUS*		2SLGBTQ+*		TOTAL APPTS
2010-11	13	92.9%	1	7.1%	4	28.6%	0	0%	0	0%			14
2011-12	34	85%	6	15%	12	30%	2	5%	1	2.5%			40
2012-13	44	80%	11	20%	14	25.4%	0	0%	1	1.8%			55
2013-14	33	91.7%	3	8.3%	12	33%	3	8%	0	0%			36
2014-15	36	83.7%	7	16.3%	4	9.3%	0	0%	2	4.6%			43
2015-16	37	88.1%	5	11.9%	9	21.4%	1	2.4%	0	0%			42
2016-17	60	89.6%	7	10.4%	17	25.4%	2	3%	2	3%			67
2017-18	55	91.7%	5	8.3%	13	21.6%	3	5%	3	5%			60
2018-19	69	90.8%	7	9.2%	23	30.2%	6	8%	2	3%			76
2019-20	113	86.3%	18	13.7%	41	31.5%	9	7%	7	5.4%			131
2020-21	66	84.6%	12	15.4%	33	42.3%	4	5%	2	2.5%			78
2021-22	59	79.7%	15	20.3%	41	55.4%	10	13.5%	5	6.7%			74
2022-23	55	73%	20	27%	37	49%	6	8%	3	4%			75
2023-24	63	84%	12	16%	36	48%	2	2.7%	3	4%	16	21.3%	75
TOTAL	736	85%	128	15%	296	34%	48	5.5%	31	3.6%	16	1.8%	866

*Equity statistics are based on self-identification in the hiring process, self identification may be in more than one category.

Source: Office of the P&VPA

November 2023

2023-24 New Contractually Limited Appointments Made to date (Nov. 1, 2023): Immigration and Equity Status

FACULTY	NEW APPTS MADE	CANADIAN	INTERNA-TIONAL	MALE	FEMALE*	VISIBLE MINORITY/ RACIALIZED*	DISABILITY*	ABORIGINAL /INDIGENOUS*	2SLGBTQ+
AMPD	3	2	1	1	2	-	-	-	-
Education	-	-	-	-	-	-	-	-	-
EUC	-	-	-	-	-	-	-	-	-
Glendon	1	1	-	1	-	-	-	-	-
Health	5	5	-	-	5	4	-	-	-
LAPS	-	-	-	-	-	-	-	-	-
Libraries	1	1	-	-	1	-	-	-	-
Lassonde	-	-	-	-	-	-	-	-	-
Osgoode	1	1	-	-	1	-	-	-	-
Schulich	-	-	-	-	-	-	-	-	-
Science	1	1	-	-	1	-	-	-	-
TOTAL	12	11	1	2	10	6	1	0	3

*Equity statistics are based on self-identification in the hiring process; self identification may be in more than one category. Not all intersectional self-identifications could be broken out for confidentiality reasons. Source: Office of the VPA&P November 2023

Trends 2010-11 To 2023-24: New Contractually Limited Appointments: Gender Breakdown

APPT. YEAR	MALE		FEMALE		TOTAL APPTS.
2010-11	18	51.4%	17	48.6%	35
2011-12	8	38.1%	13	61.9%	21
2012-13	16	35%	30	65%	46
2013-14	9	36%	16	64%	25
2014-15	13	36%	23	64%	36
2015-16	6	50%	6	50%	12
2016-17	6	35.3%	11	64.7%	17
2017-18	7	35%	13	65%	20
2018-19	8	47%	9	53%	17
2019-20	6	55%	5	45%	11
2020-21	1	25%	3	75%	4
2021-22	6	40%	9	60%	15
2022-23	8	53%	7	47%	15
2023-24	2	17%	10	83%	12
TOTAL	114	40%	172	60%	286

Source: Office of the P&VPA

November 2023

Trends 2013-14 to 2023-24: Equity Status

APPT. YEAR		FEMALE		VISIBLE MINORITY/ RACIALIZED*		DISABILITY*		ABORIGINAL/ INDIGENOUS*		TOTAL APPTS
2013-14	TS	13	36%	12	33%	3	8.3%	0	0%	36
	CLA	16	64%	6	24%	0	0%	0	0%	25
2014-15	TS	21	49%	4	9.3%	0	0%	2	4.6%	43
	CLA	23	64%	9	25%	3	8.3%	1	2.7%	36
2015-16	TS	26	61.9%	9	21.4%	1	2.4%	0	0%	42
	CLA	6	50%	5	41.6%	0	0%	0	0%	12
2016-17	TS	22	33%	17	25.4%	2	3%	2	3%	67
	CLA	11	64.7%	7	41%	1	6%	1	6%	17
2017-18	TS	30	50%	13	21.6%	3	5%	3	5%	60
	CLA	13	65%	8	40%	1	5%	0	0%	20
2018-19	TS	44	58%	23	30%	6	8%	2	2.6%	76
	CLA	9	53%	6	35%	0	0%	0	0%	17
2019-20	TS	74	56%	41	31.5%	9	6.9%	7	5.3%	131
	CLA	5	45%	4	36%	0	0%	0	0%	11
2020-21	TS	49	63%	34	44%	4	5%	2	3%	78
	CLA	3	75%	0	0%	1	25%	0	0%	4
2021-22	TS	45	61%	41	55.4%	10	13.5%	5	6.7%	74
	CLA	9	60%	6	40%	2	13%	0	0%	15
2022-23	TS	38	51%	36	48%	6	8%	3	4%	75
	CLA	7	47%	8	53%	4	27%	0	0%	15
2023-24	TS	38	51%	36	48%	2	2.7%	3	4%	75
	CLA	10	83%	6	50%	1	8.3%	0	0%	12
TOTALS	TS	400	52.8%	266	35.1%	46	6.1%	29	3.8%	757
	CLA	112	60.9%	65	35.3%	13	7.1%	2	1.1%	184

*Equity statistics are based on self-identification in the hiring process; self identification may be in more than one category.

Source: Office of the P&VPA

November 2023

Complement: Breakdown of 2024-25 Authorized Tenure Track Appointments To Date (As of Nov. 1, 2023)

FACULTY	Professorial Stream	Indigenous (Professorial)	Black (Professorial)	Black or Indigenous (Professorial)	Canada Research Chairs (Professorial)	Indigenous Canada Research Chairs (Professorial)	Total Professorial Stream	Teaching Stream	Total Teaching Stream	Overall Total Authorized to date
LAPS	3	1			2		6		0	6
AMPD	2					1	2		0	2
ED	3						3		0	3
EUC	0						0		0	0
GL	0						0		0	0
HH	2	1	1		1	2	7	1	1	8
LSE	3				2		5		0	5
OSG	2			1	1		4		0	4
SCI	5						5		0	5
SSB	0						0		0	0
LIB	2						2		0	2
TOTAL	22	2	1	1	6	3	35	1	2	36

Note: Of the 36 authorized appointments, 10 are rolled over from 2023-24. All CRC positions are open to women and gender non-conforming.
Source: Office of the P&VPA

Academic Standards, Curriculum and Pedagogy

Report to Senate

Meeting of 23 November 2023

FOR ACTION

a. Establishment of a Cross-Disciplinary Certificate in Mechatronics, Department of Earth & Space Science Engineering, Lassonde School of Engineering.

ASCP recommends:

> **that Senate approve the establishment of a Cross-Disciplinary Certificate in Mechatronics, housed in the Department of Earth & Space Science Engineering, Lassonde School of Engineering, effective FW2024.**

Rationale

The full proposal and supporting documentation are available in Appendix A. Mechatronics is a fast-growing multidisciplinary segment in the engineering discipline. It is typically the combination of four separate engineering fields: mechanical, electrical, controls and software. The two primary objectives of the Mechatronics Certificate are:

- To improve on the interdisciplinary skill set in mechanical, electrical, control and computer engineering of program graduates, and
- To provide broader marketability of the program graduates.

The first objective will be achieved with the skills gained through the certificate courses and in particular the two new mechatronics courses, which will focus on sensors and actuators and the integration of the systems to achieve an engineering objective. Experiential learning will be a focus and students will be challenged to devise solutions to real engineering problems. The second objective will be met through demonstration to employers of the skill set possessed by students graduating with the Mechatronics Certificate.

Graduates with the Mechatronics Certificate are in high demand in industries such as aerospace, automotive, chemical processing, robotics, manufacturing, mining, communications, medical and health care.

The proposed new certificate is well aligned with the UAP and the SMA performance metrics including, but not limited to, experiential learning, research funding and capacity, and research revenue attracted from private sector sources.

The initial launch of this certificate will be offered concurrently with the Space Engineering degree program, the curriculum of which aligns closely with the components of mechatronics, where space missions incorporate each of these disciplines. A 2020 survey of space engineering undergraduate students revealed their significant interest in having a mechatronics component added into the program. The Mechatronics

engineering job market is expected to grow by 6.4% by 2026. The Mechatronics proposal was strongly supported and recommended by external reviewers in their recently completed ESSE department Cyclical Program Review.

The projected in-take for the Mechatronics Certificate is between 20-25 students for the Fall/Winter 2024–2025 academic session, with a planned steady-state enrollment of 50 students for those entering the program through the ESSE Engineering streams.

The structure of the Space Engineering degree program is heavy, requiring a high number of credits for degree completion, and leaving little room for additional credits. As such, the proposed certificate requires completion of a combination of in-degree and unique credits. The structure of the proposed certificate is similar to that of other Lassonde certificates, including the Bergeron Entrepreneurs in Science and Technology Certificate.

Approvals: LSE FC 15 September 2023; ASCP 1 November 2023; APPRC 16 November 2023

b. Addition of a Co-op option to Bachelor of Environmental Studies (BES), and Bachelor of Arts (BA) degree programs in Faculty of Environmental and Urban Change.

ASCP recommends:

that Senate approve the addition of a Co-op option to the Honours Bachelor of Environmental Studies and Honours Bachelor of Arts degree programs housed in the Faculty of Environmental and Urban Change as set out below, effective FW2024:

- **Honours BES in Environmental Arts and Justice**
- **Honours BES in Sustainable Environmental Management**
- **Honours BES in Cities, Regions, and Planning**
- **Honours BA in Global Geography**

Rationale

The full proposal and supporting documentation are in Appendix B. The proposed Co-op option for the undergraduate degree programs in EUC include at least 12 months of paid employment comprising at least two periods of work, interspersed with study that begins and ends at the University. EUC will offer the program in collaboration with the University's career centre. The multiple work periods featured in co-op programs allow students to integrate their work experience and academic knowledge on an ongoing basis, rather than in one period.

The co-op program is proposed as an option so that a single structure can be implemented for all associated programs, while allowing a student's participation in the program to be recorded on their transcript.

The program structure provides students an opportunity to apply skills learned in the classroom, and to gain work experiences. Students will receive career skills workshops in preparation for their jobs, on-the-job evaluation and workplace monitoring by work managers and university staff, and assessment of work reports by academic staff. Employers also benefit from co-op programs by accessing highly talented individuals early in their programs.

Co-op programs are in high demand from students and their parents and their availability is one of the most frequently asked questions at recruiting and information events. Further, other universities (e.g., Waterloo, Guelph, McMaster) offer well-developed co-op programs. Surveys of all first-year students show that 32% chose a university program primarily because of the availability of co-op or internship.

Alignment with the University Academic Plan includes but is not limited to building 21st century skills into our programs; providing more experiential education opportunities; and aligning programs with labour market needs. Learning outcomes for the proposed Co-op option are aligned with exiting learning outcomes of the relevant undergraduate programs.

The Co-op option will have limited impact on administrative resources.

Approvals: EUC Faculty Council 19 October 2023; ASCP 15 November 2023

Consent Agenda

For Information

c. Minor Modifications

The following minor modifications to degree requirements were approved by ASCP:

Education

- Changes in course options in the Graduate Diploma in Postsecondary Education, Types 2 & 3, effective F2024. (ASCP 18 October).

Faculty of Graduate Studies

- Faculty Regulations: changes to thesis and dissertation remote defences, effective May 2024 (ASCP 1 November).

Health

- Changes to course requirements for the Disciplinary Certificate in Counselling & Mental Health, department of Psychology, effective F2024 (ASCP 1 November).

ASCP – Report to Senate

Lassonde

- Changes to degree requirements for the B.Eng Space Engineering program, department of Earth & Space Science Engineering, effective F2024 (ASCP 1 November).

Arts, Media, Performance & Design

- Changes to degree requirements for the Honours Minor in Theatre BA degree program, effective FW2024 (ASCP 15 November 2023).
- Changes to degree requirements for the Specialized Honours BFA Cinema & Media Arts degree program, effective FW2024 (ASCP 15 November 2023).

Environmental & Urban Change

- Change to the minimum number of terms required for completion of the full-time MES degree program, effective F2024 (ASCP 15 November 2023).

Office of the University Registrar

- Change to rubric for joint York – Toronto Metropolitan University programming and within administrative systems and academic calendars from RYER to TMET

d. ASCP 2023-2024 Priorities Update

- *Sessional Dates*: Following the motion passed at June 2023 Senate for review of equal class meets per term, in relation to proposed future sessional dates, ASCP and the Office of the University Registrar will consult on the matter (in the near future) with relevant associate deans. An update will be provided at a future S
- *Academic Conduct Policy*: ASCP concluded its work on the draft academic conduct policy and the document is now with the Senate Appeals Committee for comments/concurrence; the Committee anticipates bringing the draft policy to Senate in early 2024.
- *Grading Schemes*: Collaborating with the Office of the University Registrar, the Committee continues its work to advance implementation of the new grading schemes.
- ASCP will provide a comprehensive list of priorities/status updates at the January meeting of Senate.

Cross-Disciplinary Certificate in Mechatronics (Concurrent)

Department of Earth & Space Science Engineering, Lassonde School of Engineering

Approved by the Department: May 9, 2023

Approved at Lassonde Faculty Council September 15, 2023; effective F2024

Certificate in Mechatronics

Department of Earth & Space Science Engineering Lassonde School of Engineering

Table of Contents

Undergraduate Certificate Proposal: Certificate in Mechatronics

1. Introduction

1.1 Provide a brief statement of the undergraduate certificate being proposed, including category, and indicate the parent program and/or unit in which the undergraduate certificate will be administratively housed.

