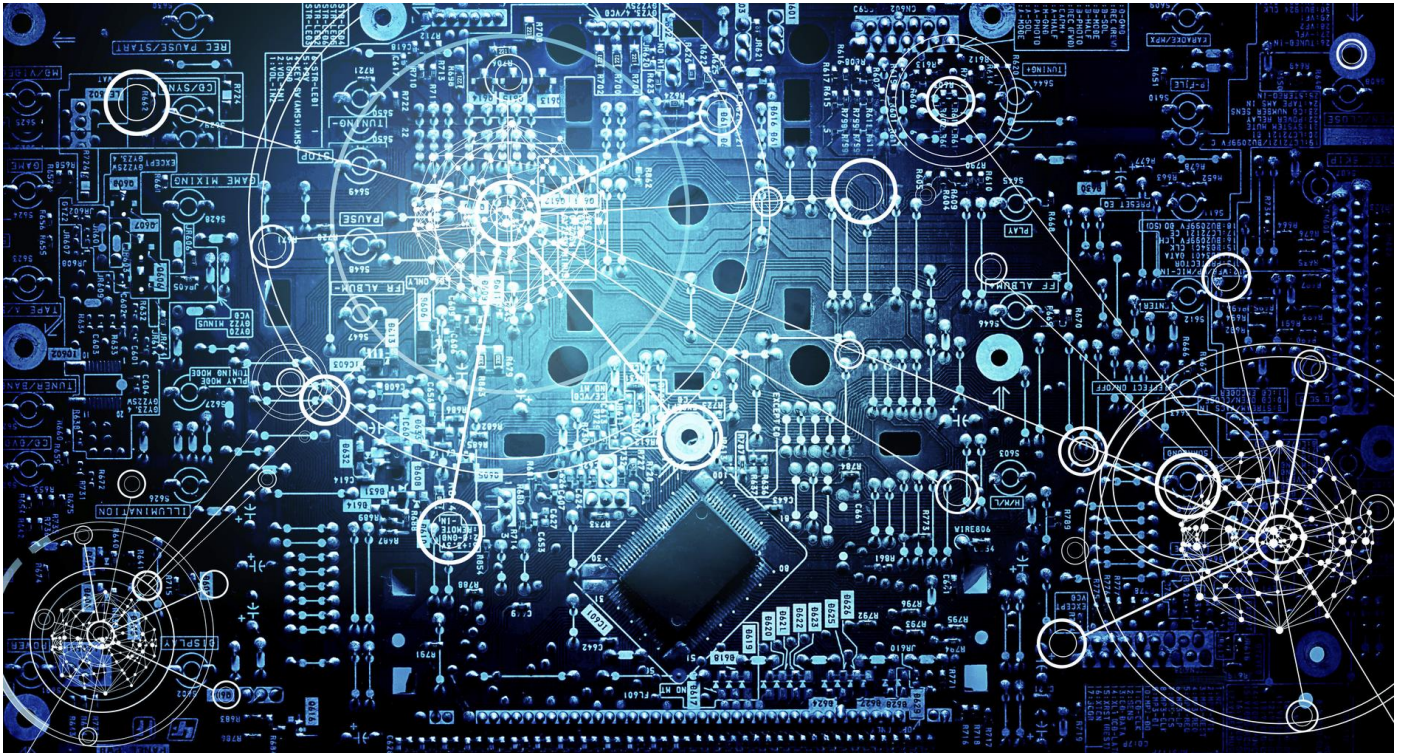


# WSJ

# TIMES HIGHER EDUCATION

## **METHODOLOGY FOR WALL STREET JOURNAL TIMES HIGHER EDUCATION COLLEGE RANKINGS 2020**

September 2019



**Wall Street Journal Times Higher Education College 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 almost 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 *WSJ THE College Rankings* (the “Rankings”), prepared for the first time in 2016, aims to provide the definitive list of the best Colleges in the US, evaluated across four key pillars of Resources, Engagement, Output and Environment. Times Higher Education’s (THE) data is trusted by governments and universities and is a vital resource for students, helping them choose where to study. The Rankings have been prepared by THE, with input from the Wall Street Journal (WSJ), where they will be published.

