World University Rankings

METHODOLOGY FOR OVERALL AND SUBJECT RANKINGS FOR THE *TIMES HIGHER EDUCATION* WORLD UNIVERSITY RANKINGS 2023

October 2022

Times Higher Education World University Rankings:

Times Higher Education is the data provider underpinning university excellence in every continent across the world. As the company behind the world's most influential university ranking, and with over five decades of experience as a source of analysis and insight on higher education, we have unparalleled expertise on the trends underpinning university performance globally. Our data and benchmarking tools are used by many of the world's most prestigious universities to help them achieve their strategic goals.

The annual *Times Higher Education (THE)* World University Rankings (WUR), started in 2004, aims to provide the definitive list of the best universities. The current methodology, developed in 20102 evaluates this across five key areas of Teaching, Research, Citations, International Outlook and Industry Income. *Times Higher Education*'s data is trusted by governments and universities and is a vital resource for students, helping them choose where to study.

Important links:

THE WUR 2023 Final Rankings: https://www.timeshighereducation.com/world-university-rankings/2023/world-ranking

THE WUR 2023 Methodology: https://www.timeshighereducation.com/world-university-rankings/world-university-rankings-2023-methodology

Directors' Statement:

This document (the "Methodology") sets out our end-to-end process for generating the THE World University Rankings 2023 (the "Rankings"). As directors and management of Times Higher Education, we state that we have followed our Methodology and correctly applied the specific procedures denoted by (i) - (xii) and marked with the symbol "Ω".

Signed: 

Print: Duncan Ross

Role: Chief Data Officer, *Times Higher Education*

Date: 10 October 2022

For and on behalf of *THE* World Universities Insights Limited

Summary of the Rankings methodology:

The *Times Higher Education* World University Rankings are the only global performance tables that judge research-intensive universities across all their core missions: teaching, research, research influence, international outlook and knowledge transfer. We use 13 carefully calibrated performance indicators, listed below, to provide the most comprehensive and balanced comparisons, trusted by students, academics, university leaders, industry and governments. The basic methodology for this year's rankings is similar to that employed since the 2011 – 2012 tables, but we have made important changes to the underlying data sources, notably deriving bibliometrics from Elsevier's Scopus database from 2015 – 2016 onwards.

The 2023 World University Rankings are published in autumn 2022.

The performance indicators are grouped into five areas:

- **Teaching** (the learning environment)
    - Reputation Survey – Teaching
    - Academic Staff-to-Student Ratio
    - Doctorates Awarded / Undergraduate Degrees Awarded
    - Doctorates Awarded / Academic Staff
    - Institutional Income / Academic Staff

- **Research** (volume, income and reputation)
    - Reputation Survey – Research
    - Research Income / Academic Staff
    - Publications / Staff (Academic Staff + Research Staff)

- **Citations** (research influence)
    - Field Weighted Citation Impact

- **International outlook** (staff, students and research)

    - Proportion of International Students
    - Proportion of International Academic Staff
    - International co-authorship (International Publications / Publications Total)

- **Industry income** (knowledge transfer)
    - Research income from industry & commerce / Academic Staff

1) Data collection and sources

Institutional data – self-submitted on the *THE* Portal

A named representative from each institution submits and authorises their institutional data for use in the Rankings Ω[i], via *THE*'s designated online portal, with confirmations that they have:

- Provided true and accurate information for their institution for 2020 (with the exception below); and
- Understood and complied with the *THE* terms and conditions → https://www.timeshighereducation.com/terms-and-conditions;

Times Higher Education will not self-submit data for an institution without positive confirmation from the named representative of the institution. Ω[ii]

Prior to submission of data within the portal, the draft data undergoes certain automatic validation checks to ensure that data is complete and accurate, for review by the named representative. Ω[iii]

This year, we exceptionally accepted 2019 data from Ukrainian universities affected by the 2022 Russian invasion of Ukraine, in line with *THE*'s statement of solidarity with Ukraine and commitment to supporting its universities through this crisis.

