TALIS

Results from TALIS 2024

The State of Teaching

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THE STATE OF TEACHING

OECD
BETTER POLICIES FOR BETTER LIVES

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Foreword

In 2020, Mr Nathan Peterson, a history teacher in the United States, found himself awkwardly demonstrating exercises in front of an old laptop. Although the school year had ended, Mr Peterson typically volunteers to teach extra classes during the summer. That year, he was assigned physical education and, due to COVID, had to teach online.

The pandemic upended our most fundamental assumptions about what teaching looks like and what teachers do. Governments and teachers were forced to improvise with little precedent and even less preparation. But fundamental changes to the teaching profession did not stop in 2020. In 2022, Mr Peterson asked ChatGPT a question and it gave him a very good answer.

Teachers are and have always been the most important factor in education. Improving the quality of teaching can yield significant academic and economic benefits for students. It is imperative that we understand what they are doing in the face of a rapidly changing world, what they can do better and how we can help them.

The OECD Teaching and Learning International Survey (TALIS) is the world's pre-eminent source of information about teachers and teaching practices. Since its launch in 2008, TALIS has served as the voice of teachers so they can share what is happening in classrooms and what they need. Thanks to TALIS, we know that around a third of teachers use artificial intelligence in their teaching, but that seven out of ten worry that it facilitates plagiarism and cheating. Despite the challenges they face, we know that nine out of ten teachers are satisfied with their jobs and that choosing to remain in the role is more strongly influenced by employment and working conditions than salaries.

TALIS shows that successful teaching is the product of successful collaboration. Teachers deserve a work environment that encourages and values change, innovation and co-operation. We expect them to prepare our children for the future, not the past we have already lived. To do so, we should support them with the resources and the autonomy to deliver on this promise. It is teachers' responsibility to adapt, learn and improve. It is our responsibility to make sure they can.

Acknowledgements

The OECD Teaching and Learning International Survey (TALIS) is a collaboration between the countries, territories and organisations of the TALIS Governing Board, the OECD Secretariat, the European Commission and an international consortium led by the International Association for the Evaluation of Educational Achievement (IEA).

Gabor Fülöp led the development of this report and authored Chapters 2 and 7. Rodolfo Ilizaliturri developed the statistical processing that underpins all analysis. Alison Burke authored Chapters 1 and 6. Rodrigo Castaneda Valle authored Chapters 3 and 5. Marco Paccagnella authored Chapter 4. Heewoon Bae led the planning of this report. Paula Rodriguez Sanchez contributed analysis to all chapters. Sophie Vayssettes co-ordinated country engagement. Emily Groves co-ordinated everything else. Ruochen Li had the privilege of managing this wonderful team.

The development of this report was guided by Andreas Schleicher, Lucia Dellangelo and Yuri Belfali. Manuela Fitzpatrick contributed analysis about education policies. This report could not have been written without the contributions of former TALIS team members – Pablo Fraser, Hélène Guillou, Noémie Le Donné, Lina Nguyen, Asuka Ohagi, Judit Pál and Karine Tremblay. Duncan Crawford, Kevin Gillespie, Sophie Limoges, Sasha Ramirez-Hughes and Anna Wahlgren provided support for report production and communications. The authors wish to thank Lidia Gromadzka, Jason McGrath, Claire Shewbridge, Claudia Tamassia, Lydia Vosberg, for their support, insights and reflections.

The TALIS Governing Board, chaired by Siew Hoong Wong (Singapore), and the national project managers steered TALIS and provided feedback. The technical implementation of TALIS was contracted out to an international consortium of institutions and experts co-directed by Steffen Knoll and Anja Waschk with Ralph Carstens providing senior counsel. Further conceptual and technical leadership was provided by John Ainley, Jean Dumais, David Ebbs, Sabine Meinck, Karsten Penon, Mojca Rozman and Adriana Viteri. Eleonora Kolomiets, Huyen Nguyen and Megan Sim provided valuable support. Design and development of the questionnaires were led by a Questionnaire Expert Group, and an independent Technical Advisory Group provided guidance on the technical aspects of the survey. Annex D of this volume lists the members of various TALIS bodies, as well as the experts who have contributed to TALIS in general.

Most importantly, TALIS wishes to acknowledge anyone who ever spent too long planning a lesson that did not work, who realised too late that assigning lots of homework led to lots of marking, who met with parents occasionally, then received emails from parents regularly and then received text messages from parents frequently, who wrote on a chalkboard, then a whiteboard and then a smart board, who frowned when a student called them mean, sighed when that student did not complete their homework and smiled when that student thanked them at graduation.

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- Carol Zimmerman, Caboolture State (Primary) School, Australia

The voices of teachers

Costa Rica

Jorge Enrique Mora Chacón has been a secondary school teacher of social studies and civics since 1997, working at the Liceo San Miguel in San José, Costa Rica. He believes that a teacher's role is to help students see the world differently. This shift in perspective is essential and should be accompanied by two key objectives: fostering student autonomy and strengthening self-esteem.

However, Mr Mora Chacón believes that one cannot focus solely on academic content to achieve this. Emotional literacy is equally important. When a student says that they have not eaten for some time or that their parents have thrown them out of the house, the time is not right to start talking about the Cold War. In such moments, he believes it is crucial for teachers to draw on their skills to provide emotional support and demonstrate the sensitivity that every educator should possess.

In Costa Rica, the groundwork for this approach to teaching was laid with the passing of Law 7600 in 1996. This pioneering legislation created new opportunities for learners with special educational needs. It marked a turning point in the way education was approached, and its legacy continues to influence our understanding of inclusive education to this day.

Mr Mora Chacón believes that inclusion should be a path to autonomy, not a lifelong support system. The idea is not for students to remain dependent on constant support, but rather to benefit from meaningful early interventions involving educational, medical, psychological and social professionals.

Fortunately, Costa Rica has public policies and curricular frameworks in place, as well as a network of professionals, including teachers, doctors, psychologists, social workers and guidance counsellors, who all play a valuable role in this endeavour. The "*profesor guía*" (form tutor or lead teacher) plays a particularly demanding yet absolutely crucial role. They act as a liaison between students, their families, evaluation committees and support services. It is a role that can make a real difference.

New Zealand

Kieran Gainsford is a secondary school chemistry and science teacher, and head of department, at One Tree Hill College in Auckland, New Zealand. His school is a large public institution in central Auckland and its student population is very diverse. Many of his students are recent arrivals to New Zealand from countries such as the Philippines and Tonga, and the school also has a significant number of Māori students. Mr Gainsford sees this diversity as one of the most rewarding aspects of his role. However, it sometimes brings linguistic challenges. The school addresses this by offering English as a second language classes alongside regular subject instruction, but supporting such a wide range of learners requires all teaching staff to be equipped and trained.

Mr Gainsford points out that New Zealand's decentralisation means this type of school support varies widely from school to school. "Teachers can be lucky or unlucky", he says, depending on their school's

leadership and budget. This tension between school autonomy and system-level equity is, in his view, one of the defining features of the New Zealand education system. Mr Gainsford describes the country's struggle with educational inequality as the "long tail of underachievement", a persistent gap between the highest- and lowest-performing students. He believes this gap is rooted in structural differences between schools, such as varying levels of governance capacity and resource availability, and different levels of socioeconomic advantage among their students.

Cultural and linguistic recognition, particularly regarding Māori students, is another core element of teaching in New Zealand. Mr Gainsford explains that teachers are expected to develop language skills in *te reo Māori* as part of their certification, though current fluency levels vary widely. There are regulations requiring integrating Māori perspectives into subject curricula and, while the professional development needs are substantial, he believes that teachers are willing and ready to meet the challenge, provided they are supported.

"In New Zealand, people have a really strong appreciation of teachers and the work we do, and we certainly feel that from the public and from the families that we work with. I think our government should take up the task of developing policies to match the goodwill that we have among the public because we do feel their goodwill and their support. I do consider teaching to be a trusted and valued profession in New Zealand. Absolutely."

Poland

Aneta Mastalerz is a Polish language teacher at an upper secondary vocational/technical school that focuses on information technology, metallurgy and mechanics. The school has an enrolment of about 500 students, 23 of whom are girls. Aneta has taught for 22 years, all at the same school.

According to Aneta, teachers need to "wake up" about technology. She says that the purpose of education is to develop intelligence and that technology can help teach content in more engaging ways. She acknowledges the challenges posed by artificial intelligence, but says that teachers must always keep learning. While artificial intelligence is often seen as a threat, it can also be a pedagogical aid that teachers can learn to use. "It won't be like in the movies. Seeing ten pictures won't make a student love art, but gradual exposure is helpful."

Aneta believes that teachers must be lifelong learners. Poland's professional development system is strong in this respect, provided teachers know how to use it. During the pandemic, for example, there was a rise of webinars and other remote learning opportunities. Polish teachers are now also supported to go abroad to learn in other countries. Her colleagues have travelled to Italy for teacher education and she has accompanied her students to Germany, Italy and Portugal for their education.

A key aspect of education is parental involvement. Previously, Aneta saw parents infrequently during scheduled meetings around grading periods. Now, however, parents feel empowered and want to be included. They are involved in school activities and ceremonies and are more aware of what their children are learning. This is good because engaged parents often have more engaged children. Technology also helps because parents can keep up remotely. Some teachers might say that parents are demanding, but Aneta thinks this is fine as long as demands stay within reasonable limits. She hears some teachers say, "I feel sorry for you, all the parents come to your meetings." She responds, "I feel sorry for you, no one comes to yours."

South Africa

Mpho is a secondary school teacher in Qibing, South Africa where she has taught for 12 years. Her school, located in a semi-rural area, has around 950 learners aged between 12 to 18 years old and employs 34 educators. She teaches accounting and employment studies. Many of the students come from low socio-economic backgrounds, some without access to basic needs such as food, and others balancing school with caring responsibilities at home. Despite these challenges, Mpho describes her students as highly motivated and expresses particular pride in those who have gone on to become teachers themselves.

The school has faced several specific difficulties in recent years. Flooding caused significant damage to buildings, leading to the introduction of mobile classrooms, and the lack of access to modern technology continues to place students at a disadvantage compared to their peers elsewhere in the country. Mpho says that more funding is needed to give students what they deserve. She worries that without reliable access to digital tools, her students may struggle to keep up.

Nonetheless, Mpho emphasises the positive aspects of her school. It is a diverse environment where multiculturalism is actively celebrated. Dedicated multicultural days honour the languages and traditions of the learners, while a school-based support team assists those with special educational needs or challenging home lives. The team is empowered to create individualised learning plans and escalate concerns to district-level professionals.

A strong sense of collaboration shapes the schools' teaching environment. Mpho explains that teachers and school leadership work closely together, meeting regularly and cultivating a culture of mentorship in which experienced educators guide novice teachers during their early years.

For Mpho, teaching is more than a profession – it is a calling. She is determined to make a difference in the lives of her students and believes firmly that a quality education is key to securing a better future. "I am here to change lives," she says.

United States

Nathan Peterson has taught for 20 years and currently teaches history at a middle school in Hawaii, United States. He teaches many students from ethnic minority backgrounds (primarily from Asia and the Pacific), from disadvantaged backgrounds and who do not speak the language of instruction fluently.

The pandemic fundamentally changed Mr Peterson's teaching conditions. Mr Peterson often teaches summer school to supplement his income. In 2020, he found himself teaching physical education, during the summer, online. Although students were required to turn on their cameras, not all regularly did. Mr Peterson found it tiring to change activities frequently to maintain students' attention.

As his school was re-emerging from the pandemic, Mr Peterson engaged in hybrid teaching: students who were failing were allowed to attend school in person on a rotational basis, while other students remained online, many without cameras. "I had some students in front of me, while others were maybe playing video games or eating cereal." These experiences contributed to his belief that teaching is a face-to-face activity and that "we lost something when it wasn't".

Nevertheless, Mr Peterson also believes that the pandemic helped his community recognise the value of teachers. Teachers negotiated a new contract during the pandemic, which increased their salaries and the number of employment steps. The new contract does have some drawbacks, however. For example, Mr Peterson calls the portfolio requirement to demonstrate progress "time-consuming, cumbersome and redundant". He also dislikes having to pay for his own professional development.

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What is TALIS?

Introduction

The OECD Teaching and Learning International Survey (TALIS) is the largest international survey of teachers and principals. It was first introduced in 2008, then administered cyclically in 2013, 2018 and 2024. By collecting internationally comparable information about teachers, teaching and principals, TALIS ensures that the voices of teachers and principals are represented in education policy making.

What data does TALIS collect?

TALIS captures information about a variety of aspects related to teachers and teaching. For example, TALIS collects data about teacher demographics (e.g. age, gender) and their schools' characteristics (e.g. size, location). Teachers also provide information about their working hours, professional learning, contract modalities, professional and teaching practices, school climate, well-being, job satisfaction and career intentions.

Each cycle, TALIS introduces new survey questions to capture contemporarily relevant information. In 2024, TALIS asked teachers about how they adapt to increasingly diverse student populations, their use of technology and artificial intelligence, how they respond to students' social and emotional needs, and their practices and attitudes related to environmental sustainability.

More information about the data collected by TALIS can be found in the *TALIS 2024 Conceptual Framework* (OECD, 2025[1]).

How is TALIS implemented?

The TALIS Governing Board (TGB) leads TALIS. It is composed of a representative from each country and territory that participates in the survey. The TGB oversees the OECD Secretariat, which in turn manages a consortium of international actors that together develop and implement TALIS.

A diverse group of education experts, guided by the TGB, drafts the questions that appear in TALIS. Each question is translated into the national languages of every participating country and territory. The questions are tested twice to verify their translations and their functioning.

Each education system chooses to administer TALIS in up to three levels of education: primary (International Standard Classification of Education or ISCED level 1), lower secondary (ISCED level 2) and upper secondary (ISCED level 3). Within each level in each country or territory, a representative sample of roughly 4 000 teachers from 200 schools complete the survey along with their school principals.

Which countries and territories participate in TALIS?

The following table shows which countries and territories participated in TALIS 2024 and at which levels of education.

Table 1. Participating countries and territories in 2024

Country/territory	ISCED 1	ISCED 2	ISCED 3
Albania		x	
Alberta (Canada)		x	
Australia	x	x	
Austria		x	
Azerbaijan		x	
Bahrain		x	
Brazil	x	x	
Bulgaria		x	
Chile		x	
Colombia		x	
Costa Rica		x	
Croatia		x	x
Cyprus[1]		x	
Czechia		x	
Denmark		x	x
Estonia		x	
Finland		x	
Flemish Community (Belgium)	x	x	x
France	x	x	
French Community (Belgium)	x	x	
Hungary		x	
Iceland		x	
Israel		x	
Italy		x	
Japan	x	x	
Kazakhstan		x	
Korea	x	x	
Kosovo		x	
Latvia		x	
Lithuania		x	
Malta		x	
Montenegro		x	
Morocco	x	x	
Netherlands	x	x	
New Zealand	x	x	
North Macedonia		x	
Norway		x	
Poland		x	
Portugal		x	x
Romania		x	
Saudi Arabia	x	x	x
Serbia		x	
Shanghai (People's Republic of China)		x	

Country/territory	ISCED 1	ISCED 2	ISCED 3
Singapore		x	
Slovak Republic		x	
Slovenia	x	x	x
South Africa		x	
Spain	x	x	
Sweden		x	
Türkiye	x	x	x
United Arab Emirates	x	x	x
United States		x	
Uzbekistan		x	
Viet Nam		x	

1. Cyprus did not participate directly in TALIS 2024: its data collection and processing were managed exclusively by the international research consortium. Its data are reported in the result tables listed in Annex C.

The next table shows the number of countries and territories that have participated in TALIS in each cycle.

Table 2. Participation over time

Year	ISCED 1	ISCED 2	ISCED 3
2008	-	23	-
2013	6	37[1]	10
2018	13	47	10
2024	15	53	8

1. Four countries and territories, including Georgia, New Zealand, the Russian Federation and Shanghai (China), collected data in 2014.

Other survey modules within the TALIS programme

The TALIS Teacher Knowledge Survey (TKS) module, which is closely connected to the Core Survey at ISCED level 2 and designed to study teachers' general pedagogical knowledge, was introduced for the first time in the 2024 TALIS cycle.

The Starting Strong Teaching and Learning International Survey 2024 is an important international, large-scale survey in early childhood education and care (ECEC), focusing on early childhood staff and setting leaders. It was first implemented in 2018 and continues to cover staff and leaders at ISCED level 02 (pre-primary settings) as well as in settings for children under the age of three.

Reader's guide

Countries and territories

There are five territories participating in TALIS 2024. They are italicised in figures and referred to in the following manner:

- The province of Alberta, in Canada, is referred to as Alberta (Canada).
- The Flemish Community of Belgium is referred to as Flemish Comm. (Belgium) in tables and figures.
- The French Community of Belgium is referred to as French Comm. (Belgium) in tables and figures.
- Kosovo.
- The municipality of Shanghai, in the People's Republic of China, is referred to as Shanghai (China).

In tables, countries and territories are sorted in alphabetical order. There are two exceptions:

- The Flemish Community and the French Community of Belgium are indented, italicised and appear below Belgium, for ISCED level 2 teacher and principal data. The French Community of Belgium is indented, italicised and appear below Belgium, for ISCED level 1 teacher and principal data.
- Countries and territories that did not meet the TALIS technical standards with respect to participation rates are placed at the bottom of the tables by ISCED level.

Cyprus did not participate directly in TALIS 2024: its data collection and processing were managed exclusively by the international research consortium. Its data are reported in the result tables listed in Annex C. Two notes are added to the information on Cyprus:

- **Note by Türkiye**: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the "Cyprus issue".
- **Note by all the European Union Member States of the OECD and the European Union**: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

One note is added to the information on the data for Israel:

- The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

One note is added with an asterisk to the first mention of Kosovo:

- This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

Throughout the report, "education systems" is used a shorthand for countries and territories participating in TALIS with available data.

High exclusion rates

For reasons of practicality, safety or economy (e.g. remote schools, unique demographic groups, school types, areas under civil unrest, natural catastrophe), the national survey population could be reduced by no more than 5% of the international target population of ISCED level 2 teachers. However, not all countries/territories could adhere to this rule:

- Israel: ultra-Orthodox schools (20.4% of teachers) and schools teaching in English or French (0.1% of teachers) excluded.
- Brazil: schools in Rio Grande do Sul (10.5%) excluded due to flooding.

In trend analyses, substantial differences in exclusion rates across TALIS cycles warrant caution:

- Brazil: increase in exclusion rate from 2% in 2018 to 11% in 2024.
- Saudi Arabia: decrease in exclusion rate from 17% in 2018 to 0% in 2024.

Low participation rates

Data for education systems that did not meet the TALIS technical standards with respect to participation rates are annotated (*) in tables, figures and the text:

- ISCED level 1 (teacher and principal data): the Flemish Community of Belgium, the Netherlands and New Zealand.
- ISCED level 2 (teacher and principal data): Alberta (Canada), the Netherlands, New Zealand and Norway.
- ISCED level 3 (principal data): the Flemish Community of Belgium.

Data for education systems that did not meet the TALIS technical standards in TALIS 2018 with respect to participation rates are annotated ([a]) in tables, figures and the text referring to TALIS 2018 results or change between TALIS 2018 and TALIS 2024:

- ISCED level 1 (teacher and principal data): Australia and the Netherlands.
- ISCED level 2 (principal data): Australia.

Caution is required when interpreting estimates for countries and territories that did not meet the TALIS technical standards with respect to participation rates due to higher risk of non-response bias. See Annex A for more detail.

Reporting conventions

Teachers

The report uses "teachers" as shorthand for the TALIS target population of lower secondary (ISCED level 2) teachers. "Primary teachers" refer to teachers providing instruction in programmes at ISCED level 1 (primary education). "Upper secondary teachers" refer to teachers providing instruction in programmes at ISCED level 3 (upper secondary education).

Results from the report focus on lower secondary (ISCED 2) teachers. Results related to primary (ISCED 1) and upper secondary (ISCED 3) teachers are presented in two types of boxes throughout the report:

- Section-specific boxes covering one topic for both primary (ISCED 1) and upper secondary (ISCED 3) teachers.
- Chapter-specific boxes covering multiple indicators for either primary (ISCED 1) or upper secondary (ISCED 3) teachers.

This report refers to findings that are based on responses of teachers as a "share of teachers", "percentage of teachers", etc. For example, 35% of teachers in an education system enjoy teaching.

Principals

The report uses "principals" as shorthand for the TALIS target population of lower secondary (ISCED level 2) principals. Principals provided information on their schools' characteristics and their own work and working conditions by completing a principal questionnaire. Responses from principals are usually treated in this publication as attributes of the teachers' personal factors, working conditions, practices, etc. In which case, principals' answers are analysed at the teacher level and weighted by teacher weights.

Where a principal provided data linked to the teachers at that school (i.e. data provided by one principal applies to several teachers, such as the size of the school), this report refers to findings as a "share of teachers in schools", a "percentage of teachers in schools", etc. For example, 35% of teachers in privately managed schools in an education system enjoy teaching.

Self-reported data

TALIS results are based exclusively on self-reports from teachers and principals and, therefore, represent their opinions, perceptions, beliefs and accounts of their activities. As with any self-reported data, this information is subjective and may, therefore, differ from data collected through other means (e.g. administrative data or video observations). The same is true of principals' reports about school characteristics and practices, which may differ from descriptions provided by administrative data at a national or local government level.

While self-reported data allow respondents to share their beliefs and perceptions, there are also limitations when interpreting findings based on self-reported information.

- **Cultural response patterns**: Social and cultural backgrounds might systematically affect how individuals respond to questions (e.g. tending to respond in moderate or extreme ways) (van de Vijver and Leung, 1997[2]).
- **Social desirability bias**: Individuals respond in ways that they think are viewed favourably but do not represent their true beliefs or actions (Krumpal, 2011[3]).
- **Validity concerns**: Respondents might have to remember something that occurred a long time in the past, or their interpretation of a question is not consistent (e.g. what one person believes to be "critical thinking" could be different from another person's opinion).

As a result, direct comparisons across countries using self-reported measures warrant caution as they can be misleading.

Classification of levels of education

The classification of levels of education is based on the International Standard Classification of Education (ISCED). ISCED is an instrument for compiling statistics on education internationally. The latest version, which was formally adopted in November 2011, distinguishes between nine levels of education:

- early childhood education (ISCED level 0)
- primary education (ISCED level 1)
- lower secondary education (ISCED level 2)
- upper secondary education (ISCED level 3)
- post-secondary non-tertiary education (ISCED level 4)
- short-cycle tertiary education (ISCED level 5)
- bachelor's or equivalent level (ISCED level 6)
- master's or equivalent level (ISCED level 7)
- doctoral or equivalent level (ISCED level 8).

