eua EUROPEAN
UNIVERSITY
ASSOCIATION

METHODOLOGICAL NOTE

Public Funding Observatory

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European University Association asbl

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1. Introduction

The EUA Public Funding Observatory (PFO) is an annual review of university public funding trends across Europe. The report is published by the European University Association (EUA) in cooperation with its collective members, national rectors' conferences. EUA is grateful to its collective members for their long-standing cooperation and continuous effort to report on national public funding for universities at the European level.

The first PFO report was issued in 2008 with the aim to monitor the impact of the financial crisis on higher education institutions in different countries across Europe. Since then, EUA has been collecting and analyzing quantitative and qualitative data on public funding for European higher education institutions and the related policy developments to showcase the immediate trends and the long-term evolution of the European university funding landscape.

This methodological note accompanies the 2019/2020 Public Funding Observatory report. It provides a detailed overview of data sources and the methodology behind the PFO analysis.

Most recent PFO data is also featured in the interactive online tool. Specific funding, student and staff data for each system covered by the PFO is presented in a series of country sheets.

2. Data collection

2.1. TYPES OF DATA COLLECTED

EUA collected the following quantitative and, where available, qualitative data for the 2018 Public Funding Observatory:
- Overall funding mix
- Public funding data
- Annual student data
- Annual staff data
- Macroeconomic data:

2.1.1. Overall funding mix

Annual volume of national public funding

The data collected provides an overview of the average income structure of public universities in a given system, in order to contextualise the trends reported for public funding. The data is available for a group of systems and is summarised on a graph in the 2019/2020 Public Funding Observatory report.

Table 1 Types of funding considered in the overall funding mix

Level 1	Public funding			Private funding		
Level 2	Core public funding	Competitive public funding	EU funding	Tuition fees	Private sector contracts	Other

Depending on the data available, data could be reported at level 1 (simplified) or level 2 (considering sub-categories within "public" and "private" funding.

2.1.2. Public funding data

Annual volume of national public funding

This type of quantitative data includes total officially announced or estimated public funding allocated in a given year for one of the following groups of institutions:

Table 2 Changes in public funding by area

Type of publicly funded institutions covered
All types of public institutions included in the national higher education system (universities, universities of applied sciences, specialised higher education colleges, etc.)
All public universities (excluding other types of higher education institutions)
All higher education institutions (both public and private) annually receiving institutional funding from public sources
All public and private universities annually receiving institutional funding from public sources

Total funding is provided by all public authorities with a significant funding role for higher education (at federal, regional, and local levels) or by national public funding authorities only.

Total public funding data may or may not include allocations from EU structural funds. In the former case, such allocations are shown separately in the country sheets, provided the related data is available.

Total funding data includes institutional funding and, unless mentioned explicitly, does not include competitive funding distributed on the basis of dedicated programmes and calls.

Total funding data includes public spendings on all fronts (e.g. teaching, research, and infrastructure) of activities pursued by higher education institutions.

The data collected provides one element of analysis that should be considered in connection to other aspects such as evolving cost structures, changes in the overall funding model (significance of competitive / additional targeted funding; collection of tuition fees; financial autonomy, etc).

The original public funding data is collected in absolute terms and in local currency. Currency conversion and adjustment to inflation are made subsequently for all national datasets (see below).

Changes in the volume of annual public funding by funding area

Qualitative data on annual changes in public funding is collected for the following areas of university funding:

Table 3 Changes in public funding by area

Area of funding	Estimated degree of changes
Research	The level of funding in 2019 increased
Teaching	The level of funding in 2019 decreased
Staff	The level of funding in 2019 remained unchanged
Infrastructures and investments	

Discussion / reform / change related to various areas of university's activities

Qualitative data is collected on current discussions, reform processes or other changes for the following areas of university's activities (Yes/No/Comment):

Table 4 Discussion / reform / change by area

Area of activities
Funding allocation model for research
Funding allocation model for teaching
Performance-based funding
Tuition fee policies
Staffing policies
Infrastructures and investments
Efficiency
Regulatory framework
University governance
Mergers
Other

Current debate in the context of funding changes
This qualitative data is collected on the basis of an open question.