To help demonstrate the integrity of the Rankings, we have asked PricewaterhouseCoopers LLP UK (“PwC”) to undertake independent limited assurance over our application of the specific procedures (i) - (x). Their independent assurance opinion on our application of specific procedures (i) – (x) is set out on page 14 of this document.

The methodology is divided into the four sections which are outlined below and discussed in detail in the remainder of the document:

- 1) **Data collection and sources**
- 2) **Criteria for exclusion, inclusion, and data processing**
- 3) **Calculation, scoring and ranking**
- 4) **Publication and reporting**

Details of the methodology applied within each section are set out in red boxes. The specific procedures within the methodology subject to assurance are marked with the symbol “Ω” and highlighted in bold.

**Important links:**

WSJ THE College 2020 Final Rankings: <https://www.timeshighereducation.com/rankings/united-states/2020>

WSJ THE College 2020 Methodology: <https://www.timeshighereducation.com/USmethodology2020>

**Directors’ Statement:**

*This document (the “Methodology”) sets out our end-to-end process for generating the WSJ THE College Rankings 2020 (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) – (x) as marked with the symbol “Ω”.*

Signed: 

Print: TEJICA BARATTI

Role: CEO

Date: 29/08/2019

For and on behalf of THE World Universities Insights Limited

## Summary of the Rankings methodology:

The WSJ THE College Rankings score universities across four key pillars that we believe are important when applicants are applying to universities. These are:

- **Resources:** Does the College have the right resources?
- **Engagement:** Does the College engage its students?
- **Output:** Does the College produce good results?
- **Environment:** Does the College have a supportive environment?

THE uses 15 carefully calibrated performance metrics, listed below, to provide comprehensive and balanced comparisons. The methodology makes use of data provided by the Integrated Postsecondary Education Data System (IPEDS), the College Scorecard (CSC), the Bureau of Economic Analysis, Elsevier and two THE-commissioned surveys gathering data on College reputation and student engagement. Each of the metrics are normalised and weighted according to our methodology to generate the final Rankings as set out in the calculation section.

The 15 performance metrics are grouped into four pillars:

- **Resources**
  - Finance per student
  - Faculty per student
  - Bibliometric indicator
- **Engagement**
  - Student engagement
  - Student recommendation
  - Interaction with teachers and faculty
  - Number of accredited programs (by Classification of Instructional Programs (CIP) code)
- **Output**
  - Graduation rate
  - Graduate salary (this metric is calculated as a value-added assessment of salary)
  - Reputation
  - Debt after graduation
- **Environment**
  - Percentage of international students
  - Student diversity
  - Student inclusion
  - Staff diversity

## 1) Data collection and sources

### Student survey

THE gained insight into the perceptions of currently enrolled students about their university, across any subject and level of study. The survey closed in May 2019 and was distributed to universities by Streetbees or self-administered by individual institutions under THE guidelines. We used responses from our 2018 and 2019 student surveys.

Following analysis of the samples we decided to rebalance the student perceptions survey responses according to the gender split of each institution's student population.

To perform the rebalancing we have reweighted the average scores for each university according to the average score by gender and the actual gender balance.

**All student survey responses were gender-weighted and normalised according to the gender split of each institution's student population.  $\Omega^i$**

### IPEDS data

The National Centre for Education Statistics, part of the Institute of Education Sciences within the US Department of Education, commissions annual inter-related surveys. There are 12 survey components collected on an annual basis, and completion of the survey is a manual requirement for all institutions that participate in federal financial assistance programs authorised by Title IV of the Higher Education Act (1965).

The IPEDS data used in the Rankings are from the 2017 files, released in 2018 (the latest available data).

### College Scorecard

The College Scorecard is prepared on an annual basis by the US Department of Education and includes information on student-debt and attendance-cost data, as well as on-time graduation rates, school size, and salary after attending. We have used data that was published on 28 September 2018.

