
PREFILLING U-MULTIRANK DATA FOR BRASIL

U-Multirank is a multidimensional and inclusive ranking. To increase the coverage and therefore, the representativeness of the data, we use publicly available data sources to prefill the values for institutions. Publicly available sources will also be used to cross-reference the information retrieved from other sources. This document provides an overview of the sources found and reviewed, their use for cross-referencing and their use to prefill values for Brazilian institutions included in U-Multirank and mapping choices made.

While we try to consult national experts to validate the data as much as possible, we recognise that available data and definitions can change over time and better sources emerge. Thus, we welcome your feedback in case you think that the approach used is not representative of your institution or country, or you are aware of alternative or better sources.

The key sources used for Brasil are:

- **INEP data:** data on new entrants, students enrolled and graduates, (undergraduate level) staff and financial data
- **CAPES data:** (graduate level) data on new entrants, students enrolled and graduates
- **SEMESP**
- The **World Bank:** exchange rate and PPP for revenue and expense data
- The WHED, published by IAU

NATIONAL SOURCES

Measurement level: Institutional level. Data aggregated at a higher level is not suitable for U-Multirank.

INEP The information service of the Ministry of education

CAPES is a Foundation within the Ministry of Education in Brazil whose central purpose is to coordinate efforts to improve the quality of Brazil's faculty and staff in higher education through grant programs.

SEMESP is a representative body of private higher education institutions in Brasil.

SEMESP has provided data on undergraduate education and staff.

Data on undergraduate students and programmes are also retrieved from INEP datasources:

- SUP_ALUNO_2019
- DM_ALUNO
- Sup_ALUNO_2017

Data on staff are also retrieved from INEP database

- DM_DOCENTE_18

Data on programmes is also retrieved from INEP

- DM_CURSO_18

Data on graduate education are in the CAPES database. sucupira.capes.gov.br.

- br-capes-colsucup-discentes-2020-2021-11-10
- br-capes-colsucup-discentes-2019-2021-11-10
- br-capes-colsucup-discentes-2018-2021-11-10
- br-capes-colsucup-discentes-2017-2021-11-10
- br-capes-colsucup-discentes-2016-2021-03-01
- br-capes-colsucup-discentes-2015-2021-03-01

INTERNATIONAL SOURCES

Measurement level: Institutional level except for exchange rate and PPP, which is required on a country level.

(the) **World Bank** provides financial and technical assistance to developing countries. At the World Bank, the Development Data Group coordinates statistical and data work and maintains a number of macro, financial and sector databases. The World Bank's data bank contains a large array of publicly available data¹, including exchange rate and PPP data.

Data obtained:

- Data on exchange rates and PPP rates to convert and compare revenue and expense data.

¹ World Bank. (2019). The World Bank Data. Retrieved from About us: <https://data.worldbank.org/about>

APPENDIX

U-Multirank Question	Data element	Mapped element
Q1: Name	Legal name of the institution	IAU; WHED
	English name to appear in U-Multirank	IAU; WHED
Q2: General characteristics	Type of institution:	
	Public/ private character:	IAU; WHED
	Foundation year of current institution:	IAU; WHED
Programmes	Number of programmes	<p>undergraduate</p> <p><i>Datasource: INEP</i> <i>Table:DM_ALUNO</i></p> <p><i>Selections:</i> <code>filter(TP_SITUACAO = 1)</code> <code>distance_courses</code> <code>prog_ba_i_presence = `1_1`</code> <code>prog_ba_i_online = `1_2`</code> <code>prog_ba_ii_presence = `2_1`</code> <code>prog_ba_ii_online = `2_2`</code> %>% <code>prog_ba_i_total = sum(prog_ba_i_online, prog_ba_i_presence)</code> <code>prog_ba_ii_total = sum(prog_ba_ii_online, prog_ba_ii_presence),</code></p> <p>graduate</p>

		<pre>prog_mas_i_total = MESTRADO, prog_mas_ii_total = `MESTRADO PROFISSIONAL`, prog_phd_total = DOUTORADO</pre>
	Standard period of study	<p>bachelor</p> <pre>prog_ba_i_periodofstudy_years = 4, prog_ba_ii_periodofstudy_years = 5,</pre> <p>master</p> <pre>prog_mas_i_periodofstudy_years = 2, prog_mas_ii_periodofstudy_years = 3</pre>
Question 5 Students enrolled	Total number of students enrolled	<p>Undergraduate Source: SEMESP Year 2018-2020 Selections <i>students ba_i= Matrículas Bacharelado</i> <i>students ba_ii = Matriculas Licentiatuara</i></p> <p>Graduate Source: CAPES Year: 2018-2020 Selections: <i>filter(NM_SITUACAO_DISCENTE = "MATRICULADO")</i> <i>students master = sum(MESTRADO, `MESTRADO PROFISSIONAL`),</i> <i>students phd = sum(`DOUTORADO PROFISSIONAL`, DOUTORADO)</i></p>

	Foreign degree seeking students	Undergraduate <i>Source: INEP</i> <i>Selections</i> <i>filter(IN_MATRICULA = 1,</i> <i>TP_NACIONALIDADE = 3</i>
		Graduate <i>Source CAPES</i> <i>Selections</i> <i>filter(NM_SITUACAO_DISCENTE == "MATRICULADO",</i> <i>DS_TIPO_NACIONALIDADE_DISCENTE != "BRASILEIRO")</i> <i>students_foreign_degree_master = sum(MESTRADO, `MESTRADO PROFISSIONAL`)</i> <i>students_foreign_degree_phd = sum(DOUTORADO)</i>
	Female students enrolled	
Q7: New entrants	New entrants enrolled in 1st year bachelor programmes	<i>Datasource: inep: aluno</i> <i>Years: 2018-2020</i> <i>Selections</i> <i>filter(IN_INGRESSO_TOTAL == 1,</i> <i>TP_GRAU_ACADEMICO = 1 or TP_GRAU_ACADEMICO = 2)</i> <i>New entrants Ba_i = 1</i> <i>New entrants ba_ii = 2</i>