2.1.3. Annual student data

This quantitative data includes the number of students (in full time equivalents or headcount) enrolled in a given year one of the following types of institutions:

Table 5 Institutions enrolling students

Type of institutions covered
All types of public institutions included in the national higher education system (universities, universities of applied sciences, specialised higher education colleges, etc.)
All public universities (excluding other types of higher education institutions)
All higher education institutions (both public and private) annually receiving institutional funding from public sources
All public and private universities annually receiving institutional funding from public sources

The EUA Public Funding Observatory collects student data since 2013 (with starting reference year 2008/2009). The evolving student body is one of the key factors that underpin the development of national university landscapes and therefore represent an important element in the analysis of university funding trends.

2.1.4. Annual staff data

This quantitative data includes the number of total staff (in full time equivalents) employed by public institutions. Data is collected for two categories of staff: academic and non-academic. The exact composition of two categories is defined by each respondent. Doctoral candidates may or may not be included in academic staff. Data may be available for both categories, academic staff only, or total staff only (not allowing to differentiate among categories).

Staff data was included in the EUA Public Funding Observatory in 2016 (with starting reference year 2008/2009) to broaden the scope of the analysis of the respective higher education landscapes.

2.1.5. Macroeconomic data

The following macroeconomic data is collected from Eurostat for data integration and analysis.
   a. Inflation – annual average rate of change, %
   b. Gross Domestic Product at market prices

2.2. DATA SOURCES

2.2.1. National rectors' conferences

EUA's collective members, national rectors' conferences, provide the major source of public funding, student and staff data for the EUA Public Funding Observatory. In line with the established practice, national rectors' conferences were invited in the spring of 2019 to complete the questionnaire to provide data for 2019 and, if necessary, adapt figures submitted for previous years. They were also invited to provide qualitative information to contextualise the collected data.

The Romanian Council of Rectors participated for the first time in the Public Funding Observatory this year.

The Rectors' Conference of Cyprus could not participate for two consecutive years; Cyprus is therefore not featured in the 2019/2020 edition, also considering the limited scope of the previously available data. The Latvian Rectors' Council did not participate this year. The data analysis process was delayed with the Greek Rectors' Conference and the data could not be updated in time for the release of the 2019/2020 edition.

Table 6 National rectors' conferences participating in the 2019/2020 edition

Universities Austria (UNIKO)	Conference of University Presidents, France (CPU)	Lithuanian Universities Rectors' Conference	Slovak Rectors' Conference
Flemish Interuniversity Council (VLIR)	German Rectors' Conference (HRK)	University of Luxembourg	Slovenian Rectors' Conference
Rectors' Conference, French Community of Belgium (CREF)	Greek Rectors' Conference (2016)	Association of Universities in the Netherlands (VSNU)	CRUE Spanish Universities
Croatian Rectors' Conference	Hungarian Rectors' Conference (MRK)	The Norwegian Association of Higher Education Institutions	Association of Swedish Higher Education
Czech Rectors Conference	Icelandic Rectors' Conference	Conference of Rectors of Academic Schools in Poland (KRASP)	swissuniversities
Universities Denmark	Irish Universities Associations (IUA)	Portuguese National Conference of Rectors (CRUP)	Turkish University Rectors' Conference (YOK)
Universities Estonia	Conference of Italian University Rectors (CRUI)	Romanian Council of Rectors	Universities UK, in collaboration with Universities Scotland and Universities Wales
Universities Finland	Latvian Rectors' Council	Conference of the Universities of Serbia (KONUS)	

2.2.2. Eurostat

Actual macroeconomic GDP and inflation data (Eurostat annual average index HICP) as well as conversion rates for non-Eurozone countries were sourced from Eurostat.

2.2.3. Other official sources

Other official sources, including ministerial / national statistical office portals and reports were used to complete the analysis of public funding trends in Europe.

2.3. DATA COVERAGE

2.3.1. Spatial coverage

The 2019/2020 Public Funding Observatory features 34 higher education systems, including the four British higher education systems – England, Northern Ireland, Scotland and Wales – which are included individually in the 2019/2020 Public Funding Observatory report.

Table 7 Higher education systems included in the 2019/2020 edition

Austria	Germany	Netherlands	Sweden
Belgium – Flanders	Greece	Norway	Switzerland
Belgium – French-speaking Community	Hungary	Poland	Turkey
Croatia	Iceland	Portugal	United Kingdom - England
Czech Republic	Ireland	Romania	United Kingdom – Northern Ireland
Denmark	Italy	Serbia	United Kingdom – Scotland
Estonia	Latvia	Slovakia	United Kingdom - Wales
Finland	Lithuania	Slovenia	
France	Luxembourg	Spain	

2.3.2. Temporal coverage

Public funding, student and staff data is collected for the period 2008-2019. Comparisons are based on the starting year. The level of funding / student numbers / staff numbers that year varies widely among the countries considered and the primary intention is to track the evolution of these elements over time for the same system.

