

2025 / 13th edition

# Synthetic Indicators of Spanish Universities

Francisco Pérez Joaquín Aldás (Eds.)







This project has been carried out by the following team:

Francisco Pérez (Eds.) (Universitat de València and Ivie) Joaquín Aldás (Eds.) (Universitat de València and Ivie) Rodrigo Aragón (Ivie) Irene Zaera (Ivie)

#### DESIGN & DOCUMENTATION

Maider Sorasu Susana Sabater Belén Miravalles

Version: June 2025 © authors, 2025 © Fundación BBVA, 2025 Plaza de San Nicolás, 4. 48005 Bilbao

https://www.u-ranking.es/home

https://doi.org/10.12842/U-RANKING\_2025\_EN





# Table of contents

cknowlegments					
. Introduction					
2. Methodology	17				
2.1. The design of rankings					
2.2. Activities studies					
2.3. Disaggregation of activities	22				
2.4. Indicators, areas and dimensions					
2.5. Period covered by the data					
2.6. Criteria for the construction of indicators					
2.7. Performance rankings vs. Volume rankings					
2.8. Presentation of results					
2.9. Private Universities					
3. User personalized rankings					
3.1. Examples of personalized rankings					
3.2. Description of the web tool for generating personalized rankings of degrees	42				
3.3. Complementary information on graduate employability	47				
4. Main results	49				
4.1. U-Ranking	49				
4.2. U-Ranking Volume					
4.3. U-Ranking Dimensions: teaching, research and innovation and labor market insertion					
4.4. U-Ranking fields of study					
5. Technical analysis of U-Ranking	73				
5.1. U-Ranking Volume vs. U-Ranking Performance					
5.2. U-Ranking vs. Shanghai Ranking					
5.3. Comparison with other international rankings					
5.4. Research, teaching and labor market insertion: sensitivity analysis	81				
5.5. Rankings for teaching, research and innovation and labor market insertion	87				
5.6. Comparative results of public and private universities					
5.7. Regional university systems	93				
6. Conclusions	95				
Annexes					
Annex 1: Glossary of Indicators and statistical sources					
Annex 2: List of university abbreviations	105				
References	107				



# Acknowledgments

00

The U-Ranking project, developed by the lvie (The Valencian Institute of Economic Research) and the BBVA Foundation, is an essential part of a program of activities carried out by both institutions to document and analyze the role of knowledge in social and economic development. This report presents the basic products of the project, U-Ranking and U-Ranking Volume, including the methodology and results for 2025 (13th edition).

The approach of U-Ranking, the selection of variables on which the rankings compiled are based and the methodology used when treating the data have been thoroughly discussed by the lvie team with a large group of experts on the assessment of universities, university information and management. We would like to thank these specialists from fourteen universities for their invaluable collaboration.

We would also like to acknowledge the support of the Valencian public universities in the initial stages of the project and the suggestions made by members of different Spanish universities since the presentation of the first results in June 2013, which have been followed with interest by many people. During the past year, the U- Ranking website has received close to 160,000 visits and more than 186,000 queries have been made to the results of the rankings. The project is also attracting international interest: 23% of the visits to the website come from outside of Spain, the majority from Latin America and the United States which jointly represent 17% of total foreign visits. Visits from major European countries such as France, Italy, United Kingdom, Portugal and The Netherlands also have significant percentages. These data provide a stimulus to maintain the continuity of the project while making improvements.

We would like to give special thanks the IUNE Observatory<sup>1</sup> for their collaboration with research and innovation and technological development data, as well as participating in meetings on the availability and suitability of various sources and the problems of their treatment. In this regard, the IUNE Observatory, and specially the INAECU team, directed by Professor Elías Sanz-Casado, have provided complete Bibliometric data on all the Spanish universities (based on information provided by Clarivate), from which many of the indicators relating to research have been calculated.

<sup>&</sup>lt;sup>1</sup> The IUNE Observatory is the result of work carried out by a group of researchers from the universities that make up the "Alianza 4U" (Universidad Carlos III de Madrid, Universidad Autónoma de Madrid, Universitat Autònoma de Barce-Iona and Universitat Pompeu Fabra). The general coordinator

of IUNE is Elías Sanz-Casado, professor at the Department of Librarianship and Documentation of the Carlos III University Carlos III in Madrid and director of INAECU (Research Institute for Higher Education and Science).

Also, the U-Ranking team acknowledges the cooperation of the General Secretariat of Universities and, in particular, the General Sub-Directorate of University Research Activity of the Spanish Ministry of Science, Innovation and Universities, whom, for another consecutive year, has provided us access to the Integrated System of University Information (SIIU). In addition, this through State Bureau Ministry, the of Investigation, by providing information on the research resources available to universities. The collaboration of all these institutions offers proof of their commitment to transparency and accountability, which are key elements for the university sector to be a profitable investment. It also allows the ranking to be independent from the information provided by the university institutions that appear in it, thus favouring independence with respect to them.

The lvie also acknowledges the important contributions made by the following people in developing the methodology of the project: Antonio Villar (Universidad Pablo Olavide and Ivie Research Professor), Antonio Ariño (Universitat de València), Álvaro Berenguer (Universidad de Alicante), Gualberto Buela-Casal (Universidad de Granada). José Miguel Carot (Universitat Politècnica de València), Fernando Casani (Universidad Autónoma de Madrid), Daniela De Filippo (Universidad Carlos III), M.ª Ángeles Fernández (Universitat Jaume I), José M.ª Gómez Sancho (Universidad de Zaragoza), Juan Hernández Armenteros (Universidad de Jaén), Joan Oltra (Universitat de València), Carmen Pérez Esparrells (Universidad Autónoma de José Pérez (Universitat Madrid), Antonio Politècnica de València), Fernando Vidal (Universidad Miguel Hernández) and Carlos García Zorita (Universidad Carlos III). Thanks are also owed to the group of lvie researchers and economists who have taken active part in the successive methodological adaptations that are a natural feature of any long-running project such as U-Ranking and the revision of the documents: José Manuel Pastor, Abel Fernández and Iván Vicente. The team also counted on the valuable support of other Ivie members. The U-Ranking team would like to thank all of them for their dedication and professionalism.

The results of the U-Ranking project are, therefore, the results of the collaboration of many people and institutions that share the same interest in analyzing the performance of Spanish universities and facilitating comparable and synthetic images of them. With this 13th edition, which includes important improvements in methodology and data used, we celebrate the continuity of this project, that allows to improve and offer results that are more and more reliable as the data and basic indicators become more refined.

In this regard, it is also important to highlight that one of the advantages of the U-Ranking project approach is that it pays special attention to the wide range of activities that universities carry out, such as teaching, research and innovation, and now that the information available allows, to take into account university outcomes in terms of labor market insertion of its graduates. This diversity of perspectives enriches the assessment of university results and shows the unavoidable limitations of partial views, because the institutions analyzed have different levels of performance in the various areas. Due to this situation, it is important that the range of results offered be as wide and complete as possible and based on reliable indicators.

The authors of the report are grateful to the BBVA Foundation and the lvie for their longstanding support and, in any case, assume sole responsibility for the selection and development of the indicators presented and the resulting conclusions.

# Introduction

This report presents the results of the research undertaken by the lvie to develop the 13<sup>th</sup> edition of U-Ranking, corresponding to 2025. It does so by analyzing the teaching, research and innovation activities of the universities and, as a novelty that will be discussed in more detail throughout the report, the labor market insertion outcomes of university graduates.

Labor market insertion has been included as a new dimension, based on the understanding that training qualified professionals who significantly increase the stock of skilled human capital, help transform the economic fabric and improve productivity is also one of the university system's core mission. Universities can fulfill this mission with varying degrees of success. The extent to which their graduates achieve better labor market outcomes serves as an indicator of how effectively institutions are enhancing employability. As will be discussed later, the concept of labor market insertion used in this edition is multidimensional, i.e., it considers not only employment rates, but also job quality and alignment between the job and the graduate's education level, and the level of economic compensation.

The 20 indicators chosen for the data bank of the project provide the basis for compiling different rankings of Spanish universities. The first of these rankings is denominated **U-Ranking** and analyzes the performance of the University System, synthesizing the universities' achievements in teaching, research and innovation, and labor market insertion, regardless of their size.

The fact that a smaller university achieves good results is relevant, but we should not ignore that their impact on their environment may be far smaller than a large university with less outstanding results. For example, a university with 100 faculty members that produces 100 patents is more productive than if one with 1,000 members produces 500 patents. However, 500 patents will have more impact on the economy than 100. For this reason, we provide a second global ranking, the **U-Ranking Volume**, which considers the combined effect of both variables, results and size, and classifies the universities according to their total contribution to the universities' missions.

In addition to these two general rankings, we construct other more specific ones: U-Ranking Dimensions, focused on the classification of universities in the three dimensions that make up the mission of the universities (teaching, research and innovation and, this year, labor insertion).

Another new feature of the thirteenth edition is that U-Ranking and U-Ranking dimensions are also offered by areas of study (U-Ranking Areas of Study). This new feature is important because it enhances the analytical capacity available to interested audiences, many of whom often focus their attention on certain areas of study. In such cases, it is important to consider, for instance, that a university's strong research performance may be consistent across all areas or concentrated in only in a few where efforts have been primarily focused. The breakdown of the rankings presented by areas of study in this edition enables a more detailed analysis.

Also, <u>U-Ranking Degrees</u> ranks the degrees offered by the different universities, providing useful information to potential students for their decision making in the choice of a University.

All of these rankings are approximations of university results, allowing them to be compared from different perspectives. Through such comparisons, synthetic indicators assess their performance by answering to relevant questions, such as the following:

- Which Spanish universities are the most productive or efficient? Which achieve the greatest volume of results? Do the universities at the top of these rankings coincide and do larger universities operate more effectively?
- Do the positions of Spanish universities in international rankings meet the criteria in terms of volume of activity or in terms of output? Are the positions of Spanish universities in the U-Rankings in line with the best-known international rankings such as that of Shanghai, QS or THE<sup>2</sup>?
- Do the universities with the best research and innovation results stand out for their teaching results? Are both results correlated? Is there a relationship between those dimensions and labor market insertion?
- Are the general rankings on university activities as a whole similar to those obtained when comparing specific qualifications? Is the internal heterogeneity of universities high?

The answers to these questions can be of great interest in order to obtain a complete view of the Spanish University System. This is the only way to identify the strengths and weaknesses of the universities that form part of it, from a comparative perspective, and to classify them according to their position within the system from different relevant perspectives. That is basically the purpose of this project and also of this report, as noted in other studies carried out by the lvie and the BBVA Foundation (Pérez y Serrano [Dirs.] 2012; Aldás [Dir.] 2016; Pérez [Dirs.] 2018; Escribá, Iborra and Safón 2019; Pérez, Aldás y Peiró [Dirs.] 2021), the Spanish University System is far from being homogenous and stable. Not acknowledging its heterogeneity and its changes makes its evaluation difficult. Despite the fact that this assessment requires that the different specialization and changing characteristics of each university be taken into account, their real possibility of competing in different areas of its activity, both in teaching and research, and their improvements.

# Rankings as synthetic indicators of results

The performance of Spanish universities receives constant attention, and debates about the exploitation of the resources used and their results are increasingly frequent. This debate becomes even more common at times like now, in which Spain's new Organic Law for Universities (no. 2/2023) has introduced significant changes in the regulation of the university system. The driving force behind this interest is the significant amount of resources currently dedicated to these activities and the recognition of the important role universities play in generating and in the transmission of knowledge, two key areas in the social and economic development of countries today and in human capital development.

In Spain, discussions about university results frequently focus on public universities, for two main reasons: the volume of their activity

 $<sup>^{\</sup>rm 2}$  Academic Ranking of World Universities (ARWU) (CWCU 2025), QS World University Rankings (QS 2025b) and

Times Higher Education World University Rankings (THE 2025).

accounts for most of the Spanish University System, and the origin of the majority of the resources used is public; the assessment of their results is therefore considered to be of general interest. There is also a more practical reason. In Spain, traditionally, it has been more feasible to assess the resources and results of public universities based on relatively homogeneous data, because until recently most of the already numerous private universities (currently, 42 active centers) did not provide the necessary data to carry out analyses.

However, the participation of private universities is gaining importance and its presence in the public statistics and information systems is increasing. Therefore, a project such as U-Ranking, which aims to provide an overall view of the Spanish University System, should accept the challenge of including these institutions, as it has been doing recently. Thus, recent editions of U-Ranking have included in the ranking private that svstem universities provided sufficient information of adequate quality, so that the data is homogeneous with that of public universities in order to construct synthetic indicators.

The information provided by U-Ranking is particularly relevant at a time when the Government of Spain is reviewing the criteria for the creation, recognition, and authorization of universities (modification of Royal Decree 640/2021), citing, among other arguments, the limited development of research and knowledge transfer activities in private universities. When faced with such crucial issues in university policy, it is essential to have objective information that allows for an informed assessment on the appropriateness of these decisions.

The 13<sup>th</sup> edition of U-Ranking considers 24 of the 42 private Spanish universities that have been active during the 2024-25 academic year. All of those included have information on at least 20 out of 23 indicators used to calculate the synthetic index.

To evaluate teaching activities, eight out of ten indicators are required; the same standard applies to research and innovation. Meanwhile, to assess labor market outcomes, at least two out of the three indicators must be available. The published rankings include a list of private universities that are not included because of lack of comparable information. This means the reader has an enhanced overview of the system as a whole and will appreciate that if certain universities are not ranked, it is because they do not provide enough available information. If they were included, they would appear below or above other universities in the ranking, that offer more transparency by disclosing e information to the ranking system.

Assessments to measure university results in many countries, as well as in Spain, are increasingly using rankings to classify institutions from different perspectives and with different criteria. Some international university rankings have found their place in debates about the quality of these institutions, becoming widely used references to assess the position of universities and national University systems. Thus, for example, the presence of 10 Spanish universities (11% of the total 92 public and private Spanish universities with activity) among the first 500 institutions of the world according to the Shanghai Ranking, is a fact often mentioned as proof of the limited quality and insufficient international projection of our university system. However, assessing this issue has multiple facets Pérez, Aldás y Peiró [dirs.] et al. 2021). In this sense, the information used by U-Ranking to construct its national rankings is more complete and homogeneous than the data used by any of the best-known international rankings.

Researchers, public and private institutions, university associations, along with companies in information and media are increasingly taking more initiatives to compile rankings. The objectives and interests of such initiatives and their scope are diverse, both in terms of university activities studied (many rankings focus on research), as well as in terms of coverage (national and international), the data used and its treatment. Some of these rankings are carried out by firms or institutions with criteria that do not exclude the participation of the institutions evaluated in the process, nor the financing of these through the channels by which the ranking is disseminated.

Some recent reports (Rauhvargers 2011, 2013) stressed the importance of carefully assessing the criteria with which the rankings are compiled when demonstrating their significance and results. Accordingly, IREG interpreting Observatory published in 2019 the Guidelines for Stakeholders of Academic Rankings that provides recommendations to help stakeholders (students. families, higher education institutions, policymakers, etc.) interpret and use rankings appropriately (IREG 2019).

Indeed, the rankings are a particular way to assess university results and their appeal lies in the fact that they offer concise information. This facilitates comparisons while making them sensitive to the criteria and procedures followed when constructing indicators. It is for this reason that the value given to the rankings should not be separated from how they are compiled, nor from the metric used or the objectives of their authors. In this sense, it is important to emphasize that U-Ranking is a project with a transparent methodology, using data from external sources, mostly official ones, and nonprofit institutions.

Among the most recent warnings about the inappropriate use of rankings is the recommendation not to use the rankings provided by universities in terms of research to evaluate the individual research results of their members (commitment no. 4 of the Agreement on Reforming Research Assessment of the Coalition for Advancing Research Assessment-COARA, July 2022).

These precautions are not always present when presenting the results or when using rankings. On the one hand, the reputation of a good position in a ranking turns them into an intangible asset to universities. Therefore, increasingly more universities develop strategies information about to convey themselves (signaling) by advertising their more favorable results, and also to improve their positioning in the rankings. Certainly, the expected return of a good position in a ranking is significant, given that it can affect areas as diverse as recruiting students, attracting researchers, obtaining resources and social the projection of institutions.

On the other hand, the growing interest in these classifications is because they are perceived as useful tools (despite being imprecise) for various purposes and different stakeholder groups in universities as they:

- a) Provide the members of each university with external references on their strengths and weaknesses, contributing to the perception of their position.
- b) Offer the users of university services easy to interpret information in terms of attractiveness or quality of institutions.
- c) Provide comparative information to governments, with the possibility of being used to assign resources to the university systems or universities or for the accountability of universities to society.
- d) Complement the work of university quality assurance agencies and provide information to analysts interested in having homogenized indicators available.

## Approach of the project

In Spain different university rankings are being regularly presented, compiled with diverse perspectives and methodologies. What sets this project apart is that its rankings (U-Ranking, U-Ranking Volume, U-Ranking Dimensions, U-Ranking Areas of Study, U-Ranking Degrees) are developed according to criteria that respond to international recommendations. One of them is that indicators should be created with the objective of studying university activities from a comprehensive approach, i.e. examining teaching, innovation and research, technological development activities, and, since this year's edition, the labor market insertion of graduates. Another important feature, is that it offers rankings by degrees (U-Ranking Degrees), giving guidance to students when choosing what to study.

The criteria used in developing U-Ranking that should be noted are:

- Offering multiple university rankings, in which university activities are examined from a general perspective, as well as in specific fields (teaching, research and innovation, or labor insertion), but also in terms of the performance achieved (U-Ranking) or the total output (U-Ranking Volume) of each university. In addition, these rankings are provided for the five areas of study: arts and humanities, social and legal sciences, sciences, engineering and architecture, and health sciences.
- Taking into account the various perspectives and interests that potential users of the data have when using the rankings. In particular, special attention is paid to the importance that many people give to specific areas of activity, such as degrees, when comparing universities. To deal with this concern, a web tool has been developed which creates personalized rankings in terms of bachelor's degrees (U-

Ranking Degrees). It has been designed to guide students, families and counselors when choosing a university in which to study. The advantage of recognizing that users have different preferences is that the following problem can be avoided when constructing synthetic indicators: their excessive dependence on experts' opinions (subjective and sometimes contentious) regarding the weights that should be attributed to teaching or research. This perspective is also taken into account in the personalized rankings, allowing the user to give different weights to teaching and research and innovation according to their preferences and different from the general weights used to create U-Ranking.

The project therefore offers two different products:

- A collection of general rankings on Spanish universities, based on the criteria of the project's team and the experts consulted, allowing each institution to be compared with others from different points of view: results (U-Ranking), volume of results (U-Ranking Volume) and areas of specialization in teaching, research and labor market insertion (U-Ranking Dimensions) and areas of study (U-Ranking Areas of Study).
- A web tool that provides personalized rankings for different bachelor's degrees, grouped according to area of study and which allows to compare the degrees offered by the universities taking into account the interests and criteria of each (mainly students enrolling in user universities, their parents or school counselors) on their choice of studies, the regions considered when choosing where to study and the importance given to teaching, research and innovation and labor market insertion results: U-Ranking Degrees.

Figure 1.1 summarizes the different rankings offered by U-Ranking.



#### Figure 1.1. Rankings included in the U-Ranking Project

It is important to point out that all the rankings have a standard information bases: the data correspond to the same set of variables, and the methodology followed in the treatment and aggregation of the variables is also the same. The differences between the various rankings come from the levels of disaggregation of the variables (university, area of study, or family of degrees) and from the choices the users make to construct their personalized rankings. The adequacy of the information used is fundamental for the construction of the indicators offered.

The project U-Ranking relies on the valuable collaboration with the Spanish Ministry of Science, Innovation and Universities, allowing access to the Integrated System of University Information (SIIU). The SIIU is a web-based platform that collects, processes, analyzes and disseminates data of the Spanish University System providing, thanks to its continuous development, homogeneous and comparable statistical information of the Spanish universities. Through the SIIU, the Spanish Ministry aims to make the university system more transparent, so that citizens and researchers alike can analyze it, draw their own conclusions and generate proposals for improvement. Thus, the SIIU is a tremendously valuable project, which is a result

of the commitment on behalf of the majority of universities and public administrations that allows society to know the reality and performance of the university system, a system that is key for economic and social development and in which a large amount of resources are allocated.

This platform provides information on the degrees offered by each university, in which schools they are taught, students in each degree and full-time equivalent teaching staff. Also, it includes information on students in international mobility programs, as well as by degree on success, performance and drop-out rates, percentage of foreign students in each degree, affiliation rates, average contribution base, or the percentage of graduates employed in positions that match their level of education. Since new information is continuously being added and updated in the SIIU, U-Ranking can rely on this source to access other indicators that can be expected to become more accurate over time. In fact, in the 13th edition, a review of indicators has been carried out as part of the SIIU's ongoing improvement process. Although this will be covered further in depth in the methodology section, a summary of the changes is as follows:

- Three labor market insertion indicators have been added: average Spanish Social Security affiliation rate of recent graduates, the percentage of graduates employed in positions that match their level of education, and the average contribution base.
- The patent indicator now includes not only national but also international patents.
- In the area of teaching, the cut-off mark for bachelor's degrees and the percentage of postgraduate students have been replaced by indicators that are more common to all universities, regardless of their ownership: graduation efficiency rate (graduates who complete their degree within the expected timeframe) and retention rate (students who upon completing their degree, begin a master's degree at the same institution).
- In the area of research and innovation resources, a single indicator now groups the funds obtained from competitive research projects and the amounts received through competitive research staff contracts.

In short, these changes are largely undisputed improvements, as they stem from better available data-such as the inclusion of international patents—or from indicators that more accurately reflect the reality of the university system as a whole. For example, cut-off marks only apply to the public system, making comparisons with institutions difficult. Similarly. private the percentage of postgraduate students, which in the past reflected an institution's prestige, is now more influenced by the specific offerings of universities that often focus on postgraduate specialization once the legal minimums for undergraduate degrees and students<sup>3</sup> are met. Given these factors, it can be concluded that teaching quality is better reflected by graduation within the expected timeframe, and postgraduate prestige by an institution's ability to retain its own undergraduate students.

One of U-Ranking's main objectives is to provide the most useful and detailed information as possible for different groups of people which are the potential users. Consequently, the project includes additional information to the rankings, both in the ranking of universities and in the ranking by degree:

#### a) Results of each university:

A university ranking allows to observe the relative position of one institution with respect to others. But it is not easy for university managers or researchers to analyze in depth the performance of a specific university, to assess the aspects in which it stands out or its distance from the average of the system or from a certain university, or a group of universities that are taken as a reference. For this reason, the website https://u-ranking.es, includes the section Data by University in which the user can consult the data and ranking results for each university. With this dynamic tool, the user can compare different universities, both for groups of universities (Spanish university system, public or private ownership, or by region), as well as individual universities. Proof of the interest and usefulness of this section are the 141,000 queries made in the last edition.

For each university, the U-Ranking and U-Ranking Volume (global and dimensions) indexes obtained in this edition are offered, in relation to the average of the chosen comparison group. The panel also shows a **panel of indicators** for each university, which is a file containing the values for each of the 23 indicators that make up the synthetic index and are compared with the mean value of the universities so that managers can observe the relative distance with the reference group or with other universities. The indicator value is normalized to 100, with the highest-scoring university receiving a value of 100, and the remaining universities receiving values between 99 and 0 based on their distance from the maximum score. In this way, it facilitates the comparison between very different

 $<sup>^3</sup>$  In fact, the draft royal decree amending the Royal Decree 640/2021, which governs the creation, recognition, and authorization of universities, establishes a minimum of 50% bachelor's degree students. Therefore, an

indicator with legally established minimums may, by definition, be poorly suited to reflect the strategic actions of universities.

indicators and it offers a general profile of each university.

The panel of indicators also contains the position obtained in U-Ranking and U-Ranking Volume in the last six editions. Other basic data on the university is provided, such as year of foundation, type of ownership, student body, faculty and number of degrees.

The information provided is completed with the results of specific analyses carried out in recent editions. Thus, for example, it includes the labor market insertion indicators published by the Ministry of Science, Innovation and Universities on the situation in 2023 of those graduates who obtained their bachelor's degree four years earlier. The indicators from 2018 served as the basis to prepare a ranking on the employability of universities in the 2020 edition (Pérez and Aldás [dirs.] 2020). Data from the INE's Graduate Employment Survey (Encuesta de Inserción Laboral de los Universitarios, EILU) was used to update and improve the 2023 edition of this study (Pérez and Aldás [dirs.] 2023). In this edition, as detailed in the following section, the two tools available on the U-Ranking website for exploring employment outcomes by areas of study and by university have been updated. Also included in the section on data by university are the results on the renewal of degree offerings in the last decade, which were analyzed in the 2021 edition (Pérez and Aldás [dirs.] 2021).

#### b) Personalized university rankings by degree:

The Choose a University tool allows to create customized rankings with over 3,600 degrees based on the user's preferences. In addition, along with the ranking results, it offers information on tuition costs, cut-off marks of the 2024-25 academic course and the most recent results on labor market insertion for each degree program obtained from the Spanish Social Security System (Spanish Ministry of Science, Innovation and Universities 2025a).

# c) Job placement ranking by field of study and database

U-Ranking website now includes a section on labor market insertion that offers students, families and guidance counselors information on the employability of university students in the different fields of study.

The 13th edition of U-Ranking has updated the two tools for monitoring and evaluating the labor market insertion of university graduates in Spain: 1) the Labor Insertion Ranking by Area of Study, and 2) the database which provides indicators by university and area of study.

Both tools are based on data provided by the Spanish Ministry of Science, Innovation and Universities regarding the Social Security records (2020–2023) of students who graduated in the 2018–2019 academic year.

The Labor Market Insertion Ranking by Study ranks 108 academic fields—encompassing over 4,700 bachelor's degrees—based on the employment outcomes in 2023 of graduates who completed their studies in 2019 in Spain. A composite index is constructed using data from the Ministry, combining three indicators related to employment probability and job quality:

- Employment rate: Percentage of university graduates affiliated with Social Security and employed relative to the total number of graduates
- Employed as graduates: Percentage of university graduates employed in positions that match their level of education. University level is considered: Social contribution groups Security for professionals with higher education (engineers, graduates, senior management, and technical engineers).
- Average Contribution Base: average annual contribution base for graduates working full-time under an employment contract.

Each of these indicators is standardized concerning the mean value of the 108 fields.

The resulting indicators are aggregated using a geometric mean. The weights assigned to the indices equally distribute (1/3) the importance in the synthetic index of access to employment (employment rate), job qualification (employed as graduated), and income (average contribution base).

The platform allows users to view rankings based on the composite index or each individual indicator. Additionally, this edition of U-Ranking updates the interactive tool on graduate employment outcomes by university, covering 126 academic fields. The platform provides, for each university and area of study, the number of graduates and the labor market insertion results in six key indicators over the four years following graduation:

- Employment rate: Percentage of university graduates affiliated with Social Security and employed relative to the total number of graduates
- Employed graduates: Percentage as of university graduates employed in positions that match their level of education. University level is considered: Social Security contribution groups for professionals with education higher (engineers, graduates, senior management, and technical engineers).
- Average contribution base: Average annual contribution base of graduates working as employees with a full-time contract.
- Full-time contract: Percentage of Social Security affiliates working as employees with a full-time contract

- Indefinite contract: Percentage of university graduates affiliated with Social Security under an indefinite contract.
- Self-employed: Percentage of Social Security affiliates under the self-employed regime.

The tool allows users to filter by field of study (126 options), region (autonomous community), type of ownership (public/private), gender, and time since graduation. Results can be sorted by any of the six indicators.

Easy access to this important information allows future university students and guidance counselors to use through the decision-making process that will lead them to choose or guide toward a degree in which to pursue their studies.

### Structure of the document

After this introduction, the rest of this document is divided into five chapters, as follows. Chapter 2 describes the methodology used to prepare the rankings. Chapter 3 describes the approach adopted to allow users to personalize the rankings and the online tool constructed for the students. Chapter 4 presents an analysis of the main aggregate results. Chapter 5 compares U-Ranking with the main international reference ranking (Academic Ranking of World Universities [ARWU] CWCU 2025). It also provides an analysis of the sensitivity of the results to changes in any of the assumptions used. The results are compared at the level of the university systems of the different autonomous communities. Finally, chapter 6 summarizes the main characteristics and results of the project.



# Methodology

The U-Ranking project was born from the desire to closely examine the most important national and international rankings available, so as to possible of reducing identify ways their shortcomings. The most significant problems arising with rankings occur in the following areas: (1) university activities studied, (2) disaggregation by subject or type of studies, (3) data availability and use, (4) methodological rigor in the treatment of data and construction of indicators, (5) recognition of the user's perspective when creating and providing data, (6) user-friendly tools to select their preferences in the rankings, and 7) the impossibility of generating synthetic indexes that adapt to the user, making them create their own ranking directly from the indicators offered, which often are inadequate.

The project addresses all these shortcomings and looks for ways to overcome them. In the first editions of U-Ranking, an extensive chapter was dedicated to the limitations of rankings and the improvements that a new tool like this one should include. The reader can view the corresponding reports —found on the U-Ranking website (https://u-ranking.es)— for a detailed analysis of these aspects, which are summarized in this edition. 02

The 13th edition introduces two major innovations:

- a) The inclusion of labor market insertion results as a third dimension—alongside teaching and research and innovation—for evaluating the performance of Spanish universities.
- b) The calculation and publication of independent rankings of universities based on their performance and volume of results in each of the five broad areas of study used to classify degree programs.

Until now, U-Ranking indicators were based on the evaluation of university performance in two key areas: teaching activity and research/innovation. However, from the beginning of the project, the possibility of incorporating graduate employability as a third dimension was considered, acknowledging that in large-scale university systems like today's, the employment outcome of higher education is particularly important in society. Despite its importance, the limited and irregular availability of employment data led to the decision to address employability in a separate report (Pérez and Aldás [eds.] 2020, 2023, 2024), rather than including it in the rankings. Today, the Spanish Ministry of Science, Innovation and Universities regularly releases annual data on the affiliation of university graduates in the Spanish Social Security System, making it possible to reliably incorporate labor market insertion as a ranking dimension.

Another key innovation in this edition is the publication of performance and volume results by area of study. Previously, the project offered a global university ranking based on the aggregate of indicators from various areas<sup>4</sup>. From this edition onward, overall performance reflects the university's activity and results as a whole, regardless of the distribution of its degree offerings across fields<sup>5</sup>. At the same time, activity and results are also assessed for each area of study.

To incorporate these innovations, the indicators and aggregation measures have been revised, taking advantage of improvements in available data.

The number of indicators used to assess performance has increased from 20 to 23, with the addition of three new indicators related to employability: access to employment of recent graduates, the percentage of graduates employed in positions that match their level of education, and the average income. Additionally, thanks to improvements in data sources, the patent indicator now includes all the different patents<sup>6</sup> from a university, rather than simply those granted by the Spanish Patent Office.

In the area of teaching quality, the SIIU has added two new indicators: graduation efficiency rate (graduates who complete their degree within the expected timeframe) and retention rate (Students who, upon completing their degree, wish to pursue a master's degree and begin it at the same institution). These replace two previous indicators: cutoff marks and percentage of postgraduate students.

In the area of research resources, two previous indicators— funds obtained from competitive research projects and the amounts received through competitive research staff contracts—have been merged into a single indicator. Additionally, a new indicator has been added: the percentage of doctoral students over the total number of postgraduate students, now that a robust time series is available.

In summary, the project creates a set of composite indicators that allow for the evaluation and classification of universities based on their overall performance, as well as by three key dimensions: teaching, research and innovation, and labor market insertion. Each of these indicators is also published separately for each of the five areas of study into which university degrees are organized. This chapter describes in full the methodology used to calculate these indices.

practices, such as scientific publications, types of work, number of authors, or fundraising, differ significantly between science departments and those in arts and humanities. These differences are also evident in teaching activities: dropout rates for engineering degrees are twice as high as those for health sciences, and the transition rate from bachelor's to master's degrees in science exceeds 50%, while in health it does not reach 15%.

<sup>6</sup> Number of different patent family identifiers.

<sup>&</sup>lt;sup>4</sup> In previous editions, a single overall index (without differentiation by area of study) was provided. This index was calculated based on the performance of each indicator within each area of study. To achieve this, the values of each indicator were normalized within each area with respect to the set of values for the same branch. The normalized index was then aggregated into a single index according to the weight of the student body (teaching) or the doctoral faculty (research and innovation).

<sup>&</sup>lt;sup>5</sup> The diverse composition of university departments by area of study can lead to different results. For example, research

### 2.1. THE DESIGN OF RANKINGS

The development and use of rankings entails certain **risks** that should be forewarned. First of all, it is not wise to base strategies on improving the variables studied, instead of on correcting the underlining problems: the improvement of the institutions should be based on principles of efficiency and the results are reflected in the indicators. For university administrators, the goal is to generate policies that will make their institutions improve in teaching, research and knowledge transfer, trusting that if a ranking is well designed those improvements will be reflected in the indicators used to prepare the ranking.

The opposite approach, i.e. to try to improve the indicators so as to improve an institution's place in the ranking, is not only misguided, but also ineffective. In recent years we have seen examples of this misguided approach, such as the double assignment of the results of highly productive and highly cited researchers to universities in other countries seeking to improve their positions in the rankings, in exchange for financial compensation. Because the methodology used in U-Ranking, is of national scope and double assignments are not possible, is not susceptible to being altered by this type of practice, but still precaution should be taken to prevent the manipulation of the indicators. For this reason, the use of indicators that are not very robust, with values that are highly sensitive to the criteria of measuring the variables and aggregation procedures, and they must adequately reflect, not only what can be measured, but what should be measured. Finally, a very common risk involving rankings is to focus only on the elite (world-class universities) and obliviate the rest. This practice can occasionally lead to an inadequate comparison of institutions that have very different specializations and resources.