Cross-Disciplinary Certificate in Mechatronics (Concurrent)

Mechatronics as a field is typically seen as the combination of four separate engineering fields: mechanical and electrical (as the name alludes to) as well as controls and software. The certificate will be offered by the Earth & Space Science & Engineering (ESSE) department in the Lassonde School of Engineering initially to Space Engineering (SE) students, with plans to offer the certificate in other engineering streams within and beyond the ESSE department. The initial launch of this certificate will run concurrently with the Space Engineering degree program.

1.2 Comment on the appropriateness and consistency of the undergraduate certificate name with current usage in the discipline or area of study, as appropriate.

The term “Mechatronics” is an increasingly recognizable term for engineering which blends mechanical, electrical, controls and software. Below is a list of the Mechatronic programs used by other academic institutions offered in Ontario:

- McMaster University offers a B.Eng in Mechatronics Engineering
- University of Waterloo offers a B.A.Sc. in Mechatronics Engineering
- Ontario Tech University offers a B.E.Sc. in Mechatronics Systems Engineering
- University of Toronto offers a Mechatronics and Systems Control Stream
- Ryerson University offers a Mechatronics Option for Mechanical Engineering students
- Humber Institute of Technology and Advanced Learning offers a BEng in Mechatronics.

2. General Objectives of the Undergraduate Certificate

2.1 Provide a brief description of the general objectives of the undergraduate certificate.

The two primary objectives of the Mechatronics Certificate are:

i. To improve on the interdisciplinary skill set in mechanical, electrical, control and computer of program graduates
ii. To provide broader marketability of the program graduates.

The first objective will be achieved with the skills gained through the certificate course and in particular the two new mechatronics courses that will be added, that will have a specific focus on sensors and actuators and the integration of the systems to achieve an engineering objective. Experiential learning will be a focus and students will be challenged to devise solutions to real engineering problems. The second objective is to provide a clearer demonstration to employers of the skill set possessed by students graduating with the Mechatronics Certificate.

Mechatronics is a fast-growing multidisciplinary segment of the engineering field. Rather than embrace traditional divisions of engineering as distinct entities, the mechatronics combines mechanical engineering, electrical engineering, control engineering, and computing engineering. The result is the unification of principles from the various disciplines to create a more economic, reliable, and simplified system. Graduates with the Mechatronics Certificate are in high demand and can find work in a wide variety of fields. They can work in research and development, technical sales, project management, planning, and technical writing. They can also work in various industries such as aerospace, automotive, chemical processing, robotics, manufacturing, mining, communications, medical and health care. The Mechatronics Certificate, as the first step, answers the growing demand for highly trained personnel in mechatronics – making the certificate extremely relevant now and in the future.

2.2 Describe how the general objectives of the undergraduate certificate align with University and Faculty missions and academic plans.

Consistent with York University's 2015-20 and new 2020-25 University Academic Plans, York has expanded its program offerings in areas of increasing need in Ontario - health sciences, engineering, computer science and technology, digital media and business and professional programs. Mechatronics is a multidisciplinary field of engineering. It is well aligned with UAP and SMA performance metrics including but not limited to:

- Graduate employment rate in a related field
- Institutional strength and focus
- Graduate employment earnings
- Experiential learning
- Research funding and capacity
- Research revenue attracted from private sector sources

This current Mechatronics certificate will provide a framework for other engineering programs to offer the certificate for their students enrolled in BEng. In such cases and in supportive collaboration with ESSE, the requirements will be adopted and extended following review and approval procedures in place at York University.

The certificate program will help the Lassonde School of Engineering evaluate the viability of offering a standalone Mechatronics Engineering program in the future. This certificate will provide a curriculum foundation for developing such a program.

3. Need and Demand

3.1 **Comment on similar undergraduate certificates offered at York, with special attention paid to any innovative and distinguishing aspects of the proposed undergraduate certificate.**

The Bergeron Entrepreneurs in Science and Technology (BEST) Certificate in Technology Entrepreneurship operated out of the Department of Mechanical Engineering provides some structural similarities, although not curricular, similarities to the proposed Mechatronics Certificate. The BEST certificate offers a path to students that requires no additional credits beyond the undergraduate engineering degree (as allowed by the crossdisciplinary certificate senate policy), with careful selection of complementary studies courses, taking into account the heavy course load and structure already imposed by the degree. The BEST Certificate integrates multidisciplinary courses from different faculties at York University (Business courses at Schulich School of Business; Law course at Osgoode Law School, and Design, Tech and Innovation courses at Lassonde School of Engineering). The Mechatronics Certificate would adopt a similar strategy and framework, with 8 credits required beyond their undergraduate degree, to eventually allow the certificate to be available to most Lassonde programs, where the students complete their chosen degrees as normal while establishing a certificate pathway whereby students strategically select their required technical elective courses in alignment with the Mechatronics curriculum.

3.2 **Provide brief description of the need and demand for the proposed undergraduate certificate, focusing as appropriate on student interest, social need, potential employment opportunities for graduates, and/or needs expressed by professional associations, government agencies or policy bodies.**

In March 2020 a survey was conducted with current space engineering undergraduate students, with questions focusing specifically on Mechatronics programs/certificates/options. When asked, 68% of students responded that they were either interested or very interested in having a mechatronics component added into the program while 26% of students were unsure as to whether this would be of interested and would require additional information. Respondents outlined their reasons for interests as being due to the transferrable skills of mechatronics (37%) followed by being more employable (29%).

The ESSE department has worked with the Office of Institutional Planning and Analysis (OIPA) on the labour market and student demand analysis for ESSE's current and future programs, including mechatronics. Labour market information was summarized through two sources: *Ontario's Labour Market Job Profile* tool and the *Canadian Occupational Projection System (COPS)* summary tool. The OIPA analysis shows that *Mechatronics jobs and degrees have a small share of labour demand, but the Mechatronic term has had an uptick in job postings* (presentation made by OIPA on October 15, 2019). In the United States, there are currently an estimated 132,500 mechatronics engineers. The mechatronics engineering job market is expected to grow by 6.4% between 2016 and 2026.

The ESSE department recently completed their Cyclical Program Review (CPR). The Mechatronics Certificate program was included in our self-study as one of the future plans for the department/program growth. The Mechatronics Certificate was strongly supported and recommended by the external reviewers to proceed as a priority.

3.3 **Comment on the projected in-take into the undergraduate certificate, including the anticipated implementation date (i.e. year and term of initial in-take) and steady-state enrolment.**

The projected in-take into the Mechatronics Certificate would be 20-25 students for the Fall/Winter 2024-2025 academic session, with a steady-state enrollment of 50 students for those entering the program through the ESSE Engineering streams.

4. Curriculum, Structure and Learning Outcomes

4.1 **Describe the undergraduate certificate requirements and associated learning outcomes, including explicit reference to how the certificate curriculum and structure supports achievement of the learning outcomes.**

The program learning outcomes for the Mechatronics Certificate are:

1. Understand the physical principles governing mechatronic components along with their design, assembly, and intended application.
2. Design and select a mechatronics component to meet specifications considering health and safety, economics, and the environment.
3. Apply knowledge of mechatronics components to design, analyze, and create mechatronic systems for the solution of complex engineering problems.
4. Apply appropriate engineering tools and techniques from electrical, mechanical, control, and software engineering domains for the creation and validation of mechatronics systems.
5. Communicate mechatronics concepts and engineering solutions effectively through reports and presentations.
6. Collaborate efficiently and effectively as a member and a leader of diverse multidisciplinary teams.

General Requirements for the Mechatronics Certificate are:

1. Students enrolled in the Space Engineering undergraduate program*.
2. Choose at least 14 credits (four courses) from the technical electives
    a. Two courses (8 credits) must be LE/ESSE 3380 4.00 Introduction to Mechatronics and LE/ESSE 4380 4.00 Mechatronics Systems and Design.
    b. Two courses must be chosen from LE/ENG 4650 3.00 Feedback Control Systems, LE/ESSE 3320 3.00 Microelectromechanical Systems, and LE/EECS 4421 3.00 Introduction to Robotics.

Note: Students who do not pursue Mechatronics Certificate will only need to choose 6 credits (2 courses) from the technical elective pool. Students who choose to take the Mechatronics Certificate are therefore required to take 8 additional credits, beyond the requirements of the Space Engineering undergraduate program.

*The Space Engineering program already has a strong curriculum foundation in electrical, software, control, and mechanical systems, and is a well suited to offer a Mechatronics certificate. Proposed changes to the common Space Engineering program (in support of the Mechatronics Certificate) would strengthen its mechanical and CAD foundation. This includes the addition course: LE/MECH 3409 3.00 Machine Elements Design. The laboratory experiences within the courses for the Mechatronics Certificate curriculum will satisfy the desired experiential learning outcomes.

Mechatronics Certificate program learning outcomes mapped to courses:

1. Understand the physical principles governing mechatronic components along with their design, assembly, and intended application.
    - LE/ESSE 3380 4.00 Introduction to Mechatronics
    - LE/MECH 3409 3.00 Machine Elements Design
    - LE/MECH 3302 3.00 Mechanisms for Mechanical Systems
    - LE/ESSE 4370 3.00 Finite Element Methods in Engineering Design
    - SC/PHYS 3050 3.00 Electronics I
    - SC/PHYS 3150 3.00 Electronics II
2. Design and select a mechatronics component to meet specifications considering health and safety, economics, and the environment.
    - LE/ESSE 3380 4.00 Introduction to Mechatronics
3. Apply knowledge of mechatronics components to design, analyze, and create mechatronic systems for the solution of complex engineering problems.
    - LE/MECH 2302 3.00 Dynamics
    - LE/MECH 2401 3.00 Engineering Graphics & CAD Modelling
    - LE/MECH 3302 3.00 Mechanisms for Mechanical Systems
    - LE/ESSE 3380 4.00 Introduction to Mechatronics
    - LE/ESSE 4380 4.00 Mechatronics Systems and Design
    - (Optionally) LE/ESSE 3320 3.00 Microelectromechanical Systems
4. Apply appropriate engineering tools and techniques from electrical, mechanical, control, and software engineering domains for the creation and validation of mechatronics systems.
    - LE/ESSE 3380 4.00 Introduction to Mechatronics
    - LE/ESSE 4380 4.00 Mechatronics Systems and Design
    - LE/ENG 4550 3.00 Introduction to Control Systems
    - (Optionally) LE/ENG 4650 3.00 Feedback Control Systems
    - (Optionally) LE/EECS 4421 3.00 Introduction to Robotics

5. Communicate mechatronics concepts and engineering solutions effectively through reports and presentations.

    - LE/ESSE 3380 4.00 Introduction to Mechatronics
    - LE/ESSE 4380 4.00 Mechatronics Systems and Design
    - LE/ENG 4550 3.00 Introduction to Control Systems
    - (Optionally) LE/ENG 4650 3.00 Feedback Control Systems
    - (Optionally) LE/EECS 4421 3.00 Introduction to Robotics
    - (Optionally) LE/ESSE 3320 3.00 Microelectromechanical Systems

6. Collaborate efficiently and effectively as a member and a leader of diverse multidisciplinary teams.
    - LE/ESSE 4380 4.00 Mechatronics Systems and Design
    - (Optionally) LE/ESSE 3320 3.00 Microelectromechanical Systems

4.2 **Address how the methods and criteria for assessing student achievement are appropriate and effective relative to the certificate learning outcomes.**

Students will be assessed through exams, midterms, quizzes, assignments, lab reports and group projects. The certificate learning outcomes strongly focus on applying technical principles, communication and teamwork, which will be largely assessed through assignments, lab reports and group projects. Of the fourteen courses supporting the certificate, eleven have a lab component which require lab reports. Conventional assessments like exams, midterms and quizzes are appropriate to assess the technical principles presented in each course.

4.3 **Provide a list of courses that will be offered in support of the undergraduate certificate. The list of courses must indicate the unit responsible for offering the course (including cross-lists and integrations, as appropriate), the course number, the credit value, the short course description, and whether or not it is an existing or new course. For existing courses, the frequency of offering should be noted. For new courses, full course proposals are required and should be included in the proposal as an appendix.**

The courses in the certificate are offered from ESSE, Mechanical Engineering and EECS departments within Lassonde, and the Physics department from the Faculty of Science, giving it a strong cross-disciplinary flavour.

