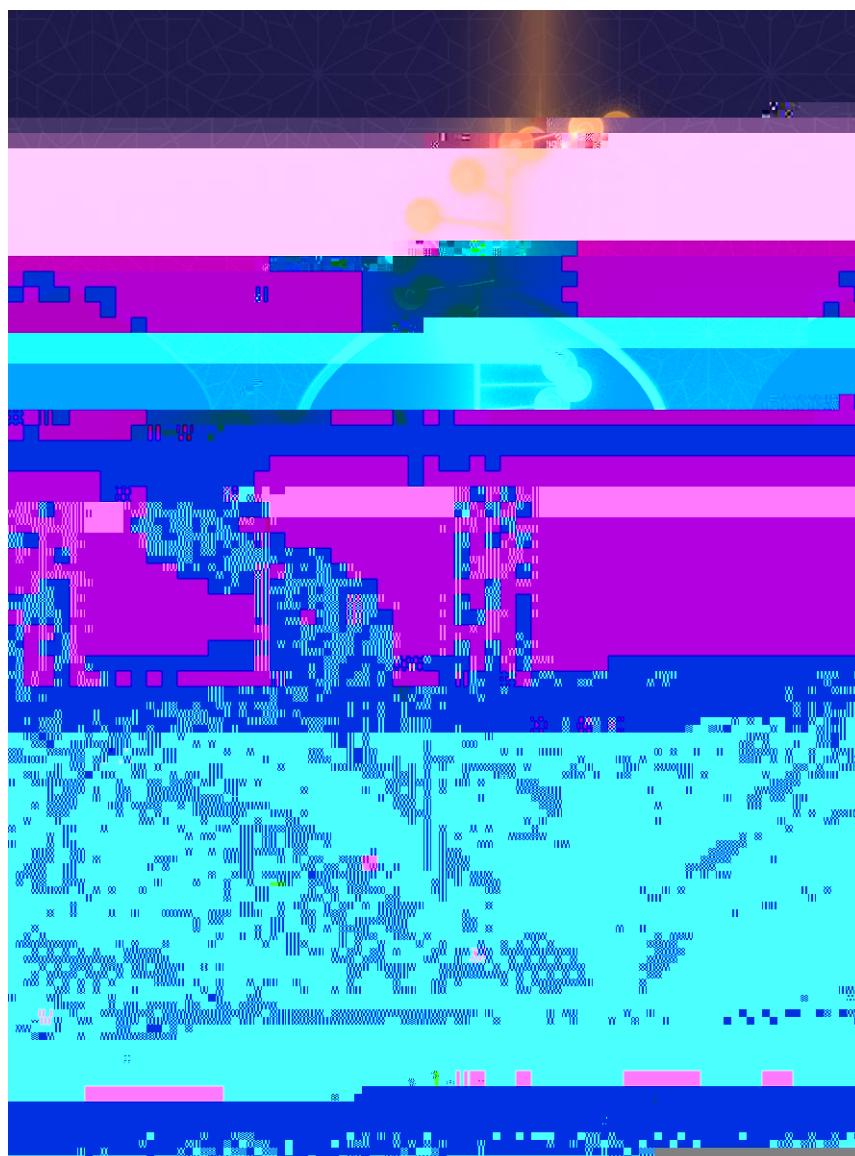




## METHODOLOGY FOR THE ARAB UNIVERSITY RANKINGS 2024

November 2024





## Summary of the Rankings methodology:

The methodology for the *Times Higher Education* Arab University Rankings is looking at research-intensive universities across all their core missions: teaching, research environment, research quality, society (including industry income and impact), and international outlook.

The basic methodology for the Arab University Rankings is similar to that used for the World University Rankings but we have made important changes to some of the underlying data sources, notably deriving the reputation data from an Arab region-specific survey. The citation score is based on the Field-W.

## 1) Data collection and sources

Institutional data – self-submitted on the Portal



For the purposes of the portal data collection, a “year ending in 2022” may be defined as any of the following:

- The calendar year January to December 2022
- The academic year that started in 2021 and ended in 2022
- The financial year that ended in 2022
- Any other appropriate annual cycle that the institution finds to best fit their data and ends in 2022

Elsevier

### *Bibliometric data*

This year, our bibliometric data supplier Elsevier provided us for examination more than 157 million citations to 18 million journal articles, article reviews, conference proceedings, books and book chapters published over five years. The data include over 30,000 active peer-reviewed journals indexed by Elsevier’s Scopus database and all indexed publications between 2019 and 2023. Citations to these publications made from 2019 to 2024 are also collected.

The bibliometric measures help to show us how well 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.

- Research Strength represents the 75<sup>th</sup> percentile FWCI of all papers published by an institution.

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.

The Citations performance of an institution is determined by calculating the 75<sup>th</sup> percentile of the FWCI score of all of its publications in scope. Where a publication involves multiple institutions, each institution receives full credit for its performance.

Arab

## Reference data

*THE* incorporates reference datasets into its model

## 2) Criteria for exclusion, inclusion, and data processing

### Exclusion and inclusion criteria

1. They are required to publish 500 or more relevant publications over the previous 5 years.

AND

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

AND

3. 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.

AND

4. 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 empty, unavailable, withheld. Missing values will cause any metric based on that value to also be invalid.