Some published rankings show limitations that users should be aware of. In the case of universities outside the circle of the well-known universities. many rankings are exclusively centered on indicators that focus on research activity and unreliable reputation factors that are sometimes based on surveys<sup>7</sup>. These variables are, however, frequently unreliable when applied to national universities because the survey respondent can evaluate them using a snowball sampling technique, in which some universities notify the faculty members of other universities that they will receive the questionnaire and request an assessment, leaving ample scope for lack of freedom. The exclusive or majority use of these indicators to rank Spanish universities is in many cases inappropriate and risky, leading to wrong conclusions.

In the first three U-Ranking reports, a detailed review of the issues to be considered in the design of a good ranking was carried out and applied to the project. In this report it is not necessary to repeat in detail the aforementioned analysis, but, we will summarize some of the aspects considered:

- The study *Berlin Principles on Ranking of Higher Education Institutions* (IREG 2006, 2019) stresses, among other recommendations, to indicate clearly what the target audience of the ranking is, to be clear when detailing what each indicator measures to be methodologically scrupulous, to focus on the outcomes rather than on the inputs and to maintain a high ethical standard, given the responsibility and impact that rankings have.
- The results of discussions held by the European University Association (Loukkola, Peterbauer y Gover 2020) and the International group of Experts in Rankings (IREG 2006, 2019) highlight the importance of providing a vision of all the institutions, addressing their multidimensional nature and diversity, respecting the user's perspective and

<sup>&</sup>lt;sup>7</sup> THE which gives 33% of the weight of its indicators to a teaching and research reputation survey and QS which gives 45% to academic reputation and employability surveys.

maintaining the independence and temporal sustainability of the ranking.

The U-Ranking project expressly includes all the principles which were recently discussed internationally and proposed by the EU. The following sections of this chapter detail the many aspects that have been taken into account during the development of a project that has reached eleven editions, and has counted on these criteria to introduce improvements over time.

### 2.2. ACTIVITIES STUDIED

One of the main shortcomings of certain rankings in providing a general assessment of universities, particularly international ones, is that the activities are examined from a very partial perspective. The problem stems from the limited data availability on the results of teaching activities, and innovation and development technology, which are far less abundant than research.

In fact, most of the important rankings focus on analyzing research, taking little account of another significant function of universities which is teaching and barely considering technological development activities, despite their increasing importance. The rankings which are biased toward research are frequently interpreted as representative of university activity as a whole and they may not be. In fact, they are not, as the U-Ranking results show by the limited correlation between researcher and teacher performance.

There are three possible reasons for this: 1) the data available is used and, without a doubt, the abundance, quality and homogeneity of data on research is much greater than in the other two areas; 2) research activity is considered the most important distinctive element of universities in the last two centuries; and 3) the hypothesis holds that the research quality of professors is a proxy

variable for other areas, and therefore observing the results in this area is sufficient to predict the others.

The first reason is practical, but can induce bias by omission in indicators and rankings. The second needs some clarification in that it is a powerful argument regarding postgraduate studies but less so in relation to the degree, especially in mass university systems, such as those of most developed countries today. In fact, in many of these systems there is a significant concentration of research activity in a small number of universities, while in a large number of institutions there is fundamentally teaching activity. The third reason is a hypothesis, which validity should be tested by developing indicators for all activities and testing whether the correlation between teaching and research results is high. If the validity of this hypothesis is not tested, and given that the intensity of university teaching specialization, research and innovation and technological development varies greatly<sup>8</sup>, overlooking the direct indicators of teaching and/or of innovation and technological development can bias the rankings. In this sense, the experience of U-Ranking shows a low correlation between teaching and research and knowledge transfer, the importance of including teaching and research innovation indicators becomes more relevant. Chapter 4 offers more information.

Therefore, it is important to take advantage of the data available on university activity in the field of teaching, and innovation and technological development, so that the rankings reflect university activity as a whole more accurately. This also allows us to recognize the different specialization profiles of universities, as some focus more on basic research (as occurs in many of those most often included in the world rankings), others on higher education and professional development, and others on applied research, innovation and technological development.

<sup>&</sup>lt;sup>8</sup> See Pérez and Serrano (dirs.) (2012, ch. 1 and 4) and Pérez and Aldás (dirs.) (2022, section 4.7).

Currently, the public and homogeneous data available on the innovative activity of Spanish universities does not allow a rigorous, independent evaluation of their performance in the area of knowledge transfer with a sufficient basis, as only one suitable indicator is available. For this reason, "Research and Innovation" is considered a single dimension, which includes one of the indicators most commonly associated with innovation: patents.

Studying the different activities of the universities is a first step in the direction of addressing the different perspectives on university systems and the different interests that potential users of rankings may have. Thus, a degree student probably shows greater interest in teaching, while postgraduate students and teachers focus more on aspects related to the quality of research. If the data focuses solely on research results, ignoring the teaching results, then these approaches cannot be carried out accurately.

From this edition onward, the ranking also includes the early career employment outcomes of university graduates from each university. This inclusion is based on the understanding that one of the core missions of universities is to train qualified professionals who significantly increase the stock of skilled human capital, help transform the economic fabric and improve productivity. The effectiveness with which universities fulfill this mission is largely reflected in the employment outcomes of their graduates. The better the labor market insertion results, the higher the levels of employability provided by the university to its graduates.

However, it is important to keep in mind that, in addition to the universities' ability to prepare students for the labor market, the socioeconomic context in which universities operate has an impact on employment results. This factor is taken into account when carefully weighting the employability dimension in the overall rankings, in relation to teaching and research.

There are various university rankings that focus on graduate employability, indicating a growing interest among various stakeholders in understanding how universities perform in this regard. The two most recognized international rankings are the QS Graduate Employability Rankings<sup>9</sup> and the Times Higher Education – Global University Employability Ranking (GEURS)<sup>10</sup>. At national level, U-Ranking has conducted several studies on graduate employment outcomes and has published two university employability rankings (Pérez and Aldás [eds.] 2020, 2023, 2024). However, until now, these results had not been integrated into the U-Ranking that evaluates overall university performance.

Thanks to the regular disclosure of data by the Spanish Ministry of Science, Innovation and Universities, it is now possible to include employability as a reliable ranking feature. As a result, it has been formally included.

Thus, the U-Ranking system is structured in three dimensions that study the two categories of university activities and the direct results of its graduates by analyzing the data available on each of them in Spain. The national scope of the project ensures that reasonably homogeneous data, with great detail, is available with a set of variables representing the activity of Spanish public universities and over half of private universities. In the future, and even though much improvement has been made, it would certainly be desirable to have data available for the rest of the private universities of similar guality and homogeneity as those included in the ranking, which would improve the overall scope of the project. Universities cannot be included in U-Ranking in a partial manner, evaluating only those

<sup>&</sup>lt;sup>9</sup> It combines information from employer surveys and quantitative data on links with companies and graduates. It is based on five key indicators with the following weights: employer reputation (30%), alumni outcomes (25%), partnerships with employers (25%), employer-student connections (10%), and graduate employment rate (10%).

<sup>&</sup>lt;sup>10</sup> It is compiled through surveys in which employers provide assessments of which universities produce the most

employable graduates. The criteria considered by employers in this survey include aspects such as the academic excellence, research output, faculty profile and quality, innovative teaching methodologies, specialized training, university-industry links, adoption of new technologies, and internationalization.

areas for which there is public information or which the university chooses to publish. Therefore, to evaluate all universities according to the same criteria, U-Ranking only analyzes those institutions that have public or official information on at least 20 of the 23 indicators used to calculate the synthetic index. Eight out of the ten indicators used to evaluate teaching activity are required, as well as eight out of ten indicators in the case of research and innovation. While for labor market insertion, the minimum requirement is to meet two out of the three indicators.

In U-Ranking 2025, the total amount of 72 universities included in the ranking is sufficiently high for the data available to allow a contrast of the hypothesis to which we referred earlier: if research results can predict correctly those of teaching or not. The project has examined this specific methodological objective, with the results presented in chapter 5.

## 2.3. DISAGGREGATION OF ACTIVITIES

A further shortcoming noticed when analyzing current rankings is that many deal with universities in a unitary manner, not recognizing the diversity of the areas of knowledge in which these institutions can offer professional development or conduct research or innovation. This problem needs little explanation: to be more useful, a ranking has to provide the user with as much information as possible on the specific areas or scientific fields of their choice, since universities may not be homogeneous in the quality of each of their scientific or teaching areas.

It is for this reason that ranking systems can be improved by providing disaggregated data by areas of study, fields of knowledge or specific degrees. This last level of detail could be very significant for students, given that their fundamental interest is generally linked to the quality of the specific studies that they want to pursue. For the disaggregation, the U-Ranking project has worked in several directions. Firstly, it followed the criteria that it is important to start with the most disaggregated data available, maintaining its detail whenever possible, so as not to lose the wealth of its heterogeneity. Secondly, the disaggregated data had to be homogenized properly before adding it to the synthetic indicators. And third, the problems of combining (for the construction of some of the indicators studied) the data disaggregated according to scientific fields or degrees with other data aggregated at university or area of study level had to be solved. When there is no disaggregated data, or its disaggregation makes no sense, the aggregated data has been allocated to the various elements of the set, following the criteria considered more reasonable in each case.

Addressing the above problems is not technically considered to be trivial. For example, in the case of the rankings on specific bachelor's degrees of Spanish universities, to deal with data on areas at different levels of disaggregation, a series of matrices have been created to connect one another. In order to do this, accurate connections had to be established between university, area of study, Web of Science category, areas of the National Evaluation and Foresight Agency (ANEP) and bachelor's degrees.

In allocating research results to each degree, the starting point was data disaggregated by the Web of Science categories (268 items). Given that one classification is not perfectly nested in another, both classifications have been connected, and the two types of errors that could be made have been taken into account:

1. *Inclusion error.* That is, attributing to a given degree the research carried out by teachers from other areas. For example, attributing to the Pharmacy degree of a given university, the research in "Hematology" that has actually been conducted by teachers from the Faculty of Medicine and who only teach in Medicine.

2. *Exclusion error.* That is, excluding research by teachers in areas that are not exactly the subject of the degree courses they teach in, as a result of being too restrictive when allocating areas to degrees. For example, if in Economy we only allocate the category "Economics", then important research may be missed in the area of "Business and Finance", theoretically more related to Business Administration degrees but also carried out by professors who teach in the degree of Economy.

These problems do not have a perfect solution and one of the alternatives have to be chosen. Therefore, we have opted for a more inclusive criterion: when in doubt about whether to associate a category or scientific field to a degree we have chosen to include it, minimizing exclusion errors on the grounds that they are more serious errors.

# 2.4. INDICATORS, AREAS AND DIMENSIONS

The main pillar of a ranking system is the rigor of the procedure followed when dealing with existing problems so that the created classification is based on appropriate data and is treated with reasonable methodological criteria. Many of the rankings have clear shortcomings in this aspect, which international literature has analyzed in detail.

The U-Ranking system considers all university activities and structures them according to the three following major dimensions:

- Teaching
- Research and innovation
- Labor market insertion

The assessment of the first two dimensions can take into account multiple areas of activity. However, many experts agree that an excessive number of indicators obscure the meaning of a ranking and complicate the construction of synthetic indices, a complex matter as it is. Following a criterion of (relative) simplicity, four **areas** have been studied in each of the dimensions aforementioned:

- Access to financing
- Output obtained
- Quality (particularly in the results and in some cases, resources and processes)
- Internationalization of the activities

Finally, the labor market insertion dimension considers three areas. The first focuses on employment levels, and the other two measure job quality in two ways: the suitability of the level of education for the job performed and the income earned from the job. The three areas are:

- Employment rate
- Employed as graduates
- Average Contribution Base (income)

The main reference to assess universities should be the results, but these can be studied from the perspective of total volume or from the perspective of their quality. If there were a market that assessed the differences in quality, then results showing a higher quality would have a higher price. However, these prices hardly exist in the area of public universities. The differences in rates, currently very diverse between regions and degrees, respond in many cases to factors that have nothing to do with quality. However, some indicators can supplement, in part, this limited information. Thus, for example, there are indicators on the quality of teaching and research and also on a very relevant feature today regarding the specialization (and quality) of universities: their internationalization.

The assessment of the quality of the output is incomplete if the impact of the university system on its environment is not taken into account. A university can generate high-quality products, but if its size is very small, its contribution to technological development or to the production of human capital through its graduates may have a much smaller influence on the productive environment than a university with somewhat lower levels of quality in its output but a significantly larger size. This obliges us to introduce also the size factor in the rankings system which is the reason for generating the U-Ranking Volume.

In the case of teaching and research and innovation, each of the four areas mentioned has been analyzed using two and three indicators taking into account the dimension that is being studied for each area. Instead, each of the three areas of labor market insertion is measured by one indicator. Table 2.1 shows the indicators studied, after analyzing the availability of data and discussing alternatives with the group of experts working on the project. Agreements were reached by analyzing the suitability of each indicator in capturing significant data on the area and dimension it forms part of it.11 lt is important to stress that the data used is obtained from sources allowing the project database and the rankings based on it not to require universities to provide data directly to U-Ranking.

The logic underlying the selection of indicators, disclosed in summary form, is the following:

#### Teaching

- Teaching resources are characterized by budgetary allocations per student, and faculty and research staff per student, with special attention paid to faculty members with PhD.
- Teaching output is measured by using results obtained by students, analyzing how many students undergo evaluation, how many succeed in those evaluations and how many drop out.
- The quality of teaching is very difficult to observe, and we studied as a proxy for quality the percentage of students who complete their bachelor's degrees within the expected timeframe or earlier, and the retention rate, i.e. the percentage of students who upon graduation decide to continue their studies with a master's degree at the same university.

• The internationalization of teaching is shown by the percentage of foreign students and the percentage of students participating in mobility programs.

#### Research and innovation

- The research process is characterized by data referring to two types of resources: on the one hand, competitive public funds obtained both for research projects and staff, fellows, and qualified technical support, and, on the other hand, the percentage of PhD students out of the total number of postgraduate students.
- Output is accounted for by citable papers published in each area and the number of doctoral theses, which are an indicator of the training activity of a researcher in a given area. The number of patents is also included in this area.
- The quality of the research is reflected in the average impact the publications have and the citations that these papers generate.
- Finally, a greater proportion of international publications, international co-authoring and the percentage of research funds from external sources indicate a greater internationalization in research activity.

#### Labor market insertion

The level of employment is measured by the Social Security affiliation rate among graduates four years after obtaining their degree. The indicator is limited to Spanish graduates in order to avoid possible bias in universities with a high number of foreign students. In many cases, these graduates return to their countries of origin after completing their studies and, although they are likely to be employed, they are not registered with the Spanish Social Security System and are therefore not included in the data provided by the sources used to measure labor market insertion.

 $<sup>^{11}</sup>$  In order to ensure the transparency of the process in developing indicators, the definition of each indicator, its source and its time frame are all included in Annex 1 and in the

following website of the project: https://u-ranking.es/methodology.

- The match between the level of education and the job position is assessed through the percentage of members of a contribution group with higher education (engineers, graduates, senior management, diploma holders, and technical engineers) four years after obtaining their degree.
- Income is approximated by the average annual contribution base of graduates who are employed on a full-time contract four years after obtaining their degree.

As shown in **table 2.1**, U-Ranking 2025 is calculated based on 23 indicators<sup>12</sup>, ten for the evaluation of teaching results, another ten for

research and innovation activity and three for the results on labor market insertion. In the case of U-Ranking Universities by areas of study, 19 of the 23 indicators are obtained by areas of study and the remaining four for the university as a whole. However, the level of detail increases in the case of the U-Ranking Degrees (see chapter 3), in which five of the ten indicators of teaching are obtained for each degree and five of the ten indicators of research and innovation are classified by degree groups, that is, an aggregation in 122 groups of the 3,610 degrees and double degrees offered by the Spanish universities analyzed.

Table 2.1. List of indicators, areas and dimensions					
Dimension	Area	Indicator			
		Faculty member per 100 students			
	Resources	Budget per student			
		Percentage of faculty member with PhD			
bo		Success rate in bachelor's degree studies			
hing	Production	Evaluation rate in bachelor's degree studies			
Teaching		Overall dropout rate in undergraduate studies			
-	Quality	Graduation efficiency rate			
	Quality	Retention rate			
	Internecionalization	Percentage of foreign students			
	Internacionalization	Percentage of students in international mobility programs			
	Resources	Competitive public funding secured for projects and research staff per PhD			
		faculty member			
ioi		Percentage of doctoral students			
Research and innovation	Production	Citable documents with ISI reference per faculty member with PhD			
inne		Number of national patents per 100 faculty members with PhD			
put		Doctoral theses read per 100 faculty members with PhD			
с, С	Quality	Mean impact factor			
sear		Percentage of publications in the first quartile			
Rec		Citations per document			
	Internacionalization	European research funds per faculty members with PhD			
		Percentage of publications with international co-authorship			
으 ㅋ ㅋ ㅇ	Employment	Employment rate			
Labor market ıserción	Job-education match	Employed as graduates			
	Income	Average contribution base			

Source: Own elaboration.

 $<sup>^{12}</sup>$  See Annex 1 for a more detailed description of the definition, source of information and period considered.

### 2.5. PERIOD COVERED BY THE DATA

University rankings aspire to offer an image of the current position of each institution, though they should not be conceived of as a snapshot of a given year. Many indicators have the character of a flow, and as such, can present high variability from year to year, both in the quality of the information and in the distance between the actual reality and what the information reflects, given the delays in the information registered and available. In addition, other indicators reflect the accumulation of results over long periods of time.

The rankings referred to usually recognize this problem by taking comparison periods longer than a single year, either using moving averages and even considering the complete history of the University (as in the case of the treatment of the Nobel Prize and Fields Medal winners in the Shanghai Ranking). Considering multi-year periods when elaborating the indicators provides greater interannual stability of the rankings and permits specific random disturbances to be smoothed out by considering a longer time range.

Our approach follows this criterion, considering that one cannot reasonably expect abrupt changes in the universities' real situation. Thus, the ranking should avoid giving that impression. Therefore, as information has become available, we have converged toward a 6-year moving average for nearly all the indicators. All of the indicators on research and innovation are already calculated as a mean of six years. Furthermore, since the 6th edition of U-Ranking, teaching results are reached using data by university from six academic years. In the case of labor market insertion, the results of graduates in the 2016-2017, 2017-2018, and 2018-19 academic years are analyzed four years after obtaining their degree, that is, their job situation in 2021, 2022, and 2023, respectively.

Table 2.2. Series temporales empleadas en U-Ranking 2025					
Dimension	Area	Indicator	Period		
	Resources	Faculty member per 100 students	2017-18 to 2022-23		
		Budget per student	2017-18 to 2022-23		
		Percentage of faculty member with PhD	2017-18 to 2022-23		
മ		Success rate in bachelor's degree studies	2017-18 to 2022-23		
hin	Production	Evaluation rate in bachelor's degree studies	2017-18 to 2022-23		
Teaching		Overall dropout rate in undergraduate studies	2013-14 to 2018-19 <sup>1</sup>		
	Quality	Graduation efficiency rate	2013-14 to 2018-19 <sup>1</sup>		
	Quality	Retention rate	2016-17 to 2021-22 <sup>2</sup>		
	Internacionalization	Percentage of foreign students	2017-18 to 2022-23		
	Internacionalization	Percentage of students in international mobility programs	2017-18 to 2022-23		
Research and innovation	Resources	Competitive public funding secured for projects and research staff per PhD faculty member	2018 to 2023		
		Percentage of doctoral students	2018 to 2023		
	Production	Citable documents with ISI reference per faculty member with PhD	2018 to 2023		
		Number of national patents per 100 faculty members with PhD	2018 to 2023		
and		Doctoral theses read per 100 faculty members with PhD	2018 to 2023		
ç	Quality	Mean impact factor	2018 to 2023		
Resear		Percentage of publications in the first quartile	2018 to 2023		
		Citations per document	2018 to 2023		
	Internacionalization	European research funds per faculty members with PhD	2018 to 2023		
		Percentage of publications with international co-authorship	2018 to 2023		
o, et z	Employment	Employment rate	2021 to 2023		
Labor market nsertion	Job-education match	Employed as graduates	2021 to 2023		
ц т к	Income	Average contribution base	2021 to 2023		

Note: <sup>1</sup> First-year program, <sup>2</sup> Final-year program. Source: Own elaboration. **Table 2.2** shows the updating in terms of years and time series registered by the indicators used in the ranking for 2025, covering data for the majority of indicators at least until the year 2023 or the 2022-23 academic year.

In sum, the methodology on which the calculation of the U-Ranking system is based leads one to expect that the rankings of universities will not present sudden changes from one year to another, but they contain new information that can generate changes. The existence of an inertia in the rankings seems to be a desirable attribute, since the quality of university institutions does not change radically in the short term, although some of their annual results may do so.

## 2.6. CRITERIA FOR THE CONSTRUCTION OF INDICATORS

A key aspect to trust the meaning of the rankings is that the processes used in its elaboration should be transparent with strong statistical foundations for the construction of indicators. In this regard, the project team contacted experts in the subject and analyzed the methodological principles established in the specialized literature, especially in the *Handbook on constructing composite indicators: Methodology and user guide* (Nardo et al. 2008).

The underlying process of drawing up any of the rankings of universities constructed is structured according to the following six steps —the fifth one being unnecessary in the case of the partial rankings of teaching, research and innovation, and labor market insertion. The process is repeated both for the university as a whole and for each area of study through the following steps:

- 1. Preparation of the data bank
- 2. Standardization of indicators
- 3. Weighting and aggregation of indicators within the areas of each dimension
- 4. Weighting and aggregation of area indicators, within the dimensions
- 5. Weighting and aggregation of the dimensions
- 6. Obtaining of rankings

**Figure 2.1** graphically illustrates the time sequence of the steps. To complete each of them it is necessary to solve technical problems, as described and indicated below.

# 2.6.1. Constructing the database and missing data

The starting point is to have the necessary available information on the variables to be considered in order to construct each indicator. The data used for the synthetic indices are obtained from public information systems and statistical sources. The main source of information is the Integrated System of University Information (SIIU) of the Spanish Ministry of Science, Innovation and Universities. The Bibliometric data regarding the research performance of all Spanish universities (based on information provided by Clarivate) and on patents (Espacenet) is provided by the INAECU elaborated by the IUNE Observatory. Information has also been collected from the State Bureau of Investigation on competitive resources and research contracts. Information on European research funds has been obtained from the European Commission's Horizon Dashboard.

For data on the revenue of private universities, public annual accounts and other information from the universities' website section on transparency or audited reports have been used.

The data has been collected with the maximum level of disaggregation available (degree, area of study, area or field of study, ANEP areas), so that the standardizations within each field make the results more comparable.

The database provides the starting indicators for the rankings, both for measuring activity in each area and for university activity as a whole. In the case of rankings by area of study, when the information allows it, they are calculated at that level of disaggregation, which in this edition is 19 of the 23 indicators considered. In the case of the remaining four indicators, the value of the university for all the areas of study is considered.

#### Figure 2.1. Methodology



Source: Own elaboration.

A first technical problem to be solved is the treatment of missing data from certain universities in some variables used. Such gaps may be due to several factors, whether technical (an error in loading the data), or of availability (the university may not have generated certain information or not done so in time) and even strategic (a university may opt not to give certain information because it is not in its interests to do so).

Not facing this problem rigorously would condition the comparability of the universities, the quality of the aggregate indices, and the final results. The methodology applied and the improvements made in the sources of information used have reduced the percentage of indicators with missing values to 0.1% of the nearly 9,000 values of indicators used, thus, no further treatment is required to compensate the absence of data. The following are the criteria that have led to this methodological approach:

First, given that U-Ranking takes into account the specialization by areas of study of the different universities, it is important to distinguish whether a possible lack of data is due to the absence of activity in that particular area —for example, a university does not register drop-out rates in Sciences because it does not offer classes for that area of study or is too recent— or due to one of the reasons stated above. Therefore, the first step in identifying the missing data is to determine which areas of study are offered by a university. The following criteria are established to identify the areas of study in each university that are non-existent or of little importance, reduced or too recent to evaluate its performance:

- a) In terms of teaching, it must offer at least one bachelor's degree related to the area of study being evaluated, and it must be taught in its own centers.
- b) In terms of research, it must have at least 10 full-time equivalent professors with doctorates assigned to the area of study.
- c) In the case of labor market insertion, the university must have at least two of the three indicators required for measurement. It should be noted that this requires the university's activity in the area to have a maturation period of at least 8 years, at least one graduating class with four additional years in order to record data<sup>13</sup>.

Secondly, it should be noted that the indicators are based on the calculation of moving averages, 6 years for most of the cases, except for the three indicators of labor market insertion that use 3-year averages. If a university does not present any data for the years considered, an average is estimated with data from the available years, thus, reducing the chances of a variable with no data.

In addition, for indicators in which there are a greater number of universities without data, the information is constructed from exhaustive administrative registers, so if a university does not appear it is because it has no activity or no results in that area and therefore its value is 0. This information is based on competitive resources and research contracts from the State Bureau of Investigation, national patents granted from the Espacenet database or income data from European projects from Horizon Dashboard. Closely linked to the previous reasons is the improvement in the sources of information and their consolidation over time in the collection of university data.

After applying these criteria, the number of data missing is considerably reduced. Out of the 8,972 indicators in U-Ranking 2025, 5 values are missing, which represents less than 1% of the total. It has been verified that the results do not suffer substantial differences if the missing values are not estimated. Therefore, to not estimate the missing data proves to be the most accurate decision, since it is robust with the methodology applied previously, it simplifies the calculation method, making it easier to reproduce the ranking.

Finally, the minimum requirement for a university to be evaluated in U-Ranking is that it has at least 20 of the 23 indicators used to calculate the synthetic index, as well as the three variables that measure size (student body, full-time equivalent faculty members with PhD and consolidated revenues). This prevents a university from being partially evaluated, offering incomplete images of its activity.

U-Ranking 2025 analyzes a total of 72 universities, including all of the Spanish public universities offering bachelor's degrees (48) and 24 private universities. However, the number of universities varies according to the areas analyzed for the reasons outlined above-the university does not offer teaching in that area, it does not have faculty assigned to the area, or activity in that area is recent or limited. Table 2.3 shows the number of universities ranked by their overall performance<sup>14</sup> in each area. There are significant differences between areas. In Social and Legal Sciences, practically all universities (69) appear in the ranking, except for the Polytechnic University of Catalonia and the two private universities in the Canary Islands (Fernando de Pessoa University and the European University of the Canary Islands). However, in other areas, of the 24 private universities, only 5 (21%) in the case of Science and 8 in Arts and Humanities are active and appear in the rankings.

<sup>&</sup>lt;sup>13</sup> The labor market insertion indicators analyze the results of the cohorts of graduates from the 2016-17, 2017-18, and 2018-19 academic years, recording their employment status four years after obtaining their degree (2021, 2022, and 2023).

<sup>&</sup>lt;sup>14</sup> As will be discussed more in detail, for a university to be included in this classification, it must possess synthetic indicators across all three of the dimensions under consideration.

Table 2.3. Number of universities analyzed in U-Ranking by area of study						
	Public universities		Private universities		Total universities	
	Number	% over total public analyzed	Number	% over total private analyzed	Number	% over total universities analyzed
Arts and Humanities	42	87.5	8	33.3	50	69.4
Social and Legal studies	47	97.9	22	91.7	69	95.8
Sciences	42	87.5	5	20.8	47	65.3
Engineering and Architecture	47	97.9	14	58.3	61	84.7
Health Sciences	42	87.5	17	70.8	59	81.9
Global	48	100.0	24	100.0	72	100.0

Source: Own elaboration.

Treatment of the outliers can be done once the database from which the various indices are obtained is available. An outlier is considered to be any variable outside the interval defined by the percentile value 25 minus one and a half times the interguartile range and the percentile value 75 plus one and a half times the interguartile range of this same ratio. These values are corrected by assigning them the maximum or minimum value depending on the case- of this interval.

#### 2.6.2. Standardization of indicators

One of the pillars upon which the construction of synthetic indicators is based is the proper standardization of the information, that is, its transformation in order to homogenize it and make possible its comparison and aggregation. There are numerous systems of standardization, such as the Gaussian standard (subtracting from each variable its arithmetic mean and dividing by its standard deviation), relative order (ordering the values according to their relative value), distances from the mean or the median, and the ratio between the variable and its mean or its median.

The standardization chosen must be in consonance with the method of aggregation to be used subsequently. Because as a general rule the geometric aggregation method has been chosen, requiring the value of the standardized variables to be positive, we must exclude the Gaussian and absolute distances from the mean and from the median, which necessarily generate negative values, as alternatives of standardization.

For this reason, the standardization method chosen is the ratio between the variable and its median. Taking into account that the median separates each distribution into two halves, the standardized results will be centered on the value 1: values below the median are bounded between 0 and 1, while those above will be greater than 1.

#### 2.6.3. Weighting and aggregation of indicators within an area

Once the 23 standardized indicators for each university is obtained, they are aggregated to obtain a synthetic indicator for each area. Thus, for example, to obtain the indicator for the *quality* area in the *Research* dimension we aggregate the standardized values of the Mean impact factor of publications and the Percentage of publications in the first quartile.

As in the case of standardization, there exist numerous aggregation procedures, such as the arithmetic, the geometric or those based on factor analysis. The choice of one or the other has implications in the substitutability of the indicators or the importance of extreme values (both large and small). The aggregation criterion chosen implies a weighting of the indicators, which is important to bear in mind.

It must be taken into account that some universities might have zeros in some indicator of a specific area (for example, they may not possess Patents). For this reason we have opted in this phase for an arithmetic aggregation, ruling out the

geometric aggregation because the presence of a zero in the product would cause the whole area analyzed to take a nil value.

As the weighting of the indicators shows the importance assigned to each variable when aggregating it into a synthetic indicator, we also reflect on this question. This is a classic problem in the construction of synthetic indices and generally requires a judgment on the relative importance of each element. In the case of economic aggregates the weights are offered by prices —which reflect the market valuation of the goods, services or factors exchanged— but in many other cases there are no prices and the indicators have to be constructed following other criteria, frequently based on subjective opinions.

There are three possible approaches to weighting: 1) assignation of identical weights (which also implies a judgment, since the weight of one indicator is conditioned by the number of indicators included); 2) reference consultation among experts to identify the most widely held opinions (by means of surveys or methods such as the Delphi); 3) weighting according to the user's preferences. These three alternatives have been used according to the level of aggregation to be achieved.

At this first level of aggregation (changing of simple indicators into synthetic indicators for each area) we have opted for the first system, that is, equal weighting. This is because in most cases the indicators capture different aspects of the area analyzed, but there are no clear arguments for granting one of them greater or lesser importance. Also, the nature of the information that each indicator captures is fairly homogeneous and in that case there is less interest in giving greater weight to one indicator or another, because in many cases they are correlated. This occurs, for example, in the case of the mean impact of publications index and the percentage of these in the first quartile. Consequently, the different simple indicators will enter into the

calculation of the arithmetic mean with the same weight.

# 2.6.4. Weighting and aggregation of the area indicators within each dimension

At the second level of aggregation the indicators of the different areas are grouped into an indicator for each of the dimensions considered: teaching, research and innovation, and labor market insertion. At this stage there are reasons for following a different criterion, as after the arithmetic aggregation of the previous stage no area indicator presents zeros. A *geometric* aggregation method will be used.

Among the most interesting properties of geometric aggregation is that it limits the substitutability among the components that it aggregates. In other words, geometric aggregation penalizes the universities that have neglected any of the four transversal areas related to teaching and research and innovation (*Resources, Output, Quality, Internationalization*) or the three related to labor market insertion as against those that attend to them in a balanced manner.

One reason for using weights instead of an equal distribution is that if all the areas were aggregated with the same weight, this being a geometric mean the number of areas considered would influence the result. For example, if we had decided to group the indicators of quality and internationalization in a single area, their influence on the dimension would have been less than if considered separately. Another reason is that, unlike what occurred with the basic indicators, in this case there may be reasons to grant different values to each area.

Thus the decisions on the number of areas to be considered and their weights are relevant, and so we asked experts about the importance that should be given to each area. To make this valuation easier we followed the criterion that the number of areas should be small, and similar within each dimension. A survey of former university experts was conducted by applying the

Table 2.4. Weights by area				
Dimension	Area	Weight	Indicator	Weight
	Resources	30.0%	Faculty member per 100 students	10%
			Budget per student	10%
			Percentage of faculty member with PhD	10%
	Production	30.0%	Success rate in bachelor's degree studies	10%
hing			Evaluation rate in bachelor's degree studies	10%
Teaching			Overall dropout rate in undergraduate studies	10%
			Graduation efficiency rate	10%
	Quality	20.0%	Retention rate	10%
	Internacionalization	20.0%	Percentage of foreign students	10%
			Percentage of students in international mobility programs	10%
	Resources	20.0%	Competitive public funding secured for projects and research staff per	10%
			PhD faculty member Percentage of doctoral students	10%
ion			Citable documents with ISI reference per faculty member with PhD	10%
ovat	Production	30.0%	Number of national patents per 100 faculty members with PhD	10%
l in			Doctoral theses read per 100 faculty members with PhD	10%
Research and innovation			Mean impact factor	10%
arch	Quality	30.0%	Percentage of publications in the first quartile	10%
lese.			Citations per document	10%
	Internacionalization	20.0%	European research funds per faculty members with PhD	10%
			Percentage of publications with international co-authorship	10%
	Employment	33.3%	Employment rate	33.3%
Labor market nsertion	Job-education match	33.3%	Employed as graduates	33.3%
La ma inse	Income	33.3%	Average contribution base	33.3%
		55.570		

Source: Own elaboration.