Course	**Credit / Cross list**	**Short Description**	**Offering Status**
LE/MECH 2401 Engineering Graphics & CAD Modelling	3.00 LE/ESSE	This course discusses technical drawing principles, introduction and application of computer aided design tools, and solid modeling. Simple model parts, which can be assembled together, are fabricated in teams (e.g., using additive technology).	Fall

LE/MECH 2302 Dynamics	3.00	This course covers kinematics and kinetics of rigid body motion based on concepts of force, work, momentum and energy methods; impact; engineering applications are emphasized.	Fall
LE/ESSE 2470 Introduction to Continuum Mechanics	3.00	Introductory tensor algebra and calculus. Stress and strain analysis. Symmetry of stress tensor, equilibrium conditions. Lagrangian and Eulerian descriptions of strain. Physical interpretation of stress, strain and strain rate tensors. Conservation laws in continua. Consistency and compatibility considerations.	Winter
SC/PHYS 3050 Electronics I	3.00	Introduction to physical electronics including DC and AC circuit theory and network analysis; bandpass filter; introduction to the p-n junction and semiconductor devices: diodes, DC power supplies, transistors, analysis and design of basic amplifiers, operational amplifiers. With laboratory exercises.	Fall
LE/MECH 3409 Machine Elements Design	3.00	Introduces methodology for mechanical design of components. It discusses topics including design for static and dynamic loads, failure analysis. fatigue, component design and selection for materials and machine elements, e.g. threaded joints, springs, gears, belt, chain, bearings, etc.	Fall
SC/PHYS 3150 Electronics II	3.00	The concept of feedback and its use in circuits employing operational amplifiers; analysis/design of such circuits, including amplifiers, filters, oscillators, pulse generators; digital concepts and logic circuits with applications to data manipulation (computers) and storage.	Winter
LE/MECH 3302 Mechanisms for Mechanical Systems	3.00	This course covers topics including classifications of mechanisms; velocity, acceleration and force analysis (e.g., for linkages, cranks, sliders, and cams); balancing of rotating and reciprocating machinery; gears and gear-trains; graphical and computer-oriented methods of analysis for mechanisms; applications of different mechanisms in mechanical systems (e.g., engines, manufacturing systems).	Winter
LE/ENG 4550 Introduction to Control Systems	3.00	This course provides an introduction to classical control theory. From a base of dynamic system modeling the course will develop methods for modifying system behavior through feedback so	Fall and Winter

		as to produce desired performance and meet specifications in spite of disturbances and modeling errors. Students are expected to be versed in Linear Algebra, Ordinary Differential Equations, and Complex Variables. Signals and Systems would also be a definite asset.	
LE/ESSE 4370 Finite Element Methods in Engineering Design	3.00	Basic principles of finite element method, variational and weighed residual principle procedures in discretizing and building up governing equations of physical models. Use of industrial FEM codes to understand model response to external effects such as stress, heat, vibration, and fluids.	Winter
LE/ESSE 3380 Introduction to Mechatronics*	4.00	This course serves as an introduction to the fundamental concepts of mechatronics covering sensor and actuator technology. This course is concerned with different types of DC motors, how they are driven electrically, how their motion is measured, how they are controlled, and how they can be used to create motion systems.	New Course in Winter
LE/ESSE 4380 Mechatronic Systems and Design*	4.00	This course covers the principles and applications of sensor and actuator technology in a mechatronics application. This course is concerned with mechatronics systems design for a robotic arm including motor, sensor, and microcontroller selection, kinematics and inverse kinematics, fabrication and assembly, positioning and path planning tasks. Throughout the course, students will construct a robotic arm from components and use it to solve an industrial task.	New Course in Fall
LE/ENG 4650 Feedback Control Systems**	3.00	This course teaches fundamentals of control design and analysis using state-space methods. This includes both the practical and theoretical aspects of the topic. The students are expected to design controllers using state-space methods and evaluate the control performance and validate if these controllers are robust to system uncertainties and external disturbances.	Winter
LE/EECS 4421 Introduction to Robotics**	3.00	An introduction to robotic manipulators and autonomous vehicles. The course covers the kinematics and dynamics of manipulators and autonomous platforms, robot sensors and navigation.	Winter

LE/ESSE 3320 Microsystems Technology**	3.00 SC/PHYS	The course covers the principles and implementations of miniaturized sensors and actuators in a range of physical domains, such as optical, magnetic, thermal, and mechanical systems. Examples include electronic cameras, micro-electro-mechanical systems, thermal microsystems and display technologies.	Winter

* Courses (8 credits) that students must take in order to receive Mechatronics Certificate in addition to the B.Eng. in Space Engineering.
**Courses that students should choose (6 credits) in order to receive Mechatronics Certificate in addition to the B.Eng. in Space Engineering.

Note: Students who do not pursue Mechatronics Certificate will only need to choose 6 credits (2 courses) from the technical elective pool.

4.4 **Describe the proposed mode(s) of delivery, including how it/they are appropriate to and effective in supporting the certificate learning outcomes.**

The certificate focuses on experiential learning due to the fact that mechatronics is a field deeply concerned with application of theory. For example, MECH 2401, PHYS 3050, PHYS 3150, ENG 4550, ENG 4650, ESSE 4370 all have a substantial lab component associated with them. In addition, the two new courses ESSE 3380 and 4380 employ reduced in course hours in order to focus on the laboratory component where students progress from working with basic components to designing and building full mechatronics systems in a guided manner.

5. Admission Requirements

5.1 **Confirm that students engaging in the undergraduate certificate will have been admitted to and registered in an undergraduate program(s), or, for direct-entry undergraduate certificates, describe the admission requirements. For all types, address how the admission requirements are appropriately aligned with the certificate learning outcomes.**

The initial offering of the program will require students to be enrolled in the Space Engineering undergraduate program, to which the existing program general requirements for admission are:

- High School Diploma
- Grade 12 level English 70% or higher
- Grade 12 level Chemistry 70% or higher
- Grade 12 level Physics 70% or higher
- Grade 12 level Math 70% or higher
- Grade 12 level Calculus 70% or higher
- Overall academic average above 80%

The above requirements are suitable for students pursuing the Mechatronics Certificate, as the program will require a strong foundation in Math, Physics and Science, and a proficiency in reading and writing in English.

6. Resources

6.1 Faculty resources: **Comment on the expertise of the faculty who will actively participate in delivering the undergraduate certificate, focusing on its current status, as well as any plans in place to provide the resources necessary to implement and/or sustain the undergraduate certificate. Provide a Table of Faculty, as appropriate**.

The department is excited to offer this certificate to meet student demand and provide our students with additional skills that are key for the rapidly developing mechatronics job market. The department's core space engineering faculty members have the needed expertise to offer this certificate. However, our space engineering faculty complement has been insufficient in these years that causes some difficulties in delivering our unique space engineering program. In 2022, a new space engineering (mechatronics) faculty position was approved by the Provost and we are in the process of recruiting this new faculty member in the field of space mechatronics who will be very helpful to support this certificate by providing unique experiential learning opportunities for our students, while continuing to resource the existing program. Before this new faculty member is in place, the department will manage the resources to deliver this certificate.

Twelve of the fourteen courses supporting the Mechatronics Certificate are existing courses delivered by departments within the Lassonde School of Engineering or the Faculty of Science. The following current ESSE faculty members have the needed expertise to deliver the two new mechatronics courses (LE/ESSE 3380 and LE/ESSE 4380):

Ryan Orszulik:

Dr. Ryan Orszulik joined York University as an Assistant Professor in Engineering Design in 2019. After receiving his Ph.D., he was an Alexander von Humboldt Postdoctoral Fellow in the Institute of Mechanics at the Otto von Guericke University Magdeburg. Following that he was an NSERC Postdoctoral Fellow in the Harvard Microrobotics Lab in the John A. Paulson School of Engineering and Applied Sciences and the Wyss Institute for Biologically Inspired Engineering at Harvard University.

Dr. Orszulik's research work focuses on the use of smart materials, such as piezoelectric actuators and shape memory alloys, in mechatronic and robotic applications. His previous research includes active vibration control with piezoelectric sensors and actuators, membrane control with shape memory alloys for a synthetic aperture radar antenna, and a flight-qualified nanometer-level piezoelectric positioning system. In particular, he is interested in the intelligent design of robotic and mechatronic systems through the development of dynamic models, the discovery of new fabrication techniques, and the use of advanced control.

Jinjun Shan

Dr. Jinjun Shan is an internationally recognized expert in the areas of dynamics, control and navigation of space and mechatronics systems. His current research areas include autonomous systems, multi-agent systems, smart materials and structures and space instrumentation. He joined York University as an Assistant Professor of Space Engineering in 2006 and was promoted to Associate Professor in 2011 and Full Professor in 2016. Prior to his appointment in York, he was a Post-Doctoral Fellow at the University of Toronto Institute for Aerospace Studies (UTIAS) in 2003-2006. He received his B.Eng., M.Eng., and Ph.D. degrees in Spacecraft Design all from Harbin Institute of Technology, China, in 1997, 1999, and 2002, respectively. His research progress is demonstrated through over 170 peer-reviewed journal and conference publications and 2 issued patents. Dr. Shan serves the profession as the Associate Editor for several field-leading journals including IEEE Transactions on Industrial Electronics, IEEE/ASME Transactions on Mechatronics, and the Journal of Franklin Institute, and numerous conference chairs.

Franz Newland

Franz Newland joined York University in the Summer of 2015 after a short time at Seneca College and almost 15 years in the space industry both in Canada and Europe, working for COM DEV Ltd. as Mission Engineering Manager in Cambridge, Ontario, and Terma A/S as the lead training instructor and simulation team manager for the ATV control centre in Toulouse, France as well as providing spacecraft simulation development and support for Terma to the European Space Operations Centre in Darmstadt, Germany. His first research was in the area of cloud tracking in satellite imagery using neural networks and fuzzy logic, and he is also interested in orbit analysis and determination using ground-based telescopes, novel orbit determination techniques using EO payload data, spacecraft simulation and monitoring & control, and engineering education development. He is a Professional Engineer registered in the Province of Ontario, registered as a Chartered Engineer in the UK, an associate fellow of the AIAA and a member of the Royal Aeronautical Society.

Hugh Chesser

Almost 20 years experience in the space engineering profession in Canada. Work experience includes both technical engineering roles as well as supervisory positions. Specific missions include: Intelsat 7, Radarsat-1, Cold Plasma Analyzer, MOPITT (Measurements of Pollution in the Troposhpere), Scisat-1, CFZF (Shuttle Experiment), MOST (Microvariability and Oscillations of STars), Canada-led Mars Mission (study only), Argus Sensor Operations Team.

Since joining York faculty he has taught and/or developed laboratory courses within ESSE as well as the EECS departments. Specific courses include ENG 1000 (robot design competition, CAD labs), EECS 2021 (computer architecture labs), ESSE 3330 (vibration experiment), EECS 3215 (embedded systems – FPGA labs), ESSE 3360 (TVAC lab and thermal device demonstrations), ESSE 4350 (space hardware – full year lab course). He has also taught/teaches lab courses at the college level including hydraulics, mechatronic system simulation and mechanics.

Regina Lee
Dr. Lee, Professor at the Department of Earth and Space Science and Engineering, received her Ph.D. from the University of Toronto in 2000. From 2000 to 2007 she worked at Dynacon Inc. as a (NSERC) industry post-doctoral fellow, and later as a Research Scientist. Prof. Lee's research interests center on nanosatellite technology development. It has been a focus of Prof. Lee's research to develop a series of space technologies that will lead to scientific nanosatellite missions. Currently, she's investigating several areas including MEMS based attitude sensors and actuators to incorporate their low-grade characteristics: and optical payloads including a star tracker for Resident Space Object (RSO) detection, identification and characterization with light curve analysis. She is a Professional Engineer registered in the Province of Ontario.

6.2 Laboratory facilities: **As appropriate, identify major equipment that will be available for use by students engaged in the undergraduate certificate.**

Lab equipment that will be made available to students as part of labs already in existing courses are:

- Computers and laptops with FEM and CAD software, programming software, control software and other related software.
- Oscilloscopes, multi-meters, power supplies, function generators, breadboards, analog and digital circuitry components.
- ADCs and DACs
- Quanser SRV02 Rotary servo units, with encoder and potentiometer sensors.
- Quanser AERO dual-motor aerospace control instrument.
- Quanser QArm 4-DOF serial robotic manipulators with a tendon-based two-stage gripper and an RGBD camera.

To support the lab components of LE/ESSE 3380 and LE/ESSE 4380 both existing and new lab equipment will be needed.

Additional equipment that will be made available for use by students:

- 3D printers (available through Lassonde Sandbox)
- DC motor components
- Electrical components for motor driver (MOSFETS, resistors, diodes)
- Encoders and tachometers
- Servomotors (exist for ESSE 2220) and steppers
- Microcontrollers (BeagleBone, Raspberry PI (exist for ESSE 2220), or Arduino)
- Robot Kits (Niryo One)

This additional equipment will be made available through agreements with external partners such as Seneca, through Lassonde Engineering Education Funds (LEEF) and ESSE equipment funds.

6.3 Space: **As appropriate, provide information on the office, laboratory and general research space available that will be available by students engaged in the undergraduate certificate.**

To operate the new labs, existing ESSE lab space will be used, i.e. PSE 315 and PSE 020. Students will have access to the William Small Centre (WSC) computer lab. Study rooms in WSC, Bergeron and elsewhere on campus (i.e. Libraries, Student Centres, etc.) will also be available to students.

7. Support Statements

- from the relevant Dean(s)/Principal, with respect to the adequacy of existing human (administrative and faculty), physical and financial resources necessary to support the undergraduate certificate, as well as the commitment to any plans for new/additional resources necessary to implement and/or sustain the undergraduate certificate
- from the Vice-President Academic and Provost, if new resources are required to implement and sustain the undergraduate certificate. In such cases the Vice-Provost's statement should speak to the adequacy of the planned resources to support the certificate.
- from the University Librarian confirming the adequacy of library holdings and support
- from the University Registrar confirming the implementation schedule and any administrative arrangements
- from the relevant Faculties/units/programs confirming consultation on/support for the proposed undergraduate certificate, as appropriate
- from professional associations, government agencies or policy bodies with respect to the need/demand for the proposed undergraduate certificate, as appropriate.

Appendix A: Academic Calendar Copy and Template

The calendar copy below was created by the Office of the University Registrar (OUR) to confirm accuracy and publication.

Program: Space Engineering **Degree Program**: Specialized Honours **Effective Date: Fall 2024**	
Please note that only those fields applicable to the relevant program need to be completed.	
Current Calendar Copy (~~Strikethrough~~ items to be removed)	New Calendar Copy (Underline items to be added in revisions to existing programs)
General Education – Required Credits: _12_	**General Education** – Required Credits: _12_ No change.
Engineering Program Core – Required Credits: _60_	**Engineering Program Core** – Required Credits: _60_ No change.