International averages

The OECD and TALIS averages correspond to the arithmetic mean of the respective country estimates. They are calculated for most indicators presented in this report. The European Union average, called "EU total", takes the European Union (EU) member states as a single entity, to which each country contributes in proportion of the estimated size of the target population. It can be used to assess how a country compares with the European Union as a whole.

The system-level estimates of the Flemish Community of Belgium and the French Community of Belgium are not included in the international averages, as these subnational entities already contribute to the international averages through Belgium as a whole.

The system-level estimates of countries that did not meet the TALIS technical standards with respect to participation rates are excluded from the international averages.

In the case of some countries, data may not be available for specific indicators, or specific categories may not apply. Readers should, therefore, keep in mind that the terms "OECD average", "TALIS average" and "EU total" refer to the countries with available data that are included in the respective averages. Each of these averages may not necessarily be consistent across all columns of a table.

Throughout the report, "on average" is used as a shorthand for on average across OECD countries and territories with available data.

The number of education systems included in an international average is indicated next to that average:

- **OECD average-27**: arithmetic average based on ISCED level 2 teacher or principal data across 27 OECD education systems with a data adjudication rating of "good", "fair" or "poor". The report refers to the average teacher as equivalent shorthand for the average teacher "across the 27 OECD education systems participating in TALIS".
- **OECD average-25**: arithmetic average based on ISCED level 2 teacher data across 25 OECD education systems with a data adjudication rating of "good", "fair" or "poor" that participated in both the TALIS 2018 and TALIS 2024 cycles.
- **OECD average-24**: arithmetic average based on ISCED level 2 principal data across 24 OECD education systems with a data adjudication rating of "good", "fair" or "poor" that participated in both the TALIS 2018 and TALIS 2024 cycles.

- **OECD PIAAC average-29**: arithmetic average based on data across the 29 OECD countries and territories that participated in the Survey of Adult Skills 2023.
- **TALIS average-49**: arithmetic average based on ISCED level 2 teacher or principal data across 49 TALIS 2024 education systems with a data adjudication rating of "good", "fair" or "poor".
- **EU total-22**: weighted average based on ISCED level 2 teacher or principal data across all EU member states that participate in TALIS with a data adjudication rating of "good", "fair" or "poor".
- **TALIS ISCED 1 average-12**: arithmetic average based on ISCED 1 teacher or principal data across 12 TALIS 2024 education systems with a data adjudication rating of "good", "fair" or "poor".
- **TALIS ISCED 3 average-8**: arithmetic average based on ISCED 3 teacher data across eight TALIS 2024 education systems with a data adjudication rating of "good," "fair," or "poor."
- **TALIS ISCED 3 average-7**: arithmetic average based on ISCED 3 principal data across seven TALIS 2024 education systems with a data adjudication rating of "good," "fair," or "poor."

PIAAC data

This report uses data from the second cycle of the Survey of Adult Skills (a product of the Programme for the International Assessment of Adult Competencies, hereafter "PIAAC") to compare teachers with adults working in other professions.

The second cycle of PIAAC has been conducted in 2022/23 in 31 countries/economies. In each country/economy, a representative sample of about 4 000-5 000 adults aged 16-65 participated in the survey. As part of the survey, respondents are asked to name their job title and their most important responsibilities on the job, which are used to derive their occupation, coded in accordance with the International Standard Classification of Occupations ISCO-08 (OECD, 2024[4]).

The analysis conducted in this report focuses on school teachers, including in a single group primary school teachers (ISCO code 2341), secondary education teachers (ISCO code 233) and vocational education teachers (ISCO code 232). This ensures that there is a sufficient number of teachers in each national sample for the analysis to be sufficiently precise. This choice is also justified by the fact that primary and secondary school teachers share similar working environment and conditions; on the other hand, early childhood educators, other teaching professional and university and higher education teachers are excluded from the analysis.

Teachers are then compared to adults working in other professions. To make such comparisons more meaningful, the comparison group is restricted to adults whose highest level of education is at ISCED 6 (equivalent to a bachelor's degree) or ISCED 7 (equivalent to a master's degree). These are by far the two most common levels of education attained by teachers in the PIAAC sample.

Glossary

- **Novice teacher**: Teacher with up to five years of teaching experience.
- **Experienced teacher**: Teacher with more than ten years of teaching experience.
- **Second-career teacher**: Teacher with at least ten years of work experience in non-education roles for whom teaching was not a first career choice.
- **Advantaged school**: School with 10% or fewer students from socio-economically disadvantaged homes (those that lack the basic necessities or advantages of life, such as adequate housing, nutrition or medical care).
- **Disadvantaged school**: School with more than 30% of students from socio-economically disadvantaged homes (those that lack the basic necessities or advantages of life, such as adequate housing, nutrition or medical care).

- **Urban school**: School located in a community with a population of over 100 000 people.
- **Rural school**: School located in rural area or village (with a population of up to 3 000 people). To note, in some countries and territories, schools labelled as rural may actually be located in urbanised villages.
- **Publicly managed school**: School whose principal reported that it is managed by a public education authority, government agency, municipality or governing board appointed by government or elected by public franchise. To note, a publicly managed school may not necessarily be publicly funded.
- **Privately managed school**: School whose principal reported that it is managed by a non-governmental organisation (e.g. a church, trade union, business or other private institution). To note, a privately managed school may not necessarily be privately funded.
- **Students with special education needs**: Students for whom a special education need has been formally identified.
- **Target class**: Lessons taught over the week preceding the survey to a class randomly selected from teachers' current weekly timetables.

Abbreviations

AI	Artificial intelligence
Dif.	Difference
ICT	Information and communication technology
ISCED	International Standard Classification of Education
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PPP	Purchasing power parity
S.D.	Standard deviation
S.E.	Standard error
%pt. dif.	Percentage point difference

Technical information

Causality

The design of TALIS does not allow to establish causal relationships between two variables. All analysis presented in this report should be interpreted as uncovering the presence (or absence) of statistical association, i.e. whether or not variations in one variable (for instance, teachers' participation in professional development) is systematically associated to variation in another variable (for instance, self-efficacy in teaching). It is not possible, however, to assess causality between two variables, i.e. whether making teachers participate in professional development, all other things being kept equal, would cause a change in self-efficacy.

Data underlying the figures

Four symbols are used to denote non-reported estimates:

- **a**: The category does not apply to the country/territory concerned, data were not collected by the country/territory, or there was no observation in the sample.
- **c**: There are too few or no observations to provide reliable estimates and/or to ensure the confidentiality of respondents (i.e. there are fewer than 30 teachers or 10 schools/principals with

valid data; and/or the item non-response rate [i.e. ratio of missing or invalid responses to the number of participants for whom the question was applicable] is above 50%).

- **m**: Data were collected but subsequently removed, or not reported on, for technical reasons.
- **w**: Data were withdrawn or were not collected at the request of the country/territory concerned.

Rounding figures

Because of rounding, some figures in tables may not add up exactly to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation.

All standard errors in this publication have been rounded to one, two or three decimal places. Where the value 0.0, 0.00 or 0.000 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05, 0.005 or 0.0005, respectively.

Focusing on statistically significant differences

This volume only comments on statistically significant differences or changes. These are denoted by using bold font in tables and filled shapes in figures. See Annex B for further information.

Further technical documentation

For further information on TALIS documentation, instruments and methodology, see the *TALIS 2024 Technical Report* (OECD, forthcoming) and *TALIS 2024 and TALIS Starting Strong 2024 User Guide* (OECD, forthcoming).

This report uses the OECD StatLinks service. All tables and charts are assigned a URL leading to a corresponding Excel™ workbook containing the underlying data. These URLs are stable and will remain unchanged over time. In addition, readers of the e-books will be able to click directly on these links and the workbook will open in a separate window if their Internet browser is open and running.

Content of this report

Teacher success depends not only on individual effort but also on supportive working environments. Teachers are more likely to be effective, maintain well-being, be satisfied with their jobs and remain in the profession when they have the support needed to face the challenges at hand (Admiraal and Kittelsen Røberg, 2023[5]; Awwad-Tabry et al., 2023[6]; Babb, Sokal and Trudel, 2022[7]; Collie and Mansfield, 2022[8]; Granziera, Collie and Martin, 2020[9]; Harmsen et al., 2019[10]). Education authorities can play a key role in removing barriers and providing relevant support. Thus, the central theme of this report is: *supportive systems for thriving teachers*.

Analytical framework

The TALIS 2024 initial report is guided by literature on the job demands-resources (JD-R) model, which is the basis for understanding teachers' occupational perceptions in the *TALIS 2024 Conceptual Framework* (OECD, 2025[1]). The JD-R model has often been used to study the relationships between employees' working conditions and their job performance, occupational well-being and engagement (Bakker and Demerouti, 2017[11]).

Within the JD-R framework, all job characteristics can be classified either as demands or resources.

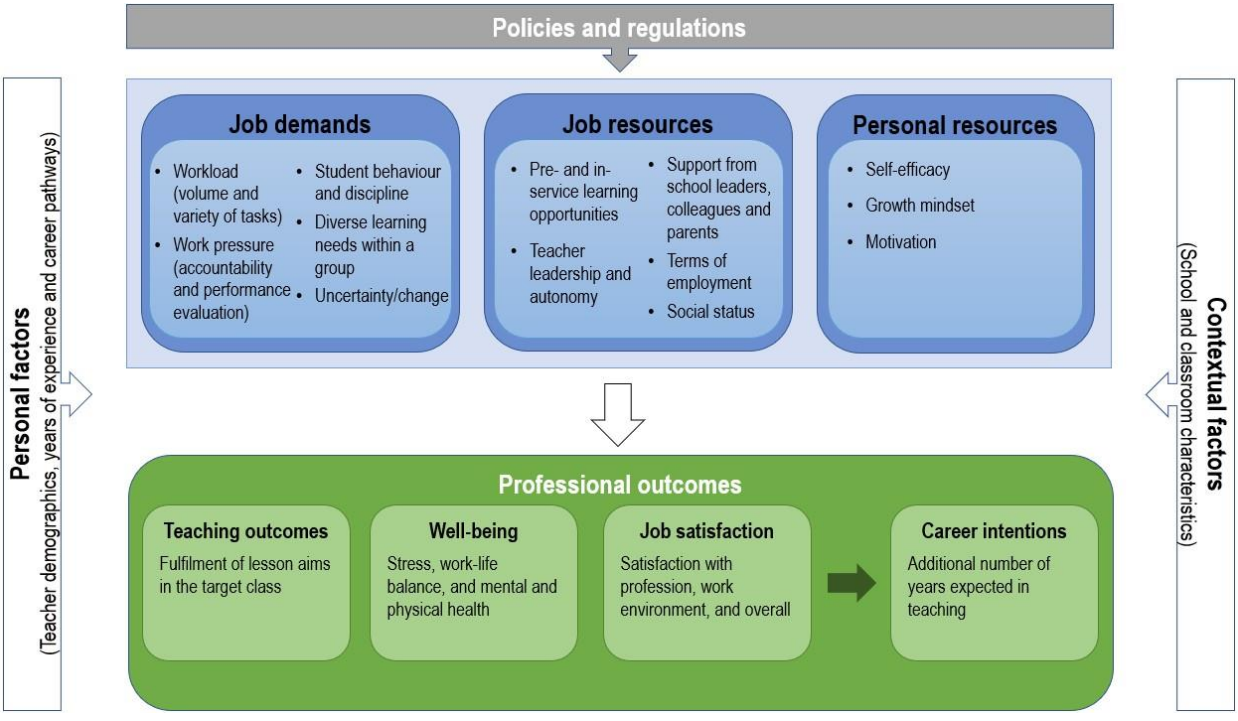
- Demands encompass all the physical, social or organisational aspects of a job that "require sustained physical or mental effort and are, therefore, associated with certain physiological and psychological costs" (Demerouti et al., 2001, p. 501[12]).
- Resources are job characteristics that may "(a) be functional in achieving work goals; (b) reduce job demands at [sic] the associated physiological and psychological costs; (c) stimulate personal growth and development" (Demerouti et al., 2001, p. 501[12]).

At its core, the JD-R model suggests that job demands deplete employees' physical and mental energy, which can increase the strain experienced by employees and negatively impact their health and job performance – although this relationship depends on whether demands are perceived as challenges or hindrances (Crawford, LePine and Rich, 2010[13]; LePine, Podsakoff and LePine, 2005[14]). Meanwhile, job resources positively affect job performance by mitigating the negative effect of job demands and by increasing employees' engagement.

Recognising that employees' outcomes at work are not only affected by job characteristics, the JD-R model has also been expanded to include personal resources. These refer to the individual characteristics that support employees in achieving positive occupational outcomes, such as their beliefs, motivation or self-efficacy (Bakker and Demerouti, 2017[11]; Collie et al., 2020[15]).

The analytical framework is based on the notion that teachers' professional outcomes, alongside their career intentions, are influenced by their personal resources, and the resources and demands present in their working environments. Education systems can deploy policies and regulations to influence the demands and resources facing teachers. However, personal and contextual factors can also affect the level of demands and resources encountered by teachers and their influence on teachers' outcomes. Figure 1 outlines the conceptual model that underpins this report.

Figure 1. Conceptual model for TALIS 2024 initial report



Sources: Adapted from Bakker, A. and E. Demerouti (2017[11]), "Job demands-resources theory: Taking stock and looking forward", https://doi.org/10.1037/ocp0000056; and Granziera, H., R. Collie and A. Martin (2020[9]), "Understanding teacher wellbeing through job demands-resources theory", https://doi.org/10.1007/978-981-15-5963-1_14.

Professional outcomes

This report primarily focuses on the following professional outcomes, outlined in Figure 1, which give an indication of whether teachers are thriving: teachers' fulfilment of their lesson aims, their well-being and job satisfaction. Closely tied to teachers' well-being and job satisfaction are career intentions, which are key to understanding teacher retention and attrition.

Demands and resources

Job resources explored in this report include: pre- and in-service learning opportunities; teacher leadership and autonomy; support from school leaders, colleagues and parents; teachers' terms of employment, such as job remuneration, stability and flexibility; and social status (Siegrist, 2008[16]; Vansteenkiste et al., 2007[17]) (Figure 1).

Personal resources include self-efficacy, growth mindset and motivation (Figure 1).

Regarding job demands, the report considers the following factors linked to the sources of stress covered by the teacher questionnaire: workload (regarding the volume and variety of tasks); work pressure (regarding accountability and performance evaluation); student behaviour and discipline; having a mix of learning needs within a group; uncertainty and change (regarding curricula and requirements) (Figure 1).

Personal and contextual factors

Given the same demands and resources, outcomes can vary depending on personal and contextual factors (Figure 1). Personal and contextual factors are included as breakdown variables and as control variables in regression analyses.

Teachers' personal factors include demographics, such as age and gender, years of teaching experience and career pathways into teaching. Regarding school and classroom characteristics, school location, governance type and the composition of the student body are considered as contextual variables where relevant (Figure 1).

Policies and regulations

Beyond personal and contextual factors, the demands facing teachers and their resources are also influenced by the policies and regulations in place within their education systems. It is often the very purpose of policies and regulations to increase the resources available to teachers, counterbalance particular demands and improve teachers' outcomes. Where possible, details of countries' education policies are presented in boxes throughout the report.

Outline

This report is organised in the following way:

- **Chapter 1** provides an overview of the teaching workforce and how it has evolved in response to changing contexts.
- **Chapter 2** takes stock of teachers' professional outcomes, examines which teachers are more likely to be thriving professionally, and explores how the demands on teachers are related to their professional outcomes.
- **Chapter 3** examines the demands that teachers' face, often in response to their changing contexts.
- **Chapter 4** looks at teachers' learning opportunities, which are crucial resources that can influence teachers' professional outcomes.

- **Chapter 5** examines the autonomy and leadership opportunities experienced by teachers, and how these resources relate to teachers' reported professional outcomes.
- **Chapter 6** explores teachers' professional relationships, including their interactions with school leaders, colleagues, students, and parents or guardians. It explores how collaborative leadership, collegiality and engagement with families contribute to supportive school communities, and how these relationships are linked to teachers' professional outcomes.
- **Chapter 7** describes teachers' career intentions, which are closely linked to their professional outcomes. It examines personal and job resources, such as motivation, employment terms and social status, and how they relate to patterns of teachers staying or leaving the profession.
- **Annex A** contains information about the TALIS target populations, the TALIS samples and a summary of the adjudication outcomes for each sample, along with cautionary notes about the interpretations of results, whenever necessary.
- **Annex B** contains information about complex variables derived from the teacher and principal questionnaires analysed in the volume, and statistical methods used to analyse TALIS data.
- **Annex C** contains the full list of online result tables.
- **Annex D** lists the members of the TALIS Governing Board, managers in the TALIS national centres, members of the OECD Secretariat, members of the TALIS Consortium and members of TALIS expert groups that contributed to the TALIS 2024 cycle.

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Executive summary

The OECD Teaching and Learning International Survey (TALIS) is the world's largest survey of teachers and principals. Starting in 2008, TALIS has collected representative and comparable data about teaching and learning conditions around the world. The results from TALIS 2024 illustrate what is happening, what is working (and where) and what can be improved.

How teachers are doing

Despite the challenges of the last years, the teaching profession overall is strong. Almost 90% of teachers are satisfied with their jobs, which is a testament to their resilience and the support they receive. In South Africa, this share increased by almost 8 percentage points since 2018. In Colombia, 90% of teachers say they would become a teacher again.

It is important for teachers to feel valued by their communities. Teachers who feel valued are more motivated and their feelings reflect social and political commitments to education. Globally, teachers feel most valued in Viet Nam, where over 92% say they feel valued by society. Several education systems have made strides in boosting the perceived value of the teaching profession. Since, 2018, Saudi Arabia, Bulgaria and Denmark have increased their share of teachers who feel valued by society by at least 19 percentage points.

Responding to a changing environment

Ageing populations and migration patterns have changed the demography of teachers in many education systems. The average age of teachers across the OECD is now 45 and in several systems it is over 50. In response, many governments are recruiting teachers from other sectors to ensure a sustainable supply of qualified educators. For example, second career teachers are now around 21% of the total teaching population in Iceland and 17% in Australia. These education systems have also made it easier for mid-career professionals to enter teaching. Roughly 47% of teachers in Australia and 27% of teachers in Iceland completed fast-track or specialised teaching training programmes.

One of the greatest changes in education are the tools that teachers use. Artificial intelligence has rapidly made its way into schools. Teachers and education systems have the responsibility to embrace this new technology while also protecting students against its harmful effects. Singapore and the United Arab Emirates are leading the way in this regard. Around 75% of teachers in these systems are using artificial intelligence. Importantly, teachers in these systems are also most likely to report having received professional learning in using artificial intelligence.

Managing demands

Demands are a normal part of professional life. However, if they become too difficult to manage, they can prevent teachers from helping students learn. The greatest demand on teachers is their workload. If teachers are spending excessive time working, that affects their well-being, job satisfaction and their effectiveness. In 2018, Japanese teachers worked almost 60 hours per week, the highest in the world. The government dedicated considerable resources to reducing workload and Japanese teachers now work around 55 hours per week.

It is important to recognise that demands are not experienced equally by teachers. Teachers' confidence in their skills can help them manage the demands they face. Czechia offers a strong example of how building teachers' self-efficacy can help them navigate challenges. Schools in Czechia experienced the largest increase of refugee students since 2018 – around 71% of schools now have at least one refugee, compared to 4% of schools in 2018. While adapting to this situation is certainly difficult from a classroom management perspective, Czech teachers with high self-efficacy actually report the lowest levels of stress related to maintaining classroom discipline.

Encouraging collaboration

The perception that most teachers work alone with dozens of students at a time no longer reflects reality. Worldwide, teaching is becoming a more co-operative activity. In most education systems, teachers report spending more time on teamwork than in 2018 and in no system do they report spending less time. Collaboration not only helps improve student outcomes, but also teacher outcomes. In general, teachers who report collaborating more also have higher levels of job satisfaction and well-being. Full-time teachers in Uzbekistan and Brazil collaborate the most, spending at least five hours per week on teamwork and dialogue with colleagues. In Slovenia, Brazil and South Africa, teachers now spend at least one more hour per week on these activities compared to 2018.

Teachers with high levels of self-efficacy are a great resource for their fellow teachers. It is important for education systems to identify them and enable them to help their colleagues. In systems like Uzbekistan and Kazakhstan, 87% and almost 66% of teachers with high self-efficacy report observing other teachers' lessons and providing feedback, respectively. In Shanghai (China), around 63% of teachers with high self-efficacy exchange teaching materials with colleagues, more than double the share of teachers with low self-efficacy who do so.

Supporting novice teachers

Being a novice teacher can be an intimidating experience. No amount of preparation can prepare one for the feeling of being directly responsible for hundreds of students. Given the specific challenges that novice teachers face, education systems should provide them with tailored support. A key ingredient is limiting their teaching workload so they have more time to prepare and learn. In Latvia and Costa Rica, for example, full-time novice teachers teach 4.2 fewer hours per week than their more experienced colleagues.

Mentorship can greatly ease the transition from initial teacher education to actual classroom teaching. TALIS data show that novice teachers who have mentors also have greater job satisfaction and well-being. Shanghai (China) is the global leader in teacher mentorship. Almost 79% of novice teachers report having an assigned mentor. Lithuania has made tremendous progress in this area and increased their share of novice teachers with mentors by 17 percentage points since 2018.

A final consideration is where novice teachers are teaching. Teacher allocation mechanisms often privilege seniority, which can place the least experienced teachers in the most difficult educational environments.

These conditions can risk younger teachers becoming disenchanted with the profession and vulnerable students receiving inequitable education. Matching teaching resources with student needs in this manner is an area where education systems can improve. TALIS asked teachers if their classes have high shares of students who have difficulty understanding in the language of instruction. In no education system did experienced teachers answer “yes” more than novice teachers.

1 Teaching for today's world

This chapter provides an overview of the characteristics, backgrounds and working contexts of teachers across education systems, and how these have evolved in recent years. It examines key demographic features of the teaching workforce – including the age, gender, education and prior experience of teachers, with particular attention to novice and second-career entrants. The chapter considers teachers' self-efficacy as a lens for understanding their confidence in responding to contemporary classroom situations. The chapter also examines the distribution of teachers across different types of schools and student populations, including schools with higher shares of students from socio-economically disadvantaged backgrounds, refugee or migrant communities, or those with special education needs. The chapter analyses how teachers adapt their practices – such as the use of digital tools like artificial intelligence, adaptive instruction and social-emotional learning – to meet the needs of all learners.