Delphi method<sup>15</sup>. Throughout the thirteen years of the project's existence, both the indicators and the amount of them have undergone slight changes in order to improve the information available in university databases, which provides a more accurate picture of university activity. These adjustments have involved a slight redistribution of the weights assigned in the area of teaching, while maintaining the priority given to resources and output results. Table 2.4 shows the weights assigned to the different areas. It can be seen that in the areas of teaching and research and innovation, the weight of each area is equal to the sum of the indicators, with each one being assigned  $10\%.^{\rm 16}$ 

## 2.6.5. Weighting and aggregation of the dimensions to obtain the rankings

The last phase of the methodology establishes how the different rankings of the project are drawn up. The result of the previous phase offers rankings for the three dimensions separately, so no further step beyond those described in the above sections is necessary. The global rankings, U-Ranking and U-Ranking Volume, combine the three dimensions of teaching, research and innovation, and labor market insertion, a new geometric aggregation is needed and the most

 $<sup>^{15}</sup>$  Two rounds of consultations were carried out, after which a 2.1 percentage point reduction was obtained in the average interquantile range.

<sup>&</sup>lt;sup>16</sup> In previous editions, the following weights were assigned to teaching: resources 25.4%, output (30.4%), quality (23.9%), and internationalization (20.3%).

reasonable criteria for doing so should be decided.

In the transition from the dimensions to the final ranking we consider that the importance attributed to each dimension can be different depending on the interests of the people contemplating the ranking, that is, of its potential users: students, researchers, managers, society. For this reason, we have concluded that the user's perspective can be the key to giving more or less importance to each of the dimensions. It could be unconvincing to impose weights from a specific standpoint for example, that of a group of experts, who consider that research is the most important-.For individuals with another standpoint, such as students or the career guidance staff, it is more important to attend to the teaching aspects and job expectations, while for firms the capacity of technological transfer of the universities or qualified human capital.

After due reflection, therefore, we have opted to consider two alternatives.

 First, U-Ranking Degrees offers the option of the system earlier described as *personalized ranking*, based on the user's own preferences. We understand that in this case users are more likely to seek to compare the universities with fairly closely defined interests and diverse criteria, probably different from those of the experts. For this reason, with the help of a web tool, users can decide the importance of each of the three dimensions when placing the degrees in order, and the tool automatically offers them the ranking corresponding to the preferences revealed by the user.

To apply this first approach we have considered various alternatives for the choice of weights by the user. We opted for the procedure known as Budget Allocation Process, that is, for the distribution by the user of 100 points among the dimensions to be valued. This method, widely used in marketing to find а consumer's valuation out of the characteristics of a product, has the principal advantage of forcing the user to adopt a more active and reflexive position by distributing points, being therefore more aware of the opinion that he/she displays.

2. Second, for the general rankings (U-Ranking and U-Ranking Volume), corresponding to the universities' activities as a whole, the three dimensions are weighted on the basis of the experts' opinions, according to a survey such as that mentioned above when aggregating areas into dimensions, and a Delphi process to achieve convergence among the experts' opinions.

The weights assigned to teaching and research and innovation are 45% each, with the remaining 10% to labor market insertion results.

The incorporation of labor market insertion as a third dimension has led to a revision of the weights assigned in previous editions to teaching (56%) and research and innovation (44%). A weight of 10% is given to labor market insertion because, as has been noted in other studies, the environment is also a determining factor in job placement. Thus, the link between university activity and results is not the same in teaching and research as it is in employment. The quality of teaching and research is directly controlled by the university, who are almost exclusively responsible for what they achieve. However, in terms of labor market insertion, their direct responsibility is employability, i.e., producing graduates with the right skills, but labor market insertion also depends on other factors such as geographic location or economic cycle, so, in our opinion, less weight should be given to this dimension.

This 10% is primarily deducted from the 56% weighting previously assigned to teaching, as labor market insertion generally depends more on the studies undertaken—which often train final-year graduates for the labor market—and on the quality of teaching than on research activities. A weighting of 45% to teaching instead of 46% has been decided, to better balance it with research and innovation, as establishing such a minimal difference between the two functions would be unjustified.

These weights are included as a default option for calculating the personalized.

### 2.7. PERFORMANCE RANKINGS VS. VOLUME RANKINGS

When comparing universities, it is relevant whether or not their size is taken into account. Making one choice or the other is not in itself a methodological advantage or failure, but implies adopting a particular perspective which affects the rankings and must be borne in mind when interpreting the results.

In the same way as when analyzing the activity of a firm or a country we can consider its volume of output or its achieved performance, and both positions are reasonable, the same occurs in the analysis of the results of universities. Neither of the two approaches is, a priori, more valid than the other, and the choice depends on the intended use of the results. The per capita GDP is more useful than total gross domestic product (GDP) when comparing the quality of life between countries or regions, but the volume or the growth of GDP are also important for explaining, for example, the employment generated or the importance of a country in the global economy. So, although in some cases the performance reached to obtain the results may be more important than their volume, in other cases the size may be relevant. A very productive and at the same time large university is more beneficial to society than one that offers the same level of productivity but has a small size; likewise, a very large university with a poor level of results is a much bigger problem than a small university with the same level of results.

#### 2.7.1. Interest in both approaches

Another reason to pay attention to this aspect is that the existing rankings adopt on occasions an approach based on the performance by which the results are obtained and in other cases deal with the volume of results. For example, some widely cited international rankings —especially, the Academic Ranking of World Universities (ARWU), known as the Shanghai Ranking— are, mainly, volume rankings. The Shanghai Ranking is rather one of volume, because most of the variables from which it is built —number of Nobel prize- winners or Fields medalists among their ex-students or staff, widely cited researchers, publications in Nature or Science, articles published in indexed journals are not relativized by the size of the university. Such variables make up the greater part of the weight in the ranking, while only one indicator (academic performance) is expressed in *per capita* terms. So, the universities' positions in this ranking are conditioned both by their quality and by their size, both qualities being necessary for reaching good positions.

Other rankings, on the other hand, make their comparisons from the point of view of quality. It is the case of the QS World Universities Ranking, whose indicators are taken from surveys of academic reputation or are variables standardized by size. There are rankings that expressly contemplate both approaches, and make differentiated comparisons based on quality or on the total volume of results, as does the I-UGR Ranking<sup>17</sup> of research results.

The reason for acknowledging the interest of both approaches is that the size of institutions can be relevant for valuing the contributions of the universities, but correcting the results for size allows to compare the universities from a perspective that makes them more homogeneous. However, given that, as we said earlier, for the university system as a whole it makes a difference whether a university with high (low) productivity is large or small, we must consider whether universities would have the same position in the performance rankings as in the production volume rankings and bring out the specific significance of each ranking. To sum up:

• The rankings of volume of production are based on indicators not relativized by size, and depend on both the university's performance and its size. Thus, a university may generate a greater volume of research results than another of smaller size, even though the second is more productive.

<sup>&</sup>lt;sup>17</sup> This ranking was last updated in 2014.

• The performance rankings are based on indicators of results corrected by size, and seek to measure the output per unit of inputs or resources used. For example, scientific output is measured as a function of the number of faculty members with PhD and the teaching results are relativized by the number of students. This enables some smaller universities to obtain a better final result in the ranking than other much larger ones.

An interesting question is whether size influences performance positively or negatively, that is, whether performance/efficiency increases or decreases with the size of the university. In the first case, the universities' positions in the rankings of volume would be favored by two factors (size and performance). The testing of the two hypotheses is an empirical matter, which can be analyzed by drawing up both types of rankings using the same approach, as will be presented later.

#### 2.7.2. Treatment of the size of universities

All of the simple indicators with which we started with are relativized by the most appropriate variable (students, faculty members, budget, etc.), so that size does not have a direct influence on the results. Consequently, the general scheme of the methodology leads to measuring each university's results independently of its size, so these are performance rankings. Therefore, to construct volume rankings, the size variable has to be added to the indicators. This task has been undertaken following the criteria detailed below.

The first criterion is to preserve, as far as possible, the methodological homogeneity of both rankings, calculating them on the basis of the same set of indicators and the same aggregation criteria. For this reason the ranking of volume was not drawn up simply by not relativizing those indicators that can be expressed in total terms —for example, reflecting the income from patents or the doctoral theses read without dividing them by the number of faculty members with PhD— as the Shanghai Ranking does. It is not reasonable to proceed in that way because some variables cannot be presented in absolute terms, being rates or indices, such as the percentage of publications in the first quartile or the mean impact of publications factor. If some variables are expressed in absolute terms and others are not, the relative importance of the size within the results would fall only on the variables that can be expressed in absolute terms. In that case, the importance accorded to size would depend implicitly on the proportion of variables that can be expressed in absolute terms. For example, in the variables considered in our study only 14 of the 20 indicators used could be expressed in absolute terms, which would be equivalent to the acknowledged importance of size being 70%. This percentage would be arbitrary because it would reflect the number of indicators that form part of the database expressed in absolute terms.

This solution is unsatisfactory, and we have explored other alternatives for introducing size. The option chosen consists of calculating the volume of results of each university by multiplying the performance index by a measure of size. We have considered three indicators of the size of a university: the number of faculty members, the number of students, and the budget. Each one has its specificities and can be a better proxy of different aspects of the university's activity that do not have the same importance in each of them. To avoid skewing the size proxy in one or other direction in the most general indices --which could favor some institutions by giving greater weight to one of the aspects- we have taken as indicator of size the arithmetic mean of the three variables. previously standardized by its mean value.

### 2.8. PRESENTATION OF RESULTS

Improvements have been made to the presentation of the results to facilitate comparisons between universities and to show the margin each university has to reach the performance of the highestranked university in each dimension and area of study. Therefore, in addition to presenting the ranked list of universities, the original index, centered on the value 1, is now offered on a new scale where the top-performing university obtains a value of 100 and the rest obtain values between 99 and 0, according to their distance from the maximum index, using the following formula:

$$U'_i = \frac{U_i}{U_{max}} \times 100$$
:

#### Where:

 $U^\prime{}_i$  is the rescaled value for university i, with a maximum of 100

 $U_i$  is the original index for university i

 $U_{max}$  is the highest index value achieved among the set of universities

Finally, under this new scale, universities are grouped by tens according to their score—taking the top-performing university (with a score of 100) as the reference—so that there can be up to ten groups:

G1	Greater than or equal to 90 points
G2	Greater than or equal to 80 and less than 90 points
G3	Greater than or equal to 70 and less than 80 points
G4	Greater than or equal to 60 and less than 70 points
G5	Greater than or equal to 50 and less than 60 points
G6	Greater than or equal to 40 and less than 50 points
G7	Greater than or equal to 30 and less than 40 points
<b>G8</b>	Greater than or equal to 20 and less than 30 points
<b>G9</b>	Greater than or equal to 10 and less than 90 points
G10	Less than 10 points

A maximum of ten levels is established, but if all universities were to achieve the maximum score, they would all be grouped in the first level, leaving the remaining groups empty. As institutions with scores that are lower than the top performer emerge, the corresponding lower groups will gradually be filled.

### 2.9. PRIVATE UNIVERSITIES

U-Ranking 2025 analyzes 48 public and 24 private universities. Private universities are an important part of the Spanish University System. As shown in figure 2.1, they have experienced a large growth in the last twenty years, quadrupling in number to 46 institutions out of the 96 that make up the Spanish University System today (see panel a), 92 of them with activity during the 2024-25 academic year. In the past 5 years, 9 new universities have been recognized as universities, of which 4 are in Andalusia, 2 n Madrid, 1 in Galicia, 1 in the Basque Country and another in the Canary Islands and 2 more in Andalucía. In 2020, Universidad Internacional de la Empresa was created. In 2021, Universidad Euneiz and Universidad Intercontinental de la Empresa were established and in 2022, the establishment of Universidad de Diseño, Innovación y Tecnología was approved. In 2023, two new private universities were included in the university system of Andalusia, Universidad CEU Fernando III and Universidad Tecnológica Atlántico-Mediterráneo. In 2024 three new universities were approved, two in Andalusia, Universidad Europea de Analucía and Universidad Alfonso X el Sabio Mare Nostrum, and one in the Canary Islands, Universidad Tecnológica de las Islas Canary. Of these 46 private universities, 42 carried out their teaching activity during this academic course<sup>18</sup>.

Likewise, the number of bachelor's and master's degree students has multiplied by 8.7, from 52,000 to more than 452,485 students in the 2023-24 academic year, which represents slightly under a third of university students studying in Spain, compared to 4% 29 years ago.

An important characteristic of private universities, apart from their young age of existence, is their smaller size. If we compare the number of private universities as a percentage of the total (48%) and the number of private university students as a percentage of the total (27%), it becomes clear that private universities are generally smaller.

Europea de Andalucía, Universidad Tecnológica de las Islas Canarias and Universidad Alfonso X el Sabio Mare Nostrum.

<sup>&</sup>lt;sup>18</sup> The four universities with no teaching activity are: Universidad Tecnológica Atlántico-Mediterráneo Universi-dad
Figure 2.1. Evolution of the number of universities and students. 1995-2025





b) University students by level of studies and type of university. 1994-1995 to 2023-2024 academic years (thousands of students and percentage)



Source: Spanish Ministry of Science, Innovation and Universities (2025c, 2025f).

Another distinctive feature is their greater degree of specialization in postgraduate studies, especially master's degrees. Private universities have placed great emphasis on these type of degrees, as the makeup of their students shows<sup>19</sup>. Whereas the proportion of master's degree students in public universities is 11%, in private universities it is 32%. Indeed, half of master's degree students in Spain study at a private university.

It is more frequent for private universities to present information gaps in certain variables than public universities, limiting, in some cases, their comparability. The U-Ranking 2025 edition has reviewed all the information available for private universities following the criteria to include those institutions that provide at least 20 out of the 23 indicators considered for the public system<sup>20</sup>, as well as the three variables that measure for size (student body, full-time equivalent faculty members with PhD and consolidated revenues). As a result of this revision, the 13<sup>th</sup> edition of U-Ranking two new universities are analyzed: Universidad Fernando de Pessoa de Canarias and Universidad Pontifica de Salamanca The 24 private universities considered in U-Ranking 2025 are:

- IE Universidad
- Mondragon Unibertsitatea
- Universidad a Distancia de Madrid
- Universidad Camilo José Cela
- Universidad Cardenal Herrera-CEU
- Universidad Católica de Valencia S. Vicente Mártir
- Universidad Católica San Antonio
- Universidad de Deusto
- Universidad de Navarra
- Universidad Europea de Canarias
- Universidad Europea de Madrid

<sup>20</sup> Since the indicators are based on moving averages, the requirement has been for each of the chosen indicators to have information on the years that are necessary to calculate them.

<sup>&</sup>lt;sup>19</sup> This hyperspecialization has led the administration to establish in Article 5.1 of Royal Decree 640/2021, of July 27, on the creation, recognition and authorization of universities and university centers, and institutional accreditation of university centers, a minimum number of degrees (10) to create a university.

- Universidad Europea de Valencia
- Universidad Fernando de Pessoa de Canarias
- Universidad Internacional de La Rioja
- Universidad Internacional de Valencia
- Universidad Nebrija
- Universidad Pontificia Comillas
- Universidad Pontifica de Salamanca
- Universidad San Pablo CEU
- Universitat Abat Oliba CEU
- Universitat de Vic-U.Central de Catalunya
- Universitat Internacional de Catalunya
- Universitat Oberta de Catalunya
- Universitat Ramon Llull

# User personalized rankings

Universities develop different actions, but also different profiles exist of people and organizations interested in them: undergraduate or graduate students, professors, managers, members of the governing body or Board of Directors, heads of university policy in the Public Administration, journalists, citizens, companies, social agents, administrations, etc. The importance granted by people or groups to the different activities of the universities may be different and their interest may focus basically on one or more of their activities. For example, students are likely to focus on aspects related with the degree that they wish to study and teachers may focus more on research. Therefore, aggregating the information on each of the aspects is not only a complex problem, but the criteria may depend on the user.

Given the high number of users that might value the universities' activity from a particular viewpoint, it makes sense to consider the possibility of drawing up personalized rankings, established in a way in which they take into account the different interests of the user. The U-Ranking project considers this question and in the case of bachelor's degrees, it offers a tool that provides information on the ranking of degrees to students, their families and careers advisers, personalized according to their specific interests.

# 3.1. EXAMPLES OF PERSONALIZED RANKINGS

Constructing synthetic indicators bv acknowledging the preferences of users has been available thanks to the interactivity permitted by web tools. Through them, the user can value each one of the dimensions personally considered, indicating which areas they want to consider and which are the most important for them. Web technology allows these preferences identified by the users themselves to be incorporated and combined with other elements contributed by the experts, such as the selection of variables and aggregating them in intermediate indicators according to criteria as described in chapter 2.

Two interesting examples of this approach, referring to very distinct areas, are those corresponding to the "Talent Attractiveness" Index, developed by the OECD (2025), and the CHE Ranking, a ranking of university degrees drawn up by the German Center for Higher Education (CHE 2025a).

The OECD (2025) draws up a synthetic index that ranks countries according to their ability to attract and retain talent based on three types of migrants: university students, entrepreneurs and workers with higher education. The index rates country performance based on different dimensions: quality of opportunities, income and taxes, future prospects, family environment, skills, inclusion and quality of life. In order to calculate the index, the user must specify the importance given to each of the dimensions considered.

Experts justify and prepare the set of relevant dimensions and variables and, once the user has introduced their valuation of each area, the web tool shows a synthetic index of talent attraction that takes into account the importance given by the user, as well as the category it belongs to.

A similar approach is used by one of the university rankings analyzed, the CHE Ranking, drawn up by Germany's Center for Higher Education for the journal *Zeit*. In this case, the student who wishes to choose a degree needs to select the subject they wish to study, the type of course of their interests and the aspects they consider to be most important (teaching, subsequent employment opportunities, research, etc.). A personalized university ranking is created based on their preferences.

Their position indicates their place in the

ranking.

#### Figure 3.1. Talent Attraction Index

#### Rank your priorities and see how countries compare > Compare two countries of your choice > Compare countries in each dimension Research and methodology more attractive Enter your preferences! 0.7 Category: Highly Educated Workers ~ 0.6 ealand 🚈 Quality of opportunities 🕲 O More C Less important Portugal Finland Sermany Iceland France important important Belgium Slovenia En-Income and tax 🞱 0.5 Hungary Estonia Japan K Republic Spain Korea O More important O Less important important Future prospects atvia Italy 0.4 Slovak O Less important O More important important Family environment 0.3 O More C Less important important important 🐱 Skills environment 🖉 0.2 O Less important important More important Inclusiveness 0.1 O More important O Less important By inserting the category of the user and important the importance given to the different Quality of life 🕜 dimensions, the countries are placed in important O More O Less 0.0 order according to their attractiveness. important important

less attractive

O More important

Important

Source: OECD (2025).

Does Health matter? 🔞

Do not O Less matter important

### Figure 3.2. CHE Ranking

CHE Unive	<u> </u>		
Start   Subjects   Univer	ng T	his ranking by the Centre for Hi nt university for your subject of by 120,000 students and 3,000	German universities igher Education (CHE) allows you to find the f choice. The ranking is based on assessments professors and it also provides useful facts t the institutions.
Subject		Institution and degree	
Please select	;		+ SHOW RANKING
			eria > 🖹 Sort by > Layout 🔟 🔠
RWTH Aachen   Rheinisch-W	estfäligehe Technische	Institution(s) found	
<b>RWTH Aachen</b>   Rheinisch-W <sup>,</sup> Fakultät für Wirtschaftswissenschafter	estfälische Technische	Institution(s) found	
	estfälische Technische	Institution(s) found	
akultät für Wirtschaftswissenschafter	estfälische Technische n Support in the study entry	Institution(s) found TANKING FOR Business Administrat Universities	tion          Image: Change criteria         Image: Change c
akultät für Wirtschaftswissenschafter	estfälische Technische n Support in the study entry phase [points] (F)	Institution(s) found IANKING FOR Business Administrat	tion LEARN MORE ABOUT THIS SUBJECT
akultät für Wirtschaftswissenschafter         Overall study situation (S)         ●         ★★★☆         Alanus HS/Alfter (priv.)   Alan	estfälische Technische Support in the study entry phase [points] (F) (14/16 points)	Institution(s) found MAKING FOR Business Administrat Universities Academic studies and teaching	tion Change criteria ∧ Bout THIS SUBJECT Change criteria ∧ Sortby ∨ Layout B BB Trinfrastructure (5) • Rooms (5) • Change criteria ∧ Library (5) • Change criteria ∧ C C C C C C C C C C C C C C C C C C
akultät für Wirtschaftswissenschafter	estfälische Technische Support in the study entry phase [points] (F) (14/16 points) nus Hochschule für Ku Support in the study entry	Institution(s) found AANKING FOR Business Administrat Jniversities	tion LEARN MORE ABOUT THIS SUBJECT
akultät für Wirtschaftswissenschafter         Overall study situation (S)         (*****)         Alanus HS/Alfter (priv.)   Alana         achbereich Wirtschaft	estfälische Technische Support in the study entry phase [points] (F) 14/16 points nus Hochschule für Ku	Institution(s) found AMKING FOR Business Administrat Universities Academic studies and teaching	tion          Image: Change criteria A       Image: Sort by V       Layout       Image: Change criteria A         Image: Change criteria A       Image: Sort by V       Layout       Image: Change criteria A         Image: Change criteria A       Image: Sort by V       Layout       Image: Change: Criteria A         Image: Change criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Change: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image
akultät für Wirtschaftswissenschafter         Overall study situation (S)         (*****)         Alanus HS/Alfter (priv.)   Alan         achbereich Wirtschaft         Overall study situation (S)         (*****)         Jui Augsburg   Universität At	estfälische Technische Support in the study entry phase [points] (F) (2) 14/16 points nus Hochschule für Ku Support in the study entry phase [points] (F) (2) 12/16 points	Institution(s) found AMKING FOR Business Adminis rat Jniversities Academic studies and teaching Equipment International orientation Job market and career-orientation Research Result of study Students Town and University YOUR SELECTION (4 of max. 0)	tion LEARN MORE ABOUT THIS SUBJECT
akultät für Wirtschaftswissenschafter         Overall study situation (S)         • ★ ★ ★ ☆         Alanus HS/Alfter (priv.)   Alana         achbereich Wirtschaft         Overall study situation (S)	estfälische Technische Support in the study entry phase [points] (F) (2) 14/16 points nus Hochschule für Ku Support in the study entry phase [points] (F) (2) 12/16 points	Institution(s) found AMKING FOR Business Adminis rat Jniversities Academic studies and teaching Equipment International orientation Job market and career-orientation Research Result of study Students Town and University YOUR SELECTION (4 of max. 6)	tion LEARN MORE ABOUT THIS SUBJECT          Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Sort by V       Layout       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria A       Image: Criteria A         Image: Criteria A       Image: Criteria A       Image: Criteria

Source: CHE (2025a).

Show all criteria  $\smallsetminus$ 

>

# 3.2. DESCRIPTION OF THE WEB TOOL FOR GENERATING PERSONALIZED RANKINGS OF DEGREES

This personalized ranking approach has been used in U-Ranking to classify degrees in order, constructing rankings of universities for the different bachelor's degrees. In the future it is intended to extend this approach to other university activities, for example, to master's degrees, when the necessary databases are available. The first step in this direction is the analysis carried out in the 2022 edition of U-Ranking on postgraduate education.

The value of a web tool like this depends much on the effort made to facilitate its use. The objective of U-Ranking is to present a simple, easy-to-use tool to minimize the number of clicks needed to obtain the relevant information, which is above all the corresponding ranking. This simple approach must be present both when limiting the degrees to be compared and when permitting the user to declare their preferences in order to draw up the personalized rankings. With the aim of making the procedure more user-friendly, the website has been redesigned, as well as the Choose a University tool, which can be accessed by clicking on the icon that appears at the top of the website<sup>21</sup> (Figure 3.3). Next, three questions are displayed that must be answered by the user to obtain a personalized ranking by degree, according to the student's interests in three aspects (Figure 3.4):

- What to study
- Where to study
- Study, research and work

In order to harmonize the tool with the most frequent potential users we performed trials among students ages 17 to 18 years old, who are less familiar with the concepts used in the university world than the experts participating in the project. Based on these trials, the necessary corrections were made to better adapt the tool to the students and to make the results easier to understand. The tool is presented on the screen of the project's website via the *Choose a University* tab.

Figure 3.3. Choose a university

Choose a University

In the first step, the user must choose the bachelor's degree or degrees they wish to study. The  $3,610^{22}$  degrees offered by 72 universities analyzed are classified into 122 groups of degrees to simplify the selection process. To make the user's decision even easier, the degree groups are clustered into 26 families of degrees.

When choosing a family of degrees, as for example "Economy and Business Administration", the bachelor's degrees included in this family of degrees are displayed. This list of degrees is not extensive or literal, since "Business intelligence" and "Business analytics" have been grouped together.

The grouping of the degrees is intended to facilitate the user's selection process but does not reduce the results of the ranking. Thus, regardless of this initial simplification, the final results show all the degrees included in the selection, as well as the center where they are taught whenever there are several options.

<sup>&</sup>lt;sup>21</sup> https://u-ranking.es/

<sup>&</sup>lt;sup>22</sup> These are bacherlor's degrees with open enrollment for the 2024–25 academic year and for which sufficient data

is available for analysis. It is important to note that newly established degrees are not included in the tool, as their performance cannot yet be evaluated.

#### Figure 3.4. Steps to create a personalized ranking



Figure 3.5. Step 1. Choose a bachelor's degree



The user can choose either one or several groups of degrees, whether they belong to the same family or not. For example, he/she could select the "Degree Business Intelligence and Analytics" (from the Economics family) and the "Degree in Engineering and Data Science (from the Computer Science and Telecommunications family).

The following step is to choose the autonomous community or regions considered as places in which to study (**figure 3.6**). Thus, the user must mark those chosen in the corresponding list. If

the user does not want to geographically limit their choice, they can "Select all". The option of restricting the search to specific autonomous communities is a response to the fact that many students do not contemplate the idea of moving as an alternative or a restriction. In this case, their interest will be to know which of the studies offered are valued best in the territories considered. In any way, complementary information is offered to position their options in relation to the remaining offers in the Spanish University System.

#### Figure 3.6. Step 2. Choose a Spanish region

Choose the regions where you would like to study Select one or several options

Select all	Andalucía	Aragón
Canarias	Cantabria	Castilla y León
Castilla-La Mancha	Cataluña	Comunidad de Madrid
Comunidad Foral de Navarra	Comunitat Valenciana	Extremadura
Galicia	Illes Balears	🔵 La Rioja
País Vasco	Principado de Asturias	Región de Murcia

Thirdly, the user must declare their preference regarding the importance they give to study, research and labor market insertion when valuing the universities' profiles (**figure 3.7**), by distributing the 100 points available to the importance they grant to teaching, research and employment. The resulting ranking will order the degrees and universities taking into account these weights. By default, 45 points are given to teaching, 45 to research and innovation and 10 to labor market insertion, which are the weights used for the U-Ranking calculation.

Once these three steps are completed, the personalized ranking corresponding to the criteria introduced is displayed (figure 3.8). The ranking places in order the universities that offer the bachelor's degrees chosen in the preselected territories according to the value of the index obtained. To facilitate interpretation, the index is presented on a new scale in which the top-performing degree within each academic field is assigned a value of 100. The remaining degrees receive values between 99 and 0, depending on their distance from the top-ranked degree. A degree with an index of 50 would have a performance level equal to half that of the top-ranked one. Degrees are grouped into a maximum of 10 categories based on the tens digit of their index value.

The first column displays the performance group number assigned to each of the degrees

included in the customized ranking. A maximum of 10 performance groups have been established. It is important to note that this rescaling is based on the index values of all degrees within the same academic field. Therefore, the maximum value of 100 may not appear in the user's selection if the topperforming degree belongs to a different degree group within the same field that was not selected.

The second shows the value of the index reached for each specific degree. The official name of the degree appears in the third column. As we observe in the example, various bachelor's degrees can occupy the same position in the ranking, since the indices are rounded without decimal points because greater precision is not considered to reflect. more accurately. differences among the degrees. In these cases, the degrees are ordered according to the value of the index, considering all the decimals. In the fourth column, in addition to the name of the university, the campus where the degree is taught appears. Clicking on the name of the university takes you to its website. The last five columns contain complementary information which is useful in the decision process. The cutoff mark of the last year, the price per credit on first registration and information on graduate employability which will be described in the next section.

#### Figure 3.7. Step 3. Indicate percentage of importance given to Teaching and Research and Innovation

Distribute 100 points among teaching quality, research and innovation, and job market insertion according to your interests by adjusting the segments of the bar.



#### Figure 3.8. Personalized ranking of degrees

X Ecc	onomic	s and Business	DOWNLOAD PDF と					
n the selec Group	ted regions Index	there are 24 options for the chosen	n degrees University	Cutt- off @ mark	Credit Cost € ⊘	Employment rate ③	Employed as ⑦ graduates	Average contribution ⑦ base
1	84	Grado en Management and Technology / Empresa y Tecnología	<u>Universidad Carlos III</u> Getafe (Comunidad de Madrid)	12.71	16.92	83.0	54.7	35,572
1	80	Grado en Empresa y Tecnología	<u>Universitat Autònoma</u> <u>de Barcelona</u> Cerdanyola del Vallès (Cataluña)	9.58	17.69	96.3	50.0	35,051
2	78	PCEO Grado en Administración de Empresas y Datos / Grado en Analítica de Negocios ( Dual Degree Business Administration and Data and Business Analytics )	IE Universidad	See	+	36.9	69.9	40,733
2	78	Grado en Diseño e Innovación de Negocios Digitales / Bachelor in Digital Business Design and Innovation	<u>Universitat Ramon Llull</u> Barcelona (Cataluña)	See	+	69.3	55.6	41,066
2	78	Grado en Inteligencia Empresarial y Análisis de Datos	<u>Universitat Ramon Llull</u> Barcelona (Cataluña)	See	+	69.3	55.6	41,066

**Table 3.1** shows the level of disaggregation of each of the indicators included in the calculation of the personalized ranking of degrees<sup>23</sup>. These indicators are the 23 that are used to calculate the rankings by institutions. The sources and the years used are also the same; however, the level of disaggregation varies. While the indicators in the general ranking are collected at area of study or university level, more disaggregated information is used for the personalized ranking

when available. Thus, 13 of the 23 indicators involved in the calculation of the synthetic index of each degree correspond to a degree or group of degrees. It should be noted that the only difference with regards to the methodology of the general ranking is that the standardization of the indicators of the personalized ranking of degrees is done by family of degrees, not by area of study or university. In other words, the reference group for each degree would be the

<sup>&</sup>lt;sup>23</sup> The dimensions, areas, and indicators used, as well as the definition of the indicators, sources, and period coincide with what is described in Annex 1 (overall ranking).

As shown in the table, the only variation is in the column of level of disaggregation.

one that belongs to the same family of degrees and therefore, it is the median value of this family used for the standardization.

To sum up, the web tool for constructing personalized rankings is easy to use, very flexible, and is underpinned by a rigorous methodology identical to the one described in previous sections on how general rankings are constructed. Therefore, it is a complement to the latter with a high interest potential for students, families and careers counselors, as well as for universities themselves. The more than 43,000 personalized rankings that have been calculated in the last year testify to the level of interest in the tool. For this interest in the tool to be effective and useful, it is essential to keep all the supporting information up-to-date and to constantly improve the data offered, taking the users' experience into account. Along this line, last year's edition included information on the labor market insertion by degrees. In addition to an update of this data, this year's edition has improved the usability of the tool.

Table 3.1.	Indicators and level o	f disaggregation of the information used for the ranking	g by degree		
Dimension	Area	Indicator	Period		
		Faculty member per 100 students	Area of study		
	Resources	sources Budget per student L			
		Percentage of faculty member with PhD	Area of study		
-		Success rate in bachelor's degree studies	Bachelor's Degree		
hing	Production	Evaluation rate in bachelor's degree studies	Bachelor's Degree		
Гeac	Production	Overall dropout rate in undergraduate studies	Bachelor's Degree		
	Quality	Graduation efficiency rate	Area of study		
	Quality	Retention rate	Bachelor's Degree		
		Percentage of foreign students	Bachelor's Degree		
	Internacionalization	Percentage of students in international mobility programs	University		
	_	Competitive public funding secured for projects and research staff per PhD faculty member	Area of study		
	Resources		Area of study		
Research and innovation		Citable documents with ISI reference per faculty member with PhD	-		
innc	Production	Number of national patents per 100 faculty members with PhD	University		
and		Doctoral theses read per 100 faculty members with PhD	Area of study		
ср Ср		Mean impact factor	Group of degrees		
sear	Quality	Percentage of publications in the first quartile	Group of degrees		
Re		Citations per document	Group of degrees		
	Internacionalization	European research funds per faculty members with PhD	University		
	Internacionalization	Percentage of publications with international co-authorship	Group of degrees		
「백四	Employment	Employment rate	Bachelor's Degree		
Labor market nsertion	Job-education match	Employed as graduates	Bachelor's Degree		
	Income	Average contribution base	Bachelor's Degree		

Source: Own elaboration.

# 3.3. COMPLEMENTARY INFORMATION ON GRADUATE EMPLOYABILITY

Graduate employability according to the degrees offered by a university influences the users' valuations of its services. The demand can be reinforced if a university offers degrees with a favorable employability outlook, especially if a certain degree has better employability results than those of the same degree in another university. Consequently, since the 8th edition of U-Ranking, employability indicators are offered instead of environmental data as in previous editions.