### Bureau of Economic Analysis (BEA)

The BEA is part of the United States Department of Commerce and it collects and prepares data on national economic performance. The key data used in the Rankings is regional and local inflation rates, which allows the measurement of Regional Price Parity (RPP). The data set used was released in 2019.

For Colleges located in metropolitan statistical areas (MSAs), we have used an MSA-specific RPP to convert finance data. For Colleges located outside of MSAs, we have used state specific non-metropolitan area RPP to convert finance data.

**Finance data has been converted correctly using Regional Price Parity (RPP) for the U.S.  $\Omega^{ii}$**

## **Elsevier**

### *Bibliometric data*

The bibliometric indicator used for the Rankings is calculated as the total scholarly output (articles, reviews, conference papers, books and book chapters) between 2014 and 2018, divided by number of staff (academic + research staff). Total scholarly output is calculated by Elsevier from their Scopus and/or SciVal databases of worldwide scholarly citations and output.

### *Academic reputation survey*

An annual survey was sent to a sample of academics randomly selected by Elsevier asking them to nominate the best universities for teaching and research: up to 15 in the world and up to 6 in their country. They were also asked to nominate up to 10 additional universities they regard as the best for teaching and research, based on their own direct experience, either through meeting or working with them. If there were any institutions they wanted to include but which couldn't be found in the available list, academics were able to enter up to 10 institutions globally and in their country (for teaching and research) in a free text box. Only the teaching votes coming from academics who are affiliated with US universities were considered for the metric calculation in these Rankings. We used the total teaching votes from our 2018 and 2019 reputation surveys.

The academic reputation score for a university is the number of mentions they received for the 2018 and 2019 surveys in the world and country teaching sections from respondents associated with a US institution. 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 from Elsevier.  $\Omega^{iii}$***

## 2) Criteria for exclusion, inclusion and merging of Colleges

### Exclusion and inclusion criteria

There are eleven key criteria for colleges to be included in the Rankings:

1. They must be Title IV eligible Colleges

AND

2. They must award 4-year Bachelor's degrees

AND

3. They must have appropriate Carnegie Basics classification

AND

4. They must be located within the 50 States of the United States of America, or the District of Columbia

AND

5. They must be an active post-secondary institution, as defined by IPEDS

AND

6. They must have more than 1,000 students enrolled in undergraduate programs (or 800 if institution was ranked in prior year)

AND

7. They must have 20% or fewer exclusively online students (or 30% if institution was ranked in prior year)

AND

8. They must not be financially insolvent

AND

9. They must be accepting new undergraduate students (as per date of IPEDS data collection)

AND

10. They must not be a private for-profit institution

AND

11. They must have complete set of data points for ranking (however, some institutions may have their data points provided separately by the college at THE management's discretion, or in special cases a conservative estimate will be used)

***Colleges meeting the eleven key inclusion criteria are included in the rankings.  $\Omega^{iv}$***

Data collected through either stream of the student perceptions survey (Streetbees distributed or self-distributed by institutions) must reach a total of 50 eligible and verified responses for the university to be included in the Rankings.

***Colleges with fewer than 50 respondents in the student survey were excluded from the Ranking.***  $\Omega^v$

In addition, in cases of a new institution ID, some institutions might fail a categorical criterion because the correct classification has not yet been recorded for them; we will in this case identify their correct classification by assuming continuity with the previous institution ID's characteristics.

Note that if an institution drops out this year, the normal thresholds will apply to them next year (in relation to criteria 6 and 7).

We will also accept the United States service academies provided they are able to supply the necessary data.

### **Merging of Colleges**

The following pair of Colleges have merged either because they have specifically requested to be ranked together, or because they have merged into one entity.

