Decline and crisis in Ontario's Northern universities and Arts education

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Introduction¹

THE ENROLMENT AND related funding conditions currently facing the Northern universities and Faculties of Arts raises fundamental questions about the province of Ontario's market-oriented, tuition-fee dependent provision system for university education in hinterland-colonial conditions such of those of Northern Ontario. This is not simply about levels of total funding and austerity but also about the form of its distribution.

Universities and Arts programs in Southern Ontario, including in elite universities, have also been affected negatively by the current model. But the degree of impact in the North is substantial, further advanced in relative decline, and deserves particular attention as universities and Faculties of Arts have been pushed further into persistent cuts and precarity.

The expansion of the Ontario public university system after the Second World War was shaped by three decades of generally rapid economic and population growth and by the emergence of a provincial university policy framework in which administrative control was relatively decentralized to each university as a corporation. Each university's funding was based largely on provincial public grants supplemented by tuition fee and other private revenues.2

One can summarize the model as having four crucial institutional elements: (1) the public (Crown) ownership of land, facilities, and donations, with each university's property held through individual university corporations, each chartered individually by legislated statute with each university's statute typically stating public objects and purposes³; (2) the control of finances and

operations of each university vested in a board of governors, whose members were initially majority provincial-government appointed and typically have been chosen from corporate and professional elites⁴; (3) provincial public funding distributed to each university, based primarily on student enrolment and program mix as early as 1967 as a general funding formula, subject to overall provincial government budgetary priorities⁵; (4) private revenues, especially tuition fees, which have made individual universities directly dependent on student enrolment and tuition rates whose provincewide maximum levels were regulated by the province.

Through budgetary priorities and regulatory changes, including their funding formula for universities, provincial governments determined the overall level of expansion of the system, the general weight of tuition revenues, strategic capital and program investments, such as in prestigious professional schools and research programs, and provided supplementary special-purpose funding to stabilize individual universities in crisis or to respond to particular political pressures.6

The public provision model created by the Ontario government has been characterized as an "entrepreneurial university system" (Axelrod 1982: 98, 194), which captures the emerging corporate-competitive aspect of the system.7 The university system was generally stable in conditions of expanding public funding and overall enrolment growth.8 However, beginning in the 1970s, slowing economic growth and federal government funding cuts challenged provincial government budgetary spending and tax priorities. Over the next decades, the provision of university education was subjected, in varying degrees, across several governments toward a reduced budgetary priority and an increased market orientation.9

Within this structure, the central element of Ontario's budget-led transformation of the university system was the gradual privatization of university funding, primarily through tuition fee increases, particularly from the late-1970s.

The long-term consequences have been dramatic. Ontario governments have reduced their public grants for university operating revenues from a level at about 80 per cent in 1980 to around 50 per cent in 2004, and to only 38 per cent in 2017.¹⁰ By contrast, domestic and international tuition fees and miscellaneous fees paid by students jumped from 15 per cent in 1980 to 45 per cent in 2004 to 56 per cent in 2017—becoming, by far, the largest funding source for operating funds. Leading provincial bodies and university administrations have shifted from talking about "public universities" to

the language of "publicly assisted universities" and "publicly supported universities".11

Within Canada, Ontario has come to spend less per university student than any province in Canada and has the highest tuition fees in Canada (OURA 2017, COU 2012). At Laurentian University, for example, full-time annual undergraduate Arts and Science fees since 1979-80 increased to \$6,473 by 2017–18, a nearly 9.4-fold increase in nominal terms and 2.6-fold increase in real terms. As indicated in Appendix Table 1, the tuition increases have occurred in varying degrees under Conservative, Liberal, and NDP governments.

Further, university fees were raised across the board and were even higher by type of student and for certain programs. Among the first such actions, in the late-1970s, universities created sharply higher "differential" tuition fees for international students.¹² As well, tuition in undergraduate professional programs, such as Engineering and Business, was "differentiated," with graduate and post-undergraduate professional faculty fees increased even further. Miscellaneous fees to students were also increased and new user fees created, such as for services in registrars' offices, in athletics programs, and for materials in certain programs.¹³ This differentiation in tuition and ancillary fees augmented the differential rates within provincial operating grants in the basic-income-unit (BIU) system, which was structured so that Arts programs received less revenue per student.14

While all these fee increases occurred at the Northern universities, more prestigious universities in Southern Ontario and more prestigious programs with greater student demand and market power saw even higher increases in some differentiated fees. One result has been that elite universities, like the University of Toronto, now have a much higher share of their operating revenues from tuition fees and a lower share from provincial grants than do the Northern universities. For example, taking 2016–17 operating revenues, the University of Toronto received 64.7 per cent from tuition and miscellaneous fees and 29.6 percent from provincial grants and contracts; by contrast, Lakehead University received 49.7 per cent and 46.1 per cent, respectively, and Nipissing University received 41.3 per cent and 55.2 per cent, respectively (COFO, Static Report 2016–17, Table 2). Hence, the Northern universities were also more vulnerable to provincial budgetary austerity.

Although there had long been an element of competition in relations between universities, the increased dependence of universities on their tuition revenue coupled with overall slower system enrolment growth has led to much intensified competition among universities for students and

to institutional changes such as increased administrative expenditures for advertising, recruiting, public relations, and alumni and corporate-oriented fund-raising campaigns. The privatization trend also became fertile ground for increased managerialism, which was pressed as being needed for cost control and market-narrowed educational objectives though it has likely increased stratification in salary structures and has shifted staffing away from teaching and research. ¹⁶ A substantial literature has arisen critical of centralizing corporate trends in university administration and the devaluing of non-commercial objectives in education, collegiality, and academic freedom.¹⁷ Thus, the role of the competitive, tuition-fee dependent funding model in encouraging such trends has larger implications in addition to goals of social accessibility or educational attainment. In Northern Ontario, these other goals include development and decolonization objectives as well as countrywide mandates focused on Indigenous education and Francophone education.

The impacts of Ontario's privatization trend are felt across its public universities, and the situation would be difficult enough if all the province's regions had similar socio-economic conditions. But there are also major disparities in regional conditions within Ontario.

Northern Ontario, which has a population of about 780,000, including distinct Indigenous and Francophone populations, across a land area of 800,000 square kilometres (about 87 per cent of Ontario), has poor employment prospects, weaker educational and cultural conditions, lower educational attainment and university participation, and, not least, the ravages of colonialism.¹⁸ In what follows we argue that Ontario's actions for privatization, with its diminished commitment to non-market educational objectives, has led to a major weakening of the Northern universities as a whole and Arts education particularly, which has major implications for social, cultural, and economic development, as well as decolonization objectives.

The Ontario university system context of rapid to slowing expansion

AS SUCCESSIVE ONTARIO governments shifted the university system toward increased dependence on tuition fees, the competing universities in the system became more vulnerable to declines in enrolment. In times of growth, with relatively lower fees and student indebtedness, this shift might have appeared as a distant problem, but with slowing enrolment growth and intensified intra-system competition, issues of institutional and program viabilities would come to the fore.

This section reviews the context of aggregate expansion in the Ontario system since the 1960s, with special attention to the most recent two decades and to full-time undergraduate enrolment, which currently is nearly 75 per cent of all enrolment.19 We will see that the system moved from rapid growth dependent largely on domestic undergraduate students, especially persistently increasing female enrolment, to one with slower increases, and even stagnation or absolute declines in domestic undergraduate enrolment, a situation partially masked by the more rapid increases in graduate and international enrolment.

For Ontario's public university system, the 1960s are widely recognized as a time of massive and extensive growth, even a "structural revolution"²⁰, with a more than doubling in the number of public universities and four-fold expansion of enrolment. As the 1960s arrived, Ontario had seven secular public universities, most of which grew out of religious colleges secularized for public funding.21 During that decade, the province chartered eight more public universities. This included the first two in Northern Ontario, Laurentian University (1960) at Sudbury and Lakehead University (1965) at Thunder Bay. Both were developed as undergraduate universities initially offering mostly Arts and Sciences programs. Further, Laurentian University had a bilingual mandate and a federated structure that included three denominational universities, Huntington University (United Church), Thorneloe University (Anglican), and the Université de Sudbury (Roman Catholic) offering Arts programs. As well, Laurentian had affiliated university institutions in other communities in northeastern Ontario that later gained independence: Nipissing University (1992) at North Bay and Algoma University (2008) at Sault Ste. Marie, while the Université de Hearst at Hearst (2014) was given greater autonomy though still formally part of Laurentian.

In terms of enrolment, the number of full-time university students in Ontario jumped from 32,751 in 1960 to 121,115 in 1970.²² The increase was larger for female students, whose numbers rose from 24.6 per cent to 33.9 per cent of full-time students. Graduate enrolment also increased, from 8.1 per cent to 12.2 per cent of all full-time students. University participation rates for the 19–23 age group more than doubled, from 8.7 per cent in 1959–60 to 18.2 per cent in 1971–72.²³ Enrolment continued to increase during the 1970s and 1980s, though at a generally less rapid rate and, by the 1990s, Ontario enrolment had reached over 200,000 full-time students, about half or whom were female.

The 1990s, during which Ontario was beset by industrial restructuring and recession, confronted the university system with more visible enrolment and accessibility issues. Full-time enrolment in Ontario universities peaked in 1993 at 231,156 and did not recover until 1999, and participation rates stagnated or declined over several years.²⁴ Female enrolment slowed though continued to increase, while male enrolment declined during most years and did not recover until 2001. As a result, female enrolment was 52.1 per cent of full-time enrolment in 1993, while it was at 55.0 per cent in 1999. Also during these years, graduate enrolment expanded more rapidly than undergraduate, rising from 14.8 per cent of full-time enrolment in 1993 to 15.3 per cent in 1999.25

Compared to the 1990s, the 2000s and 2010s can appear as a recovery or return to more stable, if slower, enrolment growth. The recovery was aided by a "double cohort" boost in enrolment: after Ontario ended Grade 13 in its high schools in 2003, the universities had a double entry of students in

TABLE 1 Ontario universities, full-time enrolments (headcounts), by level, domestic status, and gender, fall, 2000–18

Ontario	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2000 -18	2000 -12	2012 -18
All students	242,309	253,544	274,685	313,100	330,772	346,673	355,763	359,250	367,164	384,083	397,653	409,569	419,963	427,938	433,797	440,666	450,750	459,720	470,308	94.1	73.3	12.0
annual change (%)		4.6	8.3	14.0	5.6	4.8	2.6	1.0	2.2	4.6	3.5	3.0	2.5	1.9	1.4	1.6	2.3	2	2.3	3.8	4.7	1.9
Undergraduate students																						
no. of students	215,846	225,319	243,936	280,218	296,784	311,801	318,529	316,780	322,362	336,798	348,541	359,064	367,298	373,171	377,520	382,761	390,596	396,400	404,289	87.3	70.2	10.1
annual change (%)		4.4	8.3	14.9	5.9	5.1	2.2	-0.5	1.8	4.5	3.5	3.0	2.3	1.6	1.2	1.4	2.0	1.5	2.0	3.6	4.6	1.6
% of all students	89.1	88.9	88.8	89.5	89.7	89.9	89.5	88.2	87.8	87.7	87.6	87.7	87.5	87.2	87.0	86.9	86.7	86.2	86.0			
Graduate students																						
no. of students	26,463	28,225	30,749	32,882	33,988	34,872	37,234	42,470	44,802	47,285	49,112	50,505	52,665	54,767	56,277	57,905	60,154	63,320	66,019	149.5	99.0	25.4
annual change (%)		6.7	8.9	6.9	3.4	2.6	6.8	14.1	5.5	5.5	3.9	2.8	4.3	4.0	2.8	2.9	3.9	5.3	4.3	5.3	6.0	3.9
% of all students	10.9	11.1	11.2	10.5	10.3	10.1	10.5	11.8	12.2	12.3	12.4	12.3	12.5	12.8	13.0	13.1	13.3	13.8	14.0			
Undergraduate students																						
Domestic undergraduates																						
no. of students	207,401	214,645	230,857	264,560	279,169	292,975	299,978	298,033	302,831	315,850	325,889	334,132	339,390	342,246	342,241	343,669	347,338	347,956	349,761	68.6	63.6	3.1
annual change (%)		3.5	7.6	14.6	5.5	4.9	2.4	-0.6	1.6	4.3	3.2	2.5	1.6	0.8	0.0	0.4	1.1	0.2	0.5	3.0	4.3	0.5
% of undergraduate students	96.1	95.3	94.6	94.4	94.1	94.0	94.2	94.1	93.9	93.8	93.5	93.1	92.4	91.7	90.7	89.8	88.9	87.8	86.5			
International undergraduates																						
no. of students	8,445	10,674	13,079	15,658	17,615	18,826	18,551	18,747	19,531	20,948	22,652	24,932	27,908	30,925	35,279	39,092	43,258	48,444	54,528	545.7	230.5	95.4
annual change (%)		26.4	22.5	19.7	12.5	6.9	-1.5	1.1	4.2	7.3	8.1	10.1	11.9	10.8	14.1	10.8	10.7	12.0	12.6	11.1	10.8	11.8
% of undergraduate students	3.9	4.7	5.4	5.6	5.9	6.0	5.8	5.9	6.1	6.2	6.5	6.9	7.6	8.3	9.3	10.2	11.1	12.2	13.5			
Female undergraduates																						
no. of students						179,625	183,806	180,783	183,103	189,489	195,722	201,091	205,077	207,922	210,129	212,633	217,894	221,179	225,596	25.6	14.2	10.0
annual change (%)							2.3	-1.6	1.3	3.5	3.3	2.7	2.0	1.4	1.1	1.2	2.5	1.5	2.0	1.8	1.9	1.6
% of undergraduate students						57.6	57.7	57.1	56.8	56.3	56.2	56.0	55.8	55.7	55.7	55.6	55.8	55.8	55.8			
Male undergraduates																						
no. of students						132,176	134,723	135,997	139,259	147,299	152,794	157,955	162,203	165,230	167,376	170,108	172,609	173,573	175,391	32.7	22.7	8.1
annual change (%)							1.9	0.9	2.4	5.8	3.7	3.4	2.7	1.9	1.3	1.6	1.5	0.6	1.0	2.2	3.0	1.3
% of undergraduate students						42.4	42.3	42.9	43.2	43.7	43.8	44.0	44.2	44.3	44.3	44.4	44.2	43.8	43.4			
Other/not reported (gender)																						
no. of students (undergraduate	s)									11	25	18	18	19	15	20	93	1,648	3,302			
% of undergraduate students										0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8			

Note Domestic undergraduates refers to Canadian citizens or residents. Their numbers are obtained by subtracting the international from total undergraduate numbers. The female and male numbers do not add exactly to the undergranduate totals. From 2009 on, CUDO reported a small category of students as "Other/Not Reported." The percentage changes for female and male undergraduates are calculated over 2005-2018 and 2005-2012.

Source COU T3, T5, T7

undergraduate programs, entering in the fall of 2003 and graduating in the spring of 2007. As shown in Table 1, full-time enrolment at all levels show continuing growth in every academic year from 2000-18, marked by the double-cohort boom of 2003-06 and a second boom 2009-12, then a slowing in annual growth. Annual growth over the period averaged around 3.8 per cent, though declined to 1.9 per cent after 2012. These full-time enrolment growth rates for Ontario's university system were still substantially higher than the growth rates for Ontario's population, which averaged 1.1 per cent between 2006-11 and averaged 0.9 per cent between 2011-16.26 However, the picture of continuing enrolment growth, even at somewhat lower levels since 2012, can be misleading when one looks at domestic undergraduate student numbers and, more so, as we will see, at particular regions and program areas like the Arts.

Undergraduate and graduate students. The growth in undergraduate enrolment was generally slower than Ontario's system growth, averaging 3.6 per cent compared to 3.8 per cent. In only one year, 2007, did overall undergraduate enrolment decline, and likely due to the singular end of the "double cohort." As a result of the more rapid expansion of graduate enrolment, the share of undergraduate students in total full-time enrolment decreased from 89.1 to 86 per cent, while the share of graduate students increased from 10.9 to 14 per cent.

Domestic and international undergraduate students. The picture shifts further if one focuses on changes in the number of domestic undergraduate students, which includes Ontario and other Canadian citizens as well as residents paying domestic-level fees. Between 2006–16, there was an overall lower average rate of growth for domestic undergraduate students, about 3 per cent compared to 3.8 per cent for total enrolment. Further, after 2012, there appears to have been a sharp decline in the growth of domestic undergraduate enrolment to about 0.5 per cent, with two years having effectively no growth. By contrast, enrolment of international undergraduate students increased rapidly. As a result, the share of domestic undergraduate enrolment of total undergraduate enrolment decreased from 96.1 to 86.5 per cent, while the share of international undergraduate students increased from 3.9 to 13.5 per cent.

Female and male undergraduate students. During the 2000s and 2010s, among all full-time undergraduate students, female students were in the majority and their numbers grew regularly, except for the single-year decline at the end of the double cohort. From 2006-18, male enrolment had overall higher levels of growth, especially during the 2009-12 boom, 2.2 per cent compared to 1.8 per cent. Hence, the female share of full-time undergraduates decreased from 57.6 to 55.8 per cent, while the male share increased from 42.4 to 44.2 per cent. However, data since 2015 could show a return to the previous pattern of higher growth rates for female enrolment compared to male enrolment. The gender picture is complicated by systemic inadequacies in data collection in addressing gender diversity. Although Table 1 reports official counts of "other/not reported," these should not be taken as adequate counts of non-binary or other gender non-conforming identities of students.

Slowing growth, declining university enrolments in **Northern Ontario**

DURING THE 2000S and 2010S, as total enrolment growth slowed, the regional disparities in the increasingly tuition-driven, competitive structure emerged more clearly, particularly in Northern Ontario. Four key patterns in enrolment change are noted here: (1) the turn to not only relative but absolute decline in full-time undergraduate enrolment; (2) the more variable enrolment and role of the Northern universities as a capacity reserve in the Ontario system; (3) the much smaller scale of the Northern universities and, hence, disproportionate impacts from system changes, and; (4) the higher level of part-time enrolment and rapid expansion of graduate enrolment, though not sufficient to stem to decline in full-time undergraduate enrolment.

To begin, the number of full-time undergraduates enrolled in Northern universities peaked in 2011 at nearly 18,000, then has declined or stagnated since (Table 2). While growth averaged 3.8 per cent between 2000–11, it fell to an average of -o.8 per cent between 2011–18. As a part of the Ontario university system, the Northern universities reached a relative peak of 5.2 per cent of undergraduate enrolment in 2004-06 during the double-cohort period, but by 2018 it had declined to 4.2 per cent.

TABLE 2 Changes in Ontario and Northern Ontario full-time undergraduate enrolments, fall, 2000–18

	Onta	rio		Northern Ontario	
	students (headcount)	annual % change	students (headcount)	annual % change	as % of Ontario
2018	404,289	2.0	16,951	2.7	4.2
2017	396,400	1.5	16,503	-3.3	4.2
2016	390,596	2.0	17,074	-0.0	4.4
2015	382,761	1.4	17,077	-2.6	4.5
2014	377,520	1.2	17,541	-1.0	4.6
2013	373,171	1.6	17,717	-0.8	4.7
2012	367,298	2.3	17,863	-0.5	4.9
2011	359,064	3.0	17,956	0.8	5.0
2010	348,541	3.5	17,813	3.8	5.1
2009	336,798	4.5	17,159	4.7	5.1
2008	322,362	1.8	16,390	0.8	5.1
2007	316,780	-0.5	16,258	-2.5	5.1
2006	318,529	2.2	16,671	2.3	5.2
2005	311,801	5.1	16,298	5.8	5.2
2004	296,784	5.9	15,410	11.9	5.2
2003	280,218	14.9	13,771	20.0	4.9
2002	243,936	8.3	11,478	6.8	4.7
2001	225,319	4.4	10,751	0.7	4.8
2000	215,846		10,678		4.9
	% change	annual % change	% change	annual % change	
2000–18	87.3	3.6	58.7	2.7	
2000-11	66.4	4.1	68.2	3.8	
2011–18	12.6	1.7	-5.6	-0.8	

Note The Northern Ontario universities: Algoma, Lakehead, Laurentian including Hearst, Nipissing, NOSM. Northern university totals include enrolments in satellite campuses in Southern Ontario. Source COLLT3

> As Table 3 indicates, every Northern university was affected. Full-time undergraduate enrolment peaked at Lakehead University and Nipissing University in 2010, at Algoma University in 2013, and at Laurentian University (grouped with l'Université de Hearst) in 2015. The fragile enrolment situation of the Université de Hearst, which is formally grouped with Laurentian, reflects the difficult hinterland and class conditions of university education in Northern Ontario and the particular and deteriorating situation of Franco-Ontarian post-secondary education.

