METHODOLOGY FOR OVERALL AND SUBJECT RANKINGS FOR THE TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKINGS 2018

September 2017

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Times Higher Education World University Rankings :

The Times Higher Education World University Rankings , founded in 2004, aims to provide the definitive list of the world's best universities, evaluated across teaching, research, international outlook, reputation and more. Times Higher Education (THE) ¶ V GsDrWst9d by governments and universities and is a vital resource for students, helping them choose where to study .

' L U H F W R U V ¶ statement:

7 K L V G R F X P H Q W W K H ³ 0 H W K R Gto-end process for generating the Times Higher Education World University Rankings 2018 W K H ³ 5 D Q N L Q J V ´ $ V G L U H F W R U V D Q G P D Q D J Hstate that we I 7 L F

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, knowledge transfer and international outlook. 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 ranking is similar to 2017, but we have made important changes to the underlying data sources notably deriving bibliometrics from Elsevier's Scopus database from 2015 – 2016 onwards.

The 2018 World University Rankings are published in autumn 2017.

The performance indicators are grouped into five areas:

- x Teaching (the learning environment)
  - o Reputation Survey – Teaching
  - o Academic Staff-to-Student Ratio
  - o Doctorates Awarded / Undergraduate Degrees Awarded. [e.66 1ID 73 >Td ( )Tj EMC /P <<e

1)

- Reputation survey

An annual survey was sent to a sample of academics randomly selected by Elsevier asking them to nominate the most important universities for Teaching and/or Research globally in their field. For the 2017-2018 survey, academics were asked to nominate the top 15 institutions for Teaching and the top 15 institutions for Research. The 2017-2018 survey was combined with the 2016-2017 survey for use in the Rankings.

The two Teaching and Research scores for an institution at the global level was the count of mentions they received in each category.

The two Teaching and Research scores relating to the specialist field of the survey respondents were the scores used for the subject tables. Where an institution received no votes, they were allocated a zero score.

- 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

2) Processing and exclusions

a) Criteria
b) Subject ranking criteria
c) Data point adjustments
d) Data processing pre-rankings

2a) Criteria

Institutions must meet seven criteria in order to be included in the Overall Ranking [iv] :

i. Sufficient publications – An institution is required to publish more than 1000 papers over the previous 5 years, and more than 150 publications in any single year

	Subject	Papers for 5 years (2012 -2016)
		1000 (150 per year)
	manities	250
	reclinical & Health	500
	ng & Technology	500
		500

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3) Ranking and scoring

a) Distribution analysis and re -weighting
b) Subject ranking differentiation

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3a) Distribution analysis   and re -weighting

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Once the final population of institutions and indicators   has been prepared, the   Rankings are   generated   by weighting the indicators   (viii) according to the following percentage breakdowns:

1. Teaching (the learning environment): 30%

   x   Reputation survey: 15%
        The Academic Reputation Survey (run annually) that underpins this category was carried out from January to March 2017. It examined the perceived prestige of institutions in teaching. The 2017 data are combined with the results of the 2016 survey.

Specific rules subject to independent assurance by PwC

Rule number	Methodology section	Rule description
(i)	Data collection	A named representative from each institution submits and authorise d their institutional data for use in the Rankings.
(ii)	Data collection	Times Higher Education will not self -submit data for an institution without positive confirmation from the named representative of the institution.
(iii)	Data collection	Prior to submission of data within the portal, the draft data undergoes automatic validation checks reviewed by the named representative
(iv)	Processing and exclusions	Institutions must meet seven criteria in order to be included in the Rankings .
(v)	Processing and exclusions	Management review and approve all institution submissions data for appropriateness and accuracy, based on prior year values and gaps within datasets
(vi)	Processing and exclusions	Data provided by institutions for financial information is converted into UwT EMC02.15

Independent assurance report to the directors of TES Global Limited for the Times Higher Education World University Rankings 2018

This report is produced in accordance with the terms of our contract dated 6 March 2017 for the purpose of reporting to the directors of TES Global Ltd on our independent assurance that Times Higher Education (THE) management has correctly applied specific rules (i) – (x) within its methodology (the "Methodology") in production of the Times Higher 2018 World University Rankings (the

Specific rules (i) – (x) relate to the following steps in the production of the Rankings:

1. Data collection
2. Processing and exclusions
3. Ranking and scoring
4. Final reporting

The directors' statement that THE management has correctly applied specific rules (i) – (x) is set out on the first page of the accompanying Methodology.

Intended users and purpose

We performed the following procedures:

x Examining the Methodology and specific rules (i) ±(x) and assessing any key assumptions and limitations
x Obtaining an understanding of the third party surveys and data
x Assessment of adherence to specific rules (i) ±(x) for:
   o Data collection;
   o Processing and exclusions;
   o Ranking and scoring; and
   o Final reporting.
x Confirming accurate reporting of institutions in the Overall and Subject Rankings in the Times Higher Education World University Rankings 2018 report (reproduced in Appendix 1)
x Enquiries of relevant management.

Inherent limitations

Our assurance procedures are limited to assessing the application of specific rules (i) ±(x) and are subject to this inherent limitations:

x Reliance has been placed on data obtained from third parties. These datasets include:
   o Scopus field weighted citation data for institutions provided by Elsevier (part of RELX Group);
   o Reputational survey response data provided by Elsevier (part of RELX Group);
   o PPP currency conversion figures for 2014 provided by the World Bank; and
   o Foreign exchange currency conversion rates provided by HMRC.
x Our responsibility is statement that management has followed specific rules (i) ±(x) of the Methodology, not to comment on the actual rankings or results of the application of the Methodology.

Conclusion

Based on the results of our work, nothing has come to our attention to indicate that TES Global Limited management has correctly applied specific rules (i) ±(x) in producing the Times Higher Education World University Rankings 2018 is not fairly stated in all material respects.

PricewaterhouseCoopers LLP
Chartered Accountants
London, UK
4 September 2017