

US NEWS RANKINGS 2018

Given below is a brief note on the US News Rankings 2018. Panjab University gets ranked at #2 and its scores are way ahead of other Indian Universities, getting 17% more than AMU, the next ranked university and 40% more than JNU. This is because

- All academic output is given weightage. Books and Conferences are counted.
- Research output of all sorts reported in high quality high impact journals is included.
- Research reputation is counted rather than the amorphous category called 'Reputation'.
- 'Teacher student ratio' is ignored.
- Seniority of faculty is given no value.
- International collaborations are given value.

| US NEWS RANKINGS JUNE 2018 | | | IQAC/PU 26 June 2018 |
|---|-------------|-------------------|---------------------------------|
| Best Global Universities in India JUNE 2018: among the top 1250 top universities globally | | | |
| usnews.com | | | |
| INDIA RANK | GLOBAL RANK | NAME | GLOBAL SCORE |
| 1 | 460 | IISC | 44.7 |
| 2 | 513 | PANJAB UNIVERSITY | 43.3 |
| 3 | 548 | IIT BOMBAY | 42.1 |
| 4 | 630 | IIT DELHI | 38.5 |
| 5 | 672 | IIT MADRAS | 36.9 |
| 6 | 698 | IIT KGP | 36 |
| 7 | 704 | AMU | 35.8 |
| 8 | 704 | IIT K | 35.8 |
| 9 | 710 | IIT R | 35.7 |
| 10 | 719 | DU | 35.4 |
| 11 | 768 | BHU | 33.6 |
| 12 | 790 | AIIMS | 32.7 |
| 13 | 840 | JADAVPUR U | 31 |
| 14 | 922 | U O HYDERABAD | 27.7 |
| 15 | 938 | IIT G | 27 |
| 16 | 966 | JNU | 26 |
| 17 | 1003 | U OF CALCUTTA | 24.8 |
| 18 | 1032 | ANNA UNIVERSITY | 23.9 |
| 19 | 1068 | SPPU, PUNE | 21.9 |
| 20 | 1104 | VIT | 20.5 |

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US NEWS has been ranking US Universities for 30 years. This is its fourth round of ranking global universities. It evaluated 1250 top global universities based on information collected by Clarivate Analytics. Unlike other rankings US News rankings give weightage to many more academic activities that are ignored by say QS Rankings and India Today Rankings. Books and conferences are included in academic output. Research reputation is evaluated rather than just 'reputation'. Collaborative research is given value. Teacher student ratio is ignored. As is the number of teachers with PhDs or with seniority. On these criteria PU emerges way ahead of other universities in India.

| USNEWS RANKINGS 2018: based on data collected by Clarivate Analytics & InCite | |
|---|--------|
| Ranking indicator | Weight |
| Global research reputation | 12.5% |
| Regional research reputation | 12.5% |
| Publications | 10% |
| Books | 2.5% |
| Conferences | 2.5% |
| Normalized citation impact | 10% |
| Total citations | 7.5% |
| Number of publications that are among the 10 percent most cited | 12.5% |
| Percentage of total publications that are among the 10 percent most cited | 10% |
| International collaboration | 5% |
| Percentage of total publications with international collaboration | 5% |
| Number of highly cited papers that are among the top 1 percent most cited in their respective field | 5% |
| Percentage of total publications that are among the top 1 percent most highly cited papers | 5% |

21/5/18
Director, IQAC

Attached below: Method adopted by US News Rankings

METHOD ADOPTED BY US NEWS RANKINGS:

The overall Best Global Universities rankings encompass the top 1,250 institutions spread across 74 countries – up from the top 1,000 universities in 65 countries ranked last year. The first step in producing these rankings, which are powered by [Clarivate Analytics InCites](#), involved creating a pool of 1,295 universities that was used to rank the top 1,250 schools.

To create the pool of 1,295, U.S. News first included the top 250 universities in the results of Clarivate Analytics' global reputation survey, described further below. Next, U.S. News added 1,385 institutions that had met the minimum threshold of 1,500 papers published in the 2011-2015 time frame. The last step was to remove duplicates and institutions that are not schools to reach the final 2018 ranking pool of 1,295 institutions.

