



# World University Rankings

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11/28/2022

## Executive Summary

Universities worldwide are the corner stone of intellect and advancement as they have a pivotal role within society to raise up the next generation of critical thinkers and promote the innovation within society. While all schools have the mission of teaching and research, there are select few who excel in their efforts globally.

The World University Rankings provide the definitive list of the world's best universities based on: teaching (the learning environment); research (volume, income and reputation); citations (research influence); industry income (knowledge transfer) and international outlook (staff, students and research). It uses 13 carefully calibrated performance indicators to provide the most comprehensive and balanced comparisons

This project will be an analysis of the rankings of the world's university in an effort to truly understand what makes the best universities so exceptional.

## Data Source

The data for this project is an open-source data provided by the Times Higher Education World University Ranking downloaded from: <https://www.kaggle.com/datasets/mylesoneill/world-university-rankings?resource=download&select=timesData.csv>

## Limitations and Ethics

- The data from Times Higher Education World University Ranking has been criticized for its commercialization and for undermining non-English instructing institutions

# Source Data Cleaning and Data Consistency Checks

## Excel

- Updated university names that required formatting
  - Ex. Ã‰cole Polytechnique to École Polytechnique
- Updated 2 Country names
  - Unisted States of America to United States of America
  - Unted Kingdom to United Kingdom
- Missing Values
  - 1402 missing from total\_score column
- Total\_score column dropped
- No duplicates

## Data Profile

- Original – 14 columns, 2,603 rows
- Cleaned – 13 columns, 2603 rows

## Column Details

Column	Column Description	Data Type	Time Variant
world_rank	world rank for the university	quantitative, ordinal	No
university_name	name of university	qualitative, nominal	No
country	country of each university	qualitative, nominal	No
teaching	university score for teaching	quantitative, discrete	No
international	university score international outlook	quantitative, discrete	No
research	university score for research	quantitative, discrete	No
citations	university score for citations	quantitative, discrete	No
income	university score for industry income	quantitative, discrete	No
total_score	total score for university	quantitative, discrete	No
num_students	number of students at the university	quantitative, discrete	No
student_staff_ratio	number of students divided by number of staff	quantitative, discrete	No

international_students	percentage of students who are international	quantitative, discrete	No
female_male_ratio	female student to Male student ratio	quantitative, discrete	No
year	year of the ranking	quantitative, ordinal	Yes

## Questions to Explore

1. Where are the majority of top schools located?
2. What do the top 5 schools have in common?
3. Is there a relationship between the number of students and the rank of the school?
4. Which top schools have the highest number of international students?