	New entrants enrolled in 1st year master programmes	<p>Datasource: capes Years: 2018-2020 Selection <i>filter(ST_INGRESSANTE = "SIM") %>%</i></p> <p><i>new entrants ma_i = MESTRADO,</i> <i>new entrants ma_ii = `MESTRADO PROFISSIONAL`</i></p>
Q9: Graduates	Short degree	
	Bachelor	<p>Source: SEMESP Years: 2018-2020 Selection: <i>Graduates ba_i: Concluintes.Total, Bacharelado</i> <i>Graduates_ba_ii: Concluintes, Total, Licenciatura),</i></p>
	Master	<p>Source: CAPES Years: 2018-2020 Selection: <i>filter(NM_SITUACAO_DISCENTE == "TITULADO") %>%</i></p> <p><i>graduates ma_i = MESTRADO,</i> <i>graduates ma_ii = `MESTRADO PROFISSIONAL`</i></p>
	Doctorate/Phd	

		Source: CAPES Years: 2018-2020 Selection: <i>filter(NM_SITUACAO_DISCENTE == "TITULADO") %>%</i> <i>grads PhD = DOUTORADO,</i>
	Foreign doctorates	Source: CAPES Years: 2018-2020 Selections: <i>filter(NM_SITUACAO_DISCENTE = "TITULADO",</i> <i>DS_GRAU_ACADEMICO_DISCENTE = "DOUTORADO" or DS_GRAU_ACADEMICO_DISCENTE = "DOUTORADO</i> <i>PROFISSIONAL",</i> <i>DS_TIPO_NACIONALIDADE_DISCENTE != "BRASILEIRO")</i> <i>Graduates PhD foreign nationality = DOUTORADO)</i>
Q10: Graduates by field	Education	Undergraduates (INEP) Educação Graduate(CAPES) "EDUCAÇÃO"
	Humanities and arts	Undergraduate (INEP) Artes e humanidades Graduate (CAPES) ARTES LINGUÍSTICA E LITERATURA CIÊNCIAS DA RELIGIÃO E TEOLOGIA HISTÓRIA ANTROPOLOGIA / ARQUEOLOGIA FILOSOFIA
	Social sciences	Undergraduate (INEP) Ciências sociais, comunicação e informação Graduate(CAPES)

		"ECONOMIA" "CIÊNCIA POLÍTICA E RELAÇÕES INTERNACIONAIS" "PSICOLOGIA" "SOCIOLOGIA" "GEOGRAFIA" "PLANEJAMENTO URBANO E REGIONAL / DEMOGRAFIA" "COMUNICAÇÃO E INFORMAÇÃO"
	Business and law	Undergraduate (INEP) Negócios, administração e direito Graduate (CAPES) "DIREITO" "ADMINISTRAÇÃO PÚBLICA E DE EMPRESAS, CIÊNCIAS CONTÁBEIS E TURISMO"
	Natural science, mathematics and statistics	Undergraduate (INEP) Ciências naturais, matemática e estatística Graduate (CAPES) NM_GRADE_AREA_CONHECIMENTO == "CIÊNCIAS BIOLÓGICAS" NM_GRADE_AREA_CONHECIMENTO == "CIÊNCIAS EXATAS E DA TERRA" & NM_AREA_AVALIACAO != "CIÊNCIA DA COMPUTAÇÃO"
	Information and communication technologies	Undergraduate(INEP) Computação e Tecnologias da Informação e Comunicação (TIC) Graduate (CAPES) CIÊNCIA DA COMPUTAÇÃO"
	Engineering, manufacturing and construction	Undergraduate (INEP) Engenharia, produção e construção Graduate(CAPES) NM_GRADE_AREA_CONHECIMENTO == "ENGENHARIAS" NM_AREA_AVALIACAO == "ARQUITETURA, URBANISMO E DESIGN"
	Agriculture forestry, fisheries and veterinary	Undergraduate (INEP) Agricultura, silvicultura, pesca e veterinária Graduate (CAPES) NM_GRADE_AREA_CONHECIMENTO == "CIÊNCIAS AGRÁRIAS"

	Health and social welfare	Undergraduate (INEP) Saúde e bem-estar Graduate (CAPES) NM_GRANDE_AREA_CONHECIMENTO == "CIÊNCIAS DA SAÚDE" NM_AREA_AVALIACAO == "SERVIÇO SOCIAL"
	Services	Undergraduate (INEP) Serviços Graduate (CAPES)
Graduating in time	Graduates graduating in time master	Source: CAPES Year: 2018-2020 Selections: <i>filter(NM_SITUACAO_DISCENTE = "TITULADO", CD_CONCEITO_PROGRAMA is not "A")</i> <i>in_time = ifelse(QT_MES_TITULACAO <= (CD_CONCEITO_PROGRAMA *6), 1, 0))</i> <i>grad_in_time_ma_i = MESTRADO,</i> <i>grad_in_time_ma_ii = `MESTRADO PROFISSIONAL`</i>
Q14: Academic staff	Academic staff in HC	Source:SEMESP Years 2018-2020 Selections <i>staff_tot_2018</i> <i>group_by(CO_IES)</i> <i>Academic staff hc = count</i>