As a result of these criteria, many stand-alone graduate schools, including Rockefeller University in New York and the University of California—San Francisco, were eligible to be ranked and were included in the ranking universe.

The second step was to calculate the rankings using the 13 indicators and weights that U.S. News chose to measure global research performance. Each of the 1,250 top-ranked school's profile pages on usnews.com lists the overall global score as well as numerical ranks for the 13 indicators, allowing students to compare each school's standing in each indicator.

The indicators and their weights in the ranking formula are listed in the table below, with related indicators grouped together; an explanation of each follows.

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Reputation Indicators

Results from Clarivate Analytics' [Academic Reputation Survey](#) were used to create the two reputation indicators used in U.S. News' ranking analysis.

The survey, which aimed to create a comprehensive snapshot of academics' opinions about world universities, asked respondents to give their views of programs in the disciplines with which they were familiar. This method allowed respondents to rate universities at the field and department level, rather than at the institution level, creating a more specific and accurate measurement of a university's reputation as a whole.

To appropriately represent all regions, Clarivate Analytics took steps to overcome language bias, differing response rates and the geographic distribution of researchers. These steps included:

- Sending an invitation-only survey to academics selected from Clarivate Analytics' databases of published research, based on the estimated geographic proportions of academics and researchers around the world.
- Providing accessibility in seven languages.
- Rebalancing the survey's final results based on the geographic distribution of researchers to overcome differing response rates.
- Excluding respondents' nominations of their own institution or alma mater.

Respondents also self-declared their job role:

- 70 percent academic staff.
- 14 percent research staff.
- 7 percent senior institutional leaders.
- 4 percent graduate/postgraduate students.
- 5 percent other jobs and roles.

The total number of unique respondents was more than 30,000. The survey results were used in two separate ranking indicators, as follows.

Global research reputation (12.5 percent): This indicator reflects the aggregation of the most recent five years of results of the Academic Reputation Survey for the best universities globally for research.

Regional research reputation (12.5 percent): This indicator reflects the aggregation of the most recent five years of results of the Academic Reputation Survey for the best universities for research in the region; regions were determined based on the [United Nations definition](#).

This regional indicator had the effect of significantly increasing the international diversity of the rankings, since it focused on measuring academics' opinions of other universities within their region. The U.S. News rankings are the only global rankings to use this indicator, and the 2018 edition marks the fourth year of its inclusion.

Bibliometric Indicators

The bibliometric indicators used in the U.S. News ranking analysis are based on data from Clarivate Analytics' [Web of Science](#) for the five-year period from 2011 to 2015. The Web of Science is a web-based research platform that covers more than 18,000 of the most influential and authoritative scholarly journals worldwide in the sciences, social sciences, and arts and humanities.

In this year's edition, one new indicator was added, increasing the total number of ranking indicators to 13. This is the percentage of a school's total number of 2011-2015 publications that contain international co-authors. This indicator is an important measure of an institution's ability to attract international collaborations in its research activities, and its weight is set at 5 percent in the overall rankings.

U.S. News did not drop any indicators but did reduce the weight of the existing international collaboration indicator to 5 percent, compared with 10 percent in previous year's rankings. The other 11 indicators and their weights remained unchanged.

Publications (10 percent): This is a measure of the overall research productivity of a university, based on the total number of scholarly papers – reviews, articles and notes – that contain affiliations to a university and are published in high-quality, impactful journals. This indicator is closely linked to the university's size. It is also influenced by the university's discipline focus, since some disciplines, particularly medicine, publish more than others.

Books (2.5 percent): Books are an important medium of publication for scholarly research, particularly in the social sciences, arts and humanities. The use of this ranking indicator provides a useful supplement to the data on articles and better represents universities that have a focus on social sciences and arts and humanities.

Conferences (2.5 percent): Academic conferences are an important venue for scholarly communication, particularly in disciplines tied to engineering and computer science. The formal publication of conference proceedings can represent genuine research breakthroughs in certain fields that may not have been documented or published elsewhere.

