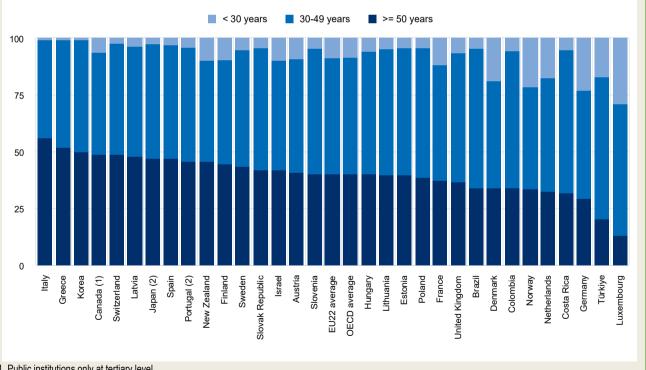
# Indicator D8. What is the profile of academic staff and what is the studentacademic staff ratio?

## **Highlights**

In per cent

- Across the OECD, the share of academic staff aged 50 or over has remained at 40% between 2015 and 2020. In Italy and Greece, more than half of the academic workforce are at least 50, which may have some significant implications for their capacity to replace retiring teachers in the near future.
- The representation of women among academic staff has been growing since 2005 in most OECD countries with available data, reaching 45% on average across OECD countries in 2020.
- The student-academic staff ratio is slightly lower in public institutions than in private institutions, with about 15 students per academic staff member in public institutions and 17 in private institutions on average across OECD countries.



## Figure D8.1. Age profile of academic staff (2020)

1. Public institutions only at tertiary level.

2. Post-secondary non-tertiary staff may teach at tertiary level - see Annex 3 for further details.

Countries are ranked in descending order of the share of academic staff aged 50 and over.

Source: OECD/UIS/Eurostat (2022), Table D8.2. See Source section for more information and Annex 3 for notes (https://www.oecd.org/education/education-at-aglance/EAG2022\_X3-D.pdf)

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## Context

The demand for academic staff across countries depends on a range of factors, including the workload models in use, the use of academic assistants and other non-classroom staff in institutions, and enrolment rates at different levels of education. In several OECD countries, a large proportion of the academic workforce are set to reach retirement age in the next decade. Combined with the pressure on higher education systems in many jurisdictions to play a greater role in upskilling and reskilling the adult population, and projected increases in demand driven by demographics in some countries, many systems face the need to recruit and train new staff. In addition, as men continue to predominate in certain academic fields and senior positions, many countries have developed policies to address barriers to women taking up academic careers and progressing in academia.

The student-academic staff ratio measures the academic resources that are available in a given country. At school, students are typically thought to be more likely to receive more support and attention when the student-teacher ratio is low. At the tertiary level, however, the interpretation of this indicator is affected by the definition and functions of academic staff as well as field specific teaching modes. Some may have limited academic responsibilities and could for example spend most of their time doing research (Box D8.2). In such cases, the student-academic staff ratio would not be representative of the level of support and attention students receive in the classroom (OECD, 2019[1]). However, the presence of research and teaching assistants whose primary role is to support academic staff in classroom or laboratory or in the conduct of research is also an additional resource. The ratio of students to academic staff may also affect staff working conditions and the quality of teacher-student interactions, which may in turn affect students' educational achivement.

The COVID-19 pandemic has accelerated the transition towards a digitalised education and shown the importance of technology when in-person learning is disrupted. Despite the virtual nature of this type of learning, it is vital to create effective and interactive teacher-student engagement as well as student-content engagement. In this regard, ensuring that a moderate ratio of students to academic staff for distance learning remains critical.

## **Other findings**

- Young academic staff (under the age of 30) only account for a small proportion of the total: 7% in short-cycle tertiary education and 9% at bachelor's, master's and doctoral levels combined, on average across OECD countries. These young staff are usually entering academia, either during the preparation of their doctorate or directly after.
- Women are better represented among younger staff, accounting for about 50% of academic staff under 30 on average across OECD countries, a much larger share than among academic staff of all ages (45%).
- The largest difference in student-staff ratio between public and private institutions is in Brazil where, interestingly, the ratio is much higher in private institutions at 50 students per staff academic member, compared to 10 in public institutions.

## Analysis

## Age distribution of academic staff

The age distribution of the academic workforce varies considerably across countries and levels of tertiary education. It can be affected by a variety of factors, such as the level of development of tertiary institutions in the country, the size and age distribution of the population, the duration of tertiary education, and staff salaries and working conditions. Declining birth rates, for example, may drive down demand for new academic staff members, while more time spent in tertiary education can delay the entry of academic staff into the labour market. Competitive salaries, good working conditions for permanent staff, and career development opportunities may have attracted young people towards academic professions in some countries or helped to retain effective academic staff in others.

Young staff members (below the age of 30) only account for a small proportion of academic staff on average across OECD countries: 7% in short-cycle tertiary education and 9% at bachelor's, master's and doctoral level combined. At short-cycle tertiary level, young staff make up less than 10% of the academic workforce in all countries except for Costa Rica and New Zealand (Table D8.2). Young academic staff usually enter academia during their doctoral programme, or directly after. However, the inclusion of doctoral candidates within the category of academic staff is the subject of discussions across countries (Box D8.2).