Elsevier

Bibliometric data

We examine research influence by capturing the number of times a university's published work is cited by scholars globally. This year, our bibliometric data supplier Elsevier examined more than 121 million citations to 15.5 million journal articles, article reviews, conference proceedings, books and book chapters published over five years. The data include more than 27,100 academic journals indexed by Elsevier's Scopus database and all indexed publications between 2017 and 2021. Citations to these publications made in the six years from 2017 to 2022 are also collected.

Citations data is a score per institution calculated by Elsevier from 2015 (until 2014 it was supplied by Web of Science). Elsevier provide the Field-Weighted Citation Impact (FWCI) score, per subject and overall.

The FWCI score indicates how the number of citations received by an entity's publications compares with the average number of citations received by all other similar publications. 'Similar publications' are understood to be publications in the Scopus database that have the same publication year, type, and discipline, as defined by the Scopus journal classification system.

A FCWI of 1.00 indicates the global average.

In 2015-2016 papers with more than 1,000 authors were excluded due to their disproportionate impact on the citation scores of the small number of universities. Since 2017 these papers have been reincorporated using a fractional counting approach to ensure that all universities where academics are authors of these papers will receive at least 5 per cent of the value of the paper. The institutions with authors that provide the most contributors to the paper receive a proportionately larger contribution.

For territories or regions which cannot be country normalised by Elsevier, we have implemented a specific country normalisation. Since the publication of the WUR 2022, this includes Northern Cyprus. This is similar to the country normalisation by Elsevier, but the country average FWCI is estimated by the weighted sum of the FWCIs from the Northern Cyprus universities which have met the publication threshold this year.

We also collect the total number of publications overall, plus the total number of publications with international co-authorship per institution, providing they meet our 'sufficient publications' criteria (detailed in section 2).

The citations help to show us how much each university is contributing to the sum of human knowledge: they tell us whose research has stood out, has been picked up and built on by other scholars and, most importantly, has been shared around the global scholarly community to expand the boundaries of human understanding, irrespective of discipline.

Academic reputation survey

A survey was sent to a sample of academics selected by THE, in which we ask them to nominate the universities that they perceive to be the best for Teaching and/or Research in their field. For the 2021 and 2022 surveys, academics were asked to nominate up to 15 institutions for Teaching and up to 15 institutions for Research globally.

The most recent Academic Reputation Survey (run annually, this year conducted by THE) that underpins this category was carried out between November 2021 and March 2022. It examined the perceived prestige of institutions in teaching and research. We have run the survey to ensure a balanced spread of responses across disciplines and countries. Where disciplines or countries were over- or underrepresented, THE's data team weighted the responses to fully reflect the global distribution of scholars.

The 2022 Academic Reputation Survey yielded over 420,000 votes from 29,606 respondents. The 2022 data are combined with the results of the 2021 survey, giving more than 40,000 responses.

The Teaching and Research scores for an institution at the global level were the count of mentions they received in each category, weighted both to reflect the distribution of scholars across the world (using data from UNESCO http://data.uis.unesco.org) and the distribution of respondents by subject in the survey.

The academic reputation score for a university is the number of mentions they received for the 2021 and 2022 surveys in the global teaching and research sections. Where a university received no votes, they were allocated a zero score.

Total reputation score for each university was calculated based on the aggregate of individual respondent data obtained. Ω[iv]

Reference data

THE incorporates reference datasets into its model to convert country-level data provided by institutions via the portal (e.g. research income in a local currency) to a single comparable dataset for all institutions.

The sources of this data are:

- The HM Revenue and Customs (HMRC) monthly datasets: [https://www.gov.uk/government/publications/hmrc-exchange-rates-for-2020-monthly], which provides accurate foreign exchange rates to convert datasets into GBP and then back into their local currency if an institution reports in a foreign currency;
- The World Bank Purchase Power Parity (PPP) dataset [http://data.worldbank.org/indicator/PA.NUS.PPP], which is used to convert the local currency to common-PPP-scaled USD. PPP is used to exemplify the differing currency strengths in each country while allowing for easy cross-country comparisons; and
- Where data for a country doesn't exist in the World Bank database, a dataset from the IMF [https://www.imf.org/en/Publications/WEO/weo-database/2022/April] or UN data is used [http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3APA.NUS.PPP].