Timeframes differ for the following systems and years. The various graphs featured in the report therefore specify the systems included/excluded on the basis of data availability.

Table 8 Data availability by period

Type of data	Country	Missing data	Period covered
Public funding data	Austria, Belgium-fr, Croatia, Czech Republic, Hungary, Iceland, Ireland, Netherlands, Norway, Portugal, Romania, Slovakia, Spain, Sweden, Turkey	complete dataset	2008-2019
	Serbia	2011, 2016	2008-2019
	Belgium-nl, Denmark, France, Germany, Italy, Poland, Slovenia, UK-England	2019	2008-2018
	Estonia, UK-Northern Ireland	2018, 2019	2008-2017
	Greece, Latvia, Switzerland	2017, 2018, 2019	2008-2016
	Luxembourg	2008, 2019	2009-2018
	Finland, UK-Scotland	2008, 2009	2010-2019
	UK-Wales	2008, 2009, 2018, 2019	2010-2017
Type of data	Country	Missing data	Period covered
Student data	Austria, Croatia, Czech Republic, Estonia, France, Germany, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Sweden, Switzerland, Turkey	2019/20	2008/09-2018/19
	Spain	2009/10 to 2011/12, 2019/20	2008/09-2018/19
	Belgium-nl, Denmark, Finland, Latvia, Slovenia, UK-England, UK-Northern Ireland, UK-Wales	2018/19, 2019/20	2008/09-2017/18
	Belgium-fr	2017/18 to 2019/20	2008/09-2016/17
	Greece	2015/16 to 2019/20	2008/09-2014/15
	UK-Scotland	2008/09, 2009/10, 2019/20	2010/11-2018/19

Staff data	Croatia, Iceland, Romania, Turkey	complete dataset	2008/09-2019/20
	Austria	2008/09, 2009/10 not usable due to methodology change	2008/09-2019/20
	Spain	2009/2010, 2011/12	2008/09-2019/20
	Belgium-fr, Denmark, France, Germany, Hungary, Ireland, Italy, Netherlands, Norway, Portugal, Sweden	2019/20	2008/09-2018/19
	Slovakia	2017/18, 2019/20	2008/09-2018/19
	Belgium-nl, Czech Republic, Latvia, Poland, Switzerland, UK-England, UK-Northern Ireland, UK-Scotland, UK-Wales	2018/19, 2019/20	2008/09-2017/18
	Lithuania	2017/18 to 2019/20	2008/09-2016/17
	Slovenia	2016/17 to 2019/20	2008/09-2015/16
	Finland	2008/09, 2009/10, 2019/20	2010/11-2018/19
	Luxembourg	2008/09 to 2011/12	2012/13-2019/20
	Serbia	2008/09 to 2014/15, 2019/20	2015/16-2018/19
	Estonia, Greece	No data available / less than 3 consecutive years	

Notes:
- Ireland returns student and staff data per calendar year; data for calendar year 2008 corresponds to the academic year 2007/08, thus the available dataset for Ireland is 2007/08-2018/19.
- Wales provided funding data for direct public funding in 2018 and 2019 but not for the value of publicly subsidised loans, which needs to be added to obtain total public funding.
- Northern Ireland provided funding data for direct public funding in 2018 but not for the value of publicly subsidised loans, which needs to be added to obtain total public funding.
- Portugal, Romania and Turkey report academic staff numbers only.
- Data updates that came too late to be included in the report graphs are nevertheless featured in the country sheets and in the online tool.

2.3.3. Macroeconomic data

At the time of analysis, inflation data for 2019 became available, while latest GDP data was for 2018. Therefore, the comparison of public funding and GDP changes could only be made for the period 2008-2018.

The systems in Belgium and in the UK are not included in the analysis involving GDP as GDP datasets for the country components are not readily available/exploitable for the PFO purposes.

2.4. DATA ADJUSTMENT

Several systems adjusted partly or fully their entire datasets. Most of the changes are minor corrections due to the respective update of the national statistical indicators based on real figures. The public funding dataset was fully updated for Serbia. The entire student data series was adjusted for Portugal and Serbia (and almost fully updated for Finland). Staff data was fully revised for Belgium-Flanders and Portugal. Full updates / revisions were caused by adjustments in the scope of the data (from all higher education institutions to universities only, for instance). The funding, student and staff datasets were newly included for Romania.