On average across OECD countries, 40% of academic staff are aged 50 or over. However, there is a large degree of variation across countries, with the share ranging from 13% in Luxembourg (where the younger academic workforce is largely due to a quite recently established higher education system) to 56% in Italy (Table D8.2). A relatively large share of academic staff nearing retirement age indicates that tertiary systems are managing to retain prestigious senior scholars but may raise some concerns about the need to attract a large number of staff over the next decade. Having a relatively large share of older staff may raise some budgetary challenges due to salary structures for more senior staff and the lack of job opportunities for junior scholars (Kaskie, 2017<sub>[2]</sub>). Increasing competition in many fields for posts on the traditional academic career path combined with the trend towards project-based research funding has led to an increase in fixed-term contracts for researchers and deteriorating working conditions for early-career researchers.

The large adoption of digital technologies in higher education in recent years has highlighted the need to adjust the in-service training of teachers on digitalisation. In particular, greater support may be needed to equip tertiary teaching staff aged 50 and above with the necessary techno-pedagogical competencies they would need (Box D8.1).

Academics tend to have different retirement trajectories than other occupational groups. It takes them many years to develop their careers, they tend to have a lifelong commitment to their work, and they enter full-time positions later than many other professional groups (Sugar et al.,  $2005_{[3]}$ ). Among the factors that may affect the age profile of academic staff is legislation regulating the age of retirement (Eurydice,  $2022_{[4]}$ ). However, many academics continue working even upon reaching retirement age, making it hard to predict actual retirement rates (Baldwin, Belin and Say,  $2018_{[5]}$ ). In Italy, the country with the largest share of academic staff aged 50 or over (56%), retirement ages vary for different categories of academic staff. Full professors usually retire at the age of 70, and those who entered service before November 2005 are able to keep working for an additional two years. Associate professors retire at either 66 or 70 years old, depending on their starting date. In Greece, the other OECD country where more than half of the academic workforce are at least 50 years old (52%), the retirement age is set at 67 years (Eurydice,  $2022_{[4]}$ ).

## Box D8.1. Digitalisation is significantly affecting the organisation of academic work

Technology has significantly affected the educational environment as well as the roles of academic staff and learners. The model has shifted from one where the teacher is a pillar in the learning process to one where students take more responsibility for their own learning, using technology to access educational content and interact with classmates. Technology in education has affected all disciplines and redesigned learning spaces to varying degrees.

New research practices have emerged, leading researchers to adopt more open methods of disseminating and communicating their research findings. While alternative means of publishing research work have emerged in recent years, their use exploded with the COVID-19 pandemic. One of the most notable examples of practices that have expanded during the pandemic is the use of public preprint servers such as arXiv, which allow authors to publish their

manuscripts before submitting them to journals for peer review. Such tools have the advantage of overcoming the long publication delay resulting from peer review. In particular, the field of quantitative biology research (of relevance to the COVID-19 pandemic) has seen a 50% increase in the number of publications since the beginning of the pandemic, including publications authored by biologists using arXiv for the first time (Casey, Mandel and Ray, 2021<sub>[6]</sub>).

In the immediate crisis of the COVID-19 pandemic, tertiary institutions were forced to switch very quickly to distance learning wherever possible. Very little time was given to teachers to prepare, acquire or improve their information and communication technologies (ICT) skills. Having to manage online technologies for the first time highlighted some academic staff's lack of technological skills such as proficient computer use, specific communication skills in an online setting, proper use of various teaching and learning tools, and the need to solve specific problems quickly during learning sessions (Dwivedi et al., 2020<sub>[7]</sub>). In addition to coping with a new environment of virtual teaching, teachers were required to ensure the continuity of the quality of education, prepare digital materials, and maintain contact with all their students. As many institutions return to largely campus-based education, institutions and governments are keen to capitalise on and learn from this period of enforced digitalisation. This will require rethinking many areas of higher education policy and practice, to ensure that resource allocation models, infrastructure investments, staff competencies, pedagogical practices and student support systems are adapted to support high-quality teaching and learning regardless of the delivery mode.

#### Trends in academic staff's ages between 2015 and 2020

On average across OECD countries with available data, the share of academic staff aged 50 and older has remained constant at 40% over the past five years for all levels of tertiary education combined. Austria, Canada, Germany, Korea and Portugal saw increases of at least 4 percentage points over this period, although in Germany the share of academic staff aged 50 and older remains lower than the OECD average. In contrast, in Greece and Italy the share of older academic staff is already more than ten percentage points higher than on average across OECD countries (Table D8.2).

Less than one-third of countries with available data – Estonia, Finland, Hungary, Latvia, Luxembourg, Norway, the Slovak Republic, Slovenia and the United Kingdom – have experienced the opposite trend, and seen their academic workforce grow younger (Table D8.2). This may be explained, in part, by efforts to implement recruitment policies aimed at both national and international staff. Programmes such as the Dora Plus programme (focused on learning) and the Mobilitas programme (focused on R&D), largely funded by the EU, aim to raise awareness about employment opportunities among international researchers (and post-doctoral researchers) and support mobility through grants (OECD, 2019<sub>[8]</sub>). Similarly, the Research Council of Norway (RCN) has launched initiatives to increase an interest in research, such as the Science Knowledge Project for children (*Nysgjerrigper*), the Proscientia project (promoting interest in research and science among young people aged 12-21 years) and an Annual Science Week. The RCN also funds awards such as the Young Excellent Researchers award; applicants need to prove scientific quality, leadership skills, and international experience (OECD, 2019<sub>[8]</sub>).