> Northern universities are not alone in facing enrolment declines or stagnation in full-time undergraduate numbers. This was the situation most clearly with OCAD beginning in 2012, with Windsor, to a lesser degree, also beginning in 2012, and with Wilfrid Laurier beginning in 2013, all of which had multiple-year declines. Some other Southern universities may have reached peaks or begun to stagnate in undergraduate numbers, such

TABLE 3 Northern Ontario and Southern Ontario full-time undergraduate enrolments, by university, fall, 2000–18

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Northern Ontario)																		
Algoma										790	834	920	1,106	1,218	1,189	1,081	998	894	954
Lakehead	4,770	4,662	4,919	5,552	5,781	5,678	5,592	5,702	5,746	6,119	6,426	6,364	6,348	6,304	6,235	5,725	5,923	5,700	5,847
Laurentian	3,692	3,688	3,890	4,646	5,737	6,074	6,222	5,864	5,685	6,011	6,241	6,365	6,281	6,292	6,335	6,624	6,522	6,325	6,156
- Algoma	303	330	423	540	728	721	815	784	755										
- Hearst	74	86	93	125	93	100	89	83	82	72	77	81	69	68	73	109	107	130	147
Nipissing	1,839	1,985	2,153	2,908	3,071	3,669	3,841	3,627	3,833	3,845	3,874	3,866	3,672	3,419	3,284	3,105	3,087	3,016	3,399
NOSM						56	112	198	289	322	361	360	387	416	425	433	437	438	448
Northern total	10,678	10,751	11,478	13,771	15,410	16,298	16,671	16,258	16,390	17,159	17,813	17,956	17,863	17,717	17,541	17,077	17,074	16,503	16,951
Southern Ontario)																		
Brock	8,006	8,422	9,333	11.528	12,559	13,381	13,385	12.888	12.891	13,541	14.076	14,439	14,674	14.852	14,911	14,653	14.838	14,766	14.922
Carleton	11,616	12,357	13,852	15,729	16,538	16,757	16,942	16,560	16,722	17,541	18,162	19,068	19,456	20,038	20,403	20,602	20,977	21,707	21,755
- Dominicain	52	45	45	66	73	69	71	57	57	41	36	43	57						
Guelph	12,337	12,763	13,743	15,585	16,546	16,920	18,020	17,910	18,354	20,361	21,604	22,544	22,507	22,706	22,943	23,706	24,277	24,200	24,117
McMaster	12,333	13,088	14,577	16,593	17,620	18,844	19,394	19,787	20,390	21,326	21,327	21,797	22,249	22,612	22,860	24,797	26,007	26,634	27,719
OCAD	1,828	1,895	1,921	2,407	2,646	2,767	2,556	2,567	2,561	2,815	3,054	3,260	3,438	3,395	3,358	3,318	3,180	3,204	3,205
UOIT				903	1,782	2,922	4,152	4,829	5,164	5,883	6,515	7,472	8,139	8,601	8,748	8,617	8,795	8,826	8,942
Ottawa	15,926	16,763	18,195	21,154	22,513	24,204	24,891	25,633	25,793	27,016	28,200	28,825	29,920	30,035	30,269	30,341	30,996	30,809	31,311
Queen's	12,822	13,025	13,391	14,099	14,168	14,520	14,250	14,082	14,793	15,197	15,730	16,985	17,303	17,711	18,519	19,102	19,426	20,221	20,913
Ryerson	10,605	11,213	12,167	13,770	14,480	16,249	16,525	16,487	17,510	18,172	18,632	19,378	20,731	22,020	24,408	26,027	27,740	28,262	28,832
Toronto	34,063	35,454	38,160	47,270	49,842	52,363	53,114	53,293	53,821	55,636	56,531	57,566	59,235	60,711	61,925	63,720	64,336	64,947	65,720
Trent	3,908	4,063	4,845	5,850	6,073	6,588	6,688	6,137	6,007	6,104	6,187	6,334	6,409	6,498	6,540	6,701	7,281	7,733	8,223
Waterloo	17,447	17,957	19,099	20,206	21,042	21,305	21,955	22,463	23,145	24,894	26,458	27,445	28,349	29,106	29,560	29,914	30,910	31,779	32,518
Western	21,211	22,154	23,455	24,735	25,663	26,178	26,468	25,763	25,993	26,635	27,457	28,369	28,645	28,947	29,155	28,861	29,683	29,803	30,369
Wilfrid Laurier	7,031	7,937	8,298	9,696	10,483	11,253	12,014	11,938	12,356	13,325	14,102	14,687	15,272	15,516	15,095	14,839	14,873	15,244	15,244
Windsor	8,976	9,671	10,199	11,790	12,132	12,308	12,291	11,529	11,494	11,389	11,645	11,639	11,804	11,802	11,589	10,882	10,565	10,542	10,572
York	27,007	27,761	31,178	35,066	37,214	38,875	39,142	38,599	38,921	39,763	41,012	41,257	41,247	40,904	39,696	39,604	39,638	41,220	42,976
Southern total	205,168	214,568	232,458	266,447	281,374	295,503	301,858	300,522	305,972	319,639	330,728	341,108	349,435	355,454	359,979	365,684	373,522	379,897	387,338

Note Algoma became independent of Laurentian University in 2009. Dominicain's enrolment is included with Carleton University beginning in 2013. Source COU T3

> as Brock beginning in 2014. This situation, given current funding policies, poses serious challenges for these and other Southern universities who fall into multiple-year enrolment declines or plateaus. However, part of what distinguishes the conditions of Northern universities in this respect is their generally smaller scale, coupled with generally larger proportionate declines.

> Compared to the system, Northern university full-time undergraduate enrolment did not simply turn negative after 2011, overall, they were more variable and had a pattern that suggests how the Northern universities are now functioning as a capacity reserve. During years of rapid system expansion, the rate of expansion in Northern universities was actually higher, after a short lag, and in years of slowing growth, the decline in Northern

universities was greater, even negative (Table 2). This was reflected in 2003, the first or intake year of the "double cohort," when the Ontario system had overall expansion of 14.9 per cent while the Northern Ontario expansion was 20 per cent (Table 2). Similarly, in the first year of the boom of 2009, the system expansion was 4.5 per cent, while in Northern Ontario it was 4.7 per cent. More often, however, annual growth rates in Northern Ontario have been well below those of the system: the overall growth for 2000–18 for all Ontario was 87.3 per cent, or an annual average growth of 3.6 per cent, while for Northern Ontario it was 58.7 per cent and 2.7 per cent, respectively.

For the Northern universities, such aggregate percentages do not give an adequate indication of institution- or faculty-level impacts of system-level changes in enrolment. Table 4 helps to give a clearer perspective on the relative scale of Northern and Southern universities for both undergraduate and graduate full-time students. In 2000, Northern universities were much smaller than universities in Southern Ontario, except for the specialized Ontario College of Art and Design University (OCAD) in Toronto and Trent University in Peterborough. In 2018, the Northern universities had become even smaller relative to universities in Southern Ontario, except again for OCAD, now OCAD University (OCADU), and Trent University. Over the period, the average size of universities in Northern Ontario had increased for all full-time students from 3,681 to 4,747 students, or by 29 per cent, while the average size of universities in Southern Ontario increased from 15,418 to 28,207 students, or by 83.0 per cent. The smaller scale of Northern universities suggests that if the generally slower growth compared to Southern universities continues, there will be a growing gap in scale between Northern and Southern universities in Ontario.

It deserves note that these comparisons are conservatively based on counting three Northern universities in 2000 and only four in 2016, although Algoma was independent of Laurentian by 2018 and, arguably, so was Hearst. Nor does the university count recognize the federated university structure of Laurentian: the enrolment numbers for Laurentian include the enrolment of its affiliated Huntington University, the University of Sudbury, and Thorneloe University. Further, in terms of Northern enrolment numbers, the 2018 numbers here include students enrolled at Southern Ontario campuses of the Northern universities, so the enrolment is higher than would be accounted for strictly by campuses located in Northern Ontario.

So far, we have emphasized full-time undergraduate enrolment due to its central importance in university funding for Northern universities and teaching responsibilities. However, from access and research standpoints

TABLE 4 Size of Ontario's Northern and Southern universities, by full-time students, fall, 2000 and 2018

		2000			2018			.8 (percentage	change)
	Undergrad students	Graduate students	All students	Undergrad students	Graduate students	All students	Undergrad students	Graduate students	All students
Northern Ontario									
Algoma	0	0	0	954	0	954			
Lakehead	4,770	182	4,952	5,847	1,301	7,148	22.6	614.8	44.3
Laurentian	3,692	183	3,875	6,156	571	6,727	66.7	212.0	73.6
- Algoma	303	0	303						
- Hearst	74	0	74	147	0	147			
Nipissing	1,839	0	1,839	3,399	166	3,565	84.8		93.9
NOSM	0	0	0	448	0	448			
Northern Ontario	10,678	365	11,043	16,951	2,038	18,989	58.7	458.4	72.0
as % of Ontario	4.9	1.4	4.6	4.2	3.1	4.0			
no. of universities	3	3	3	4	4	4			
average size	3,559	122	3,681	4,238	510	4,747	19.1	318.8	29.0
Southern Ontario									
Brock	8,006	184	8,190	14,922	1,435	16,357	86.4	679.9	99.7
Carleton	11,616	1,632							99.7
- Dominicain	52	40	13,248 92	21,755	3,487	25,242	87.3	113.7	90.5
			-	24 117	2,687	26,804	95.5	68.6	92.4
Guelph McMaster	12,337	1,594	13,931	24,117	4,182		124.8	162.4	129.1
OCAD	12,333 1,828	1,594 0	13,927 1,828	27,719 3,205	203	31,901 3,408		102.4	86.4
UOIT	0	0	0	8,942	477	9,419	75.3		00.4
Ottawa	15,926	2,282	18,208	31,311	6,007	37,318	96.6	163.2	105.0
Oueen's	- ,-		,	- ,-	, ,	,-		112.5	70.3
	12,822	2,175	14,997	20,913	4,622	25,535	63.1		
Ryerson	10,605	31	10,636	28,832	2,404	31,236	171.9	7654.8 120.8	193.7 98.3
Toronto	34,063 3,908	8,077 136	42,140	65,720	17,834 496	83,554	92.9		
Trent Waterloo		_	4,044	8,223		8,719	110.4	264.7 178.3	115.6 94.3
Western	17,447 21,211	1,642	19,089	32,518	4,570	37,088	86.4	176.3	50.6
Wilfrid Laurier		2,944	24,155	30,369	6,007	36,376	43.2		_
	7,031	481	7,512	15,244	1215	16,459	116.8	152.6	119.1
Windsor	8,976	673	9,649	10,572	3,934	14,506	17.8	484.5	50.3
York	27,007	2,613	29,620	42,976	4,421	47,397	59.1	69.2	60.0
Southern Ontario	205,168	26,098	231,266	387,338	63,981	451,319	88.8	145.2	95.2
as % of Ontario	95.1	98.6	95.4	95.8	96.9	96.0			
no. of universities	15	15	15	16	16	16	77.0	420.0	02.0
average size	13,678	1,740	15,418	24,209	3,999	28,207	77.0	129.8	83.0
Ontario total	215,846	26,463	242,309	404,289	66,019	470,308	87.3	149.5	94.1
no. of universities	18	18	18	20	20	20			
average size	11,991	1,470	13,462	20,214	3,301	23,515	68.6	124.5	74.7

Note Algoma became independent of Laurentian University in 2009. Dominicain's enrolment is included with Carleton in 2018 (but not in 2000). For comparison purposes Dominicain is counted with Carleton as one university.

Source COU T3

for Northern Ontario, part-time and graduate studies are no less important, especially given the region's vast and varied geography, social make-up, and development conditions.

For part-time enrolment, the overall Ontario trend is toward a relative decline, which increases the importance of full-time enrolment. This said, in recent decades, part-time university education has played a larger role in Northern Ontario than in Southern Ontario. In 2014, Nipissing, Laurentian, and Algoma were among the top five universities in Ontario by percentage of students studying part-time.²⁷ As can be seen in Table 5, Northern universities, as a whole, have had a much higher level of part-time enrolment than in Southern Ontario. But over the period 2000–18, part-time enrolment for undergraduate programs declined from 32.2 to 21.6 per cent in Northern Ontario relative to from 22.9 and 13.3 per cent for Southern Ontario.

For graduate programs, Northern universities had a much higher initial part-time enrolment, 52.8 per cent, but in 2018, the part-time share, at 14.9 per cent, had fallen below undergraduate levels. The much higher Northern level in 2000 was affected by the type and relatively limited development of graduate programs in Northern Ontario. By contrast, in Southern Ontario, the decline in part-time graduate enrolment was from 26 per cent in 2000 to 14.2 per cent in 2018. Despite its diminished role, in 2018, part-time enrolments in Northern Ontario were still over 7 percentage points higher Southern Ontario.

With respect to full-time graduate program enrolment, Northern Ontario has seen relatively rapid increases compared to undergraduate enrolment as new graduate programs have been introduced. Between 2000–18, graduate full-time enrolment jumped by over five times to more than 2,000, though from a very low level. In 2000, Northern graduate programs had 3.3 per cent of all full-time enrolment (and 7.5 per cent of part-time) while in 2018 full-time graduate enrolment was 10.7 per cent (and 7.1 per cent of part-time) (Table 5). However, this relative improvement in the position of graduate programs was still much below the conditions in Southern Ontario: in 2000, Southern graduate enrolment represented 11.3 per cent of full-time enrolment (and 13.1 per cent of part-time enrolment), while in 2018 it represented 14.2 per cent of full-time enrolment (and 15.1 per cent of part-time enrolment)—still much higher than in Northern Ontario. Indeed, the rapid expansion of full-time graduate program enrolment in Northern Ontario was still not sufficient to compensate for the absolute decline in undergraduate enrolment after 2011. Of course, these comments do not address the type or quality of graduate programs, nor resources provided to the graduate programs in Northern Ontario compared to those in Southern Ontario. Overall though, the data on

TABLE 5 Ontario full-time and part-time enrolment by university, undergraduate and graduate headcounts, fall, 2000 and 2018

					2000									2018				
	Un	dergradu	ate		Graduate		Al	l enrolme	ent	Un	dergradu	ate		Graduate		A	l enrolme	ent
Ontario universities	full- time	part- time	total	full- time	part- time	total	full- time	part- time	total	full- time	part- time	total	full- time	part- time	total	full- time	part- time	total
Algoma	0	0	0	0	0	0	0	0	0	954	278	1,232	0	0	0	954	278	1,232
Lakehead	4,770	1,146	5,916	182	97	279	4,952	1,243	6,195	5,847	1,317	7,164	1,301	5	1,306	7,148	1,322	8,470
Laurentian	3,692	1,799	5,491	183	142	325	3,875	1,941	5,816	6,156	1,774	7,930	571	339	910	6,727	2,113	8,840
- Algoma	303	303	606	0	0	0	303	303	606									
- Hearst	74	94	168	0	0	0	74	94	168	147	18	165	0	0	0	147	18	165
Nipissing	1,839	1,721	3,560	0	169	169	1,839	1,890	3,729	3,399	1,284	4,683	166	12	178	3,565	1,296	4,861
NOSM	0	0	0	0	0	0	0	0	0	448	1	449	0	0	0	448	1	449
Northern Ontario	10.678	5.063	15,741	365	408	773	11.043	5.471	16,514	16.951	4.672	21.623	2,038	356	2,394	18,989	5.028	24,017
as % of Ontario	4.9	7.7	5.6	1.4	4.3	2.1	4.6	7.2	5.2	4.2	7.3	4.6	3.1	3.3	3.1	4.0	6.7	4.4
% full- & part-time	67.8	32.2	100	47.2	52.8	100	66.9	33.1	100	78.4	21.6	100	85.1	14.9	100	79.1	20.9	100
% undergrad & grad	96.7	92.5	95.3	3.3	7.5	4.7	100	100	100	89.3	92.9	90.0	10.7	7.1	10.0	100	100	100
% undergrad & grad	90.7	92.5	93.3	3.3	1.5	4.7	100	100	100	09.3	92.9	90.0	10.7	7.1	10.0	100	100	100
Brock	8,006	2.624	10,630	184	455	639	8,190	3.079	11.269	14,922	2,031	16,953	1,435	333	1,768	16,357	2,364	18,721
Carleton	11,616	3,371	14,987	1,632	912	2,544	13,248	4,283	17,531	21,755	5,400	27,155	3,487	617	4,104	25,242	6,017	31,259
- Dominicain	52	52	104	40	6	46	92	58	150	0	0	0	0	0	0	0	0	0
Guelph	12,337	1,301	13,638	1,594	91	1,685	13,931	1,392	15,323	24,117	3,011	27,128	2,687	219	2,906	26,804	3,230	30,034
McMaster	12,333	2,522	14,855	1,594	738	2,332	13,927	3,260	17,187	27,719	1,077	28,796	4,182	768	4,950	31,901	1,845	33,746
OCAD	1,828	528	2,356	0	0	0	1,828	528	2,356	3,205	1,054	4,259	203	98	301	3,408	1,152	4,560
UOIT	0	0	0	0	0	0	0	0	0	8,942	594	9,536	477	335	812	9,419	929	10,348
Ottawa	15,926	5,769	21,695	2,282	1,147	3,429	18,208	6,916	25,124	31,311	4,792	36,103	6,007	1,134	7,141	37,318	5,926	43,244
Queen's	12,822	2,363	15,185	2,175	413	2,588	14,997	2,776	17,773	20,913	3,357	24,270	4,622	717	5,339	25,535	4,074	29,609
Ryerson	10,605	11,131	21,736	31	19	50	10,636	11,150	21,786	28,832	15,472	44,304	2,404	350	2,754	31,236	15,822	47,058
Toronto	34,063	11,510	45,573	8,077	2,340	10,417	42,140	13,850	55,990	65,720	6,071	71,791	17,834	1,446	19,280	83,554	7,517	91,071
Trent	3,908	1,263	5,171	136	37	173	4,044	1,300	5,344	8,223	1,399	9,622	496	146	642	8,719	1,545	10,264
Waterloo	17,447	2,676	20,123	1,642	399	2,041	19,089	3,075	22,164	32,518	1,485	34,003	4,570	1,421	5,991	37,088	2,906	39,994
Western	21,211	3,986	25,197	2,944	381	3,325	24,155	4,367	28,522	30,369	2,250	32,619	6,007	491	6,498	36,376	2,741	39,117
Wilfrid Laurier	7,031	1,594	8,625	481	419	900	7,512	2,013	9,525	15,244	3,034	18,278	1215	805	2,020	16,459	3,839	20,298
Windsor	8,976	2,996	11,972	673	205	878	9,649	3,201	12,850	10,572	1,711	12,283	3,934	104	4,038	14,506	1,815	16,321
York	27,007	7,300	34,307	2,613	1,607	4,220	29,620	8,907	38,527	42,976	6,680	49,656	4,421	1,565	5,986	47,397	8,245	55,642
Southern Ontario	205,168	60,986	266,154	26,098	9,169	35,267	231,266	70,155	301,421	387,338	59,418	446,756	63,981	10,549	74,530	451,319	69,967	521,286
as % of Ontario	95.1	92.3	94.4	98.6	95.7	97.9	95.4	92.8	94.8	95.8	92.7	95.4	96.9	96.7	96.9	96.0	93.3	95.6
% full- & part-time	77.1	22.9	100	74.0	26.0	100	76.7	23.3	100	86.7	13.3	100	85.8	14.2	100	86.6	13.4	100
% undergrad & grad	88.7	86.9	88.3	11.3	13.1	11.7	100	100	100	85.8	84.9	85.7	14.2	15.1	14.3	100	100	100
Ontario total	215,846	66,049	281,895	26,463	9,577	36,040	242,309	75,626	317,935	404,289	64,090	468,379	66,019	10,905	76,924	470,308	74,995	545,303
as % of Ontario	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% full- & part-time	76.6	23.4	100	73.4	26.6	100	76.2	23.8	100	86.3	13.7	100	85.8	14.2	100	86.2	13.8	100
% undergrad & grad	89.1	87.3	88.7	10.9	12.7	11.3	100	100	100	86.0	85.5	85.9	14.0	14.5	14.1	100	100	100

Note Algoma became independent of Laurentian University in 2009. Dominicain's enrolment is included with Carleton University beginning in 2013. Source COU T3

graduate enrolment, as well as part-time enrolment, do help underline the central importance of full-time undergraduate enrolment in appreciating the vulnerability of the Northern universities.

Source patterns of enrolment and regional enrolment dependence

THE ONTARIO UNIVERSITY system is, at times, conceived as being composed of a group of "regional universities" and a less clearly defined group of non-regional universities. In this divide, the Northern universities are usually deemed to be regional, in the sense of principally serving their region, while the latter include elite universities, such as Toronto or Queen's, or a specialized university such as OCAD, responsible presumably to a broader geography. Here we examine the extent to which Ontario full-time undergraduate students are actually from the region of the universities at which they enrol. This will help to understand the extent to which Northern universities depend on students from Southern Ontario and the tension between regional mandates and market-driven efforts to increase enrolment.

To help examine this issue, we use data from the Higher Education Quality Council of Ontario (HEQCO) on the home (or source) regions of first-year, full-time undergraduate students from Ontario for fall 2015 (Weingarten et al. 2017). First-year enrolment is generally a better indicator of the home region of students rather than later-year enrolment because after their first year, students often will reside in the new region or simply report their home as being in the new region. For these purposes, we use five "demographic regions", as designated by the Ontario Ministry of Finance (OMF 2017): GTA/

Greater Toronto Area (containing 48 per cent of Ontario's 2015 population (OMF 2016); Central (21.4 per cent); East (13.1 per cent); Southwest (11.7 per cent); North (5.8 per cent). The ministry's map of regions and census divisions is appended, with a table of the locations of the 20 universities within the 49 census divisions and six regions.²⁸

Table 6 gives an overview of first-year, full-time undergraduate students from Ontario in the 20 public universities by their home region and their region of enrolment. As of 2015, a large majority of Ontario's first-year undergraduates came from the GTA region, about 59 per cent, and from the adjacent Central region, 18 per cent. Further from Toronto, the East provided 11 per cent of first-year undergraduates, the Southwest provided 8 per cent, and the North only 4 per cent. In terms of the regions where the students were enrolled, the GTA had 34 per cent of students, and Central had 33 per cent, the East had 18 per cent, the Southwest 10 per cent, and the North had 5 per cent. Given their shared commutersheds, one could combine the GTA and Central regions: these two together were the home region for 77 per cent of first-year undergraduate Ontario students—and 77 per cent of first-year Ontario students were enrolled in these two regions.

Only the North and Southwest regions have both a lower share of students by home-region enrolment and a lower share of total enrolment by region relative to their share of the Ontario population.²⁹ The GTA has, by far, the highest share of students by home region relative to its population (59 per cent relative to 48 per cent). Further, the GTA and Central regions have a combined 77 per cent share of students by both home region and total enrolment by region, which is larger than their combined share of the population (69.4 per cent).