Labour market insertion is analysed using the Spanish Social Security affiliation data of graduates with bachelor's degrees during the four years following graduation. In 2014, the Ministry of Universities published its first report with employability data along with the corresponding indicators on graduates from the 2009-10 academic course (Ministry of Education, Culture and Sports and CCS 2014), focusing on 1st and 2nd cycle students. The 8<sup>th</sup> edition published the labor market results of the second wave of indicators corresponding to the situation from 2015 to 2018 of students who graduated in 2013-2014.

Currently, U-Ranking includes the latest data offered by the Ministry of Science, Innovation and Universities (2025d) corresponding to the situation in 2023 of bachelor's degree students who graduated in 2018-2019.

We have focused our attention on the employment situation of university graduates four years after obtaining their degree<sup>24</sup>, taking into account three employment outcome indicators used in the calculation of the ranking:

- a) Percentage in 2023 of Spanish university graduates affiliated with Social Security and employed relative to the total number of graduates four years after graduating
- b) Percentage in 2023 of university graduates employed in positions that match their level of education four years after graduating... University level is considered: Social Security contribution groups for professionals with higher education (engineers, graduates, senior management, and technical engineers)
- c) Average annual contribution base in 2023 of graduates working as employees with a full-time contract.4 years after obtaining the degree.

Data on employability is presented as a supplementary to the ranking of degrees. The web tool offers the value of the degree for each one considered for the three indicators mentioned above. Data is available for 2,730 bachelor's degrees. For recently established degrees that do not yet have their own employment data, the tool displays the results of the corresponding field of study at the same university. If this information is also unavailable, the average for the field across the entire university system is shown, allowing users to get an idea of the expected employability levels.

As in previous editions, 2025 also includes the price per credit for over 3,610 bachelor's degrees analyzed by U-Ranking, based on university statistics provided by the Spanish Ministry of Science, Innovation and Universities (2025b). These prices, despite the maximum limit set by the Spanish Ministry, can vary depending on the region, the university, the level of degree —bachelor, master, doctorate— the level of experimentality of the degree and the type of ownership of the center<sup>25</sup> offering that degree. As can be seen in **table 3.2**, the current range of fees by regions is considerable, even more if

<sup>&</sup>lt;sup>24</sup> The report provides the data one year after graduation, but this information distorts the reality of degrees that require qualifying master's degrees to practice or additional national tests such as the MIR in medicine that make insertion unlikely one year after graduation.

<sup>&</sup>lt;sup>25</sup> U-Ranking also includes bachelor's degrees offered by private centers affiliated to public universities. In general, the price of these degrees includes an extra cost added on to the public prices.

differences of experimentality and level of degree are considered.

For this reason, it is relevant that the U-Ranking user will be able to easily know the price per credit at first registration for each bachelor's degree. The prices included in U-Ranking correspond to those established for the 2024-2025 academic year. Also, the cost was included by degree course or by credit offered by private universities when available on their webpage.

Table 3.2. Public p	orice per credit	t at the time o	first enrollment by	region. 2024-2025	academic year
(€/credit)					

Region	Average price	Min. price	Max. price
Andalusia	12.62	12.62	12.62
Aragon	17.37	13.10	20.02
Asturias	12.34	8.63	15.70
The Balearic Islands	15.56	11.18	20.08
The Canary Islands	12.50	9.47	14.59
Cantabria	13.34	9.95	15.56
Castile-La Mancha	16.09	12.13	18.87
Castile and Leon	13.64	10.41	18.45
Catalonia	18.15	17.69	18.46
The Valencian Community	15.38	12.79	18.00
Extremadura	14.19	9.88	17.74
Galicia	11.95	9.85	13.93
Madrid	18.55	16.92	20.68
Murcia	15.70	14.38	16.78
Navarre	19.29	15.10	21.38
Basque Country	16.55	13.42	18.92
La Rioja	16.89	14.08	22.68
UNED	16.21	13.00	21.60
Total Public universities	15.37	12.90	18.24

Note: In Catalonia, the Generalitat de Catalunya, the public universities and the Universitat Oberta de Catalunya (UOC), through the Agency for Management of University and Research Grants (AGAUR), have applied the "Equidad" (Equity) grants, which involve a reduction in the price paid per credit of enrollment by bachelor's and master's degree students of these universities, based on the level of family income, so the resulting prices, after deducting the grant, are those set out in Annex 6 of the Price Decree.

Source: Spanish Ministry of Science, Innovation and Universities (2025b).

# Main results

# 04

This chapter presents the main findings of *U-Rank-ing 2025*, the thirteenth edition of the project. Both the university rankings and the personalized degree rankings have been updated and are available on the project website: <u>https://u-ranking.es/</u>.

As outlined in the introduction, the 2025 rankings include U-Ranking, which assesses the performance of each unit within the university system in terms of performance; U-Ranking Volume, which ranks institutions based on the total volume of their output; and U-Ranking Dimensions, which distinguishes outcomes in teaching, research and knowledge transfer, and graduate employability—the latter being a new addition in this thirteenth edition. Another innovation this year is that all the rankings are also broken down by field of study: arts and humanities, social sciences and law, health sciences, sciences, and engineering and architecture.

This chapter presents and analyses the results achieved by Spanish universities from the various perspectives considered in the project: U-Ranking Performance, U-Ranking Volume, U-Ranking Dimensions and U-Ranking Fields of Study.

# 4.1. U-RANKING

**Table 4.1** ranks the 72 Spanish universities according to their performance scores (*U-Ranking*). As a reminder, performance is defined as the relationship between the output achieved by the universities in the areas analyzed and the resources used to achieve it. That is, if two universities achieve the same output, the one that does so with fewer resources is considered more efficient—and therefore achieves a higher performance score.

The ranking is based on a synthetic indicator calculated for each university, shown in the second column. A new feature in this edition is the use of a scaled index to facilitate interpretation: the topperforming university is assigned a score of 100 and all other universities are given proportionally lower scores based on their distance from the leader. Thus, a university with a score of 50 would have half the performance level of the leading institution. Universities are grouped according to their performance score, with up to ten possible groups, though some may be empty. The first group includes universities with a score of 90 or more; the second, those with a score between 80 and 90; the third, between 70 and 80; and so on. Universities within the same group have broadly similar scores. Providing groupings alongside individual scores helps to smooth the interpretation, as minor differences in decimal values can otherwise result in significant changes in ranking, even when institutions perform at very similar levels. Being in the

same performance group indicates that the differences between the institutions are moderate.

Applying this system, the 72 universities in this edition are grouped in 7 performance levels. Within each group of similar performance, universities are listed in order of their exact index score.

In table 4.1, universities aged 15 years or less are marked with an asterisk (\*). The purpose of this annotation is to help readers adjust their interpretation of the results based on the following. A university must be able to demonstrate its teaching

potential from the outset, as its graduates are expected to acquire all the competencies associated with an undergraduate degree. However, many of the outcomes in the research and innovation dimension require a longer period to materialize. This is because it takes time to build research teams and develop the necessary infrastructure, equipment and organizational capacity to realize their full potential. Marking universities founded within the last 15 years serves as a reminder that the lower scores in research and knowledge transfer often observed in younger institutions may be attributable to their relative youth.

Table 4.1. U-Ranking of S	panish	univer	sities 2025					
University	Group	Index	University	Group	Index	University	Group	Index
U. Pompeu Fabra		100	U. da Coruña		72	U. Católica de Valencia		55
U. Politècnica de Catalunya		95	U. Miguel Hernández de Elche		72	U. Europea de Madrid	G5	53
U. Politècnica de València		93	U. Ramon Llull		72	U. Cardenal Herrera - CEU	GD	51
U. Autònoma de Barcelona	C1	92	U. Jaume I		72	UNED		50
U. de Barcelona	G1	92	U. de Alicante		71	U. Nebrija		46
U. Autónoma de Madrid		90	U. de León		71	U. Abat Oliba CEU		45
U. Carlos III		90	U. de Almería	G3	71	U. Pontificia de Salamanca		44
U. de Navarra		90	U. de Valladolid	GS	71	UDIMA	G6	42
U. Rovira i Virgili		88	U. de La Rioja		71	U. Internacional de La Rioja		41
U. de València		86	U. de Deusto		70	U. Fernando Pessoa-Canarias*		40
U. de Santiago de Compostela		85	IE University	villa 70 U. Internacional Valenciana viedo 70 U. Europea de Canarias* urcia 70 U. Europea de Valencia* de Olavide 69 CUNEF*	U. Camilo José Cela		40	
U. de Girona	G2	85	U. de Sevilla		70	U. Internacional Valenciana		39
U. Politécnica de Madrid		84	U. de Oviedo		70	U. Europea de Canarias*	G7	38
U. de Cantabria		82	U. de Murcia		70	U. Europea de Valencia*		34
U. de Vigo		81	U. Pablo de Olavide		69			
U. de Alcalá		79	Mondragon Unibertsitatea		69	ESIC*		
U. de Lleida		78	U. de Castilla-La Mancha		69	U. Alfonso X el Sabio U. Católica Santa Teresa de Je	elie	
U. del País Vasco		78	U. de Málaga		67	U. CEU - Fernando III*	.503	
U. de Burgos		77	U. de Cádiz		67	U. Diseño, Innovación y Tecnolo	ogía*	
U. Internacional de Catalunya		77	U. de Jaén		67	U. de las Hespérides* U. del Atlántico Medio*		
U. de Córdoba		77	U. de La Laguna		67	U. del Atlantico Medio" U. Euneiz <sup>*</sup>		
U. Pública de Navarra	<b>C</b> 2	76	U. Pontificia Comillas	G4	65	U. Europea del Atlántico*		
U. de Zaragoza	G3	76	U. de Las Palmas de Gran Canaria		65	U. Europea Miguel de Cervante	s	
U. Complutense	-	75	U. de Extremadura		63	U. Francisco de Vitoria	•	
U. de Salamanca		75	U. San Pablo - CEU		63	U. Intercontinental de la Empre U. Internacional de la Empresa		
U. de Granada		75	U. de Huelva		62	U. Internacional Isabel I de Cas		
U. de les Illes Balears	-	74	U. Católica San Antonio		62	U. Internacional Villanueva*		
U. de Vic - U. Central de Catalunya		73	U. Rey Juan Carlos		61	U. Loyola Andalucía*		
U. Politécnica de Cartagena		73	U. Oberta de Catalunya		61	U. San Jorge		

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

50

Main results

At the end of table 4.1 is a list of universities that have not been ranked, because insufficient data is available to construct the necessary indicators. This list is included in order to highlight the value of the transparency shown by the universities that do appear in the rankings by generating and sharing the data required for inclusion, regardless of their position. Thirteen of the unranked universities are marked with an asterisk to indicate that they are newer universities ( $\leq 15$  years old).

In this regard, when interpreting the results of a university included in the ranking, it is important to bear in mind that a significant portion of the private university sector is not included in the ranking for lack of data. This means that a university listed in the lowest performance group (Group 7 in the 2025 ranking) may in fact outperform an indeterminate number of institutions that are not included simply because of lack of information.

The following section highlights some noteworthy cardinal and ordinal differences between the universities. One of the most striking aspects is that the range of index values on which the ranking is based reveals—as in previous editions—significant differences in performance among Spanish universities. The most productive institutions achieve results three times higher than those at the bottom of the table.

The top-performing group in *U-Ranking*—those with an index score of 90 or above, labelled as Group 1—comprises eight universities. Leading the ranking is Universitat Pompeu Fabra. It is followed by the polytechnic universities of Catalonia and Valencia, the autonomous universities of Barcelona and Madrid, Universitat de Barcelona, Universidad Carlos III de Madrid and, as the highest-ranked private institution, Universidad de Navarra.

Seven universities fall into the second-highest performance group (Group 2), with index scores between 80 and 90. This group is led by Universitat Rovira i Virgili and includes the universities of Valencia, Santiago de Compostela and Girona, Universidad Politécnica de Madrid and the universities of Cantabria and Vigo.

The third tier, Group 3, comprises institutions with performance scores between 70 and 80 and is the largest group, containing 28 universities. Heading

this group is Universidad de Alcalá, followed by the universities of Lleida, País Vasco and Burgos. Five private universities also appear in this group: Universitat Internacional de Catalunya, Universitat de Vic-Universitat Central de Catalunya, Universitat Ramon Llull, Universidad de Deusto and IE University. This group includes several large institutions, such as Universidad Complutense de Madrid, Universidad de Granada and Universidad de Sevilla, as well as the other public universities in the Valencian Community—Jaume I, Alicante and Miguel Hernández.

Group 4, with scores between 60 and 70, is led by Universidad Pablo de Olavide and includes several Andalusian universities, such as Málaga, Cádiz, Jaén and Huelva, both the public universities in the Canary Islands, Universidad de Castilla-La Mancha, Universidad de Extremadura, Universidad Rey Juan Carlos and five private institutions. Leading the private universities in this group is Mondragon Unibertsitatea, followed by Universidad Pontificia Comillas, San Pablo-CEU, Universidad Católica de San Antonio and the first distance-learning institution to appear in the ranking, Universitat Oberta de Catalunya (UOC).

Groups 5 (score  $\geq$ 50 and <60), 6 (score  $\geq$ 40 and <50) and 7 (score  $\geq$ 30 and <40) are composed almost entirely of private universities, with the exception of the public distance-learning institution UNED, which appears in Group 5. It is worth reiterating that many institutions not included in the ranking—due to insufficient data—could well rank below those listed in these groups. These omitted institutions are shown in a shaded box at the end of the table.

As noted in the introduction, this thirteenth edition of *U-Ranking* introduces several significant methodological changes, including the incorporation of graduate employability as a ranking dimension and revisions to certain indicators as a result of improvements in data availability. These changes especially the inclusion of employability—inevitably alter the ranking positions and make direct comparisons with the 2024 edition less straightforward. Nevertheless, it remains interesting to observe the extent to which universities retain their standing under the new criteria, particularly the extent to which the leading institutions continue to perform strongly and those with weaker performance remain in the lower tiers.

With these caveats in mind, of the 15 universities occupying the top spots-i.e. those in Groups 1 and 2-12 were already in the top group in the 2024 edition. This suggests that the new criteria have refined the ranking order among high-performing institutions without significantly altering which institutions are leading. In 2025, Universitat Pompeu Fabra has regained the top position, joined by institutions that also featured in the top five in 2024, namely, the polytechnic universities of Valencia and Catalonia and Universidad Carlos III de Madrid. In short, the ranking confirms that the universities which stand out continue to do so consistentlyeven when a new factor such as employability is taken into account. This consistency may be reinforced by the fact that these universities are located in regions with higher demand for skilled labor.

## 4.2. U-RANKING VOLUME

Table 4.2 shows the index and ranking of the 72 Spanish universities evaluated by volume of output (U-Ranking Volume). Unlike the performance ranking, which adjust outputs relative to university size, the volume ranking reflects total contribution by scaling performance according to a composite size indicator. The volume index is important because a small university may have high performance (for instance, its faculty may publish nearly all their articles in top-quartile journals), but its overall impact on society and the university system as a whole will be limited due to its small size. A volume-based perspective, by contrast, takes account of the total number of contributions a university makes to the system. A university with 100 faculty members publishing 100 articles is more productive than one with 1,000 faculty members publishing 500, but the latter contributes more in absolute terms. Whether performance or volume is the preferred measure depends on the researcher's objectives. Unlike other rankings, U-Ranking provides both perspectives.

Conversely, a very large university may have lower performance (e.g. a smaller proportion of its articles published in top-quartile journals), but if its overall output (i.e. total number of articles published in top-quartile journals) is greater in absolute terms, it will have a more substantial impact. The choice of one ranking or the other will naturally depend on the purpose of the analysis—just as in economics, where the analysis may focus on productivity or total output. What sets *U-Ranking* apart from other rankings is precisely that it offers this choice.

In *U-Ranking Volume*, there are more groups of universities because the range of index values is much wider. In the performance ranking, the lowest score was 34, whereas in the volume ranking it drops to 1, reflecting the presence of very small institutions. Unlike the performance ranking, which classified the 72 universities into 7 groups, *U-Rank-ing Volume* divides them into the maximum of 10 groups (one for each 10-point band: 0–9, 10–19, ..., 90–100). This broader distribution highlights the greater heterogeneity of the university system in terms of the size–performance combination and therefore introduces greater variability into the ranking.

Universidad Complutense de Madrid leads the volume ranking, alone in Group 1 (score 90–100). It is followed, in Group 2 (score  $\geq$ 80 and  $\langle$ 90), by the universities of Barcelona and Valencia. The universities of Granada, Sevilla and País Vasco, in that order, make up Group 3 (score  $\geq$ 70 and  $\langle$ 80), while the polytechnic universities of Valencia and Madrid, along with Universidad Autónoma de Barcelona, form Group 4 (score  $\geq$ 60 and  $\langle$ 70).

The volume ranking highlights the predominance, among private universities, of institutions that are significantly smaller in size than their public counterparts. As a result, private universities tend to rank lower in the volume-based assessment than they did in the performance-based ranking. In **table 4.2**, all the private universities appear in Group 8 and below, with the majority concentrated in Groups 9 and 10. Universidad de Navarra (top among the private institutions), Universitat Oberta de Catalunya (UOC) and Universitat Ramon Llull are all placed in Group 8 (score  $\geq$ 20 and <30). These three are the highest-ranked private universities in terms of output volume, combining relatively strong results with a larger scale of activity.

Table 4.2. U-Ranking	Volume	of Sp	anish universities 2025					
University	Group	Index	University	Group	Index	University	Group	Index
U. Complutense	G1	100	U. da Coruña		24	U. Nebrija		6
U. de Barcelona	<u> </u>	88	U. Oberta de Catalunya		24	U. Internacional Valenciana		5
U. de València	G2	83	U. Rovira i Virgili	G8	23	U. Camilo José Cela		4
U. de Granada		77	U. Ramon Llull	uu	22	UDIMA		3
U. de Sevilla	G3	76	U. de Las Palmas de Gran Canaria		21	U. Pontificia de Salamanca	G10	3
U. del País Vasco		75	U. de Girona		20	IE University	010	2
U. Politècnica de València		63	U. Jaume I		19	U. Europea de Valencia*		2
U. Autònoma de Barcelona	G4	61	U. de Cantabria		19	U. Abat Oliba CEU		1
U. Politécnica de Madrid		61	U. de Jaén		18	U. Europea de Canarias*		1
U. Politècnica de Catalunya		57	U. de les Illes Balears		18	U. Fernando Pessoa-Canarias*		1
U. Autónoma de Madrid	G5	55	U. de Almería		18			
U. de Zaragoza		50	U. Miguel Hernández de Elche		17			
U. de Santiago de Compostela		46	U. Internacional de La Rioja		17			
UNED	G6	44	U. de León		15	CUNEF*		
U. de Málaga		43	U. de Lleida		15	ESIC*		
U. de Murcia		39	U. Pablo de Olavide	<b>G9</b>	15	U. Alfonso X el Sabio		
U. de Salamanca		37	U. Pública de Navarra		15	U. Católica Santa Teresa de Jes U. CEU - Fernando III*	ús	
U. Carlos III		36	U. Europea de Madrid		15	U. Diseño, Innovación y Tecnolog	ฑ์a*	
U. de Castilla-La Mancha		36	U. de Huelva		13	U. de las Hespérides*	<b></b>	
U. Rey Juan Carlos	G7	35	U. San Pablo - CEU		12	U. del Atlántico Medio*		
U. de Alicante		34	U. de Deusto		12	U. Euneiz* U. Europea del Atlántico*		
U. de Oviedo		32	U. Pontificia Comillas		12	U. Europea Miguel de Cervantes		
U. de Valladolid		32	U. Católica San Antonio		11	U. Francisco de Vitoria		
U. de Vigo		30	U. de Burgos		11	U. Intercontinental de la Empres	a*	
U. de Alcalá		28	U. Católica de Valencia		10	U. Internacional de la Empresa* U. Internacional Isabel I de Casti	lla*	
U. de Córdoba		28	U. Cardenal Herrera - CEU		9	U. Internacional Villanueva*	ua	
U. de Cádiz		26	U. Politécnica de Cartagena		9	U. Loyola Andalucía*		
U. de La Laguna	G8	26	Mondragon Unibertsitatea	C10	8	U. San Jorge		
U. de Navarra		26	U. de Vic - U. Central de Cata-	G10	8			
U. de Extremadura		24	U. Internacional de Catalunya		7			
U. Pompeu Fabra		24	U. de La Rioja		7			

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Despite the methodological changes noted in the discussion of the performance ranking, the comparison of the 2025 results with those from the previous year reveals a remarkable degree of stability in this ranking, reflecting the structural nature of university size. Not only are the top 15 universities unchanged, but their relative order also remains almost identical.

# 4.3. U-RANKING DIMENSIONS: TEACH-ING, RESEARCH AND INNOVATION AND LABOR MARKET INSERTION

The methodology used in *U-Ranking* constructs indicators for outcomes in three areas of university activity: teaching, research and innovation, and graduate employability. These indicators are then aggregated to produce the two overall rankings presented earlier (*U-Ranking* and *U-Ranking Volume*). However, the results for each dimension can also be analyzed separately to create individual rankings for teaching, research and innovation, and employability. Each of these can be calculated using either the performance or the volume approach. For clarity and ease of reference, this section focuses on the performance-based rankings, while the volume-based versions are included in the appendices. This alternative approach provides insight into whether universities vary in their performance across teaching, research and innovation, and employability, without engaging in debate over the relative importance of each activity.

Following the presentation of the results for the teaching and research and innovation rankings, **tables 4.3** to **4.5** set out in detail the rankings for all the Spanish universities for each dimension (U-

*Ranking Dimensions: Teaching, Research and Inno-vation, and Employability*). The performance rankings reveal a clear pattern of specialization among private universities: they all perform better, compared to the overall ranking, in teaching and employability, but less well in research and innovation.

Focusing on teaching performance, **table 4.3** shows a private university—Universidad de Navarra—at the top of the teaching ranking. It appears in the highest performance group (score >90), along with five other private universities (Ramon Llull, IE University, Mondragon Unibertsitatea, Universitat Internacional de Catalunya and Universidad Pontificia Comillas) and two public institutions (Universitat Politècnica de València and Universidad Carlos III de Madrid). An important point to note is that performance across the university system is significantly more homogeneous in the teaching ranking than in the overall ranking. In teaching, the score obtained by the top-ranked university is only twice that of the lowest-ranked one, whereas in the general ranking it was three times higher. As a result, all the universities are contained in just five groups. Groups 2 (score >80) and 3 (score >70) are particularly large (19 and 36 universities, respectively) and include a mix of public and private institutions. Three of the top five universities in Group 2, for example, are public (Pompeu Fabra, Universitat Politècnica de Catalunya and Universitat de València) and two are private (Deusto and Universidad Europea de Madrid).

Table 4.3. U-Ranking o	of Spanis	sh univ	ersities 2025. Teaching							
University	Group	Index	University	Group	Index	University	Group	Index		
U. de Navarra		100	U. de León		78	U. Católica San Antonio		69		
U. Ramon Llull		97	U. Rovira i Virgili		78	U. de La Laguna		65		
IE University		94	U. Internacional Valenciana		78	U. Rey Juan Carlos	G4	64		
Mondragon Unibertsitatea	G1	93	U. de Salamanca		77	UDIMA		64		
U. Politècnica de València	GI	93	U. de Vic - U. Central de Cata-		77	U. Pontificia de Salamanca		63		
U. Internacional de Catalunya		92	U. de Valladolid		77	U. Fernando Pessoa-Canarias*		59		
U. Pontificia Comillas		92	U. de Almería		77	U. Camilo José Cela	G5	58		
U. Carlos III		91	U. de Jaén		77	U. Oberta de Catalunya	GD	57		
U. Pompeu Fabra		89	U. Politécnica de Madrid		76	UNED		51		
U. Politècnica de Catalunya		88	U. Jaume I		75					
U. de Deusto		87	U. Católica de Valencia		75					
U. Europea de Madrid		86	U. de Alicante		75					
U. de València		86	U. de Santiago de Compostela		75					
U. Autónoma de Madrid		86	U. de Vigo	G3	75	CUNEF*				
U. San Pablo - CEU		85	U. Pablo de Olavide		74	ESIC* U. Alfonso X el Sabio U. Católica Santa Teresa de Jesús U. CEU - Fernando III*				
U. Cardenal Herrera - CEU		84	U. Nebrija		74					
U. Internacional de La Rioja		84	U. de Córdoba	65	74					
U. Pública de Navarra	G2	84	U. Politécnica de Cartagena		74	U. Diseño, Innovación y Tecnología	*			
U. de Zaragoza		82	U. de Las Palmas de Gran Canaria		73	U. de las Hespérides*				
U. Europea de Valencia*		82	U. de Málaga		72	U. del Atlántico Medio* U. Euneiz*				
U. del País Vasco		81	U. Europea de Canarias*		72	U. Europea del Atlántico*				
U. de Granada		81	U. de Huelva		72	U. Europea Miguel de Cervantes				
U. de La Rioja		81	U. da Coruña		72	U. Francisco de Vitoria U. Intercontinental de la Empresa*				
U. de Cantabria		80	U. Miguel Hernández de Elche		71	U. Intercontinental de la Empresa* U. Internacional de la Empresa*				
U. de Lleida		80	U. de Castilla-La Mancha		71	U. Internacional Isabel I de Castilla	<b>r</b>			
U. de Barcelona		80	U. de Murcia		71	U. Internacional Villanueva*				
U. de Girona		80	U. Abat Oliba CEU		70	U. Loyola Andalucía*				
U. Complutense		79	U. de Sevilla		70	U. San Jorge				
U. de Alcalá		79	U. de Extremadura		70					
U. Autònoma de Barcelona	G3 79 U. de les Illes Balears 70									
U. de Oviedo		79	U. de Cádiz		70					
U. de Burgos		79								

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

University	Group	Index	University	Group	Index	University	Group	Index			
U. Pompeu Fabra		100	U. de Alicante		57	U. Europea de Madrid		25			
U. Autònoma de Barcelona	G1	93	U. de Murcia		57	U. Cardenal Herrera - CEU		23			
U. de Barcelona		92	U. Jaume I		57	U. Pontificia de Salamanca	G8	22			
U. Politècnica de Catalunya		87	U. Pública de Navarra		56	U. Abat Oliba CEU	Go	21			
U. Rovira i Virgili		83	U. de Almería		55	UDIMA		20			
U. de Santiago de Compostela	G2	82	U. de La Laguna		55	U. Nebrija		20			
U. Autónoma de Madrid		82	U. Pablo de Olavide		54	U. Fernando Pessoa-Canarias*		19			
U. Politècnica de València		81	U. de Castilla-La Mancha	CE	53	U. Camilo José Cela		19			
U. de Girona		77	U. de León	G5	53	U. Europea de Canarias*	<b>CO</b>	15			
U. Politécnica de Madrid		77	U. de Valladolid		53	U. Internacional de La Rioja	G9	14			
U. Carlos III	<b>C</b> 2	76	U. de Cádiz		53	U. Internacional Valenciana		13			
U. de Vigo	G3	75	U. Oberta de Catalunya		52	U. Europea de Valencia*		10			
U. de València		74	U. de Málaga		52						
U. de Cantabria		70	U. Internacional de Catalunya		51						
U. de Navarra		68	U. de Oviedo	-	51	CUNEF* ESIC* U. Alfonso X el Sabio U. Católica Santa Teresa de Jesús					
U. de Córdoba		66	U. de La Rioja		50						
U. de Alcalá		65	U. de Jaén		48						
U. de Burgos		64	U. Rey Juan Carlos		47	U. CEU - Fernando III*					
U. de les Illes Balears		63	U. de Las Palmas de Gran Canaria		46	U. Diseño, Innovación y Tecnolo U. de las Hespérides*	gia*				
U. de Lleida	G4	63	U. de Deusto		46	U. del Atlántico Medio*					
U. del País Vasco		62	U. de Extremadura	cc	45	U. Euneiz*					
U. de Salamanca		61	U. Católica San Antonio	G6	44	U. Europea del Atlántico* U. Europea Miguel de Cervantes					
U. da Coruña		61	U. de Huelva		44	U. Francisco de Vitoria					
U. Miguel Hernández de Elche		60	U. Ramon Llull		43	U. Intercontinental de la Empres	a*				
U. Complutense		60	IE University		43	U. Internacional de la Empresa*					
U. de Granada		59	Mondragon Unibertsitatea		41	U. Internacional Isabel I de Cast U. Internacional Villanueva*	illa*				
U. Politécnica de Cartagena		58	UNED		37	U. Loyola Andalucía*					
U. de Sevilla	G5	57	U. San Pablo - CEU	<b>C</b> 7	36	U. San Jorge					
U. de Zaragoza		57	U. Pontificia Comillas	G7	36						
U. de Vic - U. Central de Catalunya		57	U. Católica de Valencia		30						

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-Ivie (U-Ranking 2025).

This relative homogeneity in teaching performance and the balance between public and private universities breaks down completely when we turn to research and innovation performance, as shown in **table 4.4**.<sup>26</sup> The research performance of the top university is ten times that of the lowest-ranked institution, and the universities are spread across nine performance groups. Moreover, the first private university—once again, Universidad de Navarra—does not appear until Group 4 (score  $\geq$ 60 and <70).

The research and innovation performance ranking is led by Universitat Pompeu Fabra, in a group with an index score of 90 or above, accompanied by

<sup>&</sup>lt;sup>26</sup> The marked differences in research performance between public and private universities are currently—at the time of writing this report in May 2025—the subject of ongoing public debate. This follows the Spanish Government's proposal to amend Royal Decree 640/2021 on the creation, recognition and authorization of universities. The preamble to the draft reform notes that "a large proportion of the universities recognized in recent years [which, it is worth noting, are private institutions] are showing very limited development in research and knowledge transfer activities, despite the fact that these are intrinsic to the university mission". Based on this

diagnosis, the draft includes several policy measures, such as requiring a minimum student body of 4,500 for newly established universities, a detailed multi-year plan for research activity, allocating at least 5% of the total budget to in-house research promotion programs, and securing external research funding through calls for proposals, programs and contracts amounting to at least 2% of the total budget. It is clear, therefore, that relying on objective data—such as that provided by *U-Ranking*—is crucial, given the far-reaching implications for university policy arising from these findings.

two other Catalan universities: Universitat Autònoma de Barcelona and Universitat de Barcelona. The second-highest performance group (score  $\geq$ 80 and <90) comprises the polytechnic universities of Catalonia and Valencia, Universitat Rovira i Virgili, Universidade de Santiago de Compostela and Universidad Autónoma de Madrid. In Group 3 (score  $\geq$ 70 and <80), we find Universitat de Girona, Universidad Politécnica de Madrid, Universidad Carlos III, Vigo, Valencia and Cantabria.

Turning to **table 4.5**, which presents the results for the graduate employability dimension, again we observe a remarkable degree of uniformity across the Spanish university system—greater even than in the teaching dimension. The performance of the top university is only 1.4 times higher than that of the university with the lowest employability score. Another clear sign of the overall consistency in this dimension is that nearly all the universities fall within the top three performance groups (score  $\geq$ 70,  $\geq$ 80 and  $\geq$ 90).

The ranking is led by Universitat Internacional de Catalunya, in a group of 23 universities of which only six are public, including three polytechnic universities: those of Madrid, Catalonia and Cartagena. As with teaching performance, private universities are well positioned in terms of graduate employability.

The results by dimension discussed above are the performance-based results, but, as previously emphasized, the volume-based perspective also provides valuable insights, particularly when the aim is to assess overall impact on the system as a whole, regardless of whether that impact is achieved with greater or lesser efficiency.

**Table 4.6** presents the volume-based results for theteaching dimension. Here, Universidad Complutense

de Madrid leads the ranking and stands alone in Group 1, with an index above 100. It is followed in Group 3 (score  $\geq$ 70 and <80) by the universities of Granada, Valencia, País Vasco, Barcelona and Sevilla. The smaller relative size of private universities means that, although they performed strongly in the performance ranking, they are less prominent here. The highest-ranked private institution, International University of La Rioja, does not appear until Group 7 (score  $\geq$ 30).

**Table 4.7** presents the volume-based results for research and knowledge transfer, now led by Universitat de Barcelona, which appears in Group 1, alongside Universidad Complutense de Madrid. Universitat de València is the sole member of Group 2 (score  $\geq$ 80), while Universidad de Sevilla and Universitat Autònoma de Barcelona make up Group 3 (score  $\geq$ 70 and <80). In research and knowledge, the smaller size of private universities is compounded, as previously noted, by their lower level of specialization in this field. As a result, the topranked private universities—UOC (Universitat Oberta de Catalunya) and Universidad de Navarra—appear in Group 8 (score  $\geq$ 20 and <30).

Employability is perhaps the dimension in which the volume-based analysis is most relevant, as the number of graduates entering suitable employment has a greater impact on the available human capital in the system than the efficiency with which that human capital is produced (although the latter also matters in terms of rational resource use). From this volume perspective, **table 4.8** shows that Universidad Complutense de Madrid leads the ranking as the sole member of Group 1, followed in Group 2 by the universities of Sevilla and País Vasco and in Group 3 by the universities of Barcelona, Granada and Valencia.