## Box D8.2. Classification of instructional and research academic staff

Academic staff include personnel whose primary assignment is instruction, research, or both instruction and research. Given the large variety of roles and responsibilities of academic staff members within higher education institutions, only a classification can help understand the specific dynamics of each group of academic staff and help provide policy-relevant recommendations.

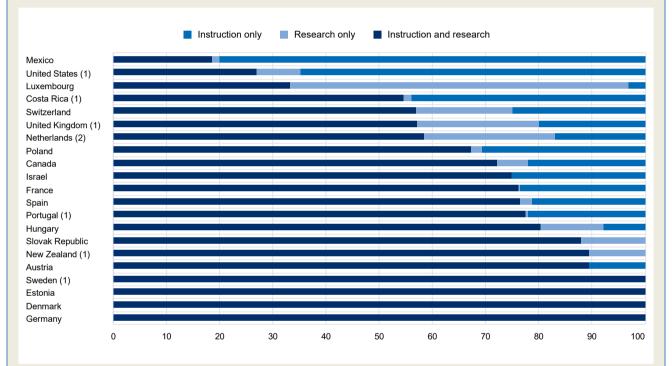
Producing a one-size-fits-all categorisation of academic staff among all OECD countries is challenging due to differences in titles, levels of qualifications and the tasks, and responsibilities required for each position. In particular, whether doctoral candidates are full professional staff or students remains a central point of discussion among many countries. Indeed in some countries, such as Italy and the Slovak Republic, doctoral candidates have student status and cannot be employed by their respective tertiary institutions. Similarly, in the United Kingdom, doctoral candidates are not employees for the purpose of their doctoral studies (OECD/INES, 2021[9]).

Even if they are considered to be employed, doctoral candidates can either be included within the group of academic staff or excluded from it, and countries' classifications in this regard remain heterogeneous. In Belgium, employed doctoral candidates support the work of senior staff and dedicate at least half of their working time to the preparation of their diploma, either through conducting research or receiving instruction. Other countries are more flexible and apply no regulations on the research or instruction activities of academic staff. In the case of Germany, employed doctoral candidates are considered to be on an academic career track and their remuneration is aligned with that of junior academic staff. Similarly, in France, employed doctoral candidates who have teaching duties are considered full teachers. In Israel, the temporary status of employed doctoral candidates is the main distinction between them and junior research staff.

There are also significant differences in the distribution of academic staff between performing exclusively instructional or research duties or having to do both. In four countries, all academic staff hold both responsibilities at the same time. In countries where some staff have only one main function, academic staff are more likely to perform instruction tasks only, except in Hungary, Luxembourg and the United Kingdom, where the share of academic staff with only research duties is higher. Non-instructional staff (holding research only duties) represent less than 1% of academic staff in France and Portugal but exceed 63% in Luxembourg (Figure D8.2).

## Figure D8.2. Distribution of academic staff by primary function (2020)

In per cent, full-time equivalent, for bachelor's, master's and doctoral levels combined



Note: This figure only includes countries where data for all categories are available or not applicable.

Please note that employed doctoral candidates are excluded from this figure.

1. Data cover all levels of tertiary education.

2. Data cover only academic institutions

Countries are ranked in ascending order of the share of instructional and research academic staff.

Source: OECD (2022), Feasibility survey on a classification of tertiary instructional and research personnel. See Source section for more information and Annex 3 for notes (https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf).

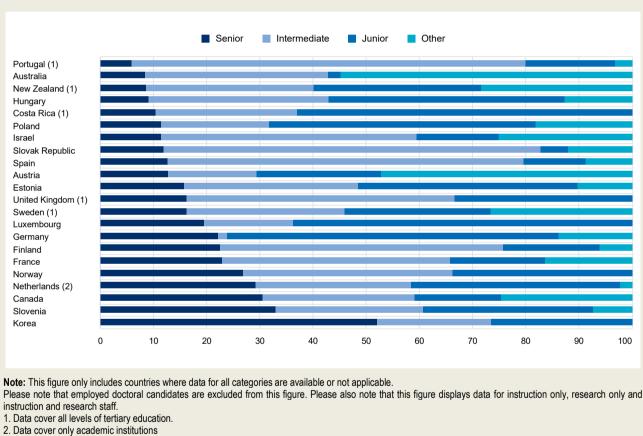
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Seniority in academia refers to a combination of the level of competence and the types of tasks and responsibilities. Seniority can be divided into four levels – junior, intermediate, senior and other. *Junior* refers to entry grades/posts into which an individual would normally be recruited to begin their academic career. *Intermediate* includes academic staff pursuing an academic career working in positions below the top positions but more senior than entry-level positions. *Senior* refers to the highest grades/posts for academic staff pursuing an academic career. Lastly, the *other* category includes instructional and research personnel who are not considered to be on the academic career track and excludes doctoral candidates, teaching and research assistants.

The seniority of academic staff is one of the strongest determinants of contractual stability. Junior positions usually involve fixed-term or project-based contracts, whereas more advanced academic careers go hand in hand with more stable contractual arrangements (Eurydice, 2017<sub>[10]</sub>). In other words, young academics usually face periods of contractual uncertainty, while seniority generally brings an opportunity for permanent employment (Aarrevaara, Dobson and Wikstrom, 2015<sub>[11]</sub>). The term "research precariat" is used to describe postdoctoral researchers holding fixed-term positions without permanent or continuous employment prospects, and whose situation has worsened with the COVID-19 pandemic (OECD, 2021<sub>[12]</sub>).