Overall, most Ontario first-year students attended university in their home region—about 57 per cent, but this varied from a low of 52 per cent in the GTA to a high of 76 per cent in the East region, which is dominated by Ottawa, Ontario's second major metropolitan centre. In Northern Ontario, about 63 per cent of first-year students stayed to study in the Northern universities, while 37 per cent left, with the largest numbers leaving to Eastern Ontario, followed by the Central, GTA, and Southwest regions.

Students from the GTA region are important to the entire system, including as a substantial net outflow of students—nearly 20,000 in 2015. The importance of GTA students was most apparent in the Central region, where they represented over half (54 per cent) of first-year Ontario university students, compared to 34 per cent of GTA students from their own region. In contrast, one can see the home region's share of students in every other region is

TABLE 6 First-year Ontario undergraduate students by home region and enrolment region, fall 2015

			Home re	egions of Ontario	students (by perc	entage)	
Ontario universities by demographic region	Ontario students enroled	Toronto/GTA	Central	East	Southwest	North	All
Toronto/GTA							
OCADU	927	80	12	5	3	1	100
UOIT	2,002	88	6	3	2	1	100
Ryerson	7,528	89	6	2	2	1	100
Toronto	9,153	85	8	4	3	1	100
York	7,772	97	2	0	0	0	100
region subtotals (no.)	27,382	24,522	1,571	623	493	196	
% from each region		90	6	2	2	1	100
Central							
Brock	3,770	44	46	3	7	1	100
Guelph	6,084	55	29	4	10	2	100
McMaster	5,446	58	36	2	3	1	100
Trent	1,761	48	32	15	4	2	100
Waterloo	5,240	56	31	5	7	1	100
Wilfrid Laurier	4,063	55	35	2	7	1	100
region subtotals (no.)	26,364	14,178	9,069	1,073	1,757	342	
% from region		54	34	4	7	1	100
East		• · · · · · · · · · · · · · · · · · · ·		• · · · · · · · · · · · · · · · · · · ·			
Carleton	4,106	25	12	56	4	3	100
Ottawa	5,749	21	10	60	5	4	100
Queen's	4,475	57	16	20	5	2	100
region subtotals (no.)	14,330	4,785	1,784	6,644	675	443	
% from region		33	12	46	5	3	100
Southwest							
Western	5,419	48	15	2	33	1	100
Windsor	2,370	17	6	1	75	1	100
region subtotals (no.)	7,789	3,004	955	132	3,566	78	
% from region		39	12	2	46	1	100
North							
Algoma	238	16	11	3	3	68	100
Lakehead	1,426	22	24	5	4	45	100
Laurentian	1,482	20	17	8	4	51	100
Nipissing	822	23	27	13	10	27	100
region subtotals (no.) % from region	3,968	837 21	842 21	304 8	206 5	1,781 45	100
•	79,833	47,326	14,221	8,776	6,697	2,840	100
All students by home region (source) % by home region	13,033	•	18	11	8	2,040 4	100
no. staying in home region	45,582	59 24,522	9,069	6,644	3,566	1,781	100
% staying in home region		24,522 52	64	76	53	63	
no. leaving home region	57	22,804	5,152	2,132		1,059	
% leaving home region	34,277 43	48	36	2,132	3,131 47	37	
All students by region of enrolment	79,833	27,382	26,364	14,330	7,789	3,968	
% by region of enrolment	100	• • • • • • • • • • • • • • • • • • • •	33	18	10		
no. from out of region	34,251	34 2,860	17,295	7,686	4,223	5 2,187	
		2,860	50	22	4,223		
% by region out of region as % of region's enrolment	100 43	10	66	54	54	6 55	
Regional student flows	.5			٠,			
net outflow (-) or inflow by region	0	-19,944	12,143	5,554	1,092	1,128	
Janier () or millow by region	0	エン・ノママ	12,173	J,JJ-	1,072	1,120	

Note Some totals might not add exactly due to rounding. Net outflow (-) or inflow equals all students by region of enrolment minus all students by home region.

Source MAESD and HEQCO. Percentages as in HEQCO 2017, Table B2. Population shares in OMF 2016. We would like to thank HEQCO for providing us data on the total numbers of first-year Ontario students for each university. For each university the total is for "first-year full-time undergraduate students from Ontario and does not include international students or students from the other provinces." The definition of the demographic regions is as in OMF 2016: Map of Ontario Census Divisions.

greater than the provincial enrolment's share. That said, if we combine the GTA and Central regions, the source share and enrolment shares are equal (77 per cent). This is also consistent with the view that the GTA and Central regions provide more students to outside regions and attract more students from outside.

For Northern Ontario, while about 37 per cent of first-year, full-time students left the North, this number is probably substantially lower than in the 1980s, when Weller³⁰ noted that around 60 per cent of all university students from Northern Ontario were attending universities in Southern Ontario. The lower number of students leaving today, at least before they complete their education, can be partly explained by the expansion of the number of campus locations and the greater range of programs in Northern Ontario.

However, the generally larger proportion of Northern students staying to study in Northern universities does not mean that Northern universities depend mostly on the enrolment of Northern students. In fact, from these first-year, full-time data, it appears that, for 2015, about 45 per cent, or less than half of Northern university enrolments are filled by students from Northern Ontario, though with substantial variation: 68 per cent for Algoma, 51 per cent for Laurentian, 45 per cent for Lakehead, and 27 per cent for Nipissing. This contrasts sharply with the GTA region, where 97 per cent of students go to York University, 89 per cent go to Ryerson, and 85 per cent go to the University of Toronto.

The expansion of Northern universities likely increased the proportion of Northern university students studying in Northern universities. However, Northern universities are also more dependent on enrolment from outside the region. Actually, by the standard of first-year, full-time Ontario student enrolment, it appears that the most "regional" universities are in the GTA. Outside of Toronto, it is open to question how regional many universities are actually regional universities, including the Northern universities. This reflects how the role of proximity or hinterland location in the Ontario system is often conflated with a hierarchy of perceived university quality, to which we now turn when considering Northern and regional universities in the structure of demand.

The structure of enrolment demand and extra-regional dependence

AS A WHOLE, Northern Ontario and regions outside of the GTA have the capacity to enrol all of their own region's students into first-year, full-time university, even as a substantial portion of each region's students attend university elsewhere. As shown in Table 6, in 2015, the Northern universities had enrolment capacity of approximately 3,968 students (5 per cent of all Ontario students), while a total of 2,840 students came from Northern Ontario (4 per cent of all Ontario students). Among the Northern university enrolment, about 1,781 students (or only 45 per cent) were from the North and about 2,187 (or 55 per cent) were from other Ontario regions. Similarly, the southwest region had enrolment capacity of about 7,789 students, compared to 6,697 students enrolled in the entire Ontario system from the region. For the Eastern region, enrolment capacity was about 14,330 students, compared to 8,776 enrolled across the entire Ontario system. For the Central region, enrolment capacity was about 26,364 students, compared to 14,221 enrolled across the entire Ontario system.

These data underline that the Ontario system has major cross-regional flows in enrolment. While locational proximity is important for participation in higher education, especially for lower-income students,³¹ it is evident that other factors also play a role in student demand. For many students (or student-families), they outweigh proximity. For instance, an older and elite university like Queen's in the Eastern region could draw as many as 80 per cent of its students from outside the Eastern region, especially from Toronto/ GTA. Canada's national make-up also plays a role. The historical conditions of the Franco-Ontarian national minority have contributed to francophone students leaving the Northern region for the Eastern region, particularly for the bilingual and more established University of Ottawa.

The relative demand for individual universities or groups of universities, especially given similar tuition levels, is often seen as reflecting relative institutional quality or prestige within the system³²; and much discussion is devoted to hierarchical institutional "ranking", such as commercialized in Macleans magazine or in considering their behavioural impacts³³. One does not have to agree with the quality of ranking to observe there exists substantial evidence of an elite-dominated and unequal structure of demand for individual universities within Ontario's system. The Higher Education Quality Council of Ontario (HEQCO), a provincially funded agency established in 2005, has attempted to construct a measure of demand by students, whether alone or with their families. Its forays into the demand hierarchy in Ontario show a little of the highly unequal conditions of Northern universities.

The initial HEQCO demand measure was based on five indicators: application-to-registrant ratio; percentage of applicants making the university their first choice; percentage of entering students from other Canadian provinces and territories; percentage of international students; percentage of entering students with high school grades above 75 per cent. By this demand measure, all the Northern universities were well below average in demand and three were in the bottom 25 per cent.³⁴ A later narrowing of the indicators to two—high school entry marks and application-to-registrant ratio—did not change the low-end ranking of the Northern universities, though perhaps, overall, the ranking disparities appeared less extreme.35

Such demand factors both reflect and reproduce historical patterns of uneven political economic development, including colonial conditions, metropolitan concentration, and disparities in national and cultural rights, local school quality, regional employment and income, and endowed university wealth. The literature on the economics of higher education has recognized and measured the existence of hierarchies of institutional differentiation in demand. As Winston³⁶ observes, the demand hierarchy of universities is "differentiated initially by their access to donative resources...and what

 TABLE 7
 Ontario universities ranked by first-year undergraduate own-region participation, fall 2015

Home regions of Ontario students (by percentage) First-year Ontario students Toronto/GTA Central **East** Southwest North All High York 7,772 Ryerson 7,528 UOIT 2,002 Toronto 9,153 **OCADU** Medium Windsor 2,370 Algoma Ottawa 5,749 Carleton 4,106 Laurentian 1,482 Low Brock 3,770 Lakehead 1,426 McMaster 5,446 Laurier 4,063 Western 5,419 Trent 1,761 Waterloo 5,240 Guelph 6,084 **Nipissing** Queen's 4,475

Note Some totals might not add exactly due to rounding.

Source MAESD and HEQCO. Percentages as in HEQCO 2017, Table B2. See also Table 6.

those resources will buy." Donative resources—the historically accumulated or endowed resources of universities—can be private or public. Further, there then exists a reinforcing feedback from the resources to institutional quality, student quality, student demand, institutional selectivity, and student quality. Unlike usual goods and services, there exist "peer effects," that is, besides faculty and facilities, the quality of universities is affected by the conditions and preparation of its students.³⁷

The position of the Northern universities as a capacity reserve relates to its hinterland location and scale and the hierarchical structure of demand. As the Ontario system has expanded, with increased privatization and competition without adequately addressing initial regional disparities, the Northern universities have fallen further behind in scale as well as developed a major dependence on extra-regional enrolment. The form of

the cross-regional flows in enrolment reflects the demand hierarchy as well as metropolitan-hinterland relations.

Table 7 ranks Ontario universities by the percentage of first-year, full-time undergraduate students from their own region. The first group of universities is in the Toronto/GTA region and has, by far, the highest own-region participation, ranging from 80 to 97 per cent, as noted earlier. The second group of universities has own-region participation rates over 50 per cent, which range from 51 to 75 per cent, or medium level. This includes two Northern universities (Algoma and Laurentian), the most southwestern university (Windsor), as well as Ottawa and Carleton, both in Ontario's second major metropolitan centre. The third group of universities has low own-region participation rates of less than 50 per cent, ranging from 20 to 46 per cent. It is not surprising that elite universities like Queen's and Western heavily depend on students from outside their region, but it is notable that some Northern universities, especially Nipissing, have less than a majority from their own region.

The dominant metropolitan role of the Toronto/GTA region raises additional issues about the nature of "regional" universities in the system. Table 8 ranks Ontario universities in 2015 by their dependence on Toronto/GTA students. Again, the first group of universities is in the Toronto/GTA region, with participation rates ranging from 80 to 97 per cent. The second group is outside the Toronto/GTA region but has Toronto/GTA enrolment larger than its own-region enrolment. In these universities, 48 to 58 per cent of their students come from Toronto/GTA. The third group of university universities has own-region enrolment larger than their Toronto/GTA enrolment. It includes the four Northern universities, the two universities in Ottawa, and the two most southwestern universities, Brock and Windsor. Arguably, this third group of universities can be characterized as "regional"—or non-metropolitan—in the minimal sense of having its primary enrolment dependence on its own region as well as having a majority of students from regions outside the Toronto/GTA, though in the case of Nipissing, the dependence on the Central region is equal to that of the Northern region.

TABLE 8 Ontario universities ranked by first-year undergraduate Toronto/GTA participation, fall 2015

			Home r	egions of Ontari	o students (by perce	ntage)	
	First-year Ontario students	Toronto/GTA	Central	East	Southwest	North	All
Toronto/GTA							
York	7,772	97	2	0	0	0	100
Ryerson	7,528	89	6	2	2	1	100
UOIT	2,002	88	6	3	2	1	100
Toronto	9,153	85	8	4	3	1	100
OCADU	927	80	12	5	3	1	100
Toronto/GTA-dependent							
McMaster	5,446	58	36	2	3	1	100
Queen's	4,475	57	16	20	5	2	100
Waterloo	5,240	56	31	5	7	1	100
Guelph	6,084	55	29	4	10	2	100
Laurier	4,063	55	35	2	7	1	100
Western	5,419	48	15	2	33	1	100
Trent	1,761	48	32	15	4	2	100
Regional/Non-metropolita	n						
Brock	3,770	44	46	3	7	1	100
Carleton	4,106	25	12	56	4	3	100
Nipissing	822	23	27	13	10	27	100
Lakehead	1,426	22	24	5	4	45	100
Ottawa	5,749	21	10	60	5	4	100
Laurentian	1,482	20	17	8	4	51	100
Windsor	2,370	17	6	1	75	1	100
Algoma	238	16	11	3	3	68	100

Note Some totals might not add exactly due to rounding. Toronto/GTA-dependent" universities have a Toronto/GTA enrolment greater than their own-region enrolment. In the "regional" category used here universities have a regional enrolment greater than their Toronto/GTA enrolment.

Source MAESD and HEQCO. Percentages as in HEQCO 2017, Table B2. See also Table 6.

Slowing and falling enrolment in **Faculties of Arts**

WITHIN THE ONTARIO university system, Arts programs and Arts Faculties have been, and still are, the single largest group of programs and faculties and, hence, of major consequence in university development. In this section, one will see that in the recent decades Arts enrolments in Ontario have been changing toward relative and even absolute decline, though to a lesser degree in elite and Toronto/GTA universities. In Northern Ontario universities, the decline has been so severe that it has created an especially precarious situation threatening the existence of Arts programs in Northern Ontario.

Enrolment changes can be measured in terms of Arts Faculties and disciplinary or content fields. To overview the situation, Table 9 displays Ontario data for 2000–18 using the specialization or major field of study (SPEMAJ) classification.38 These data on full-time undergraduate students show that as total enrolment increased over the period, STEM and professional programs tended to increase in absolute numbers as well as relative share, while the Arts tended to decline relatively and, in some components, absolutely.

In particular, General Arts and Science, Fine and Applied Arts, and Humanities programs peaked during the period, respectively, in 2013, 2012, and 2006, then declined absolutely. General Arts and Science, which under the SPEMAJ classification includes General Arts and General Sciences pro-

TABLE 9 Full-time undergraduate students by program of study, fall, 2000–18

	Undergraduate students (headcounts) % chan										% change									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2011-18
Total of full-time undergraduates	215,846	225,319	243,936	280,218	296,784	311,801	318,529	316,780	322,362	336,799	348,541	359,064	367,298	373,171	377,520	382,761	390,596	396,400	404,289	12.6
General Arts & Science	22,640	22,423	25,100	29,026	26,481	30,952	31,199	30,831	30,998	35,100	35,656	35,979	36,642	36,044	35,085	34,447	33,500	34,020	34,749	-3.4
As % of total undergraduates	10.5	10.0	10.3	10.4	8.9	9.9	9.8	9.7	9.6	10.4	10.2	10.0	10.0	9.7	9.3	9.0	8.6	8.6	8.6	
Fine & Applied Arts	10,194	10,639	11,137	12,622	13,553	14,021	13,894	13,661	13,848	14,201	14,834	15,093	15,338	14,996	14,506	14,388	14,130	14,176	14,282	-5.4
As % of total undergraduates	4.7	4.7	4.6	4.5	4.6	4.5	4.4	4.3	4.3	4.2	4.3	4.2	4.2	4.0	3.8	3.8	3.6	3.6	3.5	
Humanities	23,275	25,230	27,725	32,942	37,616	39,519	40,321	39,367	38,262	38,808	39,150	38,476	37,737	35,895	33,925	32,894	31,588	30,514	30,039	-21.9
As % of total undergraduates	10.8	11.2	11.4	11.8	12.7	12.7	12.7	12.4	11.9	11.5	11.2	10.7	10.3	9.6	9.0	8.6	8.1	7.7	7.4	
Social Sciences (inc. Commerce, Law)	71,834	75,634	82,608	97,615	106,042	111,287	114,514	113,704	115,827	122,180	127,252	131,856	135,452	138,460	138,443	140,934	142,416	143,899	146,246	10.9
As % of total undergraduates	33.3	33.6	33.9	34.8	35.7	35.7	36.0	35.9	35.9	36.3	36.5	36.7	36.9	37.1	36.7	36.8	36.5	36.3	36.2	
Education	17,024	17,270	17,978	20,069	21,065	21,785	22,716	22,549	22,662	23,379	23,802	24,499	24,026	23,776	24,056	20,367	22,727	23,069	24,020	-2.0
As % of total undergraduates	7.9	7.7	7.4	7.2	7.1	7.0	7.1	7.1	7.0	6.9	6.8	6.8	6.5	6.4	6.4	5.3	5.8	5.8	5.9	
Science, Technology, Eng, and Math																				
Agriculture & Biological Sciences	15,649	15,419	16,398	19,160	21,022	22,457	23,435	23,144	25,231	25,771	26,787	28,010	28,809	29,719	30,389	31,922	32,578	33,171	33,510	19.6
Engineering & Applied Sciences	21,834	23,367	24,449	26,122	26,364	26,152	25,830	26,188	26,893	29,044	30,148	31,796	33,775	35,725	38,339	41,531	43,344	44,062	44,769	40.8
Health Professions	12,760	14,075	15,952	18,621	22,133	24,398	26,238	27,332	28,383	29,690	31,251	32,414	33,094	34,393	36,256	37,639	38,802	39,434	40,371	24.5
Mathematical & Physical Sciences	16,560	17,957	18,422	19,190	17,918	16,681	15,836	15,627	15,978	16,760	17,707	18,672	20,065	21,565	23,722	26,064	28,885	31,334	33,415	79.0
STEM all fields	66,803	70,818	75,221	83,093	87,437	89,688	91,339	92,291	96,485	101,265	105,893	110,892	115,743	121,402	128,706	137,156	143,609	148,001	152,065	37.1
As % of total undergraduates	30.9	31.4	30.8	29.7	29.5	28.8	28.7	29.1	29.9	30.1	30.4	30.9	31.5	32.5	34.1	35.8	36.8	37.3	37.6	
Not Reported/Not Applicable	4,076	3,305	4,167	4,851	4,590	4,549	4,546	4,377	4,280	1,866	1,954	2,269	2,360	2,598	2,799	2,575	2,626	2,721	2,888	
As % of total undergraduates	1.9	1.5	1.7	1.7	1.5	1.5	1.4	1.4	1.3	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	

Note These data use the SPEMAJ classification system, whose categories are not necessarily equivalent to the specializations/majors within typical existing Faculties, such as the social sciences within Faculties

Source COU T4

grams as well as Interdisciplinary Studies, fell from a high of 10.5 per cent of Arts programs in 2000 to 8.6 per cent in 2018. Fine and Applied Arts, which includes Fine Art, Music, Other Performing Arts, and Industrial Design (but not Creative Writing), fell from 4.7 to 3.5 per cent over the same period. Most dramatically, Humanities programs, which include languages and literature, linguistics, philosophy and religious studies, as well as Journalism, Library Science, Mass Communication studies, and Theological Studies, fell from a peak of 12.7 per cent in 2005 and 2006 to 7.4 per cent in 2018.39 Within the SPEMAJ aggregate categories, the only broad decline comparable to that of Humanities was in Education. Despite growing absolutely until 2011, Education's share of undergraduate enrolment shrunk most years, from 7.9 per cent in 2000 to 5.9 per cent in 2018.

The situation of the Social Sciences is less clear because the aggregate SPEMAJ categories include the usual disciplines found in most Faculties of Arts as well as several major fields that are often separate professional programs in faculties or schools outside Faculties of Arts, including Commerce, Law, Social Work, and Urban Planning. 40 Even using the broader SPEMAJ category, the Social Sciences continued to grow absolutely over the period, but its percentage share peaked in 2013 at 37.1 per cent then declined to 36.2 per cent in 2018. We will consider, in a moment, a narrower Social Sciences category that more closely reflects the disciplines usually resident in Faculties of Arts. What is evident so far, however, is the relatively rapid growth of the Science, Technology, Engineering, and Mathematics (STEM) fields, in absolute numbers and relative to all full-time undergraduate enrolment. Both Agriculture and the Biological Sciences, and Engineering and Applied Sciences (including Architecture) approximately doubled, and Health Professions more than tripled. Even Mathematics and Physical Sciences, despite experiencing a serious decline after 2003, recovered and had an overall increase of about 74 per cent. As a result, from 2000–16, the STEM fields' share of undergraduate enrolment rose from 30.9 to 37.6 per cent.

Given this context, we now examine in more detail the changes in Arts enrolment in Northern and Southern Ontario. These data are based on the reports of the individual universities to CUDO, which separately distinguish certain professional programs. In particular, Commerce and Law programs are separated from the Social Sciences, and Journalism is separated from the Humanities. Hence, the data in the following tables for 2005–17 more closely represent the range of non-professional programs usually found in Faculties of Arts.⁴¹ In Table 10, we show annual changes by university, changes for the entire 2005–17 period, changes for the post-double cohort years of 2008–17, and changes since the peak Arts enrolment year of 2012 (the 2012–17 period).