- Philadelphia University and Thomas Jefferson University merged to form Jefferson (Philadelphia University + Thomas Jefferson University): data collection for the two components was required;
- Johnson State College and Lyndon State College merged to form Northern Vermont University: all data are merged apart from Bibliometrics which are already reported under the merged entity; and
- Purdue University – Calumet Campus and Purdue University – North Central Campus merged to form Purdue University Northwest: all metrics are computed separately for each campus and averaged by campus size. Survey data are collected using a temporary ID;
- The data from the two entities Fairleigh Dickinson University-Metropolitan Campus and Fairleigh Dickinson University-College at Florham are merged and the resulting ranked entity named Fairleigh Dickinson University: all metrics to be computed for each campus separately and the merged college to be given a weighted average based on campus size.

A total of 801 Colleges had sufficient data to be included in the rankings and met the criteria defined above.

### **Data processing and mapping**

All datasets provided by Streetbees and Elsevier are mapped using a unique five digit university identifier.

***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 is mapped to THE institution data via THE's institution ID.***  $\Omega^{vi}$

### 3) Calculation, scoring and ranking

#### Calculation of metrics

The 15 performance metrics representing four pillars are weighted according to the THE methodology:

**The pre-weighted indicators are calculated for each university  $\Omega^{vii}$  based on the definitions below:**

#### 1. Resources

##### Finance per student:

- This metric is the instruction and student services expenses per student, and is calculated as (instruction expenses + student services)/(FTE undergraduate + FTE graduate students), adjusted by local price index. This metric uses a logarithmic scale to incorporate outliers prior to normalisation.

##### Faculty per student:

- The student-to-faculty ratio is defined as total FTE students not in graduate or professional programs divided by total FTE instructional staff not teaching in graduate or professional programs. This metric is extracted directly from IPEDS data (inverse of the filed reported in IPEDS which is student to faculty ratio). This variable is normalised after calculation. The mean of a university's score is used for 2016 and 2017 data, as this is given as an integer in IPEDS and shows more year-on-year variance than variables present as floats.

##### Papers per faculty:

- This metric captures the number of papers per member of staff and is a measure of research presence. It is calculated as the total scholarly output between 2014 and 2018 (from Elsevier) divided by number of instructional, research and public service full-time staff with faculty status. This metric uses a logarithmic scale to incorporate outliers prior to normalisation.



## 2. Engagement

### Student engagement:

- This metric is generated from the average scores per College (gender-weighted) from four questions on the student survey:
  - To what extent does the teaching at your university or college support critical thinking?
  - To what extent did the classes you took in your college or university so far challenge for you?
  - To what extent does the teaching at your university or college support reflection upon, or making connections among, things you have learned?
  - To what extent does the teaching at your university or college support applying your learning to the real world?

### Student recommendation:

- This metric is generated from the average score per College (gender-weighted) from the following question on the student survey:
  - If a friend or family member were considering going to university, based on your experience, how likely or unlikely are you to recommend your college or university to them?

### Interactions with teachers and faculty:

- This metric is generated from the average scores per College (gender-weighted) from two questions on the student survey:
  - To what extent do you have the opportunity to interact with the faculty and teachers at your college or university as part of your learning experience?
  - To what extent does your college or university provide opportunities for collaborative learning?

### Subject breadth:

- This metric is IPEDS standardized number of Bachelor's degree programs offered (by 6-digit CIP code), and is calculated as  $(\text{number of programs} - \text{Mean}[\text{number of programs}]) / \text{StdDev}[\text{number of programs}]$  based on IPEDS data. This variable is normalised after calculation. We use a mean of a university's score for 2016 and 2017 data to account for any variation due to re-classification of programs.

### 3. Output

#### Graduation rate:

- Graduation rate status as of August 31, 2018 for full-time (FT) and part-time (PT), first-time and non-first-time cohorts of full-time, first-time degree/certificate-seeking undergraduates, from IPEDS' Outcomes Measures release. From those we compute a full-time graduation rate and a part-time graduation rate. Those two graduation rates are weighted according to the proportion of all PT to FT students in the base cohorts, and the weighted scores added to each other to get a final weighted graduation rate for all students. This variable is normalised after calculation.

#### Graduate salary:

- This metric estimates the outcome of median earnings of students working and not enrolled 10 years after entry. The value-added component is the difference between actual and predicted (based on underlying student and College characteristics) outcomes. Further information is included in section "**Value-added graduate salary metric**" below.