University	Group	Index	University	Group	Index	University	Group	Index
U. Internacional de Catalunya		100	U. de les Illes Balears		87	U. de Girona		79
U. Fernando Pessoa-Canarias*		100	U. de Deusto		86	U. de Granada		78
U. Camilo José Cela		99	U. de Vic - U. Central de Catalunya		86	U. Rey Juan Carlos		78
U. Pontificia Comillas		98	U. de Alcalá		86	U. de Huelva		78
U. Pontificia de Salamanca		97	U. Autònoma de Barcelona		86	U. de Jaén	G3	78
U. Internacional Valenciana		96	U. de La Rioja		86	U. Jaume I	65	78
U. Europea de Madrid		96	U. Abat Oliba CEU		86	U. de Málaga		77
U. Nebrija		96	U. Autónoma de Madrid		85	U. de Alicante		76
U. de Navarra		96	U. de Santiago de Compostela		85	U. de Almería		74
U. Internacional de La Rioja		96	U. Miguel Hernández de Elche		85	U. Pablo de Olavide		73
U. Politécnica de Madrid		95	U. Politècnica de València		85	U. Europea de Canarias*	G4	69
U. Cardenal Herrera - CEU	G1	95	U. de Oviedo		85			
U. Católica de Valencia		94	U. de Barcelona		85			
Mondragon Unibertsitatea		92	U. de Valladolid		84			
U. San Pablo - CEU		92	U. de La Laguna		84	CUNEF*		
UDIMA		91	U. de Salamanca	G2	84	ESIC* U. Alfonso X el Sabio		
U. de Lleida		91	U. de León		83		ette	
U. Politécnica de Cartagena		91	U. de València		83	U. Católica Santa Teresa de Je U. CEU - Fernando III*	345	
U. Politècnica de Catalunya		90	U. de Las Palmas de Gran Canaria		83	U. Diseño, Innovación y Tecnolo	ogía*	
U. Carlos III		90	UNED		82	U. de las Hespérides* U. del Atlántico Medio*		
U. Ramon Llull		90	U. de Sevilla		82	U. Euneiz*		
U. Pública de Navarra		90	U. de Córdoba		82	U. Europea del Atlántico*		
U. Católica San Antonio		90	U. de Vigo		81	U. Europea Miguel de Cervantes U. Francisco de Vitoria	5	
U. del País Vasco		89	U. de Extremadura		81	U. Francisco de vitoria U. Intercontinental de la Empres	sa*	
U. Rovira i Virgili		89	U. da Coruña		81	U. Internacional de la Empresa*	<b>1</b>	
IE University		88	U. Complutense		81	U. Internacional Isabel I de Cas U. Internacional Villanueva*	tilla*	
U. Oberta de Catalunya	G2	88	U. de Cádiz		80	U. Loyola Andalucía*		
U. de Castilla-La Mancha	62	GZ 88 U. de Murcia 80 U. San Jorge	U. San Jorge					
U. de Zaragoza		87	U. Pompeu Fabra		80			
U. Europea de Valencia*		87	U. de Burgos		80			
U. de Cantabria		87						

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025)

Table 4.6. U-Ranking	Volume	of Sp	panish universities 2025. 7	eachin	Table 4.6. U-Ranking Volume of Spanish universities 2025. Teaching									
University	Group	Index	University	Group	Index	University	Group	Index						
U. Complutense	1	100	U. de Córdoba		26	U. Nebrija		9						
U. de Granada		79	U. de La Laguna	-	25	U. Politécnica de Cartagena		9						
U. de València		79	U. da Coruña		23	U. de Vic - U. Central de Catalunya		8						
U. del País Vasco	3	75	U. de Las Palmas de Gran Canaria	8	22	U. Internacional de Catalunya		8						
U. de Barcelona		73	U. Europea de Madrid	0	22	U. de La Rioja		8						
U. de Sevilla		73	U. Oberta de Catalunya		21	U. Camilo José Cela		5						
U. Politècnica de València		59	U. Pompeu Fabra		20	U. Europea de Valencia*	10	4						
U. Politécnica de Madrid		52	U. de Jaén	-	20	UDIMA		4						
U. de Zaragoza	-	52	U. Jaume I		19	U. Pontificia de Salamanca		4						
U. Politècnica de Catalunya	5 50 U. Rovira i Virgili 50 U. de Almería	U. Rovira i Virgili		19	IE University		3							
U. Autònoma de Barcelona		50	U. de Almería		18	U. Abat Oliba CEU		2						
U. Autónoma de Madrid		50	U. de Cantabria		18	U. Europea de Canarias*		1						
U. de Málaga	C	44	U. de Girona		18	U. Fernando Pessoa-Canarias*		1						
UNED	6	42	U. de les Illes Balears		16									
U. de Santiago de Compostela		38	U. Miguel Hernández de Elche		16	CUNEF*								
U. de Murcia		38	U. San Pablo - CEU		16	ESIC*								
U. de Salamanca		36	U. de León		16	U. Alfonso X el Sabio U. Católica Santa Teresa de Jesús								
U. de Castilla-La Mancha		35	U. Pontificia Comillas		16	U. CEU - Fernando III*								
U. Rey Juan Carlos	7	35	U. Pública de Navarra	9	16	U. Diseño, Innovación y Tecnología*								
U. Carlos III	/	35	U. Pablo de Olavide	9	15	U. de las Hespérides* U. del Atlántico Medio*								
U. de Oviedo		35	U. de Lleida		15	U. Euneiz*								
U. de Alicante		35	U. de Deusto		14	U. Europea del Atlántico* U. Europea Miguel de Cervantes								
U. de Valladolid		34	U. de Huelva		14	U. Francisco de Vitoria								
U. Internacional de La Rioja		33	U. Cardenal Herrera - CEU		14	U. Intercontinental de la Empresa*								
U. Ramon Llull		29	U. Católica de Valencia		13	U. Internacional de la Empresa* U. Internacional Isabel I de Castilla*								
U. de Navarra		27	U. Católica San Antonio		12	U. Internacional Villanueva*								
U. de Alcalá	8	27	U. de Burgos		11	U. Loyola Andalucía* U. San Jorge								
U. de Cádiz	0	26	Mondragon Unibertsitatea		11	o. San Joige								
U. de Extremadura		26	U. Internacional Valenciana		10									
U. de Vigo		26	l l											

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.7. U-Ranking	Volume	of Spa	anish universities 2024. I	Researc	h and	innovation		
University	Group	Index	University	Group	Index	University	Group	Index
U. de Barcelona	C1	100	U. Oberta de Catalunya		23	U. Internacional de Catalunya		6
U. Complutense	G1	91	U. da Coruña		23	U. Cardenal Herrera - CEU		5
U. de València	G2	81	U. de Navarra	<b>G8</b>	22	U. Nebrija		3
U. de Sevilla	<u> </u>	71	U. de Girona		21	U. Camilo José Cela		2
U. Autònoma de Barcelona	G3	70	U. de Extremadura		20	U. Internacional Valenciana		2
U. de Granada		68	U. de Cantabria		18	IE University	G10	2
U. del País Vasco		68	U. de les Illes Balears		18	U. Pontificia de Salamanca	010	2
U. Politécnica de Madrid	G4	63	U. Jaume I		17	UDIMA		2
U. Politècnica de València	_	62	U. de Las Palmas de Gran Cana-		17	U. Europea de Valencia*		1
U. Politècnica de Catalunya		60	U. Miguel Hernández de Elche		16	U. Abat Oliba CEU		1
U. Autónoma de Madrid	G5	57	U. de Almería		15	U. Europea de Canarias*		<1
U. de Santiago de Compostela	GS	50	U. Ramon Llull	<u> </u>	15	U. Fernando Pessoa-Canarias*		<1
U. de Zaragoza	<b>G6</b>	43	U. de Jaén	G9	15			
U. de Málaga		38	U. de Lleida		14			
UNED		37	U. Pablo de Olavide		13	CUNEF*		
U. de Murcia		36	U. de León		13	ESIC*		
U. Carlos III		35	U. Pública de Navarra		13	U. Alfonso X el Sabio		
U. de Salamanca	G7	34	U. de Burgos		11	U. Católica Santa Teresa de Jesús U. CEU - Fernando III*		
U. de Castilla-La Mancha		31	U. de Huelva		10	U. Diseño, Innovación y Tecnología*		
U. de Alicante		31	U. de Deusto		9	U. de las Hespérides*		
U. de Vigo		31	U. Católica San Antonio		9	U. del Atlántico Medio*		
U. Rey Juan Carlos		31	U. San Pablo - CEU		8	U. Euneiz <sup>*</sup> U. Europea del Atlántico <sup>*</sup>		
U. de Valladolid		28	U. Politécnica de Cartagena		8	U. Europea del Atlantico U. Europea Miguel de Cervantes		
U. Pompeu Fabra		27	U. Europea de Madrid		8	U. Francisco de Vitoria		
U. de Córdoba		27	U. Pontificia Comillas	G10	7	U. Intercontinental de la Empresa*		
U. de Oviedo	<u> </u>	27	U. de Vic - U. Central de Cata-		7	U. Internacional de la Empresa* U. Internacional Isabel I de Castilla*		
U. de Alcalá	G8	26	U. Internacional de La Rioja		7	U. Internacional Isabel I de Castilla" U. Internacional Villanueva*		
U. Rovira i Virgili		25	U. Católica de Valencia		6	U. Loyola Andalucía*		
U. de La Laguna		25	U. de La Rioja		6	U. San Jorge		
U. de Cádiz		24	Mondragon Unibertsitatea		6			

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.8. U-Ranking	Volume	e of S	panish universities 2025.	Labor	marke	t insertion		
University	Group	Index	University	Group	Index	University	Group	Index
U. Complutense	G1	100	U. Ramon Llull		26	U. de Vic - U. Central de Catalunya		9
U. de Sevilla	G2	84	U. de Navarra		26	U. Camilo José Cela		9
U. del País Vasco	GZ	81	U. da Coruña		25	U. Internacional de Catalunya		9
U. de Barcelona		76	U. de Las Palmas de Gran Cana-	~~~	25	U. de La Rioja		8
U. de Granada	G3	75	U. Europea de Madrid	G8	24	U. Pontificia de Salamanca	<b>640</b>	8
U. de València		74	U. Rovira i Virgili		21	UDIMA	G10	8
UNED	G4	67	U. de les Illes Balears		20	U. Europea de Valencia*		5
U. Politécnica de Madrid	64	64	U. de Jaén		20	IE University		3
U. de Zaragoza		54	U. Jaume I		20	U. Abat Oliba CEU		2
U. Politècnica de València	G5	53	U. Miguel Hernández de Elche		19	U. Fernando Pessoa-Canarias*		1
U. Autònoma de Barcelona	GD	53	U. de Cantabria		19	U. Europea de Canarias*		1
U. Politècnica de Catalunya		51	U. Pompeu Fabra		18			
U. Autónoma de Madrid		49	U. de Girona		17			
U. de Málaga		46	U. de Almería		17			
U. de Santiago de Compostela	G6	43	U. San Pablo - CEU		17			
U. de Castilla-La Mancha	GO	42	U. de León		17	CUNEF*		
U. de Murcia		42	U. Pública de Navarra		17	ESIC*		
U. Rey Juan Carlos		41	U. Pontificia Comillas		16	U. Alfonso X el Sabio		
U. de Salamanca		39	U. de Lleida		16	U. Católica Santa Teresa de Jesús		
U. Internacional de La Rioja		37	U. Católica de Valencia	<u></u>	15	U. CEU - Fernando III* U. Diseño, Innovación y Tecnología*		
U. de Oviedo		37	U. Cardenal Herrera - CEU	G9	15	U. de las Hespérides <sup>*</sup>		
U. de Valladolid		36	U. Católica San Antonio		15	U. del Atlántico Medio*		
U. de Alicante	<b>C</b> 7	34	U. Pablo de Olavide		15	U. Euneiz*		
U. Carlos III	G7	34	U. de Huelva		15	U. Europea del Atlántico <sup>*</sup> U. Europea Miguel de Cervantes		
U. Oberta de Catalunya		32	U. de Deusto		14	U. Francisco de Vitoria		
U. de La Laguna		31	U. Internacional Valenciana		12	U. Intercontinental de la Empresa*		
U. de Cádiz		30	U. Nebrija		12	U. Internacional de la Empresa*		
U. de Extremadura		30	U. de Burgos		11	U. Internacional Isabel I de Castilla* U. Internacional Villanueva*		
U. de Alcalá		28	Mondragon Unibertsitatea		11	U. Loyola Andalucía*		
U. de Vigo	8	28	U. Politécnica de Cartagena		10	U. San Jorge		
U. de Córdoba		28						

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

## 4.4. U-RANKING FIELDS OF STUDY

As mentioned in the introduction, a further innovation in this thirteenth edition is the inclusion of a breakdown of the U-Ranking and U-Ranking Dimensions results by field of study. With this breakdown we can see the extent to which each university specializes in particular fields. For instance, a university may have deliberately focused on technology-or may have been steered in that direction by its historical development-as in the case of the polytechnic universities. Others may cover all fields of study, as is typical of institutions with roots in generalist studies. This kind of specialization, when aggregated into an overall index, as in the rankings presented earlier, can either favor or penalize a university. For example, the higher employability of graduates from technical degrees may boost the employability scores of polytechnic institutions. But what happens if we assess performance—across all dimensions, including employability—in the field of engineering and architecture on its own? By isolating the effect of specialization, we can evaluate performance more precisely and consider the influence of other factors, such as regional location, the range of degree options available to new students, type of university (public or private), and so on.

**Table 4.9** presents the ranking of universities for each field of study—arts and humanities, social sciences and law, sciences, engineering and architecture, and health sciences—across the main dimensions of university activity (overall, teaching, research and innovation, and employability). We begin with this table because it provides an overview of the system as a whole and allows us to highlight a number of stylized facts—empirical patterns that will be explored further in the subsequent rankings by field of study.

The first notable point is that not all universities appear in every field and dimension. As explained in Chapter 2 on methodology, in the teaching dimension, fields in which a university does not offer degree programs in its own faculties in the 2024-2025 academic year are excluded. In the research dimension, a field is excluded if the university has fewer than ten full-time equivalent doctoral staff. For employability, a university must provide at least two of the three required indicators, which means having at least one cohort of graduates who completed their studies more than four years ago (the time needed, for instance, to measure employment affiliation four years after graduation). Blank cells in the table indicate that the university has not been ranked in that particular field. It can be seen that the number of such blanks increases lower down the ranking, often because these are newer universities or institutions that specialize in only a few fields.

The second observation is that the relative homogeneity seen across the system in teaching and employability performance is also evident within individual fields of study, while the substantial heterogeneity in research performance likewise persists across fields.

The third point is that some dimensions exhibit more variation between fields, whereas others are more consistent. The first case is exemplified in the employability dimension: in social sciences and law, the average distances between universities lower down the ranking and the top-performing institution are significantly greater (reflected in a higher number of yellow cells), whereas in fields such as health sciences and engineering and architecture, many universities perform at levels similar to the leader (more green cells). The second case—greater consistency across fields—can be seen in the research and innovation dimension, where, with few exceptions,<sup>27</sup> universities that lag behind the leader in one field also do so in others. Lastly, the analysis by field of study also highlights universities that have a clear specialization in a particular field, in which they achieve notably higher performance than in other fields. Clear examples visible in the overall ranking column—include Universidad Pontificia Comillas in arts and humanities, Pablo de Olavide, Ramon Llull and Jaume I in sciences and IE University in social sciences and law.

Having outlined these general trends, **tables 4.10** to **4.14** present the synthetic rankings (i.e. overall scores aggregating all dimensions) for each field of study. **Table 4.10** shows that, in arts and humanities, Universitat Pompeu Fabra leads a group of six universities with index scores above 90. Alongside Universitat Autònoma de Barcelona, Universitat Rovira i Virgili, Universitat de Barcelona and Universitat Politècnica de València (which offers Fine Arts programs), the first private university to appear is Universidad de Navarra. The second group (score  $\geq$ 80) is led by Universidad de Alcalá, followed by Burgos, Valencia and País Vasco, and Universidad Pontificia Comillas as the sole private sector representative.

Table 4.11 presents the ranking for social sciences and law, once again led by Universitat Pompeu Fabra, heading a group of three universities with scores above 90 that also includes Universitat Autònoma de Barcelona and Universidad Carlos III. The second group (score ≥80) is led by Universitat Politècnica de València and includes a wide array of public institutions—such as the universities of Valencia, Rovira i Virgili, Universidad Politécnica de Madrid, Barcelona, Autónoma de Madrid and Lleida—alongside a strong showing from private universities in this field, notably Universidad de Navarra, IE University, Ramon Llull, Deusto and Universitat de Vic-Universitat Central de Catalunya.

<sup>&</sup>lt;sup>27</sup> For example, Universitat de Vic-Universitat Central de Catalunya is significantly closer in performance to Universitat Autônoma de Barcelona—the leader in sciences—than it is

to the top performers in other fields, particularly health sciences.

Table 4.9. Performance Index by dimension and area of study																								
			GLC	BAL					TEAC	HING				RESEAR	CH ANI	d inno	VATION			LABOF	r marki	et inse	RTION	
University	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences
U. Pompeu Fabra	100	100	100		100	100	89	82	93		80	84	100	100	100	86	100	100	80	85	73		75	93
U. Politècnica de Catalunya	95				91		88				85	92	87		97	94	76		90		67		84	90
U. Politècnica de València	93	92	89	100	85		93	93	88	99	90		81	78	83	78	61		85	69	66	89	83	
U. Autònoma de Barcelona	92	96	92	98	95	96	79	78	81	74	75	83	93	98	96	100	93	93	86	82	74	92	87	92
U. de Barcelona	92	91	83	99	92	95	80	79	79	84	80	83	92	86	77	89	81	92	85	81	77	93	87	90
U. Autónoma de Madrid	90	78	82	91	88	90	86	86	85	81	78	87	82	58	69	77	75	76	85	74	78	92	92	90
U. Carlos III	90		92		88		91	78	88		89		76	83	87	58	64		90		79		94	
U. de Navarra	90	94	89	90	89	92	100	96	94	100	100	93	68	74	74	61	60	74	96	90	82	97	89	100
U. Rovira i Virgili	88	96	87	97	90	83	78	77	76	80	78	83	83	96	89	89	78	67	88	89	77	91	88	92
U. de València	86	81	80	88	91	80	86	82	88	82	79	88	74	62	66	71	82	59	83	93	72	92	81	89
U. de Santiago de Compostela	85	79	78	83	88	80	75	72	73	68	73	81	82	69	75	75	82	63	85	78	69	93	81	93
U. de Girona	85	79	78	81	83	78	80	73	74	69	74	85	77	68	73	72	71	57	79	82	69	86	77	92
U. Politécnica de Madrid	84		83		77		76		81	68	73		77	76	77	67	60	72	95		73		89	
U. de Cantabria	82		69	88	76	75	80	84	76	79	76	84	70	69	54	71	56	53	87		70	98	85	96
U. de Vigo	81	77	81	86	75	74	74	81	75	72	64	82	75	58	79	78	63	53	81	75	68	81	88	93
U. de Alcalá	79	90	76	81	73	73	79	91	80	79	66	81	65	71	63	63	58	52	86	83	71	83	89	91
U. de Lleida	78	74	83	78	78	70	80	75	82	81	82	80	63	56	73	56	54	48	91	83	84	88	87	90
U. del País Vasco	78	81	75	89	76	75	81	83	81	83	77	83	62	61	60	70	54	54	89	96	76	96	89	97
U. de Burgos	77	86	78	86	74	69	79	78	80	90	73	75	64	75	68	62	55	51	80	94	68	85	86	80
U. Internacional de Catalunya	77		67			66	92	34	85		85	98	51		44		54	34	100		85			98
U. de Córdoba	77	69	74	77	74	68	74	74	73	69	68	81	66	50	66	64	58	44	81	81	66	84	86	96
U. Pública de Navarra	76		72		70	75	84		83	84	79	81	56	67	53	57	45	56	90		81		87	94
U. de Zaragoza	76	79	73	80	73	68	82	85	81	77	74	90	57	57	57	60	52	39	87	86	72	96	91	94
U. Complutense	75	76	69	75	74	70	79	80	78	75	68	82	60	57	53	54	59	47	81	76	72	91	90	88
U. de Salamanca	75	78	81	75	74	74	77	80	79	68	67	79	61	59	76	61	60	55	83	83	68	87	90	92
U. de Granada	75	75	74	76	75	73	81	82	79	77	73	86	59	54	61	55	57	49	78	76	64	90	85	90
U. de les Illes Balears	73	76	74	83	72	77	70	74	69	72	64	75	63	59	68	71	58	63	87	96	80	92	86	93
U. de Vic - U. Central de Catalunya	73	79	80	84	79	58	77	67	76	63	73	84	57	75	74	83	63	30	86	79	76	89	94	91
U. Politécnica de Cartagena	73		77		66		74		83		67		58		66	50	46		91		58		87	
U. da Coruña	72	76	69	75	66	72	72	72	73	74	64	78	60	65	57	57	49	52	81	74	66	78	83	87
U. Miguel Hernández de Elche	72	59	66	78	67	68	71	76	69	75	64	77	60	36	55	60	51	47	85	61	61	87	85	85
U. Ramon Llull	72	77	85	91	76	61	97	82	100	90	88	94	43	56	62	68	49	30	90	83	86	91	88	86
U. Jaume I	71	78	72	90	72	77	75	86	75	87	71	73	56	55	61	69	54	66	78	86	67	95	81	86
U. de Alicante	71	74	71	76	70	65	75	83	73	70	73	84	57	51	61	61	49	40	76	85	65	87	83	88
U. de León	71	75	70	72	69	66	78	79	78	71	75	86	53	55	55	54	45	39	83	87	67	86	86	89
U. de Almería	71	65	71	74	68	70	77	80	78	72	65	79	55	41	58	55	49	49	74	75	61	90	88	83
U. de Valladolid	71	77	69	79	71	70	77	87	75	78	69	78	53	54	55	58	53	49	84	82	69	100	86	98
U. de La Rioja	71	73	67	77	57	79	81	92	77	73	77	69	50	43	49	57	30	71	86	100	76	98	83	100
U. de Deusto	70	74	84		74	68	87	90	88		85	94	46	45	69		47	40	86	100	84		87	74

Table 4.9. Performance In	dex b	y dim	ension	and	area o	of stu	dy																	
			GLO	BAL					TEAC	HING				RESEAR	RCH ANI	) inno	VATION			LABOF	r Marki	et inse	RTION	
University	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences	Global	Arts and Humanities	Social and Legal studies	Sciences	Engineering and Architecture	Health Sciences
IE University	70		86				94	38	98		97		42		65		27		88		86			
U. de Sevilla	70	69	68	75	67	72	70	70	67	70	63	77	57	53	60	59	50	54	82	76	64	91	86	92
U. de Oviedo	70	71	64	73	66	68	79	79	77	79	71	81	51	49	46	49	44	43	85	81	70	89	87	93
U. de Murcia	70	69	67	71	72	65	71	69	71	66	66	76	57	53	54	55	57	42	80	80	68	86	86	89
U. Pablo de Olavide	69	70	65	81		71	74	80	73	75	67	81	54	47	50	65	59	51	73	78	71	86		78
Mondragon Unibertsitatea	69		67		78		93		96		96		41		39		46		92		86		92	
U. de Castilla-La Mancha	68	74	62	70	67	62	71	79	71	72	63	67	53	54	46	49	50	44	87	86	73	88	89	97
U. de Málaga	67	64	65	70	63	66	72	72	75	67	63	76	52	43	49	53	45	44	76	73	62	85	86	88
U. de Cádiz	67	68	61	74	61	63	70	72	68	74	58	74	53	49	48	55	45	40	80	81	58	84	87	95
U. de Jaén	67	70	63	71	64	63	77	76	75	77	69	75	48	49	45	49	41	41	78	82	66	79	87	83
U. de La Laguna	67	63	57	74	67	62	65	67	66	67	56	67	55	44	41	59	58	43	84	79	69	92	84	92
U. Pontificia Comillas	65	81	69		63	42	92	100	90		89	95	36	50	43		31	13	98	100	94		93	89
U. de Las Palmas de Gran Canaria	65	70	63	76	61	66	73	79	70	84	66	83	46	47	49	53	39	40	83	85	69	73	81	95
U. de Extremadura	63	70	63	66	55	59	70	80	69	62	59	77	45	47	50	48	35	34	81	90	61	94	86	92
U. San Pablo - CEU	63		58	70	65	61	85	91	80	85	79	100	36	37	34	40	39	28	92		76	96	86	96
U. de Huelva	62	65	61	64	61	55	72	73	73	72	64	67	44	44	43	39	41	34	78	79	67	91	87	82
U. Católica San Antonio	62		63		66	57	69	78	67	33	55	81	44		49		55	31	90		78		94	91
U. Rey Juan Carlos	61	62	59	66	61	62	64	64	67	58	54	75	47	46	44	54	47	39	78	70	70	83	92	91
U. Oberta de Catalunya	61	74	74		63	56	57	52	61		57	63	52	79	77		48	38	88	97	84		91	81
U. Católica de Valencia	55		51	61		51	75		72	67		84	30		28	39		23	94		86	85		88
U. Europea de Madrid	53	52	49		48	51	86	85	86	63	89	97	25	23	22	40	17	20	96	73	80		95	98
U. Cardenal Herrera - CEU	51		41		58	43	84		73		80	90	23		17		30	14	95		72		73	94
UNED	50	55	52	49	49		51	46	55	44	46	57	37	46	40	35	34		82	94	80	96	91	72
U. Nebrija	46		42		49		74	76	79		57	64	20	48	16		28		96		88		92	93
U. Abat Oliba CEU	45		49			28	70		74			73	21		25			7	85		83			77
U. Pontificia de Salamanca	44		53			26	63	31	60		65	66	22		36		11	6	97		93			88
UDIMA	42		46		32	35	64		64		51	79	20		25		12	11	91		87		96	81
U. Internacional de La Rioja	41	55	45		43		84	79	85		77		14	27	17		15	14	96	92	93		100	
U. Fernando Pessoa-Canarias*	40					32	58		32			66	19					10	100					89
U. Camilo José Cela	40		39			42	58	60	56		50	77	19		19			17	99	78	100		91	81
U. Internacional Valenciana	39		33				77	65	75			84	13	20	10		22	9	96		95			
U. Europea de Canarias*	38		32				72		68			93	15		11			9	69		69			
U. Europea de Valencia*	34		40				82	79	86			91	10		14			5	87		80			

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. The universities are ranked according to their overall performance index. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-Ivie (U-Ranking 2025)

Table 4.10. U-Ranking of Spanish	universitie	s 2025. Ar	ts and Humanities		
University	Group	Index	University	Group	Index
U. Pompeu Fabra		100	U. de Granada		75
U. Autònoma de Barcelona		96	U. Oberta de Catalunya		74
U. Rovira i Virgili		96	U. de Castilla-La Mancha		74
U. de Navarra	G1	94	U. de Alicante		74
U. Politècnica de València	_	92	U. de Deusto		74
U. de Barcelona	_	91	U. de Lleida	G3	74
U. de Alcalá		90	U. de La Rioja	65	73
U. de Burgos		86	U. de Oviedo		71
U. Pontificia Comillas	- G2	81	U. de Extremadura		70
U. de València	62	81	U. Pablo de Olavide		70
U. del País Vasco		81	U. de Las Palmas de Gran Canaria		70
U. de Girona	_	79	U. de Jaén		70
U. de Vic - U. Central de Catalunya		79	U. de Córdoba		69
U. de Zaragoza		79	U. de Murcia		69
U. de Santiago de Compostela		79	U. de Sevilla		69
U. Autónoma de Madrid		79	U. de Cádiz		68
U. de Salamanca		78	U. de Almería	G4	65
U. Jaume I	- G3	78	U. de Huelva		65
U. de Valladolid	65	77	U. de Málaga		64
U. de Vigo		77	U. de La Laguna		63
U. Ramon Llull		77	U. Rey Juan Carlos		62
U. da Coruña		77	U. Miguel Hernández de Elche		59
U. de les Illes Balears		76	U. Internacional de La Rioja	G5	55
U. Complutense		76	UNED	GD	55
U. de León		75	U. Europea de Madrid		52

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.11. U-Ranking of Spanish universities 2025. Social and Legal studies												
University	Group	Index	University	Group	Index	University	Group	Index				
U. Pompeu Fabra		100	U. Oberta de Catalunya		74	U. de Jaén		63.0				
U. Autònoma de Barcelona	G1	92	U. de Córdoba		74	U. Católica San Antonio		62.9				
U. Carlos III		92	U. de Granada		74	U. de Extremadura	G4	62.8				
U. Politècnica de València		89	U. de Zaragoza	G3	73	U. de Castilla-La Mancha	64	62.4				
U. de Navarra		89	U. Pública de Navarra	GS	72	U. de Cádiz		60.9				
U. Rovira i Virgili		87	U. Jaume I		72	U. de Huelva		60.7				
IE University		86	U. de Almería		71	U. Rey Juan Carlos		59.2				
U. Ramon Llull		85	U. de Alicante		71	U. San Pablo - CEU		57.8				
U. de Deusto		84	U. de León		70	U. de La Laguna	G5	57.1				
U. Politécnica de Madrid	G2	83	U. Complutense		69	U. Pontificia de Salamanca	GD	53.3				
U. de Barcelona	62	83	U. Pontificia Comillas		69	UNED		52.4				
U. de Lleida		83	U. de Valladolid		69	U. Católica de Valencia		50.9				
U. Autónoma de Madrid		82	U. da Coruña		69	U. Europea de Madrid		49.2				
U. de Salamanca		81	U. de Cantabria		69	U. Abat Oliba CEU		48.6				
U. de Vigo		81	U. de Sevilla		68	UDIMA		46.2				
U. de València		80	Mondragon Unibertsitatea	GG4	67	U. Internacional de La Rioja	<b>G6</b>	44.6				
U. de Vic - U. Central de Catalunya		80	U. Internacional de Catalunya	004	67	U. Nebrija		41.6				
U. de Santiago de Compostela		78	U. de La Rioja		67	U. Cardenal Herrera - CEU		40.7				
U. de Girona		78	U. de Murcia		67	U. Europea de Valencia*		40.5				
U. de Burgos		78	U. Miguel Hernández de Elche		66	U. Camilo José Cela		38.7				
U. Politécnica de Cartagena	G3	77	U. Pablo de Olavide		65	U. Internacional Valenciana	G7	33.4				
U. de Alcalá		76	U. de Málaga		65	U. Europea de Canarias*		32.3				
U. del País Vasco		75	U. de Oviedo		64.2							
U. de les Illes Balears		74	U. de Las Palmas de Gran Ca-		63.3							

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger. Source: BBVA Foundation-Ivie (U-Ranking 2025).

**Table 4.12** presents the results for the sciences field, where Universitat Politècnica de València leads a group of seven universities. These include five public institutions—Barcelona, Universitat Autònoma de Barcelona, Rovira i Virgili and Autónoma de Madrid—and two private ones—Universidad de Navarra and Ramon Llull. The second group (score  $\geq$ 80) is led by Universitat Jaume I, followed by País Vasco and Valencia, with Universitat de Vic-Universitat Central de Catalunya the only private institution represented.

Table 4.13 shows the results for engineering and architecture, headed by Universitat Pompeu Fabra in a group of six public universities. The other five are Universitat Autònoma de Barcelona, Universitat de Barcelona, Universitat Politècnica de Catalunya, Universitat Politècnica de València and Universitat Rovira i Virgili. The second group (score  $\geq$ 80) is led by the first private university to appear—Universidad de Navarra—alongside Universidade Santiago de Compostela, Universidad Autónoma de Madrid, Universidad Carlos III, Universitat Politècnica de València and Universitat Politècnica de València and Universitat Politècnica de València Autónoma de Madrid, Universidad Carlos III, Universitat Politècnica de València and Universitat de Girona.

Finally, in health sciences, **table 4.14** shows that Universitat Pompeu Fabra again leads the field, with a score above 90, in a group that also includes Universitat Autònoma de Barcelona, Universitat de Barcelona and Universidad de Navarra as the leading private institution. The second group (score  $\geq$ 80) is led by Autónoma de Madrid and includes Rovira i Virgili and Santiago de Compostela.

Beyond the general observations noted in connection with table 4.9, the overall rankings by field of study reveal an additional pattern: many universities that have entered a field outside their traditional area of specialization-and have done so more recently-tend to perform very well. This may be because later entrants have more flexibility in selecting degree programs and research specializations. A notable example is engineering and architecture, a field not led by polytechnic universities, where generalist institutions like Barcelona and Valencia, which entered the field later, show very strong results. Conversely, in fields such as social sciences and law, polytechnic universities like the one in Valencia-which joined the field later-also rank among the top-performing institutions.

The analysis by field of study in terms of performance leads to two key conclusions. First, performance-based rankings can be complex, because universities with relatively little activity in a particular field—and therefore low output volume—can achieve high performance scores precisely due to their smaller scale, which implies fewer relative resources are required to produce a given set of results. For example, universities in which the field of engineering and architecture plays a minor role may find it easier to be efficient in that field than polytechnic universities, where these subjects are central and account for a much larger share of activity.

This insight reinforces the importance of using a volume-based approach for certain types of analysis, especially when the goal is to assess a university's total contribution to the system within each field. While efficiency is certainly important, understanding the absolute contribution is equally vital. As shown in **tables 4.15** to **4.20**, volume-based rankings appear to offer a clearer picture of the real situation, as significant output is required to stand out in any given field.

Thus, Universidad Complutense and Universitat de Barcelona lead in arts and humanities; Universitat de València and Universidad Complutense in social sciences and law; Universitat de Barcelona in sciences; the polytechnic universities of Catalonia and Madrid in engineering and architecture; and Complutense and Barcelona in health sciences. The second positions are held by Granada and Universitat Autònoma de Barcelona in arts and humanities; Barcelona and Granada in social sciences and law; Complutense and Autónoma de Madrid in sciences; Universitat Politècnica de València in engineering and architecture; and Valencia in health sciences.