Normalized citation impact (10 percent): The total number of citations per paper represents the overall impact of the research of the university and is independent of the university's size or age; the value is normalized to overcome differences in research area, the paper's publication year and publication type.

NCI is considered one of the core measures of research performance and is used by various research evaluation bodies globally. The subject fields used in the analysis came from Clarivate Analytics InCites, which helps institutions evaluate research output, performance and trends; understand the scope of an organization's scholarly contributions; and articulate outcomes to inform research priorities. InCites uses the content and citation indicators found in the Web of Science.

Total citations (7.5 percent): This indicator measures how influential the university has been on the global research community. It is determined by multiplying the publications ranking factor by the normalized citation impact factor. Total citations

have been normalized to overcome differences in research area, publication year of the paper and publication type.

Number of publications that are among the 10 percent most cited

(12.5 percent): This indicator reflects the number of papers that have been assigned as being in the top 10 percent of the most highly cited papers in the world for their respective fields. Each paper is given a percentile score that represents where it falls, in terms of citation rank, compared with similar papers – those with the same publication year, subject and document type.

Since the number of highly cited papers is dependent on the university's size, the indicator can be considered a robust indication of how much excellent research the university produces.

Percentage of total publications that are among the 10 percent most cited

(10 percent): This indicator is the percentage of a university's total papers that are in the top 10 percent of the most highly cited papers in the world – per field and publication year. It is a measure of the amount of excellent research the university produces and is independent of the university's size.

International collaboration (5 percent): This indicator is the proportion of the institution's total papers that contain international co-authors divided by the proportion of internationally co-authored papers for the country that the university is in. It shows how international the research papers are compared with the country in which the institution is based. International collaborative papers are considered an indicator of quality, since only the best research will be able to attract international collaborators.

Percentage of total publications with international collaboration

(5 percent): This indicator is the proportion of the institution's total papers that contain international co-authors and is another measure of quality.

Scientific Excellence Indicators

Number of highly cited papers that are among the top 1 percent most cited in their respective field (5 percent): This highly cited papers indicator shows the volume of papers that are classified as highly cited in the Clarivate Analytics' service known as Essential Science Indicators. Highly cited papers in ESI are the top 1 percent in each of the 22 subject areas represented in the Web of Science, per year. They are based on the most recent 10 years of publications.

Highly cited papers are considered indicators of scientific excellence and top performance and can be used to benchmark research performance against subject field baselines worldwide. This is a size-dependent measure.

Percentage of total publications that are among the top 1 percent most highly cited papers (5 percent): This percent of highly cited papers shows the number of highly cited papers for a university divided by the total number of documents it produces, represented as a percentage. It is a measure of excellence and can show

what percentage of an institution's output is among the most impactful papers in the world. This is a size-independent measure.

How the Overall Global Scores and Numerical Rankings Were Calculated

To arrive at a school's rank, the overall global scores were calculated using a combination of the weights and z-scores for each of the 13 indicators used in the rankings. In statistics, a z-score is a standardized score that indicates how many standard deviations a data point is from the mean of that variable. This transformation of the data is essential when combining diverse information into a single ranking because it allows for fair comparisons between the different types of data.

Some of the indicators were highly skewed, so the logarithmic transformation of the original values were used. These indicators were:

- Publications.
- Books.
- Conferences.
- Total citations.
- Number of publications that are among the 10 percent most cited.
- Global research reputation.
- Regional research reputation.
- Number of highly cited papers that are among the top 1 percent most cited in their respective field.
- International collaboration.

The logarithmic transformation rescaled the data and allowed for a more normalized and uniform spread across each of the indicators. After these nine indicators were normalized, the z-scores for each indicator were calculated to standardize the different types of data to a common scale.

To reach a school's overall global score, the calculated z-scores for each of the 13 indicators were then weighted using the assigned weights described earlier. U.S. News determined the weights based on our judgment of the relative importance of the ranking factors and in consultation with bibliometric experts.

The overall global score for each school was calculated by summing the school's weighted values for each indicator. The minimum score from the pool of 1,295 institutions was then subtracted from each of the scores to make zero the lowest possible score.