#### Academic reputation:

- This metric is the number of votes obtained from reputation survey, and is calculated as the number of US teaching votes from the reputation survey and the number of US-only teaching votes from country section of the reputation survey. This variable is normalised and rescaled across a 0.0 to 1.0 range. We use the total number of votes from the 2017 and the 2018 surveys.

#### Debt after graduation:

- This metric estimates the actual level of debt incurred by graduates. This is captured by the median loan debt accumulated by at the institution by all student borrowers of federal loans who separate (i.e. either graduate or withdraw) in a given fiscal year, measured at the point of separation. The data is obtained from CSC.

### **Value-added graduate salary metric**

The value-added component of this metric is the estimate of the difference between actual and predicted outcomes for median graduate salaries, based on IPEDS, College Scorecard and BEA data. American College Test (ACT) and Scholastic Aptitude Test (SAT) scores were imputed to create a robust data set where they were not available from independent data sources. Data sets from 2013, 2014, and 2015 were used to generate this metric as they are the most recent years with outcomes (salary) data.

#### 4. Environment

##### International student:

- This metric is the percentage of resident alien students (based on 12-month enrolment data), and is calculated as  $(\text{number of resident alien students})/\text{total} \times 100$ , based on IPEDS data. This variable is normalised after calculation.

##### Student diversity:

- This metric is the Gini-Simpson score of student diversity. This variable is normalised after calculation.

##### Student inclusion:

- This metric is the percentage of students who are the first in their family to attend College, and/or who are the recipients of Pell Grants. Where the 1<sup>st</sup> generation number is privacy-suppressed but the Pell Grants number exists, we impute the former based on the median value in the university's Carnegie class. The elements are normalised prior to averaging.

##### Staff diversity:

- This metric is the Gini-Simpson score of staff diversity. This variable is normalised after calculation.

### Diversity measures

Diversity measures represent the diversity of enrolled students (or faculty) across various ethnic groups; and are equivalent to the probability of selecting two students (or faculty members) at random who would belong to separate groups.

The index itself is calculated using the Gini-Simpson score ( $1 - \text{sum of the squares of each group's proportion}$ ), which is higher for more diverse populations. We used the IPEDS data for both faculty and student diversity.

This data in both cases is divided into 9 groups: (1) American Indian or Alaska Native, (2) Asian, (3) Black or African American, (4) Hispanic or Latino, (5) Native Hawaiian or Other Pacific Islander, (6) White, (7) Two or more races, (8) Race/ethnicity unknown and (9) Non-resident alien. Groups 1 to 7 were used in the metric – 8 and 9 were excluded and subtracted from the total (the proportion of foreign students is used as the 'international student percentage' metric).

For student diversity, only students enrolled for undergraduate degrees were counted. The known challenge with Historically Black Colleges and Universities (HBCU) is addressed with a special exclusion.

For faculty diversity, we used the total amount of teaching faculty regardless of their instructional faculty category.

### Normalisation

Moving from a series of specific data points to metrics, and finally to a total score for a university, requires us to match values that represent fundamentally different data. To do this we use a standardisation approach for many of the indicators, 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 university's indicator sits within that function. A cumulative probability score of  $X$  in essence tells us that a university with random values for that indicator would fall below that score  $X$  per cent of the time.

For all indicators except those based on the survey results, success rate and gender-balance staff, we calculate the cumulative probability function using a version of Z-scoring. Because Z-scoring requires the distribution to be Gaussian, in some cases it is required to perform the normalization of the indicator prior to scoring.

Once the individual metrics have been created for each College, the results are combined into the overall rankings according to their relative weightings – this is the Final Rankings.

### Weightings of metrics to final scores and rankings

The 15 performance metrics representing the four pillars are weighted according to THE’s assessment of relative importance.