To begin, full-time undergraduate Arts enrolment in Ontario peaked in 2012 at nearly 165,000 then declined absolutely over the next five years by -6.7 per cent. Still, for the entire 2005–17 period, or for the post-double cohort period from 2008–17, there was a net growth of 7.4 per cent or 5.9 per cent respectively, at least in Southern Ontario. In Northern Ontario, the absolute decline in Arts was underway earlier, at least as early as 2005. Overall, Arts enrolment in Northern Ontario fell by -33.1 per cent—nearly a third—from 2005–17, or by -26.5 per cent since the double cohort from 2008–17. Even since the Ontario peak of 2012, the Northern Ontario university decline was -25.7 per cent, compared to -6.7 per cent in Southern Ontario. Further, it needs to be noted that these Northern enrolment numbers both include enrolment from efforts by Northern universities at their campuses in Southern Ontario

TABLE 10 Arts Faculty enrolments by university in Northern and Southern Ontario, full-time undergraduate students, fall, 2005-17

															% change	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2005- 17	2008- 17	2012- 17
Northern Ontario																
Lakehead	2,530	2,539	2,648	2,603	2,712	2,847	2,828	2,589	2,544	2,340	2,181	2,130.0	1,937.0	-23.4	-25.6	-25.2
Laurentian	3,477	3,434	3,021	2,792	2,709	2,843	2,902	3,160	2,928	2,723	2,738	2,504.0	2,333.0	-32.9	-16.4	-26.2
Nipissing	2,271	2,234	2,135	2,138	2,096	2,059	1,832	1,699	1,572	1,440	1,367	1,270.0	1,264.0	-44.3	-40.9	-25.6
Northern Ontario	8,278	8,207	7,804	7,533	7,517	7,749	7,562	7,448	7,044	6,503	6,286	5,904.0	5,534.0	-33.1	-26.5	-25.7
annual change (%)		-0.9	-4.9	-3.5	-0.2	3.1	-2.4	-1.5	-5.4	-7.7	-3.3	-6.1	-6.3			
Southern Ontario																
Brock	7,315	7,456	7,208	6,995	7,259	7,433	7,508	7,489	7,318	7,201	6,947	6,741.0	6,614.0	-9.6	-5.4	-11.7
Carleton	9,803	9,810	9,418	9,213	9,414	9,697	10,024	10,026	10,249	9,968	9,870	9,848.0	10,221.0	4.3	10.9	1.9
Guelph	6,732	7,272	7,313	6,681	7,179	7,309	8,248	8,248	7,514	7,194	7,150	7,082.0	6,905.0	2.6	3.4	-16.3
McMaster	8,442	8,687	8,384	7,125	7,294	7,413	7,499	7,748	7,700	7,484	7,105	6,994.0	7,179.0	-15.0	0.8	-7.3
OCAD	2,575	2,556	2,567	2,541	2,811	3,036	3,245	3,437	3,351	3,319	3,315	3,178.0	3,202.0	24.3	26	-6.8
Ottawa	10,633	10,634	10,834	11,199	11,824	12,185	12,541	12,635	12,169	11,790	11,743	11,308.0	10,724.0	0.9	-4.2	-15.1
UOIT	485	665	719	737	950	1,185	1,530	1,748	1,930	1,825	1,663	1,561.0	1,563.0	222.3	112.1	-10.6
Queen's	5,100	5,736	5,807	6,102	6,303	6,510	6,935	7,133	7,157	7,310	7,628	7,731.0	8,147.0	59.7	33.5	14.2
Ryerson	5,233	5,573	5,627	6,181	6,281	6,323	6,871	7,333	7,681	8,049	8,547	9,318.0	9,309.0	77.9	50.6	26.9
Toronto	26,512	26,528	26,133	26,109	27,518	28,201	28,751	29,579	29,381	29,140	29,395	29,060.0	29,153.0	10.0	11.7	-1.4
Trent	4,398	4,051	3,536	3,277	3,836	3,729	3,250	3,721	3,592	3,358	3,402	3,487.0	3,625.0	-17.6	10.6	-2.6
Waterloo	6,983	6,822	6,908	7,039	7,566	8,013	8,100	8,104	7,964	7,750	7,480	7,293.0	7,484.0	7.2	6.3	-7.7
Western	8,735	10,776	10,876	10,996	11,005	11,188	11,183	11,231	11,184	11,033	10,345	10,518.0	10,391.0	19.0	-5.5	-7.5
Wilfrid Laurier	7,005	7,593	7,405	7,536	7,913	8,218	8,196	8,489	8,240	7,896	7,999	8,138.0	8,300.0	18.5	10.1	-2.2
Windsor	6,037	6,088	5,476	5,301	5,239	5,287	5,394	5,270	5,112	4,634	4,287	4,025.0	4,069.0	-32.6	-23.2	-22.8
York	22,763	23,230	23,143	23,696	25,214	26,193	26,327	26,050	25,056	23,409	22,969	21,870.0	22,098.0	-2.9	-6.7	-15.2
Southern Ontario	138,751	143,477	141,354	140,728	147,606	151,920	155,602	158,241	155,598	151,360	149,845	148,152	148,984	7.4	5.9	-5.8
annual change (%)		3.4	-1.5	-0.4	4.9	2.9	2.4	1.7	-1.7	-2.7	-1.0	-1.1	0.6			
Ontario total	147,029	151,684	149,158	148,261	155,123	159,669	163,164	165,689	162,642	157,863	156,131	154,056	154,518	5.1	4.2	-6.7
annual change (%)		3.2	-1.7	-0.6	4.6	2.9	2.2	1.6	-1.8	-2.9	-1.1	-1.3	0.3			
Northern Ontario as %	5.6	5.4	5.2	5.1	4.9	4.9	4.6	4.5	4.3	4.1	4.0	3.8	3.6			
of Ontario total		•			••••				•	•		•				

Note Arts include Fine and Applied Arts, Humanities, Social Sciences, and Other Arts and Science. Program data for Algoma and Hearst are not reported in CUDO for most years, either through Laurentian or independently, so these institutions too are not reported in this table. The CUDO data for Trent, 2006 to 2008, has a probable error, reversed above, in which the Other Arts & Sciences were entered as Not Reported.

Source CUDO 2020 A6

and exclude the under-reported enrolment difficulties faced by Algoma University and the Université de Hearst.

All three Northern universities faced major declines, with Nipissing suffering the largest losses in the entire Ontario system, over -44 per cent, from 2005–17. The absolute decline in Arts enrolment in Northern universities brought with it a sharp fall in the relative share of Arts enrolment—overall, nearly double the relative decline in Southern Ontario. In 2006, full-time

 TABLE 11
 Arts enrolments by gender for Ontario universities, full-time undergraduates, fall, 2006, 2012, 2017

	20	06		2012			2017	
Ontario	headcounts	% of total enrolment	headcounts	% of total enrolment	% change 2006–12	headcounts	% of total enrolment	% change 2012–17
All university programs	307,495	100	350,504	100	14.0	381,411	100	8.8
Female	178,127	100	196,289	100	10.2	213,645	100	8.8
-percent female	57.9		56.0			56.0		
Male	129,118	100	154,215	100	19.4	166,323	100	7.9
-percent male	42.0		44.0			43.6		
All Arts programs	151,727	49.3	165,689	47.3	9.2	153,703	40.3	-7.2
Female	99,977	56.1	106,729	54.4	6.8	100,633	47.1	-5.7
-percent female	65.9		64.4			65.5		
Male	51,750	40.1	58,960	38.2	13.9	53,070	31.9	-10.0
-percent male	34.1		35.6			34.5		
	headcounts	% of Arts enrolment	headcounts	% of Arts enrolment	% change 2006–12	headcounts	% of Arts enrolment	% change 2012–17
Fine and Applied Arts	13,704	9.0	15,303	9.2	11.7	13,721	8.9	-10.3
Female	9,532	9.5	10,403	9.7	9.1	9,450	9.4	-9.2
-percent female	69.6		68.0			68.9		
Male	4,172	8.1	4,900	8.3	17.4	4,271	8.0	-12.8
-percent male	30.4		32.0			31.1		
Humanities	38,106	25.1	35,718	21.6	-6.3	28,223	18.4	-21.0
Female	24,864	24.9	23,664	22.2	-4.8	18,968	18.8	-19.8
-percent female	65.2		66.3			67.2		
Male	13,242	25.6	12,054	20.4	-9.0	9,255	17.4	-23.2
-percent male	53.3		33.7			32.8		
Social Sciences	68,401	45.1	78,847	47.6	15.3	78,674	51.2	-0.2
Female	46,022	46.0	51,188	48.0	11.2	52,907	52.6	3.4
-percent female	67.3		64.9			67.2		
Male	22,379	43.2	27,659	46.9	23.6	25,767	48.6	-6.8
-percent male	32.7		35.1			32.8		
Other Arts and Science	31,479	20.7	35,821	21.6	13.8	33,085	21.5	-7.6
Female	19,559	19.6	21,474	20.1	9.8	19,308	19.2	-10.1
-percent female	62.1		59.9			58.4		
Male	11,957	23.1	14,347	24.3	20.0	13,777	26.0	-4.0
-percent male	38.0		40.1			41.6		

Note All Arts programs includes: Fine and Applied Arts, Humanities, Social Sciences, Other Arts and Science. CUDO data has an unspecified discrepancy of 0.4% in 2017 for all university programs aggregates by gender.

Source CUDO 2020 A4, A5, A6

undergraduate Arts enrolment was 53.1 per cent of all programs in Northern Ontario, which then was higher than the 48.9 per cent average for Ontario; by contrast, in 2017, Northern Arts enrolment had fallen to 36.9 per cent—well below the 40.3 per cent Arts share average in Ontario (Tables 11 and 12). As a whole, the convergence of declining overall enrolment in Northern universi-

TABLE 12 Arts enrolments by gender for Northern Ontario universities, full-time undergraduates, fall 2006, 2012, 2017

	20	06		2012			2017	
Northern Ontario	headcounts	% of total enrolment	headcounts	% of total enrolment	% change 2006–12	headcounts	% of total enrolment	% change 2012–17
All University programs	15,464	100	16,199	100	4.8	14,990	100	-7.5
Female	9,786	100	9,999	100	2.2	8,861	100	-11.4
-percent female	63.3		61.7			59.1		
Male	5,678	100	6,200	100	9.2	6,081	100	-1.9
-percent male	36.7		38.3			40.6		
All Arts programs	8,215	53.1	7,448	46.0	-9.3	5,525	36.9	-25.8
Female	5,645	57.7	5,246	52.5	-7.1	3,936	44.4	-25.0
-percent female	68.7		70.4			71.2		
Male	2,570	45.3	2,202	35.5	-14.3	1,589	26.1	-27.8
-percent male	31.3		29.6			28.8		
	headcounts	% of Arts enrolment	headcounts	% of Arts enrolment	% change 2006–12	headcounts	% of Arts enrolment	% change 2012–17
Fine and Applied Arts	286	3.5	247	3.3	-13.6	193	3.5	-21.9
Female	203	3.6	159	3.0	-21.7	145	3.7	-8.8
-percent female	71.0		64.4			75.1		
Male	83	3.2	88	4.0	6.0	48	3.0	-45.5
-percent male	29.0		35.6			24.9		
Humanities	2,240	27.3	1,517	20.4	-32.3	873	15.8	-42.5
Female	1,512	26.8	1,059	20.2	-30.0	577	14.7	-45.5
-percent female	67.5		69.8			66.1		
Male	728	28.3	458	20.8	-37.1	296	18.6	-35.4
-percent male	32.5		30.2			33.9		
Social Sciences	3,700	45.0	3,543	47.6	-4.2	3,837	69.4	8.3
Female	2,653	47.0	2,574	49.1	-3.0	2,754	70.0	7.0
-percent female	71.7		72.7			71.8		
Male	1,047	40.7	969	44.0	-7.4	1,083	68.2	11.8
-percent male	28.3		27.3			28.2		
Other Arts and Science	1,989	24.2	2,141	28.7	7.6	622	11.3	-70.9
Female	1,277	22.6	1,454	27.7	13.9	460	11.7	-68.4
-percent female	64.2		67.9			74.0		
Male	712	27.7	687	31.2	-3.5	162	10.2	-76.4
-percent male	35.8		32.1			26.0		

Note All Arts programs includes: Fine and Applied Arts, Humanities, Social Sciences, Other Arts and Science.

Source CUDO 2020 A4, A5, A6

ties with declining enrolment in Arts was a major force for precariousness in Northern Ontario Arts programs.

Among universities in Southern Ontario, the Arts enrolment picture is more varied. A few universities saw absolute Arts decline in most years of 2005–17, which resulted in overall Arts decline, particularly in Windsor (-32.6 per cent), Trent (-17.6 per cent), McMaster (-15 per cent), Brock (-9.6 per cent), and York (-2.9 per cent). However, Arts enrolment at most Southern universities grew, or at worst stagnated, over the period and some had major increases of more than double the average, like UOIT, Ryerson, Queen's, and OCAD. Indeed, even after the 2012 peak for Ontario Arts enrolment, when most universities saw years of absolute decline in Arts enrolment, Queen's and Ryerson experienced increases and Toronto experienced little change.

To further examine the severe deterioration in Northern Arts enrolment relative to patterns in Southern Ontario, we consider data on each of the four components of Arts enrolment: Fine and Applied Arts; Humanities; Social Sciences; Other Arts and Science. These are presented in appendix tables. Appendix Table 2 reports enrolment by university for the Fine and Applied Arts. For Ontario as a whole, Fine and Applied Arts enrolment grew to a peak in 2012 then declined, though overall growth for the period was about 2.7 per cent for the whole period or 1.6 per cent post-double cohort; the Fine and Applied Arts share of Arts enrolment declined only slightly, from 9.3 to 9.1 per cent. In Northern Ontario, by contrast, Fine and Applied Arts peaked earlier, in 2008, and also began and continued the period at less than half of the relative importance within Arts than Southern Ontario. From a peak number of only 305 and a peak share of 4 per cent in 2008, Fine and Applied Arts enrolment declined to 195 and a share of 3.5 per cent in 2017. In Southern Ontario, six of the 12 universities experienced overall decline in Fine and Applied Arts; as a whole, however, there was net growth, 3.4 per cent or 2.5 per cent, respectively, for the entire period or the post-double cohort period. Strikingly, some universities had multiple times the average Ontario increase overall (2.7 per cent), notably Wilfrid Laurier (94.2 per cent), OCAD (24.3 per cent), Ryerson (18.6 per cent), and Toronto (17.5 per cent). Over the entire period, the Fine and Applied Arts share in Southern Ontario declined from 9.7 to 9.3 per cent.

The Arts suffered the most severe decline during this period within the Humanities (Appendix Table 3). For Ontario as whole, full-time undergraduate Humanities enrolment peaked in 2006, during the double cohort, and substantially declined in most following years except 2009 and 2010. Overall, Humanities enrolment fell by -22.6 per cent for the entire period, or -19.9 per cent post-double cohort. In terms of its share of all Arts enrolment, Humanities fell sharply from 24.9 per cent in 2005 to 18.3 per cent in 2015. The situation in Northern universities was precipitous. Humanities enrolment in the North also reached a peak in 2006, then declined in every year following and more rapidly—nearly -60 per cent for the entire period. The decline in the

relative importance of the Humanities was also severe, from 26.2 per cent in 2005, a level *above* that of Southern Ontario, to 15.8 per cent in 2017, a level below that in Southern Ontario. In Southern Ontario, most universities faced massive declines in Humanities enrolment, though Guelph, Windsor, and Waterloo experienced more than double the average decline. As a whole, there was a double-digit net decline in Humanities, -20.3 per cent or -17.4 per cent, whether for the entire period or the post-double cohort period. Over the entire period, the Humanities share of Arts in Southern Ontario fell from 24.8 to 18.4 per cent.

In contrast, Social Science enrolment in Ontario grew through most of the period, peaking later, in 2013, and leaving net growth of 20.2 per cent for the entire period, or 17 per cent for the post-double cohort (Appendix Table 4). In terms of its share of all Arts enrolment, Social Sciences expanded from 44.7 per cent in 2005 to 51.1 per cent in 2017. In Northern universities, Social Sciences was the only Arts component to grow beyond the provincial 2013 peak. For 2005–17, the growth was 5.1 per cent and for the post-double cohort period it was 19.6 per cent. From having a 44.2 per cent share of Arts in 2005, similar to that in Southern Ontario, the Northern share of Social Sciences in Arts expanded to 69.5 per cent in 2017, much higher than in Southern Ontario. For Southern Ontario, universities, except Brock and Windsor, experienced overall growth in the Social Sciences for the 2005–17 period (21.1 per cent) and growth occurred in the post-double cohort years (14.8 per cent). Nonetheless, during 2012–17, many Southern universities had declines in Social Sciences and these years were ones of overall stagnation (-0.1 per cent). Over the entire period, the Social Sciences' share of Arts in Southern Ontario rose from 44.7 per cent to 50.4 per cent, over half of all Arts enrolment.

Lastly, the Other Arts and Science component of Arts also saw some enrolment growth in Ontario, but it declined sharply in the Northern universities (Appendix Table 5). For Ontario, the Other Arts and Science grew to a peak in 2012 then declined (-7.3 per cent), though overall growth for the period was about 6.7 per cent for the entire period, or 4.9 per cent post-double cohort, while its share of all Arts changed only slightly, from 21.1 to 21.5 per cent. The decline in Other Arts and Science, which includes general three-year Arts and Science programs, has likely been affected by a turn away from three-year BA programs to four-year programs. In Northern Ontario, the Other Arts and Science programs declined in most years following 2005, but especially sharply after 2012, leaving declines of -71.4 per cent for the entire period, or -67.7 per cent post-double cohort. Over the entire period, the percentage share of Other Arts and Science in Northern Ontario dropped sharply, from 26.3 to 11.2 per cent. In Southern Ontario, most universities had growth in these programs until 2012 but then experienced decline or stagnation. The growth in general Arts and Science in a minority of universities, especially Toronto, Western, and Queen's, led to the upward shift in their Arts share, from 20.8 to 21.9 per cent.

Viewing Ontario as a whole, one sees that despite the growing importance of STEM fields, Arts programs (whether defined by the SPEMAJ classification or as usually found in Arts Faculties) continued to be of major importance in the Ontario system, though with a diminished share. Overall, full-time undergraduate enrolment in Arts did increase, but the rate of growth of Arts Faculty enrolment appears to have slowed and, after 2012, declined absolutely in the following three years by about -6.7 per cent. For the Ontario system, these declines were most severe in the Humanities, which fell absolutely by double-digit percentages and its share within Arts fell from around 25 per cent to well under 20 per cent.

In Northern Ontario's universities, the declines in Arts programs have been more severe. Not only were there more years of enrolment decline, the percentage declines were larger. Within the Arts in Northern Ontario, general (Other) Arts and Science, the Humanities, and the Fine and Applied Arts all declined more in Northern universities and had a greatly diminished presence in Northern universities.

Despite declining Arts enrolment among undergraduate students, full-time graduate enrolment in the Arts programs as a whole continued to increase, including after 2012, except for a small decline in the Humanities (CUDO, Enrolment Table 4). As a consequence, between 2005–17, Ontario's graduate enrolment in the Arts increased as a share of all full-time enrolment in all Arts programs. Nonetheless, the increases in graduate enrolment numbers in the Arts were not nearly enough to compensate for the losses in undergraduate enrolment, especially in the Humanities and especially in Northern Ontario.

Declining Arts enrolment and gender

THE HISTORIC GROWTH in the participation of women in the labour force and in higher education has had special importance in the expansion of Arts programs. By the 2000s, a majority of full-time undergraduate students were women and a majority of these women were enrolled in Arts programs. Table 11 displays full-time undergraduate enrolment data by gender for Ontario universities in all programs, Arts programs, and by component areas of Arts. Here we have selected three years—2006, 2012, and 2017—which are, respectively, the earliest year of data available at the time of writing, the peak year of Arts full-time undergraduate enrolment in the Ontario system, and the latest year of data available at the time of writing.

Changes in gender numbers and shares were not large between individual years, though between 2006-15, one can see some important changes. In particular, women remained a majority of full-time undergraduates in total university enrolment and their numbers continued to grow absolutely, but the full-time enrolment numbers for men increased more, hence, there was a decline in the female share of university enrolment as a whole, from 57.9 per cent in 2006 to 56.0 per cent in 2017. A decline in the female share of Arts enrolment also occurred, but differently.

In 2006, while about 58 per cent of all full-time undergraduate students in Ontario were women and about 42 per cent were men, in Arts programs, 65.9 per cent of students were women and 34.1 per cent were men. Further,

while Arts programs had 49.3 per cent of all university enrolment, they had 56.1 per cent of all enrolment by women and only 40.1 per cent of all enrolment by men. In the years following 2006, the numbers of women generally increased in university programs as a whole and, until 2012, in Arts as well. But after 2012, the number of women in Arts declined absolutely, by -6.6 per cent. By comparison, male enrolment in Arts increased more rapidly than female enrolment until 2012, then it decreased more rapidly, by -9.5 per cent. The result was that Arts enrolment increased absolutely from 2006–12, then fell absolutely from 2012–17, by -6.6 per cent, while the female share declined from 65.9 per cent in 2006 to 64.4 per cent in 2012, then increased to 65.5 per cent in 2017. Significantly, due to the combined declines in the Arts' share among university programs and the female share within Arts, Arts programs had less than a majority of female full-time undergraduate students (47.1 per cent) by the end of the period.

In examining the four component groups of the Arts enrolment data, it becomes clear that major declines for both women and men in the Humanities were the largest portion of the changed situation in the Arts, accounting for over half of the magnitude of the enrolment decline in Arts. Unlike other major groups of Arts programs, enrolments in Humanities fell during 2006-12 by -6.3 per cent and even more in 2012–17, by -21 per cent. The decline in male enrolment was even larger than that for women, so the female share in Humanities enrolments actually increased, from 65.2 to 67.2 per cent. If one looks at the years of sharpest decline, 2012 to 2017, Arts programs as a whole suffered a decline of 10,902 enrolments, made up of 5,357 women (49.1 per cent) and 5,545 men (50.9 per cent). Remarkably, Humanities accounted for 6,654, or 61.0 per cent, of the decline in Arts and 76.5 per cent of the decline in female students in Arts.