2) Criteria for exclusion, inclusion, and data processing

Exclusion and inclusion criteria

There are seven key criteria for universities to be included in the Rankings:

1. They are required to publish more than 1,000 relevant publications over the previous 5 years, and more than 150 relevant publications in any single year.

AND

2. They must teach at an undergraduate level, usually indicated by having more than zero undergraduate degrees awarded. Postgraduate-only institutions are therefore not in the ranking.

AND

3. They must not be focused on a single narrow subject area (more than 80% of their publication output is from one subject area).

AND

4. They must have supplied "overall" numbers for the ranking year.

AND

5. They must not have more than two of the critical values (academic staff, international academic staff, research staff, students, international students, undergraduate degrees awarded, doctorates awarded, institutional income, research income, research income from industry and commerce) as null (either marked by the institution as "unavailable" or "withheld"). Null values will cause any metric based on that value to also be null.

AND

6. They must mark at least one subject as applicable. If no applicable subjects have been reported the institution is excluded.

AND

7. They must not be featured in the custom exclusions list. Institutions that have requested not to participate in the ranking or that are not eligible for other institution-specific reasons have been excluded.

Universities meeting the seven key inclusion criteria are included in the rankings. Ωv

Universities who have met criteria number 4, 6 and 7, but not all of the remaining criteria will not be included in the rankings. They will be listed as "Reporters" and they will not have any scores. An institution can also opt out from being a Reporter.

Subject ranking criteria: Publication eligibility

For the eleven subject tables, there is an additional threshold within the subject for publications:

For the subjects that generate a high volume of publications:

- At least 500 publications over 2017 – 2021 for Clinical and Health, Engineering, Computer Science, Life Sciences, Physical Sciences;

For the subjects with lower volumes of publications:

- At least 250 publications over 2017 – 2021 for Arts and Humanities;
- At least 200 publications over 2017 – 2021 for Social Sciences, Business and Economics;
- At least 150 publications over 2017 – 2021 for Psychology;
- At least 100 publications over 2017 – 2021 for Law, Education.

Subject	Publications for 5 years (2017-2021)
Overall	1000 (150 per year)
Arts and Humanities	250
Clinical and Health	500
Engineering	500
Computer Science	500
Life Sciences	500
Physical Sciences	500
Business and Economics	200
Social Sciences	200
Psychology	150
Law	100
Education	100

Subject ranking criteria: Staff eligibility

We also expect an institution to either have at least a proportion of its academic staff in a discipline (4% for Engineering or Social Sciences, 1% for Computer Science, Psychology, Law or Education; 5% for other subjects), or an absolute number of staff threshold.

Subject	Proportion of academic staff	Absolute number of academic staff (FTE) in a given subject
Arts and Humanities	5%	50
Clinical and Health	5%	50
Engineering	4%	40
Computer Science	1%	20
Life Sciences	5%	50
Physical Sciences	5%	50
Business and Economics	5%	50
Social Sciences	4%	40
Psychology	1%	20
Law	1%	20
Education	1%	20

Data adjustments

After the deadline of the submission of data via the Portal by institutions, ***management review and approve all institution submissions data for appropriateness and accuracy, based on prior year values and gaps within datasets*** Ω[vi] as described below.

On the occasions where an institution does not provide a data point which would result in the inability to generate a metric, the missing metric may be calculated by imputing the value as the higher of:

- The average of the two lowest metric scores for an institution; or
- The minimum score awarded across the whole population for that metric.

Data processing pre-rankings

Data provided by institutions for financial information is converted into USD using international PPP exchange rates Ω[vii] (provided by the World Bank), for use in the Rankings calculation
The datasets used in the rankings have been accurately mapped by university name and ID. Institution-level bibliometric (Scopus and/or SciVal) and reputation survey data obtained from Elsevier (for the survey year 2021) is mapped to THE institution data via THE's institution ID. Ω[viii]

3) Calculation, scoring and ranking

Calculation of metrics

There are 13 indicators, each combined into 5 categories, or "pillars", which are weighted according to relative importance.