Degree Requirements – Required Credits: _79_
• Complete all of the following
  ○ Passed the following:
  ▪ LE/ESSE2030 - Planetary Geophysics (3.00)
  ▪ LE/ESSE2220 - Algorithmic and Computational methods for Geomatics and Space Engineering (3.00)
  ▪ LE/ESSE2361 - Space Systems Engineering (3.00)
  ▪ LE/ESSE2470 - Introduction to Continuum Mechanics (3.00)
  ▪ LE/MECH2302 - Dynamics (3.00)
  ▪ LE/MECH2401 - Engineering Graphics & CAD Modeling (3.00)
  ▪ SC/MATH2271 - Differential Equations for Scientists and Engineers (3.00)
  ▪ SC/PHYS2020 Cr=3.00 EN - Electricity and Magnetism (3.00)
  ○ Passed the following:
	Degree Requirements – Required Credits: _78_
	• Complete all of the following
	  ○ Passed the following:
	  ▪ LE/ESSE2030 - Planetary Geophysics (3.00)
	  ▪ LE/ESSE2220 - Algorithmic and Computational methods for Geomatics and Space Engineering (3.00)
	  ▪ LE/ESSE2361 - Space Systems Engineering (3.00)
	  ▪ LE/ESSE2470 - Introduction to Continuum Mechanics (3.00)
	  ▪ LE/MECH2302 - Dynamics (3.00)
	  ▪ LE/MECH2401 - Engineering Graphics & CAD Modeling (3.00)
	  ▪ SC/MATH2271 - Differential Equations for Scientists and Engineers (3.00)
	  ▪ SC/PHYS2020 Cr=3.00 EN - Electricity and Magnetism (3.00)
	  ○ Passed the following:
	  ▪ LE/ESSE3330 - Materials for Space Applications (3.00)
	  ▪ LE/ESSE3280 - Physics of the Space Environment (3.00)
	  ▪ LE/MECH3302 - Mechanisms for Mechanical Systems (3.00)

▪ LE/ESSE3330 - Materials for Space Applications (3.00) ▪ LE/ESSE3280 - Physics of the Space Environment (3.00) ▪ LE/MECH3302 - Mechanisms for Mechanical Systems (3.00) ▪ LE/ESSE3360 - Heat Transfer and Thermal Design (3.00) ▪ SC/PHYS3050 - Electronics I (3.00) ▪ SC/PHYS3150 - Electronics II (3.00) ▪ ~~LE/ESSE3380 - Introduction to Mechatronics (4.00)~~ ▪ LE/MECH3409 - Machine Elements Design (3.00) ○ Passed the following: ▪ LE/ESSE4350 - Space Hardware (6.00) ▪ LE/ENG 4550 - Introduction to Control Systems (3.00) ▪ LE/ESSE4020 - Time Series and Spectral Analysis (3.00) ▪ LE/ESSE4360 - Payload Design (3.00) ▪ LE/ESSE4361 - Space Mission Design (3.00) ▪ LE/ESSE4370 - Finite Element Methods in Engineering Design (3.00) ~~○ Earned at least 3 credits from the following:~~ ~~▪ LE/ESSE4110 - Dynamics of Space Vehicles (3.00)~~ ▪ SC/PHYS4110 - Dynamics of Space Vehicles (3.00) **Two of:** ○ Earned at least 6 credits from the following: ▪ LE/EECS4421 - Introduction to Robotics (3.00)	▪ LE/ESSE3360 - Heat Transfer and Thermal Design (3.00) ▪ SC/PHYS3050 - Electronics I (3.00) ▪ SC/PHYS3150 - Electronics II (3.00) ▪ SC/PHYS3250 - Introduction to Space Communications (3.00) ▪ LE/MECH3409 - Machine Elements Design (3.00) ○ Passed the following: ▪ LE/ESSE4110 - Dynamics of Space Vehicles (3.00) ▪ LE/ESSE4350 - Space Hardware (6.00) ▪ LE/ENG 4550 - Introduction to Control Systems (3.00) ▪ LE/ESSE4020 - Time Series and Spectral Analysis (3.00) ▪ LE/ESSE4360 - Payload Design (3.00) ▪ LE/ESSE4361 - Space Mission Design (3.00) ▪ LE/ESSE4370 - Finite Element Methods in Engineering Design (3.00) ~~Two of:~~ ○ Earned at least 6 credits from the following: ▪ LE/EECS4421 - Introduction to Robotics (3.00) ▪ LE/ESSE3320 - Microsystems Technology (3.00) ▪ LE/ENG 4650 - Feedback Control Systems (3.00) ▪ LE/ESSE3020 - Global Geophysics and Geodesy (3.00) ▪ LE/ESSE3380 - Introduction to Mechatronics (4.00) ▪ LE/ESSE3670 - Global Navigation Satellite Systems (3.00) ▪ LE/ESSE4220 - Remote Sensing of the Earth's Surface (3.00) ▪ LE/ESSE4230 - Remote Sensing of the Atmosphere (3.00) ▪ SC/PHYS3070 - Planets and Planetary Systems (3.00) ▪ SC/PHYS4120 - Gas and Fluid Dynamics (3.00) ▪ LE/ESSE4380 - Mechatronic Systems and Design (4.00)

▪ LE/ESSE3320 - Microsystems Technology (3.00) ▪ ~~LE/ENG 4330 - Radio Science and Techniques for Space Exploration (3.00)~~ ▪ LE/ENG 4650 - Feedback Control Systems (3.00) ▪ LE/ESSE3020 - Global Geophysics and Geodesy (3.00) ▪ LE/ESSE3670 - Global Navigation Satellite Systems (3.00) ▪ LE/ESSE4220 - Remote Sensing of the Earth's Surface (3.00) ▪ LE/ESSE4230 - Remote Sensing of the Atmosphere (3.00) ▪ SC/PHYS3070 - Planets and Planetary Systems (3.00) ▪ SC/PHYS4120 - Gas and Fluid Dynamics (3.00) ▪ LE/ESSE4380 - Mechatronic Systems and Design (4.00) ○ Participation in the Co-op Program is highly recommended for all engineering students, but is not a degree requirement.	○ Participation in the Co-op Program is highly recommended for all engineering students, but is not a degree requirement.
Grand Total Credit Count - 151	**Grand Total Credit Count - 150**

The Calendar copy below was created by the Office of the University Registrar (OUR) to confirm accuracy and publication.

Program: Cross-Disciplinary Certificate in Mechatronics **Degree Program**: Cross-Disciplinary Certificate **Effective Date: Fall 2024**	
Please note that only those fields applicable to the relevant program need to be completed.	
Current Calendar Copy (~~Strikethrough~~ items to be removed)	New Calendar Copy (Underline items to be added in revisions to existing programs)
Admission Requirements	**Admission Requirements** **Future Students** For Canadian High School Students or those who have never attended a college or university, please refer to the Future Students Admission Requirements. The Future Students Section includes information for International High School Students, College/University Student, Mature Students, Indigenous Students, Visiting Students and Student returning to York to complete my degree. **Current Students** The initial offering of the program will require students to be enrolled in the Space Engineering undergraduate program.
Continuing Requirements	**Continuing Requirements** N/A or please see the degree requirements for information.
Graduation Requirements	**Graduation Requirements** Students must have an Overall Cumulative Grade Point Average (OCGPA) of 5.0 in the current scale and 2.0 in the new scale.

Certificate Requirements – Required Credits: __	**Certificate Requirements** – Required Credits: 41
	
	• Complete all of the following
	  ○ Passed the following:
	  ▪ LE/MECH2401 - Engineering Graphics & CAD Modeling (3.00)
	  ▪ LE/MECH2302 - Dynamics (3.00)

	▪ LE/ESSE2470 - Introduction to Continuum Mechanics (3.00) ▪ SC/PHYS3050 - Electronics I (3.00) ▪ LE/MECH3409 - Machine Elements Design (3.00) ▪ SC/PHYS3150 - Electronics II (3.00) ▪ LE/MECH3302 - Mechanisms for Mechanical Systems (3.00) ▪ LE/ENG 4550 - Introduction to Control Systems (3.00) ▪ LE/ESSE4370 - Finite Element Methods in Engineering Design (3.00) **Technical Electives** • Complete all of the following **8 (eight) credits from the following courses:** • Passed the following: ○ LE/ESSE3380 - Introduction to Mechatronics (4.00) ○ LE/ESSE4380 - Mechatronic Systems and Design (4.00) **6 (six) credits chosen from the following courses:** • Earned at least 6 credits from the following: ○ LE/ENG 4650 - Feedback Control Systems (3.00) ○ LE/ESSE3320 - Microsystems Technology (3.00) ○ LE/EECS4421 - Introduction to Robotics (3.00)
Additional Comments/Notes	**Additional Comments/Notes** Students who choose to take the Mechatronics Certificate are therefore required to take 8 additional credits, beyond the requirements of the Space Engineering undergraduate program. LE/ESSE 3380 and LE/ESSE 4380 are unique to Space Engineering at launch of the certificate program.

Grand Total Credit Count -	**Grand Total Credit Count - 41**

LASSONDE SCHOOL OF ENGINEERING | YORK UNIVERSITÉ UNIVERSITY

OFFICE OF THE DEAN
Suite 204 · Bergeron Centre for Engineering Excellence
4700 Keele Street · Toronto · Canada · M3J 1P3

MEMO

TO: Lyndon Martin, Vice-Provost Academic

FROM: Jane Goodyer, Dean, Lassonde School of Engineering

CC: Gunho Sohn, Chair, Department of Earth and Space Science and Engineering
Franck van Breugel, Vice Dean, Lassonde School of Engineering

SUBJECT: Statement of Support for Mechatronics Certificate

DATE: September 27, 2023

We applaud our colleagues for the development of new and innovative programming that increases the profile and presence of the Lassonde School of Engineering. I would like to congratulate the engaged faculty members in Space Engineering for their continued efforts in improving their program to meet the needs of industry as well as to address the feedback received from their students. I express my support for the Mechatronics Certificate to be launched within the Bachelor of Engineering (BEng) in Space Engineering program.

The projected in-take into this undergraduate certificate seems overly optimistic. However, this current Mechatronics certificate will provide a framework for other engineering programs within the Lassonde School of Engineering to offer the certificate for their students. Furthermore, as mentioned in the proposal, the certificate program will help the Lassonde School of Engineering evaluate the viability of offering a standalone Mechatronics Engineering program in the future.

As mentioned in the proposal, “in 2022, a new Space Engineering (Mechatronics) faculty position was approved by the Provost and we are in the process of recruiting this new faculty member in the field of Space Mechatronics who will be very helpful to support this certificate by providing unique experiential learning opportunities for our students, while continuing to resource the existing program.” The search for this faculty position has recently been successfully completed. In January 2024, Dr. Michael Bazzocchi will join the Lassonde School of Engineering as an Assistant Professor in Space Engineering.

As mentioned in the proposal, the additional equipment needed to deliver this certificate will be made available through agreements with external partners such as Seneca, applications to the Lassonde Engineering Education Fund (LEEF), and the use of ESSE equipment funds. In the proposal, no request for additional space is made. As a result, the resources necessary to support the undergraduate certificate are in place.

YORK
UNIVERSITÉ
UNIVERSITY

DIVISION OF STUDENTS

Office of the University Registrar

Darran A. Fernandez
University Registrar

Bennett Centre for Student Services
4700 KEELE ST.
TORONTO ON
CANADA M3J 1P3
T 416 736 2100
darran@yorku.ca

March 29, 2022

To: Academic Standards, Curriculum and Pedagogy Committee

RE: Undergraduate Certificate in Mechatronics

The proposal for the Undergraduate Certificate in Mechatronics has been reviewed by the Office of the University Registrar.

We support this proposal and look forward to working collaboratively with the Lassonde School of Engineering on the implementation details in support of their requirements.

Sincerely,

Darran Fernandez

Darran A. Fernandez, M.Ed.
University Registrar
York University

Undergraduate Certificate in Mechatronics
Library Support Statement

Prepared by John Dupuis, ESSE Liaison Librarian

October 12, 2021

This statement of library support for the proposed Undergraduate Certificate in Mechatronics has been prepared in accordance with the guidelines outlined in the Quality Assurance Framework as set out by the Ontario Universities Council on Quality Assurance. It describes some of the services and levels of support that York University Libraries (YUL) will be able to provide to students and faculty in the program. YUL supports all programs through immersive spaces, diverse collections, instructional services, research assistance, access to knowledge resources, expertise with research dissemination and adaptive services.

This new certificate program provides academic and research opportunities in line with the six priorities of York University's Academic Plan: 21st Century Learning, Knowledge for the Future, From Access to Success, Advancing Global Engagement, Working in Partnership and Living Well Together. York University Libraries embraces this approach. From a rich and diverse collection of print and electronic resources and tools, to one-on-one consultation services, instructional sessions, co-curricular offerings and group study spaces, the Libraries are well-positioned to support student success in what promises to be a rich, intensive program of study.

An overview of relevant York University Libraries services and resources for students and faculty is provided in subsequent sections.

Library Curriculum Integration for the Undergraduate Certificate in Mechatronics

Information Literacy (IL) encompasses the skills to find, retrieve, evaluate, use and produce academic, professional and creative work. It enables students to participate fully in a university environment and a disciplinary culture. IL integration strengthens alignment with Degree Level Expectations and the seven defined categories of broad knowledge and skills integral to Ontario's Quality Assurance Framework.

Scaffolding IL instruction is most effective when organized at the program level as it eliminates duplication, improves assignment outcomes, and enables students to apply their learning. IL instruction spans many areas including digital methods, digital tools, data visualization, copyright, privacy and security. Based on ACRL's Framework for IL for Higher Education, and years of experience, we suggest integrating library instruction into the newly developed courses for the program, in particular in a design course such as ESSE 4380 Mechatronic Systems and Design. Since students already have an engineering degree, they will have had IL sessions in a couple of courses as part of that degree so one focused mechatronics section is sufficient.