Highlights

- **The average age of teachers is around 45 years old.** In Lithuania and Portugal, the average age is 51, and in Latvia, it is 50. Conversely, the average age of teachers in Türkiye is 38 years old, and it is around 39 in Morocco, the United Arab Emirates and Uzbekistan. More than one out of two teachers are 50 or older in Estonia, Hungary, Latvia, Lithuania and Portugal.
- **Prior work experience is common for teachers. In around half of the education systems, at least one out of two teachers have prior non-teaching work experience.** This is particularly high in Iceland (95%), the United States (79%), Australia and Sweden (both 77%).
- **Today's schools are more diverse.** Compared to 2018, the share of teachers who teach in schools with more than 10% of students who are **non-native speakers** increased by 7 percentage points. Ten education systems saw an increase of 25 percentage points or more in the proportion of schools where over 1% of **students are refugees**. The largest changes are seen in Czechia, Estonia and Lithuania.
- **Teachers report using classroom management practices more frequently compared to 2018, such as calming students who are disruptive**, with an increase of 8 percentage points on average across OECD education systems. There was an increase in 30 education systems and a decrease in 1 education system (Malta). There was also a 6 percentage-point average increase in teachers reporting that they have to tell students to follow classroom rules or to listen.
- **Teaching social and emotional skills is a key feature of many education systems.** Female teachers and teachers who have a higher percentage of students with special education needs (above 30%) tend to be more likely to use practices that develop social and emotional skills. Other factors, such as age, teaching experience, school location and class size, do not have a consistent impact on these practices.
- Many education systems were forced to use online or hybrid learning during the COVID-19 pandemic, and some systems have maintained those methods. On average across OECD education systems, **over 16% of teachers work in schools where at least one lesson was taught hybrid or online in the last month.** The highest proportion of teachers working in this manner were in Singapore (81%), Israel (47%) and the United Arab Emirates (47%). While remote education may improve access, education systems may need to provide specific types of support to teachers if such modalities are to become permanent expectations.
- **Around one in three teachers report having used artificial intelligence (AI) in their work**, on average across OECD education systems. Around 75% of teachers in Singapore and the United Arab Emirates use AI in their work, whereas fewer than 20% of teachers do so in France and Japan. Teachers are using AI to learn about or summarise a topic (68%) or to generate lesson plans or activities (64%). The least frequent use of AI is in reviewing data on student participation or performance (25%). Around 90% of teachers in the United Arab Emirates and Viet Nam agree that AI assists in creating or improving lesson plans, compared to less than 20% of teachers in France and around 31% of teachers in Denmark and Finland.

Introduction

In recent years, education systems around the world have faced rapid and wide-reaching change. The coronavirus (COVID-19) pandemic disrupted traditional schooling and accelerated the use of digital technologies. At the same time, shifting demographics and increasingly diverse student populations have raised new expectations for equity, inclusion and teacher responsiveness in classrooms. These global developments are reshaping what it means to educate – and be educated – in the 21st century.

Amid these changes, understanding who teachers are and how they work has become more important than ever. Teachers support students in learning and navigating this uncertainty. Their backgrounds, training, teaching practices and levels of self-efficacy can influence how effectively they can respond to contemporary challenges. By examining the composition of the teaching workforce and how teachers adapt their approaches, this chapter aims to provide insights that can help education systems better support teachers in meeting the evolving needs of their students.

Teacher profiles

A teaching workforce that reflects a range of demographic characteristics can help education systems respond to evolving student needs (Adair, Tobin and Arzubiaga, 2012[1]). Teachers can also benefit from working in teams that bring varied levels of experience, training and backgrounds, contributing to professional learning and collaboration (OECD, 2019[2]; de Jong, Meirink and Admiraal, 2022[3]). The Teaching and Learning International Survey (TALIS) examines teacher demographics and backgrounds by looking at their age, gender, level of experience, level of education and prior teaching and non-teaching experience.

Gender

Large gender imbalances in the teaching profession are a policy concern as research suggests that gender balance can influence student career aspirations and attitudes toward specific disciplines, such as science, technology, engineering and mathematics (STEM) (Dulce-Salcedo, Maldonado and Sánchez, 2022[4]). A lack of diverse role models within certain fields could make it harder for students to envision success in those fields in later life (Stearns et al., 2016[5]; Sevilla, Bordón and Ramirez-Espinoza, 2023[6]). A highly feminised profession can also, paradoxically, lower the perceived impact of the profession due to long-held gender biases (Cacouault-Bitaud, 2001[7]). This could then have a snowball effect where men are less likely to aspire to join the profession as it is perceived as feminised. Cacouault-Bitaud (2001[7]) argues that this feminisation of professions, followed by lower value perceptions, has occurred in a wide variety of professions, including teaching, legal careers (such as judges and magistrates) and in some medical career pathways (such as general practitioners).

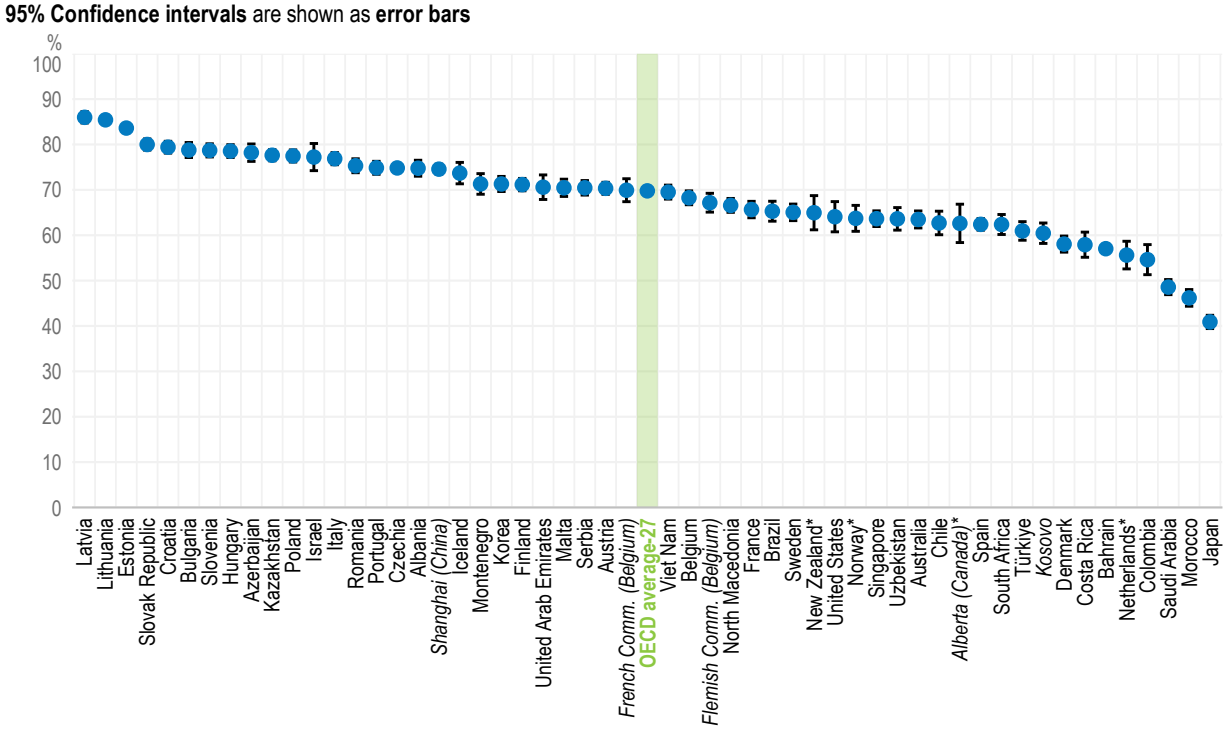
Women make up the majority of the teaching profession, representing around seven out of ten teachers across OECD countries and territories with available data (hereafter, “on average”) (Figure 1.1). This is most pronounced in Latvia (86% are female teachers), Lithuania (85%) and Estonia (84%). On the other hand, there are three education systems participating in TALIS with available data (hereafter, “education systems”) where female teachers are in the minority in 2024: Japan (41% female teachers), Morocco (46%) and Saudi Arabia (49%).

TALIS data suggest that these gender patterns have remained relatively consistent over the last six years, with some notable exceptions (Table 1.2). There was an increase in female teachers between 2018 and 2024 in the United Arab Emirates (8 percentage points), Türkiye (5 percentage points) and Korea (4 percentage points). In contrast, the percentage of female teachers decreased between 2018 and 2024

in Brazil, Saudi Arabia (by 4 percentage points), the Flemish Community of Belgium, and Latvia (by 3 percentage points).

Figure 1.1. Female teachers

Percentage of female lower secondary teachers



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 1.1.

Age

Across OECD education systems, the share of the population aged 65 and over has doubled, from under 9% in 1960 to 18% in 2021 (OECD, 2023[8]). Projections from the United Nations show that the global share of people aged 65 and over is expected to quadruple from 595 million to 2 billion between the years 2000 and 2050 (United Nations, 2022[9]). Increasing life expectancy, declining fertility rates and net migration are driving rapid population ageing in many countries (Lobo and Falleiro, 2024[10]). The age of teachers in many countries mirrors this trend.

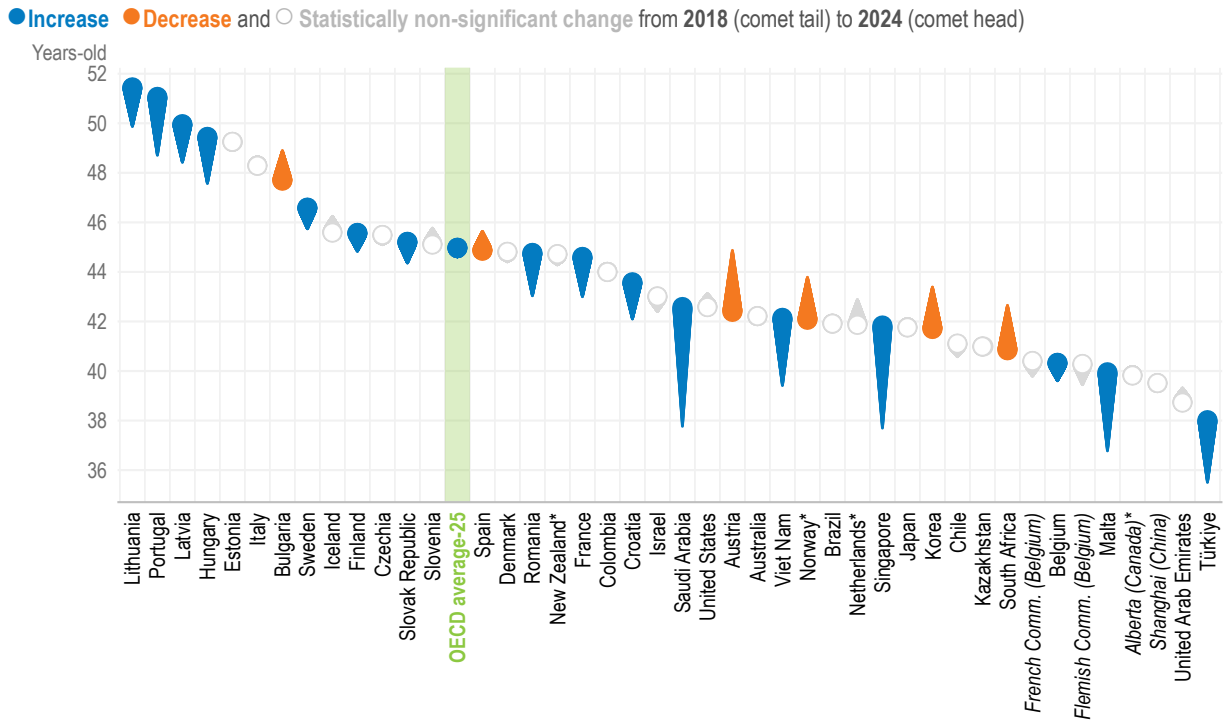
A higher share of older teachers may raise human resourcing challenges, particularly when it comes to replacing retiring staff if student numbers remain stable. At the same time, older teachers often bring valuable professional experience to both the classroom and the wider school environment (Podolsky, Kini and Darling-Hammond, 2019[11]). By contrast, a younger teaching workforce may have less experience but can contribute more recent training and up-to-date pedagogical knowledge that can benefit student learning (OECD, 2019[2]).

In 2024, the average age of teachers is around 45 years old, on average (Table 1.3). In Lithuania and Portugal, the average age is 51, and in Latvia, it is 50. Conversely, the average age of teachers in Türkiye is 38 years old, and it is around 39 in Morocco, the United Arab Emirates and Uzbekistan.

The average age of teachers has risen by two or more years in 2024 compared to 2018 in Malta, Portugal, Saudi Arabia, Singapore, Türkiye, and Viet Nam (Figure 1.2). The average age of teachers has decreased by around two years in that time in Austria, Korea, Norway* and South Africa.

Figure 1.2. Change in the average age of teachers, from 2018 to 2024

Average age of lower secondary teachers



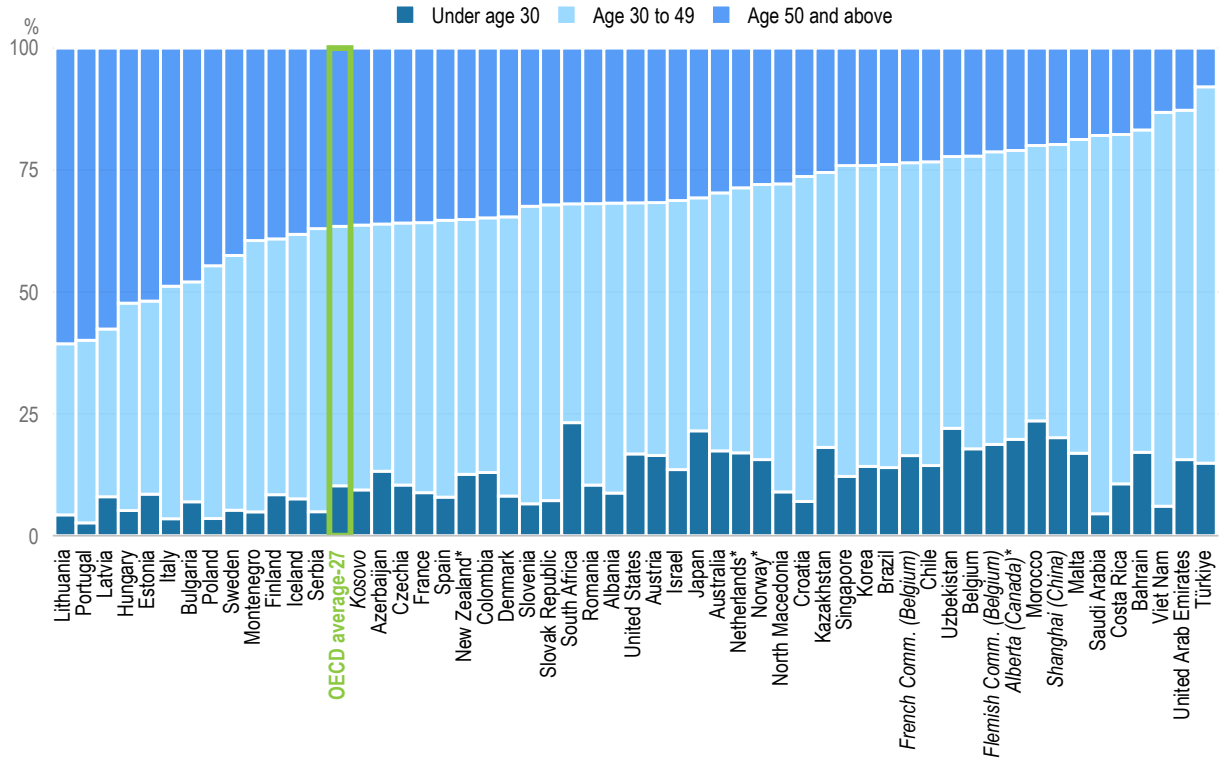
Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 1.4.

More than one out of two teachers are 50 or older in Estonia, Hungary, Latvia, Lithuania and Portugal (Figure 1.3). These systems may face the challenge of replacing a large number of teachers over the next 10-15 years, as half of them will reach retirement age. These systems also have a relatively small share of teachers aged 30 and under, which may exacerbate this issue. At the other end of the spectrum, Japan, Morocco, Shanghai (People's Republic of China, hereafter "China"), South Africa, and Uzbekistan have 20% or more of their teachers under the age of 30. For these systems, professional development and the composition of teaching experience within each school could be a policy challenge.

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Figure 1.3. Teachers' age

Percentage of lower secondary teachers, by age group



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database,* Table 1.3.

In Bahrain, Morocco, Shanghai (China), Türkiye, the United Arab Emirates and Uzbekistan, the share of teachers under the age of 30 is equal to or greater than the share of those aged 50 and above (Table 1.3). On the other hand, Hungary, Italy, Latvia, Lithuania, and Portugal have older teaching workforces, in fact the proportion of teachers aged 50 and above exceeds that of those under 30 by 45 percentage points or more.

Since 2018, the share of teachers aged 50 and above has increased by 8 percentage points or more in France, Portugal, Saudi Arabia and Singapore (Table 1.5). In contrast, it has declined by 8 percentage points or more in Austria and Korea. Overall, between 2018 and 2024, the share of teachers aged 50 and above increased in 14 education systems, while only 3 systems (Austria, Korea and Slovenia) reported a decrease.

Teachers aged 50 and above are more likely to teach in publicly managed schools (5 percentage points more than privately managed schools, on average) and in urban areas (2 percentage points more than rural areas) (Table 1.6). For education systems with an ageing teacher population and a stable student population, there are potential policy levers that can be used to recruit and train novice teachers to replace those who are retiring. For example, allocating novice teachers within the system to less challenging classrooms (see Chapter 3); addressing contract instability and raising teaching status to make the profession more attractive for novice teachers (see Chapter 7); and reviewing and, where appropriate, relaxing prerequisites for professional development that may mean novice teachers cannot access the training they need (see Chapter 4).

Background

Education

Attracting highly qualified and motivated candidates into the teaching profession is a key policy priority in many countries. Initial teacher education requirements vary widely across countries (see Chapter 4 for more information). Research is not prescriptive about the length of quality initial teacher education should be, nor at what education level it should be; however, the general consensus is that it includes knowledge training and pedagogy training, and there is some level of quality assurance before teachers begin their profession (OECD, 2019[12]; Hammerness and Klette, 2015[13]). Research has also shown that certification, the type of qualification and degrees earned are important for student learning (OECD, 2019[12]; Darling-Hammond, 2006[14]). Understanding the initial teacher training requirements and the different entry pathways is crucial to examining how people become teachers. Higher levels of tertiary education are not necessarily the only policy lever for policymakers; indeed, striking a balance between accessible entry routes and ensuring adequate professional training and competencies is essential.

In 2024, 57% of teachers hold a master's degree or equivalent (ISCED 7) (International Standard Classification of Education, ISCED), on average (Table 1.7). In Croatia, Finland, Poland, Portugal and the Slovak Republic, this figure exceeds 90%. Conversely, very few teachers have less than an ISCED 5 qualification, a short-cycle tertiary qualification (3% on average), or doctoral or equivalent qualification (ISCED 8) (2%).

Teaching experience

A teacher's level of teaching experience is an important part of what they bring to the profession. Novice teachers, those with up to five years of teaching experience, often bring more up-to-date training and potentially new ideas. Experienced teachers, who have more than ten years of experience, by definition, have more pedagogical experience and are more likely to be more confident in their teaching practices (OECD, 2019[15]).

Teachers have an average of around 17 years of experience (Table 1.9). Some 18% of teachers have 5 years or less of teaching experience, 45% have between 6 and 20 years of experience, and 37% of teachers have more than 20 years of experience. Around 30% of teachers in Austria, Morocco and South Africa have five years or less of teaching experience. In contrast, over 60% of teachers in Latvia, Lithuania and Portugal have more than 20 years of experience.

These shares have remained relatively consistent since 2018, on average (Table 1.10). The share of teachers with less than five years of experience has decreased in ten education systems. The highest decreases are in Singapore (decreasing by 18 percentage points between 2018 and 2024) and Türkiye (decreasing by 14 percentage points). The proportion of novice teachers increased in 11 education systems with a 6 percentage-point increase or more between 2018 and 2024 in Iceland, Korea and Spain.

Novice teachers are more likely to work in schools that are privately managed or have more than 10% of students who have difficulties understanding the language(s) of instruction (Table 1.11). Over 20 percentage points more novice teachers work in privately managed schools compared to those in publicly managed schools in Colombia, Costa Rica, Kazakhstan and Saudi Arabia. Over 10% more novice teachers work in schools where 10% or more of students have difficulties understanding the language(s) of instruction in Colombia, Morocco and Türkiye.

Non-teaching experience

Understanding previous or concurrent work experience is important, as teachers from non-teaching fields are likely to bring different skills and competencies. TALIS asks teachers about their work experience at the school where they currently teach, their total years as a teacher, as well as the years they have worked

in other education roles (not as a teacher, e.g. as a university lecturer or nurse), and the years they have worked in other non-education roles. Extended periods of leave (such as parental leave) are not included.