AND

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

AND

6. They must be based in one of the following countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen.

## Data adjustments

### Data processing pre-rankings

vii (provided by the World Bank), for use in the Rankings calculation.



### 3) Calculation, scoring and ranking

#### Calculation of metrics

There are 20 indicators, each combined into 5 categories, or "pillars", which are weighted according to relative importance. Two of these (Study Abroad and Patents) have zero weight.

*ix* based on the definitions below:

#### 1. *Teaching*

Teaching Reputation

## 2. *Research Environment*

### Research Reputation

- We conducted an Arab region-specific survey which yielded over 36,000 votes. Only academics who have been cited in published papers were invited to participate. The Arab Reputation Survey that underpins this metric was carried out from May to June 2024. It examined the perceived prestige of institutions in research. This metric consists of the number of research votes obtained from the Arab reputation survey 2024. Universities that received no votes are scored a zero for this metric.

### Research Income

- 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

#### Research Excellence

- This metric recognizes the institution's contribution to the best research in each subject and overall. Excellence is measured by capturing the total number of publications by an institution that are among the top 10% of publications worldwide by FWCI. We adjust this number by year, subject, and the total number of academic and research staff.

#### Research Influence

- This metric analyses the influence of an entity's publications by analysing their corresponding citations. The importance of a publication is determined based on the importance of other papers citing it. We adjust this number by year, subject, and the total number of academic and research staff.

### 4. Society

#### Industry income

- 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 by the total number of FTE academic staff it employs. This variable is normalised after calculation.

*Another mission of many higher education institution is to positively impact the wider society and the world. In this ranking, this is defined as their contributions towards the United Nations Sustainable Development Goals (SDG)s, as measured by the THE Impact Rankings. This is measured in two parts:*

#### Impact Participation

- Institutions are measured by the number of SDGs for which they are ranked in latest THE Impact Rankings. A maximum of 100 points are awarded to institutions that participate in 4 SDGs or more; eighty points for 3 SDGs; sixty points for 2 SDGs; fifty points for 1 SDG and zero point if they are not ranked.

#### Impact Performance

- Institutions that are ranked in the overall table of the latest THE Impact Rankings receives a metric score which is the same their overall score in the table. Institutions that are not ranked in the overall table receive zero point for this metric.

#### Patents

- This metric recognises the extent to which universities are supporting their national economies through technology transfer. It measures the count of patents citing an entity's published research. This measure is subject weighted to avoid penalising universities producing research in fields low in patents. We also normalise this by the sum of academic and research staff. This metric has a zero weight for the 2024 rankings calculation.

## 5. *International Outlook*

### 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 to account for the country population's size.

### 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 to account for the country population's size.

### International Co-authorship

- 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

## Normalisation

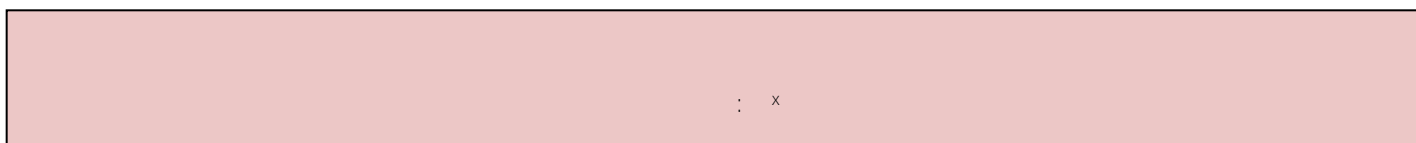
Moving from a series of specific data points to indicators, and finally to a total score for an institution, requires us to match values that represent fundamentally different data. To do this we use a standardisation approach for each indicator, and then combine the indicators in the proportions indicated 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 Arab Reputation Survey metrics, Impact Participation, Research Excellence, Research Influence, and Patents, we calculate the score using a normal cumulative probability function. The distribution of the data in the Arab Reputation Survey, as well as Research Strength, Research Excellence, and Patents, require us to use an exponential scoring function. Impact Participation is scored by counting the number of Sustainable Development Goals that the universities participated in the Impact 2024 rankings. A maximum score is awarded for 4 SDG submissions.

## Weightings of metrics to final scores and rankings

The 20 performance metrics representing the five pillars are weighted according to *THE*'s assessment of relative importance.



Pillar	Metric	% weighting
1. Teaching	Teaching Reputation	18.0%
	Student Staff Ratio	4.0%
	Doctorate Bachelor Ratio	2.5%
	Doctorate Staff Ratio	5.0%
	Institutional Income	1.5%
2. Research Environment	Research Reputation	23.0%
	Research Income	3.0%
	Research Productivity	5.0%
3. Citations	Research Strength	12.0%
	Research Excellence	6.0%
	Research Influence	6.0%
4. Society	Industry Income	2.0%
	Impact Participation	2.0%
	Impact Performance	2.0%
	Patents	0.0%



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	<i>Times Higher Education</i> 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. We made adjustments to take account of self-voting and unusual voting patterns.
(v)	Criteria for exclusion, inclusion and data processing	Universities meeting the six 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) obtained by Elsevier is mapped to <i>THE</i> institution data via <i>THE</i> 's institution ID.
(ix)	Calculation, scoring and ranking	The pre-weighted indicators are calculated for each university