Instructors are encouraged to take advantage of dedicated, in-class sessions that can be tailored to course material or assignments. A wide range of programming is available, including digital and information literacy, blended learning modules, co-curricular programming, open educational resources and student seminars. Students in data science or data modelling courses may benefit from dedicated, in-class workshops related to developing and implementing search strategies, tracking and correctly citing data sources, and managing collections of reference materials and citations. In-class sessions should be organized and booked in advance of each semester's offerings, and requests can be submitted at https://classrequests.library.yorku.ca/

Digital Scholarship Centre and Specialized Programming

To discuss curriculum integration in the areas of digital scholarship, digital cultures and pedagogy, data management, open education, or scholarly publishing, YUL welcomes faculty to contact the Digital Scholarship Centre. The Digital Scholarship Centre (DSC) at York University Libraries houses knowledge in a range of digital tools and methods for web crawling and scraping, data cleaning, data curation, text processing and analytics, social graph analysis, data visualization, and linked open data applications, with an emphasis on sustainable, low-barrier approaches and open-source tools. The Digital Scholarship Centre draws expertise from a variety of departments within York University Libraries.

Library Resources

York University Libraries have robust and multidisciplinary collections that are responsive to emerging curriculum and research needs. We have adopted an "e-preferred" approach for new content, meaning that any requests for new titles will be fulfilled with e-book purchases whenever available or affordable, and with as few access restrictions as publishers will allow.

Print materials relevant to the programs can also be found via OMNI, and York community members can arrange to have materials held at any of our libraries. Aside from York's collection, our partnership with the OMNI network provides students and faculty members with access to print materials housed at any of our 14 partner institutions across Ontario.

Relevant Databases, Indexes, and Data Sources

Many of the courses in the program will focus on the field of mechatronics, in particular machine design, robotics and control systems. To inform their work, students will require access to technical books and manuals, scholarly journal and conference articles, technical standards among other types of documents. The breadth of the program spans many disciplines, all of which can be addressed with elements of the York University Libraries collections.

The Libraries provide access to approximately 100,000 journals, 96% of which are e-journals. Articles are discoverable through the Omni library catalogue or through the Libraries' extensive set of article databases such as IEEE Xplore and The ACM Digital Library among others. Students in the Undergraduate Certificate in Mechatronics program will also benefit from a range of more domain-specific tools and platforms including Access Engineering and Engineering Workbench.

Program-Related Research Guides

York University Libraries publishes research guides related to disciplines and topics addressed by York programs. Librarians can also create customized research guides to help with individual courses or assignments, usually as part of an IL session as described above. Existing guides of interest to this program are:

Engineering: https://researchguides.library.yorku.ca/eng
Computer Science: https://researchguides.library.yorku.ca/cse
Mathematics: https://researchguides.library.yorku.ca/sts
Digital Scholarship and Digital Humanities: https://researchguides.library.yorku.ca/dsdh

Email, Chat, and Consultation Services

In-person assistance with research, citation and other information is readily available from York University Libraries. Currently, online support is available through text messaging, email or through our online chat or drop-in zoom service. Students in this program may also take advantage of our consultation service, where individuals or groups meet with a librarian to discuss specific assignment- or research-related questions or any other topic. These consultations are available at regular hours throughout the week, and can be booked online at https://www.library.yorku.ca/web/ask-services/book-a-consultation-with-a-librarian/

Conclusion

York University Libraries is well positioned to support the curriculum and research needs of students and faculty in the proposed Undergraduate Certificate in Mechatronics program at York University. Our external partnerships and collaborative collection building initiatives with other universities have positioned YUL to support the emerging needs of the students and faculty of this program in the ever-changing and complex scholarly communications landscape. Our external partnerships and collaborative, multi-institutional collection building and the many programs and services mentioned above will contribute to the success of this new program in the years to come.

Major Modifications to Existing Programs Proposal Template

FC approval: 19 October 2023
Effective Date: FW2024

Major Modifications to Existing Programs fall under Section 5 of the York University Quality Assurance Procedures (YUQAP):
https://yuqap.info.yorku.ca/home/procedures/protocols/major-modifications-to-existing-programs/

The following changes are considered to be major modifications:

a) Substantive changes to learning outcomes and/or approved requirements that comprise up to approximately one-third of the program serve as a guideline for inclusion under the major modification guideline.
b) Major changes to courses comprising a significant proportion of the program and making an important contribution to meeting program learning outcomes (approximately one-third of courses).
c) The addition of a new major (undergraduate) where a similar major exists.
d) A new specialization at the graduate level.
e) Addition or deletion of streams.
f) The addition of a new option (e.g., location or part-time/full-time) within an existing program.
g) Establishment of undergraduate certificates.
h) The merger of two or more programs.
i) Establishment of a minor program or option.
j) The offering of an existing program substantially online where it had previously been offered in face-to-face mode, or vice versa.
k) At the master's level, the introduction or deletion of a major research paper or thesis, course-only, co-op placement, internship, or practicum option.
l) The introduction or deletion of a field in a graduate program.
m) The creation of a collaborative specialization at the graduate level.
n) The creation of combined degrees (existing programs), either undergraduate, graduate, or undergraduate/graduate.
o) Any change to the requirements for graduate program candidacy examinations or residence requirements

Note: *Separate templates exist for the remaining types of Major Modifications, specifically:*

New undergraduate certificates
Closure of undergraduate certificates *(see Program Closure template)*

Major Modifications Proposal

1. Faculty EUC

2. Department NA

3. Programs:

    Environmental Arts and Justice
    Sustainable Environmental Management
    Cities, Regions, Planning
    Global Geography

4. Degree Designation: BES or BA (specialized honours)

5. Type of Modification: **Introduction of a co-op option**

6. Location: Keele Campus

7. Effective Date: **Fall 2024**

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8. Provide a general description of the proposed changes to the program.

This proposal is for the creation of a co-op option that can be associated with any of the Faculty of Environmental and Urban Change (EUC)'s programs listed in (1). It provides the framework for students to complete a co-op program which:

•includes at least twelve months of paid employment;
•comprises at least two periods of work, interspersed with study (at least 4 months of work before 3rd year, and a continuous period of at least 8 months after 3rd year, for a total of 12-16 months of work experience);
•begins and ends with academic study periods at the University.

- The Faculty of Environmental and Urban Change will offer the program together with the Career Centre, building on the successful EUC Placement course and other York co-op programs over the last decade.

- The co-op program is proposed as an option so that a single structure can be implemented for all associated programs, while allowing a student's participation in the program to be recorded on their transcript.

9. Provide the rationale for the proposed changes.

In a co-op program, students alternate between their academic studies with periods of paid work experience. The program structure provides students an opportunity to apply skills learned in the classroom, and to gain work experiences, recognizing the value of a longer work period and of

multiple periods of work. (CEWIL: Co-operative Education and Work-Integrated Learning Canada. Website: About Us (cewilcanada.ca).

Employers also benefit from co-op programs by accessing highly talented individuals early in their programs; and they can also provide universities feedback on the quality of their academic programs.

Co-op programs are in high demand from students and their parents and their availability is one of the most frequently asked questions at recruiting and information events. Further, other universities (Waterloo, Guelph, McMaster) offer well-developed co-op programs. Surveys of all first-year students show that 32% chose a university program primarily because of the availability of co-op or internship.

The EUC co-op option will follow the growing “York model” (or “Lassonde model”). EUC co-op will comprise at least 4 months of work before 3rd year, and a continuous period of at least 8 months after 3rd year, for a total of 12-16 months of work experience (see Table 1 below).

Students will receive career skills workshops in preparation for their jobs, on-the-job evaluation and workplace monitoring by work managers and university staff, and assessment of work reports by academic staff.

To link back to the academic curriculum, participants will complete two online two-credit courses based on the preparation and evaluation of an electronic professional portfolio (e-Portfolio) in order to maximize the learning benefits achieved by interleaving work and study (see Table below).

EUC’s Placement course, ENVS 4001, has been the site of development of excellent relationships with employers in relevant fields, including municipalities, conservation authorities, planning firms, government research organizations, and arts collectives. While there may be some situations where the pay may not be as competitive, we will ensure that "all positions will have remuneration for the work performed" (CAFCE 2000, Co-operative Education Manual). To provide paid placements while also fulfilling EUC’s mission of social change and environmental justice, we will work with Advancement to establish funds for organizations that might not have the financial resources to pay students otherwise.

EUC will seek placement opportunities widely. For example, for those students contemplating graduate school, working as paid research assistants with professors is also possible. Working abroad will also be encouraged. While the academic programs include many opportunities to students to gain practical experience through laboratories, projects and extracurricular competitions, it is widely acknowledged that the incorporation of work experience into the curriculum benefits students, employers and society specifically encouraging students from equity-deserving communities to participate as access to such programming has been historically limited.

The multiple periods of work featured in co-op programs allow students to integrate their work experience and academic knowledge on an ongoing basis, rather than in one period.

Co-op also encourages students to broaden their experience by working with more than one employer. On a practical side, the earlier work opportunity provided by co-op employment allows students to spread their earnings more evenly throughout their studies. The popularity and impact of co-op/internships are revealed by surveys of university graduates:

• 48% of students have some sort of work experience as part of their program
• 73% said the experience contributed very much to their personal development.

10. Comment on the alignment between the program changes with Faculty and/or University academic plans.

An EUC Coop Option aligns with the following aspects of York's Academic plan:

-building "21st century skills into our programs." (under *Diversifying Whom, What, and How We Teach*)

-providing more EE (under *Diversifying Whom, What, and How We Teach*);

-by working closely with employers can assist us in aligning our programs more with "labour market needs" (under *Diversifying Whom, What, and How We Teach*);

-incorporation strategies to encourage students from equity-deserving communities to participate. (under *From Access to Success)*

An EUC Coop Option aligns with the following aspects of EUC's Strategic Plan 2020-2025:

- "…preparing students for careers and engaged citizenship through experiential education, critical thinking, hands-on-research, and leadership skills";

-"operationalize new programs highlighting…experiential and field-based learning..";

-"Enhance student career-readiness and pathways through placements and training;

-"Enhance our standing and reputation in terms of our academic programs, scholarship, and engagement activities."

11. If applicable, provide a detailed outline of the changes to the program and the associated learning outcomes, including how the proposed requirements will support the achievement of program learning outcomes. Programs should have eight to twelve program learning outcomes. Describe how the achievement of the program learning outcomes will be assessed and how that assessment will be documented. (i.e., the mapping of the courses to the program learning outcomes; graduate outcomes).

The learning outcomes for each program are below in Appendix A.
The co-op option has its own learning outcomes: the following are adapted from the National Commission for Cooperative Education. On completion of the co-op option, students will have three different sets of outcomes described here:

Academic Outcomes

- Demonstrate the ability to integrate classroom knowledge with workplace practice;
- Develop greater clarity about their academic goals;
- Articulate how university study is applicable in practice;
- Improve their technical competence by learning from their practical experience;

Professional Outcomes

- Develop greater clarity about their career goals;

- Be productive members of the workplace;
- Demonstrate improved workplace competencies;
- Learn and apply new or advanced workplace skills;

Personal Outcomes

- Exhibit an increased sense of personal responsibility and maturity;
- Determine their own strengths and weaknesses;
- Demonstrate enhanced interpersonal and communication skills;
- Develop citizenship and lifelong learning skills.

To ensure students achieve those outcomes we outline the steps here.

Entry requirements: Two years of academic credits ranging from 48-60 credits of academic study (assuming students complete 24-30 credits per year) who meet a minimum cumulative GPA in their first two years of study of C+ (5.0 on 9.0 grading scale or 2.00 or higher on the 4.00 grading scale).

What students would do and what are the supports available once students are in the program:
-Complete preparatory course EU/COOP 2001 2.00 Professional Development for co-op Students (Online).1 The Course Director will oversee the academic side of this course and collaborate with an EE Coordinator for the rest.
-Maintain Good standing (a GPA of 5.0 on the 9.00 scale or 2.00 or higher on the 4.00 scale) in an EUC program;

Find and secure a position:
-Positions will be posted on EE job board, by the EE Coordinator. Interviews will be conducted by employers. Students secure a position through a competitive process.

First work period (typically 4 months):
-Students enrol in zero credit course sequence when out on a co-op
-There will be telephone follow-ups, employer and employee evaluations, graded work-term report undertaken by an EE Coordinator and faculty member.

Academic requirements prior to the second work period:
-Students successfully complete the first work period, are enrolled in the program, and have successfully completed some courses;
-Maintain Good standing (a GPA of 5.0 on the 9.00 scale or 2.00 or higher on the 4.00 scale) in an EUC program.

A sample of a schedule is provided in **Appendix B**.

Co-op support:
The EUC Experiential Education (EE) Coordinator has overall responsibility for coordination of academic and operational activities of experiential education, including the design, development, implementation, and evaluation of such initiatives, including learning through community

1 Note: A key difference from Lassonde's model is that their first preparatory course occurs while students are out on their first coop position, whereas what we are proposing, students would do the prep before going out.

partnerships, placement, and practicum opportunities. The EE Coordinator is responsible for assisting with the development of university-community partnerships that are mutually beneficial and foster student engagement through linking theory and practice and providing opportunities for practical experience related to areas of study. As part of the existing EUC placement/internship activities, the EE Coordinator has access to and builds upon our existing EUC database of ~500 community partners (government, industry, and civil society) and database of ~12,000 alumni (employed across all sectors). The faculty member assigned to the Co-op courses works closely with the EUC EE Coordinator in the delivery of the program specifically on the academic side of the program requirements.

12. Summarize the consultation undertaken with relevant academic units, including commentary on the impact of the proposed changes on other programs. Provide individual statements from the relevant program(s) confirming consultation and their support.

The proposed Co-op Option has a direct impact only on the Career Centre, in its role of administering the existing Technology Internship Program. Staff from the Career Centre have been involved, consulted, and informed throughout the co-op proposal development. We have a letter of support from Bob Eichvald, Director, Career Education and Development and include a letter from EUC's Dean. (**Appendix C**)

The roll-out of the co-op option is scheduled for the same timing as that of LA & PS. EUC and LA & PS have been working together and checking in with one another during the process of development of the co-op option. The joint program in Environmental Science with the Faculty of Science has an existing co-op option and we have learned from that experience.

We've received and incorporated feedback from Lassonde on a draft of this proposal and have spoken with two faculty members who are involved in the delivery of the Digital Media Co-op.