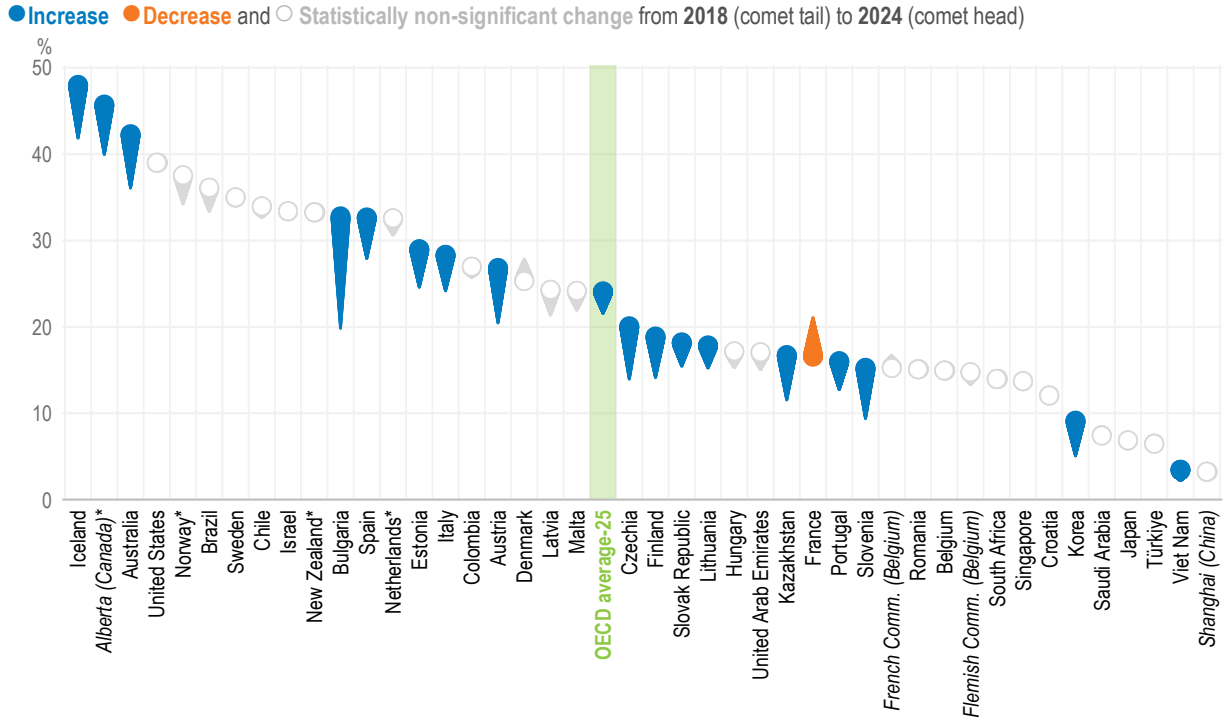
TALIS defines second-career teachers as those with at least ten years of work experience in non-education roles and for whom teaching was not their first career choice (not a top priority as a desired career). Many education systems open pathways for second-career teachers in an effort to respond to teacher shortages in their systems (Tigchelaar, Brouwer and Vermunt, 2010[16]) (see Box 1.1). Some systems may wish to bring diverse experiences from the workforce into the classroom (Nielsen, 2016[17]). Policies that support mid-career entry into teaching may also help address shortages related to ageing workforces. On the other hand, these teachers may require different mentoring or professional development in the early years of their teaching careers. How education systems support second-career teachers is explored in Chapter 4.

Over one in two teachers have worked in other education roles or non-education roles, on average (Table 1.12). In 26 out of 54 education systems, one in two teachers has prior non-education work experience. This is particularly high in Iceland (95%), the United States (79%), Australia and Sweden (both 77%). Approximately 30% of teachers have experience in other education roles, on average.

The percentage of teachers with 6 to 20 years of non-teaching work experience (so both in education and non-education roles) increased in 18 education systems between 2018 and 2024 (Figure 1.4). Bulgaria saw a 13% increase from 2018. France was the only education system to see a decrease (from 21% of teachers in 2018 to 17% in 2024). For teachers with more than 20 years of non-teaching work experience, there were smaller changes between 2018 and 2024, with 13 education systems seeing a positive change, compared to just France seeing a negative change (Table 1.13).

Figure 1.4. Change in previous non-teaching work experience, from 2018 to 2024

Percentage of lower secondary teachers who have previous work experience (6-20 years) in non-teaching roles



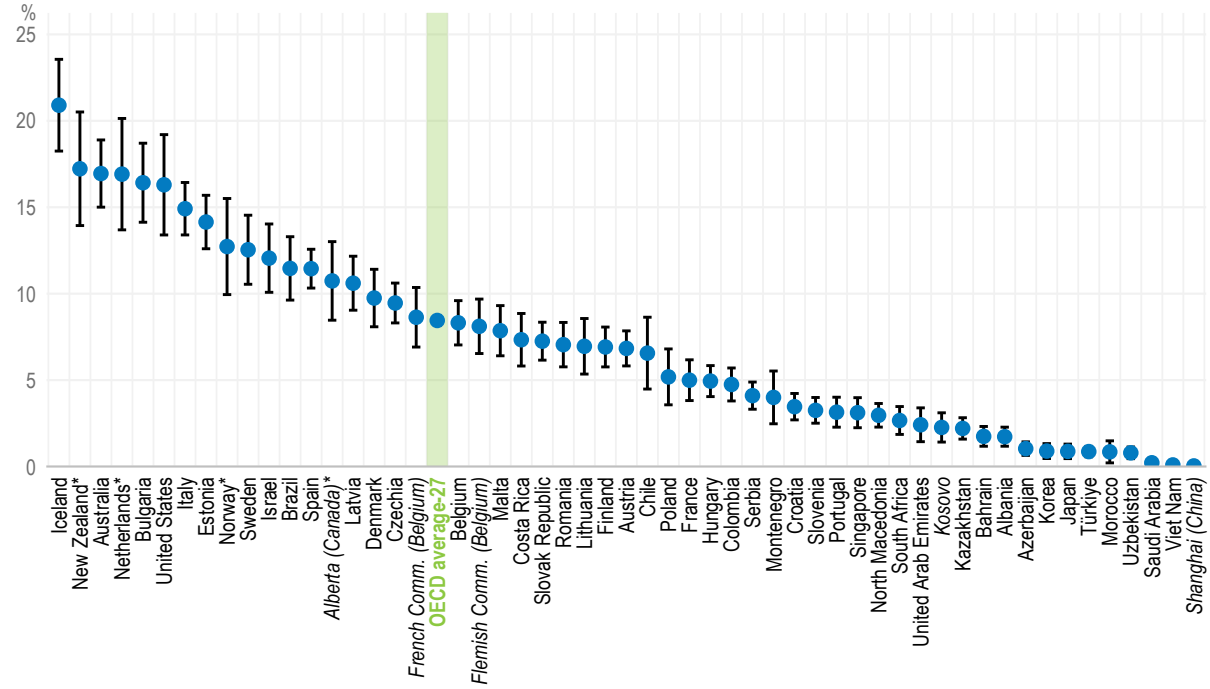
Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Non-teaching roles include experience in both non-teaching education roles (e.g. as a university lecturer or a nurse) and non-education roles.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases,* Table 1.13.

Around 8% of teachers are second-career teachers, on average (Figure 1.5). The education systems with 15% or more second-career teachers include Iceland (21%), Australia, the Netherlands* and New Zealand* (all 17%), Bulgaria and the United States (both at 16%). In contrast, there are 1% or less of these second-career teachers in Azerbaijan, Japan, Korea, Morocco, Saudi Arabia, Shanghai (China), Türkiye, Uzbekistan and Viet Nam. More second-career teachers are male (12% male compared to 7% female, on average) (Table 1.15). A discussion about teachers who chose teaching as a first career choice is in Chapter 7.

Figure 1.5. Second-career teachers

Percentage of lower secondary teachers who have at least ten years of work experience in non-education roles, for whom teaching was not a first career choice

95% Confidence intervals are shown as **error bars**



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database,* Table 1.14.

Box 1.1. Attracting and supporting second-career teachers

Teacher shortages across OECD education systems have increased the urgency for policies that attract individuals into the teaching profession. Many countries have introduced alternative pathways into teaching, oftentimes targeting mid-career professionals, as well as policies to support those who decide to make the switch into the teaching career and the classroom.

In **Australia**, for example, the High Achieving Teachers (HAT) program recruits participants from a diverse range of backgrounds. Participants are placed in teaching positions in Australian primary and

secondary schools experiencing teacher shortages. In schools, they receive a high degree of training and support while they complete an Australian accredited teaching qualification.

Through the National Teacher Workforce Action Plan, the government committed 1 500 more places to the HAT program. In 2024, ten providers were selected to pilot new and innovative employment-based pathways into teaching across all states and territories, with cohorts commencing from 2025. These pilots focus on recruiting individuals from diverse backgrounds, including STEM specialists, First Nations peoples, people with disabilities, teacher aides, and those based in remote locations.

Bulgaria introduced a three-year Motivated Teachers programme (2019-22, later merged with the Qualification programme) to encourage professionals from other fields, and qualified teachers with no teaching experience, to take on teaching positions in schools that have a shortage of staff or serve vulnerable communities. The national programme funds the costs of participants' (re)qualification programmes and offers basic training in specific topics. In 2019, Motivated Teachers attracted approximately 300 teachers to schools short of staff specialised in mathematics, physics and astronomy, informatics and information technology. In 2022, the Motivated Teachers and Qualification programme, as it is now called, was outsourced to a consortium made up of Teach for Bulgaria and the Bulgarian Union of Teachers.

Colombia created the possibility for side entry into the teaching profession. Individuals with degrees from other disciplines can apply for subject teacher positions in secondary education, provided they complete a programme in pedagogy at a tertiary institution. In addition, individuals with a background other than education may have the opportunity to enter teaching after completing a relevant postgraduate qualification (i.e. a specialisation, master's degree, or PhD related to education, ISCED levels 7-8).

The **Netherlands** provides subsidies to schools to support tailor-made training programmes for second-career teachers, allowing them to start teaching while they receive training and in-school supervision. Candidates can enter the profession programme for second-career teachers immediately if they pass a suitability assessment. Alternatively, part-time training is available for teachers who do not start teaching immediately. Policy measures have been introduced to increase flexibility in training, recognising prior experience and knowledge of second-career teachers.

In **New Zealand**, efforts to attract mid-career professionals into teaching include the Education Workforce website, which highlights career change stories and offers detailed information on the requirements, programmes and financial support options available. Additionally, the School Onsite Training Programme, which had two-thirds of its initial pilot cohort made up of career changers, received increased funding in 2024 and 2025.

Source: Australian Education Ministers Meeting (n.d.[18]), *The National Teacher Workforce Action Plan December 2022*; Australian Government Department of Education (n.d.[19]), *High Achieving Teachers (HAT) Program*, https://www.education.gov.au/teaching-and-school-leadership/high-achieving-teachers-hat-program/high-achieving-teachers-hat-program-frequently-asked-questions; Education Workforce (2024[20]), *Changing to a teaching career*, https://workforce.education.govt.nz/becoming-teacher-new-zealand/why-become-teacher/changing-teaching-career#career-changer-stories-1; Guthrie, C. et al. (2022[21]), *OECD Reviews of Evaluation and Assessment in Education: Bulgaria*, https://doi.org/10.1787/57f2fb43-en; Radinger, T. et al. (2018[22]), *OECD Reviews of School Resources: Colombia 2018*, https://doi.org/10.1787/9789264303751-en; Netherlands Central Government (n.d.[23]), *Working in Education: Question and Answer*, https://www.rijksoverheid.nl/onderwerpen/werken-in-het-onderwijs/vraag-en-antwoord/hoe-word-ik-zijinstromer-in-het-onderwijs.

Teacher supply

Teacher shortages are an increasing concern for the stability of various education systems around the world (Arnold and Rahimi, 2025[24]; OECD, 2024[25]; OECD, 2024[26]; OECD, 2023[27]; UNESCO, 2024[28]). According to the 2022 round of OECD Programme for International Student Assessment (PISA), the share of students in schools whose principal reported that instruction is hindered by a lack of teaching staff increased by 21 percentage points (from 26% to 47%) between 2018 and 2022, on average (OECD, 2023[27]). During the same period, the share of students in schools whose principals reported that instruction is hindered by inadequate or poorly qualified teaching staff increased from 16% to 25%. TALIS 2024 data echo these findings. Around one in five teachers work in schools where the provision of quality instruction is perceived to be hindered by the shortage of qualified teachers, on average (Table 1.17).

These shortages could stem from demographic changes as well as recruitment and retention challenges. In many education systems, attracting new teachers to the profession is difficult, while a growing number of teachers are leaving the profession (OECD, 2024[25]; 2024[26]). Demographic changes, such as ageing, are causing shortages across the labour market in some economies (Causa et al., 2025[29]). The ageing teacher population heightens the challenge, as many teachers approach retirement, increasing the need to recruit new ones (OECD, 2024[26]).

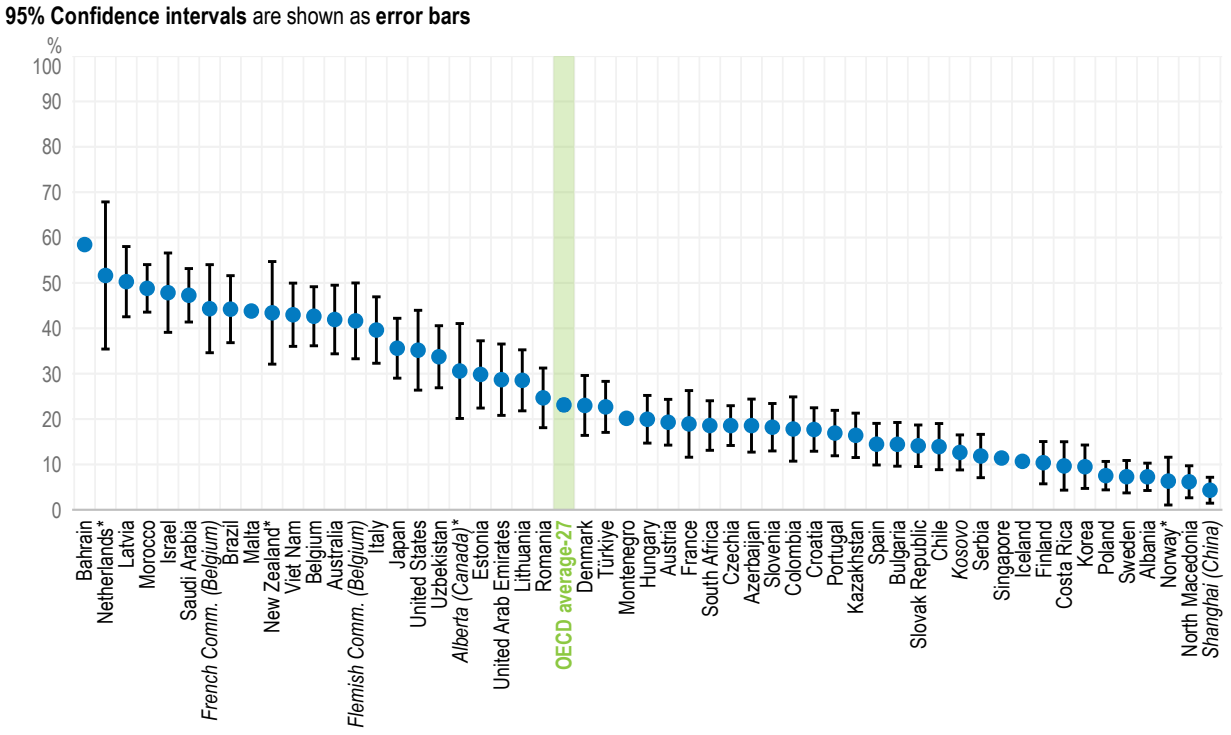
TALIS 2024 examines whether structural barriers – such as staffing shortages, time constraints, or inadequate infrastructure – are perceived by principals as obstacles to providing high-quality teaching (see Chapter 2). A common barrier reported across OECD education systems is the shortage of teachers who have the competences to teach students with special education needs; 33% of teachers work in schools where this was reported as an issue (Table 1.17). At least one in two teachers works in schools where this is perceived as a challenge in Bahrain, the French Community of Belgium, Brazil, Colombia, Estonia, Morocco and the Netherlands*. In contrast, only one in ten teachers in Albania work in schools that report this issue. Some education systems have reported improvements since 2018, including the French Community of Belgium and Colombia, where the share of teachers working in schools reporting this issue declined by more than 20 percentage points (Table 1.18).

Just over three out of ten teachers (31%) work in schools that report shortages of support personnel, on average (Table 1.17). Over five out of ten teachers work in schools that report this in Austria, the French Community of Belgium, Colombia, Italy, Morocco, South Africa and Spain. Only 5% or less of teachers work in schools where this is reported as an issue in Bulgaria, Iceland, Shanghai (China) and Singapore. On average, reports of support staff shortages have decreased between 2018 and 2024 (6 percentage points). There were decreases in the French Community of Belgium (16 percentage points), Colombia (17 percentage points), and Italy (21 percentage points), though patterns remain uneven across countries (Table 1.18). In many education systems, including Austria, Bulgaria and Shanghai (China), there has been no change between the two cycles in the proportion of teachers who work in schools where staff shortages are reported as an obstacle to the provision of quality teaching.

In addition, 23% of teachers work in schools that report that a shortage of qualified teachers limits their school's capacity to provide quality instruction (Figure 1.6). This concern is especially prevalent in Bahrain, Latvia and the Netherlands*, where around half of teachers work in schools that report this barrier. In Albania, Costa Rica, Korea, North Macedonia, Norway*, Poland, Shanghai (China) and Sweden, less than 10% of teachers work in schools that report this concern. Staff shortages are often more likely reported in publicly managed schools compared to privately managed schools, and differences of over 30 percentage points are observed in Australia, Bahrain and Saudi Arabia (Table 1.19). Similarly, while most education systems do not show large differences in perceptions based on the socio-economic intake of students, in some systems – such as Australia, Denmark, Estonia and New Zealand* – socio-economically advantaged schools are less likely to report this challenge, with differences again exceeding 30 percentage points.

Figure 1.6. Perception of shortage of qualified teachers

Percentage of lower secondary teachers teaching in schools where shortage of qualified teachers hinders quality instruction



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2024 Database,* Table 1.17.

In 2024, the perception of the impact of qualified teacher shortages on the school's capacity to provide quality instruction has increased on average by 2 percentage points since 2018 (Table 1.18). In 16 education systems, there is an increase in the reporting of this issue, with the largest increase observed in the Netherlands* and Malta (32 percentage points more). However, seven education systems report a decrease in this issue; in particular, Viet Nam (43 percentage points less in 2024), Colombia (33 percentage points less in 2024) and the French Community of Belgium (22 percentage points less). Schools reporting a perception of shortage of support personnel have, on average, decreased by 6 percentage points between 2018 and 2024. In contrast, Alberta (Canada)*, Croatia, Malta and Norway* report an increase in the impact shortages of support personnel had on the school's capacity to provide quality instruction.

Teacher self-efficacy

Teacher self-efficacy refers to teachers' beliefs in their ability to teach effectively and to support student engagement and learning (Tschannen-Moran and Hoy, 2001[30]). There is evidence to suggest that higher levels of teacher self-efficacy are associated with lower rates of teacher burnout (Skaalvik and Skaalvik, 2007[31]), greater job satisfaction, improved student achievement (Caprara et al., 2006[32]; Klassen et al., 2010[33]) and increased student motivation (Hardré and Sullivan, 2008[34]; Lauermann and Butler, 2021[35]). Research indicates that teachers with higher self-efficacy are more likely to use more diverse teaching

practices and adapt these practices to meet students' needs (Hardré and Sullivan, 2008[34]; Nie et al., 2012[36]; Lauermann and ten Hagen, 2021[37]).

In addition to collecting data on factors such as teachers' age, training and professional development, TALIS asks teachers about their self-efficacy in student engagement, instruction and classroom management. TALIS also captures teachers' beliefs about their effectiveness in specific practices, such as adaptive pedagogies, supporting students' social and emotional learning and using digital resources and tools.

On average, teacher self-efficacy is highest in classroom management (for example, 84% of teachers feel that they can calm a student who is disruptive or noisy and 87% of teachers also believe that they can get students to follow classroom rules) and in instruction (80% of teachers feel that they can use a variety of assessment tasks) (Table 1.21).

Teacher self-efficacy in student engagement is reported at lower levels. For example, just 67% of teachers feel that they can motivate students who show low interest in schoolwork, on average (Table 1.21).

Teachers with the following characteristics, on average, are more represented in the top quartile of teachers with high self-efficacy (Table 1.22):

- Teachers aged 50 years or older compared to those under 30, by 9 percentage points. The reverse is true in Azerbaijan, Bulgaria, Israel, North Macedonia and Türkiye.
- Experienced teachers are more represented than novice teachers, by 8 percentage points.
- Teachers with ISCED level 7 education attainment compared to ISCED level 6, by 3 percentage points. The reverse is true in Brazil (by 8 percentage points).
- Approximately 25% of female teachers compared to 24% of male teachers. In contrast, the only education system where male teachers are more represented in the top quartile of teachers with high self-efficacy than female teachers is Japan (by 9 percentage points).

Teachers who work in schools with the following characteristics, on average, are more represented in the top quartile of teachers with high self-efficacy (Table 1.24):

- Teachers working in urban schools compared to teachers in rural or village schools, by 3 percentage points. The reverse is true in South Africa (13 percentage points more in rural schools), the United Arab Emirates (9 percentage points more) and Brazil (8 percentage points more).
- Teachers who work in privately managed schools are more likely to be in the top quartile of self-efficacy, with 27% of teachers from privately managed schools compared to 25% of teachers in publicly managed schools.
- Teachers who work in schools where less than 10% of students come from socio-economically disadvantaged homes compared to schools with over 30% of these students. The reverse is true in Brazil, Israel, South Africa and the United Arab Emirates.

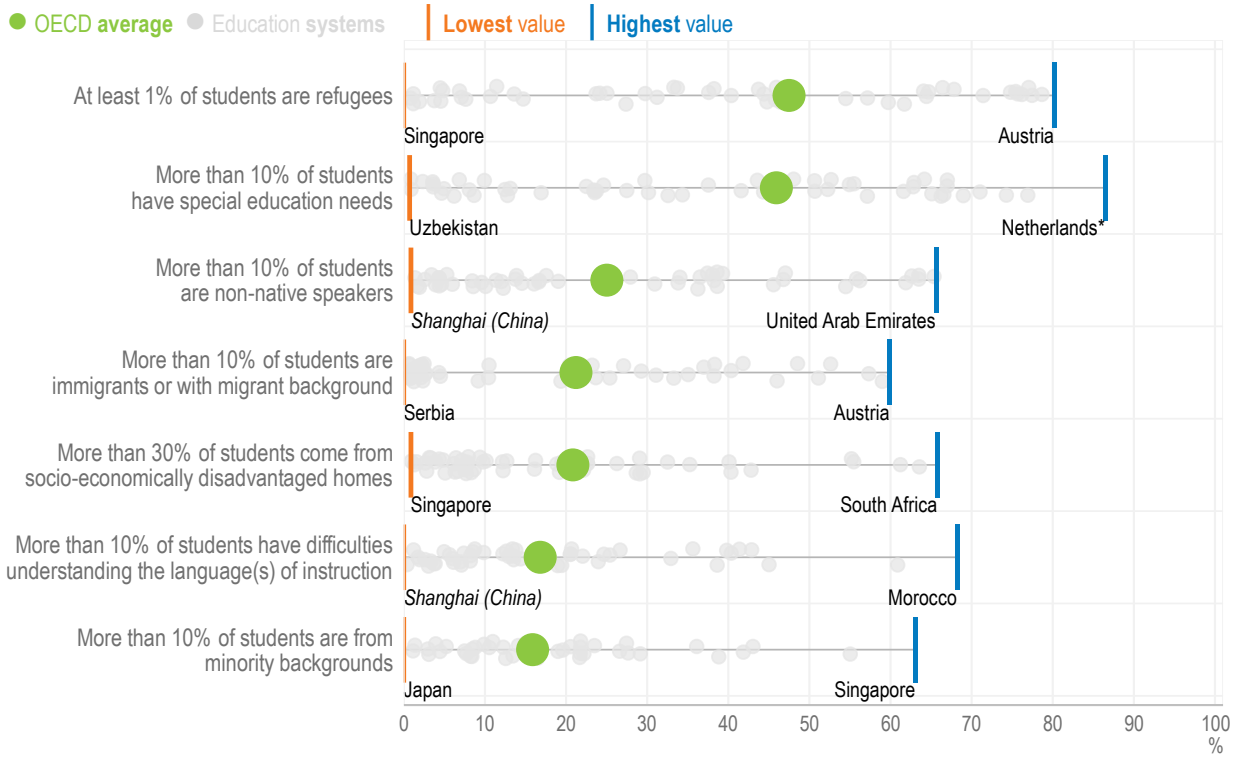
However, once teachers' gender, age and years of teaching experience are taken into account, the apparent influence of school-level factors largely disappears. After controlling for teacher characteristics, school factors – such as location (rural or urban), governance (publicly managed or privately managed), student intake from socio-economically disadvantaged homes, special education needs or those who have difficulties understanding the language(s) of instruction – generally do not have a statistically significant association with teacher self-efficacy across education systems (Table 1.23).