The junior category makes up the largest share of academic staff in six countries: Costa Rica, Estonia, Germany, Hungary Luxembourg and Poland, while the intermediate category represents the largest share in almost half of the countries that submitted data. In Canada, Korea and Slovenia, senior staff make up the largest share of academic staff, peaking at 52% in Korea (Figure D8.3).

## Figure D8.3. Distribution of instructional and research academic staff by seniority level (2020)



Countries are ranked in ascending order of the share of senior instructional and research academic staff

Source: OECD (2022), Feasibility survey on a classification of tertiary instructional and research personnel. See Source section for more information and Annex 3 for notes (https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf).

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## Gender profile of academic staff

In per cent

Men make up the majority of academic staff across OECD countries. On average, women represent 45% of academic staff. The share of women among academic staff at all levels of tertiary education combined ranges from 30% in Japan to more

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than 50% in Belgium (51%), Finland (53%), Latvia (55%), Lithuania (59%), New Zealand (52%) and the United States (51%) (Figure D8.4).

The gender profile of academic staff also varies across programmes within tertiary education. Women are more strongly represented in short-cycle tertiary programmes than in bachelor's, master's and doctoral programmes. Specifically, women make up less than 50 percent of the academic workforce at the bachelor's, master's and doctoral levels in over four-fifths of countries with available data, but more than 50 percent at the short-cycle tertiary level in about half of these countries. Women represent less than 50% of academic staff teaching at bachelor's, master's and doctoral level in all OECD countries with available data except Finland and Latvia (53%), Lithuania (59%) and New Zealand (52%) (Table D8.3).

Women are better represented among younger staff (those under 30), accounting for about 50% of academic staff on average across OECD countries. At country level, the same pattern is found in all countries except for Denmark, Finland, Latvia, Norway and Portugal. Among 30-49 year-olds, women represent 48% of academic staff across OECD countries on average but only 40% of academic staff aged 50 or older (Table D8.3 and *Education at a Glance Database*). This suggests that the oldest age group is driving the overall gender imbalance and that the future representation of women among academic staff in the OECD could increase if young female academic staff are retained. However, early-career female academics face the same challenges as ther male counterparts: precarious contracts and growing demand to produce articles to stay on the right career path, which may result in additional pressure if combined with family and household commitments.

#### 2020 2015 2005 60 40 20 0 Estonia Türkiye Spain Hungary Germany Latvia Belgium srae Poland Brazil France Austria India Korea United States (1) Norway Slovak Republic EU22 average Colombia ithuania. Finland Zealand Canada (2) Netherlands Sweden **Jnited Kingdom** Portugal (1) OECD average Denmark Costa Rica Slovenia Saudi Arabia Italy Greece Switzerland uxembourg Japan (1) Vev

## Figure D8.4. Share of women among academic staff (2005, 2015, 2020)

1. Post-secondary non-tertiary teachers may teach at tertiary level - see Annex 3 for further details.

2. Public institutions only at tertiary level.

Countries are ranked in descending order of the share of female teachers among tertiary teaching staff in 2020.

Source: OECD/UIS/Eurostat (2022), Table D8.3. See Source section for more information and Annex 3 for notes (<u>https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf</u>).

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#### In per cent

### Trends in the share of female academic staff between 2015 and 2020

Despite the current gender imbalance, the representation of women in tertiary education has been growing since 2005 in most OECD countries with available data (see *Education at a Glance Database*). Between 2015 and 2020, the average share of women among academic staff across OECD countries increased by 2 percentage points (from 43% to 45%). Among countries with available data, Japan and the Netherlands had the largest increase over this period: in Japan the share of women increased from 18% in 2005 to 30% in 2020, and in the Netherlands it increased from 35% to 47% (Figure D8.4 and Table D8.3).

Despite recent improvements, the gender imbalance in the academic profession is still a challenge in most OECD countries, starting among doctoral candidates and continuing through all academic career levels (European Commission, 2021<sub>[13]</sub>). Specifically, women remain under-represented in research and innovation careers. Across European countries, they account for only one-third of researchers (33%) and one-quarter of top academic staff (European Commission, 2021<sub>[13]</sub>), compared to nearly half of entrants at doctoral level (see Indicator B4). Female researchers are more likely than men to work under contract arrangements that are considered "precarious employment" and considerable pay gaps remain in scientific research and development occupations (European Commission, 2021<sub>[13]</sub>).