The natural specializations of certain universities the generalist approach of Valencia, Barcelona, Complutense and Granada, the technological focus of the polytechnic universities—become much more apparent when using the volume-based approach. The key conclusion, however, is that the most important thing is that a ranking should enable readers, researchers and other interested audiences to choose the most appropriate perspective based on the matter they wish to consider, which U-Ranking does. Rankings based solely on either volume or performance can be misleading if they steer the

reader towards a narrowly one-dimensional interpretation of realities that are inherently complex.

Table 4.12. U-Ranking of Spanish universities 2025. Sciences												
University	Group	Index	University	Group	Index							
U. Politècnica de València		100	U. de La Rioja		77							
U. de Barcelona		99	U. de Las Palmas de Gran Canaria		76							
U. Autònoma de Barcelona		98	U. de Alicante		76							
U. Rovira i Virgili	C1	97	U. de Granada		76							
U. Autónoma de Madrid	G1	91	U. de Salamanca		75							
U. de Navarra		91	U. de Sevilla		75							
U. Ramon Llull		90	U. Complutense		75							
U. Jaume I		90	U. da Coruña		75							
U. del País Vasco		89	U. de La Laguna	62	74							
U. de València		88	U. de Almería	G3	74							
U. de Cantabria		88	U. de Cádiz		74							
U. de Burgos		86	U. de Oviedo		73							
U. de Vigo		86	U. de León		72							
U. de Vic - U. Central de Catalunya	<b>C</b> 2	84	U. de Jaén		71							
U. de Santiago de Compostela	G2	83	U. de Murcia		71							
U. de les Illes Balears		83	U. de Castilla-La Mancha		70							
U. de Alcalá		81	U. de Málaga		70							
U. de Girona		81	U. San Pablo - CEU		70							
U. Pablo de Olavide		81	U. Rey Juan Carlos		66							
U. de Zaragoza		80	U. de Extremadura	C A	66							
U. de Valladolid		79	U. de Huelva	G4	64							
U. de Lleida	<b>C</b> 2	78	U. Católica de Valencia		61							
U. Miguel Hernández de Elche	G3	78	UNED	G6	49							
U. de Córdoba		77										

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.13. U-Ranking of Spanish universities 2025. Engineering and Architecture											
University	Group	Index	University	Group	Index	University	Group	Index			
U. Pompeu Fabra		100	U. de Salamanca		74	U. Católica San Antonio		66			
U. Autònoma de Barcelona		95	U. Complutense		74	U. Politécnica de Cartagena		66			
U. de Barcelona	G1	92	U. de Deusto		74	U. da Coruña		66			
U. Politècnica de Catalunya	GI	91	U. de Córdoba		74	U. San Pablo - CEU		65			
U. de València		91	U. de Burgos		74	U. de Jaén		64			
U. Rovira i Virgili		90	U. de Zaragoza		73	U. de Málaga	CA	63			
U. de Navarra		89	U. de Alcalá	G3	73	U. Pontificia Comillas	G4	63			
U. de Santiago de Compostela		88	U. Jaume I		72	U. Oberta de Catalunya		63			
U. Autónoma de Madrid	<b>C</b> 2	88	U. de Murcia		72	U. de Cádiz		61			
U. Carlos III	G2	88	U. de les Illes Balears		72	U. de Huelva		61			
U. Politècnica de València		85	U. de Valladolid		71	U. de Las Palmas de Gran Cana-		61			
U. de Girona		83	U. de Alicante		70	U. Rey Juan Carlos		61			
U. de Vic - U. Central de Catalunya		79	U. Pública de Navarra		70	U. Cardenal Herrera - CEU		58			
Mondragon Unibertsitatea		78	U. de León		69	U. de La Rioja	G5	57			
U. de Lleida		78	U. de Almería		68	U. de Extremadura		55			
U. Politécnica de Madrid		77	U. de La Laguna		67	U. Nebrija		49			
U. Ramon Llull	G3	76	U. Miguel Hernández de Elche	CA	67	UNED	<u> </u>	49			
U. de Cantabria		76	U. de Castilla-La Mancha	G4	67	U. Europea de Madrid	G6	48			
U. del País Vasco		76	U. de Sevilla		67	U. Internacional de La Rioja		43			
U. de Granada		75	U. de Oviedo		66	UDIMA	67	32			
U. de Vigo		75					G7				

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

66

Table 4.14. U-Ranking	of Sp	anish	universities 2025. Heal	th Sci	ences			
University	Group	Index	University	Group	Index	University	Group	Index
U. Pompeu Fabra		100	U. da Coruña		72	U. de Castilla-La Mancha		62
U. Autònoma de Barcelona		96	U. Pablo de Olavide		71	U. de La Laguna		62
U. de Barcelona	G1	95	U. de Valladolid	G3	70	U. Rey Juan Carlos	G4	62
U. de Navarra		92	U. Complutense	65	70	U. San Pablo - CEU		61
U. Autónoma de Madrid		90	U. de Almería		70	U. Ramon Llull		61
U. Rovira i Virgili		83	U. de Lleida		70	U. de Extremadura		59
U. de Santiago de Compostela	G2	80	U. de Burgos		69	U. de Vic - U. Central de Catalunya		58
U. de València		80	U. de Córdoba		68	U. Católica San Antonio		57
U. de La Rioja	_	79	U. de Deusto		68	U. Oberta de Catalunya	G5	56
U. de Girona		78	U. de Zaragoza		68	U. de Huelva		55
U. Jaume I		77	U. Miguel Hernández de Elche		68	U. Católica de Valencia		51
U. de les Illes Balears		77	U. de Oviedo		68	U. Europea de Madrid		51
U. Pública de Navarra		75	U. Internacional de Catalunya	CA	66	U. Cardenal Herrera - CEU		43
U. del País Vasco	G3	75	U. de Málaga	G4	66	U. Camilo José Cela	<b>G6</b>	42
U. de Cantabria	65	75	U. de León		66	U. Pontificia Comillas		42
U. de Vigo		74	U. de Las Palmas de Gran Ca-		66	UDIMA	G7	35
U. de Salamanca		74	U. de Alicante		65	U. Fernando Pessoa-Canarias*	67	32
U. de Granada		73	U. de Murcia		65	U. Abat Oliba CEU		28
U. de Alcalá		73	U. de Cádiz		63	U. Pontificia de Salamanca	<b>G8</b>	26
U. de Sevilla		72	U. de Jaén		63			

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maximum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-Ivie (U-Ranking 2025).

Table 4.15 U-Ranking Volume of Spanish universities 2025. Arts and Humanities												
University	Group	Index	University	Group	Index							
U. Complutense	C1	100	U. Oberta de Catalunya		19							
U. de Barcelona	G1	91	U. Rey Juan Carlos		16							
U. de Granada	C 4	67	U. de Cádiz		16							
U. Autònoma de Barcelona	G4	63	U. Rovira i Virgili		15							
UNED		55	U. de Las Palmas de Gran Canaria		15							
U. de València	CE	55	U. Jaume I		14							
U. de Sevilla	G5	54	U. Pablo de Olavide	G9	14							
U. del País Vasco		50		13								
U. Autónoma de Madrid		48	U. de les Illes Balears		12							
U. de Salamanca	G6	46	U. de Jaén		11							
U. Politècnica de València		45	U. de Extremadura		11							
U. de Santiago de Compostela		36	U. de Girona		11							
U. de Zaragoza	67	31	U. de Lleida		9							
U. de Murcia	G7	31	U. de León		8							
U. de Málaga		30	U. da Coruña		8							
U. de Alicante		28	U. de Huelva		8							
U. Pompeu Fabra		26	U. de Burgos		8							
U. de Oviedo		23	U. de Almería		7							
U. de Alcalá		23	U. Internacional de La Rioja	C10	6							
U. de Valladolid		22	U. de La Rioja	G10	6							
U. de Córdoba	G8	G8	22	U. Pontificia Comillas		5						
U. de Castilla-La Mancha		21	U. de Deusto		5							
U. de La Laguna		20	U. de Vic - U. Central de Catalunya		5							
U. de Vigo		20	U. Ramon Llull		4							
			U. Miguel Hernández de Elche		4							
			U. Europea de Madrid		2							

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.16. U-Ranking Volume of Spanish universities 2025. Social and Legal studies											
University	Group	Index	University	Group	Index	University	Group	Index			
U. de València	C1	100	U. de Navarra		29	U. de León		14			
U. Complutense	G1	99	U. de Oviedo		28	U. San Pablo - CEU		13			
U. de Barcelona	G2	83	U. de Extremadura		27	U. Católica San Antonio		13			
U. de Granada	62	82	U. da Coruña		26	U. Europea de Madrid		12			
U. del País Vasco	G3	76	U. de Deusto		25	Mondragon Unibertsitatea	G9	12			
U. de Sevilla	G4	68	U. de Cádiz		25	U. Miguel Hernández de Elche		12			
U. Autònoma de Barcelona	G4	61	U. Pablo de Olavide		25	U. Nebrija		11			
UNED		55	U. Jaume I		25	U. Católica de Valencia		10			
U. Rey Juan Carlos		53	U. de La Laguna	G8	24	U. Politécnica de Madrid		9			
U. de Zaragoza	G5	52	U. de Las Palmas de G. Canaria		23	U. de La Rioja		8			
U. Carlos III		51	U. de Almería		23	U. Internacional Valenciana		8			
U. Autónoma de Madrid		50	U. de les Illes Balears		23	U. Camilo José Cela		8			
U. de Málaga		48	U. de Córdoba		23	IE University		7			
U. de Alicante		44	U. Rovira i Virgili		22	U. de Vic - U. Central de Catalunya		6			
U. de Murcia	G6	44	U. de Alcalá		21	UDIMA		6			
U. Ramon Llull		43	U. de Jaén		20	U. Internacional de Catalunya	G10	6			
U. Oberta de Catalunya		41	U. de Girona		20	U. Cardenal Herrera - CEU	GIU	5			
U. de Salamanca		39	U. Pontificia Comillas		18	U. Pontificia de Salamanca		5			
U. Internacional de La Rioja		39	U. Pública de Navarra		17	U. Politécnica de Cartagena		4			
U. Pompeu Fabra		38	U. Politècnica de València		17	U. Abat Oliba CEU		2			
U. de Santiago de Compostela	G7	38	U. de Huelva	<b>G9</b>	17	U. Europea de Valencia*		2			
U. de Castilla-La Mancha		37	U. de Cantabria		15	U. Europea de Canarias*		1			
U. de Valladolid		36	U. de Lleida		15						
U. de Vigo		32	U. de Burgos		15	J					

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.17. U-Ranking Volume of Spanish universities 2025. Sciences												
University	Group	Index	University	Group	Index							
U. de Barcelona	G1	100	UNED		19							
U. Complutense	62	87	U. de Girona		18							
U. Autónoma de Madrid	G2	80	U. de les Illes Balears		16							
U. Autònoma de Barcelona	G3	76	U. Rovira i Virgili		16							
U. de Granada		64	U. de Castilla-La Mancha		16							
U. del País Vasco	G4	61	U. da Coruña		14							
U. de València		60	U. de Almería	G9	14							
U. de Sevilla	G5	51	U. de Navarra	65	13							
U. de Santiago de Compostela		44	U. de León		13							
U. Politècnica de València	G6	40	U. de Jaén		12							
U. de Zaragoza		40	U. Pablo de Olavide		11							
U. de Salamanca	67	31	U. de Cantabria		11							
U. de Murcia	G7	30	U. Miguel Hernández de Elche		10							
U. de Córdoba		29	U. Rey Juan Carlos		10							
U. de Oviedo		28	U. Jaume I		9							
U. de Alicante		27	U. de La Rioja		7							
U. de Vigo		26	U. de Las Palmas de Gran Canaria		6							
U. de Málaga		26	U. Ramon Llull		6							
U. de Cádiz	<b>G8</b>	25	U. de Lleida	G10	6							
U. de Alcalá		24	U. de Burgos	- 010	5							
U. de La Laguna		23	U. de Huelva		5							
U. de Extremadura		20	U. de Vic - U. Central de Catalunya		5							
U. de Valladolid		20	U. Católica de Valencia		4							
			U. San Pablo - CEU		2							

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.18. U-Ranking Volume of Spanish universities 2025. Engineering and Architecture								
University	Group	Index	University	Group	Index	University	Group	Index
U. Politècnica de Catalunya	C1	100	U. Pública de Navarra		9	U. de Burgos		5
U. Politécnica de Madrid	G1	100	U. de Córdoba		9	U. de Huelva		5
U. Politècnica de València	G3	78	U. de Las Palmas de Gran Ca- naria		9	U. Pompeu Fabra		5
U. de Sevilla	G7	37	Mondragon Unibertsitatea	-	8	U. de les Illes Balears		5
U. del País Vasco	G	34	U. Jaume I		8	U. de Murcia		5
U. Carlos III	<b>G8</b>	28	U. de Navarra		8	U. Europea de Madrid		4
U. de Zaragoza		19	U. de València		8	U. de Deusto		4
U. de Granada		17	U. de Girona		8	U. Internacional de La Rioja		3
U. de Málaga		17	U. de Santiago de Compostela		8	U. de La Rioja		2
U. de Vigo		15	U. Oberta de Catalunya		8	U. San Pablo - CEU		2
U. de Oviedo		15	U. Ramon Llull		7	U. Católica San Antonio		2
U. de Castilla-La Mancha		15	U. de La Laguna	G10	7	U. Nebrija	G10	1
U. de Valladolid		14	U. de Extremadura		7	U. de Vic - U. Central de Cata- lunya		1
U. da Coruña		14	U. Autónoma de Madrid		7	U. Cardenal Herrera - CEU		1
U. Politécnica de Cartagena	G9	13	U. de Jaén		7	UDIMA		<1
U. Rey Juan Carlos		12	U. de Lleida		7			I.
U. de Alicante		11	U. de Salamanca		6			I.
U. Complutense		11	U. Miguel Hernández de Elche		6			
U. de Cantabria		11	U. de León		6			
U. de Alcalá		11	U. de Barcelona		6			
U. Autònoma de Barcelona		10	UNED		6			
U. Rovira i Virgili		10	U. Pontificia Comillas		6			
U. de Cádiz		10	U. de Almería		6			I

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger.

Source: BBVA Foundation-lvie (U-Ranking 2025).

Table 4.20. U-Ranking Volume of Spanish universities 2025. Health Sciences								
University	Group	Index	University	Group	Index	University	Group	Index
U. Complutense	G1	100	U. Católica San Antonio		24	U. Pompeu Fabra		11
U. de Barcelona	GI	98	U. de Córdoba		23	U. de Girona		11
U. de València	G2	88	U. Católica de Valencia		23	U. de Alicante	G9	11
U. de Granada		67	U. de La Laguna	G8	22	U. de Jaén		11
U. Autònoma de Barcelona	G4	66	U. de Extremadura	00	22	U. da Coruña		11
U. de Sevilla		60	U. Rovira i Virgili		22	U. de Almería		10
U. de Santiago de Compostela	G5	58	U. de Valladolid		21	U. de Deusto		8
U. del País Vasco	GD	53	U. de Oviedo		20	U. Pública de Navarra		7
U. de Murcia	G6	42	U. Internacional de Catalunya		18	U. de Huelva		6
U. Autónoma de Madrid	GO	42	U. de Las Palmas de Gran Canaria		18	U. Pontificia Comillas		6
U. de Zaragoza		38	U. de Cádiz		17	U. de Burgos		4
U. de Salamanca		37	U. Oberta de Catalunya		17	U. de Vigo		4
U. Europea de Madrid	G7	32	U. de Lleida		16	U. Pablo de Olavide	G10	4
U. de Navarra		31	U. de Vic - U. Central de Cata-	G9	16	U. Pontificia de Salamanca	010	3
U. Miguel Hernández de Elche		30	U. Rey Juan Carlos	69	16	U. Camilo José Cela		3
U. de Alcalá		29	U. Ramon Llull		15	U. Fernando Pessoa-Canarias*		2
U. de Castilla-La Mancha		28	U. de León		13	UDIMA		1
U. de Málaga	G8	27	U. de les Illes Balears		13	U. de La Rioja		1
U. San Pablo - CEU		26	U. de Cantabria		13	U. Abat Oliba CEU		1
U. Cardenal Herrera - CEU		25	U. Jaume I		12			

Note: The top-performing university receives a score of 100, and the rest receive scores between 99 and 0, depending on their distance from the maxi-mum index. Universities are ordered and grouped according to the index obtained to one decimal place and within each group according to the full index value. The 19 universities without a score could not be analyzed due to lack of data. Private universities are highlighted in bold. \*Universities 15 years or younger. Source: BBVA Foundation-Ivie (U-Ranking 2025).

Table 4.21. Universities in Group 1 of each ranking					
	U-Ranking Performance	U-Ranking Volume			
Arts and Humanities	U. Pompeu Fabra U. Autònoma de Barcelona U. Rovira i Virgili <b>U. de Navarra</b> U. Politècnica de València U. de Barcelona U. de Alcalá	U. Complutense U. de Barcelona			
Social and Legal studies	U. Pompeu Fabra U. Autònoma de Barcelona U. Carlos III	U. de València U. Complutense			
Sciences	U. Politècnica de València U. de Barcelona U. Autònoma de Barcelona U. Rovira i Virgili U. Autónoma de Madrid <b>U. de Navarra</b> <b>U. Ramon Llull</b> U. Jaume I	U. de Barcelona			
Engineering and Architecture	U. Pompeu Fabra U. Autònoma de Barcelona U. de Barcelona U. Politècnica de Catalunya U. de València U. Rovira i Virgili	U. Politècnica de Catalunya U. Politécnica de Madrid			
Health Sciences	U. Pompeu Fabra U. Autònoma de Barcelona U. de Barcelona <b>U. de Navarra</b> U. Autónoma de Madrid	U. Complutense U. de Barcelona			

Source: BBVA Foundation-Ivie (U-Ranking 2025).

**Table 4.21** offers a clear overview of how volume and performance rankings interact within each field of study. It lists, for each field, the universities that make up Group 1—the top performers—in each ranking approach.

The main takeaway is a confirmation of the idea that the university system can and should be examined from two complementary and necessary viewpoints: productivity and total output. A ranking must offer both if it is to be genuinely useful. In most cases, the Group 1 universities listed in each column—each approach—are different. Those in the first column tend to be smaller institutions whose output, relative to their size, is particularly high. Universitat Pompeu Fabra, which tops the performance ranking, also appears in the top group across four of the five fields, illustrating the basis of its leadership. More generally, a core group of institutions—including the autonomous universities of Madrid and Barcelona, Universidad Carlos III and the polytechnic universities of Catalonia and Valencia—are present in many fields. When the goal is to evaluate efficiency in producing outcomes within specific disciplines, this is the appropriate approach to follow and U-Ranking provides the means to do so.

The second conclusion, which becomes evident when examining the right-hand column, is that universities such as Universidad Complutense de Madrid, Universitat de València, Universitat de Barcelona and the polytechnic universities of Madrid and Valencia contribute very substantially to society in terms of overall output, even if their productivity levels are somewhat lower. This contribution should be duly acknowledged in analyses where the primary focus is on net output—whether in research or human capital.

A third conclusion that emerges from the analysis by field of study is the exceptional performance of Universitat de Barcelona. It appears in the top performance group in four out of five fields (arts and humanities, sciences, engineering and architecture, and health sciences) and it also features in the top volume group in three of those fields (arts and humanities, sciences and health sciences). This demonstrates that high productivity is not incompatible with high volume, setting a benchmark both for larger universities (which can increase productivity without reducing size) and for smaller ones (which can grow while maintaining strong performance).


# Technical analysis of U-Ranking

In the previous chapter, we presented the main results of U-Ranking, focusing on the positions of universities in each of the classifications produced by the project: U-Ranking, U-Ranking Volume, U-Ranking Dimensions and, as a new feature in this thirteenth edition, U-Ranking Fields of Study.

The methodological updates introduced in the 2025 edition are set out in Chapter 2. They can be summarized as follows: (1) the addition of a new dimension to the ranking—graduate employ-ability; and (2) the replacement of certain indicators, made possible by improvements in data sources over the past thirteen years. These enhancements now allow for the use of indicators that align more closely with the latent variables they are intended to measure and that were not available when the ranking was initially developed.

These changes, particularly the inclusion of the graduate employability criterion, naturally result in a reordering of the 2025 rankings compared to those that would have been obtained using the 2024 methodology (i.e. without employability or the new indicators based on improved data). Such adjustments are standard practice in any revision of statistical series, but when the adjustment is made, it is essential to perform a technical analysis of their impact, assessing the behavior of the new edition using the robustness checks applied in previous editions. This assessment includes: a comparison between the volume-based ranking

and the performance-based ranking; a comparison of U-Ranking results with those of other international rankings, especially the ARWU or Shanghai Ranking; an analysis of U-Ranking's sensitivity to changes in the weights assigned to research, teaching and employability; an examination of whether differences between the public and private university systems persist; and an assessment of whether the results of regional university systems have changed as a result of the methodological updates.

This technical analysis is the subject of Chapter 5. Although a similar analysis was performed in previous editions, it takes on particular importance in the current edition due to the changes outlined above.

## 5.1. U-RANKING VOLUME VS. U-RANK-ING PERFORMANCE

As noted in the previous chapter, the volume and performance rankings serve different purposes and are useful in different contexts. In some cases, it may be of interest to analyze the university system in terms of institutional productivity, in which case the performance ranking is the most appropriate tool. In other cases, however, the focus may be on assessing each university's overall contribution to the system, regardless of how efficiently it uses its resources, and for that purpose the volume ranking is the more appropriate instrument. The results presented in Chapter 4 showed very different university orderings depending on the approach taken, as summarized in **figure 5.1**. The vertical axis shows the U-Ranking Volume scores, which reflect both performance and institutional size, while the horizontal axis shows the U-Ranking Performance scores, which are adjusted to remove the effect of size. Both sets of results correspond to the 2025 edition.

## Figure 5.1. U-Ranking vs. U-Ranking Volume of Spanish universities

#### Index 100 in each ranking



Note: See appendix 2 for a list of abbreviations. Source: BBVA Foundation-Ivie (U-Ranking 2025).

Several observations can be drawn from the figure. The differences in scores are significantly greater in the volume ranking due to the influence of institutional size. The volume scores range from zero to 100, whereas the performance scores range from 32 to 100. This first pattern is consistent with what was observed in the 2024 edition.

The universities are ordered from top to bottom along the first axis and from right to left along the second. As can be seen—and as was also the case in the 2024 edition—the spread of points in the graph is considerable, indicating that there is no clear correlation between the rankings. In general, institutional size does not appear to have a consistent influence on performance, either positive or negative.

At the top of the chart are the universities with the highest output (U-Ranking Volume score >70): Universidad Complutense, Universitat de Barcelona, Universitat de València, Universidad de Granada, Universidad de Sevilla and Universidad del País Vasco. These institutions also perform well in terms of productivity (U-Ranking score >70). In other words, they are capable of combining a high volume of results with strong performance.

We can also identify universities with a somewhat lower volume of results (score between 40 and 70) that nonetheless stand out in U-Ranking (score >70). These include the polytechnic universities of Valencia, Catalonia and Madrid, Universitat Autònoma de Barcelona and the universities of Zaragoza and Santiago de Compostela.

Moreover, as highlighted by the lack of a clear correlation between the two rankings, there are universities with high performance (score >70) despite having a relatively low output volume (score <40). Examples include the top-ranked university in U-Ranking, Pompeu Fabra, along with Carlos III de Madrid, Rovira i Virgili and private institutions such as Navarra, Ramón Llull and Internacional de Catalunya. Finally, there are universities that not only have low output volumes (score <20) but also unexceptional performance, as in the case of a number of private universities, including Europea de Valencia, Europea de Canarias, Internacional de Valencia, UANE and UDIMA.

It is important to note that a university's score in U-Ranking Volume is not attributable solely to its size,<sup>28</sup> but rather to a combination of size and productivity. To illustrate the role of size in determining total output, **figure 5.2** plots these two variables in panels *a* (all universities) and *b* (detail of universities with a U-Ranking Volume score of 25 or below). Size is shown on the horizontal axis and each university's U-Ranking Volume score on

<sup>&</sup>lt;sup>28</sup> As explained earlier, the size indicator is the normalized arithmetic mean of the number of students, number of faculty and actual income of each university.

the vertical axis. Institutions positioned above the diagonal are those that achieve above-average performance, thereby enhancing the volume of results that would be expected based on their size alone.



a) Total



b) Universities with a U-Ranking Volume Index equal to or below 25



Note: The size indicator is a standard arithmetic mean of the teachers, students and budget of each university. See appendix 2 for a list of abbreviations.

Source: BBVA Foundation-Ivie (U-Ranking 2025).

This representation reveals that productivity also contributes positively to the volume ranking of a number of medium-to-large universities—including Universitat de Barcelona, Universitat de València and the polytechnics of Valencia and Catalonia, along with Universitat Autònoma de Barcelona which achieve results above what their size alone would predict.

This boost in results due to strong performance can also be seen in some smaller institutions (panel *b*), such as Pompeu Fabra, Rovira i Virgili, Girona and Cantabria. However, the majority of smaller universities lie below the main diagonal, indicating that their productivity or performance is below the system average.

A perhaps more effective way of visualizing the Spanish university system's results from the two perspectives of performance and volume—each of which, as we have repeatedly emphasized, is necessary and useful depending on the researcher's aims or the user's interests—is through a Venn diagram, as seen in **figure 5.3**. This diagram displays the top 15 universities in U-Ranking and in U-Ranking Volume, showing the intersection between the two sets, i.e. the universities that appear among the top 15 in both classifications.

This analysis gives us a group of 22 universities that appear in the top 15 of at least one of the U-Ranking classifications. As illustrated in **figure 5.4**, this group accounts for 31% of the institutions analyzed in U-Ranking, yet generates 59% of the total output of the Spanish university system. Breaking this down by the three dimensions that make up U-Ranking, this leading group produces 55% of teaching results, 63% of research output and 54% of employability outcomes.

The intersection of the two rankings identifies eight universities that could be described as the "flagship" institutions of the Spanish university system—distinguished both by their efficient use of resources to achieve high performance and by the volume of teaching, research and innovation, and employability results they generate. The eight are: Universitat de Barcelona, the autonomous universities of Madrid and Barcelona, Universitat de València, the polytechnic universities of Madrid, Catalonia and Valencia, and Universidade de Santiago de Compostela. Together, these eight universities, which represent 11% of the Spanish university system, contribute 26% of the system's total output: 23% of teaching, 30% of research and innovation and 22% of employability results.

Surrounding these eight institutions are two valuable groups, or "tiers", each with distinctly different characteristics. The first is a group of highperforming universities that are highly productive but smaller in size and therefore contribute a smaller volume overall. They are: Universitat Pompeu Fabra, which tops the performance ranking, Universidad Carlos III de Madrid, Rovira i Virgili, Vigo, Cantabria, Girona and Universidad de Navarra, which is the only private institution among the 22 top performers. The second tier consists of universities that perform strongly in the volume ranking but somewhat less so in terms of performance. They are: Universidad Complutense de Madrid, which leads the volume ranking, the universities of Granada, Sevilla, País Vasco, Zaragoza and Málaga, and UNED.

#### Figure 5.3. U-Ranking vs. U-Ranking Volume



Note: The top 15 universities are included in both U-Ranking and U-Ranking Volume, corresponding to groups 1 and 2 of the first ranking, and groups 1 to 6 of the second.

See appendix 2 for a list of abbreviations.

Source: BBVA Foundation-Ivie (2025).

As can be seen in figure 5.4, in addition to the group of 22 universities that rank among the top 15 in either or both of the U-Ranking classifications, the 2025 edition also identifies two other groups. One group, comprising 20 universities, has intermediate results (above the median score but not in the top 15 of either ranking). The other is made up of the remaining 30 institutions, whose results fall below the median. The universities with intermediate performance (28% of the university system) account for 19% of total teaching, research and employability outcomes, while the group with the weakest overall results (42% of the system) contributes just 22% of the total output included in U-Ranking.

#### Figure 5.4. Contribution to the results of the Spanish University System Percentage



Source: BBVA Foundation-Ivie (2025).

## 5.2. U-RANKING VS. SHANGHAI RANK-ING

Many universities are keen to compare themselves with the world's top institutions and this aspiration helps explain the popularity of international rankings, which are increasingly numerous and diverse in their methodologies. Given the attention paid to these benchmarks, it is worth asking to what extent the results of U-Ranking align with or differ from those of international rankings. As a point of external comparison, we will focus primarily on the Academic Ranking of World Universities (ARWU), widely known as the Shanghai Ranking, which is undoubtedly the most prominent.

Since its 2017 edition, the Shanghai Ranking has listed the top 1,000 universities from among the more than 20,000 higher education institutions worldwide. In the latest ARWU edition, 36 Spanish universities (35 public and one private) are included in the top 1,000. For the top 100 universities, ARWU provides individual rankings; those ranked 101 to 200 are grouped in bands of 50; and from 201 onwards, universities are grouped in bands of 100. As shown in **figure 5.5**, in the most recent edition, 10 Spanish universities are ranked among the top 500, but none makes it into the top 100. Universitat de Barcelona ranks among the top 200 and Universitat de València among the top 300. Spain ranks sixth globally in terms of the number of universities included in the top 1,000. While 11% of Spanish universities are placed in the top 500, 39% are featured in the overall ranking, that is, among the 1,000 best universities in the world.





Note: Ordered from the countries' highest to lowest number of universities in the Top 1,000.

Source: CWCU (2025).

The banded positioning system used in the Shanghai Ranking prevents a direct comparison with U-Ranking, since our index provides an individual ranking for each university, whereas the Shanghai Ranking groups institutions together beyond the top 100. However, given that ARWU publishes the data for the six indicators used in its ranking, a synthetic index has been calculated from these variables to enable an equivalent individual ranking of the 36 Spanish universities included. Having ordered the Spanish universities using this calculated index, **figure 5.6** presents a comparison of the international ranking with U-Ranking Volume (panel *a*) and U-Ranking Performance (panel *b*).

Panel *a* plots the position of Spanish universities in U-Ranking Volume on the horizontal axis and their position in the Shanghai Ranking on the vertical axis. The results show a fairly similar ordering in both rankings, which is why most universities are clustered in quadrants I and III of the graph.

Universities in quadrant IV are comparatively better positioned in our volume ranking. Notable examples include the polytechnic universities of Catalonia and Madrid and Universidad de Málaga, all of which rank significantly higher in U-Ranking Volume than in the Shanghai Ranking. Conversely, universities located in quadrant II are comparatively better placed in the Shanghai Ranking. A common feature in many of these cases is that they are smaller, yet more productive institutions, such as Pompeu Fabra and Universidad de Navarra, whose higher efficiency is also highlighted by their strong performance in the U-Ranking index.

The universities ranked among the top 500 in the 2024 Shanghai Ranking are highlighted with a dark blue circle. Almost all of them occupy top positions in U-Ranking Volume: Universidad Complutense de Madrid, Universitat de Barcelona, Universitat de València, Universidad de Granada, Universidad del País Vasco, Universitat Politècnica de València and the autonomous universities of Madrid and Barcelona. Universitat Pompeu Fabra ranks somewhat lower in U-Ranking Volume owing to its smaller size.

#### Figure 5.6. U-Ranking vs. Shanghai Ranking

a) U-Ranking Volume vs. Shanghai Ranking



b) U-Ranking vs. Shanghai Ranking



Note: Results correspond to an adaptation for 36 Spanish universities that appear in the ranking based on their score in the 5 indicators used and their relative position with respect to the university with the highest score. See appendix 2 for a list of abbreviations.

• Universities in the Top 500 of the Shanghai Ranking 2024. See appendix 2 for a list of abbreviations.

Source: BBVA Foundation-Ivie (U-Ranking 2025) and CWCU (2025).

The differences with ARWU are much more pronounced in the case of U-Ranking Performance (panel *b*), as the Shanghai Ranking makes little adjustment to its indicators for institutional size and so is more a ranking of output volume than of efficiency or performance.<sup>29</sup>

To analyze the positioning of universities that perform well in both U-Ranking classifications (performance and volume) relative to the Shanghai Ranking, **figure 5.7** highlights an area containing fifteen universities that stand out in both dimensions of U-Ranking. Within this shaded area, those that also appear in the 2024 Shanghai Ranking are marked in dark blue.

#### Figure 5.7. U-Ranking and Spanish universities in the Top 500 of Shanghai Ranking Index 100 and TOP 500 universities



Note: See appendix 2 for a list of abbreviations. • Universities in the Top 500 of the Shanghai Ranking 2024. Source: BBVA Foundation-Ivie (U-Ranking 2025) and CWCU (2025).

All the universities highlighted in the Shanghai Ranking fall within the area where our volume and performance rankings converge, underscoring the international comparability of U-Ranking. However, five universities appear in prominent positions in U-Ranking (within the shaded area) but are not included in the top 500 of the 2024 Shanghai Ranking: Universidad Carlos III de Madrid (ranked 901–1000), the polytechnic universities of Madrid (601–700) and Catalonia (801–900), Universidade de Santiago de Compostela (501-600) and Universidad de Zaragoza (501-600).

To illustrate how the three rankings group universities differently, we once again use a Venn diagram to show the institutions that appear in the top 15 of each classification and the overlaps. Of the 72 universities analyzed, 22 feature among the top institutions in at least one of the three rankings (the Shanghai top 500, or the top 15 of U-Ranking or U-Ranking Volume).

At the center of the diagram (**figure 5.8**) are the five universities that hold prominent positions in all three rankings: Universitat de Barcelona, Universitat de València, Universitat Politècnica de València and the autonomous universities of Barcelona and Madrid.

# Figure 5.8. U-Ranking (performance and volume) vs. Shanghai Ranking



Note: The 10 Spanish universities in the Top 500 of the Shanghai Ranking 2024 and the first 15 universities in U-Ranking and U-Ranking Volume are included that correspond to groups 1 and 2 of the first ranking and 1 to 6 of the second.