The pre-weighted indicators are calculated for each university Ω^{ix} based on the definitions below:

1. *Teaching (the learning environment)*

Reputation survey

- The most recent Academic Reputation Survey (run annually, this year conducted by THE) that underpins this category was carried out between November 2021 and March 2022. It examined the perceived prestige of institutions in teaching. This metric is the total number of votes obtained from the reputation survey from the last two years. Each year is calculated as the number of global teaching votes from respondents of the reputation survey, weighted by subject and country to be representative of the distribution of academics globally. Only non-zero values will be standardised using a logarithmic function, and universities that received no votes are scored a zero for this metric.

Academic Staff-to-student ratio

- The academic staff-to-student ratio is defined as total full time equivalent (FTE) number of staff employed in an academic post divided by FTE number of students in all years and of all programmes that lead to a degree, certificate, university credit or other qualification. This variable is normalised after calculation.

Doctorates-awarded-to-bachelor-degrees-awarded ratio

- This metric is generated by dividing the total number of doctorates awarded by the total number of undergraduate degrees awarded. This variable is normalised after calculation.

Doctorates-awarded-to-academic-staff ratio

- As well as giving a sense of how committed an institution is to nurturing the next generation of academics, a high proportion of postgraduate research students also suggests the provision of teaching at the highest level that is thus attractive to graduates and effective at developing them. This metric is generated by dividing the total subject weighted doctorates, by the total subject weighted number of academic staff. This metric takes into account an institution's unique subject mix, reflecting that the volume of doctoral awards varies by discipline. This variable is normalised after calculation.

Institutional income per staff

- This measure of income indicates an institution's general status and gives a broad sense of the infrastructure and facilities available to students and staff. This metric is generated by dividing the institutional income adjusted to PPP, by the total number of academic staff. This variable is normalised after calculation.

2. *Research (volume, income and reputation)*

Reputation survey

- The most recent Academic Reputation Survey (run annually, this year conducted by THE) that underpins this category was carried out between November 2021 and March 2022. It examined the perceived prestige of institutions in research. This metric is the total number of votes obtained from the reputation survey from the last two years. Each year is calculated as the number of global research votes from respondents of the reputation survey, weighted by subject and country to be representative of the distribution of academics globally. Only non-zero values will be standardised using a logarithmic function, and universities that received no votes are scored a zero for this metric.

Research income per staff

- This metric is generated by dividing the total subject weighted research income adjusted for PPP, by the total subject weighted number of academic staff and is normalised after calculation. This is a somewhat controversial indicator because it can be influenced by national policy and economic circumstances. Income is crucial to the development of world-class research, and because much of it is subject to competition and judged by peer review, our experts suggested that it was a valid measure. This indicator takes account of each institution's distinct subject profile, reflecting the fact that research grants in science subjects are often bigger than those awarded for the highest-quality social science, arts and humanities research.

Research productivity

- This metric is generated by dividing the total subject weighted number of papers published in the academic journals indexed by Elsevier's Scopus database per scholar, divided by the sum of the total subject weighted number of FTE research staff and FTE academic staff. This metric is normalised after calculation. The indicator gives a sense of the institution's ability to get papers published in quality peer-reviewed journals. Introduced in the 2018 rankings, we devised a method to give credit for cross-subject research that results in papers being published in subjects where a university has no staff. For subjects where there are papers, but not staff, we will reassign the papers to subjects where there are staff. We will do this proportionally according to the number of staff in populated subjects, and according to the median publications per staff for populated subjects. We will have a maximum threshold of the proportion of papers that we are willing to reassign (10% of the total of papers).