The scores were then rescaled by multiplying the ratio between the overall performance of each university and the highest-performing university by 100. This forced the scores to fall on a 0-100 scale, with the highest-performing school earning an overall global score of 100.

The top 1,250 universities out of the 1,295 ranked were then numerically ranked in descending order from 1 to 1,250 based on their weighted, rescaled overall global

score. Each school's overall global score was rounded to one decimal place to increase variance between scores and to minimize the occurrence of ties.

In addition, the 1,295 universities received a numerical rank for all 13 ranking indicators – such as publications, total citations and global research reputation – based on their z-score for that indicator. The highest-scoring university for each of the 13 indicators received a rank of 1 and the lowest-scoring university – except for regional research reputation – received a rank of 1,295. Ties were allowed.

The regional research reputation numerical ranking is calculated based on the schools within each of the six U.N. regions. Those six regions are Africa, Asia, Australia/New Zealand, Europe, Latin America and North America. This means the regional reputation numerical ranking has six No. 1 schools – one for each region in the overall rankings. This regional research reputation ranking enables users to make comparisons to determine which schools have the strongest regional research reputation among the schools in their geographic region.

As noted earlier, the numerical ranks for each of the 13 indicators are published on usnews.com for each school ranked in the top 1,250. This means that there are some schools in the top 1,250 rankings that have ranking indicators with numerical ranks in the 1,251 to 1,295 range. The numerical ranks published for each ranking indicator are to be used to determine the relative position of each school in that indicator. The numerical indicator ranks were not used to calculate the overall global score.

Data Collection and Missing Data

The data and metrics used in the ranking were provided by Clarivate Analytics InCites. The bibliometric data were based upon the Web of Science.

Publications are limited to those published between 2011 and 2015. However, the citations to those papers come from all publications up to the most recent data available. For the 2018 edition of the U.S. News Best Global Universities, published in 2017, this cutoff was May 30, 2017. It is necessary to use a slightly older window of publication to allow for citations to accumulate and provide statistically relevant results.

The subject fields used in the analysis came from the Clarivate Analytics InCites schema and did not include arts and humanities journals; therefore, those are excluded for the citation-based indicators. But articles from arts and humanities journals were included in the papers count used in the publications indicator. Arts and humanities journals accumulate few citations and citation analysis is less robust; as such, the deliberate exclusion of arts and humanities improves the robustness of the results.

There were no missing data in the bibliometric or reputation indicators.

University Rankings by Region

After the overall top 1,250 rankings were calculated, U.S. News then produced additional rankings. The U.S. News Best Global Universities rankings by region show the top institutions in five regions with a large number of globally ranked schools. Those regions are Africa, Asia, Australia/New Zealand, Europe and Latin America. To determine which countries are in which region, we used the U.N. definition of geographical regions.

The methodology for the region rankings is based entirely on how a school ranked in the overall Best Global Universities rankings covering the top 1,250 schools worldwide. Universities are numerically ranked in their region based solely on their position in the overall Best Global Universities rankings.

For example, in Europe, the highest-ranked university in the overall top 1,250 rankings is the United Kingdom's University of Oxford, at No. 5 globally. This overall position also makes the school No. 1 in Europe. The second highest-ranked university in Europe is the U.K.'s University of Cambridge, which is ranked No. 7 globally, thereby making it No. 2 in Europe.

University Rankings by Country

The U.S. News Best Global Universities rankings by country show the top institutions in 42 countries with five or more schools that are globally ranked in the top 1,250.

The methodology for the country rankings is based entirely on how a school ranked in the overall Best Global Universities rankings covering the top 1,250 schools worldwide. Universities are numerically ranked in their country based on their position in the overall Best Global Universities rankings.

For example, in Canada, the highest-ranked university in the overall top 1,250 rankings is the University of Toronto, at No. 20 globally. This overall position also makes the school No. 1 in the Best Global Universities in Canada rankings. The second highest-ranked university in Canada in the overall rankings is the University of British Columbia, ranked at No. 27 globally, thereby making it No. 2 in Canada.