While Humanities and all other Arts components declined absolutely after 2012, there was little overall change in Social Sciences. However, there was a change by gender. The number of women enrolled in Social Sciences actually increased slightly—the only Arts component where female enrolment increased absolutely—which increased the female share in Social Sciences from 64.9 to 67.2 per cent (for 2012–17). As a whole, while the Humanities share of Arts enrolment dropped from 25.1 to 18.4 per cent over the 2006–17 period, the Social Sciences increased to over half of the Arts (from 45.1 to 51.2 per cent) and to over half of all female enrolment within the Arts (46.0 to 52.6 per cent).

The Fine and Applied Arts, the smallest of the Arts groupings and the one with the highest proportion of female enrolment, declined by -10.3 per cent after 2012. The Other Arts and Science programs, which is the second largest Arts component, experienced a somewhat lower decline of -7.6 per cent, but the female enrolment decline in this component was around double that of the male enrolment decline. Overall, the Other Arts and Science component was the only component to see a substantial decrease in the female enrolment share.

One can observe some important differences between Northern and Southern Ontario in the changes in Arts enrolment by gender. As noted, the decline of full-time undergraduate enrolment in the Arts in Northern Ontario was more severe than in Southern Ontario. Table 12 gives more detail about the full-time undergraduate enrolment situation in Northern Ontario. In 2006, over half—53.1 per cent—of full-time undergraduate enrolment was in the Arts, then Arts enrolment numbers dropped sharply, to where Arts enrolment was—36.9 per cent of all programs. Important here is the fact that the female enrolment share was substantially higher in Northern Ontario. Taking the averages for Ontario in 2006 for all university programs, female enrolment in Northern Ontario was 63.3 per cent, compared to 58 per cent for all Ontario (Tables 11 and 12). For Arts programs, the female enrolment share was also higher in Northern Ontario, though not by as much—68.7 per cent in Northern Ontario compared to 65.9 per cent for all Ontario. Over 2006–17, the share of female enrolment in all programs declined in Northern Ontario, from 63.3 to 59.1 per cent. However, in Arts programs, the female share increased, from 68.7 to 71.2 per cent. The female share in Arts programs in Northern Ontario was not only higher than the Ontario average in 2006, it increased to more than five percentage points higher than the Ontario average (71.2 per cent compared to 65.5 per cent). In Northern Ontario, as Arts enrolment as a whole have declined, Arts programs have become more dependent on female enrolment.

Looking at the main Arts components in both 2006 and 2017, one can see that the female enrolment share was higher in Northern Ontario for all components except Humanities. Indeed, the female enrolment share in Northern universities increased in all components—except Humanities—while it declined for the Ontario average. In the case of Humanities, the female share in Northern Ontario fell from above the Ontario average in 2006 (67.5 per cent compared to 65.2 per cent) to below the Ontario average in 2017 (66.1 percent compared to 67.2 per cent). This situation has been the result of a near collapse situation for the Humanities in Northern Ontario relative to Ontario as a whole. For Ontario, as Humanities programs generally declined, male enrolment declined more rapidly than female enrolment in both 2006-12 and 2012–17. In Northern Ontario, the decline of male enrolment was also more rapid than the decline of female enrolment for 2006–12, though both declined by over three times the Ontario average. However, in 2012–17, female enrolment in Humanities programs declined even more rapidly (-45.5 per cent) than male enrolment (-35.4 per cent) and more rapidly than the Ontario decline (-19.8 per cent and -23.2 per cent, respectively). Hence, the female Humanities enrolment share in Northern Ontario fell below the Ontario average.

Official reaction to system failures

THE VAST UNIVERSITY expansion of the 1960s led to increased provincial intervention, which included implementing formula financing.⁴² This was a type of expenditure rationalization and limited regulation of the system's expansion that accepted the relative autonomy of university boards in administering their own growth. The province consciously rejected the master plan approach being pursued for the state of California, including for graduate programs.⁴³ In the deteriorating economic conditions of the 1970s, provincial intervention turned as a priority toward reducing spending growth and permitted the first of major increases in tuition fees. Probably the most serious, long-lasting setback was precipitated by the P.E. Trudeau Liberal federal government's 1977 move from shared to limited block funding under Established Programs Financing.⁴⁴ During the 1970s and subsequent decades, the real value of provincial operating grants per student declined, as did aggregate operating grants to universities as a percentage of GDP.⁴⁵

The descent into protracted austerity altered university-employee relations and collegiality and led to increased faculty unionization.⁴⁶ Besides the direct actions of faculty unions within the labour relations system, faculty organizations—particularly through the Ontario Confederation of University Faculty Associations (OCUFA)—have advanced critiques of the consequences of Ontario funding cuts, including systematic decline in university quality. 47 OCUFA has also regularly pressed for increased funding and recently called to end the recent provincial move toward performance-based funding and to revert to "the largely effective enrolment-based funding model." 48 Student organizations, generally, have taken stronger positions against tuition-fee funding and student indebtedness. The Canadian Federation of Students-Ontario currently campaigns for immediately reducing and gradually eliminating tuition fees and for replacing student loans with grants.⁴⁹

However, governments in Ontario have largely maintained the neoliberal direction of privatization of university funding and corporatization of university administration, though with some alteration between harder and softer approaches.⁵⁰ Budgetary austerity has become primary for university policy, leaving little room to manoeuvre in the face of growing operations costs aside from increased fees and cost-cutting measures through quality decline and reduced employee costs, with a focus on academic faculty and academic work.

Despite such major shifts toward privatization and corporatization and the disparities within the system that have affected the Northern universities, a prominent view is expressed that Ontario's provincial university policy framework has remained relatively unchanged since it came into place in the 1960s, while the economic and political context has changed around it. The Higher Education Quality Council of Ontario has argued:51 "The province's traditional stewardship of the system rested on a broadly adopted principle of homogeneity. All institutions were treated in a relatively similar manner, on a foundation of identical policy and funding mechanisms, under which differentiated accommodations were the exception rather than the rule."

A problem with portraying provincial funding policy as a force for "homogeneity"⁵² is that the university system was stratified even before formula-financing and it ignores that market forces encouraged by neoliberal policy made the enrolment-based funding formula a force for increased disparity, such as can be seen in the conditions of the Northern universities. Even the narrowly defined funding formula itself had differentiating elements within it.53 Of course, the province's intervention did not go to the extent, for example, of full deregulation of fees, with the attendant consequences of reduced access and further weakening of non-elite universities. Rather than a force for homogeneity, the province's policy could be described as a limited means to maintain a system of minimum social access and academic standards.

The homogeneity characterization is more understandable as a political foil to promote increased "differentiation" in service "fiscal restraint...neither the province nor students are positioned to purchase success through significant additional investment."54 However, austerity has affected the quality and the competitiveness of Ontario universities. The move to a "differentiation" strategy by the McGuinty and Wynne Liberal governments was motivated, at least in part, by concerns of declining international competitiveness, especially of the top-ranked University of Toronto, under conditions of austerity.⁵⁵ Differentiation is consistent with the view that particular universities or programs take higher priority and deserve an even larger share of limited resources, although it could clash with certain enrolment-based constraints of the current funding formula.

An analysis of the Ontario system by Clark, Trick, and Van Loon (2011), allied with the neoliberal orientation of HEQCO, also holds the view of an essentially unchanged university policy framework,56 but goes further in advocating for stronger provincial government intervention. The Clark et al. view is that Ontario governments have "rarely involved themselves in how universities should carry out their objectives" including limiting university goals and de-funding individual programs. At the same time, university autonomy has been "less dear to governments than the goals of expanding access and promoting economic prosperity in a globalized economy" (101). As to Ontario's enrolment-based funding formula approach, Clark et al. chafe at the "tradition of across-the-board policies" using financial incentives and tools applied uniformly, and they urge "more explicit planning."57 Such visions of intervention are not a break from the neoliberal direction of Ontario's university policy but a more aggressive form of it; the explicit break is from previous concerns about university autonomy, which would open the door to more rapid restructuring through direct provincial program closures and prohibitions.58

The direction of privatization and an intensified market orientation has become allied with a belief that Ontario's university system has succeeded in its access goals, despite clear evidence that Ontario has major disparities in access by region and for Indigenous people.⁵⁹ The Ontario government's university policy and HEQCO analyses barely recognize the uneven development in Ontario, particularly Northern Ontario, nor the effects of metropolitan concentration in the Toronto/GTA region. It is with a truncated metropolitanist gaze that HEQCO can claim, for instance, that "Ontario does very well in virtually all access-related indicators but most notably in postsecondary participation (number of people attending) and attainment (adults with postsecondary credentials)"60 without serious regard to the regional or colonial dimensions of Northern Ontario.

Such a perspective rests comfortably with the official explanation of slowing enrolment growth as being simply a consequence of demography⁶¹ while ignoring effects of high tuition fees and regional economic conditions, such as those of Northern Ontario. Of course, there does exist a long-term slowing of overall population growth in Ontario and population growth in Northern Ontario has turned to absolute decline. 62 However, demographic change, alone, is inadequate to explain the magnitude of the major enrolment changes and flows in Northern Ontario, especially for Arts programs, in comparison with Southern universities, let alone the capacity reserve mechanism affecting the Northern universities. Most obviously, it is a policy framework that does not take into account crucial regional disparities affecting enrolment and educational needs. This includes Northern Ontario's continuing below-average level of university participation and, though lower participation might affect the level of enrolment more than its trend, participation has greater importance in universities that are much smaller in scale.

Then there is the fact that the Ontario university system, especially outside of the Toronto/GTA, has large cross-regional flows of students that reflect a hierarchical structure of demand disadvantageous to less wealthy universities and regions. Conceivably, if system enrolment or enrolment in elite and metropolitan universities were more restrictive, or planned in order to more evenly spread enrolment across the entire system, this might moderate the current system's failures for Northern Ontario. However, such a global policy alone would not rectify regional structural inequalities and unequal access to system resources, let alone the cumulative consequences of lower regional participation and other social disparities.

The Higher Education Quality Council of Ontario (2017) has recently raised concerns about the "sustainability outlook of Ontario's 20 publicly funded universities", based narrowly on the province's regional demographic trends. Indeed, there are issues of university "sustainability"-including a growing regional crisis and a crisis of Arts education—that are indicative of problems within the Ontario university provision model itself.

Developmentalist critique of the **Ontario system from Northern Ontario**

THE NORTHERN UNIVERSITIES have faced a variety of criticism from Northern students, faculty, and communities, going back to their earliest years. Among the most prominent from Northern Ontario has been the work of Geoffrey Weller, including joint work with Robert Rosehart.⁶³ Weller's work recognized the hinterland character of Northern Ontario and took a more activist view of government for Northern universities and development. Writing in the 1980s, he argued that Ontario government policy failed to provide Northern universities with the scale and resources needed "to assist in Northern economic, social and cultural development."64 For Weller and Rosehart, better models were available, such as in Sweden. 65 Such criticism of the hinterland conditions of the Northern universities has been raised, too, in faculty research, for instance, by Nock (1997, 1993).

Weller's view was that the then two Northern universities, Laurentian and Lakehead, were established as generic copies of Southern universities without support for "any kind of special role in Northern development."66 The argument was made around three main themes. First, although the 1960s were a period of government activism, Northern universities were primarily the result of local activism, in which the university goal was limited to being "more convenient access" points in the Ontario system for Northern residents. Hence, Laurentian and Lakehead "tended to become largely reflections of Southern institutions in both programming and structure." Second, Weller saw the two Northern universities as "unprotected" in a competitive system in which they had both no distinctive role and had higher costs. The Ontario university system consciously had no master plan, which could have included a "clear and specific role for its Northern components" that were granted autonomy and funded accordingly. As a result, "The Northern universities were seriously disadvantaged in this competitive environment because they had little that was distinctive about them and yet had far higher costs because of factors such as distance and climate." Third, Weller's view also reflected a common Northern grievance about lack of Southern concern for issues of Northern Ontario's economic development: both universities were disadvantaged because the provincial government had "no clear policy for Northern development."68

Probably of greatest immediate consequence for Northern Ontario was the lack of Ontario government support for professional and graduate programs for Laurentian and Lakehead, which weakened their developmental role and, within Ontario's competitive university framework, disadvantaged them from the outset. For Weller and Rosehart, such support early on would have led to larger-scale institutions, stronger funding arrangements, and more regionally oriented programming and research, hence, greater impact on regional development. However, such concerns did eventually get more attention after the 1980s. Along with a growing number of graduate programs, several prestigious professional programs were established, especially the Northern Ontario School of Medicine (2005) on the campuses of Lakehead and Laurentian, the McEwen School of Architecture (2013) at Laurentian, and the Bora Laskin Faculty of Law at Lakehead (2013). There had also been a limited recognition of the higher-cost situation of Northern universities through some special purpose grants, particularly the Northern Ontario Grant and Access Funds. 69 During these decades, campuses also saw several major capital projects and some became independent: Nipissing University (1992) at North Bay and Algoma University (2008) at Sault Ste. Marie, while l'Université de Hearst at Hearst moved closer to independence (2014).

Despite these changes, the Northern universities still faced relative and absolute enrolment declines (as shown earlier). Indeed, a number of program closures are currently taking place or have been threatened based on administrative assessments of inadequate enrolment. 70 Evidently, issues

going beyond the developmentalist view still need attention, especially as related to Arts and Science programs.

First, the developmentalist view has typically argued for increased funding for professionally oriented programs in teaching and research initiatives to support the region's resource industries, particularly mining and forestry. Weller used, as an illustration, the difficulty of getting the School of Forestry at Lakehead University and its continued competition with the University of Toronto.⁷¹ The concern was broadened to include health professions, particularly prestigious programs like Medicine. While often popular with local boards, business, and professional interests, a focus on professional or related graduate programs was insufficient. The Northern universities did have professional programs in Education, Engineering, Business Administration, and Nursing from their early years, but these older professional programs and newer professional programs did not expand to an extent that was adequate to stem relative and absolute enrolment declines. Further, the narrow focus on professional and related programs was not necessarily in line with actual employment conditions in Northern Ontario—unless intended to train students for work elsewhere. By the 1980s, employment in the mining and forestry industries had started to decline in Northern Ontario. Government cuts to the school and health care systems and, by the 1990s, population decline in Northern Ontario also limited prospects for program expansion in education and some health care programs.

A crucial issue in the developmentalist perspective is its systemic diminishment of the importance of Arts education in social and cultural conditions, as well as in democratic policy engagement. Part of this might be explained as a reaction against narrowly "classical" and patriarchal education associated with elite and church institutions, but this ignores significant changes in these Arts disciplines, including the rise of feminist, anti-colonial, and other currents, their crucial role in media, cultural, and political institutions, the expressive and creative elements of the Fine Arts and Humanities, and the major local-regional engagement Social Sciences provide beyond their service roles for business, health care, social work, and other professions.

Though Weller raised concerns about the lack of a regional orientation in programs and low faculty morale, a narrow developmentalism approach was inadequate to comprehend the fundamental importance of social and cultural development—not only economic development—of Arts education in Northern Ontario. This situation has been reflected in the long-term evolution of the Northern universities. From their foundation, the Arts programs of the Northern universities had a limited scale (including graduate studies) and standing. In a study for the Ontario Economic Council, Cameron (1978) observed that in 1973-74 the Northern universities had lower full-time enrolment in Arts and Sciences programs than other small universities in Ontario.⁷² Among Northern student applicants at the time, almost 69 per cent indicated a Southern university as first preference. This said, local and regional access was still of major importance. For example, among Laurentian's full-time students, 56 per cent came from Sudbury and 77 per cent from Northeastern Ontario.

Indeed, Cameron argued that regional scale conditions were such that regional universities were incapable of achieving high quality programs in terms of academic excellence comparable to larger universities in Southern Ontario according to such standard measures as publications, research grants, success in placing students in post-graduate programs, etc. He went so far as to claim this was "the dilemma" of Northern universities—either academic excellence or regionalism. For him, by the usual scholarship standards, the Northern universities "are at best indifferent, and at worst antithetical to any concept of a university with a primary regional or local orientation. The logical result of this situation is that the more 'successful' a Northern university became, the less would its location (its 'Northerness') enter into its raison d'être."73 This bias against hinterland universities figured in Cameron's recommending that Northern universities should be amalgamated with adjacent community colleges.⁷⁴

Weller criticized this Cameron recommendation more on administrative than academic grounds, including its physical impracticality and that programs in the combined community college-university locations would be "regarded as of inferior quality thereby probably increasing, rather than reducing, the number of Northern residents who would want to go to university in Southern Ontario" (1988: 219). However, both tended to agree on the issues of program scale and quality in the Northern universities, that it would not be possible to have high quality stand-alone programs as in Southern universities. Instead, Weller's approach argued for regional specializations, along with substantially increased funding, particularly in graduate studies and research, as well as for a wider representation on university boards, presumably to deepen the regional commitment.

The question of regionalism or the local embedding of Northern universities—and of any university—is important and deserves a full discussion on its own. Suffice it here to emphasize two elements in Weller's approach. First, for Northern universities, particularly at the graduate level, Weller wanted both increased regional content within existing disciplines as well as institutes and programs specialized on matters of importance in their region.75 This was an argument about the need for more funding, along with academic specialization—for academic enrichment, not to cut programs nor to create faux interdisciplinary programs.

Second, for undergraduate programs, Weller argued that Northern universities should continue to provide a wide range of programs, but proposed measures to limit the outflow of Northern students:76

"The Northern universities should continue to offer a wide range of undergraduate courses and attempts should be made to limit the bypassing of the institutions by Northern students. This might be achieved by preventing Southern universities from conducting active recruitment campaigns in the North, by offering fee reductions or other financial incentives to Northern students to stay in the North and by moving away from a funding system that is so closely tied to enrolment levels."

While Weller touched on the crucial matter of tuition fees and financial incentives, he did not grapple with the full institutional and access implications of tuition-driven funding and its relation to the issue of program scale. Nor did he adequately address the issue of low enrolment levels and minimum scale issues in program quality. Cameron (1978) observed over four decades ago that the Northern universities were beset with problems of excess capacity compared to Southern universities (49) and, though there are exceptions, such as in some Social Sciences, the issue of relatively low program enrolment remains for many Arts programs. Faculty members have often argued that limited staffing and other resource issues have negatively affected program quality, which, in turn, affects enrolment and the competitive position of programs in the system. Further, unlike professional programs, Arts programs do not have the weight of professional organizations and the denial of program accreditation as a power to help limit staffing and other resource cuts in the internal competition for institutional resources.

Since Weller's work, research on university institutional behaviour has shown that the disparate resource endowments of universities, coupled with increased tuition-driven market pressures increase disparities among and within universities particularly against Arts programs. In one leading study, Taylor et al. (2013) argue that the competitive conditions in higher education are actually "quasi-markets" because they are organized by governments, students are subsidized, and how they are subsidized affects outcomes.77 The study focuses on the quasi-market for tuition-paying students at baccalaureate institutions in the U.S. as well as the quasi-market for grant and contract revenue from U.S. federal sources. Institution-level panel data for 1992 to 2008 indicate that the share of baccalaureate degrees awarded in the Humanities declined steadily, though unevenly, over the period, while net tuition and fees per full-time equivalent student increased.78 The study's regression analysis of the quasi-market for tuition fees, as well as the quasimarket for federal grants and contracts, provides "qualified support for the proposition that changing quasi-market conditions prompt colleges and universities to de-emphasize the humanities."79 In general, the effect of changes in the incentives appeared more strongly among private academic institutions. Further, for the private institutions, the relation of rising tuition receipts with the share of Humanities degrees was positive at first, but later turned negative. For public institutions, the association appears less strong, which, the authors suggest, might occur because public grants still enable public institutions to shelter Humanities programs that are disfavoured by the quasi-market but seen to be in the public interest. 80 The authors also suggest that the situation of public institutions might have changed since the 2008 financial crisis, as fiscal cuts subjected public institutions more to the quasi-market pressures.

The key point here is not competition, per se, among academic institutions, which has long existed, including in fully public systems, but competition in an environment of greater revenue-dependence on tuition and other private sources, which has occurred dramatically in Ontario after the 1970s. Consequently, the governmental quasi-market mechanism has an important class or distributional dimension. In particular, the Arts, including Humanities, appear to be more strongly supported and better resourced at elite universities. This is found not only in the Ontario enrolment data discussed earlier but also in U.S. studies. In a large study of four-year colleges and universities between 1970-2006, Brint et al. (2012) have examined factors behind the elimination of particular programs and the introduction of new ones. The study finds that "large and high status institutions, whether public or private, tended to preserve arts and sciences fields."81 Further, the differentiation by status is based less on the highest degrees awarded by the institution than it is on their wealth and selectivity. 82 The study considers that the decline of core Arts and Sciences during the period to 2006 had been "relatively slow," but notes that the data were for years prior to the 2008 recession and the public funding cuts that followed, which might amplify the prior trends.⁸³

Along similar lines, Hearn and Belasco (2015) use data on Humanities degrees awarded in four-year colleges in the U.S. from 1972-2009 to examine factors affecting colleges that retained a higher proportion of graduates in the Humanities compared to those that turned more to business and technical programs. The Humanities are seen as indicative of a more general commitment to the liberal Arts curriculum (in which the study also included Social and Natural Sciences). It is concluded that institutional wealth was central to the commitment to the Humanities: four-year colleges spending more per student and located in areas with high per capita income tended to educate a higher proportion of Humanities students. Similarly, the most selective institutions—those most highly competitive for student applications—tended to maintain a commitment to the Humanities. Private colleges with religious ties were slower, at first, to reduce their commitment to Humanities but, nonetheless, did so over time. Significantly, the association of women within the Humanities also changed. In the early period, the proportion of women in the institution had a slightly positive or negligible association with the proportion of Humanities graduates, but in the later period the relationship turned negative, with lower proportions of female Humanities graduates.84

There is still substance in the developmentalist argument for expansion in graduate and professional programs in Northern Ontario, whether in regionally oriented substitutions for Southern programs or in initiating new ones. However, the relative lack of attention to the role of Arts programs in development—and to the nature of "development" itself—has been a major weakness, as has been inadequate attention to program scale and fragmentation. Meanwhile, the corporate market adjustment model remains in force. Individual programs in individual universities without adequate enrolment or resources are being cut or threatened with elimination, often without consultation with affected faculty, students, or the local communities—and with no assurance that a stronger or consolidated program will be left somewhere in Northern Ontario after the cuts. At the same time, the desperate search for enrolment by individual Northern universities without a clear regional framework (such as the regional board that Weller and Rosehart observed in Sweden) led Northern universities to initiate lower-cost satellite operations in Southern Ontario, including at Barrie (Laurentian, 2001–17), Brantford (Nipissing, 2002–19), Orillia (Lakehead), Brampton (Algoma), and St. Thomas (Algoma).