3. *Citations (research influence)*

Our research influence indicator looks at universities' role in spreading new knowledge and ideas. We examine research influence by capturing the average number of times a university's published work is cited by scholars globally. We look at the academic journals indexed by Elsevier's Scopus database and all indexed publications between 2017 and 2021. Citations to these publications made in the six years from 2017 to 2022 are also collected. The data is normalised by Elsevier to reflect variations in citation volume between different subject areas. This means that institutions with high levels of research activity in subjects with traditionally high citation counts do not gain an unfair advantage. We have blended equal measures of a country-adjusted and non-country-adjusted raw measure of citations scores.

4. *International outlook (staff, students, research)*

Proportion of international students

- This metric captures the proportion of international students on campus. International students are those whose nationality differs from the country where the institution is based. The metric is calculated as the total FTE number of international students divided by the total FTE number of students. This variable is normalised after calculation.

Proportion of international staff

- This metric captures the proportion of international academic staff on campus. International staff are those whose nationality differs from the country where the institution is based. The metric is calculated as the total FTE number of international academic staff divided by the total FTE number of academic staff. This variable is normalised after calculation.

International collaboration

- In the third international indicator, we calculate the proportion of an institution's total research journal publications that have at least one international co-author. The metric is generated by dividing the total subject weighted number of publications with at least one international co-author by the total subjected weighted number of publications. This accounts for an institution's subject mix.

5. *Industry income (knowledge transfer)*

An institution's ability to help industry with innovations, inventions and consultancy has become a core mission of the contemporary global academy. This category suggests the extent to which businesses are willing to pay for research and an institution's ability to attract funding in the commercial marketplace – useful indicators of institutional quality. The indicator seeks to capture such knowledge-transfer activity by looking at how much research income an institution earns from industry (adjusted for PPP), divided by the total number of FTE academic staff it employs. This variable is normalised after calculation.

Normalisation

Moving from a series of specific data points to indicators, and finally to a total score for an institution, requires us to match values that represent fundamentally different data. To do this we use a standardisation approach for each indicator, and then combine the indicators in the proportions indicated below.

The standardisation approach we use is based on the distribution of data within a particular indicator, where we calculate a cumulative probability function, and evaluate where a particular institution's indicator sits within that function.

For all indicators except the Academic Reputation Survey, we calculate the cumulative probability function using a version of Z-scoring. The distribution of the data in the Academic Reputation Survey requires us to use an exponential component.

Weightings of metrics to final scores and rankings

The 13 performance metrics representing the five pillars are weighted according to *THE*'s assessment of relative importance.

***Once the final population of universities and indicators has been prepared, the scores for each university are generated by weighting the metrics and the Final Rankings are calculated* according to the following percentage breakdowns**: Ω^x

Pillar	Metric	% weighting
1. Teaching	Reputation survey	15.00
	Academic staff-to-student ratio	4.50
	Doctorates awarded-to-bachelor's degrees awarded ratio	2.25
	Doctorates awarded-to-academic staff ratio	6.00
	Institutional income	2.25
2. Research	Reputation survey	18.00
	Research income	6.00
	Research productivity	6.00
3. Citations	Citations	30.00
4. International outlook	Proportion of international students	2.50
	Proportion of international staff	2.50
	International collaboration	2.50
5. Industry income	Industry income	2.50
		100

Subject ranking differentiation

The subject tables employ the same range of 13 performance indicators used in the overall World University Rankings, brought together with scores provided under the same five pillars:

- Teaching (the learning environment);
- Research (volume, income and reputation);
- Citations (research influence);
- International outlook (staff, students, research); and
- Industry Income.

However, within the subject rankings, the overall methodology is carefully recalibrated by subject, with the weightings changed to best suit the individual fields. In particular, those given to the research indicators have been altered to fit more closely the research culture in each subject, reflecting different publication habits: in arts and humanities, for instance, where the range of outputs extends well beyond peer-reviewed journals, we give less weight to paper citations.

Accordingly, the weight given to "citations: research influence" is halved from 30% in the overall rankings to just 15% for the arts and humanities. More weight is given to other research indicators, including the Academic Reputation Survey. For social sciences and law, where there is also less faith in the strength of citations alone as an indicator of research excellence, the measure's weighting is reduced to 25%. It is also reduced for education, engineering and computer science to 27.5%.