Pillar	Metric	% weighting
1. Resources (30)	Finance per student	11
	Faculty per student	11
	Papers per faculty	8
2. Engagement (20)	Student engagement	7
	Student recommendation	6
	Interactions with teachers and faculty	4
	Subject breadth	3
3. Outcomes (40)	Graduation rate	11
	Graduate salary	12
	Academic reputation	10
	Debt after graduation	7
4. Environment (10)	International students	2
	Student diversity	3
	Student inclusion	2
	Staff diversity	3

***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:  $\Omega^{viii}$***

## 4) Publication and reporting

### Final rankings preparation

All colleges 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 and individual pillar scores are shown for the colleges ranked in the top 400 overall or in the top 400 of each pillar. Banded overall scores are presented for the colleges ranked in bands (e.g. from 401 to >600). Precise scores are displayed for each college that is not being banded. Colleges who are banded are presented with a score that is the range of the colleges within the band.

For the colleges ranked 1 – 400 overall, an individual rank position is listed. The next colleges are assigned to the following bands: 401-500, 501-600, >600.

### 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. <sup>Ωix</sup>***

### Reporting

***The Rankings for the top 400 universities and banding allocation below top 400 are accurately reported on the THE website. <sup>Ωx</sup>***

The Rankings are listed together with the Rankings methodology on the Times Higher Education website at: <https://www.timeshighereducation.com/rankings/united-states/2020>

**Specific procedures subject to independent assurance by PwC**

<b>Procedure number</b>	<b>Methodology section</b>	<b>Description</b>
(i)	Data and sources	All student survey responses were gender-weighted and normalised according to the gender split of each institution's student population.
(ii)	Data and sources	Finance data has been converted correctly using regional price parity for the US.
(iii)	Data and sources	Total reputation score for each college was calculated based on the aggregate of individual respondent data obtained from Elsevier.
(iv)	Criteria for inclusion, exclusion and merging of Colleges	Colleges meeting the eleven key inclusion criteria are included in the rankings.
(v)	Criteria for inclusion, exclusion and merging of Colleges	Colleges with fewer than 50 respondents in the student survey were excluded from the Ranking.
(vi)	Criteria for inclusion, exclusion and merging of Colleges	The datasets used in the rankings have been accurately mapped by college name and ID. 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.
(vii)	Calculation, scoring and ranking	The pre-weighted indicators are calculated for each university.
(viii)	Calculation, scoring and ranking	Once the final population of colleges and indicators has been prepared, the scores for each college are generated by weighting the metrics and the Final Rankings are calculated.
(ix)	Publication and reporting	The Rankings results are reviewed and signed off by THE's Chief Data Officer.
(x)	Publication and reporting	The Final Rankings for the top 400 Universities by rank, and banding allocation below the top 400 are accurately reported on the THE website.

**Appendix 1: Top 20 institutions in the Final Rankings from the WSJ THE College Rankings 2020**

USCR 2020 rank	Institution name	Overall score
1	Harvard University	93.9
2	Massachusetts Institute of Technology	91.8
3	Yale University	91.3
4	University of Pennsylvania	90.4
5	California Institute of Technology	90.2
5	Princeton University	90.2
7	Brown University	90.1
7	Stanford University	90.1
9	Cornell University	89.8
10	Duke University	89.7
11	Northwestern University	89.0
12	Johns Hopkins University	88.8
12	Dartmouth College	88.8
14	University of Chicago	88.6
15	Columbia University in the City of New York	88.4
16	Rice University	88.1
17	Vanderbilt University	87.3
18	University of Southern California	86.1
19	Washington University in St Louis	86.0
20	Amherst College	84.6



## **Independent assurance report to the directors of THE World Universities Insights Limited for the Times Higher Education College Rankings 2020**

The directors of THE World Universities Insights Limited engaged us to perform an assurance engagement over the application of specific procedures (i) – (x) in production and reporting of the top 400 colleges by rank, and banding allocation below the top 400 for the WSJ THE College University Rankings 2020 (the “Rankings”).

### ***Our conclusion***

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Based on the results of our work, nothing has come to our attention that causes us to believe that THE World Universities Insights Limited management has not correctly applied, in all material respects, the specific procedures (i) – (x) outlined in their report.