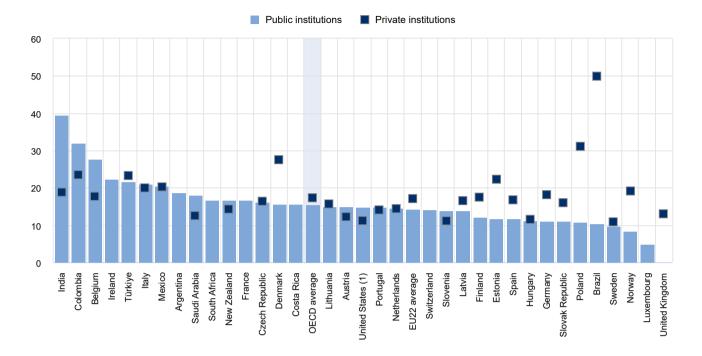
Women's careers and progress in academia are more likely to be constrained by family obligations and the lack of formal policies or programmes to reduce the gender gap (Winslow and Davis, 2016<sub>[14]</sub>). Recent policy efforts across OECD countries have aimed to bring about structural change to increase women's representation in academia. For example, the European Union has heavily invested in the Institutional Transformation for Effecting Gender Equality in Research (INTEGER) Project in order to improve the career paths of female researchers in European higher education and research institutions (European Commission, 2016<sub>[15]</sub>). In the United States, the National Science Foundation has funded research and interventions aiming at increasing the representation of women in academic science and engineering, including the ADVANCE Institutional Transformation grant programme (Winslow and Davis, 2016<sub>[14]</sub>). In Australia, the Universities Australia Strategy for Women (2011-14) aimed at encouraging universities to include equity targets in their strategic planning and promote women in academia (Winchester and Browning, 2015<sub>[16]</sub>). Most recently, Australian universities have implemented gender quotas, with some opening academic positions in the faculty of engineering, computer and mathematical sciences only to women (Pyke and White, 2018<sub>[17]</sub>). Despite these efforts, the continuing gender imbalance among academic staff in participation, working conditions and pay warrants further investments and research to close the gap in the future.

## Ratio of students to academic staff across types of institution

At the tertiary level, there is little difference in student-staff ratios between public and private institutions on average across OECD countries, with 15 students per academic staff member in public institutions and 17 in private institutions (Table D8.1). The OECD average should be interpreted with caution, however, given the heterogeneity of institutional characteristics both within and across countries. Factors such as the structure, governance, mission and profile of higher education systems as well as the financial resources devoted to tertiary institutions may affect human resource levels of institutions.

In a few OECD countries, such as Norway and Poland, there are over twice as many students per academic staff members in private institutions as in public institutions. However, no more than 30% of tertiary students are enrolled in private institutions in either of these countries (see Indicator B1). The largest difference in student-academic staff ratios between public and private institutions is in Brazil where it is 50 to 1 in private institutions, compared to 10 to 1 in public institutions. In Brazil, about 75% of tertiary students are enrolled in private institutions, which are considered less selective than public institutions, and rely largely on distance learning, which may allow larger student-academic staff ratios. (OECD, 2018<sub>[18]</sub>). Brazilian students thus face either a performance barrier to accessing free but highly selective public institutions, or a financial barrier to accessing private institutions, which could limit their opportunities and raises significant equity concerns (McCowan, 2007<sub>[19]</sub>). The difference between public and private institutions is also significant in some other partner countries: in India and Indonesia, there are over twice as many students for each academic staff member in public institutions (40 to 1) as in private institutions (19 to 1) (Figure D8.5).

Differences in student-academic staff ratios between short-cycle tertiary and bachelor's, master's and doctoral or equivalent levels also vary across countries with available data (Table D8.1), but should be interpreted with caution, as the ratio remains a limited measure of the level of academic resources at tertiary level. Moreover, the relatively low levels of enrolment in short-cycle tertiary in some countries limits comparability with other levels (see Indicator B1).



## Figure D8.5. Ratio of students to academic staff, by type of institution (2020)

1. Tertiary includes staff and students from post-secondary non-tertiary level.

Countries are ranked in descending order of the ratio of students to teaching staff in public institutions

Source: OECD/UIS/Eurostat (2022), Table D8.1. See Source section for more information and Annex 3 for notes (<u>https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf</u>).

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At short-cycle tertiary level, the largest difference in the ratio of students to academic staff between public and private institutions is found in Colombia, where there are seven times more students per academic staff in public institutions than in private institutions. Short-cycle tertiary programmes which offer initial occupational preparation to students are a quite demanded tertiary qualification in Colombia and the public sector plays an important role in delivering education at that level of education, where 83% of short-cycle tertiary students are enrolled on average (see Indicator B1). At bachelor's, master's and doctoral programmes combined, the student-academic staff ratio is larger in public institutions than in private institutions in 6 countries, smaller in public institutions in 14 countries, and similar for both types of institution in 3 countries.

As short-cycle tertiary education usually provides a short-term vocational-oriented training in higher education, a lower ratio of students to academic staff might be expected than at bachelor's, master's and doctoral level. Even though this is not reflected in the average ratios across OECD countries in public and private institutions, in Belgium, there are over four times more students per academic staff member in public institutions at bachelor's, master's and doctoral level than in short-cycle tertiary. However, the pattern is reversed in other countries such as Colombia, Luxembourg, Norway and Türkiye where there are nearly twice as many students to academic staff in public institutions at short-cycle tertiary level than at bachelor's, master's and doctoral level (Table D8.1).

## Definitions

There are two categories of instructional personnel:

- Teachers' aides and teaching/research assistants include personnel or students who support teachers in providing instruction to students.
- **Teaching staff** refers to personnel directly involved in teaching to students. The classification includes classroom teachers, special-education teachers and other teachers who work with a whole class of students in a classroom, in

small groups in a resource room, or in one-to-one teaching situations inside or outside a regular class. At the tertiary level, academic staff include personnel whose primary assignment is instruction or research, or both. Teaching staff also include departmental chairs whose duties include some teaching, but exclude non-professional personnel who support teachers in providing instruction to students, such as teachers' aides and other paraprofessional personnel.