See appendix 2 for a list of abbreviations.

Source: BBVA Foundation-Ivie (U-Ranking 2025) and CWCU (2025).

Another eight universities hold prominent positions in two of the rankings: Universitat Pompeu Fabra appears in both the Shanghai Ranking and U-Ranking; Universidad Complutense de Madrid, Universidad de Granada, Universidad de Sevilla and Universidad del País Vasco (EHU), in both the Shanghai Ranking and U-Ranking Volume; and the

by the total number of professors at the university—as an indicator of faculty quality.

<sup>&</sup>lt;sup>29</sup> For example, as we have noted, the Shanghai Ranking uses the number of faculty members who have received a Nobel Prize or a Fields Medal—not that number divided

polytechnic universities of Catalonia and Madrid, and Universidade de Santiago de Compostela, in both U-Ranking and U-Ranking Volume. Lastly, eight universities hold prominent positions in only one of the three rankings.

In short, these results reveal substantial overlap among the rankings in identifying leading universities, but also significant differences, which reflect the distinct approaches of each ranking. In summary, of the ten Spanish universities included in the Shanghai top 500, all except Universitat Pompeu Fabra also rank highly for output volume in U-Ranking Volume and six are among our most productive institutions according to U-Ranking Performance. Thus, our classifications-particularly the volume ranking-align closely with those of the Shanghai Ranking, reinforcing their value as tools for identifying best practices and institutions with the greatest impact. At the same time, they show that rankings may yield different orderings depending on the perspective adopted, while confirming that certain universities perform well across the board.

One question that needs to be answered is this: if there is a strong alignment between U-Ranking Volume and the Shanghai Ranking, what does the U-Ranking project add? First and foremost, it covers the entire Spanish university system, whereas ARWU excludes a significant portion of it. If indicators are to be used by universities as benchmarks to diagnose strengths and weaknesses and guide strategic decision-making, U-Ranking gives them what they need-ARWU does not. Furthermore, ARWU follows a purely volume-based approach, while U-Ranking also offers a performance-based analysis, which is a valuable perspective for assessing institutional efficiency. Finally, ARWU does not provide a comprehensive analysis of the various dimensions of university activity, as it omits teaching and employabilitywhich are explicitly included in U-Ranking.

### 5.3. COMPARISON WITH OTHER IN-TERNATIONAL RANKINGS

Although the Shanghai Ranking has established itself as the most widely cited international benchmark, there are other influential global initiatives, such as the Times Higher Education (THE) ranking and the QS ranking. The main differences between these and the Shanghai Ranking are that (i) they consider the role of teaching and (ii) they include subjective assessments based on surveys of international experts and employers. The performance of Spanish universities across these three international rankings shows both similarities and differences, as can be seen in **figure 5.9**, which shows the Spanish universities that appear among the top 500 in each ranking.





Note: See appendix 2 for a list of abbreviations. Source: CWCU (2025), THE (2025) and QS (2025).

To assess the degree of alignment between U-Ranking and the trio of international rankings, one need only compare the universities featured in those rankings with what we might call the "efficient frontier" of U-Ranking and U-Ranking Volume—that is, the universities that, according to our analysis, perform strongly in both. They are the ones highlighted in the shaded area of **figure 5.7**. The first conclusion is that, despite the different methodologies used in the various rankings, there is a very high degree of consistency. Of the 16 universities appearing in at least one of the three international rankings, 13 are within the efficient frontier identified by U-Ranking. Only three private universities—IE University and Ramon Llull (featured in QS) and Navarra (featured in both QS and THE)—do not appear in the U-Ranking efficient area, nor in the Shanghai Ranking.

At the intersection of all three international rankings are five universities—the autonomous universities of Madrid and Barcelona, Universitat de Barcelona, Universidad Complutense de Madrid and Universitat Pompeu Fabra—which also rank highly in our own indices and belong to the group of institutions located on the frontier in **figure 5.7**. These are universities that are scarcely outperformed by any others.

These findings confirm the existence of a group of Spanish universities that consistently occupy leading positions within the national system, regardless of the analytical lens used. They also demonstrate that the level of discrepancy between our ranking and the best-known international rankings is no greater than the discrepancies among those international rankings themselves.

## 5.4. RESEARCH, TEACHING AND LABOR MARKET INSERTION: SENSITIV-ITY ANALYSIS

One of the main challenges inherent in constructing any composite indicator is the impact of the relative weighting of its components. U-Ranking's methodology explicitly acknowledges that teaching, and research and innovation may hold different levels of importance for each user of university services. This is reflected in the "Elige Universidad" web tool, which allows users to generate customized rankings based on their own preferences regarding these dimensions. This effect of relative weighting becomes even more significant in the current edition, with the addition of a new employability-which dimension—graduate increases the likelihood that changes in weighting will lead to substantial changes in the rankings.

The question addressed in this section is how much the overall university rankings would change if the weight assigned to each dimension were adjusted. In previous editions, the weights used to calculate the rankings were based on the results of a Delphi method survey, which gathered the views of the experts involved in designing the project, along with other available information.<sup>30</sup> The inclusion of the graduate employability dimension-given a 10% weighting in this edition-necessitates a reassessment of the relative weights for teaching and research. As explained in Chapter 2 on methodology, the decision for the 2025 edition has been to allocate the remaining 90% equally between teaching (45%) and research and innovation (45%). The main rationale for this decision is that employability is, fundamentally, an outcome of teaching-specifically, of an educational approach that equips graduates for entry into the labor market. It therefore seems reasonable to deduct that 10% from the 56% previously attributed to the teaching dimension. As this results in near-equal weighting between teaching and research, it was decided to assign 45% to each.

The change from the previous edition, then, consists in the addition of the employability dimension, a reduction in the relative weight assigned to teaching and only the tiniest change in the weight assigned to research and knowledge transfer. Based on the selected weightings, the sensitivity analysis that follows explores whether the results are sensitive—or not, in which case we shall consider them robust—to changes in these weightings.

In the **first exercise**, we focus on the sensitivity of the results to variations in the relative weightings of teaching and research, keeping the weight assigned to employability (10%) constant. Subsequently, we analyze how the ranking responds to changes in the weight assigned to employability.

 $<sup>^{30}</sup>$  The weights used in previous editions, before the inclusion of the employability dimension, were 56% for teaching and 44% for research and innovation. These weights were based on expert opinions and closely matched the

distribution of resources between teaching and research activities in university budgets.

Would the results change significantly if more weight were given to research, as is the case in other rankings? Could a university rise to a leading position in the ranking if the weightings for teaching, on the one hand, and research and innovation, on the other, were adjusted to better reflect its particular strengths? The answers to these questions are important for assessing whether the rankings are highly sensitive to the allocation of weights to university activities. As we shall see, the answer to each of these questions is different.

Most rankings place a strong emphasis on research because data on research output is plentiful and generally considered more precise and reliable. This bias-based on "using what can be measured"-is often defended on the grounds that teaching and research are highly correlated. However, this is a hypothesis that remains largely untested due to a lack of robust indicators of teaching outcomes and a lack of consensus on which indicators best reflect the quality of teaching at an institution. Studying the sensitivity of rankings to changes in the weighting of teaching versus research and innovation is thus no easy task. It does, however, allow us to assess whether university performance in these two dimensions is indeed correlated, or whether research-heavy rankings present a biased view that should be understood as only partial.

The fact that research is easier to measure should not be an excuse to neglect the measurement of teaching quality. Likewise, while there may be a positive correlation between quality of teaching and research, this should not obscure the possibility of divergence: if two universities achieve similar research quality but differ in teaching outcomes, ignoring that information will skew the results in favor of one and to the detriment of the other. This point is all the more valid in the Spanish university system, where there is a marked disparity in the importance placed on research, depending on whether the university is public or private and other characteristics such as the university's age, location or strategic priorities.

To assess the extent to which the choice of weights for teaching and research and innovation affects outcomes, we conducted a sensitivity analysis of these weightings within the performance ranking. We calculated three versions of the ranking, each based on significantly different weightings of research and innovation versus teaching:

- Option 1: Teaching 20% / Research and Innovation 70% / Job market insertion 10%
- **Option 2:** Teaching 70% / Research and Innovation 20% / Job market insertion 10%
- U-Ranking 2025: Teaching 45% / Research and Innovation 45% / Job market insertion 10%

**Figure 5.10** shows how the ranking position of each of the 72 Spanish universities analyzed shifts when the weight of research and innovation is varied, according to the three selected weight configurations.

Changes in ranking position are shown by movements to the left or right of the solid-colored circle, which represents the position using the U-Ranking 2025 weightings (Option 3). The horizontal axis indicates the performance group to which the university belongs—or would belong—depending on the weightings used. Recall that there are 10 potential groups, each corresponding to a 10point interval in the index. Thus, Group 1 includes universities with an index score between 90–100, Group 2 includes those scoring between 80 and <90 and so on.

The conclusions are as follows:

- First, using either extreme set of weights would not result in a change of more than two performance groups for any university—with only one exception out of 72 institutions. If the weight assigned to teaching were increased to 70%, Universidad Internacional de Valencia would move up by three groups.
- If the weight for research and innovation were increased to 70% (Option 1), nine universities (12.5%) would shift by two groups, 43 (59.7%) by only one and 20 universities (27.8%) would not change

their classification at all. In summary, 87.5% of universities would not move more than one classification group. Notably, all the universities that would fall by two groups under such a sharp increase in the weight of research are private institutions: Navarra, Ramon Llull, Deusto, IE University, San Pablo-CEU, Europea de Madrid, Cardenal Herrera-CEU, Universidad Internacional de La Rioja and Camilo José Cela.

 Conversely, if the weight of research and innovation were reduced to 20% and teaching were increased to 70% (Option 2), we find similar levels of stability. Apart from the three-group shift already noted for Universidad Internacional de Valencia, 11 universities (15.3%) would move by two groups, 31 universities (43.1%) by one group and 29 (40.3%) would see no change in their group placement. In short, 83.3% of universities would not change their classification group by more than one level.

These results highlight, as previously noted, a clear pattern in the ranking's sensitivity to changes in weights: the private universities, with their strong focus on teaching, are much more sensitive to

increases in the weight assigned to research and innovation than the public universities.

The rankings thus show sensitivity to changes in the weights allocated to teaching and to research and innovation, particularly when comparing weightings as divergent as those in Options 1 and 2. However, a university cannot drop from the top ranks to the bottom, however substantial the changes in weights, although some may climb in the ranking when greater importance is placed on either teaching or research. In U-Ranking, even radical changes in weighting never lead to shifts of more than two classification levels, with the sole exception of Universidad Internacional de Valencia under Scenario 1.

It should be pointed out that sensitivity to change is a desirable property in any measurement tool. If an instrument were unresponsive to significant variations in weights—reflecting different valuations of each factor—it could not be considered useful. If it does not respond to changes in weighting, it is unlikely to respond to changes in indicator levels either, which is precisely what should determine whether a university rises or falls in the ranking. In this respect, U-Ranking is tolerant of moderate adjustments in weighting, but it responds appropriately to significant changes.

#### U. Pompeu Fabra U. Politècnica de Catalunya 8 U. Politècnica de València U. Autònoma de Barcelona U. de Barcelona 8 U. Autónoma de Madrid U. Carlos III $\diamond$ U. de Navarra U. Rovira i Virgili U. de València A U. de Santiago de Compostela U. de Girona U. Politécnica de Madrid U. de Cantabria U. de Vigo U. de Alcalá U. de Lleida U. del País Vasco U. de Burgos $\diamond$ $\odot$ U. Internacional de Catalunya U. de Córdoba U. Pública de Navarra 00000 U. de Zaragoza U. Complutense U. de Salamanca U. de Granada U. de les Illes Balears U. de Vic - U. Central de Catalunya U. Politécnica de Cartagena 00000 Ć U. da Coruña U. Miguel Hernández de Elche $\diamond$ Œ U. Ramon Llull 000000 U. Jaume I U. de Alicante U. de León U. de Almería U. de Valladolid U. de La Rioja U. de Deusto 8 8 IE Universidad U. de Sevilla U. de Oviedo U. de Murcia U. Pablo de Olavide O $\diamond$ Ο Mondragon Unibertsitatea U. de Castilla-La Mancha 8000 U. de Málaga U. de Cádiz $\diamond$ U. de Jaén U. de La Laguna 0 U. Pontificia Comillas U. de Las Palmas de Gran Canaria 888 U. de Extremadura $\diamond$ U. San Pablo - CEU U. de Huelva U. Católica San Antonio U. Rey Juan Carlos U. Oberta de Catalunya U. Católica de Valencia 8 $\diamond$ U. Europea de Madrid 0000 U. Cardenal Herrera - CEU $\mathbf{Q}$ UNFD U. Nebrija 8 U. Abat Oliba CEU U. Pontificia de Salamanca 8 UDIMA Φ U. Internacional de La Rioja $\diamond$ $\diamond$ 8 U. Fernando Pessoa-Canarias U. Camilo José Cela U. Internacional Valenciana Ο 8 U. Europea de Canarias U. Europea de Valencia 10 9 8 7 6 5 4 3 2 1 Coption 1 Teach.=20 % - Research & Inno.=70% -Labor=10% Option 2 Teach.=70 % - Research & Inno.=20% - Labor=10% • U-Ranking 2025 Teach=45% - Research & Inno=45% - Labor=10%

#### Figure 5.10. Changes in U-Ranking groups according to the variations in weights of research and innovation

Note: Universities are ordered by their position in the global performance ranking with the following weights: 45/45/10 Source: BBVA Foundation-Ivie (U-Ranking 2025).

The second exercise we conducted was to assess the impact of significant changes in the weight assigned to employability. The following scenarios were analyzed. Option 1 is based on the principle of equal weighting. It assumes that there is no reason to assign greater importance to one dimension than to another, and so all three-teaching, research and innovation, and employabilityare weighted equally. As previously mentioned, this is not the approach we follow, as universities have a much greater capacity to influence teaching and research outcomes-whether positively or negatively-than they do employability. In the case of employability, universities certainly play a role in preparing graduates for the labor market, but so do external factors beyond their control, such as the economic development of the region in which the university is located (which affects the quantity and guality of job opportunities) and the economic cycle. This makes Option 1 an extreme scenario, but one that is useful for the purposes of a sensitivity analysis.

Option 2 assumes a greater redistribution of the weight formerly assigned entirely to teaching, allocating 20% to employability instead. In summary:

- Option 1: Teaching 33.3% / Research and Innovation 33.3% / Job market insertion 33.3%
- Option 2: Teaching 35% / Research and Innovation 45% / Job market insertion 20%

• U-Ranking 2025: Teaching 45% / Research and Innovation 45% / Job market insertion 10%

**Figure 5.11** shows the effect on ranking group membership for each of the scenarios analyzed. The conclusion is clear: neither of the two scenarios (assigning 33.3% or 20% weight to employability) has a significant impact on the U-Ranking order. In the most extreme scenario (33%), only Universidad Internacional de Valencia would move by two groups. In all other cases, the maximum shift observed is by one group. Under Option 1, 47 universities would move up by one group and 24 would remain unchanged.

The impact of Option 2 is even smaller. Of the 72 universities analyzed, none would shift by more than one group, only eight would move by one group and 64 would maintain their current position.

In summary, once the weight assigned to research is fixed, the decision on how to distribute the remaining weight between employability and teaching has limited consequences. The chosen option (10% weight for employability) is considered justified, given the limited control universities have over outcomes in this dimension. In any case, as the project also provides a ranking by dimension, this can be used to specifically assess university performance in terms of employability.



#### Figure 5.11 Changes in U-Ranking groups according to the variations in weights of labor market insertion

Note: Universities are ordered by their position in the global performance ranking with the following weights: 45/45/10 Source: BBVA Foundation-Ivie (U-Ranking 2025).

## 5.5. RANKINGS FOR TEACHING, RE-SEARCH AND INNOVATION AND LA-BOR MARKET INSERTION

The methodology used in this project generates indicators of outcomes for teaching, employability, and research and innovation activities at universities. These three dimensions are then aggregated to produce the two overall rankings presented-U-Ranking and U-Ranking Volume. However, the individual results for each of the three dimensions can also be ordered separately to produce a teaching ranking, an employability ranking and a research and innovation ranking. Each of these can be calculated in two versions: by volume of output and by performance. This offers an alternative way of assessing whether universities differ in their teaching, employability, and research and innovation outcomes, without entering into the debate about the relative importance of these activities.

Part of Chapter 4 was devoted to presenting these rankings. In Chapter 5, however, our aim is to go beyond merely presenting the orderings derived from these rankings and instead to draw conclusions about the behavioral profiles that the university system exhibits across the three dimensions mentioned. In the next section, we shall also analyze the differences that may exist between public and private universities.

The box plots in **figure 5.12** show the distribution of index scores across the various dimensions and the overall university index in terms of performance (panel *a*) and volume of results (panel *b*). These distributions relate to the university system as a whole. The tips of the vertical green lines ("whiskers") indicate the maximum and minimum scores in each dimension, thus defining the range of variation. The upper and lower bounds of the central box mark the 75th and 25th percentiles, respectively. This interquartile range contains the middle 50% of the distribution. The boundary between the two color blocks within the box represents the median.

Comparing panels *a* and *b*, the following key features emerge:

• The range of scores (the distance between the tips of the whiskers, i.e. between the maximum and minimum values across the universities) is wider in the volume ranking, reflecting the effect of institutional size on performance in U-Ranking. In the volume ranking, it is almost always possible to find a university with a score close to zero and, by design, there is always one institution that leads with a score of 100.



#### $\label{eq:Figure 5.12} \mbox{ Figure 5.12. U-Ranking. Distribution of the indices obtained in each dimension}$

Source: BBVA Foundation-Ivie (U-Ranking 2025).



Figure 5.13. U-Ranking. Distribution of the indices obtained in each area of study

Index 100

Source: BBVA Foundation-Ivie (U-Ranking 2025).

- Volume also has a moderating effect on scores, with median values clustering closely around 20 points.
- Looking at panel *a* of the figure, which shows the distribution of performance scores, we observe that the values are considerably more homogeneous in teaching and, most notably, employability than in research. Research is thus the main differentiating factor in the classification of universities. In employability, all the universities are very close to the leading institution (with low dispersion and a median index above 80). The pattern is similar, though slightly more dispersed, in teaching (with a median index slightly below 80). By contrast, the average distance between the university that leads in research and the other universities is much greater, placing the median value close to 50.

As noted in earlier chapters, the dimensions analyzed are constructed from a series of sub-dimensions or thematic areas. For instance, employability comprises the areas of employment, job matching and earnings. The patterns observed at the dimension level may differ across specific areas, which is why in **figure 5.13** we present the same information as figure 5.12, broken down by area. The high values in the dimensions of teaching and, more particularly, employability—because most of the universities are relatively close to the leading universities—are plain to see. What stands out most, however, is the substantial gap between the system average and the leading universities in the area of teaching internationalization. The next section will explore whether this pattern is driven by differences in university ownership.

In the research dimension, the overall range of variation (the distance between the maximum and minimum values, represented by the tips of the whiskers) is also significant, but so too is the degree of dispersion (the distance between the upper quartile—75th percentile—and the lower quartile—25th percentile). This dispersion is somewhat lower in the area of quality, but very high in the areas of resources, output and internationalization. The next section will examine the extent to which university ownership helps to explain these marked disparities across areas.

One of the issues discussed in earlier chapters was the validity of the assumption, implicit in many rankings, that research indicators can serve as a proxy for teaching performance—that is, that research output predicts or is strongly correlated with teaching outcomes. A much more visual way of highlighting the differences between these areas is to examine scatter plots of the relevant indices. For this purpose, we plot the performance indices for research and innovation against those for teaching (**figure 5.14**, panel *a*) and each of these against employability (panels *b* and *c*). The plots reveal a clear pattern: observations cluster in a vertical band—indicating that high teaching scores are associated with both low and high scores in research and innovation—the former mainly in private universities, and the latter in public ones. As noted previously, the relationship between the variables is weak—a finding confirmed, in panel *a*, by the coefficient of determination (R<sup>2</sup>), which is below 10% (R<sup>2</sup> = 0.0826, corresponding to a correlation coefficient of approximately 0.29).

#### Figure 5.14. U-Ranking dimensions

#### a) Teaching vs. Research and innovation







#### Figure 5.14. U-Ranking dimensions (cont.)





Note: See appendix 2 for a list of abbreviations. Source: BBVA Foundation-Ivie (U-Ranking 2025).

This finding is significant, as many rankings focus exclusively on institutions' research output, assuming that strong research performance inherently reflects strong teaching performance—an assumption not supported by the data. This underlines the importance of using a multidimensional ranking approach, such as that adopted by U-Ranking.

When, in panel *b*, we examine the relationship between teaching and employability, we find a concentration of values—for both public and private universities—at the higher end of the employability index, with only a very weak correlation in the scatter plot ( $R^2 = 0.0347$ ). There appears to be a slightly clearer pattern among public universities, where higher employability tends to align with higher teaching outcomes. Among private universities, however, teaching performance values vary horizontally for any given level of employability, indicating no clear correlation.

Panel *c* provides a clear visual illustration of the very weak relationship between employability and research in the university system, with an  $R^2$  of just 0.1. While all the universities are clustered within a narrow, high band on the employability index, the differences in research levels are stark. It is also evident that most public universities register significantly higher research performance than their private counterparts.

### 5.6. COMPARATIVE RESULTS OF PUB-LIC AND PRIVATE UNIVERSITIES

The increasing share of private universities within the Spanish university system makes it all the more important to compare the universities' performance according to whether they are publicly or privately owned. Undoubtedly, private universities may obtain divergent outcomes for many reasons: they are, on average, much younger and more concentrated in higher-income geographical areas, they offer a narrower range of programs compared to the public system—largely because, being fairly recently established, they have been able to choose their specializations—and they are also generally smaller in size. Nevertheless, before we can determine the reasons for the differences in performance, we first need to establish that the differences actually exist. The U-Ranking indices provide the means to explore this issue using precise data.

**Figure 5.15** presents the distribution of performance and volume scores for each of the ranking dimensions, now broken down by public and private university ownership.

#### Figure 5.15. U-Ranking. Distribution of the indices obtained in each dimension by type of ownership

#### Index 100

#### a) U-Ranking (performance)



#### b) U-Ranking Volume

b1. Public universities





#### b2. Private universities



a2. Private universities

Source: BBVA Foundation-Ivie (U-Ranking 2025).

- The differences (as indicated by the distance between the tips of the whiskers, i.e. the range between maximum and minimum scores) among public universities are significantly greater when looking at the volume of their outputs than at their performance. This pattern is evident across all three dimensions, though more pronounced in research and innovation than in teaching and, most notably, employability. Given the predominance of public universities in the system, this pattern also applies to the system average.
- In the case of private universities, all of which are smaller in size, the pattern is the opposite: we observe much greater homogeneity in the volume index than in the performance index. The heterogeneity in performance is particularly pronounced in research activities.
- For both public and private universities, the differences in performance are generally greater in research than in teaching or employability.
- The range of performance scores is 49.1 points for teaching, 30.6 points for employability and 90 points for research. This finding is significant, as it makes research the main distinguishing factor in the U-Ranking classifications.
- The median performance score for public universities in teaching is 77.1, compared to 79.6 for private universities. For employability, the median for public universities is 83.5, compared to 93.2 for private ones. As we can see, the differences are relatively small in teaching and somewhat greater in employability. For research, however, the median for public universities is 59.4, while for private universities it is only 27.4—nearly half. As noted in Chapter 4, this is the principal distinguishing feature between the public and private sectors.

These figures are derived from the individual indices of each university, without accounting for their relative weight in the distribution. To assess each of the public and private systems as a whole, it is necessary to construct an aggregate index by dividing the total volume of results by the size of each university. The above figures are based on the individual indices of each university, without accounting for their varying weight in the distribution. To compare the public and private systems as a whole, we need to construct an aggregate index by dividing the total volume of university outputs by their combined size.

Figure 5.16 presents the average results of the U-Ranking indices in teaching, employability and research and innovation, and in the overall performance index. Taking the system-wide average as the base value of 100 (calculated as previously described), the performance of private universities is 23 points lower than that of public universities. This result is primarily due to the strong specialization of private institutions in the teaching dimension, where they achieve better performanceby 6 points-than public universities. However, their research results are significantly lower, with performance levels 48 points below those of public institutions. As noted previously, employability outcomes are fairly similar regardless of ownership, although private universities outperform the public sector by 12 points in this dimension.



# Figure 5.16. Average performance of the Spanish public and private universities

Note that each ranking dimension is composed of several thematic areas. Summarizing information at the dimension level can obscure important differences across those areas. For instance, the

Source: BBVA Foundation-Ivie (U-Ranking 2025).

overall performance of public and private universities in a given dimension may result from very different behaviors in the areas comprising that dimension.

**Figure 5.17** compares the simple average score in each area within each ranking dimension for public and private universities, providing some valuable detail. In the teaching dimension, private universities hold a slight advantage, supported by higher scores in the areas of output and quality and especially in internationalization, where the gap between the two sectors is most pronounced. In the area of resources, however, public universities have the advantage.

In the employability dimension, all areas show patterns similar to the overall average, with the private sector enjoying small advantages in income levels, job matching and social security affiliation rates. A similar pattern emerges in the research and innovation dimension, but in the opposite direction: public universities outperform private ones by a wide margin. The differences are especially notable in internationalization, output and resources and only slightly less pronounced in quality of research.

Figure 5.17. U-Ranking. Distribution of the indices obtained in each area by type of ownership índices 100





a) Public universities

Source: BBVA Foundation-Ivie (U-Ranking 2025).

### 5.7. REGIONAL UNIVERSITY SYSTEMS

Universities undertake their teaching and research activities in a certain geographic context that influences them. On the one hand, if they are public, investment efforts as well as incentive policies, fees, assurance and plans quality to boost internationalization vary greatly from one region to another. On the other hand, the socio-economic environments of each region are different: there are differences in the levels of income, the population's educational levels, type of industries, size of firms, specialization, labor market, urbanization, etc.

Many of these circumstances influence the location of private universities, mostly newly created ones, and which are clearly concentrated in the most prosperous regions of Spain, so that the number of regional public and private universities is uneven. For all these reasons, it is interesting to analyze the performance of the so-called *regional university systems.* To the extent that the variables used to calculate the rankings reflect these regional differences, the synthetic indicators will show that the performances of the university systems are not the same.

Panel a of **figure 5.18** shows the averages of the 2025 U-Ranking (performance) index of all universities, both public and private, of each autonomous community. The five distance-learning universities have been removed from this analysis because, given their teaching method, it would present difficulties to assign their scope of action to a particular region. Panel b shows the regional averages of the index if only on-site public universities are taken into account. Both graphs show the number of universities in each region, which shows that the size and complexity of the systems vary greatly.

The results show, in fact, large differences regarding performance among the regional university systems: the autonomous community with the highest performance exceeds by 34 percentage points the region with the lowest performance.

The best-performing university systems are those of Catalonia (11 of the universities analyzed in U-Ranking), and Navarra (with two universities), which have performance indices of 17% and 11%, respectively. They are followed by Cantabria (+8%), Galicia (

6%), the Valencian Community (+3%) all of which are above average. País Vasco and Aragon are at the average of the system.

# Figure 5.18. Performance of the regional university systems in U-Ranking. España=100

#### a) On-site unviersities



*#* Number of universities analyzed

#### b) On-site public universities



Source: BBVA Foundation-Ivie (U-Ranking 2025).

Among the regional university systems with performance levels below the average, we can distinguish several levels: some do not reach 5% — MadridComunidad de Madrid, Balearic Islands and Castile and Leon—, others are less than 10% —La Rioja, Andalusia, Asturias, Murcia and Castile-La Mancha—. While other communities are over 10%, Canary Islands and Extremadura.

Panel b of figure 5.18 analyzes regional performance based only on on-site public universities. When compared with panel a, the changes allow us to see how the performance of private universities affects the performance of the region. Thus, the Valencian Community and Madrid significantly improve their position when only public universities are taken into account, while Navarra's performance worsens. Catalonia maintains first place in both cases.

When comparing the regional university systems, we must take into account that private universities, which on average have a lower performance, tend to be concentrated, as we already have seen, in regions with high levels of income and large potential markets. However, this does not prevent some regional university systems with private especially universities, Madrid, Valencia and Catalonia, from occupying advanced positions, since these communities have powerful and numerous public institutions that stand out for their performance. Madrid, which is above the average when only public on-site universities are considered, falls below when private universities are included.

# Conclusions

U-Ranking aims to produce classifications and perform analyzes of the performance of Spanish universities based on comprehensive data sets that reflect the main dimensions of university activity: teaching, research and innovation, and, as the main innovation in this thirteenth edition, graduate employability. The project generates two main rankings: U-Ranking, which measures university performance that is, the outcomes achieved relative to the resources used—and U-Ranking Volume, which reflects total output by weighting performance according to institutional size.

Both approaches are valid, but one or the other may be more appropriate depending on the objective of the person evaluating university outcomes. By way of illustration, imagine two universities. One employs 100 lecturers and has produced a single patent. Its productivity, or performance, is one patent per 100 lecturers. Another, much larger, employs 1,000 lecturers and has produced five patents. Its productivity is lower—one patent per 200 lecturers—but its total output (five patents) is higher and, therefore, its overall contribution to the productive system that might use those patents is greater.

If a researcher, administrator, university service user, or member of the public interested in institutional performance wishes to analyze university productivity, U-Ranking (performance) is the appropriate tool. But if their interest lies in assessing the universities' contribution to society—in terms of human capital supplied, total scientific output, knowledge transfer services (e.g. patents), or overall graduate employment—then U-Ranking Volume provides the measures they need.

The relationship between a university's total output and its performance or productivity is determined by its size. Size, in turn, depends on a range of factors, including the institution's age, its decisions regarding course offerings, the resources available to it and the dynamism of its surrounding sociodemographic and economic context. Age is particularly relevant, as many of the largest universities trace their origins to medieval general studies institutions, often offering a broad range of academic disciplines. A high proportion of these centuries-old institutions are large in size. By contrast, the newer universities-especially many private ones-tend to be smaller, basing their appeal on specialization in high-demand fields and their location in metropolitan areas in the more economically developed regions with greater demand for skilled human capital.

The two perspectives—performance and volume of output—and the role of size in deriving the latter from the former are taken into account when analyzing both the universities' overall scores and their scores across the three main dimensions: teaching, research and innovation, and employability. The methodology used by U-Ranking to construct the composite indices that underpin its rankings is aligned with international best practices in this field. Bringing together the wealth of information provided by numerous variables on university performance across different areas poses considerable challenges. However, failing to address this complexity and simply presenting the many available indicators separately is not a practical solution. Most people interested in comparing universities do not wish to navigate large, complex datasets, as they are not experts in handling such information. For this reason, students, academics, careers advisers, researchers, university managers, policymakers and the media all value having access to composite indicators. They also appreciate being able, when necessary, to understand how these indicators have been constructed.

In short, rankings—provided they are developed using sound criteria and transparent metrics—are useful because they summarize university performance across a range of areas, reducing the time and effort that users would otherwise have to invest in gathering and analyzing data on their own.

The 2025 U-Ranking indices allow for the analysis of teaching, research and innovation, and—for the first time—graduate employability outcomes for all Spanish public universities (48 in total) and 24 private universities that provide sufficient data for meaningful comparison. More private universities will be included in the future as comparable information becomes available for them.

The set of rankings developed is based on 23 variables and takes into account: (i) universities' different missions (teaching, employability, and research and innovation); (ii) the fact that a university's performance may vary across fields of study; and (iii) the fact that users of university services may have different preferences. By considering all these perspectives, the project allows for multiple ways of engaging with the complex and diverse reality of today's Spanish university system:

• First, the project produces two overarching university rankings: one based on performance (U-Ranking) and the other on total output (U-Ranking Volume).

- Second, it provides six partial rankings (U-Ranking Dimensions): two for teaching, two for research and innovation and two for employability—each in both performance and volume terms.
- Third, this thirteenth edition includes breakdowns of U-Ranking, U-Ranking Volume and U-Ranking Dimensions by field of study (U-Ranking Fields of Study).

This latest feature is particularly important as it enhances the analytical options available to interested audiences, many of whom are interested primarily in particular academic disciplines—as when choosing a degree program.

Each university's performance profiles, as analyzed using this comprehensive set of indicators, include eight rankings plus forty more by field of study. All or some of these may be of interest, depending on the perspective from which an institution is being evaluated, since each ranking offers a different picture of a university. It is up to the users of the information—university leaders, policymakers, researchers, students, careers advisers, analysts and others—to decide which of these representations are most relevant to their needs or interests.

The main findings from the 2025 edition of U-Ranking are as follows:

1. There is a group of universities that can be considered the spearhead of the Spanish university system on account of their strong performance in terms of productivity and/or high total output. Eight of them excel in both, appearing among the top 15 in both U-Ranking and U-Ranking Volume: Universitat de Barcelona, the autonomous universities of Madrid and Barcelona, Universitat de València, the polytechnic universities of Madrid, Catalunya and València, and Universidade de Santiago de Compostela.