By the same token, in those subjects where the vast majority of research outputs come through journal articles and where there are high levels of confidence in the strength of citations data, we have increased the weighting given to the research influence (up to 35% for the physical, life sciences, psychology and for the clinical and health tables).

	Indicator	Overall	Arts and Humanities	Social Sciences	Business and Economics	Clinical and Health	Life Sciences	Physical Sciences	Engineering	Computer Science	Psychology	Law	Education
C1	**Citations**	30.00%	15.00%	25.00%	25.00%	35.00%	35.00%	35.00%	27.50%	27.50%	35.00%	25.00%	27.50%
E1	**Industry Income/Staff**	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	5.00%	5.00%	2.50%	2.50%	2.50%
T1	**Teaching Reputation**	15.00%	25.30%	21.10%	21.10%	17.90%	17.90%	17.90%	19.50%	19.50%	17.90%	21.00%	20.00%
T2	**Students to Staff Ratio**	4.50%	3.80%	3.30%	3.30%	2.80%	2.80%	2.80%	3.00%	3.00%	2.80%	4.50%	4.50%
T3	**PhD/Bachelors**	2.25%	1.80%	1.60%	0.00%	1.40%	1.40%	1.40%	1.50%	1.50%	1.40%	0.00%	0.00%
T4	**PhD/Staff**	6.00%	4.60%	4.80%	4.90%	4.00%	4.00%	4.00%	4.50%	4.50%	4.00%	4.90%	6.00%
T5	**Income/Staff**	2.25%	1.90%	1.60%	1.60%	1.40%	1.40%	1.40%	1.50%	1.50%	1.40%	2.30%	2.20%
R1	**Research Reputation**	18.00%	30.00%	22.80%	22.80%	19.30%	19.30%	19.30%	21.00%	21.00%	19.30%	21.00%	20.00%
R2	**Research Income/Staff**	6.00%	3.80%	4.90%	4.90%	4.10%	4.10%	4.10%	4.50%	4.50%	4.10%	4.90%	4.90%
R3	**Papers/Staff**	6.00%	3.80%	4.90%	4.90%	4.10%	4.10%	4.10%	4.50%	4.50%	4.10%	4.90%	4.90%
I1	**International Students**	2.50%	2.50%	2.50%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	3.00%	2.50%
I2	**International Staff**	2.50%	2.50%	2.50%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	3.00%	2.50%
I3	**International collaboration**	2.50%	2.50%	2.50%	3.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	3.00%	2.50%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

4) Publication and reporting

Final rankings preparation

All institutions were ranked overall and are published in the final rankings table on the *THE* website. On the website, the overall score and pillar scores are displayed.

Precise overall scores are shown for the institutions ranked in the top 200 overall. Banded overall scores are presented for the institutions ranked in bands (e.g. from 201 to 250. Precise individual pillar scores are displayed for each ranked institution.

For the institutions ranked 1 – 200 overall, an individual rank position is listed. The next institutions are assigned to the following bands: 201-250, 251-300, 301-350, 351-400, 401-500, 501-600, 601-800, 801-1000, 1001-1200, 1201-1500, 1501+.

Institutions with the 'Reporter' status appear at the end of the table, and they do not have any rank or scores. Institutions who have submitted data and who did not meet the eligibility criteria but have chosen to opt-out from the 'Reporter' status, do not appear at the end of the table.

We have considered the positions of Ukrainian universities in light of our published commitment. The steps taken towards that can be found on the World University Rankings 2023 table information.

Review and sign off

The Rankings are formally signed off by *THE* World Universities Insights Limited management prior to being published in print and online.

The Rankings results are reviewed and signed off by THE's Chief Data Officer. Ω[xi]

Reporting

The Rankings for the top 200 universities and banding allocation below top 200 are accurately reported on the THE website. Ω[xii]

The specific procedures for the Overall Rankings are located on the *Times Higher Education* website at: https://www.timeshighereducation.com/world-university-rankings/world-university-rankings-2023-methodology.