## Methodology

The ratio of students to academic staff is obtained by dividing the number of full-time equivalent students at a given level of education by the number of full-time equivalent academic staff at that level and in similar types of institutions.

For the ratio of students to academic staff to be meaningful, consistent coverage of personnel and enrolment data are needed. For instance, if academic staff in religious institutions are not reported in the personnel data, then students in those institutions must also be excluded.

For more information, please see the OECD Handbook for Internationally Comparative Education Statistics 2018 (OECD, 2018[20]) and Annex 3 for country-specific notes (https://www.oecd.org/education/education-at-a-glance/EAG2022 X3-D.pdf).

## Source

Data refer to the academic year 2019/20 and are based on the UNESCO-UIS/OECD/Eurostat data collection on education statistics administered by the OECD in 2021 (for details, see Annex 3 at https://www.oecd.org/education/education-at-aglance/EAG2022 X3-D.pdf).

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## **Indicator D8 Tables**

## Tables Indicator D8. What is the profile of academic staff and what is the student-academic staff ratio?

Table D8.1	Ratio of students to academic staff by tertiary level of education and type of institution (2020)
Table D8.2	Age distribution of academic staff by tertiary level of education (2015, 2020)
Table D8.3	Share of women among academic staff, by tertiary level of education and age group (2015 and 2020)

StatLink as https://stat.link/adfyhj

Cut-off date for the data: 17 June 2022. Any updates on data can be found on line at: at: <u>http://dx.doi.org/10.1787/eag-data-en</u>. More breakdowns can also be found at <u>http://stats.oecd.org</u>, *Education at a Glance Database*.

		Short-cycle tertiary				Bachelo	or's, maste	r's and doo	toral	All tertiary				
			Priv	ate institut	ions		Priv	ate institut	ions		tions			
		Public institutions	All private institutions	Government-dependent private institutions	Independent private institutions	Public institutions	All private institutions	Government-dependent private institutions	Independent private institutions	Public institutions	All private institutions	Government-dependent private institutions	Independent private institutions	
_	Countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
OECD	Australia	m	m	m	m	16	19	x(6)	x(6)	m	m	m	m	
ō	Austria	8	9	x(2)	x(2)	17	13	x(6)	x(6)	15	12	x(10)	x(10)	
	Belgium <sup>1</sup>	24	12	12	m	28	19	19	m	28	18	18	m	
	Canada	m	m	m	m	21	m	m	m	m	m	m	m	
	Chile	m	m	m	m	m	m	m	m	m	m	m	m	
	Colombia	48	7	а	7	25	32	а	32	32	23	а	23	
	Costa Rica	x(9)	m	а	m	x(9)	m	а	m	16	m	а	m	
	Czech Republic	10	11	11	а	16	16	17	16	16	16	17	16	
	Denmark	23	42	39	m	15	18	18	19	16	28	28	24	
	Estonia	а	а	а	а	12	22	m	22	12	22	m	22	
	Finland	а	а	а	а	12	18	18	а	12	18	18	а	
	France	12	m	m	m	18	m	m	m	17	m	m	m	
	Germany	11	13	x(2)	x(2)	11	18	x(6)	x(6)	11	18	x(10)	x(10)	
	Greece	а	а	а	а	m	а	а	а	m	а	а	а	
	Hungary	x(9)	x(10)	x(11)	x(12)	x(9)	x(10)	x(11)	x(12)	11	12	10	14	
	Iceland	m	m	m	m	m	m	m	m	m	m	m	m	
	Ireland	x(9)	m	а	m	x(9)	m	a	m	22	m	а	m	
	Israel	m	m	m	m	16	16	15	33	m	m	m	m	
	Italy	a	a	a	a	21	20	а	20	21	20	а	20	
	Japan Korea	m m	m m	a	m m	m m	m m	a	m m	m m	m m	a	m m	
	Latvia	14	13	x(11)	13	a	18	a x(11)	18	14	17	16	17	
	Lithuania	a	a	A(11)	a	15	16	a	16	15	16	a	16	
	Luxembourg	12	a	a	a	5	a	a	a	5	a	a	a	
	Mexico	x(9)	x(10)	a	x(12)	x(9)	x(10)	a	x(12)	20	20	a	20	
	Netherlands	13	13	a	13	15	15	a	15	15	14	a	14	
	New Zealand	16	13	13	85	17	16	16	3	17	14	14	59	
	Norway	15	14	14	а	8	20	14	25	8	19	14	25	
	Poland	8	а	а	а	11	31	а	31	11	31	а	31	
	Portugal	x(9)	x(10)	а	x(12)	x(9)	x(10)	а	x(12)	15	14	а	14	
	Slovak Republic	7	7	7	а	11	18	а	18	11	16	7	18	
	Slovenia	17	11	40	9	14	11	9	15	14	11	10	12	
	Spain	10	15	15	15	12	17	а	17	12	17	15	17	
	Sweden	10	11	11	а	10	11	11	а	10	11	11	а	
	Switzerland	а	а	а	а	14	m	m	m	14	m	m	m	
	Türkiye	47	34	a	34	18	21	a	21	22	23	a	23	
	United Kingdom	a(0)	x(10)	x(11)	a	a	x(10)	x(11)	a	a	13	13	a	
	United States <sup>2</sup>	x(9)	x(10)	а	x(12)	x(9)	x(10)	а	x(12)	15	11	а	11	
	OECD average EU22 average	16 12	m 14	17 18	m 12	15 14	18 17	15 15	m 19	15 14	17 17	15 15	21 18	
Ś	Argentina <sup>3</sup>	m	m	m	m	m	m	m	m	19	m	m	m	
ner	Argentina <sup>3</sup> Brazil China	2	17	a	17	10	50	a	50	10	50	a	50	
art	China	m	m	m	m	m	m	m	m	m	m	m	m	
۵.	India	a	a	a	a	m	m	m	m	40	19	m	m	
	Indonesia	a	a	a	a	m	m	m	m	m	m	m	m	
	Saudi Arabia	m	m	m	m	15	11	m	m	18	13	m	m	
	South Africa <sup>3</sup>	m	m	m	m	m	m	m	m	17	m	m	m	
	G20 average	m	m	m	m	m	m	m	m	13	15	m	m	