Teaching diverse learners

Classrooms often vary widely in students' backgrounds, readiness, ability levels and interests (Parsons et al., 2017[38]; Tomlinson, 2017[39]). In this context, differentiation and adaptation are essential to support learning (Smale-Jacobse et al., 2019[40]). Differentiation and adaptation are based on the idea that students can reach their full potential when instruction reflects the diversity of their characteristics. This requires teachers to adjust their approaches and resources to support each learner's growth (Tomlinson, 2015[41]).

Figure 1.7. School composition

Percentage of lower secondary teachers teaching in schools with the following compositions



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2024 Database,* Table 1.25.

TALIS asks school principals about the composition of the students in their schools, looking at factors such as the percentage of students with special education needs, students from minority backgrounds or students who are refugees. In 2024, on average (Figure 1.7 and Table 1.25):

- Around one in two teachers work in schools with at least 1% of students who are refugees. This is above seven in ten teachers in Austria, the Flemish Community of Belgium, the French Community of Belgium, Czechia, Iceland, the Netherlands*, Norway* and Sweden.
- Around one in two teachers work in schools with more than 10% of students with special education needs. In Chile, France, the Netherlands* and New Zealand*, this is higher, at more than seven in ten teachers.

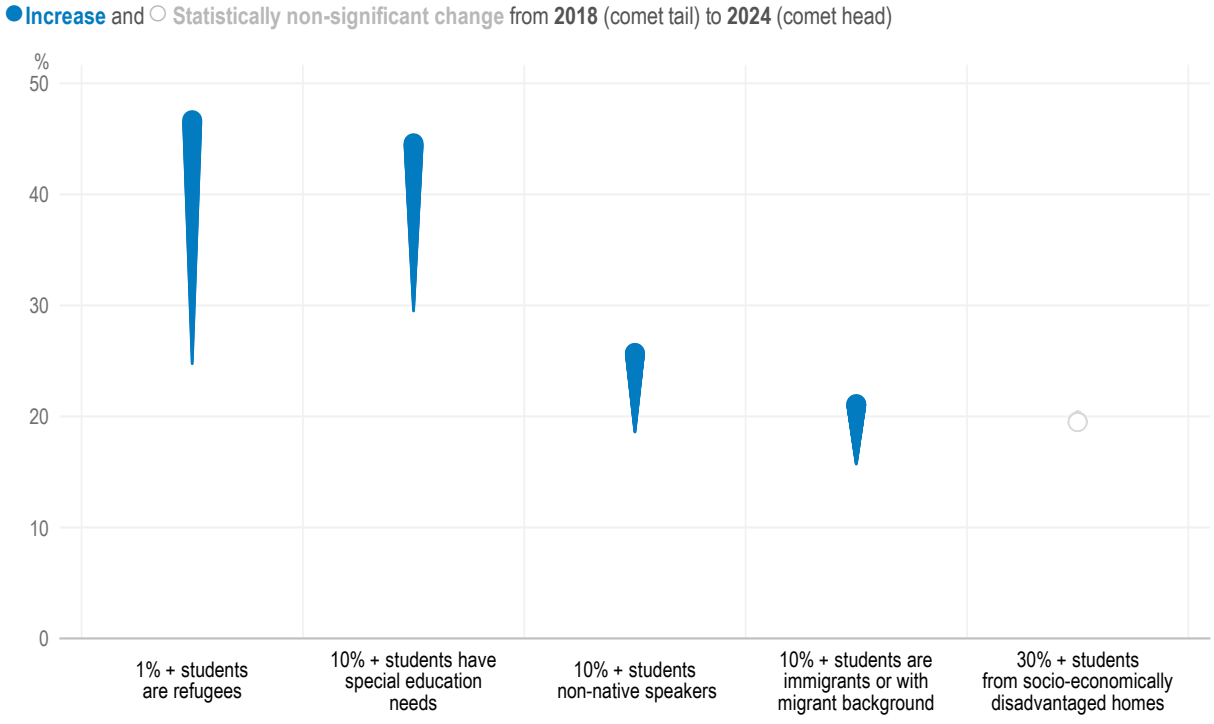
- One in four teachers work in schools where more than 10% of students are non-native speakers. This is over six in ten teachers in Alberta (Canada)*, Austria, the Flemish Community of Belgium, South Africa, Sweden and the United Arab Emirates.
- Around one in five teachers work in schools where more than 30% of students come from socio-economically disadvantaged homes. This is more than six in ten teachers in Chile, Costa Rica and South Africa.
- Around one in five teachers work in schools where more than 10% of students are immigrants or have an immigrant background. This is more than one in two teachers in Alberta (Canada)*, Austria, the Flemish Community of Belgium and Sweden.
- Around one in six teachers work in schools where more than 10% of students are from minority backgrounds. This is more than two out of five teachers in Bulgaria, Singapore, South Africa and the United States.
- Around one in six teachers work in schools where more than 10% of students have difficulties understanding the language(s) of instruction. This is more than two out of five teachers in Alberta (Canada)*, the Flemish Community of Belgium, Morocco, Portugal and South Africa.

Changes in multiculturalism

More teachers teach in schools with a diverse range of students in 2024 than in 2018, particularly when it comes to teaching in schools with at least 1% of students who are refugees (up 22 percentage points on average) (Figure 1.8). The number of teachers working in schools with more than 30% of students coming from socio-economically disadvantaged homes has not changed, on average, during the same period.

Figure 1.8. Change in school composition, from 2018 to 2024

Percentage of lower secondary teachers teaching in schools with the following compositions (OECD average-24)



Note: Results based on responses of principals.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 1.26.

These changes are country-specific and depend on a variety of external factors, such as immigration rates, special education definitions and policies, and how integrated the education system is. Changes in school composition may indicate that students are spread across more or fewer schools or can indicate an increasing number of students within a system (due to specific migration, for example). For teachers, these changes may lead to new professional development needs and different adaptive practices being utilised within their classrooms (see Box 1.2 for a discussion about changes in policy to respond to increasingly diverse classrooms).

Between 2018 and 2024, ten education systems saw an increase of more than 25 percentage points in the proportion of schools where over 1% of students are refugees (Table 1.26). The largest changes are seen in Czechia (75% in 2024 compared to 4% in 2018), Lithuania (60% in 2024 compared to 2% in 2018) and Estonia (64% in 2024 compared to 9% in 2018). Conversely, fewer teachers work in schools with 1% of students who are refugees in Saudi Arabia (11% in 2024 compared to 30% in 2018) and Sweden (71% in 2024 compared to 84% in 2018). These large changes in the number of students who are refugees are likely due to immigration policies and various conflicts around the world that have led to the mass migration of refugees, for example, the war in Ukraine. Creating resilient education systems that are prepared to welcome refugees and incorporate training for teachers, as well as language integration and psychosocial support for students and their families, may become increasingly necessary.

Around a quarter of teachers teach in schools with more than 10% of students who are non-native speakers in 2024, up by 7 percentage points from 2018, on average (Table 1.26). The proportion is over 15 percentage points higher in the Flemish Community of Belgium, Finland, Iceland, Latvia, Malta, the Netherlands*, Slovenia, the United Arab Emirates and the United States. In contrast, the proportion of teachers working in schools where 10% of students are non-native speakers decreased in Croatia, Singapore and Viet Nam.

Between 2018 and 2024, 14 education systems saw an increase in teachers working in schools where more than 10% of students are immigrants or have an immigrant background (Table 1.26). There was an increase of over 20 percentage points in Colombia and Portugal. In contrast, there was a decrease in 2 education systems, Israel and Singapore.

Fewer education systems saw a change in the number of students coming from socio-economically disadvantaged homes in their schools between 2018 and 2024 (Table 1.26). Six education systems saw decreases: Colombia (-21 percentage points), Portugal (-12 percentage points), Hungary (-8 percentage points), Bulgaria (-7 percentage points), Singapore and Shanghai (China) (both -4 percentage points). Conversely, the Flemish Community of Belgium, the French Community of Belgium, Czechia, the Netherlands*, Romania, the Slovak Republic and Türkiye saw increases.

Teacher self-efficacy when working in multicultural environments

Teachers report varied levels of self-efficacy when teaching in multicultural environments. On average, around seven out of ten teachers feel confident that they can facilitate students with different cultural or ethnic backgrounds working together, reducing ethnic stereotyping among students, and raising awareness about cultural differences among students (Table 1.27). However, only around one in two teachers feel that they can critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.

Teachers working in schools with a higher share of students from ethnic or national minority groups, or Indigenous communities, report higher self-efficacy across all aspects of multicultural pedagogy (Table 1.28). They report more that they feel confident in promoting that students with different backgrounds work together (81% of teachers with a high share of these students agree compared to 71% of teachers who teach in schools without such student populations). They also report more that they adapt

teaching to the cultural diversity of the students (70% compared to 62%) and that they use culturally familiar examples (71% compared to 64%).

Special education needs

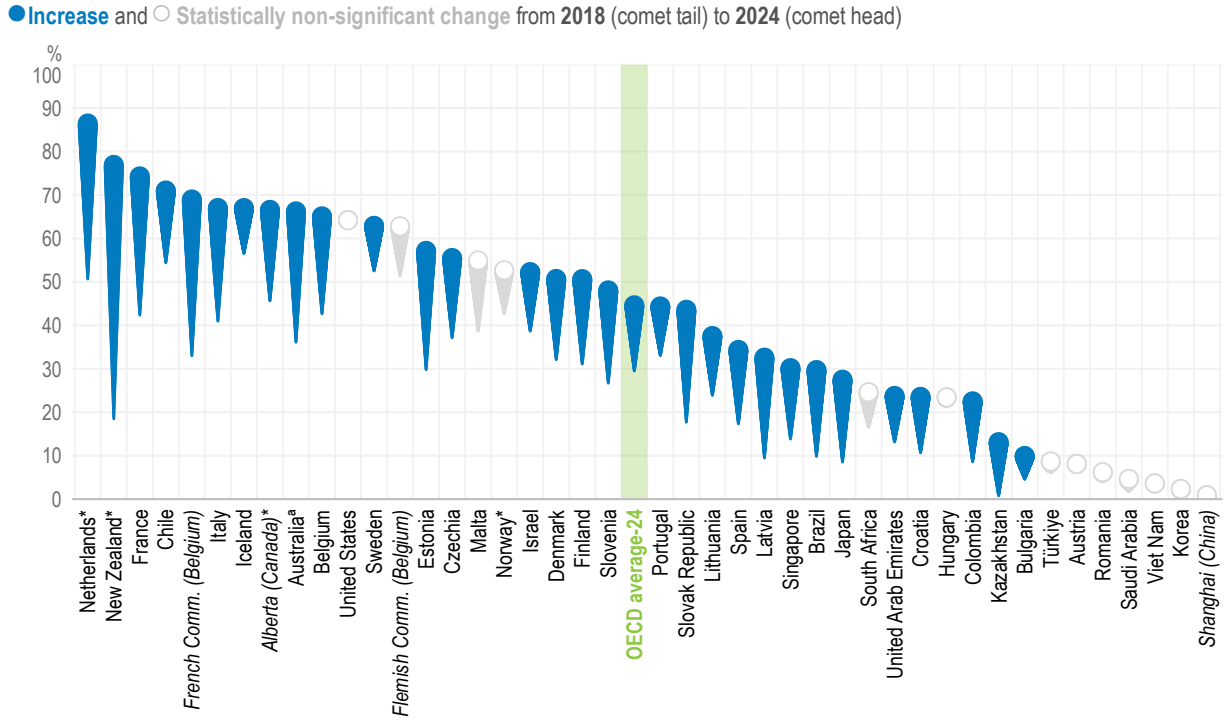
The term “special education needs” refers to a broad range of requirements among students experiencing disabilities or disorders that affect their learning and development. These can include (but are not limited to) physical impairments, learning disabilities and disorders related to mental health (Brussino, 2020[42]). In recent years, there has been increased recognition of special education needs and higher rates of diagnosis in many countries (Francisco, Hartman and Wang, 2020[43]; UK Department of Education, 2025[44]). In certain countries, the term has shifted from special education needs to learning support needs. This needs to be considered when examining trend data on special education needs in schools, as these students may have been present in classrooms without being diagnosed, so the demands on the teacher may not have shifted significantly. However, with increased recognition and diagnosis, there is an opportunity for teachers to receive higher levels of support in adapting their teaching practices to meet the individual needs of students. While education policies for students with special education vary widely, effective monitoring and evaluation systems for these policies are crucial for ensuring they support student well-being, both inside and outside the classroom (Brussino, 2020[42]).

In TALIS, there is a common definition of students with special education needs: Students with special education needs are those for whom a special education need has been formally identified because they are mentally, physically or emotionally disadvantaged. Often, they will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education.

The percentage of teachers working in a school with more than 10% of students with special learning needs rose from 30% in 2018 to 45% in 2024, a 15 percentage-point increase, on average (Figure 1.9). However, this varies by country. There was a 25 percentage-point or more increase in Australia*, the French Community of Belgium, Estonia, France, Italy, the Netherlands*, New Zealand*, and the Slovak Republic (see Box 1.2 for a discussion about changes in policy to respond to increasingly diverse classrooms).

Figure 1.9. Change in schools' composition of students with special education needs, from 2018 to 2024

Percentage of lower secondary teachers teaching in schools with more than 10% of students who have special education needs



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
[a] Estimates for TALIS 2018 and the change between TALIS 2018 and TALIS 2024 should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases,* Table 1.26.

Teacher self-efficacy when teaching students with special education needs

Around seven in ten teachers report that they can work jointly with other professionals and staff to teach students with special education needs in the classroom, on average (Table 1.29). In contrast, only around four in ten teachers feel confident in their ability to adapt standardised assessments for students with special education needs. A similar number of teachers feel comfortable informing others about laws and policies relating to the inclusion of students with special education needs.

When looking at teachers who work in schools that have more than 10% of students with special education needs, teachers feel more confident in designing learning tasks to accommodate students with special education needs (an average of 65%) compared to adapting standardised assessments so that all students with special education needs can be assessed (an average of 45%) (Table 1.30). These self-efficacy rates are comparable with teachers teaching in schools with fewer than 10% of their students having special education needs.

Box 1.2. Teaching in increasingly diverse communities

Major global developments, such as migration and rising inequalities, have contributed to the increasing diversity found in communities. Countries are considering the implications that diversity has on education systems and, conversely, the role education systems play in shaping these trends and building more sustainable, cohesive and inclusive societies. This box discusses how Austria, Italy and Sweden are adapting their education systems to reflect and embrace growing diversity.

Austria

To support students who need help acquiring German language skills, Austria introduced German support classes and courses in the 2018/19 school year. Placement into these support options is determined using MIKA-D (Measurement Instrument for Competence Analysis – German), a nationwide standardised test administered during school enrolment. This assessment identifies whether students should receive a German support course – for those with limited proficiency – or a more intensive German support class – for students with very limited German skills. Students placed in either programme are given "extraordinary" status. At the end of each semester, teachers reassess the language progress of these students using MIKA-D, and based on the results, adjust their support placement accordingly.

Italy

Italy's approach to supporting inclusive education focuses on teacher training and peer support. The Ministry of Education and Merit collaborates directly with schools to design mandatory professional development programmes for mainstream teachers, with a focus on incorporating students with special educational needs (SEN). This training covers topics such as how to spot learning difficulties early, adapt teaching methods, and support both SEN and non-SEN students in inclusive classrooms. Other actors, like local health services, universities and community organisations, are sometimes involved in designing and delivering this training.

To support this work, since 2021, the Ministry has also established Territorial Support Centres (CTS), a national network of schools that serve as resource hubs. These centres provide practical tools, share teaching strategies between schools, and supply assistive technology to help teachers include students with SEN in mainstream classrooms.

Sweden

To address teacher shortages (see Box 1.3 for more policies focused on this issue) and support the integration of newly arrived migrants, Sweden launched the Fast-Track initiative for multiple occupations, including teaching, in 2016. The programme offers a streamlined path to employment for individuals with teaching qualifications through rapid credential recognition and a one-year training programme – significantly shorter than the standard four years. The training, partly conducted in Arabic and offered by six Swedish universities, is complemented by 26 weeks of work placements in schools or preschools.

The government allocated SEK (Swedish krona) 35 million (EUR 3.14 million) annually between 2017 and 2019 to support the Fast-Track programme's implementation. Evidence suggests that positive outcomes have been achieved, with strong collaboration between universities and the Public Employment Service contributing to the programme's success.

Source: Erling, E. J., Gitschthaler, M., & Schwab, S. (2022[45]) Is segregated language support fit for purpose? Insights from German language support classes in Austria. *European Journal of Educational Research, 11*(1), 573-586 https://doi.org/10.12973/eu-jer.11.1.573 Bundesgesetzblatt authentisch ab 2004 (2018[46]) , "Improvement of German Learning Though the Formation of German Language Classes", https://www.ris.bka.gv.at/eli/bgbl/I/2018/35/20180614; Brussino, O. (2020[42]), "Mapping policy approaches and practices for the inclusion of students with special education needs", https://dx.doi.org/10.1787/600fbad5-en.

Teaching practices

What teachers do in the classroom plays a pivotal role in what students learn. Over the past decades, research has consistently attested to the critical role of teachers in student learning (Nilsen and Gustafsson, 2016[47]; Muijs et al., 2014[48]). TALIS collects data on general teaching practices that all teachers can employ within their classrooms. These practices include clarity of instruction, cognitive activation and classroom management. In addition, TALIS asks teachers how frequently they use these general practices within a target class (defined as "lessons taught over the week preceding the survey to a class randomly selected from teachers' current weekly timetables").

Clarity of instruction

In 2024, the three most common teaching practices reported, on average, are linked to clarity of instruction. Teachers report that they "frequently" or "always":

- explain what students are expected to learn (91%)
- explain how new and old topics are related (87%)
- set goals at the beginning of instruction (83%) (Table 1.31).

The three least common teaching practices reported, on average, are:

- giving students projects that require at least one week to complete (28%)
- presenting tasks for which there is no obvious solution (37%)
- encouraging students to question and critique arguments made by other students (44%) (Table 1.31).

Clarity of instruction practices was, in general, more commonly reported by teachers in 2024 compared to 2018 (Table 1.32). In 37 education systems, there was an increase in teachers "frequently" or "always" presenting a summary of recently learned content between 2018 and 2024 (with no systems seeing a decrease in that time). The other practices increased slightly on average and were reported by eight to nine out of ten teachers.

Eight out of ten teachers, on average, report that they "frequently" or "always" select tasks for student practice that gradually increase in difficulty (Table 1.33). Over nine out of ten teachers in Latvia, Romania, Serbia, Shanghai (China) and the United Arab Emirates do so. In contrast, only about five in ten teachers in Estonia and Korea report this.

There has been a small overall increase in the percentage of teachers who "frequently" or "always" let students practice similar tasks until every student has understood the subject matter, from 68% in 2018 to 70% in 2024 (Table 1.34). In 21 education systems, there was an increase, with more than a 10 percentage-point increase in France, Kazakhstan, Norway* and Portugal. Eight education systems saw a decrease, with a 5 percentage-point decrease or more in Korea and the Slovak Republic.

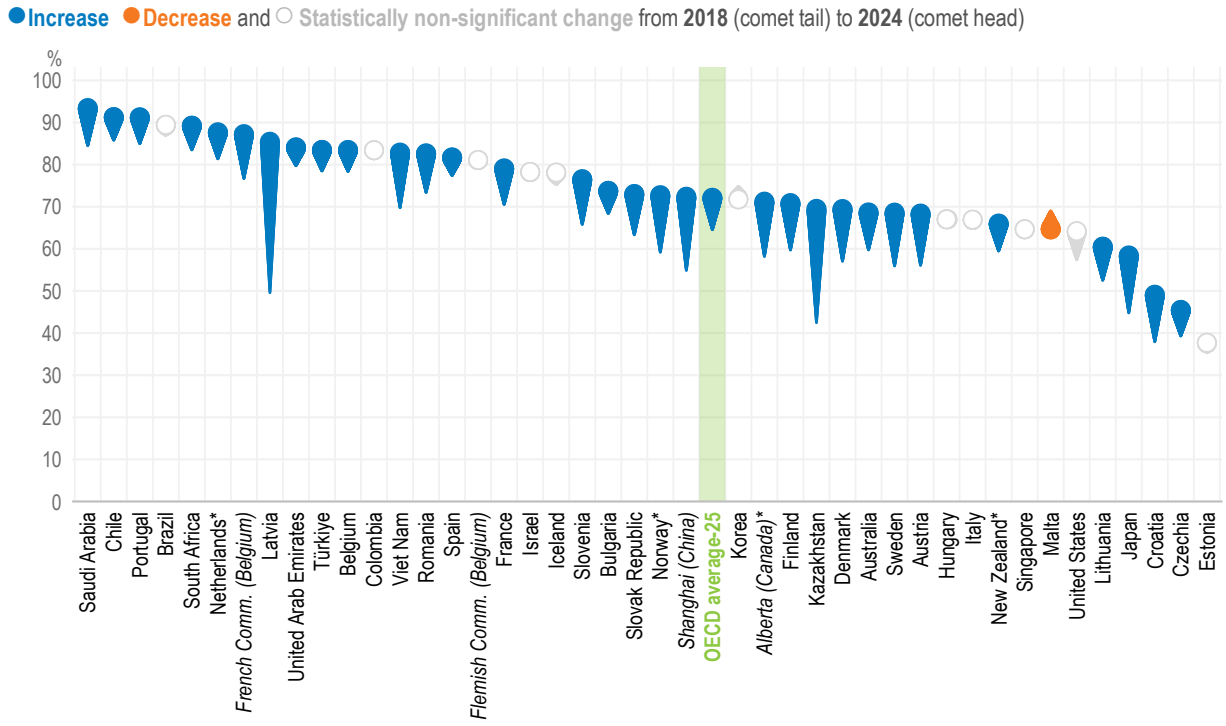
Classroom management

Classroom management is an important part of teaching practice. In teacher initial training and professional practice, teachers develop multiple competencies to manage their classroom (Wubbels, 2011[49]). There is not just one way to manage a classroom, however. In general, classroom management practices aim to ensure that all students are engaging in their work in a manner that supports their learning and the learning of their peers in class. TALIS asks teachers how often they instruct students to follow classroom rules, listen to what they say, calm disruptive students, or quiet down at the beginning of a lesson. TALIS also asks if maintaining classroom discipline is a source of stress (see Chapter 3).