We've also received and incorporated feedback on the proposal from the Centre for Human Rights, Equity & Inclusion with a focus on Equity, Diversity and Inclusion.

13. If applicable, describe changes to any admission requirements and on the appropriateness of the revised requirements for the achievement of the program learning outcomes. NA

14. Describe any resource implications and how they are being addressed (e.g., through a reallocation of existing resources). If new/additional resources are required, provide a statement from the relevant Dean(s)/Principal confirming resources will be in place to implement the changes.

The Co-op Option is designed to operate in cost-recovery mode, in which expenses (primarily staff salaries) are offset by (i) an associated course fee for zero-credit work-term courses (EU/COOP 2109 0.00 and 3109 0.00) in which students enroll while they are working (as is currently the case for the Technology Internship Program); and (ii) tuition from the two-credit professional development courses (EU/COOP 2100 2.0, 4001 3.0). Academic and advising staff will be recruited as necessary to serve enrolment. Hence while there may be a significant cash flow associated with the Option, the underlying resource requirement will be relatively limited.

At the time of this proposal, we have an Experiential Education coordinator, and we believe this is an appropriate level of resourcing to begin the co-op program. With respect to faculty participation, faculty members will teach the required preparatory course, the required reflection course, and supervise students while they are on work terms. In the letter of support Dean Hovorka notes that she is prepared to commit to deploying full-time faculty members wherever possible and, as occurs in other faculties such as LSE, to hiring CUPE Unit 2 colleagues where necessary.

15. **When applicable, comment on the appropriateness of the revised mode(s) of delivery for the achievement of the program learning outcomes.** NA

16. **Is the assessment of teaching and learning within the program changing? If so, comment on the appropriateness of the revised forms of assessment to the achievement of the program learning outcomes.**

Assessment is not changing.

17. **Provide a summary of how students currently enrolled in the program will be accommodated.**

Students currently in year 1 or Year 2 of the programs will have the opportunity to enroll in the Co-op Option (Table 1 in Appendix C). Students in later years will not be able to complete all requirements of the Option and will be offered the opportunity for work experience through an internship program.

18. **Provide the following appendices:**

    A) Program Learning Outcomes (eight to twelve) – **Appendix A**

    B) Provide as an appendix a side-by-side comparison of the existing and proposed program requirements as they will appear in the Undergraduate or Graduate Calendar. - **Appendix D**

Appendix A. Learning outcomes for each program.

The co-op option supports the following existing learning outcomes for the undergraduate programs:

Global Geography:

i. Acquire, understand and use geographic information to critically and spatially think, inquire, analyze, communicate (Bachelor's) and problem-solve (Honours) environmental and societal issues collaboratively with a range of actors;

ii. Demonstrate critical thinking, leadership, and active citizenship skills (Bachelor's), and initiative and independence in knowledge production (Honours);

Sustainable Environmental Management:

i. Acquire practical experience and develop technical skills to analyze, synthesize and evaluate the political, economic and social dimensions of environmental problems, including biodiversity loss and climate change, policy and planning responses to these challenges, and pathways to sustainability transitions (Bachelor's) and innovation (Honours);

ii. Work collaboratively to address social and environmental challenges effectively and accurately in multiple scholarly, technical, policy and creative formats (Bachelor's) and to a range of communities and stakeholders (Honours);

iii. Demonstrate interdisciplinary critical thinking, leadership and active citizenship skills (Bachelor's), and initiative and independence in knowledge production (Honours).

Environmental Arts and Justice:

i. Acquire community engagement and practical skills to organize, communicate, collaborate, produce, curate, facilitate and mobilize cultural and artistic practices to understand (Bachelor's) and reimagine (Honours) social injustices and environmental challenges

ii. Work collaboratively to address social injustices and environmental challenges effectively and accurately in multiple scholarly, technical and creative formats (Bachelor's) and to a range of audiences (Honours);

iii. Demonstrate interdisciplinary critical thinking, leadership and active citizenship skills (Bachelor's), and initiative and independence in knowledge production (Honours).

Cities Regions Planning:

i. Investigate the challenges that come with global urbanization and design responses or solutions to city-building and urbanism

ii. Explore the complexity and diversity of cities through experiential and field-based learning activities in Toronto and beyond

iii. Mobilize critical thinking and leadership skills as active citizens who can collaborate with urban communities, governmental, and non-governmental organizations, and the private sector to effect change (honours only).

iv. Communicate ideas and experiences to multiple audiences through written, oral,

digital, visual, cartographic, and other means

v. Examine urban related topics through thematic strands of urban worlds, urban planning and politics, and urban political ecology

Appendix B.
Table 1. Student milestones in EUC co-op program.

Student Milestone	Comments
Two years of academic credits ranging from 48-60 credits of academic study (assuming students complete 24-30 credits per year)	Students must have successfully Completed 2nd year before enrolling in the co-op program Transfer students with > 60 or more credits would be eligible even if they don't have a York University GPA. Note: Transfer credits are not calculated into students GPA.
Complete preparatory course EU/COOP 2001 2.00 *Professional Development for Co-Op Students* (Online)	Course covers resume preparation, interview skills etc. The course is mandatory. Offered 1x per year in the May (EUC will create its own sessional code). All students who are enrolled in co-op pay a fee each term they are out on their work-term. The Course Director will oversee the academic side of this course and collaborate with an EE Coordinator for the rest.
Meeting co-op requirements and enrolment by end of winter term of second year (April of each year).	Good standing (a GPA of 5.0 on the 9.00 scale or 2.00 or higher on the 4.00 scale) in an EUC program and completed EU/COOP 2001 2.00
Finding and securing the position	Positions posted on EE job board, interviews to be conducted by employers. It is a competitive process.
First work period (typically 4 months) Students enrol in zero credit course sequence when out on a co-op (EU/COOP 2109 0.00; EU/COOP 3109 0.00)	There will be telephone follow-ups, employer and employee evaluations, graded work-term report undertaken by an EE Coordinator and faculty member. All students (domestic and international) who are enrolled in co-op pay a fee of $500 each term they are out on their work-term.
At least 30 credits of academic study before embarking on the second coop period.	A co-op program requires at least two periods of work, separated by study.
Second work period (at least 8 months)	A co-op program requires at least 12 months' of work experience.
Final academic study period, at least 9 credits.	A co-op program requires a period of study after the last work period;

Revised November 3, 2020

Complete professional development course, EU/COOP 4001 3.00 Online *Critical Reflection on Work Experience using Professional Portfolios* (while back taking courses)	In-person de-brief to share experiences with faculty, staff & incoming co-op students Course Director will oversee the academic side of this course and collaborate with an EE Coordinator for the rest.
Graduation from an EUC program with co-op option with a total of 120 credits.	Completion of co-op experience noted on transcript, and certificate issued.

Appendix C. Letters of support

Career Center

York University
McLaughlin
College, #4700
Keele St.
Toronto ON
Canada M3J
1P3
Tel:
416-671-1761
Email:

September 5th, 2023

To: Dean Alice Hovorka and the Faculty of Environmental and Urban Change (EUC)

4700 Keele Street
Toronto, Ontario
M3J 1P3

RE: Letter of Support-EUC Co-Op program

Dear Dean Hovorka,

I am writing to express our support for the proposed optional Co-op program intended for integration across all academic programs within the Faculty of Environmental and Urban Change (EUC). The Division of Students, comprising the Career Centre and the YU Experience Hub, is committed to assisting in the successful implementation of this program.

Specifically, our commitment encompasses faculty support in the following key areas:

(1) **Program/Proposal Development:**

a. Expertise: Our team has the expertise to assist in co-op program creation, development, design, policy formulation, and administration.

b. Alignment: We will ensure EUC Co—op program alignment with existing Co-op programs at York University, particularly introducing an optional Co-op program after the second year.

c. Adherence to Standards: We will ensure adherence to national standards.

d. Connections: We will facilitate connections with experts in Co-operative Education, both nationally and internationally.

(2) **Ongoing Delivery, Policy, and Adherence to Standards:**

a. Professional Associations: We will maintain central connections with organizations like the World Association for Co-operative Education

(WACE) and Co-operative Education and Work Integrated Learning Canada (CEWIL).

(3) **Co-op Platform (Orbis) and Technical Support:**

a. Orbis Management: Orbis, our University's Co-op platform, is managed by our Career and Experiential Technology team.

b. Free Access: Orbis is accessible at no cost to all Faculties.

c. Comprehensive Management: Orbis will oversee all aspects of the Co-op program efficiently. This includes: student data, employer data, job postings, work terms, work term reports, documentation and offers of employment.

(4) **Employer/Alumni Outreach:**

a. Employer Connections: Our Employer and Alumni outreach team will facilitate high level connections with employers for EUC Co-op students.

b. Industry Associations: We will explore collaborations with industry associations.

(5) **Government Funding, Grants, and Wage Subsidies:**

a. Funding Support: We will provide central connection and support for funding applications.

In conclusion, please consider this letter as a formal expression of our resolute commitment to the success of the proposed optional Co-op program within the Faculty of Environmental and Urban Change. We are eager to collaborate closely with the faculty and leverage our expertise and resources to ensure that the program not only meets but exceeds the highest standards of excellence.

I am available for any further discussions or clarifications regarding our support and commitment.

Warm regards,

Robert Eichvald

Director, Career Centre & YU Experience Hub

YORK
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October 16, 2023

Greetings,

I am writing to support, strongly and enthusiastically, the establishment of a Co-Op Option for BES and BA Programs in the Faculty of Environmental and Urban Change (EUC). (Note that this option is already available for BSc Environmental Science via Faculty of Science). The impetus for this option is rooted in EUC's commitment to experiential education and fostering career-based pathways. It will provide another, more fulsome, opportunity for students to participate in work integrated learning.

Currently EUC offers a course-based option Envs4001 Experiential Education Placement (3.0 or 6.0) with students provided internships with our not-for-profit, industry, or government partners for program credit. This is considered a fourth-year capstone course. It is taught by full-time faculty throughout the year (FW and S offerings) and is supported by the EUC Experiential Education Coordinator. During 2022/23, 21 students were enrolled in the FW 2022/23 session and 15 students in SU 2023. These numbers have been steadily increasing over the past three years as we have spread word to students and expanded our employer/partner database (e.g., 2021/22 enrolments were FW=8, SU=14; 2020/21 enrolments were FW=8, SU=0). Student learning experiences are of high quality in terms of furthering their knowledge of key sectors, as well as developing communication, project management, and networking skills. Several students have secured positions with their 'placement' employer.

Complementing this course-based placement, a Co-Op Option will draw students who wish to combine an EUC scholarly program with hands-on career-based employment opportunity. This pathway is an essential part of our EUC Strategic Enrolment Management recruitment strategy and our hope is to attract students directly from high school or later in their careers to Co-Op-infused undergraduate programs that prepare them for jobs required for a sustainable and just economic transition.

I confirm that resources will be in place to implement Co-Op programming at EUC. Specifically, the EUC Experiential Education (EE) Coordinator has overall responsibility for coordination of academic and operational activities of experiential education, including the design, development, implementation, and evaluation of such initiatives, including learning through community partnerships, placement, and practicum opportunities. The EE Coordinator is responsible for assisting with the development of university-community partnerships that are mutually beneficial and foster student engagement through linking theory and practice and providing opportunities for practical experience related to areas of

study. As part of the existing EUC placement/internship activities, the EE Coordinator has access to and builds upon our existing EUC database of ~500 community partners (government, industry, and civil society) and database of ~12,000 alumni (employed across all sectors). Note that we are in conversation with our key placement partners (e.g. Toronto and Region Conservation Authority) to ensure consistent pathways for coop students as part of establishing this program. The EE Coordinator will secure coop partners from these partnership and alumni databases, as well they will provide foundational support for the coordination and supervision of coop students.

Moreover, to ensure consistency and sustainability of coop programming, faculty members will teach the required preparatory course, the required reflection course, and supervise students while they are on work terms. I am prepared to commit to deploying full-time faculty members wherever possible and, as occurs in other faculties such as LSE, to hiring CUPE Unit 2 colleagues where necessary.

Sincerely,

Alice J. Hovorka
Dean & Professor

YORK
UNIVERSITÉ
UNIVERSITY

OFFICE OF THE VICE-PROVOST ACADEMIC

4700 Keele St.
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vprovost@yorku.ca

Memo

To: Justin Podur, Associate Dean, Teaching and Learning, EUC and Gail Fraser Professor and Undergraduate Program Director, EUC

From: Marcia Annisette, Vice-Provost Academic

Cc: Alice Hovorka, Dean, EUC
Jennifer Bethune, Director, Academic Programs & Policy (Interim)
Pamela Persaud, Secretary of the University
Frances Billingsley, Associate Registrar & Director, Student Records & Scheduling
Nina Unantenne, York University Quality Assurance Procedures

Date: October 12, 2023

Subject: Addition of a co-op option for the Environmental Arts and Justice; Sustainable Environmental Management; Cities, Regions, and Planning; and Global Geography programs

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As prescribed by the York University Quality Assurance Procedures, I am writing to acknowledge your submission of a notice of intent for establishment of a co-op option in the following programs: Environmental Arts and Justice; Sustainable Environmental Management; Cities, Regions, and Planning; and Global Geography and to authorize the development of a proposal for a major modification that will make its way through the collegial governance process.

The notice of intent provides a compelling rationale for the establishment of a co-op option for these programs, noting that this type of program is in high demand amongst students and parents and that several of these program's comparator programs in other Ontario universities already offer co-ops.

The Dean has indicated her support, noting that EUC's existing internship course has experienced increasing enrolment and has proven to provide high-quality learning experiences. The Dean also notes that the Experiential Education Coordinator and current full-time faculty will be deployed to support the co-op option and commits to hiring CUPE Unit 2 colleagues where necessary to support the co-op option.

As you develop the proposal, please be sure to indicate how the industry / community partners for the co-op placements will be secured, how the co-ops will be coordinated and supervised, and how the workload will be distributed across faculty members. If CUPE Unit 2 colleagues are to be an important resource for this option,

please explain what measures will be put in place to ensure consistency and sustainability for this aspect of the programs.