## Table D8.1. Ratio of students to academic staff by tertiary level of education and type of institution (2020)

Note: See Definitions and Methodology sections for more information.

1. Data for short-cycle tertiary refer to the Flemish Community only.

2. Tertiary includes staff and students from post-secondary non-tertiary level.

3. Year of reference 2019.

Source: OECD/UIS/Eurostat (2022). See Source section for more information and Annex 3 for notes (<u>https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf</u>).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

StatLink ms https://stat.link/pvw5x9

L					2020						2015	
	Sho	ort-cycle ter	tiary	Bachelor's	, master's a	and doctoral		All tertiary		All tertiary		
-	< 30 years	30-49 years	> = 50 years	< 30 years	30-49 years	> = 50 years	< 30 years	30-49 years	> = 50 years	< 30 years	30-49 years	> = 50 years
Countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Countries Australia	m	m	m	4	57	40	m	m	m	m	m	m
Austria	6	43	51	9	51	39	9	50	41	9	m 54	37
		62	29				-					
Belgium <sup>1</sup>	9			m	m	m ra	m	m	m	m 9	m	m
Canada <sup>2</sup>	9	45	47	3	45	51	6	45	49		47	45
Chile	m	m	m	m	m	m	m	m	m	m	m	m
Colombia	6	65	29	5	58	37	5	61	34	m	m	m
Costa Rica	38	55	7	5	63	32	5	63	32	m	m	m
Czech Republic	m	m	m	m	m	m	m	m	m	m	m	m
Denmark	3	46	51	20	47	33	19	47	34	17	49	34
Estonia	а	а	а	4	56	40	4	56	40	6	53	41
Finland	а	а	а	9	46	45	9	46	45	6	45	49
France	10	55	35	12	50	38	12	51	37	m	m	m
Germany	4	41	55	23	48	29	23	48	29	25	50	25
Greece	a	a	a	1	47	52	1	47	52	1	48	52
Hungary	x(10)	x(11)	x(12)	x(10)	x(11)	x(12)	6	54	40	5	54	41
Iceland	m	m	m	m	m	m	m	m	m	m	m	m
Ireland				m			m		m	m		
Israel <sup>3</sup>	m 6	m 52	m 42	10	m 48	m 42	10	m 48	42		m	m
				-						m	m	m
Italy	a	а	a	1	43	56	1	43	56	1	43	56
Japan ⁴	6	51	43	2	50	48	2	50	47	3ª	52 <sup>d</sup>	45
Korea	1	53	45	1	48	51	1	49	50	2	57	41
Latvia	3	50	47	4	49	48	4	49	48	6	45	49
Lithuania	а	а	a	5	55	40	5	55	40	6	55	39
Luxembourg	6	65	29	30	57	12	29	58	13	31	54	15
Mexico	m	m	m	m	m	m	m	m	m	m	m	m
Netherlands	6	50	44	18	50	32	17	50	33	19	47	33
New Zealand	11	42	47	10	45	45	10	45	46	12	44	44
Norway	9	44	47	22	45	33	21	45	34	16	44	39
Poland	0	55	45	4	57	39	4	57	39	m	m	m
Portugal <sup>4</sup>	x(10)	x(11)	x(12)	x(10)	x(11)	x(12)	4	50	46	4 <sup>d</sup>	57 <sup>d</sup>	39
Slovak Republic	5	44	51	4	54	42	4	54	42	6	50	45
Slovenia	2	47	51	5	58	37	4	56	40	0	48	52
	5	56	39	2	48	49	3		40	2	40 54	44
Spain								50				
Sweden	5	52	43	5	51	43	5	51	43	5	52	43
Switzerland	a	а	a	2	49	49	2	49	49	3	52	46
Türkiye	10	75	15	18	61	21	17	63	20	23	60	17
United Kingdom	x(10)	x(11)	x(12)	x(10)	x(11)	x(12)	6	57	37	6	52	42
United States	m	m	m	m	m	m	m	m	m	m	m	m
OECD average	7	52	40	9	51	40	8	52	40	9	51	40
Average for countries with available data for both reference years							9	51	41	9	51	40
EU22 average	5	51	44	9	51	40	9	51	40	9	50	41
Argentina	m	m	m	m	m	m	m	m	m	m	m	m
Argentina Brazil China	1	54	45	4	62	34	4	62	34	8	61	31
China	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia												m
	m	m	m	m	m	m	m	m	m	m	m	
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m

## Table D8.2. Age distribution of academic staff by tertiary level of education (2015, 2020)

**Note:** See Definitions and Methodology sections for more information. 1. Data for short-cycle tertiary refer to the Flemish Community only.