Conclusion and discussion

THE TRANSFORMATION OF Ontario's public university system from a more benign "entrepreneurial" model in the 1960s to the current tuition-dependent, corporate-competitive model for university provision has not gone well for Northern Ontario. In terms of enrolment, Northern universities have declined both relative to enrolment in Southern Ontario and, since 2011, in absolute numbers.

The consequences of the current system have been especially severe for Arts education. Arts enrolment in Northern Ontario has been in absolute decline at least since 2005 (in Southern Ontario, absolute decline began in 2012). In Northern Ontario, over half of total enrolment was in the Arts in the early-2000s, then declined even more rapidly than total enrolment, to less than half of undergraduate enrolment and a smaller, shrunken proportion of Arts education in Ontario, which, itself, has declined. Though of greater importance in the geography and social conditions of Northern Ontario, part-time studies remain higher than in Southern Ontario but have declined. Graduate enrolment has increased absolutely, but it is still a well below Southern levels. The female enrolment share was higher in Arts in Northern Ontario than for the province in 2006, 2012, and 2017. However, among the Arts components, female enrolment only grew in the Social Sciences. In the Fine and Applied Arts, there was decline and, in the Humanities, the decline

was even more severe than in Southern Ontario—it was -60 per cent relative to about -24 per cent (2006–17).

We have also shown that rather than having a more stable or assured position in the Ontario system, the Northern universities have come to function as a capacity reserve that is subject to the effects of the hierarchical structure of demand in the university system and of metropolitan concentration in the Toronto/GTA region. Not surprisingly, despite early improvement in university access in Northern Ontario, and decades of experience with the neoliberal model of provision, university participation in Northern Ontario remains well below the provincial average. Such patterns point to the need to more deeply examine the neoliberal policy model driving the Ontario university system.

The broad post-Second World War expansion of public education in Ontario, Canada, and in many parts of the world, came under the impetus of larger democratic and egalitarian goals. In this context, the role of higher education was seen well beyond its labour-market aims, such as being enshrined in the Universal Declaration of Human Rights (1948: Articles 26 and 27) which states that: "Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms" and "Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits." This impetus goes even further in the UN International Covenant on Economic, Social and Cultural Rights (1966), of which Canada is a signatory. Arguably, the current privatization of Ontario universities is contrary to Article 13: "They [the signatory States] agree that education shall be directed to the full development of the human personality and the sense of its dignity, and shall strengthen the respect for human rights and fundamental freedoms. They further agree that education shall enable all persons to participate effectively in a free society..." and "Higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education."

Unlike countries with stronger labour, socialist, and social democratic movements, neither the Ontario, nor Canadian, governments have embraced the concept of free higher education and they haven't enacted policies to ensure higher education as a *universal* right. Rather, the policy orientation has been to retain tuition fees, at a moderate level at first, and to provide financial aid, loans, or other measures that could be regulated according to fiscal conditions and which students were deemed to be deserving.

Ontario's Conservative government-led university expansion of the 1950s and 1960s was progressive in the geographical extension of access, although access in this context was a limited achievement which can be understood as comparable to the expansion of public schools into unserved areas. The extension of university education into Northern Ontario included two universities, Laurentian University and Lakehead University, as well as a small number of professional programs, particularly Education, Engineering, and Nursing. For a variety of factors, including Northern disparities, higher costs, internal competition, and limited resources, the Northern universities were disadvantaged from the outset within Ontario's competitive system.

In attempts to counter the metropolitanist outlook of Ontario governments and their limited conception of access, advocates for Northern Ontario's universities have emphasized the importance of universities for Northern economic development. Northern academic leaders, like Geoffrey Weller, advocated for more and properly funded professional and graduate programs in Northern Ontario. This occurred in a general context of higher population growth and, arguably, was not meant to replace or weaken undergraduate Arts programs. However, the decline did occur, particularly with the neoliberal turn toward austerity and higher dependence on tuition-driven competition among universities within Northern Ontario and in Southern Ontario. Arts education is being reduced even further than in Southern Ontario. Many Arts programs in Northern Ontario are in marginal condition and vulnerable to closure, even as failures in regional access and uneven social and economic development continue to exist.

In the face of austerity, administrative, faculty, and student organizations have been understandably inclined to emphasize underfunding across the system and the consequences of protracted austerity on university quality and access in general. However, the redistributive and developmental effects of the system's increasingly privatized and tuition-driven form of provision across Ontario's unequal regions also deserve serious concern. Central to the argument here is that neoliberal policies favouring tuition-dependent (with means- or income-testing for aid) versus universal provision have intertwined and consequences affecting not only (a) student accessibility but also (b) enrolment among programs, (c) the behaviour of universities as institutions, and (d) regional development objectives.

Economics research on the relation of rising tuition fees to enrolment has generally focused on individual access and a variety of associated factors, such as income, employment prospects, distance, and debt or risk averseness. In mainstream economics, the tuition (price) increases are generally viewed as having a disincentive effect on enrolment (quantity demanded), although there is contention on the precise form of the relation and coefficient values (the tuition elasticity of enrolment), including to what extent social or cultural factors, or "willingness to pay," might counteract the disincentive effect. Despite such issues, the fee impact for different programs is now being measured as part of managing tuition fees in the heavily privatized U.S. system (Strange 2013).85

However, we might be reaching a point historically where tuition fees have risen to levels at which, apart from human rights and political-ethical issues, their disincentive effects might be more difficult to ignore in government policy. There is evidence of substantial differences by program in the disincentive effects of tuition fees and growing awareness that tuition fees can rise to a level where student probability of enrolment becomes increasingly sensitive (elastic) to further increases in tuition, which gradually chokes off new enrolment as students do not enrol at all or switch to other programs. Langelett et al. (2015) found that for a mid-sized U.S. public university, tuition fee increases had a negative effect on probability of enrolment, with the probability of enrolment decreasing as tuition fees increased. Further, at a certain level of tuition fees demand turned elastic (at about \$9,000 U.S. in the context of the study). That is, the percentage increase in tuition fees was associated with a larger decrease in enrolment demand, hence, total revenue to the university declined. This type of choking effect is also consistent with the negative turn in Humanities enrolment, with rising tuition fees observed in the Taylor et al. study mentioned earlier. It is also apparent for universities that tuition increases that are larger than enrolment declines are self-defeating; they will not make up revenue losses and further disincentivize enrolment.

In response, the common behaviour of universities has been to switch resources away from Arts disciplines. But this might not solve their financial problems and it can damage the academic integrity of their institutions. For instance, universities that reduce Arts programs in favour of STEM or professional programs might find they are replacing lower-cost with higher-cost programs, thus defeating a cross-subsidization that had enabled expansion in more costly fields. Arts have been not only among the largest programs funding universities but they are also generally less costly than STEM or professional programs. 86 Further, the growing popularity of STEM fields does not necessarily translate into enrolment growth in basic Sciences. For instance, the Brint et al. study found that in the U.S. there occurred a relative decline in the core Natural Sciences fields of mathematics, chemistry, and physics between 1970-2006.87

The turn away from the universal right to higher education towards privatization and greater tuition-dependence is affecting not only accessibility and student program choice but also university behaviour to the disadvantage of Arts and even some core Natural Sciences programs. While such impacts have been felt across university systems, the evidence here suggests the impacts are made disproportionately worse by hinterland-colonial conditions such as those of Northern Ontario.

For Ontario's university system, then, the decline of Arts education and, especially, the Humanities is a common and significantly predictable outcome of the greater dependence of universities on tuition and other private revenues, with more severe impacts on smaller and less-resourced universities. Such privatization also carries an associated political ideology on the appropriate role of the university. Rendering universities more tuitiondependent is supported by the now pervasive neoliberal view that university studies should be geared primarily, if not exclusively, toward labour market readiness, skill acquisition, and higher salaries. When it comes to the societal value of the Arts, this ideology takes an extreme form, with the view that the Arts are a "luxury good" and, hence, unnecessary for, or a mismatch with, the labour market and unaffordable in conditions of scarce resources.88 In response, those defending the liberal Arts have often argued, from within a labour market framework, for the value of the liberal Arts in terms of general education (relative to vocationally specific training) and in developing generic skills, such as in critical thinking, communication, and capacity to learn. While evidence of higher wages or less unemployment among graduates of applied programs compared to Arts graduates is sometimes cited, contending analyses show a more complicated longer-term picture of labour market outcomes, one that depends significantly on macroeconomic conditions and the period of analysis, as well as persisting high income for Arts graduates.89

Universities have long had connections to and responsibilities for professionalization, training, and employment, which is an important role they continue to play. But such a role can also be provided in a fully public system without tuition fees and wasteful tuition-driven competition. The key questions that the current privatization trend poses is about the *other* responsibilities and roles of universities, not least social equity—including regional equity and how these, too, are being degraded or eliminated by privatization. These latter questions are especially sharp and urgent for

universities in hinterland-colonial conditions. In the long run, the arguments about the social role of universities have to rest on more than narrow labour market or employment merits.90 This is especially the case when many students with degrees are unemployed, and employment insecurity and student indebtedness are increasing, particularly when compared to the early decades of university expansion.91

In the Ontario university system's current trajectory, Northern Arts education is being severely weakened and the future locus of Humanities and Fine Arts education, in particular, is returning more strongly to elite and large universities and to more privileged levels of society. At root, this acts to reverse the extension of public education and the post-Second World War impetus to the universal right to higher education: that literature, music, philosophy, economics, and other Arts--once viewed as only for the wealthy and professionals, mostly white and male—should be available on the basis of merit and effort to everyone in society as a fundamental aspect of human rights and development. When it comes to cultural and political development, the Northern universities also play a major role as public spaces for critical thinking in a hinterland-colonial region with more than its share of the colonial baggage of resource-export-dependent development, paternalistic company towns, a weakened municipal system, entrenched private monopolies, and, for Indigenous peoples, the reserve system, residential school cultural genocide, and unfulfilled land rights and national self-government.

Ontario's official analyses and policies appear oblivious to the failure of the tuition-driven, corporate-competitive model to bring university participation levels to the Ontario average and how it has undermined limited regional mandates. Yet, in the quest for tuition revenues, most Northern universities have increased recruiting outside Northern Ontario for a majority of their students and they have even set up satellite campuses in Southern Ontario, in costly competition with each other as well as other Southern universities.92

Nor is there recognition of the inadequacies and failures of the current model in meeting fundamental social needs and constitutional responsibilities. For Ontario and Canada, the North remains a major colonial region with responsibilities to Indigenous peoples in support of treaty commitments about education and in decolonization.93 Over two decades ago, the Royal Commission on Aboriginal Peoples (1996) made recommendations on education, cultural heritage, Indigenous languages, visual and performing arts. These will require substantial support for Arts programs, whether they are within existing universities or in independent Indigenous university campuses, institutes, or other institutions. Meeting such needs will rightly benefit Indigenous peoples, but they are also crucial for the decolonization of education and research for the non-Indigenous population. An indication of the bias of the current neoliberal approach is how little attention has been given by official bodies to even basic data on Indigenous student participation, despite stated government concerns about under-representation and about responding to calls for action of the Truth and Reconciliation Commission of Canada (2015).94

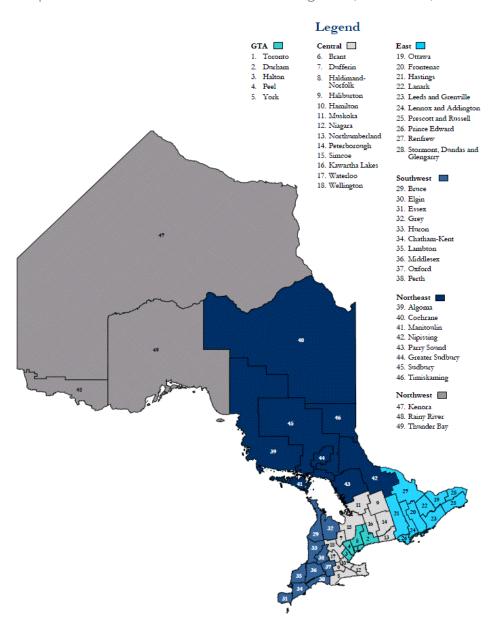
The present model is also failing to meet responsibilities to the Franco-Ontarian national minority, with its long history in Northern Ontario. This is most evident in the bilingual Laurentian University and its associated Frenchlanguage Université de Hearst. At Laurentian, francophone enrolment in Arts programs has fallen and francophone programs in Arts have been reduced or threatened with closure. At the same time, Franco-Ontarian students in regions of Southern Ontario have been denied adequate French-language university education. The work of the advisory committee report (2016) on French-language postsecondary education in Central-Southwestern Ontario was laudable in recommending a new Franco-Ontarian university and in going beyond the failing bilingualism approach of Laurentian. Regrettably, however, the report did not discuss the crucial factor of tuition fees and the negative effects of tuition-fee dependence on program choices, especially for Arts education and cultural development.95 This weakness has been carried over into the subsequent planning board report (2017) for the new French-language university proposed for Toronto.

Currently, the Ontario university system faces pressures for further privatization and "differentiation" in the provision of university education, with the added threat of direct government intervention. Such intervention within the present model will likely amplify the regional and social disparities that are already features of Ontario's university system. Differentiation might appear as mere specialization rather than stratification, but the evident context of the policy is austerity and limiting aggregate operational spending on universities. In this context, the neoliberal policy orientation and class, national, and metropolitanist pressures do not favour a more egalitarian approach but, rather, a higher priority toward keeping the elite universities internationally competitive. Without countervailing political pressures, differentiation likely means Northern universities and Arts education could be stratified into an even lower provincial priority.

In sum, we have seen that the neoliberal turn of Ontario's university policy to funding privatization and a tuition-dependent, corporate-competitive provision model, with its diminished commitments to non-market social and cultural objectives, has weakened Northern universities as whole and especially Arts education. The impacts will be felt in access to and the quality of Northern Arts education and in the Northern universities' general capacity to meet Northern educational and research needs, including in raising Northern participation rates in postsecondary education at all levels, in contributing to regional cultural, economic, environmental, and political engagement, and as an ally in responding to the massive and continuing injustices of colonialism.

Appendix Map

Map of Ontario Census Divisions and Regions (OMF 2015)



Appendix Map Supplement

Ontario's Universities by OMF Demographic Region and Census Division, 2015

GTA (Greater Toronto Area) region

Toronto OCADU, University of Toronto,

Ryerson University, York U.

Durham **UOIT** (Oshawa)

Central region

10 Hamilton **McMaster University**

Brock University (St Catharines) Niagara

Peterborough Trent University

Waterloo University of Waterloo, Wilfrid Laurier University

Wellington University of Guelph (Guelph)

East region

Carleton University, University of Ottawa Ottawa

Queen's University (Kingston) Frontenac

Southwest region

University of Windsor (Windsor) Essex Middlesex Western University (London)

Northeast region

Algoma University (Sault Ste Marie) 39 Algoma

40 Cochrane Université de Hearst (Hearst) [included with Laurentian]

42 Nipissing Nipissing University (North Bay)

44 Greater Sudbury Laurentian University

Northwest region

49 Thunder Bay Lakehead University

APPENDIX TABLE 1 Undergraduate tuition fees at Laurentian University and Provincial governments, 1960-61 to 2017-18

Acada	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Academic	Undergra		Part-		Engin	eering		nternational				hanges in domesti	
year	most programs	increase	6 credits	increase	415		most programs	increase		Party:	duration	real 1978-79	_
2047.40	(\$)	(%)	(\$)	(%)	(\$)	ratio to (a)	(\$)	(%)	ratio to (a)	premier	(years)	(% overall)	(% per yr)
2017-18	6,473.00	3.0	1,294.60	3.0	8,538.24	1.32	22,241.00	9.1	3.44	Liberal:	14	21.6	1.5
2016-17	6,284.50	3.0	1,256.90	3.0	8,131.68	1.29	20,377.50	5.0	3.24	Kathleen Wynne			
2015-16	6,101.50	3.0	1,220.30	3.0	7,744.50	1.27	19,407.20	5.0	3.18	Feb 2013 -			
2014-15	5,923.80	3.0	1,184.76	3.0	7,375.80	1.25	18,483.00	5.0	3.12	Daltan MaCinto			
2013-14	5,751.50	3.0	1,150.30	3.0	7,024.75	1.22	17,603.50	10.2	3.06	Dalton McGinty			
2012-13	5,584.00	4.7	1,116.80	4.5	6,690.24	1.20	15,979.50	8.0	2.86	Oct 2003 -			
2011-12	5,334.00	4.3	1,068.80	4.5	6,194.76	1.16	14,796.00	8.0	2.77	Feb 2013			
2010-11	5,114.00	4.5	1,022.80	4.5	5,736.00	1.12	13,700.00	15.0	2.68				
2009-10	4,894.00	4.0	978.80	4.0	5,311.00	1.09	11,913.00	4.0	2.43				
2008-09	4,706.00	4.0	941.20	4.0	5,107.00	1.09	11,455.00	4.0	2.43				
2007-08	4,525.00	4.0	905.00	4.0	4,910.50	1.09	11,014.00	4.0	2.43				
2006-07	4,351.00	4.0	870.20	4.0	4,721.60	1.09	10,591.00	5.0	2.43				
2005-06	4,184.00	0.0	836.80	0.0	4,540.00	1.09	10,087.00	0.0	2.41				
2004-05	4,184.00	0.0	836.80	0.0	4,540.00	1.09	10,087.00	0.0	2.41	C	0	45.5	
2003-04	4,184.00	1.9	836.80	1.9	4,540.00	1.09	10,087.00	1.9	2.41	Conservative:	8	45.5	5.7
2002-03	4,106.00	1.9	821.20	1.9	4,456.00	1.09	9,900.00	13.1	2.41	Ernie Eves			
2001-02	4,029.00	2.0	805.80	2.0	4,372.00	1.09	8,755.00	2.2	2.17	Apr 2002 -			
2000-01	3,951.00	4.9	790.20	4.9	4,288.00	1.09	8,565.00	4.9	2.17	Oct 2003			
1999-00	3,765.00	8.0	753.00	8.0	4,088.00	1.09	8,165.00	8.0	2.17	Mike Harris			
1998-99	3,486.00	8.0	697.00	7.9	3,786.00	1.09	7,560.00	8.0	2.17	Jun 1995 -			
1997-98	3,228.00	10.0	646.00	10.1	3,505.00	1.09	7,000.00	0.0	2.17	Apr 2002			
1996-97	2,935.00	19.7	587.00	19.7	3,186.00	1.09	7,000.00	-18.9	2.39				
1995-96	2,451.00	10.0	490.20	10.0	2,661.00	1.09	8,636.00	10.0	3.52	NDP:	5	33.8	6.8
1994-95	2,228.00	10.0	445.60	10.0	2,419.00	1.09	7,851.00	10.0	3.52	Bob Rae			
1993-94	2,026.00	7.0	405.00	6.9	2,199.00	1.09	7,139.00	7.0	3.52	Oct 1990 -			
1992-93	1,894.00	7.0	379.00	7.1	2,056.00	1.09	6,674.00	7.0	3.52	Jun 1995			
1991-92	1,770.00	8.0	354.00	7.9	1,921.00	1.09	6,237.00	8.0	3.52				
1990-91	1,639.00	8.0	328.00	7.9	1,779.00	1.09	5,775.00	-9.0	3.52	Liberal:	5	8.4	1.7
1989-90	1,518.00	7.6	304.00	7.7	1,646.00	1.08	6,347.00	27.6	4.18	David Peterson			
1988-89	1,411.00	7.3	282.20	7.3	1,531.00	1.09	4,974.00	7.5	3.53	Jun 1985-			
1987-88	1,315.00	4.0	263.00	4.0	1,427.00	1.09	4,626.00	4.0	3.52	Oct 1990			
1986-87	1,264.00	4.0	252.80	4.0	1,372.00	1.09	4,448.00	4.0	3.52				
1985-86	1,215.00	5.0	243.00	5.0	1,319.00	1.09	4,277.00	5.0	3.52	Conservative:	25	-21.3	-0.9
1984-85	1,157.00	5.0	231.40	5.2	1,257.00	1.09	4,074.00	5.0	3.52	Frank Miller			
1983-84	1,102.00	5.0	220.00	4.8	1,197.00	1.09	3,880.00	38.6	3.52	Feb-Jun 1985			
1982-83	1,050.00	12.3	210.00	12.3	1,140.00	1.09	2,800.00	49.7	2.67	Bill Davis			
1981-82	935.00	13.3	187.00	13.3	-		1,870.00	9.6	2.00	Mar 1971-			
1980-81	825.00	13.8	165.00	3.1	-		1,706.50	7.0	2.07	Feb 1985			
1979-80	725.00	5.1	160.00	0.6	-		1,594.50	0.1	2.20				
1978-79	690.00	0.0	159.00	-3.0	-		1,593.00	-	2.31				
1977-78	690.00	16.9	164.00	19.7	-								
1976-77	590.00	0.0	137.00	0.0	-								
1975-76	590.00	0.0	137.00	-0.7	-								
1974-75	590.00	0.0	138.00	6.2	-								
1973-74	590.00	20.4	130.00	18.2	-								
1972-73	490.00	0.0	110.00	0.0	-								
1971-72	490.00	0.0	110.00	-5.2	-					John Robarts			
1970-71	490.00	0.0	116.00	0.0	-					Nov 1961-			
1969-70	490.00	0.0	116.00	0.9	-					Mar 1971			
1968-69	490.00	1.0	115.00	15.0	-								
1967-68	485.00	4.3	100.00	5.3	-								
1966-67	465.00	5.7	95.00	11.8	-								
1965-66	440.00	0.0	85.00	0.0	460.00								
1964-65	440.00	12.8	85.00	13.3	460.00								
1963-64	390.00	2.6	75.00	0.0	410.00								
1962-63	380.00	0.0	75.00	0.0	450.00					Leslie Frost			
1961-62	380.00	0.0	75.00	25.0	450.00					May 1949-			
1960-61	380.00	-	60.00	-	450.00					Nov 1961			

Sources 1960-61 to 1983-84 from Laurentian University Calendar at Laurentian University Archives; later years from Laurentian Financial Services and the Laurentian website. Price (inflation) data are from the Statistics Canada Consumer Price Index (2002=100) for Canada, all items, was used to estimate real (deflated) values of the tuition increases: CANSIM 326-0021 for 1960 to 2016 and 326-0020 for 2016 to September 2017). Governments of Ontario details accessed from Wikipedia on Jan 17, 2017.