This conclusion is to be read in the context of what is stated below.

### ***Scope of our work***

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We have performed a limited assurance engagement over the procedures (i) – (x) as marked with the symbol “Ω” set out in the report (“THE’s procedures”) within the WSJ THE College Rankings 2020 methodology (the ‘Methodology’), which outlines THE’s production and reporting of the Rankings.

Our work has been performed in accordance with the agreement between us dated 29 November 2018.

### ***Professional standards applied and level of assurance***

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We performed a limited assurance engagement over application of THE’s procedures in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits and Reviews of Historical Financial Information* issued by the International Auditing and Assurance Standards Board.

### ***Our independence and quality control***

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We complied with the Institute of Chartered Accountants in England and Wales (ICAEW) Code of Ethics, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We also apply International Standard on Quality Control (UK) 1 and accordingly maintain a comprehensive system of quality control including documented policies and standards regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### ***Inherent limitations***

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The subject matter incorporates at face value data sets obtained from third party sources. Such data are outside the control of THE World Universities Insights Limited and those have not been subject to validation for the purpose of their report nor subject to any assurance procedures during our engagement. These data sets include:

- Bibliometric data for Colleges provided by Elsevier (part of RELX Group);
- Reputational survey response data provided by Elsevier (part of RELX Group);
- IPEDS data taken from the US Department of Education website;
- College Scorecard data taken from the US Department of Education website;
- Student engagement survey data provided by Streetbees Limited; and
- Economic performance data taken from the website of the Bureau of Economic Analysis.



### **Work performed**

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Our limited assurance procedures primarily comprised:

- Examining the Methodology and THE's procedures in order to obtain an understanding, and assessing any key assumptions and limitations
- Obtaining an understanding of the third party surveys and data
- Assessment of management's application of THE's procedures for:
  - Data and sources;
  - Criteria for inclusion, exclusion and merging of Colleges;
  - Calculation, scoring and ranking; and
  - Publication and reporting.
- Testing accurate reporting of Colleges in the Final Rankings on the Times Higher Education website. The top 20 Colleges have been reproduced in Appendix 1.
- Enquiries of relevant management.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

### **Directors' responsibilities**

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The directors of THE World Universities Insights Limited are responsible for:

- establishing an appropriate Methodology and specific procedures for producing the Rankings and reporting the results on THE's website;
- designing, implementing and monitoring policies, activities, processes and controls to comply with the procedures;
- their Methodology, including the application of the procedures set out in this Methodology;
- supporting the Directors' Statement with sufficient evidence, including documentation; and
- the maintenance and integrity of THE's website.

### **Our responsibilities**

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We are responsible for:

- planning and performing the engagement to obtain evidence to support our assurance conclusion;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained, on management's application of THE's procedures as described in the report; and
- reporting our conclusion to the directors of THE World Universities Insights Limited.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### **Intended users and purpose**

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This report is produced in accordance with the terms of our agreement dated 29 November 2018 and is intended solely for the use and benefit of the Board of Directors of THE World Universities Insights Limited, and solely for the purpose of reporting to them on the application of THE's procedures within the Methodology in preparation and publication of the Rankings and no other purpose. We do not, in giving our conclusion, accept or assume responsibility (legal or otherwise) or accept liability for, or in connection with, any other purpose for which our report including the conclusion may be used, or to any other person to whom our report is shown or into whose hands it may come, and no other persons shall be entitled to rely on our conclusion.

We permit the disclosure of our report, in full only and in the company of the Methodology, to enable the directors to demonstrate that they have discharged their governance responsibilities by commissioning an independent assurance report over procedures (i) – (x) of the Methodology, without assuming or accepting any responsibility or liability to any third parties on our part. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the directors of THE World Universities Insights Limited for our work or this report save where terms are expressly agreed and with our prior consent in writing.

*PricewaterhouseCoopers LLP*

**PricewaterhouseCoopers LLP**  
**Chartered Accountants**  
**London, UK**  
**29 August 2019**