2. Public institutions only at tertiary level.

Public institutions only at short-cycle tertiary level.
Post-secondary non-tertiary teachers may teach at tertiary level - see Annex 3 for further details.

Source: OECD/UIS/Eurostat (2022). See Source section for more information and Annex 3 for notes (https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

StatLink ms https://stat.link/w9ludv

## Table D8.3. Share of women among academic staff, by tertiary level of education and age group (2015 and 2020)

Percentage of female teachers in public and private institutions

		2020 2015											
	Sh	ort-cycle teri	tiary	Bachelor's, master's and doctoral				All tertiary			All tertiary		
	All ages	< 30 years	> = 50 years	All ages	< 30 years	> = 50 years	All ages	< 30 years	> = 50 years	All ages	< 30 years	> = 50 years	
Countries	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Countries Australia	m	m	m	48	51	45	m	m	m	m	m	m	
Austria	53	74	49	40	49	37	44	52	39	43	53	38	
Belgium <sup>1</sup>	84	79	85	49	61	46	51	62	48	49	65	44	
Canada <sup>2</sup>	54	63	48	44	51	40	49	60	40	49	58	45	
Chile	m	m	m	m	m	m	m	m	m	m	m	m	
Colombia	39	47	31	39	46	32	39	46	31	m	m	m	
Costa Rica	55	45	0	44	44	38	44	44	38	m	m	m	
Czech Republic	m	m	m	m	m	m	m	m	m	m	m	m	
Denmark	42	49	36	45	43	41	45	43	41	43	44	37	
Estonia	a	a	a	49	53	46	49	53	46	49	52	46	
Finland	a	a	a	53	45	52	53	45	52	51	46	51	
France	54	56	50	43	47	37	45	49	40	42	55	36	
Germany	32	31	33	40	45	32	40	45	32	38	45	27	
Greece	a	a	a	37	60	34	37	60	34	33	52	31	
Hungary	39	53	33	42	52	37	41	47	36	42	52	37	
Iceland	m	m	m	-+2 m	m	m	m	m	m	m	m	m	
Ireland	m	m	m	m	m	m	m	m	m	m	m	m	
Israel <sup>3</sup>	56	70	50	47	53	44	48	54	45	m	m	m	
Italy	a	a	a	38	53	34	38	53	34	37	56	33	
Japan ⁴	50	57	48	25	35	22	30	45	27	27d	47 <sup>d</sup>	23 <sup>d</sup>	
Korea	45	71	34	34	63	23	36	65	25	35	67	21	
Latvia	63	69	68	53	52	52	55	54	55	56	55	53	
Lithuania	a	a	a	59	60	57	59	60	57	56	54	51	
Luxembourg	51	60	48	35	36	26	36	37	28	38	45	27	
Mexico	m	m	m	m	m	m	m	m	m	m	m	m	
Netherlands	52	61	43	47	49	38	47	49	38	44	51	34	
New Zealand	54	46	54	52	59	48	52	57	49	49	49	47	
Norway	41	33	34	49	46	46	48	46	46	46	41	43	
Poland	67	m	73	47	53	39	47	53	39	m	m	m	
Portugal <sup>₄</sup>	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	46	44	41	44 <sup>d</sup>	48 <sup>d</sup>	38 <sup>d</sup>	
Slovak Republic	61	50	60	46	57	43	47	56	44	45	57	41	
Slovenia	43	42	43	42	47	37	42	46	38	41	38	36	
Spain	51	55	49	43	52	37	45	53	39	42	60	36	
Sweden	45	46	43	46	48	44	46	48	44	44	48	42	
Switzerland	а	а	а	36	52	30	36	52	30	34	52	29	
Türkiye	42	55	27	46	54	33	45	54	33	43	53	30	
United Kingdom	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	46	48	42	44	49	40	
United States <sup>₄</sup>	x(7)	m	m	x(7)	m	m	51	m	m	49	m	m	
OECD average	52	55	46	44	51	39	45	51	40	43	52	39	
Average for countries with available data for both reference years							45	51	40	43	51	38	
EU22 average	54	56	52	45	51	41	46	51	41	44	52	40	
Argentina	m	m	m	m	m	m	m	m	m	m	m	m	
Brazil	48	0	47	46	52	43	46	52	43	45	50	42	
Brazil China	m	m	m	m	m	m	m	m	m	m	m	m	
India	а	а	а	m	m	m	42	m	m	m	m	m	
Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	
Saudi Arabia	29	m	m	42	m	m	42	m	m	40	m	m	
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	

Note: See Definitions and Methodology sections for more information.

Data for short-cycle tertiary refer to the Flemish Community only.
Public institutions only at tertiary level.

3. Public institutions only at short-cycle tertiary level.

Post-secondary non-tertiary teachers may teach at tertiary level - see Annex 3 for further details.
Source: OECD/UIS/Eurostat (2022). See Source section for more information and Annex 3 for notes (<u>https://www.oecd.org/education/education-at-a-glance/EAG2022\_X3-D.pdf</u>).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

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