In 2024, teachers report using classroom management practices more frequently, such as calming students who are disruptive, with an average increase of 8 percentage points (Figure 1.10). There was an increase in 30 education systems, while 1 system (Malta) experienced a decrease. There was also a 6 percentage-point average increase in teachers reporting that they have to tell students to follow classroom rules or to listen (Table 1.35).

Figure 1.10. Change in frequency of teachers calming students who are disruptive

Percentage of lower secondary teachers who "frequently" or "always" calm students who are disruptive



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results refer to lessons taught to a class randomly selected from teachers' current weekly timetables during the week preceding the survey.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases,* Table 1.35.

Cognitive activation

Cognitive activation is the group of practices that teachers can use that require students to evaluate, integrate and apply knowledge within the context of problem solving (Lipowsky et al., 2009[50]). These activities are often associated with working within a group on complicated problems and are associated with improved learning outcomes (Förtsch et al., 2016[51]; Li et al., 2020[52]). However, outcomes can vary by country, student ethnic background, economic context, and the type and frequency of cognitive activation strategies used (Wang et al., 2023[53]).

Eight in ten teachers feel they can help students think critically (either "quite a bit" or "a lot"), on average (ranging from 30% to 98%) (Table 1.21). Another practice that can help build cognitive activation is crafting good questions for students. Around 88% of teachers, on average, feel they can do this "quite a bit" or "a lot" (ranging from 56% to 99%).

More teachers report using teaching practices that link to cognitive activation in 2024 than in 2018, on average. Japan, Malta, Norway*, Saudi Arabia, Shanghai (China) and Türkiye saw the most increases (above a 10 percentage-point increase in 2024) in reports of "frequently" or "always" giving tasks that require students to think critically (Table 1.36). There was an increase in teachers stating that they ask students to decide on their own procedures for solving complex tasks in 17 education systems, while there was a decrease in 7 education systems. Korea was the only country that saw a decrease in the four teaching practices that are linked to cognitive activation between 2018 and 2024.

Adaptive practices

Adaptive teaching is a complex process involving meeting students' educational needs within a dynamic classroom context. It requires both careful lesson planning and responsive teacher interventions throughout a lesson (Corno, 2008[54]; Schipper et al., 2020[55]). These practices can be useful when students' educational needs are particularly diverse within a classroom.

TALIS asks teachers about how often they engage in five specific adaptive practices, with responses ranging from "never or almost never" to "always", namely:

- Teachers consider students' prior knowledge when lesson planning.
- Teachers direct students to different learning materials depending on their needs.
- Teachers change how they explain something when a student has difficulty understanding.
- Teachers adapt their teaching methods to students' needs.
- Teachers ask questions at varying difficulty levels to check students' understanding.

Many teachers report using these adaptive practices in their classrooms. Nine in ten teachers report "frequently" or "always" changing the way they explain a topic or task when a student has difficulties understanding (Table 1.37). Around nine in ten teachers report "frequently" or "always" considering students' prior knowledge and needs when planning lessons. In contrast, only around six in ten teachers say that they point students to different materials for learning depending on their needs. This is over nine out of ten teachers in Shanghai (China) and the United Arab Emirates.

Generally, female teachers and teachers with a higher level of special education needs students (above 30%) tend to report using adaptive practices in their classrooms more than others (Table 1.38). Other school, class, and teacher factors, such as the location of the school, class size, and teacher age, do not tend to systematically impact the frequency of adaptive practice use.

Over eight out of ten teachers feel that they can help every student progress "quite a bit" or "a lot" (Table 1.39). This is, more common in schools with no students that have difficulties understanding the language(s) of instruction compared to those with over 10% of students with these difficulties in nine education systems compared to two education systems that show the reverse. It is also more common privately managed schools compared to publicly managed schools (4 percentage points more on average).

Assessment and feedback

Teachers need to understand how students are progressing in their learning and provide feedback to help them improve (Hattie and Timperley, 2007[56]). TALIS asks teachers to report the frequency with which they use a set of four practices for assessing student learning in their target class. Among the six assessment practices asked about in TALIS, four are widespread, on average. Teachers are most likely to report "frequently" or "always":

- observing students when working on particular tasks and providing immediate feedback (81%)
- using assessments to check whether students have learned the material presented (78%)

- providing oral or written feedback to indicate areas for improvement (78%)
- administer an assessment at the end of a unit or block of lessons (73%) (Table 1.40).

Teachers are less likely to report “frequently” or “always”:

- giving a mark to communicate how students performed in relation to their classmates (55%)
- asking students to assess their own progress (48%) (Table 1.40).

Education systems saw a change in assessment practices between 2018 and 2024. For example, an increase is observed in teachers reporting that they “frequently” or “always” ask students to assess their own progress across most education systems (the OECD average is 47% in 2024, compared to 39% in 2018) (Table 1.41). The largest increases (over 30 percentage points) are in Italy, Saudi Arabia and Shanghai (China). In contrast, this practice decreased in Sweden (13 percentage-point decrease) and Kazakhstan (5 percentage-point decrease).

There was a slight increase between 2018 and 2024 in teachers reporting that they observe students when working on particular tasks and provide immediate feedback, with an average increase of 2% (Table 1.41).

Social and emotional learning

Social and emotional skills are “necessary for academic learning, significant predictors of labour market and employment outcomes, strongly related to an individual’s health and well-being, and key ingredients of peaceful and prosperous democracies” (OECD, 2024, p. 23[57]). Several education systems include social and emotional skills within their curricula (OECD, 2024[58]). Understanding teachers’ competencies and self-efficacy in teaching these skills is important.

TALIS asks teachers about how they support student development of social and emotional skills. Teachers’ beliefs about social and emotional skills and the types of teaching practices that can be used to nurture these skills are shown to influence how students learn them (Brackett et al., 2011[59]; Durlak et al., 2011[60]).

Around eight in ten teachers report that they “frequently” or “always” focus on developing student skills in establishing and maintaining healthy relationships with others, empathising with others, understanding the perspective of others and making caring and constructive choices about their personal actions (Table 1.42). Almost seven in ten teachers report “frequently” or “always” developing students’ skills in understanding their own emotions, thoughts or behaviour, or managing these.

Results vary across education systems, with teachers reporting that they “frequently” or “always” focus on developing social and emotional skills. Around nine out of ten teachers report doing so (across the six skills listed) in Albania, Italy, Romania, Saudi Arabia, Shanghai (China) and the United Arab Emirates (Table 1.42). On the other hand, the reports are more varied from teachers in Australia (between 53% and 75% for the six skills), the French Community of Belgium (between 47% and 80%), Finland (between 51% and 71%) and Sweden (between 44% and 73%). This could indicate that these countries have specific policies for social and emotional learning.

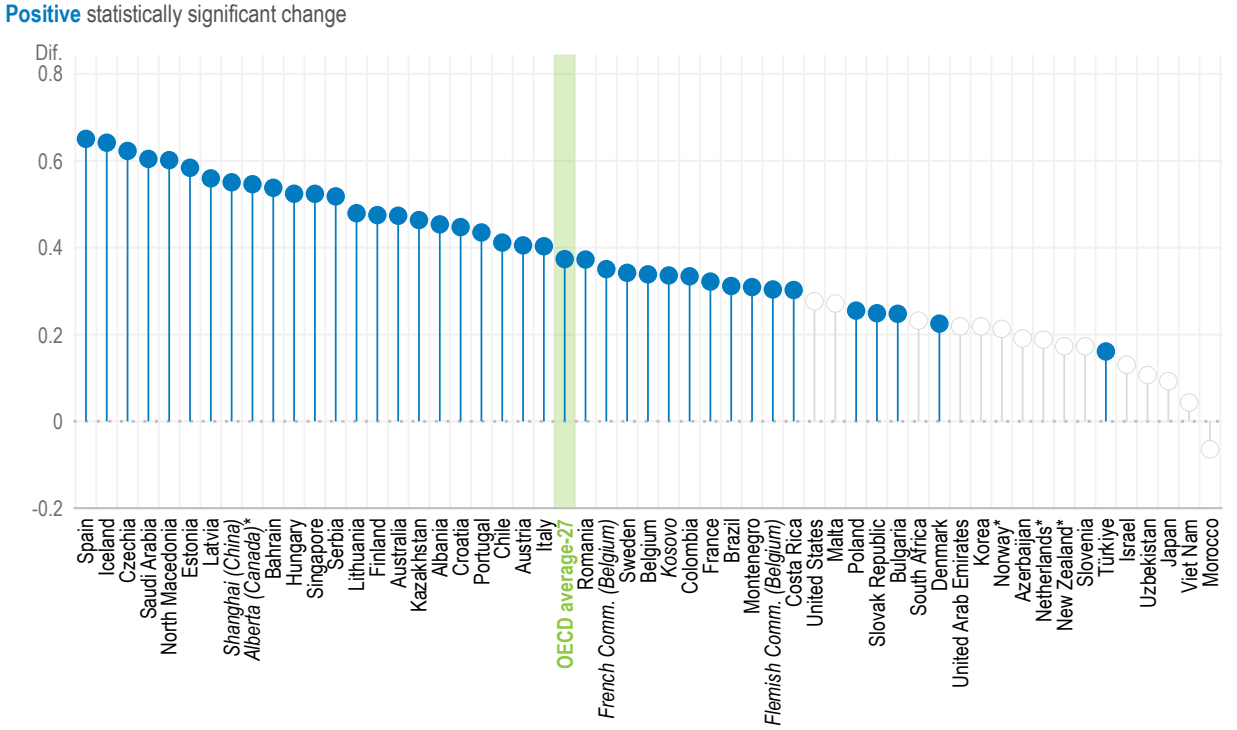
This data echoes the findings of the OECD Survey on Social and Emotional Skills (SESS) (OECD, 2024[58]). The SESS asks teachers of 10-year-olds and 15-year-olds how often they include opportunities for students to develop different social and emotional skills in their lessons. Among teachers of 15-year-olds, on average across sites that participated in both age groups, 76% report focusing on assertiveness, sociability and enthusiasm in “most” or “every” lesson. Similarly, 83% report focusing on co-operation, trust, and understanding others in “most” or “every” lesson, while 75% report focusing on emotional self-control and coping skills in “most” or “every” lesson. This survey also confirmed that these skills were taught more frequently to 10-year-olds than to 15-year-olds (see Box 1.3).

In around three-quarters of education systems, female teachers tend to be more likely than their male counterparts to use practices that foster students’ social and emotional skills (Figure 1.11). Teachers who

have a higher percentage of students with special education needs (above 30%) also tend to be more likely to carry out practices that develop social and emotional skills (Table 1.43). Other factors, such as age, teaching experience, school location and class size, do not consistently impact these practices.

Figure 1.11. Relationship between teachers' gender and their use of practices that develop social and emotional skills

Change in the scale of lower secondary teachers' social and emotional skill development[1] associated with teacher gender (female)[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teachers' use of practices that develop social and emotional skills and teacher gender (female), while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
2. The reference category is male. The regression model also controls for diverse/non-binary/other gender category in countries/territories with available data.
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Table 1.43.

Female teachers also report having higher empathy with students on average (Table 1.44). Female teachers report caring about the social and emotional problems of their students 6 percentage points more on average than male teachers. Female teachers also report that they are aware of students feelings and show warmth to their students an average of 6 percentage points more than male teachers.

Around seven in ten teachers feel they can support students' social and emotional learning "quite a bit" or "a lot", on average (Table 1.45). Specifically, 88% of teachers stated that taking care of students' social and emotional needs comes naturally to them, on average; 86% agreed that they are comfortable providing instruction on social and emotional skills to students; and 78% reported that informal lessons in social and emotional learning are part of their regular teaching practice.

Teachers, in around four out of ten education systems with available data, report more that they can support students' social and emotional learning "quite a bit" or "a lot" in privately managed schools compared to publicly managed schools (Table 1.46). This difference was over 10 percentage points higher for teachers in privately managed schools in Morocco (17 percentage points higher) and Spain (12 percentage points higher). Results are varied for school location, with six education systems having more teachers who work in schools in urban areas reporting this than those working in rural or village schools: Sweden (15 percentage points more) and France (9 percentage points more). The reverse is true in five education systems: Colombia and South Africa (7 percentage points less for urban-based teachers), Brazil (6 percentage points less) and Poland and Romania (5 percentage points less).

Box 1.3. Social and emotional learning in primary and upper secondary schools

Teachers participating in TALIS 2024 report "frequently" or "always" focusing on developing six social-emotional skills in students. These skills include students' ability to: 1) understand their own emotions, thoughts or behaviour; 2) manage their emotions, thoughts or behaviour; 3) understand the perspectives of others; 4) empathise with others; 5) establish and maintain healthy relationships; and 6) make caring and constructive choices about their personal actions. A clear general trend emerges from the findings – as the level of education increases (i.e. moving from ISCED level 1 to ISCED level 3), fewer teachers focus on these practices.

For example, more primary teachers than lower secondary teachers support students in building healthy relationships. The biggest differences are seen in the Flemish Community of Belgium* (22 percentage points more primary teachers) and the Netherlands* (21 percentage points more). Conversely, fewer upper secondary teachers focus on this practice as compared to lower secondary peers in Denmark (21 percentage points less) (Table 1.42).

In 10 out of 15 education systems, more than 90% of primary teachers support students in making caring and constructive choices about their personal actions. The biggest difference is observed in the Netherlands* (27 percentage points more primary teachers than lower secondary teachers). For upper secondary teachers, the biggest difference is observed in Denmark (26 percentage points less compared to lower secondary teachers).

Teachers also focus on helping students understand and manage their own emotions. The biggest differences are found in Australia (understanding their own emotions, thoughts and behaviour: 32 percentage points more primary teachers than lower secondary teachers) and the Flemish Community of Belgium* (managing their own emotions, thoughts, and behaviour: 30 percentage points more primary teachers). For education systems with available data for ISCED levels 2 and 3, the largest difference is observed in Denmark for both practices (35 percentage points less).

Technology and teaching

The growing impact of digital technologies on all areas of society, including education, has created an expectation of substantial changes in how teaching and learning will occur. While the role of teachers in the student learning process remains central, the COVID-19 pandemic highlighted the potential and importance of digital tools in maintaining education during times of disruption. Many countries have

digitised existing educational processes, but fewer have embraced a digital transformation that rethinks and modifies teaching practices and processes (OECD, 2023[61]). While the digital transformation of education can offer opportunities, there are some valid challenges, including potential issues with equity, new or amplified biases and privacy concerns, to name a few (OECD, 2023[61]).

Digital tools

Digital tools and resources can be used for a variety of pedagogical practices, such as whole-class instruction, individualised instruction or assessment. TALIS asks teachers about the extent to which they can do certain things with technologies, including enhancing student learning, adapting resources to different activities and learning to use new technology. TALIS also asks teachers about their attitudes to opportunities and challenges with using digital tools and resources for their work. Finally, TALIS asks teachers about their experience with AI and their beliefs around this specific technology (see the next section on Artificial intelligence).

Attitudes towards and use of digital tools for student learning vary considerably between education systems. In general, teachers "agree" or "strongly agree" that using digital tools develops students' interest in learning (85% on average) (Table 1.47). However, opinions are more divided regarding whether digital tools improve academic performance, with fewer than 50% of teachers agreeing in Austria, the French Community of Belgium, Finland, France and Sweden. In contrast, over 95% of teachers agree in Albania, Saudi Arabia and Viet Nam.

Around one in two teachers "agree" or "strongly agree" that digital resources and tools can distract students from learning, on average (Table 1.48). This belief varies considerably, with around eight in ten teachers, or more, in Australia, Norway* and Sweden agreeing, compared to only three in ten in Italy and Türkiye. Around seven out of ten teachers, on average, "agree" or "strongly agree" that the use of digital resources and tools results in students submitting content obtained online as their own work.

Teachers who use digital resources and tools "frequently" or "always" report doing so to present information through direct instruction (66%) and handle logistic aspects of teaching (60%) (Table 1.49).

Female teachers, on average, are more likely to report using digital resources and tools "frequently" or "always" to present information through direct instruction (67% of female teachers compared to 62% of male teachers) and handle logistic aspects of teaching (61% of female teachers compared to 58% of male teachers) (Table 1.49). On the other hand, male teachers report using digital resources and tools "frequently" or "always" to give students problems that can only be solved by using digital resource and tools (24% of male teachers compared to 19% of female teachers) and to enable collaboration with others outside of the school (21% of male teachers compared to 19% of female teachers).

In general, teachers under 30 years are more likely than teachers over 50 to use digital technologies and tools on all the tasks listed in the survey (Table 1.50).

A strong predictor of whether teachers will use digital tools in the classroom is their beliefs about the benefits of these tools (e.g. digital tools develop student interest in learning, help students develop skills, improve their academic performance or collaborate on tasks). Teachers who have more positive beliefs about the benefits of using digital resources and tools tend to be more likely to use those resources for whole-class instruction (Table 1.51). This relationship is positive for all education systems after accounting for teacher and school characteristics (like age, gender, and school location). This relationship is the same for teachers using digital resources and tools for individualised instruction (Table 1.52).

Digital technologies also make it possible to deliver lessons in person, online, and in a hybrid format (a combination of both in person and online). Due to school closures, many education systems were forced to use online or hybrid learning during the COVID-19 pandemic (Schleicher, 2022[62]). TALIS 2024 data suggest that most lessons delivered by participating education systems take place in person post-

COVID-19, though some systems might be exploring remote education as a permanent solution (see Box 1.4 to see how countries are leveraging digital technologies to support teaching).

Some 81% of teachers work in schools where all lessons took place in person the month before the survey, on average (Table 1.53). Conversely, 16% of teachers work in schools where some or all lessons took place online or in hybrid format in the past month. However, this varies across countries, with 40% or more of teachers in Estonia, Israel, Japan, Kazakhstan, Saudi Arabia, Singapore, and the United Arab Emirates reporting that some or all lessons are being delivered online or in hybrid format.

TALIS looks at what school, class or individual teacher characteristics are more or less likely to use digital tools for whole-class instruction or for individualised instruction and assessment.

Teachers with more than 10% of students who have difficulties understanding the language(s) of instruction tend to be more likely to use digital resources for whole-class instruction (Table 1.54). In contrast, teachers with over 30% of students who are low academic achievers in their class tend to use these resources less frequently.

In around half of the education systems, teachers with more than 10% of students in their class who have difficulties understanding the language(s) of instruction tend to be more likely to use digital tools for individualised instruction and assessment (Table 1.55). Similarly, teachers with more than 30% of their students who have special education needs tend to do the same. In contrast, teachers who teach classes with over 30% of students from socio-economically disadvantaged homes tend to be less likely to do this. Teacher factors, such as age, gender and experience, have on average, little to no effect on the level of digital resource use for individual instruction.

School factors sometimes impact the capacity of teachers to provide quality instruction due to a shortage or inadequacy of digital resources and tools. The biggest difference is seen between publicly managed and privately managed schools, with more teachers in publicly managed schools experiencing this in 18 education systems (Table 1.56). Only in the Flemish Community of Belgium is the reverse true.

Understanding teachers' self-efficacy with digital tools offers insight into how confident they feel using technology in the classroom. On average, 75% of teachers report that they can identify appropriate digital resources for their subject, while 68% feel confident in adapting them to different teaching activities (Table 1.58). On average, teachers' confidence in using digital tools to support student learning is similar across most school settings. However, those working in schools where over 10% of students have difficulties understanding the language of instruction report slightly lower confidence (2 percentage points less) compared to their peers in schools without such students (Table 1.57).

Box 1.4. Leveraging digital tools and AI to support teaching

The growing digitalisation of education is prompting governments to rethink how they support teaching. For example, **Bahrain** and **Korea** have developed digital platforms that provide teachers with access to teaching resources. Bahrain's My Digital Library Platform follows a participatory model, allowing teachers to upload and share resources with peers. To ensure quality, submitted materials are reviewed based on predefined criteria and indicators. In addition to these repositories, both countries have established online communities to promote professional exchange among teachers. Korea's Knowledge Spring, a network of 10 000 teachers, serves as a real-time, interactive space where educators can seek advice and collaborate nationwide. These digital tools are also leveraged to support teachers' professional development. Knowledge Spring, for instance, offers Korean teachers a flexible and autonomous training system, enabling them to access instructional materials and learning opportunities tailored to their needs.

Singapore has been exploring how to leverage AI for education since the launch of the National AI Strategy in 2019. The Ministry of Education has since progressively rolled out AI-enabled features on the national teaching and learning platform, the Singapore Student Learning Space, with ethical safeguards and pedagogical considerations in place. Some of these AI-enabled features include the following tools that support teachers' teaching and provide a more personalised learning experience for students:

- The Adaptive Learning System, which uses machine learning to analyse students' responses to learning content and questions, make inferences on students' concept mastery, and provide customised and/or personalised learning recommendations to students.
- The Short Answer Feedback Assistant, which provides immediate and personalised feedback on students' responses, allowing teachers to focus on providing more targeted support and guidance to students to advance learning.
- The Data Assistant, which allows teachers to use large-language-model-based analysis to speed up the analysis of students' text-based responses, allowing for more timely intervention.
- The Learning Assistant, a student-facing dialogic agent that guides students' learning through iterative questioning, is designed with safeguards in place to ensure proper use by the students. For example, teachers can set interaction limits to reduce students' over-reliance on the tool. Teachers can also access students' conversation logs for insights.

In tandem with making AI-based tools available to teachers and students, the Singapore Ministry of Education also places emphasis on building students' AI literacy, including understanding how AI works, its benefits, and its risks. This will provide them with a solid foundation for learning how to use AI effectively and ethically, as well as how to learn with AI.

Digitalisation and, notably, the emergence of AI have also raised questions around how and what teachers should teach in the digital era. To explore these issues, the **Netherlands** has established the National Education Lab AI (NOLAI), which conducts research on the pedagogical, social and ethical implications of AI in education.

