

**2023 ShanghaiRanking's Academic Ranking of World Universities**

**SUMMARY**

- In 2023, McMaster University ranked 98<sup>th</sup> overall.
- McMaster is the 5<sup>th</sup> highest ranked institution in Canada trailing behind: Toronto (24), British Columbia (44), McGill (70) and Alberta (91).

**BACKGROUND**

The Academic Ranking of World Universities (ARWU) is published by ShanghaiRanking Consultancy (SRC). SRC is an independent organization that provides higher education intelligence and is not legally affiliated with any universities and/or government agencies. The ARWU uses six weighted measures to assess and rank each university's quality of education, faculty and research output:

1. Alumni who have won the Nobel Prize and Fields Medal (10%);
2. Staff who have won the Nobel Prize and Fields Medal (20%);
3. Clarivate Analytics Highly Cited Researchers (20%);
4. Papers published in Nature and Science (20%);
5. Papers indexed in Science Citation and Social Science Citation Indices in 2014 (20%); and
6. Per capita academic performance (10%).

For each of the weighted measures, the highest scoring institution is assigned a score of 100, and each institutions score is then normalized to the top scoring university using the following equation:  $100 \cdot \sqrt{(X/H)}$ , where X is the score for a particular institution and H is the score for the top scoring university. Overall rank is then determined based on each institution's score in relation to the top university.

It is worth noting that unlike Times Higher Education and QS Rankings, institutions do not submit data to ARWU. ARWU collects bibliometric information from both Clarivate Analytics and Web of Science, while award and prize information is collected from the award's respective website.

**CURRENT STATUS**

On August 15, 2023, ShanghaiRanking Consultancy released its 2023 Academic Ranking of World Universities (ARWU). Overall, McMaster ranked 98<sup>th</sup>. This is a decrease of 8 positions from last year's rank for the university.

McMaster is the second highest ranked university in Ontario, and fifth in Canada, behind only: the University of Toronto (24), the University of British Columbia (44), McGill University (70) and the University of Alberta (91). Among the five Canadian universities ranked in the top 100, only the Ontario based institutions fell in rank and McMaster experienced the largest decline (please refer to Table 1 & Figure 1).

Table 1: ARWU Top 100 Ranked Canadian Universities, 2022 vs. 2023

	2022 ARWU		2023 ARWU		Δ 2022 to 2023	
	World	Canada	World	Canada	World	Canada
Toronto	22	1	24	1	-2	N/C
UBC	44	2	44	2	N/C	N/C
McGill	73	3	70	3	3	N/C
Alberta	92	5	91	4	1	1
McMaster	90	4	98	5	-8	-1

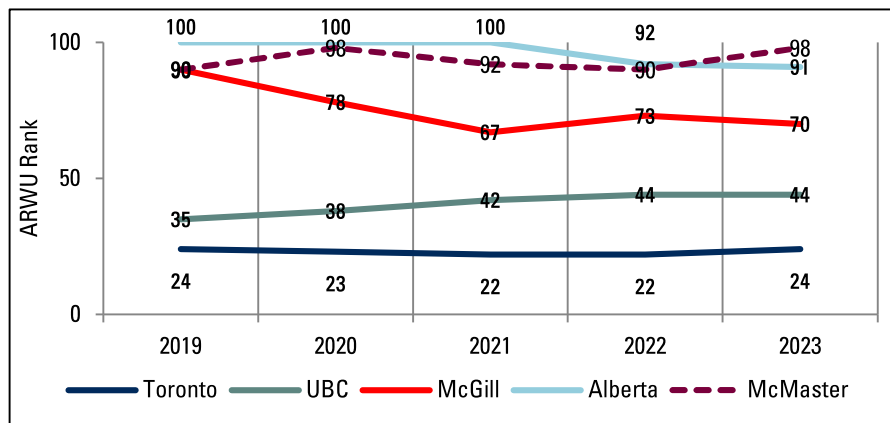


Figure 1: Top 100 Ranked Canadian Universities, 2019 to 2023

Table 2 provides a breakdown of McMaster's 2023 ARWU scores compared to the previous year. In 2023, McMaster's overall score decreased by 1.6 points, to 25.1. As shown in Table 2, the decrease was largely driven by the fall in Papers in Science and Social Sciences (-1.00) and Highly Cited Researchers (-0.70).