Table 9 Data update per country and period

Type of data	Country	Corrected period
Funding data	Romania (new), Serbia	Entire series
	Switzerland	2008, 2013 to 2015
	Poland, Spain	2017, 2018
	France	2017
	Ireland, Netherlands, Sweden, UK-England, UK-Wales	2018
Student data	Romania (new), Portugal, Serbia	Entire series
	Finland	From 2009/10 to 2017/18
	Lithuania	From 2014/15 to 2018/19
	UK-England	From 2014/15 to 2016/17
	Netherlands	From 2016/17 to 2018/19
	France, Spain	2017/18, 2018/19
	Croatia, Iceland	2018/19
	Belgium-nl, Denmark, Ireland, Slovakia	2017/18
	UK-Northern Ireland	2016/2017
Staff data	Romania (new), Belgium-nl, Portugal	Entire series
	Spain	2017/18, 2018/19
	Poland	2016/17, 2017/18
	Austria, Iceland, Slovakia	2018/19
	Finland	2017/18

3.Calculations

3.1. CONVERSION AND ADJUSTMENT TO INFLATION

Public funding for universities outside the euro zone is calculated in euros by applying the yearly average conversion rate sourced from Eurostat.

Public funding in real terms is calculated by applying the annual inflation rate to the annual volume of public funding expressed in euros. The calculation methodology was revised this year to use the Eurostat annual average index (Harmonized Index of Consumer Prices - HICP) that offers higher reliability over longer time periods than the rate of change.

$$\left(\frac{Funding_{t+i}}{funding_t(1 + INFLATIONRATE)}\right) - 1$$

The calculations are made to compare the **long-term changes** in public funding in 2018 as opposed to the situation in 2008 (in nominal and real terms) and to evaluate the change between 2018 and 2019 (in nominal and real terms) for those systems that provided data for 2019. The **short-term** analysis is still provided for 2017-2018 in real terms, which was available for most systems. For those systems which could not provide funding data for any of the reference years, the data for the nearest year available is taken for the basis of calculation.

3.2. PUBLIC FUNDING AND STUDENT NUMBERS

The long-term changes in student numbers are calculated for the period between the academic years 2008/09 and 2017/18. For those systems which could not provide funding data for any of the reference years, the data for the nearest year available is taken for the basis of calculation.

No direct relation between student numbers and public funding can be established considering the varying scope of data for different systems (see individual country sheets). The changes in public funding and student numbers are juxtaposed in several graphs to provide contextual information for the evolution of public funding.

3.3. PUBLIC FUNDING AND GDP

The GDP share of public funding for universities is calculated as a ratio of public funding (in nominal terms) for a given year and the volume of GDP for the same year (e.g. public funding for universities in 2012 / GDP in 2012), on the basis of Eurostat data.

The comparison between GDP and public funding dynamics has been refined to better capture trends and focuses on comparing average annual funding growth (in real terms) over the period to average annual real GDP growth.

3.4. PUBLIC FUNDING AND STAFF NUMBERS

The long-term changes in staff numbers (academic and non-academic personnel) are calculated for the period between the academic years 2008/09 and 2017/18. A group of countries could report staff data for 2018/19 which is used for the graph featuring the progression in academic and non-academic staff numbers against the backdrop of real-terms funding increase during the corresponding period.

For those systems which could not provide funding data for any of the reference years, the data for the nearest year available is taken for the basis of calculation.

No direct relation between staff numbers and student numbers as well as public funding can be established considering the varying scope of data for different systems (see individual country sheets). The related changes are juxtaposed to provide contextual information for the evolution of public funding.

4.Country sheet data

The data for each system is detailed in so-called "country sheets", which provide data both in the form of a summary (see below) and as a table (complete dataset). The content of the country sheets is streamlined across all systems as far as possible. The type of content displayed has been revised for the 2019/2020 edition.
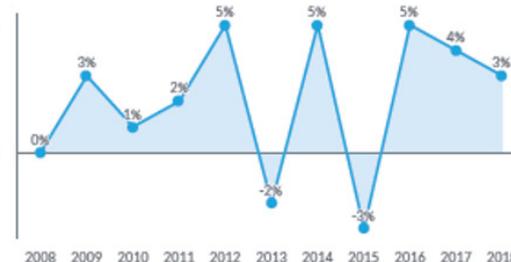
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The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 48 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations, EUA ensures that the voice of European universities is heard wherever decisions are being taken that will impact their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, websites and publications.