Source: Ministry of Education, Kingdom of Bahrain (2025[63]) *Digital Educational Content Production and My Digital Library*, https://moe.gov.bh/en/digital-educational-content-production-and-my-digital-library ; The Ministry of Education, (n.d.[64]) *Knowledge Spring*, https://educator.edunet.net/ ; European Commission (n.d.[65]), *National Education Lab AI*, https://commission.europa.eu/projects/national-education-lab-ai_en; GovTech Singapore (2025[66]), *AI in Education: Transforming Singapore's Education System with Student Learning Space*, https://www.tech.gov.sg/media/technews/ai-in-education-transforming-singapore-education-system-with-student-learning-space/; Radboud Universiteit (n.d.[67]), *About the National Education Lab AI*, https://www.ru.nl/en/nolai/about-nolai.

Artificial intelligence

Within TALIS, AI is defined as "the capacity for computers to perform tasks traditionally thought to involve human intelligence. This can include making predictions, suggesting decisions, or generating text." (OECD, 2023[61]). It is important to note that this definition goes beyond generative AI and large-language models (LLMs) (like ChatGPT) and includes technologies such as natural language processing (NLP) and speech recognition, learning analytics and data mining, image recognition and processing and autonomous agents (such as avatars and smart robots) (UNESCO, 2021[68]).

The use of AI in education has been a topic of research for over 40 years. However, the release of OpenAI's ChatGPT in late 2022 accelerated the everyday use of AI in many parts of society. Although AI is playing a larger role in people's lives, the short- and long-term influence of AI on education remains uncertain. How AI should be used in education is also a pertinent question.

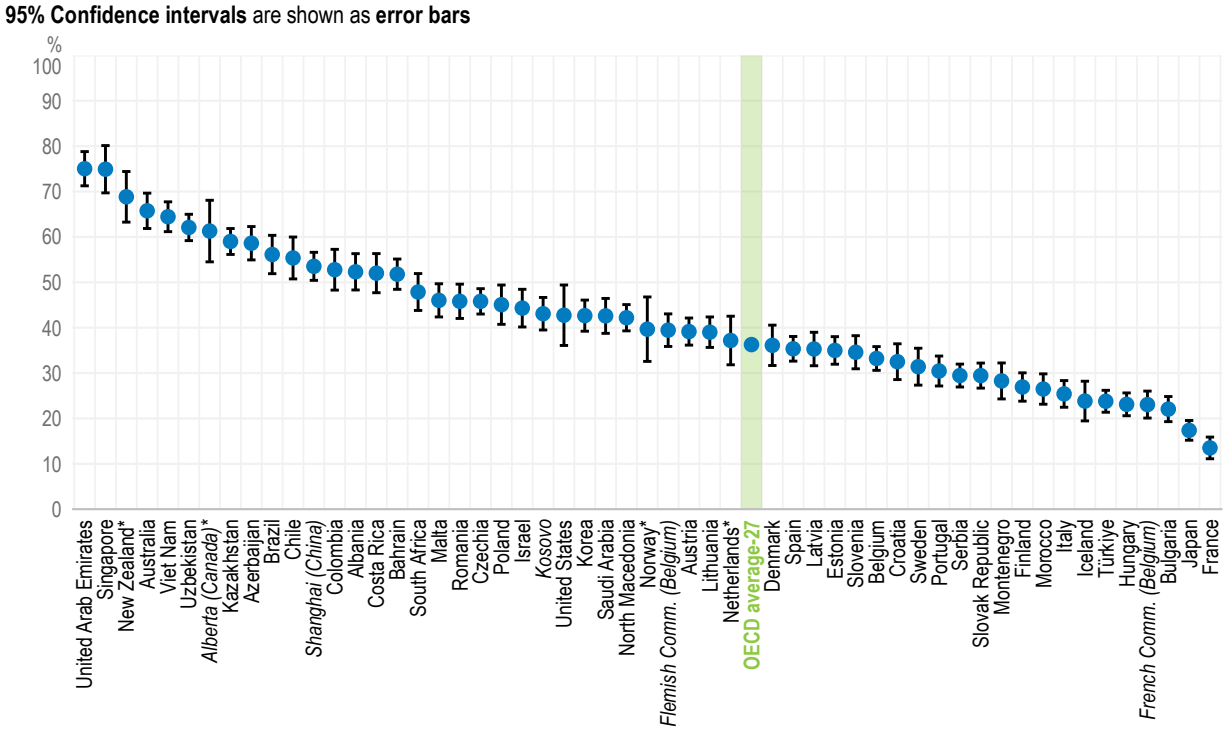
TALIS asks teachers whether they use AI in their teaching or to facilitate student learning. Based on these responses, TALIS asks in what ways AI is used or why it is not used. TALIS asks teachers to "agree" or

"disagree" with statements about AI that are split into benefits (such as "AI enables teachers to adapt learning material to different students' abilities") and concerns (such as "AI enables students to misrepresent others' work as their own").

Around one in three teachers report having used AI in their work, on average (Figure 1.12). There is variation across countries, however. Around 75% of teachers in Singapore and the United Arab Emirates report doing so, and fewer than 20% of teachers in France and Japan do so.

Figure 1.12. Teachers' use of artificial intelligence

Percentage of lower secondary teachers who report using AI in the last year



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database,* Table 1.59.

Out of teachers who use AI, some 68% say they use it to efficiently learn about and summarise a topic, and 64% use AI to generate lesson plans, on average (Table 1.60). Only 25% of teachers report using AI to review data on student participation or performance, and 26% indicate that they use it to assess or grade student work.

Further, 40% of teachers "agree" or "strongly agree" that AI helps them support students individually, on average (Figure 1.13). Around 50% agree that AI assists in creating or improving lesson plans, though agreement ranges from as low as 18% in France and 31% in Denmark and Finland to as high as 87% in the United Arab Emirates and 91% in Viet Nam (Table 1.61).

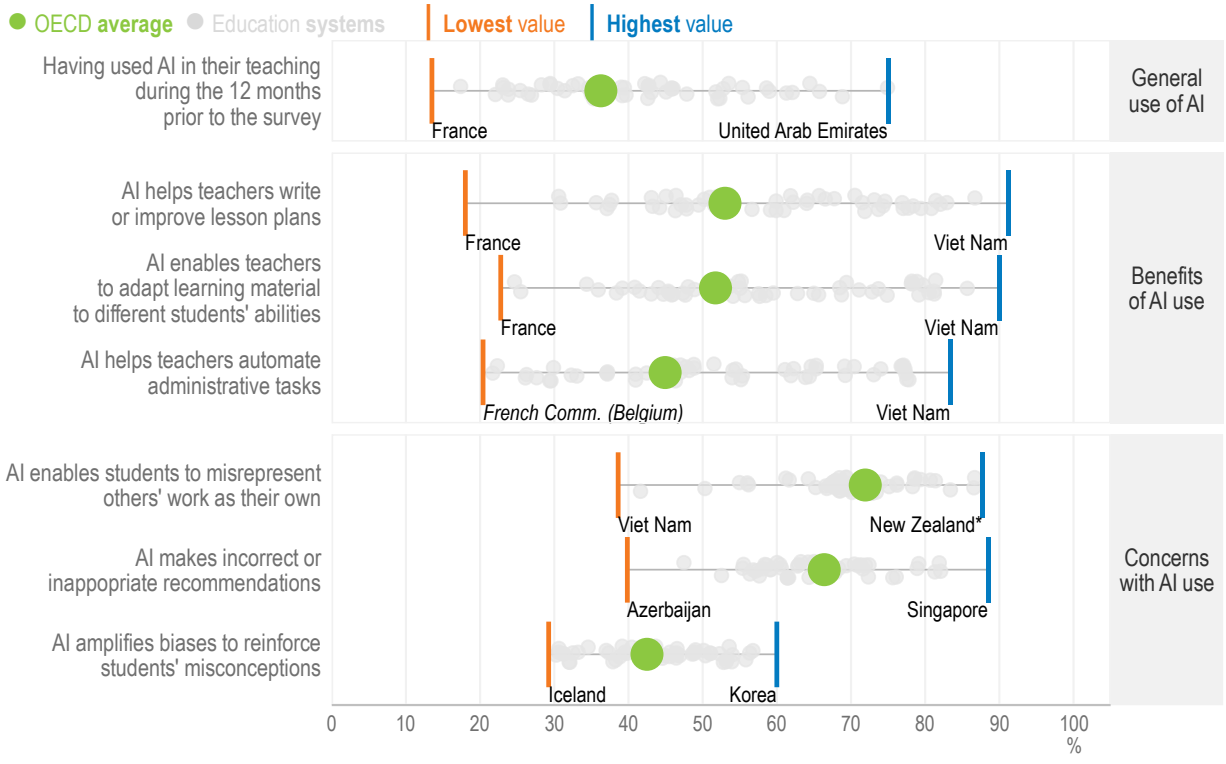
Seven in ten teachers (on average) believe AI could enable students to misrepresent others' work as their own (Table 1.62). Around four in ten teachers agree that AI may amplify biases, reinforce student misconceptions, or compromise data privacy and security.

Since the COVID-19 pandemic, integrating new technologies – including AI – has become a growing expectation for teachers in many education systems (OECD, 2021[69]). Approximately 33% of teachers that have not used AI across OECD education systems report feeling overwhelmed by this shift, citing it as a barrier to using AI in their teaching (Table 1.63). This varies widely across systems, however, from fewer than 20% in Brazil, Chile, Costa Rica, Italy, Morocco, Türkiye and the United Arab Emirates, to over 50% in Croatia, the Flemish Community of Belgium, Japan and Serbia.

Three in four teachers report that they lack the knowledge or skills to teach using AI, on average (Table 1.63). About half of teachers do not believe AI should be used in teaching. In terms of school policy, one in ten teachers report that their school does not allow AI in teaching.

Figure 1.13. Teachers' use of and opinions about AI in teaching

Percentage of lower secondary teachers who agree with the following statements



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database,* Tables 1.59, 1.61 and 1.62.

Box 1.5. AI use and challenges in primary and upper secondary schools

Primary school teachers (ISCED 1)

Fewer primary teachers report using AI as compared to their lower secondary peers. The biggest differences are observed in Australia (19 percentage points less) and the Flemish Community of Belgium* (14 percentage points less) (Table 1.59). Nevertheless, for teachers who do use AI, a bigger proportion of primary teachers tend to use it for the specific practices reported in TALIS 2024 compared to their lower secondary counterparts.

For instance, in nearly half of the education systems with available data for primary and lower secondary education, a bigger proportion of primary teachers use AI to support students with special education needs (the biggest difference is in France; 36 percentage points more for primary teachers) and to adjust the difficulty of lesson materials according to students' learning needs (the biggest difference is in the Netherlands*; 26 percentage points more) (Table 1.60). More primary teachers also report using AI for practices such as generating text for student feedback (biggest difference is in France; 32 percentage points more for primary teachers) and parent/guardian communications and reviewing data on student participation and performance (biggest difference in the Netherlands*; 24 percentage points more) (Table 1.60).

In general, primary school teachers reported fewer challenges with using AI compared to their lower secondary peers. For instance, in 12 out of 15 education systems with available data for primary and lower secondary education, fewer primary school teachers reported that AI enables students to misrepresent others' work as their own. In ten of these systems, fewer primary school teachers reported that AI could make recommendations that may not be appropriate or correct, and in nine education systems, primary school teachers reported less than their lower secondary peers that AI amplifies biases that reinforce students' misconceptions (Table 1.62).

Upper secondary school teachers (ISCED 3)

Conversely, a larger proportion of upper secondary teachers utilise AI compared to their lower secondary peers, in half of the education systems with available data for both upper and lower secondary education. The biggest differences are found in the Flemish Community of Belgium (10 percentage points higher in upper secondary) and Slovenia (13 percentage points higher). No differences are observed in the rest of the education systems (Table 1.59).

Among education systems with available data for upper and lower secondary education, fewer upper secondary teachers who use AI use it for specific practices listed in TALIS 2024 compared to their lower secondary peers. The only exception to this trend is the Flemish Community of Belgium, where more upper secondary teachers use AI to learn about and summarise a topic (9 percentage points more) (Table 1.60). A smaller proportion of upper secondary teachers use AI to adjust the difficulty of lessons to meet diverse student needs, support students with special education needs and generate text for student feedback or parent/guardian communications. The biggest differences are observed in Portugal (11 percentage points less for upper secondary teachers), Croatia (19 percentage points less) and Denmark (12 percentage points less) for each practice, respectively (Table 1.60).

In five out of eight education systems with available data for upper and lower secondary education, a bigger proportion of upper secondary teachers report that AI enables students to misrepresent others' work as their own, compared to lower secondary teachers. In four of those education systems, upper secondary teachers were also more likely to report that AI makes recommendations that may not be appropriate or correct, and in three education systems, teachers are more likely to report that AI amplifies biases that reinforce students' misconceptions (Table 1.62).

Table 1.1. Chapter 1 figures

Figure 1.1		Female teachers
Figure 1.1 (ISCED 1)	WEB	Female teachers
Figure 1.1 (ISCED 3)	WEB	Female teachers
Figure 1.2		Change in the average age of teachers, from 2018 to 2024
Figure 1.2 (ISCED 1)	WEB	Change in the average age of teachers, from 2018 to 2024
Figure 1.2 (ISCED 3)	WEB	Change in the average age of teachers, from 2018 to 2024
Figure 1.3		Teachers' age
Figure 1.3 (ISCED 1)	WEB	Teachers' age
Figure 1.3 (ISCED 3)	WEB	Teachers' age
Figure 1.4		Change in previous non-teaching work experience, from 2018 to 2024
Figure 1.4 (ISCED 1)	WEB	Change in previous non-teaching work experience, from 2018 to 2024
Figure 1.4 (ISCED 3)	WEB	Change in previous non-teaching work experience, from 2018 to 2024
Figure 1.5		Second-career teachers
Figure 1.5 (ISCED 1)	WEB	Second-career teachers
Figure 1.5 (ISCED 3)	WEB	Second-career teachers
Figure 1.6		Perception of shortage of qualified teachers
Figure 1.6 (ISCED 1)	WEB	Perception of shortage of qualified teachers
Figure 1.6 (ISCED 3)	WEB	Perception of shortage of qualified teachers
Figure 1.7		School composition
Figure 1.7 (ISCED 1)	WEB	School composition
Figure 1.7 (ISCED 3)	WEB	School composition
Figure 1.8		Change in school composition, from 2018 to 2024
Figure 1.9		Change in schools' composition of students with special education needs, from 2018 to 2024
Figure 1.9 (ISCED 1)	WEB	Change in schools' composition of students with special education needs, from 2018 to 2024
Figure 1.9 (ISCED 3)	WEB	Change in schools' composition of students with special education needs, from 2018 to 2024
Figure 1.10		Change in frequency of teachers calming students who are disruptive
Figure 1.10 (ISCED 1)	WEB	Change in frequency of teachers calming students who are disruptive
Figure 1.10 (ISCED 3)	WEB	Change in frequency of teachers calming students who are disruptive
Figure 1.11		Relationship between teachers' gender and their use of practices that develop social and emotional skills
Figure 1.11 (ISCED 1)	WEB	Relationship between teachers' gender and their use of practices that develop social and emotional skills
Figure 1.11 (ISCED 3)	WEB	Relationship between teachers' gender and their use of practices that develop social and emotional skills
Figure 1.12		Teachers' use of artificial intelligence
Figure 1.12 (ISCED 1)	WEB	Teachers' use of artificial intelligence
Figure 1.12 (ISCED 3)	WEB	Teachers' use of artificial intelligence
Figure 1.13		Teachers' use of and opinions about AI in teaching
Figure 1.13 (ISCED 1)	WEB	Teachers' use of and opinions about AI in teaching
Figure 1.13 (ISCED 3)	WEB	Teachers' use of and opinions about AI in teaching

StatLink https://stat.link/n0x63b

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2 Thriving in teaching

This chapter provides an overview of teachers' perceptions of their professional outcomes and how these have evolved in recent years. It investigates which teacher and school characteristics are associated with higher levels of professional thriving. The analysis further examines how teachers' self-efficacy and beliefs in a growth mindset are linked to variations in their professional outcomes. The chapter concludes by exploring the relationship between the demands placed on teachers and their fulfilment of lesson aims, as well as their well-being and job satisfaction.

Highlights

- **Many teachers – especially female and experienced teachers – report meeting key lesson aims, though supporting students' social and emotional learning remains challenging.** This suggests that fewer teachers feel capable of handling tasks related to social and emotional learning compared to other teaching responsibilities.
- **Stress is unevenly distributed within education systems. Female and younger teachers are more likely to experience stress "a lot" in their work**, on average across OECD education systems. These findings suggest that education systems can consider providing different types of support to help teachers with different needs. In Albania, Brazil, Colombia, the French Community of Belgium, Korea, Montenegro, the Netherlands*, North Macedonia, Saudi Arabia and Uzbekistan, teachers' work-related stress levels do not vary by gender and age.
- **The large majority of teachers are satisfied with their profession, which indicates that most teachers find meaning and personal fulfilment in their work.** Almost nine in ten teachers report that, on average across OECD education systems, they are satisfied with their jobs overall. In Bulgaria, Czechia and Saudi Arabia, the share of teachers who think that the advantages of being a teacher clearly outweigh the disadvantages has increased by more than 9 percentage points since 2018. The reverse pattern is observed in Alberta (Canada)*, Australia and Norway*.
- **Teachers' fulfilment of lesson aims and their well-being and overall job satisfaction, including satisfaction with both the profession and their current work environment, varies more within rather than between education systems.** This suggests that individual and school-level factors play a significant role in shaping teachers' experiences.
- **Maintaining discipline as a source of stress is a key predictor of teachers' fulfilment of their lesson aims, as well as their well-being and job satisfaction.** In addition to discipline and behaviour issues, workload, adapting teaching to diverse learning needs and accountability as sources of stress are associated with the largest differences in teacher well-being.
- **Teachers who believe in a growth mindset tend to have higher self-efficacy.** Teachers who believe that intelligence is malleable and can be developed tend to report higher self-efficacy in student engagement and instruction. In some education systems, such as those in Azerbaijan, Czechia, Kosovo, Montenegro, North Macedonia, Shanghai (People's Republic of China, hereafter "China"), South Africa and Viet Nam, only around half of teachers believe that intelligence is malleable. Older teachers and male teachers tend to believe less in a growth mindset. To note, belief in a growth mindset may be shaped by cultural factors and is therefore not unique to teachers.
- **Second-career teachers are equally likely to meet their lesson aims, experience stress "a lot", and be satisfied with their job as their peers in most education systems.**

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Introduction

Teachers play a pivotal role in delivering education programmes, shaping the learning experiences and outcomes of their students (Chetty, Friedman and Rockoff, 2014[1]; Chetty, Friedman and Rockoff, 2014[2]; Hattie, 2009[3]; Jackson, Rockoff and Staiger, 2014[4]; Rivkin, Hanushek and Kain, 2005[5]; Seidel and Shavelson, 2007[6]). Teachers can also boost students' social and emotional skills (Blazar and Kraft, 2016[7]; Jackson, 2018[8]). Research indicates that classroom practices directly influence student outcomes (Hattie, 2009[3]; Muijs et al., 2014[9]), while teacher well-being and job satisfaction are indirectly associated with the quality of teaching and learning (Viac and Fraser, 2020[10]). Thus, ensuring a sufficient supply of thriving teachers – those who are competent and engaged – is key to successful education.

Education systems can help teachers thrive. Teachers are more likely to exhibit effective practices, experience high well-being and job satisfaction, and remain in the profession when they have sufficient support to face the challenges at hand (Admiraal and Kittelsen Røberg, 2023[11]; Awwad-Tabry et al., 2023[12]; Babb, Sokal and Trudel, 2022[13]; Collie and Mansfield, 2022[14]; Granziera, Collie and Martin, 2020[15]; Harmsen et al., 2019[16]). Education policy can play an important role in both alleviating certain hindrances and making relevant aids available.

This chapter first takes stock of teachers' views about their professional outcomes and explores how these have evolved in recent years. Then, it examines which teachers are more likely to be thriving professionally. Finally, this chapter examines the relationship between teachers' job demands and their sense of thriving.

Teachers' professional outcomes

The professional outcomes considered throughout this report include teachers' self-reported fulfilment of lesson aims, well-being, job satisfaction and career intentions. This chapter focuses on the first three. Teachers' career intentions, which are key to understanding teacher retention and attrition, are addressed in Chapter 7.

Fulfilment of lesson aims

Research highlights the crucial role of teachers in student learning (Muijs et al., 2014[9]; Muijs and Reynolds, 2001[17]; Nilsen, Gustafsson and Blömeke, 2016[18]). What teachers do in the classroom is the strongest direct school-based influence on student learning outcomes (Hattie, 2009[3]). Nevertheless, teachers' performance can vary considerably across teachers (Hanushek and Rivkin, 2010[19]), which emphasises the importance of supporting all teachers to thrive.