Table 2: McMaster's ARWU Score, 2022 vs. 2023

Indicator	2022		2023		Δ
	Score	Adjusted Score	Score	Adjusted Score	
Alumni Nobel Prizes & Fields Medals (10%)	18.5	1.85	18.1	1.81	-0.04
Staff Nobel Prizes & Fields Medals (20%)	18.0	3.60	17.2	3.44	-0.16
Highly cited researchers (20%)	30.6	6.12	27.1	5.42	-0.70
Papers in Nature & Science (20%)	9.5	1.90	11.3	2.26	0.36
Papers in Science & Social Sciences (20%)	46.9	9.38	41.9	8.38	-1.00
Per capita academic performance (10%)	32.3	3.23	30.3	3.03	-0.20
<b>Overall Score</b>		26.7		25.1	-1.60
<b>Global Rank</b>		90		98	-8

Clarivate Analytics Highly Cited Researchers List:

To generate each institution’s score for the Highly Cited Researchers measure, the ARWU uses Clarivate Analytics annual Highly Cited Researchers (HCR) List (i.e., primary university affiliations only). For the 2023 ARWU, the 2022 HCR list is used. The annual HCR list uses eleven years’ worth of publication data from Clarivate Analytics Essential Science Indicators database. The 2022 HCR list uses publications data from 2011 to 2021. To be included in the HCR, academics must publish papers ranked in the top 1% by total citations, controlled for subject field and year of publication. In the 2022 edition of the HCR list, McMaster’s total number of primary affiliated highly cited researchers decreased from 20 to 17 (Refer to Table 3).

**Table 3: McMaster’s Highly Cited Researchers List, 2021 vs. 2022**

2021 HCR List		2022 HCR List	
Name	Category	Name	Category
M. Altaf Arain	Cross-Field	M. Altaf Arain	Cross-Field
Joseph Beyene	Cross-Field	Jan L. Brozek	Social Sciences
Jan L. Brozek	Social Sciences	Stuart J. Connolly	Clinical Medicine
Stuart J. Connolly	Clinical Medicine	Mark A. Crowther	Clinical Medicine
Mark A. Crowther	Clinical Medicine	John W. Eikelboom	Clinical Medicine
P. J. Devereaux	Cross-Field	Gordon H. Guyatt*	Clinical Medicine
John W. Eikelboom	Clinical Medicine	Gordon H. Guyatt*	Social Sciences
Gordon H. Guyatt*	Clinical Medicine	Roman Jaeschke	Social Sciences
Gordon H. Guyatt*	Social Sciences	Glenda M. MacQueen	Psychiatry and Psychology
Roman Jaeschke	Social Sciences	Paul Moayyedi	Clinical Medicine
Glenda M. MacQueen	Psychiatry and Psychology	Stuart M. Phillips	Cross-Field
Paul Moayyedi	Clinical Medicine	Walter Reinisch	Clinical Medicine
Stuart M. Phillips	Cross-Field	Nancy Santesso	Social Sciences
Walter Reinisch	Clinical Medicine	Holger J. Schuenemann	Social Sciences
Nancy Santesso	Social Sciences	Gregory R. Steinberg	Cross-Field
Holger J. Schuenemann	Social Sciences	Jeffrey I. Weitz	Cross-Field
Gregory R. Steinberg	Cross-Field	Gerard D. Wright	Cross-Field
Jeffrey I. Weitz	Cross-Field	Salim Yusuf	Clinical Medicine
Gerard D. Wright	Cross-Field		
Salim Yusuf	Clinical Medicine		

Note\*: If an academic is listed as a highly cited research in two fields, they are counted twice in the HCR list. Gordon Guyatt is listed as a highly cited researcher in Clinical Medicine and Social Sciences

In comparison, Harvard University (the top scoring university) experienced an increase in its total number of highly cited researchers, from 214 in 2021 to 233 in 2022. Since scores are normalized relative to the top scoring institution, McMaster’s decreased number of researchers coupled with Harvard’s increase resulted in McMaster’s overall score in the indicator decreasing from 30.6 to 27.1 (see figures 2 & 3).

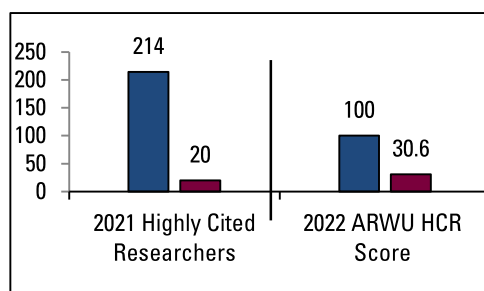


Figure 2: 2022 ARWU - HCR Metric

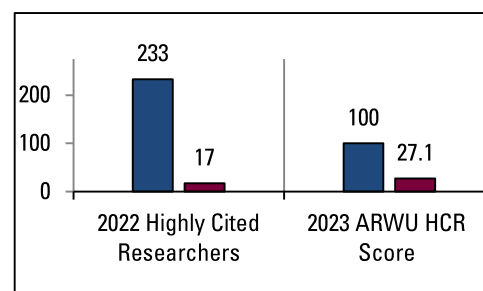


Figure 3: 2023 ARWU - HCR Metric

■ Harvard ■ McMaster