Notes During the period 1966-1982, all undergraduate programs had the same tuition fees for domestic students and, until 1978-79, for international students. Unless noted the tuition fees indicated are for fulltime studies (5 full-academic-year courses or 30 credits). During the period 1964-1979, part-time courses were only available through Distance Education (Extension). The counts of years for government duration are based on end year being the last budget year affecting tuition in Sept, so gov't departing in June still responsible for Sept tuition of same year.

APPENDIX TABLE 2 Fine and Applied Arts Enrolments by University in Northern and Southern Ontario, Full-Time Undergraduate Students, fall, 2005–15

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		2008–17 % change	2012-17 % change
Northern Ontario																
Lakehead	126	133	144	156	154	161	158	116	112	86	76	76	63	-50.0	-59.6	-45.7
Laurentian	88	88	85	85	71	61	60	71	81	70	75	72	77	-12.5	-9.4	8.5
Nipissing	64	65	58	64	60	75	72	60	56	50	56	50	55	-14.1	-14.1	-8.3
Fine and Applied Arts	278	286	287	305	285	297	290	247	249	206	207	198	195	-29.9	-36.1	-21.1
annual change (%)		2.9	0.3	6.3	-6.6	4.2	-2.4	-14.8	0.8	-17.3	0.5	-4.3	-1.5			
All Arts	8,278	8,207	7,804	7,533	7,517	7,749	7,562	7,448	7,044	6,503	6,286	5,904	5,534	-33.1	-26.5	-25.7
Fine and Applied Arts (%)	3.4	3.5	3.7	4.0	3.8	3.8	3.8	3.3	3.5	3.2	3.3	3.4	3.5			
Southern Ontario																
Brock	442	439	406	435	486	512	499	523	499	475	482	463	478	8.1	9.9	-8.6
Carleton	287	284	293	287	305	317	332	353	355	355	345	316	313	9.1	9.1	-11.3
Guelph	515	581	633	634	630	633	561	561	446	370	351	353	299	-41.9	-52.8	-46.7
McMaster	288	283	281	260	278	265	279	284	284	262	266	266	247	-14.2	-5.0	-13.0
OCAD	2,575	2,556	2,567	2,541	2,811	3,036	3,245	3,437	3,351	3,319	3,315	3,178	3,202	24.3	26.0	-6.8
Ottawa	529	592	560	619	633	626	609	576	577	515	507	457	440	-16.8	-28.9	-23.6
UOIT	0	0	0	0	0	0	0	0	0	0	0	0	0			
Queen's	570	528	516	508	533	588	647	607	605	562	553	546	535	-6.1	5.3	-11.9
Ryerson	2,231	2,151	2,026	2,094	2,039	2,158	2,233	2,339	2,325	2,475	2,525	2,594	2,647	18.6	26.4	13.2
Toronto	1,300	1,240	1,259	1,264	1,328	1,441	1,489	1,555	1,519	1,537	1,544	1,551	1,527	17.5	20.8	-1.8
Trent	162	169	160	142	139	153	136	119	98	68	86	74	77	-52.5	-45.8	-35.3
Waterloo	182	186	186	211	214	256	241	249	217	192	187	148	129	-29.1	-38.9	-48.2
Western	660	652	650	787	612	592	589	610	567	516	472	454	472	-28.5	-40.0	-22.6
Wilfrid Laurier	293	304	270	287	318	315	308	337	361	367	411	479	569	94.2	98.3	68.8
Windsor	746	716	663	659	675	711	673	646	623	564	497	426	389	-47.9	-41.0	-39.8
York	2,660	2,739	2,778	2,833	2,817	2,854	2,862	2,860	2,762	2,583	2,542	2,553	2,570	-3.4	-9.3	-10.1
Fine and Applied Arts	13,440	13,420	13,248	13,561	13,818	14,457	14,703	15,056	14,589	14,160	14,083	13,858	13,894	3.4	2.5	-7.7
annual change (%)		-0.1	-1.3	2.4	1.9	4.6	1.7	2.4	-3.1	-2.9	-0.5	-1.6	0.3			
All Arts	138,751	143,477	141,354	140,728	147,606	151,920	155,602	158,241	155,598	151,360	149,845	148,152	148,984	7.4	5.9	-5.8
Fine and Applied Arts %	9.7	9.4	9.4	9.6	9.4	9.5	9.4	9.5	9.4	9.4	9.4	9.4	9.3			
Ontario total	13,718	13,706	13,535	13,866	14,103	14,754	14,993	15,303	14,838	14,366	14,290	14,056	14,089	2.7	1.6	-7.9
annual change (%)	,,	-0.1	-1.2	2.4	1.7	4.6	1.6	2.1	-3.0	-3.2	-0.5	-1.6	0.2			
All Arts	147,029	151,684	149,158	148,261	155,123	159,669	163,164	165,689	162,642	157,863	156,131	154,056	154,518	5.1	4.2	-6.7
Fine and Applied Arts %	9.3	9.0	9.1	9.4	9.1	9.2	9.2	9.2	9.1	9.1	9.2	9.1	9.1	J. 1	7+4	0.1
i ine una Applica Arto 70	2.5	2.0	2.1	2.4	2.1	7.4	7.2	7.4	2.1	2.1	7.4	2.1	2.1			

Note Arts include Fine and Applied Arts, Humanities, Social Sciences, and Other Arts and Science. Program data for Algoma and Hearst are not reported in CUDO for most years, either through Laurentian or independently, so these institutions too are not reported in this table. Source CUDO 2020 A6

APPENDIX TABLE 3 Humanities Enrolments by University in Northern and Southern Ontario, Full-Time Undergraduate Students, fall, 2005–15

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		2008-17 % change	2012–17 % change
Northern Ontario																
Lakehead	863	839	851	792	772	731	659	538	464	388	344	333	300	-65.2	-62.1	-44.2
Laurentian	542	585	557	502	454	443	434	476	472	397	427	369	329	-39.3	-34.5	-30.9
Nipissing	764	809	789	794	776	714	577	503	416	334	319	287	244	-68.1	-69.3	-51.5
Humanities	2,169	2,233	2,197	2,088	2,002	1,888	1,670	1,517	1,352	1,119	1,090	989	873	-59.8	-58.2	-42.5
annual change (%)		3.0	-1.6	-5.0	-4.1	-5.7	-11.5	-9.2	-10.9	-17.2	-2.6	-9.3	-11.7			
All Arts	8,278	8,207	7,804	7,533	7,517	7,749	7,562	7,448	7,044	6,503	6,286	5,904	5,534	-33.1	-26.5	-25.7
% Humanities	26.2	27.2	28.2	27.7	26.6	24.4	22.1	20.4	19.2	17.2	17.3	16.8	15.8			
Southern Ontario																
Brock	2,149	2,140	2,006	1,905	1,932	1,984	1,937	1,870	1,801	1,745	1,636	1,518	1,495	-30.4	-21.5	-20.1
Carleton	2,649	2,841	2,833	2,780	2,789	2,830	2,835	2,710	2,604	2,478	2,299	2,157	2,143	-19.1	-22.9	-20.9
Guelph	1,752	1,883	1,870	1,223	1,260	1,223	1,937	1,937	1,673	1,539	1,464	1,392	1,291	-26.3	5.6	-33.4
McMaster	1,765	1,705	1,569	1,535	1,560	1,487	1,424	1,465	1,430	1,406	1,490	1,389	1,354	-23.3	-11.8	-7.6
OCAD	0	0	0	0	0	0	0	0	0	0	0	0	0			
Ottawa	2,495	2,854	3,078	3,289	3,437	3,351	3,367	3,290	3,058	2,948	2,815	2,593	2,395	-4.0	-27.2	-27.2
UOIT	0	0	0	52	140	189	271	254	223	190	167	184	179		244.2	-29.5
Queen's	1,874	1,285	1,242	1,261	1,275	1,296	1,472	1,436	1,441	1,402	1,360	1,393	1,420	-24.2	12.6	-1.1
Ryerson	546	580	559	557	507	547	602	792	950	1,173	1,311	1,498	1,581	189.6	183.8	99.6
Toronto	7,738	8,110	7,964	7,034	6,830	6,950	6,988	6,904	6,676	6,322	6,237	6,063	5,991	-22.6	-14.8	-13.2
Trent	1,201	1,087	934	879	895	1,060	890	997	960	854	813	753	693	-42.3	-21.2	-30.5
Waterloo	1,107	1,088	977	895	886	848	820	792	744	701	616	601	560	-49.4	-37.4	-29.3
Western	2,353	3,207	2,891	2,796	2,930	2,992	2,863	2,782	2,643	2,397	2,323	2,210	2,089	-11.2	-25.3	-24.9
Wilfrid Laurier	1,920	2,001	1,925	1,745	2,234	2,236	2,001	2,081	1,856	1,666	1,601	1,620	1,553	-19.1	-11	-25.4
Windsor	1,403	1,485	1,291	1,272	1,226	1,252	1,241	1,203	1,101	943	806	730	736	-47.5	-42.1	-38.8
York	5,447	5,600	5,731	6,003	6,181	6,151	5,962	5,688	5,173	4,815	4,564	4,186	3,951	-27.5	-34.2	-30.5
Humanities	34,399	35,866	34,870	33,226	34,082	34,396	34,610	34,201	32,333	30,579	29,502	28,287	27,431	-20.3	-17.4	-19.8
annual change (%)		4.3	-2.8	-4.7	2.6	0.9	0.6	-1.2	-5.5	-5.4	-3.5	-4.1	-3.0			
All Arts	138,751	143,477	141,354	140,728	147,606	151,920	155,602	158,241	155,598	151,360	149,845	148,152	148,984	7.4	5.9	-5.8
% Humanities	24.8	25.0	24.7	23.6	23.1	22.6	22.2	21.6	20.8	20.2	19.7	19.1	18.4			
Ontario total	36,568	38,099	37,067	35,314	36,084	36,284	36,280	35,718	33,685	31,698	30,592	29,276	28,304	-22.6	-19.9	-20.8
annual change (%)		4.2	-2.7	-4.7	2.2	0.6	0.0	-1.5	-5.7	-5.9	-3.5	-4.3	-3.3			
All Arts	147,029	151,684	149,158	148,261	155,123	159,669	163,164	165,689	162,642	157,863	156,131	154,056	154,518	5.1	4.2	-6.7
% Humanities	24.9	25.1	24.9	23.8	23.3	22.7	22.2	21.6	20.7	20.1	19.6	19.0	18.3	3		
	-1.7	-5.1	- 1.7	25.0	_5.5						17.0	27.0	20.5			

Note Arts include Fine and Applied Arts, Humanities, Social Sciences, and Other Arts and Science. Program data for Algoma and Hearst are not reported in CUDO for most years, either through Laurentian or independently, so these institutions too are not reported in this table. Source CUDO 2020 A6

APPENDIX TABLE 4 Social Sciences Enrolments by University in Northern and Southern Ontario, Full-Time Undergraduate Students, fall, 2005–15

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2005-17 % change		2012–17 % change
Northern Ontario																
Lakehead	1,255	1,182	1,115	1,058	1,080	1,221	1,292	1,291	1,386	1,333	1,254	1,288	1,249	-0.5	18.1	-3.3
Laurentian	1,225	1,294	1,092	987	1,010	1,021	1,050	1,188	1,528	1,712	1,871	1,742	1,668	36.2	69.0	40.4
Nipissing	1,178	1,223	1,159	1,170	1,162	1,181	1,119	1,064	1,050	998	925	889	927	-21.3	-20.8	-12.9
Social Sciences	3,658	3,699	3,366	3,215	3,252	3,423	3,461	3,543	3,964	4,043	4,050	3,919	3,844	5.1	19.6	8.5
annual change (%)		1.1	-9.0	-4.5	1.2	5.3	1.1	2.4	11.9	2.0	0.2	-3.2	-1.9			
All Arts	8,278	8,207	7,804	7,533	7,517	7,749	7,562	7,448	7,044	6,503	6,286	5,904	5,534	-33.1	-26.5	-25.7
% Social Sciences	44.2	45.1	43.1	42.7	43.3	44.2	45.8	47.6	56.3	62.2	64.4	66.4	69.5			
Southern Ontario																
Brock	3,108	3,182	3,011	2,904	2,915	3,112	3,053	3,101	3,191	3,134	3,031	2,966	2,871	-7.6	-1.1	-7.4
Carleton	5,922	5,891	5,528	5,312	5,433	5,666	5,940	6,099	6,294	6,223	6,328	6,498	6,862	15.9	29.2	12.5
Guelph	3,772	4,041	4,062	4,100	4,521	4,640	4,779	4,779	4,516	4,453	4,534	4,544	4,576	21.3	11.6	-4.2
McMaster	2,818	2,783	2,507	2,659	2,668	2,691	2,757	2,883	2,897	2,860	3,146	3,143	3,271	16.1	23.0	13.5
OCAD	0	0	0	0	0	0	0	0	0	0	0	0	0			
Ottawa	3,891	5,072	5,601	5,874	6,329	6,703	6,940	7,080	6,951	6,918	7,047	6,962	6,648	70.9	13.2	-6.1
UOIT	466	654	715	684	808	996	1,259	1,494	1,707	1,635	1,496	1,377	1,384	197.0	102.3	-7.4
Queen's	2,656	2,040	2,014	2,059	2,219	2,204	2,389	2,451	2,510	2,585	2,719	2,770	3,042	14.5	47.7	24.1
Ryerson	2,292	2,725	2,932	3,368	3,580	3,441	3,880	4,050	4,259	4,305	4,552	5,046	4,917	114.5	46	21.4
Toronto	8,520	8,623	8,453	8,361	8,427	8,667	9,503	10,059	9,681	9,480	9,338	9,677	9,851	15.6	17.8	-2.1
Trent	1,812	1,498	1,296	1,167	1,295	1,873	1,723	2,028	1,990	2,010	2,104	2,230	2,357	30.1	102.0	16.2
Waterloo	2,937	2,947	3,024	3,178	3,621	3,954	4,241	4,188	4,171	4,165	4,091	4,136	4,178	42.3	31.5	-0.2
Western	2,859	3,674	3,806	3,820	3,925	3,886	4,007	4,017	4,156	5,027	4,016	4,097	3,857	34.9	1.0	-4.0
Wilfrid Laurier	3,458	3,725	3,689	3,460	4,022	4,121	4,259	4,478	4,312	3,925	3,956	4,106	4,272	23.5	23.5	-4.6
Windsor	3,332	3,345	2,911	2,732	2,751	2,779	2,909	2,874	2,845	2,618	2,514	2,394	2,470	-25.9	-9.6	-14.1
York	14,150	14,501	14,334	14,566	14,922	15,710	15,822	15,723	15,461	14,889	14,912	14,330	14,545	2.8	-0.1	-7.5
Social Sciences	61,993	64,701	63,883	64,244	67,436	70,443	73,461	75,304	74,941	74,227	73,784	74,276	75,101	21.1	16.9	-0.3
annual change (%)		4.4	-1.3	0.6	5.0	4.5	4.3	2.5	-0.5		-0.6	0.7	1.1			
All Arts	138,751	143,477	141,354	140,728	147,606	151,920	155,602	158,241	155,598	151,360	149,845	148,152	148,984	7.4	5.9	-5.8
% Social Sciences	44.7	45.1	45.2	45.7	45.7	46.4	47.2	47.6	48.2	49.0	49.2	50.1	50.4			
Ontario total	65,651	68,400	67,249	67,459	70,688	73,866	76,922	78,847	78,905	78,270	77,834	78,195	78,945	20.2	17.0	0.1
annual change (%)		4.2	-1.7	0.3	4.8	4.5	4.1	2.5	0.1	-0.8	-0.6	0.5	1.0			
All Arts	147,029	151,684	149,158	148,261	155,123	159,669	163,164	165,689	162,642	157,863	156,131	154,056	154,518	5.1	4.2	-6.7
% Social Sciences	44.7	45.1	45.1	45.5	45.6	46.3	47.1	47.6	48.5	49.6	49.9	50.8	51.1			

Note Arts include Fine and Applied Arts, Humanities, Social Sciences, and Other Arts and Science. Program data for Algoma and Hearst are not reported in CUDO for most years, either through Laurentian or independently, so these institutions too are not reported in this table. Source CUDO 2020 A6

APPENDIX TABLE 5 Other Arts and Science Enrolments by University in Northern and Southern Ontario, Full-Time Undergraduate Students, fall, 2005–17

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			2012–17 % change
Northern Ontario																
Lakehead	286	385	538	597	706	734	719	644	582	533	507	433	325	13.6	-45.6	-49.5
Laurentian	1,622	1,467	1,287	1,218	1,174	1,318	1,358	1,425	847	544	365	321	259	-84.0	-78.7	-81.8
Nipissing	265	137	129	110	98	89	64	72	50	58	67	44	38	-85.7	-65.5	-47.2
Other Arts and Science	2,173	1,989	1,954	1,925	1,978	2,141	2,141	2,141	1,479	1,135	939	798	622	-71.4	-67.7	-70.9
annual change (%)		-8.5	-1.8	-1.5	2.8	8.2	0.0	0.0	-30.9	-23.3	-17.3	-15.0	-22.1			
All Arts	8,278	8,207	7,804	7,533	7,517	7,749	7,562	7,448	7,044	6,503	6,286	5,904	5,534	-33.1	-26.5	-25.7
% Other Arts and Science	26.3	24.2	25.0	25.6	26.3	27.6	28.3	28.7	21.0	17.5	14.9	13.5	11.2			
Southern Ontario																
Brock	1,616	1,695	1,785	1,751	1,926	1,825	2,019	1,995	1,827	1,847	1,798	1,794	1,770	9.5	1.1	-11.3
Carleton	945	794	764	834	887	884	917	864	996	912	898	877	903	-4.4	8.3	4.5
Guelph	693	767	748	724	768	813	971	971	879	832	801	793	739	6.6	2.1	-23.9
McMaster	3,571	3,916	4,027	2,671	2,788	2,970	3,039	3,116	3,089	2,956	2,203	2,196	2,307	-35.4	-13.6	-26.0
OCAD	0	0	0	0	0	2,970	0	0	0	0	0	2,190	0	-33.4	-13.0	-20.0
Ottawa	3,718	2,116	1,595	1,417	1,425	1,505	1,625	1,689	1,583	1,409	1,374	1,296	1,241	-66.6	-12.4	-26.5
UOIT	19	11	4	1,417	2	0	0	0	0	0	0	0	0	-00.0	-12.4	-20.5
Queen's	0	1,883	2,035	2,274	2,276	2,422	2,427	2,639	2,601	2,761	2,996	3,022	3,150	67.3	38.5	19.4
Ryerson	164	117	110	162	155	177	156	152	147	96	159	180	164	0.0	1.2	7.9
Toronto	8,954	8,555	8,457	9,450	10,933	11,143	10,771	11,061	11,505	11,801	12,276	11,769	11,784	31.6	24.7	6.5
Trent	1,223	1,297	1,146	1,089	1,507	643	501	577	544	426	399	430	498	-59.3	-54.3	-13.7
Waterloo	2,757	2,601	2,721	2,755	2,845	2,955	2,798	2,875	2,832	2,692	2,586	2,408	2,617	-5.1	-5.0	-9.0
Western	2,863	3,243	3,529	3,593	3,538	3,718	3,724	3,822	3,818	3,093	3,534	3,757	3,973	38.8	10.6	4.0
Wilfrid Laurier	1,334	1,563	1,521	2,044	1,339	1,546	1,628	1,593	1,711	1,938	2,031	1,933	1,906	42.9	-6.8	19.6
Windsor	556	542	611	638	587	545	571	547	543	509	470	475	474	-14.7	-25.7	-13.3
York	506	390	300	294	1,294	1,478	1,681	1,779	1,660	1,122	951	801	1,032	104.0	251.0	-42.0
	500	370	500	->-	2,27	2,470	2,002	2,117	2,000	-,	751	001	1,032	10-110	231.0	1210
Other Arts and Science	28,919	29,490	29,353	29,697	32,270	32,624	32,828	33,680	33,735	32,394	32,476	31,731	32,558	12.6	9.6	-3.3
annual change (%)	-7,2	2.0	-0.5	1.2	8.7	1.1	0.6	2.6	0.2	-4.0	0.3	-2.3	2.6			
All Arts	138,751	143,477	141,354	140,728	147,606	151,920	155,602	158,241	155,598	151,360	149,845	148,152	148,984	7.4	5.9	-5.8
% Other Arts and Science	20.8	20.6	20.8	21.1	21.9	21.5	21.1	21.3	21.7	21.4	21.7	21.4	21.9			
Ontario total	31,092	31,479	31,307	31,622	34,248	34,765	34,969	35,821	35,214	33,529	33,415	32,529	33,180	6.7	4.9	-7.4
annual change (%)		1.2	-0.5	1.0	8.3	1.5	0.6	2.4	-1.7	-4.8	-0.3	-2.7	2.0			
All Arts	147,029	151,684	149,158	148,261	155,123	159,669	163,164	165,689	162,642	157,863	156,131	154,056	154,518	5.1	4.2	-6.7
% Other Arts and Science	21.1	20.8	21.0	21.3	22.1	21.8	21.4	21.6	21.7	21.2	21.4	21.1	21.5			

Note Arts include Fine and Applied Arts, Humanities, Social Sciences, and Other Arts and Science. Program data for Algoma and Hearst are not reported in CUDO for most years, either through Laurentian or independently, so these institutions too are not reported in this table. For Queens, due to a lack of data for 2005, the 2005-2015 % change uses 2006-2015. For UOIT, data were insufficient for useful % change measures. The CUDO data for Trent, 2006 to 2008, has a probable error, reversed above, in which the Other Arts & Sciences were entered as Not Reported. Source CUDO 2020 A6

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Notes

- 1 The research for this project is supported in part by a grant from the Laurentian University Research Fund. Data used in this study was retrieved in 2020 and 2021 and is available on the Council of Ontario Universities / Common University Data Ontario (CUDO) website. We have some concern regarding the data reported in T10-T12, A2-A5. It appears there may be errors in University of Guelph enrolment in 2011 and 2012 and Trent University Other Arts & Sciences enrolment in 2006, 2007 and 2008. In addition, the reported male and female numbers do not add up to the reported total enrolment numbers. The Council of Ontario Universities has been contacted several times during this period but has not responded to any inquiries.
- 2 For discussions of the postwar history of Ontario university funding, including federal government actions adversely affecting postsecondary education, see: Fisher et al. 2014, esp. Chs. 1, 3, 5; Axelrod 2008: 93-99; Fisher et al. 2006; Snowdon 2005, Jones 2004, 1997; Tudiver 1999: Ch. 5; Wu 1985.
- **3** A common statement is that in the Laurentian University Act (1960) or the York University Act (1965): "The objects and purposes of the University are: (a) the advancement of learning and the dissemination of knowledge; and (b) the intellectual, social, moral and physical development of its members and the betterment of society." Another common statement is that in the University of Waterloo Act (1972) and the Algoma University Act (2008): "The objects of the University are the pursuit of learning through scholarship, teaching and research within a spirit of free enquiry and expression."
- 4 Corporate and elite domination in the post-1945 Ontario system is discussed in Axelrod (1982, esp. Chs 2-3). A recent report is PressProgress 2018.
- **5** See Cameron (1978, Ch 2).
- 6 Ontario's Ministry of Training, Colleges and Universities projected for 2015–16 that enrolmentbased funding (the Basic Operating Grant) was 75 per cent (\$2,623 million) of total operating grants of \$3.5 billion (MTCU 2015b). Among special purpose grants, the Access Grants (First Generation, Bilingualism, Aboriginal, Disabilities) amounted to 3 percent (\$100 million) and the Northern Ontario Grant amounted to 1 per cent (\$16 million).