- 2. Around this leading group is a second tier of strong performers, made up of highly productive universities that are smaller in size and so have a lower overall output: Pompeu Fabra (which tops the U-Ranking performance list), Carlos III de Madrid, Rovira i Virgili, Vigo, Cantabria, Girona and—the highest-ranked private institution—Universidad de Navarra.
- 3. Also adjacent to the aforementioned core group is another cluster of universities with strong output but somewhat lower performance: Complutense de Madrid (which leads U-Ranking Volume), Granada, Sevilla, País Vasco, Zaragoza, Málaga and UNED.
- 4. Together, these 22 universities that stand out in either performance or output or both make up 31% of the institutions analyzed in U-Ranking, yet they generate 59% of the total output of the Spanish university system. In terms of the three dimensions considered by U-Ranking, this standout group accounts for 55% of teaching results, 63% of research output and 54% of employment outcomes.
- 5. Alongside this group of 22 top performers, the U-Ranking 2025 data identifies two additional clusters: one with intermediate results, comprising 20 universities, and another with below-average results, made up of the remaining 30 institutions. These two groups contribute less to the university system's total output than their representation in the system would suggest, confirming that they are generally smaller and/or less productive. The universities with mid-level results make up 28% of the institutions analyzed but contribute just 19% of the total teaching, research and employability outcomes. And the group with the weakest performance and output indicators accounts for 42% of the institutions assessed by U-Ranking but produces only 22% of the system's total output.
- 6. The thirteenth edition of U-Ranking once again confirms that the performance differences

between universities are significant. In the overall ranking, the top-ranking university outperforms the lowest-ranked one by a factor of nearly three. The gap is even wider—tenfold in the research and innovation dimension. In teaching, however, and especially in employment outcomes, the disparities are much smaller. In teaching, the highest score is twice that of the lowest, and in employment outcomes, only around 1.5 times greater. Outcomes in research and innovation are therefore the main drivers of divergence between institutions.

- 7. In this edition, alongside the ranked list of universities, each institution is also assigned a score on a scale in which the top-performing university is given a value of 100 and the rest are assigned scores between 99 and 0, depending on their distance from the maximum index. This scale is more intuitive for assessing how much room a university has for improvement, compared to the best observed practice in the Spanish university system. However, given the number of indicators considered and the complexity of their aggregation, differences of just a few percentage points are less meaningful than larger gaps. For this reason, the universities are grouped by deciles of their scores, resulting in a maximum of ten groups. Each group contains institutions with similar results and the differences between groups should be considered more significant than those within groups.
- 8. Focusing on U-Ranking Performance, the results show that public universities lead the Spanish university system. In the top group, with scores between 90 and 100, are Universitat Pompeu Fabra—ranked first overall—alongside the polytechnic universities of Catalonia and Valencia, the autonomous universities of Barcelona and Madrid, Universitat de Barcelona, Universidad Carlos III de Madrid and the highest-ranked private university, Universidad de Navarra.

- 9. Public universities also top the ranking by volume of output, where university size plays a direct role, resulting in more marked differences between institutions than in the performance ranking. The top six positions, with scores above 70, are held by long-established institutions that cover virtually all fields of knowledge: Universidad Complutense de Madrid (which leads the ranking), the universities of Barcelona, València, Granada, Sevilla and País Vasco. When large universities also achieve above-average performance—as is the case with most of those mentioned—their contribution to total output is greater, because of both their size and their productivity.
- **10.** The productivity leadership of some public universities is most pronounced in research and innovation activities, with Catalan universities standing out in this regard. The highest-performing group in this dimension is headed by Pompeu Fabra. followed Universitat bv Autònoma de Barcelona and Universitat de Barcelona. The second group (with scores >80) includes two more Catalan universities (Politècnica de Catalunya and Rovira i Virgili), as well as Universidade de Santiago de Compostela, Autónoma de Madrid and Politècnica de València.
- 11. The ranking by volume in the dimension of scientific output and knowledge transfer—where size matters—is led by Universitat de Barcelona, followed by Universidad Complutense de Madrid in the same top group. Universitat de València is placed in the second group, with a score above 80, while the third group comprises Universidad de Sevilla and Autònoma de Barcelona.
- 12. Since the differences in teaching and employability performance are smaller, more universities share the top groups in these two dimensions. Furthermore, private universities are more frequently found among the leaders in these dimensions. The teaching productivity or performance ranking is led by a group of eight universities—two public (Universitat Politècnica de València and Universidad Carlos III) and six private (Universidad de Navarra, Ramon Llull, IE University, Mondragón, Universitat Internacional

de Catalunya and Universidad Pontificia Comillas).

- 13. The volume ranking for teaching output is headed by Universidad Complutense de Madrid, with the next group (score >70) comprising the universities of Granada, València, País Vasco, Barcelona and Sevilla. Once again, the volume ranking is influenced by university size.
- 14. The new feature in this edition—the analysis of employability performance—reveals a scenario with much smaller differences between universities compared to research. In fact, all institutions have a score above 70 and only three groups are formed. The top group is made up largely of private universities, led by Universitat Internacional de Catalunya, while public universities are far less present among the top performers.
- 15. In contrast, the volume-based employability ranking—which accounts for size and thus the number of graduates from each university entering the labor market—is led by Universidad Complutense de Madrid, followed by the universities of Sevilla and País Vasco in the second group and those of Barcelona, Granada and València in the third. As noted previously, it is important to also consider volume because, although some universities excel in employability performance, larger institutions can play a decisive role on account of their capacity to place a large number of graduates from diverse fields into the workforce.
- 16. The analysis by fields of study yields two key conclusions. First, it shows that performancebased rankings can be complex to interpret because universities with a minimal presence in a given field-and therefore a low volume of output-tend to show high performance precisely for that reason. The second conclusion is that the volume-based ranking offers greater clarity when it comes to assessing a university's strength in a particular field, as it combines performance with size to highlight institutions with substantial output in that field. Thus, in the volume ranking, Universidad Complutense and Universitat de Barcelona lead in arts and humanities; València and Complutense in social sciences and law; Barcelona in science; the

polytechnic universities of Catalonia and Madrid in engineering and architecture; and Complutense and Barcelona in health sciences. The second-tier group in each field includes: Granada and Universidad Autónoma de Barcelona in arts and humanities; Barcelona and Granada in social sciences and law; Complutense and Autónoma de Madrid in science; Universidad Politécnica de València in engineering and architecture; and València in health sciences.

- 17. Private universities demonstrate a strong specialization in teaching and perform notably well in this area: their average teaching performance exceeds that of public universities by six percentage points. It is important to note, however, that the private universities included in the ranking show better indicators than most of the private institutions excluded for lack of data based on the values of the variables that *are* available for the latter. Therefore, the average teaching performance of private universities might be lower if all institutions of this type were included.
- 18. The strong focus on teaching among private universities is mirrored by a comparatively weaker position in research performance when set against the public university system. On average, private universities score 48 percentage points lower than public ones in research and innovation performance. While public universities generally achieve higher levels of performance in these areas, there is also considerable variability among them, with institutions represented across the full spectrum of performance groups.
- 19. Some well-known international initiatives—such as the Shanghai Ranking and the Times Higher Education (THE) ranking—have increased the visibility of university rankings and heightened public demand for such classifications. However, these rankings focus primarily on research indicators and international prestige, often centered on postgraduate education, thereby overlooking much of the activity within the Spanish university system, which is dedicated mainly to

undergraduate teaching and does not typically compete in the global postgraduate arena. A similar research-oriented bias is also present in some national rankings, which, though methodologically sound, are based on a limited set of indicators and seldom include meaningful measures of teaching performance. In contrast, our findings seek to counterbalance this bias and highlight the importance of combining indicators of research performance with those of teaching performance. Using the former as a proxy for the latter presents a highly skewed view, as the correlation between the two is low. The inclusion of private universities further dilutes any correlation between these dimensions, as these institutions often combine strong teaching outcomes with weak research performance, thus underscoring the need to recognize the diversity of the Spanish university system.

- 20. Differences in university performance are also evident at the regional level. There is a substantial gap in performance between regional university systems—a gap of up to 34 percentage points between the highest- and lowestperforming autonomous communities. Catalonia—whose system clearly leads the ranking along with Navarra, Cantabria, Galicia, the Valencian Community, the Basque Country and Aragon, all have university systems that are more productive and achieve performance levels above the Spanish national average.
- 21. When analyzing regional performance levels based solely on public in-person universities, it becomes clear that in some regions the significant presence of private universities lowers the overall performance of the regional system—since public universities exceed the national average by a greater margin (as in Madrid and the Valencian Community). In other regions, however, private universities improve the regional average (e.g. in Navarra), while in some, such as Catalonia, their presence has no impact—confirming a higher level of consistency in performance between public and private universities.

22. The thirteenth edition also updates the *Elige Universidad* tool, which enables families and prospective students to explore and compare over 3,600 undergraduate degree programs based on their preferences. In addition to the ranking results, it provides information on tuition fees, admission cut-off marks for the 2024-25 academic year and the most recent data on employment outcomes for 2,730 degree programs, based on statistics from the Ministry of Science, Innovation and Universities in collaboration with the Social Security administration.



## Annex 1: Glossary of Indicators and statistical sources

Dimension	Area	Indicator and definition	Source	Period	Level
		<b>Faculty member per 100 students:</b> Full-time equivalent faculty and research staff in centers belong- ing to the University per 100 full-time equivalent students in studies of 1st and 2nd cycle, bache- lor's and master's degrees and students in doctoral degrees (all of these students registered in centers belonging to the University)	SIIU	2017-18 to 2022-23	Area of study
	Resources stu (all Peu bel	<b>Budget per student:</b> Effective income of the University by number of full-time equivalent students in studies of 1st and 2nd cycle, bachelor's and master's degrees and of students in doctoral degrees (all of these students registered in centers belonging to the University)	SIIU SABI WEB	2017-18 to 2022-23	University
Teaching		<b>Percentage of faculty member with PhD:</b> Full-time equivalent faculty members with PhD in centers belonging to the University over total full-time equivalent faculty and research staff in centers belonging to the University	SIIU	2017-18 to 2022-23	Area of study
	Production	Success rate in bachelor's degree studies: Number of credits passed by grade students registered in an academic year over total credits evaluated within the same course (excluding transfer and recognized credits)	SIIU	2017-18 to 2022-23	Area of study
		<b>Evaluation rate in bachelor's degree studies:</b> Number of credits evaluated by grade students regis- tered in an academic year over total credits registered within the same course (excluding transfer and recognized credits)	SIIU	2017-18 to 2022-23	Area of study
		<b>Overall dropout rate in undergraduate studies:</b> sum of the dropout rates in the first, second and third years of undergraduate studies	SIIU	2013-14 to 2018-19¹	Area of study
		Graduation efficiency rate: percentage of undergraduate students who complete their degree withing the expected timeframe or earlier.	SIIU	2013-14 to 2018-19¹	Area of study
	Quality	<b>Retention rate:</b> Students who, after completing a bachelor's degree, begin a master's program the following academic year at the same university, as a percentage of all students who, after completing a bachelor's degree at that university, begin a master's program the following year at any university within the Spanish University System (SUE)	SIIU	2016-17 to 2021-22²	o Area of study o Area of
	Internacionalization	<b>Percentage of foreign students:</b> Non-Spanish students of 1st and 2nd cycle, bachelor's and master's degrees over the total number of students of 1st and 2nd cycle, bachelor's and master's degrees	SIIU	2017-18 to 2022-23	Area of study
		<b>Percentage of students in international mobility programs:</b> Number of bachelor's and master's de- gree students who study abroad through a mobility program over total number of bachelor's and master's degree students	SIIU	2017-18 to 2022-23	University

Note: <sup>1</sup> First-year program, <sup>2</sup> Final-year program.

Dimension	Area	Indicator and definition	Source	Period	Level
Research and innovation	Resources	<b>Competitive public funding secured for projects and research staff per PhD faculty member:</b> Competitive public resources obtained for non-targeted research projects, including both projects and complementary actions, ERDF funds, and contracts such as FPI, Juan de la Cierva, Ramón y Cajal, and Technical Support, relative to the total number of full-time equivalent PhD faculty	Agencia Estatal de Investigación SIIU	2018 to 2023	Area of study
		Percentage of doctoral students: Percentage of doctoral students over the total number of postgraduate students	Agencia Estatal de Investigación SIIU SABI WEB	2018 to 2023	Area of study
	Production	<b>Citable documents with ISI reference per faculty member with PhD:</b> Documents with ISI reference pub- lished per faculty members with full-time equivalent PhD	IUNE (Thomson Reu- ters) SIIU	2018 to 2023	Area of study
		<b>Number of national patents per 100 faculty members with PhD:</b> Number of national patents granted to each Spanish university by the Spanish Patents and Trade Marks Office per 100 faculty members with full-time equivalent PhD	IUNE (Espacenet)	2018 to 2023	University
		<b>Doctoral theses read per 100 faculty members with PhD:</b> Doctoral theses read per 100 faculty members with full-time equivalent PhD	SIIU	2018 to 2023	Area of study
earch	Quality	<b>Mean impact factor:</b> Mean impact factor of the publications with at least one author affiliated to the University	IUNE (Thomson Reu- ters)	2018 to 2023	Area of study
Reso		<b>Percentage of publications in the first quartile:</b> Publications corresponding to journals in the first quartile of relevance within the Thomson Reuters classification by areas, over the total number of publications belonging to that area	IUNE (Thomson Reu- ters)	2018 to 2023	Area of study
		<b>Citations per document:</b> Citations received per document from the date of publication to the date of data gathering	IUNE (Thomson Reu- ters)	2018 to 2023	Area of study
	Internacionalization	<b>European research funds per faculty members with PhD:</b> Funding received by the university from EU re- search funds per every 100 full-time equivalent faculty members with PhD	European Commis- sion (Horizon Dash- board) SIIU	2018 to 2023	University
		Percentage of publications with international co-authorship: Publications with at least one co-author affil- iated to a foreign institution over the total number of publications	IUNE (Thomson Reu- ters)	2018 to 2023	Area of study

Dimension	Area	Indicator and definition	Source	Period	Level
Insertion	Employment	<b>Employment rate:</b> Percentage of university graduates affiliated with the Spanish Social Security System and employed relative to the total number of graduates	SIIU	2021 to 2023	Area of study
Market Ins	Job-education match	<b>Employed as graduates:</b> Percentage of university graduates employed in positions that match their level of education. University level is considered: Social Security contribution groups for professionals with higher education (engineers, graduates, senior management, and technical engineers)	SIIU	2021 to 2023	Area of study
Labor	Income	<b>Average contribution base:</b> Average annual contribution base of graduates working as employees with a full- time contract	SIIU	2021 to 2023	Area of study

## Annex 2: List of university abbreviations

Abbreviation	University	Type of ownership
ABATOLIBA	Universitat Abat Oliba CEU	Private
COMILLAS	Universidad Pontificia Comillas	Private
IE	IE Universidad	Private
UA	Universidad de Alicante	Public
JAB	Universitat Autònoma de Barcelona	Public
JAH	Universidad de Alcalá	Public
JAL	Universidad de Almería	Public
JAM	Universidad Autónoma de Madrid	Public
JANE	Universidad Nebrija	Private
-	,	
JB	Universitat de Barcelona	Public
JBU	Universidad de Burgos	Public
JC3M	Universidad Carlos III de Madrid	Public
JCA	Universidad de Cádiz	Public
JCAM	Universidad Católica San Antonio	Private
JCEU	Universidad San Pablo-CEU	Private
JCH	Universidad Cardenal Herrera-CEU	Private
JCJC	Universidad Camilo José Cela	Private
JCLM	Universidad de Castilla-La Mancha	Public
JCM	Universidad Complutense de Madrid	Public
JCO	Universidad de Córdoba	Public
JCV	Universidad Católica de Valencia San Vicente Mártir	Private
JDC	Universidade da Coruña	Public
JDE	Universidad de Deusto	Private
JDG	Universitat de Girona	Public
JDIMA		
	Universidad A Distancia de Madrid	Private
JDL	Universitat de Lleida	Public
JEC	Universidad Europea de Canarias	Private
JEM	Universidad Europea de Madrid	Private
JEV	Universidad Europea de Valencia	Private
JFPC	Universidad Fernando Pessoa-Canarias	Private
JGR	Universidad de Granada	Public
JHU	Universidad de Huelva	Public
JIB	Universitat de les Illes Balears	Public
JIC	Universitat Internacional de Catalunya	Private
UJAEN	Universidad de Jaén	Public
UJI	Universitat Jaume I de Castellón	Public
ULL	Universidad de La Laguna	Public
ULPGC	Universidad de Las Palmas de Gran Canaria	Public
UM	Universidad de Las rannas de Gran canana Universidad de Murcia	Public
JMA	Universidad de Málaga	Public
JMH	Universidad Miguel Hernández de Elche	Public
JMON	Mondragon Unibertsitatea	Private
JN	Universidad de Navarra	Private
UNED	Universidad Nacional de Educación a Distancia	Public
JNEX	Universidad de Extremadura	Public
JNICAN	Universidad de Cantabria	Public
JNILEON	Universidad de León	Public
JNIOVI	Universidad de Oviedo	Public
JNIRIOJA	Universidad de La Rioja	Public
JNIR	Universidad Internacional de La Rioja	Private
JNIZAR	Universidad de Zaragoza	Public
JOC	Universitat Oberta de Catalunya	Private
JPC	Universitat Politècnica de Catalunya	Public
JPCT	Universidad Politécnica de Cartagena	Public
JPCT	0	
	Universitat Pompeu Fabra	Public
JPM	Universidad Politécnica de Madrid	Public
JPNA	Universidad Pública de Navarra	Public
JPO	Universidad Pablo de Olavide	Public
JPSA	Universidad Pontificia de Salamanca	Private
JPV	Universitat Politècnica de València	Public
JPV-EHU	Universidad del País Vasco/Euskal Herriko Unibertsitatea	Public
JRJC	Universidad Rey Juan Carlos	Public
JRLL	Universitat Ramon Llull	Private
JRV	Universitat Rovira i Virgili	Public
JS	Universidad de Sevilla	Public
JSAL	Universidad de Salamanca	Public
JSC	Universidade de Santiago de Compostela	Public
JV	Universitat de València	Public
JVA	Universidad de Valladolid	Public
UVIC-UCC	Vic-Universitat Central de Catalunya	Private
UVIGO	Universidade de Vigo	Public



# References

AGUILLO, I. F. «Ranking Web of World Universities: Methodology». Madrid: Cybermetrics Lab, Consejo Superior de Investigaciones Científicas (CSIC). Available at: <u>http://www.webome-</u> <u>trics.info/en/Methodology</u> [access date: May 2023].

AGUILLO, I. F., J. BAR-ILAN, M. LEVENE and J. ORTEGA (2010). «Comparing university rankings». *Scientometrics* 85, n.º 1: 243-256. https://doi.org/10.1007/s11192-010-0190-z

ALDÁS, J. (dir.), A. ESCRIBÁ, M. IBORRA and V. SAFÓN (2016). La universidad española. Grupos estratégicos y desempeño. Bilbao: BBVA Foundation. https://www.fbbva.es/publicaciones/la-universidad-espanola-grupos-estrategicos-y-desempeno/

ALTBACH, P. G. (2006). «The dilemmas of ranking». International Higher Education n.º 42. https://doi.org/10.6017/ihe.2006.42.7878

BENGOETXEA, E. and G. BUELA-CASAL (2013). «The new multidimensional and user-driven higher education ranking concept of the European Union». *International Journal of Clinical and Health Psychology* 13, n.º 1 (January): 67-73. https://doi.org/10.1016/S1697-2600(13)70009-7

BUTLER, D. (2007). «Academics strike back at spurious rankings». *Nature* 447, n.º 7144 (May): 515. https://doi.org/10.1038/447514b

CHE (Centrum für Hochschulentwicklung). CHE Ranking. Available at:

https://www.daad.de/en/studying-in-germany/universities/che-ranking/ [access date: May 2025a]. \_\_\_. CHE Ranking: Methodology. Available at: <u>https://methodik.che-ranking.de/</u>[access date: May 2025].

CLARIVATE ANALYTICS. Web of Science (WOS). Philadelphia. Available at: <u>https://clarivate.com/products/web-of-science/</u>[access date: February 2025].

CWCU (Center for World-Class Universities of Shanghai Jiao Tong University). Academic Ranking of World Universities 2024 (ARWU). Available at: <u>https://www.shanghairanking.com/rank-</u> ings/arwu/2024 [access date: May 2025].

ECCLES, C. (2002). «The use of university rankings in the United Kingdom». *Higher Education in Europe* 27, n.º 4: 423-432. https://doi.org/10.1080/0379772022000071904

ERKKILÄ, T and O. PIIRONEN (2018). *Rankings and global knowledge governance. Higher education, innovation and competitiveness*. Helsinki: Pal-grave Macmillan. <u>https://doi.org/10.1007/978-3-319-68941-8</u>

ESCRIBÁ, A., M. IBORRA and V. SAFÓN (2019). *Modelos de dirección estratégica en universidades españolas de alto desempeño*. Bilbao: BBVA Foundation. <u>https://www.fbbva.es/publica-</u> <u>ciones/modelos-de-direccion-estrategica-en-uni-</u> <u>versidades-espanolas-de-alto-rendimiento-2/</u>

ESPAÑA (2014). «Real Decreto 96/2014, de 14 de febrero, por el que se modifican los Reales Decretos 1027/2011, de 15 de julio, por el que se establece el Marco Español de Cualificaciones para la Educación Superior (MECES), y 1393/2007, de 29 de octubre, por el que se establece la ordenación de las enseñanzas universitarias oficiales». Boletín Oficial del Estado n.º 55, 5 March 2014: 20151-20154. https://www.boe.es/boe/dias/2014/03/05/pdfs/ BOE-A-2014-2359.pdf

\_\_\_\_(2021). «Real Decreto 640/2021, de 27 de julio, de creación, reconocimiento y autorización de universidades y centros universitarios, y acreditación institucional de centros universitarios». Boletín Oficial del Estado n.º 179, 28 July 2021. https://www.boe.es/eli/es/rd/2021/07/27/640/c on

\_\_\_\_(2023). «Ley Orgánica 2/2023, de 22 de marzo, del Sistema Universitario». Boletín Oficial del Estado n.º 70, 23 March 2023. https://www.boe.es/eli/es/lo/2023/03/22/2/con

GARCÍA, J. A., R. RODRÍGUEZ, J. FERNÁNDEZ, D. TO-RRES and F. HERRERA (2012). «Ranking of research output of universities on the basis of the multidimensional prestige of influential fields: Spanish universities as a case of study». *Scientometrics* 93, n.º 3 (December): 1081-1099. https://doi.org/10.1007/s11192-012-0740-7

GONZÁLEZ, B., V. P. GUERRERO and F. MOYA (2010). «A new approach to the metric of journals' scientific prestige: The SJR indicator». *Journal of Informetrics* 4, n.º 3 (July): 379-391. <u>https://doi.org/10.1016/j.joi.2010.03.002</u>

HERNÁNDEZ, J. (dir.), J. A. PÉREZ and J. HERNÁNDEZ (2010). *La Universidad española en cifras 2010*. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). <u>https://www.crue.org/wp-con-</u> tent/uploads/2020/02/UEC\_2010.pdf

HERNÁNDEZ, J. and J. A. PÉREZ (dirs.) (2015). *La Universidad española en cifras 2013-2014*. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). <u>https://www.crue.org/wp-con-</u> tent/uploads/2020/02/UEC 13-14.pdf

\_\_\_\_(2016). La Universidad española en cifras 2014-2015. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). https://www.crue.org/wp-content/uploads/2020/02/UEC\_14-15.pdf

\_\_\_\_(2017). La Universidad española en cifras 2015-2016. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). https://www.crue.org/wp-content/uploads/2020/02/UEC\_Digital\_WEB.pdf

\_\_\_\_(2018). La Universidad española en cifras 2016-2017. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). https://www.crue.org/wp-content/uploads/2020/02/2018.12.12-Informe-La-Universidad-Espa%C3%B1ola-en-Cifras.pdf

\_\_\_\_(2023). La Universidad española en cifras 2019/2020. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). https://www.crue.org/wp-content/uploads/2023/04/CRUE\_UEC\_22\_1-PAG.pdf

INE (Instituto Nacional de Estadística) (2020). Encuesta de Inserción Laboral de los Titulados Universitarios EILU-2019. Madrid. <u>https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica\_C&cid=1254736176991&menu=ultiDatos&idp=1254735976597</u>

IREG (Observatory on Academic Ranking and Excellence) (2006). «Berlin Principles on Ranking of Higher Education Institutions». Warsaw (Poland). <u>https://www.ihep.org/wp-content/up-loads/2014/05/uploads\_docs\_pubs\_berlinprinciplesranking.pdf</u>

\_\_\_\_(2019). IREG Guidelines for Stakeholders of Academic Rankings. Varsovia (Polonia). https://www.hrk.de/fileadmin/redaktion/hrk/02-Dokumente/02-05-Forschung/Netzwerkveranstaltung\_des\_HRK-Serviceprojekts\_Internationale\_Hochschulrankings\_/IREG-guidelines2023.pdf

LOUKKOLA T., H. PETERBAUER and A. GOVER (2020). Exploring higher education indicators. Geneva: Brussels: European University Association (EUA). https://www.eua.eu/publications/reports/exploring-higher-education-indicators.html

MARGINSON, S. (2007a). «Global University Rankings: Implications in general and for Australia». Journal of Higher Education Policy and Management 29, n.º 2: 131-142. https://doi.org/10.1080/13600800701351660

\_\_\_\_(2007b). «Global university rankings: where to from here?». Presentado en: *Ranking Systems: Universities of Choice*. National University of Singapore, 7-9 March 2007. <u>https://www.re-</u> <u>searchgate.net/publica-</u> <u>tion/242561674\_Global\_university\_rank-</u> <u>ings\_Where\_to\_from\_here</u>

MICHAVILA, F. (dir.) (2012) La Universidad española en cifras 2012. Madrid: Conferencia de Rectores de las Universidades Españolas (CRUE). https://www.crue.org/wp-content/uploads/2020/02/UEC\_12-13.pdf MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDA-DES. Indicadores de afiliación a la Seguridad Social de los egresados universitarios. Madrid. Available at: <u>https://www.ciencia.gob.es/Ministerio/Estadisticas/SIIU/Afiliacion.html</u> [access date: January 2025a].

\_\_\_\_. Estadística de precios públicos universitarios: Curso 2024-25. Madrid. Available at: <u>https://esta-disticas.universidades.gob.es/dynPx/inebase/in-dex.htm?type=pcaxis&path=/Universitaria/Pre-ciosPublicos/2024/Grado&file=pcaxis</u> [access date: abril de 2025b].

\_\_\_\_. Registro de Universidades, Centros y Títulos (RUCT). Madrid. Available at: <u>https://www.educacion.gob.es/ruct/home</u> [access date: May 2025c].

\_\_\_\_. Sistema Integrado de Información Universitaria (SIIU). Madrid. Available at: <u>https://www.ciencia.gob.es/Ministerio/Estadisticas/SIIU.html [access date: May 2025d].</u>

\_\_\_\_. Clasificaciones estadísticas universitarias. Madrid. Available at: <u>https://www.ciencia.gob.es/Ministerio/Estadisticas/SIIU/Clasificaciones.html</u> [access date: abril de 2025e].

\_\_\_\_. Estadística de estudiantes universitarios. Madrid. Available at: <u>https://www.cien-</u> <u>cia.gob.es/Ministerio/Estadisticas/SIIU/Estu-</u> <u>diantes.html</u> [access date: May 2025f].

MINISTERIO DE EDUCACIÓN, CULTURA Y DEPORTE Y CCS (Conferencia de Consejos Sociales) (2014). *Inserción laboral de los egresados universitarios. La perspectiva de la afiliación a la Seguridad Social.* Madrid. <u>https://consejosocialuca.es/v2/wp-con-</u> <u>tent/uploads/2022/12/Informe-empleabilidad-</u> <u>MEC-2014 insercion laboral de los egresa-</u> <u>dos universitarios. la persperctiva de la afilia-</u> <u>cion a la seguridad social.pdf</u>

NARDO, M., M. SAISANA, A. SALTELLI, S. TARANTOLA, A. HOFFMANN and E. GIOVANNINI (2008). Handbook on constructing composite indicators. Methodology and user guide. Paris: OECD; Ispra (Italy): Joint Research Centre. https://doi.org/10.1787/9789264043466-en

OECD (Organisation for Economic Co-operation and Development). Talent Attractiveness 2023. Paris. Available at:

https://www.oecd.org/en/data/tools/talent-attractiveness-2023.html [access date: May 2025]. PASTOR, J.M. (dir.), J. ALDÁS, F.J. GOERLICH, P. J. PÉ-REZ, L. SERRANO, A. CATALÁN, Á. SOLER, I. ZAERA and S. MOLLÁ (2019). *La contribución socioeconómica del sistema universitario español: Informe SUE 2018.* Madrid: CRUE (Conferencia de Rectores de las Universidades Españolas): Conferencia de Consejos Sociales.

https://doi.org/10.12842/INFORME\_SUE\_2018

PÉREZ, F., J. ALDÁS (dirs.), R. ARAGÓN E I. ZAERA (2017). U-Ranking 2017: Indicadores sintéticos de las universidades españolas. 5.ª edición. Bilbao: BBVA Foundation; València: Ivie. https://doi.org/10.12842/RANKINGS SP\_IS-SUE\_2017

\_\_\_\_(2019). U-Ranking 2019: Indicadores sintéticos de las universidades españolas. 7.ª edición. Bilbao: BBVA Foundation; València: Ivie. https://doi.org/10.12842/RANKINGS\_SP\_IS-SUE\_2019

\_\_\_\_(2021). U-Ranking 2021: Indicadores sintéticos de las universidades españolas. 9.ª edición. Bilbao: BBVA Foundation; València: Ivie. https://doi.org/10.12842/RANKINGS SP IS-SUE 2021

\_\_\_\_(2023). Análisis de la inserción laboral de los universitarios. Diferencias entre titulaciones. Bilbao: BBVA Foundation; València: Ivie. https://doi.org/10.12842/URANKING\_INSER-CION\_LABORAL\_2023

\_\_\_(2024). La inserción laboral de los universitarios: 2013-2023: evolución, diferencias por estudios y brechas de género. Bilbao: BBVA Foundation; València: Ivie.

https://doi.org/10.12842/URANKING INSER-CION\_LABORAL\_2024

PÉREZ, F., J. ALDÁS (dirs.), R. ARAGÓN, I. ROSELL E I. ZAERA (2020). U-Ranking 2020: Indicadores sintéticos de las universidades españolas. 8.ª edición. BILBAO: BBVA Foundation; València: Ivie. https://doi.org/10.12842/RANKINGS SP IS-SUE\_2020

PÉREZ, F., J. ALDÁS-MANZANO (dirs.), R. ARAGÓN, A. PANTOJA e I. ZAERA (2022). *U-Ranking 2022: Indicadores Sintéticos de las Universidades Españolas. 10º edición.* Bilbao: BBVA Foundation; València: Ivie. <u>https://doi.org/10.12842/RANK-</u> INGS SP\_ISSUE 2022

PÉREZ, F., J. ALDÁS, J. M. PEIRÓ (dirs.), B. MIRAVA-LLES, I. ROSELL e I. ZAERA (2021). Universidades líderes en el mundo: El posicionamiento de *España*. Bilbao: BBVA Foundation. <u>https://www.fbbva.es/publicaciones/univer-</u> sidades-lideres-en-el-mundo-2/

PÉREZ, F., L. SERRANO (dirs.), J. M. PASTOR, L. HER-NÁNDEZ, Á. SOLER e I. ZAERA (2012). Universidad, universitarios y productividad en España. Bilbao: BBVA Foundation. <u>https://www.fbbva.es/publicaciones/universidad-universitarios-y-productividad-en-espana/</u>

QS (Quacquarelli Symonds). «QS World University Rankings methodology: Using rankings to start your university search». Available at: <u>https://www.topuniversities.com/qs-world-university-rankings/methodol-</u> <u>ogy?check\_logged\_in=1</u> [access date: May 2025a].

\_\_\_\_. QS World University Rankings 2025. Available at: <u>https://www.topuniversities.com/world-uni-</u> versity-rankings [access date: May 2025b].

RAUHVARGERS, A. (2011). *Global University Rankings and their impact*. Brussels: European University Association asbl. <u>https://www.eua.eu/downloads/publications/global%20university%20rankings%20and%20their%20impact.pdf</u>

\_\_\_\_(2013). Global University Rankings and their impact: Report II. Brussels: European University Association asbl. <u>https://www.eua.eu/publica-</u> tions/reports/global-university-rankings-andtheir-impact-report-ii.html

REHN, C., U. KRONMAN and D. WADSKOG (2007). *Bibliometric indicators: Definitions and usage at Karolinska Institutet*. Stockholm: Karolinska Institutet. <u>https://kib.ki.se/media/38/download</u>

SALMI, J. (2009). *The challenge of establishing world-class universities*. Washington D. C.: World Bank. <u>http://hdl.handle.net/10986/2600</u>

SALMI, J. and A. SAROYAN (2007). «League tables as policy instruments: Uses and misuses». *Higher Education Management and Policy* 19, n.º 2. https://doi.org/10.1787/hemp-v19-art10-en

THE (Times Higher Education). Times Higher Education World University Rankings 2025. Available at: <u>https://www.timeshighereduca-tion.com/world-university-rankings/latest/world-ranking [access date: May 2025].</u>

TORRES, D., E. DELGADO, N. ROBINSON, I. TRIGUERO and F. HERRERA (2013). *Rankings I-UGR de universidades españolas según campos y disciplinas*  *científicas.* 4ª Edición – 2013. Granada: Universidad de Granada, EC3: Evaluación de la Ciencia y la Comunicación Científica. <u>http://hdl.han-</u> dle.net/10481/26633

VAN VUGHT, F. and F. ZIEGELE (eds.) (2011). *U-Multirank. Design and Testing the Feasibility of a Multidimensional Global University Ranking. Final Report.* Consortium for Higher Education and Research Performance Assessment CHERPA-Network. <u>https://research.ut-</u> <u>wente.nl/files/5145063/Vught11umulti.pdf</u>



# Ivie

Fundación BBVA U-Ranking 2025