Please use the template for major modifications available on our website, here: Major Modifications - York University Quality Assurance Procedures

We look forward to following the development of this promising program option. If you have questions about the process, please don't hesitate to contact us at yuqap@yorku.ca.

Appendix D. Changes to academic calendars

The only edits made to the undergraduate calendar copies - applicable to all of the undergraduate programs being modified - are:

- Students who have opted for the co-op option are deemed to have fulfilled 3.00 credits of capstone experiential education from the Faculty Requirement category by successfully completing EU/COOP 4001 3.00.
-the upper level requirement EU/COOP option added

Calendar copy from one program is provided as an example, as the changes (shown in green) are identical for the four programs:

- Honours Bachelor of Environmental Studies (BES) in Environmental Arts and Justice
- Honours BES in Sustainable Environmental Management
- Honours BES in Cities, Regions, Planning
- Honours Bachelor of Arts in Global Geography

Program: Bachelor of Environmental Studies (BES) in Environmental Arts and Justice
Degree Program: Honours (Not open to students in Honours Double Major and Honours Major/Minor)
Effective Date: Fall 2024

Please note that only those fields applicable to the relevant program need to be completed.

Current Calendar Copy (~~Strikethrough~~ items to be removed)	New Calendar Copy (Underline items to be added in revisions to existing programs)
Admission Requirements	**Admission Requirements**
Current Students	No Change.
Continuing Requirements	**Continuing Requirements**
5.0	No Change. (2.0 on 4pt scale)
Graduation Requirements **5.0**	**Graduation Requirements** No Change. (2.0 on 4pt scale)

Revised November 3, 2020

General Education – Required Credits: __

General Education – Required Credits: __

No Change.

Major Requirements – Required Credits: __

- *Please outline the type of Degree program in the title of this requirement*
- *Core Courses*
- *Major Requirements (e.g. mandatory courses, and credits to be selected from list)*

Major Requirements – Required Credits: __

No Change.

Faculty Requirements – Required Credits: _6_

6 credits to be selected in accordance of:

- Complete all of the following

3.00 credits chosen from among:

- Complete 1 of the following
  - Passed the following:
    - EU/GEOG2420 - Quantitative Methods (3.00)
  - Complete 1 of the following
    - Passed the following:
      - EU/GEOG3520 - Designing and Conducting Research in Geography (3.00)
    - Passed the following:
      - EU/GEOG3010 Cr=3.00 EN - Regions of Canada (3.00)

3.00 credits of capstone experiential education chosen from among:

- Complete all of the following
  - Earned at least 3 credits from the following:

Faculty Requirements – Required Credits: _6_

6 credits to be selected in accordance of:

- Complete all of the following

3.00 credits chosen from among:

- Complete 1 of the following
  - Passed the following:
    - EU/GEOG2420 - Quantitative Methods (3.00)
  - Complete 1 of the following
    - Passed the following:
      - EU/GEOG3520 - Designing and Conducting Research in Geography (3.00)
    - Passed the following:
      - EU/GEOG3010 Cr=3.00 EN - Regions of Canada (3.00)

3.00 credits of capstone experiential education chosen from among:

- Complete all of the following
  - Earned at least 3 credits from the following:
    - EU/COOP 4001 3.00

- EU/ENVS4000 - Senior Honours Work Seminar (6.00)
- EU/ENVS4001 Cr=3.00 EN - Field Placement Course (3.00)
- EU/GEOG4001 Cr=3.00 EN - Field Placement Course (3.00)
- EU/ENVS4001 Cr=6.00 EN - Field Placement Course (6.00)
- EU/GEOG4001 Cr=6.00 EN - Field Placement Course (6.00)
- EU/GEOG4000 - Honours Thesis (6.00)

- *To enrol in the research-based course EU/ENVS 4000 6.00 or EU/GEOG 4000 6.00, students must successfully complete (pass) six credits of methods courses requirements with a B+ (7.00) overall cumulative grade point average by the end of their third year (completion of 84-90 credits) to be approved in June prior to enrolling in this course.
- Note: EU/ENVS 4001 3.00 (cross-listed to EU/GEOG 4001 3.00)
- Note: EU/ENVS 4001 6.00 (cross-listed to EU/GEOG 4001 6.00)

- EU/ENVS4000 - Senior Honours Work Seminar (6.00)
- EU/ENVS4001 Cr=3.00 EN - Field Placement Course (3.00)
- EU/GEOG4001 Cr=3.00 EN - Field Placement Course (3.00)
- EU/ENVS4001 Cr=6.00 EN - Field Placement Course (6.00)
- EU/GEOG4001 Cr=6.00 EN - Field Placement Course (6.00)
- EU/GEOG4000 - Honours Thesis (6.00)

- *To enrol in the research-based course EU/ENVS 4000 6.00 or EU/GEOG 4000 6.00, students must successfully complete (pass) six credits of methods courses requirements with a B+ (7.00) overall cumulative grade point average by the end of their third year (completion of 84-90 credits) to be approved in June prior to enrolling in this course.
- Note: EU/ENVS 4001 3.00 (cross-listed to EU/GEOG 4001 3.00)
- Note: EU/ENVS 4001 6.00 (cross-listed to EU/GEOG 4001 6.00)
- Note: Students who have opted for the co-op option are deemed to have fulfilled 3.00 credits of capstone experiential education from the Faculty Requirement category by successfully

	completing EU/COOP 4001 3.00.
Outside the Major – Required Credits: __	**Outside the Major** – Required Credits: __ No Change.
Elective – Required Credits: __	**Elective** – Required Credits: __ No Change.
Upper-Level Requirement	**Upper-Level Requirement** No Change.
	CO-OP OPTION • Complete all of the following o Participation in the co-op option is available to all Honours BES students but is not a degree requirement. o The additional requirements for the co-op option are: o EU/COOP 2100 2.00; EU/COOP 2109 0.00; EU/COOP 4001 3.00; EU/COOP 3109 0.00. o Participation in the co-op option requires maintaining a cumulative GPA of 5.00 on 9.00 grading scale or 2.00 or higher on the 4.00 grading scale. Transfer students with > 60 or more credits would be eligible even if they do not have a York University GPA. Note:

Transfer credits are not calculated into students GPA.

- The completion of 54-60 credits, including enroll at the end of their 2nd year and take the required the co-op prep course EU/COOP 2001 2.00 that covers program information, resume and cover letter, interview prep, professional skills, and completion of job skills workshops.
- Before the first work period, Students are expected to alternate between co-op positions and course work; they are not done simultaneously. A co-op program requires at least two periods of work, separated by study.
- Before the second work placement. The two work periods must be separated by at least one term of academic studies, and the second work period must be followed by at least one term of academic studies.
- A co-op program requires a period of study after the last work period.
- Flexible 4, 8, 12, or 16-month work terms (minimum 12 months total, maximum 20 months.
- Co-op work term will be paid positions and are in the broad area of study. Students must interview for the positions. Students enrol for zero credit course while out on a co-op and pay a fee every work term the students are out in the field.

Grand Total Credit Count -

Grand Total Credit Count - 120

Revised November 3, 2020

Senate Appeals Committee

Report to Senate

At its meeting of November 23, 2023

FOR INFORMATION

1. Annual Student Appeals Statistics, 2022-23

In this annual report, the Senate Appeals Committee (SAC) describes its activities for the past year and presents data on Senate and Faculty-level cases.

Between July 1, 2022 and June 30, 2023, SAC received 35 new files. Nine (9) files were not completed by June 30; an additional five (5) files initiated in 2020-21 were completed. Figure 1 presents the number of cases from the last five years. There were no requests for SAC to approve, on behalf Senate, the rescission of a degree as penalty for breach of academic honesty.

The total number of appeals remained steady with the previous year, likely due to the ongoing modifications to regulations that resulted from the declaration of a disruption due to the COVID-19 pandemic. The percentage of appeals granted in 2022-23 was also relatively consistent with the percentage granted in 2021-22. While this represents a slight decrease from previous years, it was previously hypothesized that this may be due to an increased number of cases for which there were clear grounds being resolved either at or before the petitions level due to these modifications.

Figures 1 and 2, below, and Tables 1-3 give the data for SAC appeals.

Figure 1

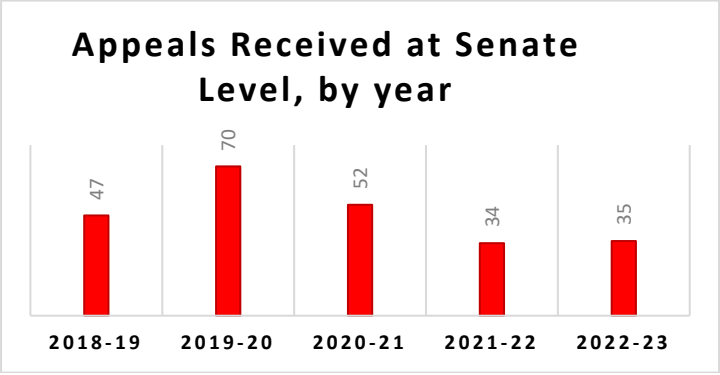

Table 1
OUTCOME OF CONSIDERATION BY SAC, BY YEAR AND DECISION

	2018-19		2019-20		2020-21		2021-22		2022-23	
	Grant	**Dismiss**	**Grant**	**Dismiss**	**Grant**	**Dismiss**	**Grant**	**Dismiss**	**Grant**	**Dismiss**
Dismissal without a hearing	2	22	10	41	11	36	5	20	5	26
Appeal hearings	13	9	20	7	22	4	4	6	5	3
Reconsideration	2	9	1	15	2	12	0	4	0	5
Total	17	40	31	63	35	52	9	30	10	34

Figure 2
Number of Appeals Granted and Denied, by Year

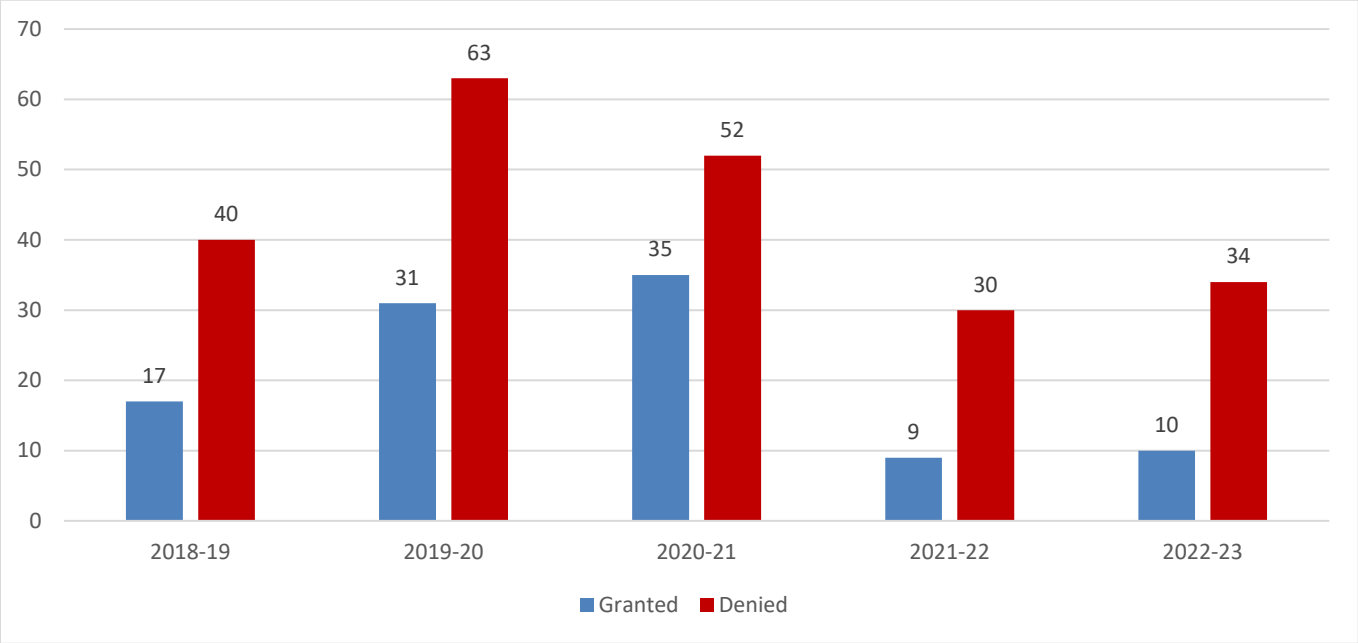

Table 2
SAC APPEALS BY TYPE, YEAR AND NUMBER[1]

Type of SAC Appeal	2018-19 46 Appeals	2019-20 70 Appeals	2020-21 52 Appeals	2021-22 34 Appeals	2022-23 35 Appeals
Course drop without receiving a grade	21	28	23	11	13
Reconsideration of SAC Decision	11	16	21	4	5
Deferment	4	3	1	0	2
Academic Honesty	8	10	11	11	11
Waiver of Required Withdrawal / Debarment	2	15	5	4	3
Grade Reappraisal	8	9	4	4	4
Late Enrolment	0	1	0	1	0
Other	0	0	5	1	1
Waiver of Degree/ Program requirement	2	4	3	0	1
Total	**54**	**86**	**73**	**36**	**40**

Table 3
SAC APPEALS BY FACULTY OF ORIGIN

	2018-19	2019-20	2020-21	2021-22	2022-23
AMPD	1	0	0	0	1
Education	0	0	0	0	0
FEUC	0	0	0	0	1
Glendon	4	5	4	0	1
Graduate Studies	2	6	0	2	2
Health	8	13	15	7	8
Lassonde	6	7	3	5	3
LA&PS	12	15	13	4	11
Osgoode	4	9	5	4	1
Schulich	1	3	1	2	1
Science	8	12	11	10	6

[1] Totals exceed individual cases due to reconsiderations and/or multiple appeals within one case.