- 7 The system today might also be characterized in microeconomic terms as a regulated oligopoly with forms of product and locational differentiation in its multiple services. Analysis of how the term "differentiation" has been used in higher education debates in Ontario in the context of austerity is beyond the present discussion. Advocates of differentiation often have implied that it means merely differences in program or institutional choices or scope not necessarily greater or lesser quality or standards among educational services or institutions. Another view is that differentiation in practice increases program and institutional stratification and more hierarchy or inequality in resource distribution.
- 8 Stability was not the case for all of its components, such as Algoma University College and the Collège Universitaire de Hearst affiliated with Laurentian University (Royal Commission 1977; Drouin 1982).
- 9 Though the focus here is on Ontario provincial government policy, federal governments also have pressed the turn toward neoliberal educational and distributional policies. Arguably one of the most substantial and long-term setbacks to post-secondary education was precipitated by the federal government's 1977 shift to limited block funding under Established Programs Financing.
- 10 For 1980 to 2008, see Snowden and Associates 2009: Tables 2 and 2a. For 2016, see COFO Static Reports 2016-2017: Table 2. For comparability to the Snowden data, the 38 per cent figure is calculated from Total Ontario Grants and Contracts of Total (Operating - Operating-General Expenditure Funds).
- 11 See, for example, the HEQCO's EduData site, and the COU website.
- 12 "Differential" fees entered the vocabulary as the official term, instead of "discriminatory" which typically is used in the context of prices in international trade in goods and services. At Laurentian University, in 1978-79, undergraduate international student fees were raised 2.3-times the general Arts and Sciences level; in 2017-18, international fees were 3.4-times the general Arts and Sciences level. In 1982-83, Laurentian raised the Engineering tuition by over 8 per cent; in 2016-17, it was 32 per cent higher.
- 13 Student associations also increased dues, at times under pressure to support the funding of buildings or services previously the responsibility of universities. At Laurentian University, the largest student association, the Students' General Association (SGA), had dues in 1979-80 at 4.1 percent of the Arts and Sciences tuition fees, and in 2015-16 at 13.1 per cent.
- 14 For example, the BIU weight for BA students is 1.0 in the first year and 1.5 for higher years, hence, 5.5 over a four-year program. BComm/BEd students are weighted at 1.5 for all years or 6.0 over four years. BSc students are weighted 1.0 in the first year and 2.0 in subsequent years for 7.0 over four years. BEng and BScN students are weighted 2.0 units throughout for a total of 8.0 over four years (Graham and MacIssaac 2017). Given the typical absence of transparent cost data by program and level, and often distorted or reduced expectations about Arts programs (such as Arts programs do not need labs, special tutorials, or particular facilities or instruments), the BIU structure creates a structural incentive to lower priority to Arts programs.
- 15 The increasing reliance of universities on profits and rents from ancillary services is an issue deserving a separate discussion. We note here that ancillary revenues are also received largely from students and, hence, related to enrolment as well as to local cost and competitive conditions. Arguably, current ancillary services policies have raised costs to students and others on campus, such as through increased market power of commercial interests on university campuses. Ancillary services, once viewed as a means to assist students with lower-cost accommodation and food services, have been turned toward full-market and even higher pricing, and to greater dependence on higher rental revenues and private leasing.

- 16 Based on data from Ontario's public salary disclosure system, Economics student David McDonald (2019) showed in the case of Laurentian University an increased salary stratification and staff restructuring taking place with increased managerialist administration.
- 17 See, for example, Polster and Newson 2015, Giroux 2014, Chan and Fisher 2008, Tudiver 1999, Nelson 1997.
- 18 As illustration of the disparities in educational attainment, data from the 2016 census indicate that Northern Ontario (defined as the Northeast and Northwest economic regions) have educational levels substantially below the average for Ontario, for instance, in attainment of a bachelor's degree, Northern Ontario has 12.7 per cent compared to 21 per cent for the province (for men, 10 per cent compared to 21 per cent and, for women, 15.4 per cent compared to 22.8 per cent). For masters and doctoral levels, Northern Ontario's levels are below half that for Ontario. For a broader discussion and other references on Northern Ontario's hinterland-colonial conditions, see Leadbeater (2018).
- 19 In 2018, by head counts, Ontario's full-time undergraduate enrolment of 404,289 was 74.1 per cent of total enrolment of 545,303 (Table 5). The latter includes 66,019 graduate full-time students (12.1 per cent), 64,090 undergraduate part-time students (11.8 per cent), and 10,905 graduate part-time students (2 per cent).
- 20 (Jones 1997: 143)
- 21 In 1945, Ontario had three public universities, the University of Toronto, Queen's University, and the University of Western Ontario, which continue as the main elite universities of the Ontario system. In the 1950s came Carleton University, McMaster University, the University of Waterloo, and York University. In the 1960s came Brock University, Lakehead University, Laurentian University, Trent University, the University of Guelph, the University of Ottawa, the University of Windsor, and Wilfrid Laurier University. Ontario granted the Collège universitaire Dominicain a civil charter in 1967 limited to Philosophy and Theology.
- 22 (SC 1983: W34)
- 23 (Vanderkamp 1984: Table 1)
- 24 For data, see: Statistics Canada data table 37-10-0018-01; Fallis 2013: 25–26; Clark et al. 2009: 24; Bouchard and Zhao 2000. Enrolment data are normally given for an academic year as of the fall of the academic year, for example, the fall of 1999 for the academic year 1999-2000. Here, when we refer to a year's enrolment such as 1999, we are to referring to the data as of the fall (1999) for the academic year (1999–2000).
- 25 These enrolment numbers include international as well as domestic (Canadian) students. Statistics Canada data (table 37-10-0018-01) show that during the 1990s the decline in enrolment of domestic students in undergraduate programs (bachelor's or equivalent), particularly male enrolment, lasted longer to recovery; the enrolment of international students in undergraduate programs also declined in the 1990s, including for female and well as male international students.
- 26 OMF 2017. The annual average rate of 1.1 per cent between 2006 and 2011 is based on population growth of 5.7 per cent over the five years, and the 0.9 per cent rate between 2011 and 2016 is based on 4.6 per cent over the five years.
- 27 (Hicks and Jonker 2016: 42)
- 28 For consistency with the HEQCO data, the Northeast and Northwest are combined into the single North region. It needs note that the OMF's demographic regions have inadequacies, particularly in recognizing the common commutersheds shared by a major portion of the Central region (such as Hamilton) with the Toronto/GTA. Moreover, the OMF classification gives no consideration to the constitutional status and locations of First Nations territories and populations.

- 29 For the North, the home-region share is 4 per cent and the total enrolment by region share is 5 per cent while the population share is 5.8 per cent. For the Southwest, the home-region share is 8 per cent and the total regional enrolment share is 8 per cent while the population share is 11.7 per cent.
- 30 (1988: 221)
- 31 Research has long demonstrated the positive association of proximity with higher participation and earnings outcomes [for example, Card (1995)]. In a recent study on university expansion, Lapid (2017) found increased enrolment rates, particularly among local high school graduates. Zarifa et al (2018) focuses on youth in Canadian Northern regions.
- 32 For example, Mueller and Rockerbie 2005.
- 33 Milian and Rizk 2017.
- 34 Hicks and Jonker 2016: Table 3.
- 35 Weingarten et al. 2017: Table 3.
- 36 1999: 27.
- 37 Winston (1999: 17) observes that "for high quality education...to a significant degree, students educate both themselves and each other, and the quality of the education any student gets from college depends in good measure on the quality of that student's peers."
- 38 Descriptions of the SPEMAJ categories are available in Statistics Canada (1995) and, more recently, Smith et al. (2016: Appendix C).
- 39 A more comprehensive list for the Humanities under the SPEMAJ classification used by CUDO includes: Classics, classical and dead languages; English, French, languages and/or literatures; History; Journalism; Comparative literature; Mediaeval languages; Asian, Slavic, and other languages and literatures; Library science; Other records science; Linguistics; Other mass communication studies; Philosophy; Religious studies; Theological studies (professional program); Translation and interpretation.
- 40 A more comprehensive list for the Social Sciences under the SPEMAJ classification used by CUDO includes: Anthropology; Archaeology; Canadian studies; Medieval, Asian, Slavic, and other Area studies; Commerce, management, business administration, administrative studies/ sciences; Criminology; Public administration, Health administration, Hotel and food administration, Other specialized administration studies; Demography; Economics; Geography; Law and jurisprudence; Regional, rural, urban, city planning and community development; Resource management, environmental studies; Political Science; Psychology; Secretarial studies; Social work and social welfare; Sociology; Military studies; Other social services.
- 41 Professional programs in Social Work are still counted as part of Social Sciences and Library Sciences as part of Humanities.
- 42 For instance, the province established the Department of University Affairs (1964) in the Ontario Ministry of Education, which grew to a separate Ministry of Colleges and Universities (1972). The growth in provincial intervention and shift in the 1970s is described in Axelrod (1982: esp. Chs 4, 6).
- 43 Axelrod (1982-96-97); developments in California were taken seriously and Minister William Davis made an official visit there (personal interview, Nov. 4, 2019). California's (1960) master plan recommended that the public higher education system would consist of three segments: University of California, California State Colleges, and the junior colleges, each with its area of focus, admission standards, and governing structure. The master plan affirmed the principle of tuition-free education to residents of California, although students would pay ancillary and other fees, such as for dormitories, parking, and recreational facilities.

- 44 For discussion and details of the federal shifts affecting postsecondary funding and fees, see Fisher et al. 2014, esp. Chs. 1, 3, 5; Axelrod 2008: 93-99; Fisher et al. 2006; Wu 1985; Weir n.d. See, also, Council of Ontario Universities, CUDO.
- 45 Clark et al 2009: ch 4.
- 46 Tudiver 1999.
- 47 For example, OCUFA 2010.
- 48 OCUFA (2020): "Reverse the unstable and inequitable performance-based university funding model and revert to the largely effective enrolment-based funding model." OCUFA also challenges the work of HEQCO: "Eliminate the wasteful, ineffective, and unreliable Higher Education Quality Council of Ontario and allocate its budget to student assistance."
- 49 See Canadian Federation of Students-Ontario (2020, 2015).
- 50 (Albo 2018).
- 51 Hicks and Jonker 2016.
- 52 "In many ways, intended or not, homogeneity underlies the investment strategy and policy tools Ontario has developed and applied across the system in the past. In legislation, the powers and objectives of our universities are mostly all identical and largely unfettered. There is one funding formula, with a common set of rules and equations under which all institutions strive to maximize their share of available revenues. There is one tuition policy and a fairly homogeneous price across the province. All institutions generally tend to be eligible for new, marginal-dollar budget resources, such as graduate funding or supports for under-represented students." Hicks and Jonker 2016: 11.
- 53 Cameron 1978.
- 54 Hicks and Jonker 2016: 7. The homogenous versus differentiated binary is similar in undergraduate economics textbooks to characterized types of products, particularly in market conditions of monopolistic competition or oligopoly. In the HEQCO analysis, the binary is used to characterize entire universities, implying that Ontario universities as institutions (or firms) have either been made more homogenous or were ever thus, without clear criteria nor evidence. Indeed, as will be noted later, HEQCO's own data and efforts to justify its policies suggest otherwise.
- 55 After acknowledging a decline in international rankings of Canadian universities (Chiose 2014), Dr. Harvey Weingarten (2014), president of the HEQCO declared: "The challenge Canada faces in higher education is best summarized in this question: How can we deliver a better education to more students with no more money?"
- 56 "The design of the system introduced in the 1960s remains almost unchanged today despite enormous changes in the demographic, social, economic, and fiscal context "(100).
- 57 Clark et al. 2011: 102. The authors dismiss concerns about university autonomy, claiming a "strong role" for the government would be "well within international norms, let alone its constitutional authority and historical precedent." Well-known funding and related enrolment changes have led to numerous instances of limited goals and defunding programs, such as in the Humanities and other Arts programs.
- 58 Nonetheless, on the basis of even limited evidence, there is recognition that "Despite the longstanding influence of these homogenizing tools and tendencies, there is a surprising degree of measureable differentiation within the system today" (11). Of course, this might be not enough differentiation for government policy or differentiation of the desired type, but it is curious why HEQCO should be so surprised by the major differences that do exist among Ontario universities and what might be causing them.

- 59 Apart from aggregate participation data as noted elsewhere, the province's own sponsored research points to these disparities (King et al 2009).
- 60 Weingarten et al. 2015.
- 61 Weingarten et al. 2017.
- 62 Ontario Ministry of Finance (2018: Table 4) population data based on the Census of Canada show an overall decline in population for Northern Ontario (including Parry Sound), from 816,600 in 2006 to under 800,000 in 2016, and small declines projected to continue to at least 2041, compared to around 1 per cent average annual growth for Ontario.
- 63 Beginning his academic career as a professor of Political Science at Bishop's University, Geoffrey Weller came to Lakehead as dean of Arts in 1971 and later became vice-president (academic) before going to UNBC as president (1991-1995). Robert Rosehart moved from Southern Ontario to Lakehead as a professor in Chemical Engineering in 1970 then became a dean and president before leaving in 1997 to become president of Wilfrid Laurier. While at Lakehead, both actively engaged with issues of Northern Ontario's economic development.
- 64 Weller 1988: 212.
- 65 Weller and Rosehart 1985.
- 66 1988: 213.
- 67 1988: 213.
- 68 Weller 1988: 213.
- 69 MTCU 2015a.
- 70 In 2020, one of Laurentian's federated universities, Thorneloe University, closed its Theatre and Motion Picture Arts programs and Laurentian itself suspended admission to programs in 13 departments, disproportionately French-language programs.
- 71 Mining Engineering, not established as a four-year program at Laurentian until 1977, had a similar uphill history (Dennie 2010: 112); Weller 1988: 218.
- 72 Laurentian, at 51.6 per cent, and Lakehead, at 34.1 per cent, were well below Trent, at 99.6 per cent, Brock, at 85.8 per cent, and Wilfrid Laurier, at 65.2 per cent. In these data used by Cameron (1978: Table 5), the Laurentian percentage excluded affiliates, so is likely lower than the campus aggregate.
- 73 1978:15-16.
- 74 It would take a separate discussion to detail the problems with Cameron's view, but it needs to be noted that this metropolitan conception has a serious history in Northern Ontario and elsewhere, such as in the B.C. government's closure of Notre Dame University/David Thompson University Centre in Nelson, B.C.
- 75 Weller (1988:220) speculated on what might happen with the graduate and research specialization that he proposed: "If such an arrangement were to come to pass it would seem sensible for Laurentian to concentrate on mining related subjects and have something like an Institute or Centre for Franco-Ontarian studies. It would seem logical for Lakehead to concentrate on forestry related subjects and expand its program in Outdoor Recreation. Since there is a Northern component to almost everything (politics, geography, health care, etc.) it would be logical to group related areas together into Institutes for research and graduate studies and share the Institutes between the two [Lakehead and Laurentian]."
- 76 1988: 220.

- **77** 677, 680.
- **78** 686.
- **79** 698.
- **80** 698.
- **81** 607.
- **82** 605.
- 83 Brint et al note that the exception to relatively slow pace was European languages and literatures (608). They also note, especially given their importance to scientific and technological progress, that the relative decline included three core fields of the nature sciences: mathematics, chemistry, and physics (608-609).
- 84 Hearn and Belasco (2015: 402): "The literature provides ample evident of women in recent years disproportionately pursuing degrees and certificates in the more vocationalized sectors of postsecondary education (e.g., community colleges), but the finding here of less affinity for the humanities in the liberal arts sector of higher education is striking."
- 85 The Ontario government has not stated publicly what, if any, model it uses nor has it given any predicted values of tuition disincentive effects for various university programs, though apparently the Wynne Liberal government felt some concern about rising student debt levels and the need to increase student aid, at least for low-income students, prior to the province's 2018 provincial election (Ontario 2017). The subsequent Ford Conservative government proceeded to reduce tuition fees by 10 per cent without compensating funding to the universities.
- 86 AIR 2013.
- **87** 2012: 608-9.
- 88 For example, The Economist (2009) or Berman (2017).
- 89 For example: Finnie et al. (2016), Universities Canada (2016), Anisef et al. (1999). Giles and Drewes (2001), based on their analysis of longitudinal data for five years, 1993–1997, observe: "The picture that emerges is one in which individuals graduating from programs in the humanities and social sciences had considerably more difficulty with the school-to-work transition...But once that transition was made, the generic nature of the skills they acquired appeared to stand then in good stead - because these skills have greater longevity and are complementary to continued, lifelong learning in the face of labour market changes. The shorter unemployment durations for humanities and social sciences [among] women and the higher occupational and industrial mobility among both sexes in this group reinforces the interpretation that their skills were more portable, thus providing them with broader re-employment opportunities" (33).
- **90** In this we include whether the approach is from human capital or screening perspectives.
- 91 As one graduate of the Arts has written, "For many millennials—part of a generation so often critiqued as financially irresponsible—what awaits them after graduation is a job market riddled with precarious employment and undesirable contract jobs, a closed housing market and a legacy of student debt that's higher than ever" (Biss 2017). See also Watson (2018) and Calma-Brown (2018). This does not address concerns about underutilization of skills, the "over-education" of those with employment (Livingstone 2004), and the argument that employers have an interest in overproducing graduates to have greater choice and more bargaining power in the labour market and for reasons of political stability (Leadbeater and Suschnigg 1997).

92 In the early-2000s, Laurentian extended Arts, Business, and Social Work programs to Barrie, where it set up a flawed, but initially lucrative, partnership with Georgian College. The Barrie satellite campus occupied a great deal of Laurentian's attention and, in the end, Laurentian suffered major enrolment and financial losses and closed the Barrie operation. Through it all, Laurentian never prioritized an Indigenous language or Indigenous studies program, nor did it offer a single course in French, despite its special bilingual and tri-cultural mandate.

93 Leadbeater 2016.

- 94 The main public data available on the Ontario public university system that is the basis of much university policy research (as well as the present study) is from Common University Data Ontario (CUDO), maintained by the Council of Ontario Universities. The CUDO data are relatively accessible and consistent, though they also have significant limitations. In particular, they do not contain data on Indigenous status. Nor does CUDO provide data on Indigenous language background or university courses taught in Indigenous languages. These inadequacies also apply to French language use, or language of schooling, despite the importance of these to the constitutional rights of the Franco-Ontarian national minority and its part in the mandate of four of the Ontario system's universities (Hearst, Laurentian, Ottawa, York/Glendon). Further, while CUDO provides data on female and male enrolment, this data still uses the binary female-male categories that are typical today in official statistics, which limits the deeper analysis of diversity and trends in gender identification and sexual orientation.
- 95 Referring to Francophone facilities, the advisory committee claimed Northern Ontario is "equipped with an advanced and largely superior educational infrastructure" (2016: 11). While Laurentian and Hearst might have university buildings that the Central-Southwest does not have, the report was perhaps unaware of the debilitating decline of francophone Arts programs in the North and the tendency of many Northern francophone students to go to the University of Ottawa or to the province of Québec.