Rule number	Methodology section	Rule description
(i)	Data collection and sources	A named representative from each institution submits and authorises their institutional data for use in the Rankings
(ii)	Data collection and sources	*Times Higher Education* will not self-submit data for an institution without positive confirmation from the named representative of the institution.
(iii)	Data collection and sources	Prior to submission of data within the portal, the draft data undergoes automatic validation checks reviewed by the named representative.
(iv)	Criteria for exclusion, inclusion and data processing	Total reputation score for each university was calculated based on the aggregate of individual respondent data obtained from Elsevier
(v)	Criteria for exclusion, inclusion and data processing	Universities meeting the seven key inclusion criteria are included in the rankings
(vi)	Criteria for exclusion, inclusion and data processing	Management review and approve all institution submissions data for appropriateness and accuracy, based on prior year values and gaps within datasets.
(vii)	Criteria for exclusion, inclusion and data processing	Data provided by institutions for financial information is converted into USD using international PPP exchange rates.
(viii)	Criteria for exclusion, inclusion and data processing	Institution-level bibliometric (Scopus and/or SciVal) and reputation survey data obtained from Elsevier is mapped to *THE* institution data via *THE*'s institution ID.
(ix)	Calculation, scoring and ranking	The pre-weighted indicators are calculated for each university
(x)	Calculation, scoring and ranking	Once the final population of institutions and indicators has been prepared, the scores for each university are generated by weighting the metrics and the Final Rankings are calculated according to the following percentage breakdowns.
(xi)	Publication and reporting	The Rankings results are reviewed and signed off by *THE*'s Chief Data Officer
(xii)	Publication and reporting	The Rankings for the top 200 universities and banding allocation below top 200 are accurately reported on the *THE* website. The 'Reporters' are listed at the end of the table.

Appendix 1: Top 20 institutions in the Overall Rankings from the *Times Higher Education* 2023 World University Rankings.

Institution Name	Country	WUR 2023 Rank Label	WUR 2022 Rank Label	Overall Score	Teaching Score	Research Score	Citations Score	Industry Income Score	International Outlook Score
University of Oxford	United Kingdom	1	1	96.4	92.3	99.7	99.0	74.9	96.2
Harvard University	United States	2	=2	95.2	94.8	99.0	99.3	49.5	80.5
University of Cambridge	United Kingdom	=3	=5	94.8	90.9	99.5	97.0	54.2	95.8
Stanford University	United States	=3	4	94.8	94.2	96.7	99.8	65.0	79.8
Massachusetts Institute of Technology	United States	5	=5	94.2	90.7	93.6	99.8	90.9	89.3
California Institute of Technology	United States	6	=2	94.1	90.9	97.0	97.3	89.8	83.6
Princeton University	United States	7	7	92.4	87.6	95.9	99.1	66.0	80.3
University of California, Berkeley	United States	8	8	92.1	86.4	95.8	99.0	76.8	78.4
Yale University	United States	9	9	91.4	92.6	92.7	97.0	55.0	70.9
Imperial College London	United Kingdom	10	12	90.4	82.8	90.8	98.3	59.8	97.5
Columbia University	United States	=11	11	89.4	89.4	87.7	97.1	44.8	79.9
ETH Zurich	Switzerland	=11	15	89.4	82.6	95.4	90.7	59.1	97.7
The University of Chicago	United States	13	10	88.9	86.5	88.8	97.7	56.2	74.2
University of Pennsylvania	United States	14	=13	88.8	86.0	88.8	97.0	75.8	71.5
Johns Hopkins University	United States	15	=13	88.3	79.4	91.5	97.0	89.5	75.3
Tsinghua University	China	16	=16	88.2	90.1	97.4	88.0	100.0	40.3
Peking University	China	17	=16	88.1	92.5	96.7	80.4	91.8	65.0
University of Toronto	Canada	18	=18	87.4	77.3	93.3	92.8	65.5	89.7
National University of Singapore	Singapore	19	21	87.1	76.4	93.0	90.2	87.0	94.0
Cornell University	United States	20	22	85.9	80.2	86.1	97.3	40.4	76.9