2. Annual Reporting of Faculty-level Petition and Appeals Statistics, 2022-23

SAC is continuing its efforts to standardize reporting across the University. The data are for petitions initiated from July 1, 2022 to June 30, 2023. The data in Table 4 provide the big picture but are not entirely comparable across Faculties.[2]

At the bottom of the table, the total number of appeals for each Faculty and the percentage of petitions that were appealed at the Faculty level is provided. The overall percentage of cases appealed is 2.87%, which is slightly higher but consistent with last year (2.54%). Over the past five years, the average has ranged between 2.54 and 5.7%.

The total number of petitions (5709) is also slightly higher but comparable to last year (5561). Overall, most petitions continued to be granted, particularly in the smaller Faculties such as Education and Environmental and Urban Change that have few petitions overall.

[2] Note: Petitions and appeals information was not available from the Faculty of Science at the time of preparation of this report.

Table 4

FACULTY-LEVEL PETITIONS BY TYPE 2022-23

		AMPD	ED	EUC	GL	GS	HH	LA&PS	LSE	OSG	SSB	SC	TOTAL
Petition Type	**Reason**												
Course Add	Enrol In Course(s) After The Faculty Deadline	1			7	6	3	1	4				22
Course Drop	Drop Course(s) After Faculty Deadline	99	8	56	16	115	230	792	49		18		1383
	Granted W on transcript	4	14		43		331	89	24		1		506
Credit								4			2		6
Departmental/ Program Waiver	Advanced Standing: Course Substitute					8					2		10
	Advanced Standing: Course Waiver					7							7
	Advanced Standing: Course Transfer					70							70
	Course Substitution for Major or Minor Req. (s)		3	12	1								16
	Other		1	2	1	9							13
	Waiver Of Degree Credit Exclusion Legislation			2									2
	Waiver with replacement	2		48		10							60
	Take courses out of sequence		6			1							7
	Promotion without satisfying year requirements - Schulich												0
	Reduced course load - Schulich												0
Exemptions	Degree Exemption(s)										1		1
Extension	Deferred Standing, extension of deferred standing	4	2	1	6	5	60	185	93		3		359
	Course extension					46							46
	Program extension					416							416
Grade Reappraisal	Grade Reappraisal		2	1		3			2	26	6		40
Leave	Leave of Absence					414					119		533
	LOA Medical/compassionate					85							85
	LOA No course available					318							318
	Maternity leave					134							134
	Strike-related - FGS												0
Letter of Permission	Credit For Course(s) Taken Elsewhere Without LOP	1				2	1	1					5
Other	Other					15			2		25		42
Overload	Course Overload	5		5		4	53	47	35		8		157

		AMPD	ED	EUC	GL	GS	HH	LA&PS	LSE	OSG	SSB	SC	TOTAL
Readmission													0
Relief against failure	Osgoode only												0
Repeat	Repeat Failed Course		16				6		14				36
	Repeat Passed Course		1				13		2				16
Status	Change degree stream	1	25			38							64
	Change to full-time					45							45
	Change to part-time					82					1		83
	Reinstatement					268							268
	Withdrawal		1			23							24
	Study at a location other than York												0
Stop-out	Education only		9										9
Waiver	Graduate Without Min. Req'd G.P.A.		1				1						2
	Request For Waiver Of Req. Withdrawal*	26					54	10	52		40		182
	Request For Waiver Of Req.Debarment	4			2	9	15		13				43
	Upgrade G.P.A. In Attempt To Graduate						13		3				16
	Waiver Of Degree Credit Exclusion Legislation												0
	Waiver Of General Education Requirement	10					7		35				52
	Waiver Of Honours Standing Regulations	58		2			74	4	43				181
	Waiver Of In-Faculty Requirement	13					4		25				42
	Waiver Of Major Requirement(s)	31				3	1		44				79
	Waiver Of Upper Level Course Requirements	1					1						2
	Other	8		2			4	119	12	182			327
Total		**268**	**89**	**131**	**76**	**2136**	**871**	**1252**	**452**	**208**	**226**		**5709**
Appeals		1	0	1	3	5	74	49	24	NA	7		164
Percentage of decisions appealed		0.37%	0.00%	0.76%	3.95%	0.23%	8.50%	3.91%	5.31%	NA	3.10%		2.87%
*LA&PS required withdrawal and debarment numbers combined													

3. Annual Faculty-Level Academic Honesty Statistics, 2022-23

SAC includes in its annual report statistics on Faculty considerations of charges of breaches of academic honesty. For 2022-23, there was a decrease in the number of breaches of academic honesty. See Table 5 for details.

As previously reported, the increase in cases in 2020-21 can likely be traced back to the COVID-19 pandemic, with many Faculties reporting a large increase in online cheating and group cases. The decrease in the number of cases over the past two years reflects a return to the pre-pandemic numbers as students returned to in-person learning in the classroom. Moreover, a number of Faculties and units have undertaken initiatives in the last few years to raise awareness and educate students about academic honesty matters.

Table 5
ACADEMIC HONESTY CASES BY FACULTY
2018-19 TO 2022-23

Faculty	2018-19 N=817	2019-20 N=978	2020-21 N=2,178	2021-22 N=1,659	2022-23 N=899[3]
AMPD	24	40	25	29	29
Education	9	8	6	6	11
FEUC	8	17	10	6	16
Glendon	26	27	23	23	15
Graduate Studies	30	10	22	9	6
Health	49	78	248	139	136
Lassonde	209	239	406	489	238
LA&PS	357	390	620	529	361
Osgoode	3	11	10	3	5
Schulich	35	70	112	108	82
Science	67	88	696	318	

NOTE: The numbers above refer to charges laid. Where the conclusion of an exploratory meeting was that there was no breach and no formal charge was laid, the case is not recorded.

4. Policies and Procedures

Draft Academic Conduct Policy and Procedures
Following efforts over the course of a number of years, a draft Academic Conduct Policy and Procedures has been developed to supersede the Senate Policy on Academic Honesty. The Senate Standards, Curriculum and Pedagogy Committee (ASCP) recently completed its review of the document and has requested comments/ concurrence from SAC in anticipation that the draft Policy will be brought to Senate in early 2024.

[3] Note: Academic Honesty information was not available from the Faculty of Science at the time of preparation of this report.

Interim Extension of the Waiver of Required Attending Physician's Statements
A request to extend the waiver of required Attending Physician Statements to support requests for deferred standing, petitions and appeals for an additional six months, from December 31, 2023 to June 30, 2024 is being considered by Senate at this meeting. SAC is in support of this extension, which will allow ASCP to finalize for Senate approval a Senate-level policy on *Attending Physician Statements* for the University's petitions, appeals and deferred standing processes.

5. Hail and Farewell

The members of the Senate Appeals Committee and the staff of the Secretariat extend their thanks and appreciation to our departing members for their work on and commitment to the Senate Appeals Committee: Professors Bridget Cauthery, Skye Fitzpatrick, Andrew McEachern, and Gabrielle Moser and students Yashna Manek, Disha Mittal and Shawn Yuan.

A warm welcome is extended to new members: Professors Cheryl Cowdy, May Haidar, Sirvan Karimi, and Ron Ophir.

Jessica Sutherland, Chair, 2023-24

The Senate of York University – Minutes

Meeting: Thursday, 26 October 2023, 3:00 pm
Via videoconference

P. Puri (Chair)	O. Eyawo	A. Maxwell	D. Steinfeld
L. Sergio (Vice-Chair)	T. Farrow M. Fiola	A. McKenzie	J. Sutherland
P. Robichaud (Secretary)	S. Gajic-Bruyea	J.J. McMurtry	M. Tadros
O. Alexandrakis	M. Giudice	K. Michasiw	S. Watson
M. Annisette	A. Glasbeek	M. Morrow R.	M-A. Tarc
L. Appel	R. Green	Mykitiuk	K. Tasa
A. Asif	M. Hamadeh	D. Nevelev	A. Taves
G. Audette	A. Hilliker	K. Oraka	G. Tourlakis
P. Aulakh	W.M Ho	A. Ouedraogo	P. Tsasis
T. Baumgartner	A. Hovorka	D. Palermo	R. Tsushima
S. Bay-Chen	S. Karimi	P. Park	A. Valeo
A. Belcastro	K. Kontogiannis	A. Pathak	B. van Rensburg
S. Bell	A. Kosavic	A. Pechawis	G. Vanstone
D. Berbecel	T. Kubiseski	D. Peters	W. van Wijngaarden
M. Biehl	M. Lambert-Drache	L. Philipps	A. Viens
S. Bohn	G. Langlois	D. Pilon	R. Vives
P. Burke Wood	R. Lee	S. Pisana	Rose Wang
D. Cabianca	N. Lemish	A. Pitt	R. Wang
J. Connolly	R. Lenton	M. Poon	S. Warwick
N. Couto	M. Longford	E. Prince	N. Waweru
A. Czekanski	W. Maas	A. Pyée	A. Weaver
S. Datta	A. MacLachlan	S. Rehaag	R. Wellen
A. Davis	A. Macpherson	T. Remmel	D. Zwick
M. Di Paolantonio	J. Magee	N. Robinson	
A. D'Souza	S. Mahadeo	V. Saridakis	
M. Ebrahimi	H. Mahon	R. Savage	
C. Ehrlich	C. Mallette	B. Spotton Visano	
J. Elwick	D. Matten	C. Steele	

1. Chair's Remarks

The Chair, Poonam Puri, welcomed Senators and expressed appreciation to members for accommodating the shift from in-person to virtual mode for the meeting.

2. Business Arising from the Minutes

There was no business arising from the minutes of the meeting of 28 September 2023.

3. Inquiries and Communications

There were none.

4. President's Items

Under President's items, President Lenton spoke to the following:

- Community members being affected by world events and the need for the University to be part of the solution. The University needs to create conditions to allow expression of free speech to flourish. The University is following its own regulation in addressing the statements made by three student organizations.
- FW 2023-2024 enrolment update and flow-through resource challenges – the University seeing some recovery in enrolment data, but is still off target.
- The plan of starting community budget consultations is underway and intended to engage members in providing input on the budget.
- Related to Bill 124, the University is wage reopener discussions with unions.
- Auditor General value-for-money audit report is expected by end of November and will likely focus on enrolment; key performance indicators; capital projects and deferred maintenance.
- Blue Ribbon Panel on Financial Sustainability in the Postsecondary Education Sector expected soon.
- President's annual report published in Y-file, reflects progress and achievements of the University and community members, and demonstrates York's commitment to drive positive change.

The President's monthly "Kudos" report on the achievements of members of the York community was received.

Committee Reports

5. Executive Committee

a. Election of Members of Non-Designated Senate Committees

As set out in the written report circulated with the agenda, the Vice-Chair reported that Professor Tom Kirchner, Faculty of Science, was nominated for the Tenure and Promotions Committee and confirmed that no other nominations were received. It was moved by the Vice-Chair, seconded and *carried* **"that nominations be closed"** for the election of members of non-designated Senate committees.

Senators were invited to nominate colleagues for the remaining vacancies on the Tenure and Promotion Committee.

The Vice-Chair spoke to the Executive Committee's information items in the report circulated with the agenda, including:

- Executive Committee's approval of Glendon's Faculty Council nominee, Professor Dan Berbecel, to the Academic Policy, Planning and Research Committee, and
- Priorities for 2023-2024. Senators invited to comment on the priorities. Updates will be provided throughout the year.

6. Academic Policy, Planning and Research Committee (APPRC)

The Chair of APPRC, Senator Davis, spoke to the Committee's 2023-2024 priorities and actions to date, including:

- the priority of re-examining the pedagogical approach to 21st Century Learning, on which APPRC dedicated its planning forum, held earlier in the day. Participants were asked to consider and provide feedback on the five recommendations of the Joint Task Force on the Future of Pedagogy report. APPRC will provide a future report on the recommendations and outcomes.
- Markham Campus: continuing to facilitate discussions and providing support on the development of academic planning for the Campus; digital literacy courses are moving through Faculty Council governance processes, and work on research and faculty spaces are underway.
- support for the strengthening of Glendon to remain sustainable to offer the best possible education under current constraints. Report for restructuring expected in late Fall.
- extended welcome to Dan Berbecel.

7. Academic Standards, Curriculum and Pedagogy Committee

a. Establishment of a PhD program in Disaster and Emergency Management, School of Administrative Studies, LA&PS.

It was moved, seconded, and *carried* that **Senate approve the establishment of the PhD in Disaster and Emergency Management, School of Administrative Studies, LA&PS, effective FW2024.**

b. Establishment of an Honours Minor BA degree program in Chinese Studies, Department of Languages, Literatures and Linguistics, LA&PS.

It was moved, seconded, and *carried* that **Senate approve the establishment of the Honours Minor BA degree program in Chinese Studies, Department of Languages, Literatures and Linguistics, LA&PS, effective FW2024.**

c. Closure of the International Bachelor of Business Administration (iBBA) degree program, Schulich School of Business.

It was moved, seconded, and *carried* that **Senate approve the closure of the International Bachelor of Business Administration degree program, Schulich School of Business, effective FW2026**.

The Chair spoke to the following information items:

- on the APPRC planning forum discussions, held earlier in the day: the importance and need to translate the many good ideas coming into action.
- the ongoing work on ASCP priorities, including the Academic Conduct Policy; collaboration with the Office of the University Registrar on progressing the new grading schemes; discussions on Generative AI; and continuing discussions on the waiver of requirement for "Attending Physician Statements. ASCP anticipates bringing a request for an extension of the waiver to Senate Executive in November.
- ASCP is looking into the possibility of proposing guard rails around the weight of final exams, which can form 85% of a student's final grade. Progress on the item will be reported on at a future meeting.

8. Other Business

There being no other business, it was moved, seconded and *carried* **"that Senate adjourn."**

Consent Agenda Items

9. Minutes of the Meeting of 28 September 2023

The Minutes of the meeting of 28 September were *approved by consent*.

Poonam Puri, Chair _____

Pascal Robichaud, Secretary _____