The Teaching and Learning International Survey (TALIS) asks teachers to what extent ("not at all"; "to some extent"; "quite a bit"; "a lot") the lessons they taught over the past week in the target class[1] achieved some often-competing goals. The lesson aims covered by TALIS are related to:

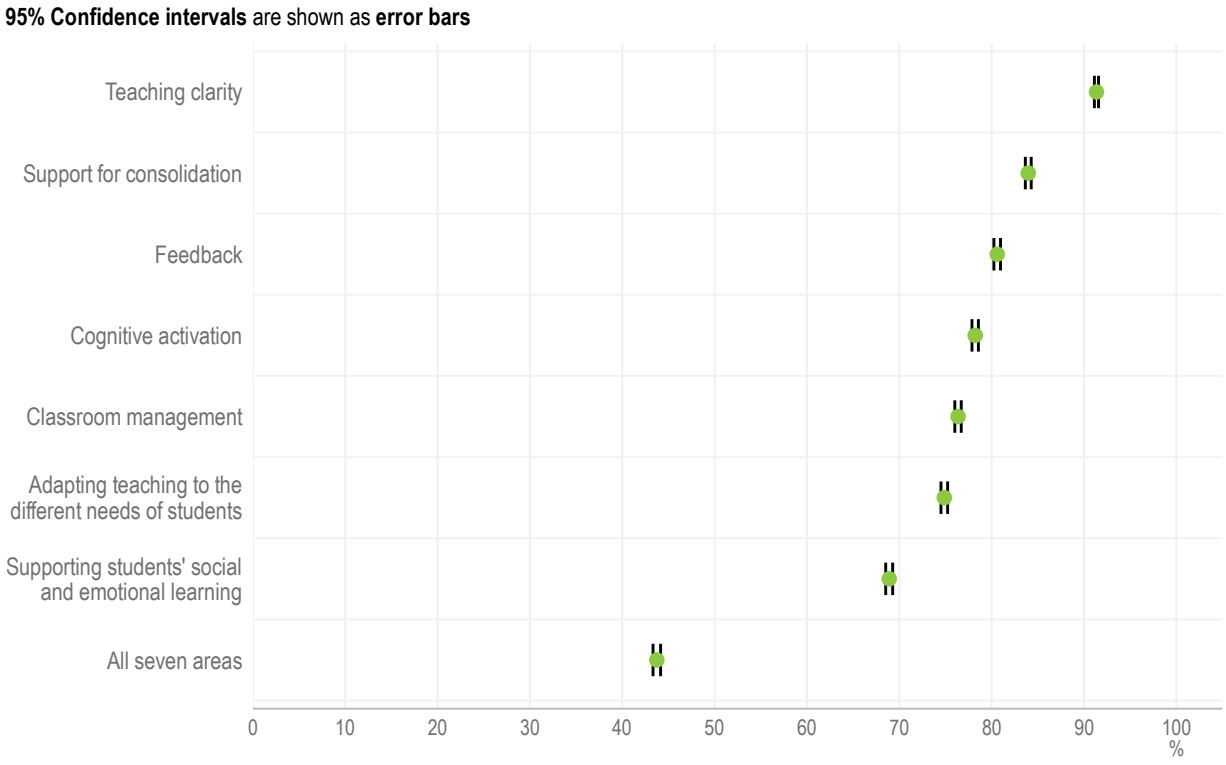
- teaching clarity ("presenting the content in a comprehensible way")
- cognitive activation ("engaging students in work that challenges them")
- feedback ("providing students with feedback to support their learning")
- support for consolidation ("offering students opportunities to practise what they learned")
- adapting teaching to the different needs of students
- supporting students' social and emotional learning ("helping students to manage their own emotions, thoughts, and behaviour")
- classroom management ("managing student behaviour").

These lesson aims are interrelated. For instance, supporting students' social and emotional learning and classroom management may have a mediating role in meeting the other lesson objectives covered by TALIS. Low fulfilment may reflect a lack of support, instructional challenges, or unrealistic goals, leading to frustration or diminished confidence. On the other hand, high fulfilment can not only suggest high performance but also low expectations or overconfidence, limiting reflection and professional growth.

Around two in five teachers report meeting their lesson aims across all seven areas covered by TALIS, on average across OECD countries and territories with available data (hereafter, “on average”) (Figure 2.1). Teachers’ fulfilment of lesson aims in five areas, including teaching clarity, cognitive activation, feedback, support for consolidation, and adapting teaching to the different needs of students, tends to show greater variation within rather than across education systems participating in TALIS with available data (hereafter, “education systems”). While average scale scores[2] across education systems range up to 4 index points, within-country gaps between the lowest and highest achievers with respect to lesson aims (measured by the difference in 10th and 90th percentiles of teachers’ fulfilment of lesson aims) can range up to 6 index points (Table 2.2). This finding suggests that individual and school-level factors play a significant role in shaping teachers' experiences. Allocating resources equitably across teachers and schools within a system is crucial to reducing disparities in teacher experience.

Figure 2.1. Teachers' fulfilment of their lesson aims

Percentage of lower secondary teachers who report fulfilling the following lesson aims “quite a bit” or “a lot” (OECD average-27)



Note: Results refer to lessons taught to a class randomly selected from teachers' current weekly timetables during the week preceding the survey.
Source: OECD, *TALIS 2024 Database*, Table 2.1.

Among teachers' lesson goals, supporting students' social and emotional learning is the least likely to be achieved. Around two out of three teachers report achieving their lesson aims in helping students manage their emotions, thoughts and behaviour (69%), on average (Table 2.1). These results are aligned with the findings from the OECD Survey on Social and Emotional Skills (SSES) 2023, according to which fewer teachers feel capable of handling tasks related to social and emotional learning compared to other teaching responsibilities (OECD, 2024[20]).

Based on data from Bogotá (Colombia) and Helsinki (Finland), students' social and emotional skills, in particular open-mindedness skills (i.e. tolerance, creativity and curiosity), decreased between 2019 and 2023 (OECD, 2024[21]). In addition to potentially higher need for support for developing students' social and emotional skills, education in this area also tends to be underrepresented in teacher training compared to subjects and pedagogy, leading many teachers to rely on unregulated materials for lesson planning (OECD, 2024[20]). Alberta (Canada)* and Portugal offer examples of how to support teachers in promoting students' social and emotional development (Box 2.1).

Box 2.1. Equipping teachers to support social and emotional learning

Alberta (Canada) supports teachers in advancing social-emotional learning (SEL) by providing practical, research-informed tools to guide instruction. Alberta also offers conversation guides (Government of Alberta, 2022[22])to help teachers reflect on their practice, while LearnAlberta.ca provides a curated library of classroom-ready resources. In addition, the Healthier Together initiative supplies lesson plans and activities to promote SEL in daily school routines, reinforcing a whole-school approach to well-being (Alberta Health Services, n.d.[23]).

The province has also developed a resource called "*Building Social-Emotional Competencies: Choosing Instructional Resources"* to help educators select high-quality instructional materials that allow them to design and implement SAFE – sequenced, active, focused, and explicit – tasks that are also developmentally and culturally appropriate for their local contexts (Government of Alberta, 2021[24])). In addition, the Alberta government has approved new funding for schools to provide universal and targeted support and services that promote positive student mental health and well-being.

Portugal has also taken practical steps to integrate SEL into schools. In 2016, the Directorate-General for Education and the Directorate-General for Health jointly published a manual to support teachers in developing socio-emotional competencies among students. This manual provides teachers with guidelines, strategies and detailed templates of structured activities to promote skills such as self-regulation, empathy and co-operation. It also emphasises the importance of adopting a whole-school approach that engages families and the broader community in SEL initiatives. The manual is part of Portugal's *Educação para a Cidadania* (Citizenship Education) framework, which places SEL within the broader context of children's civic and personal development.

Note: Alberta Health Services is now "Alberta Recovery" and the resources for teachers can be found at https://recoveryalberta.ca/Page14056.aspx.
Source: Alberta Education (n.d.[25]), *LearnAlberta.ca*, https://new.learnalberta.ca; Alberta Health Services (n.d.[23]), *Teach Resources*, https://schools.healthiertogether.ca/en/teach; Government of Alberta (n.d.[26]), *Social-Emotional Learning*, https://www.alberta.ca/social-emotional-learning; Ministério da Saúde (2016[27]), *Manual para a Promoção de Competências Socioemocionais em meio escolar*, https://cidadania.dge.mec.pt/sites/default/files/pdfs/manual-para-promocao-de-competencias-socioemocionais-em-meio-escolar.pdf.

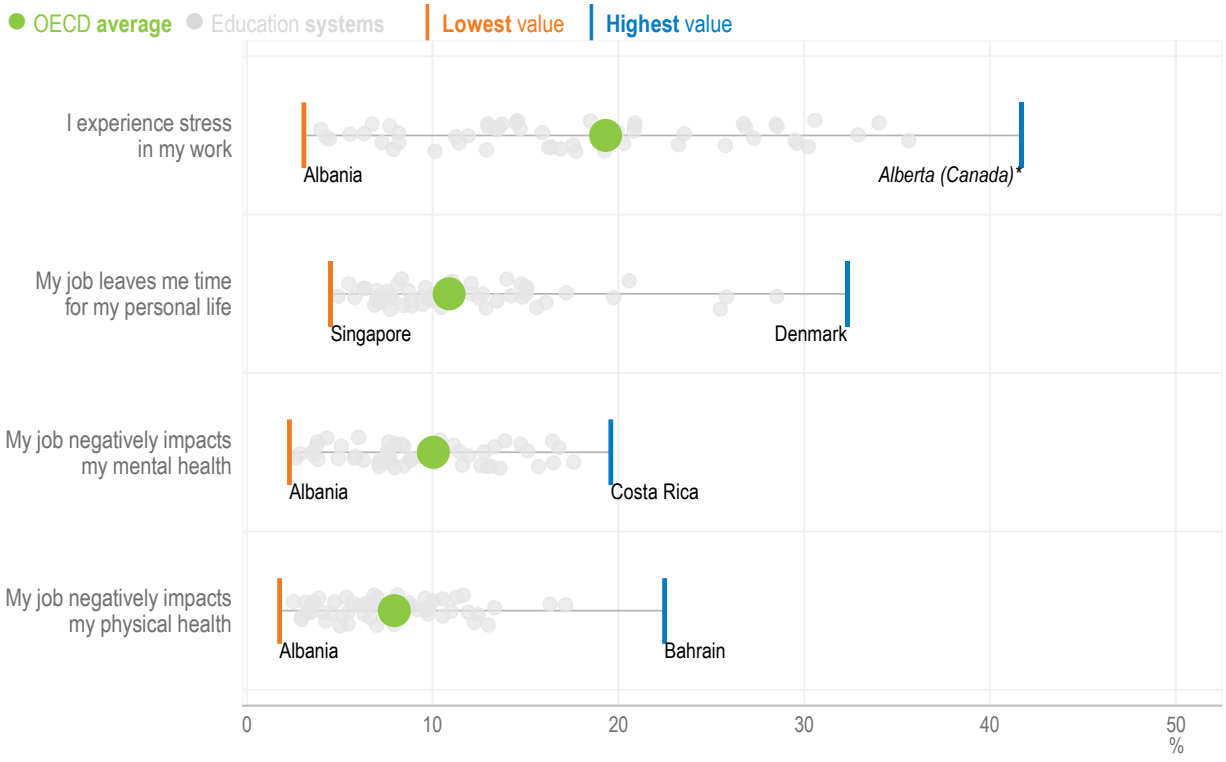
Well-being

Teacher well-being refers to positive and effective functioning at work (Collie and Martin, 2016[28]). Low teacher well-being can disrupt education systems through high turnover, poor performance, absenteeism and reduced instructional quality (Albulescu, Tuşer and Sulea, 2018[29]; Borman and Dowling, 2008[30]; Ingersoll, 2001[31]; Ronfeldt, Loeb and Wyckoff, 2013[32]). Teachers with high well-being report greater self-efficacy, job satisfaction, motivation, and commitment to the profession (Viac and Fraser, 2020[10]). TALIS measures teacher well-being by asking teachers to what extent ("not at all"; "to some extent"; "quite a bit"; "a lot"): they experience stress in their work; their job leaves them time for personal life; their job negatively impacts their mental health; their job negatively impacts physical health.

Some level of stress is natural when professionals hold themselves accountable and strive for high performance. According to the Gallup survey of employees (2024[33]), for example, globally, 41% of employees report experiencing a lot of daily stress. According to TALIS, on average, around one in five (19%) of teachers report experiencing stress "a lot" in their work (Figure 2.2). While more than 30% of teachers in Alberta (Canada)*, Australia, Bahrain, Costa Rica, Malta and New Zealand* experience stress "a lot" in their work, less than 5% do so in Albania, Azerbaijan, Kazakhstan and Viet Nam (Table 2.3). In Albania, Azerbaijan and Kazakhstan, around 50% of teachers do not experience stress in their work at all.

Figure 2.2. Teacher well-being

Percentage of lower secondary teachers who report experiencing the following occurrences "a lot" in their work

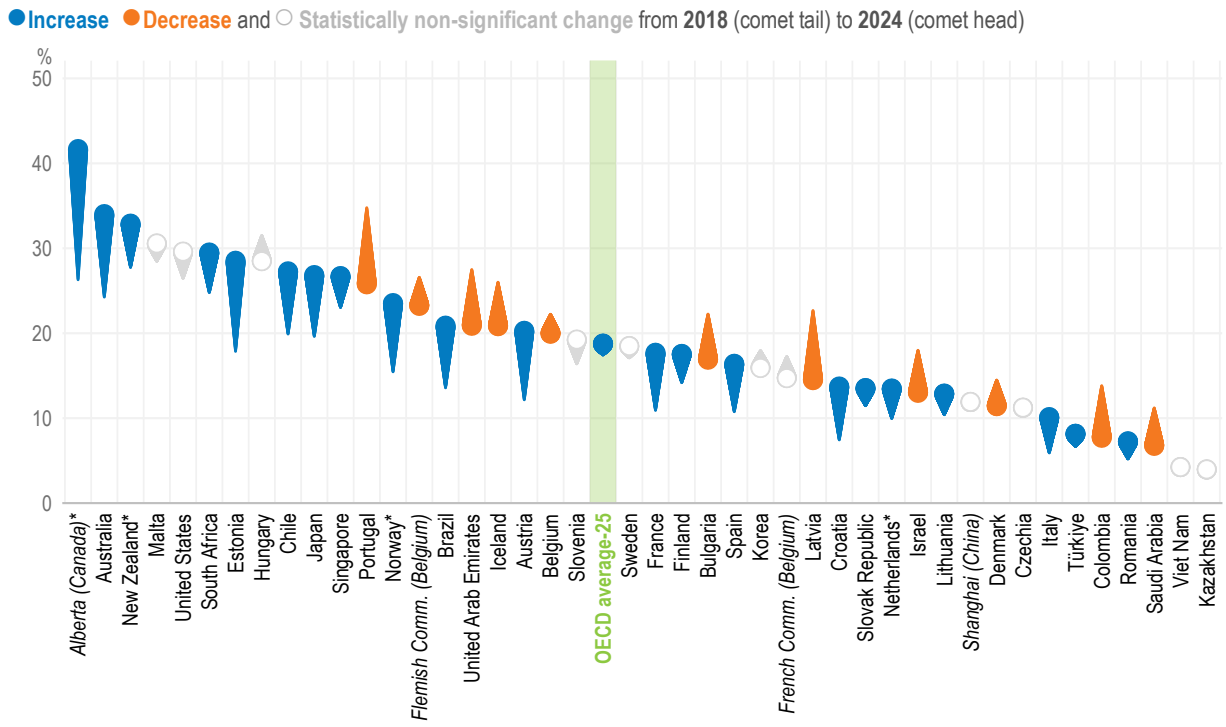


Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 2.3.

Between 2018 and 2024, the share of teachers experiencing stress "a lot" in their work decreased by 5 percentage points or more in Bulgaria, Colombia, Iceland, Israel, Latvia, Portugal and the United Arab Emirates, while it increased by the same magnitude in Alberta (Canada)*, Australia, Austria, Brazil, Chile, Croatia, Estonia, France, Japan, New Zealand*, Norway* and Spain (Figure 2.3).

Figure 2.3. Change in teacher stress, from 2018 to 2024

Percentage of lower secondary teachers who report experiencing stress "a lot" in their work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 2.4.

Having a good work-life balance can help ease the negative effects of stress. On average, 11% of teachers consider that their work leave them time for their personal lives "a lot" (Table 2.3). This varies from below 5% in Shanghai (China) and Singapore to above 20% in Albania, Denmark, Hungary, the Netherlands* and Uzbekistan. In more than one-third of the education systems, teachers report an improvement in work-life balance between 2018 and 2024. Notably, the share of teachers who think that their jobs leave them time for their personal lives "a lot" increased by more than 5 percentage points in Brazil, the Netherlands*, Saudi Arabia, South Africa and the United States (Table 2.4). The reverse pattern is observed in Colombia, France and the French Community of Belgium.

In terms of health, 10% of teachers say their job negatively impacts their mental health "a lot", while 8% report that it negatively impacts their physical health "a lot", on average (Figure 2.2). In many education systems, teachers report growing negative impacts of their jobs on mental and physical health (Table 2.4). These developments can partly reflect the heavy toll the coronavirus (COVID-19) pandemic took on teachers' well-being (Chen et al., 2024[34]; McLean, Bryce and Johnson, 2023[35]; Sacré et al., 2023[36]; Walter, 2021[37]). Yet, there are exceptions to this pattern. In Iceland, Saudi Arabia and the United Arab Emirates, the share of teachers reporting "a lot" of negative impacts of their jobs on their mental and physical health has decreased since 2018.

Similar to teachers' fulfilment of their lesson aims, teacher well-being also varies more within rather than across education systems. The difference in the average scale scores[3] between the education systems with the highest and lowest teacher well-being is 3 index points (Table 2.5). The within-country gaps between teachers with the highest and lowest well-being (measured by the difference in 10th and 90th percentiles of teacher well-being) can reach up to 6 index points.

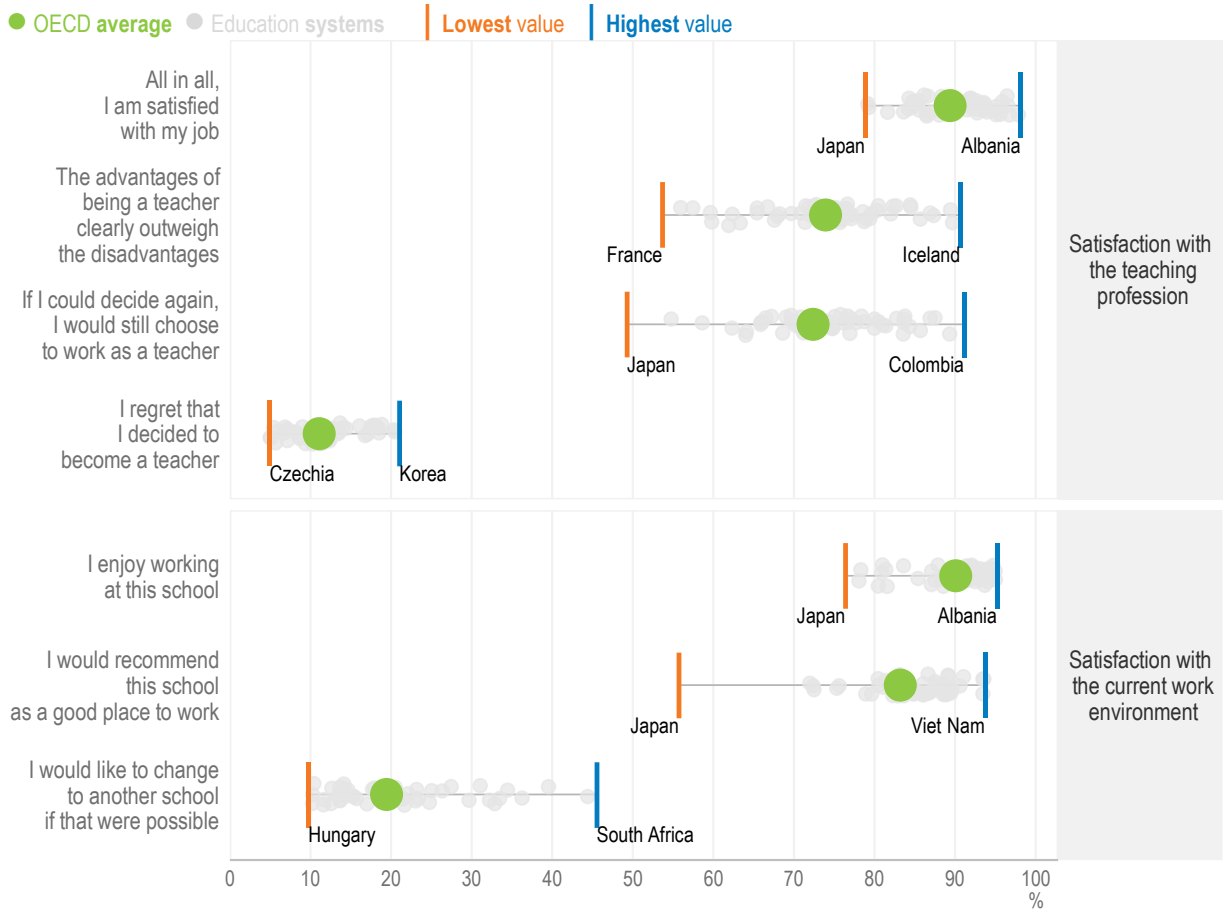
Job satisfaction

Job satisfaction, which is the sense of gratification from working, has a positive impact on teachers, school culture and, ultimately, on students (Ainley and Carstens, 2018[38]). Based on previous TALIS results, teachers' job satisfaction (both with the current work environment and with the teaching profession) is positively associated with teachers' self-efficacy (OECD, 2020[39]; 2014[40]). Moreover, job satisfaction plays a key role in teachers' attitudes, efforts and confidence in their daily work with students (Caprara et al., 2003[41]; Klassen et al., 2012[42]; Tschannen-Moran and Hoy, 2001[43]), and it is strongly correlated with teaching performance (Banerjee et al., 2017[44]).

TALIS measures job satisfaction by asking teachers to rate their agreement ("strongly disagree"; "disagree"; "agree"; "strongly agree") with statements reflecting both positive and negative aspects of their profession ("The advantages of being a teacher clearly outweigh the disadvantages"; "If I could decide again, I would still choose to work as a teacher"; "I regret that I decided to become a teacher"; "All in all, I am satisfied with my job") and current work environment ("I would like to change to another school if that were possible"; "I enjoy working at this school"; "I would recommend this school as a good place to work").

Figure 2.4. Teacher job satisfaction

Percentage of lower secondary teachers who "agree" or "strongly agree" with the following statements



Source: OECD, *TALIS 2024 Database*, Tables 2.6 and 2.8.

Almost nine in ten teachers report that, all in all, they are satisfied with their jobs (on average), ranging from 79% in Japan to 98% in Albania (Figure 2.4). Yet, in France, the French Community of Belgium, Latvia, Malta and Serbia, less than six out of ten teachers report that the advantages of being a teacher clearly outweigh the disadvantages (Table 2.6). In Korea, Malta and Portugal, around 20% of teachers regret becoming a teacher. However, over 90% of teachers in Portugal also report overall job satisfaction, which suggests their regret might reflect a partial assessment of their current working conditions.

While in most education systems, teachers' satisfaction with their jobs is comparable to other professions, in Chile, France, Hungary, Latvia and Lithuania, teachers tend to be less satisfied with their jobs than people with similar education level in other professions (Box 2.2). The opposite is observed in Japan, Spain, Sweden and the United States.

Box 2.2. Comparing teachers' job satisfaction to other professions

Data from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), provide valuable comparative insights across professions, as the survey collects a rich set of information on participation in adult training by the entire adult population, including teachers.

On average, across OECD countries and economies participating in PIAAC, the share of teachers who report being "satisfied" or "extremely satisfied" with their jobs is similar to that of adults with similar education in other professions (Table 2.11). Yet, in Chile, France, Hungary, Latvia and Lithuania, the share of adults who are satisfied with their jobs is between 10 and 23 percentage points higher compared to teachers, ranging from a difference of 10 percentage points in France to 21 percentage points in Chile and 23 percentage points in Hungary. There are also some countries, such as Japan, Spain, Sweden and the United States, where the opposite is observed.

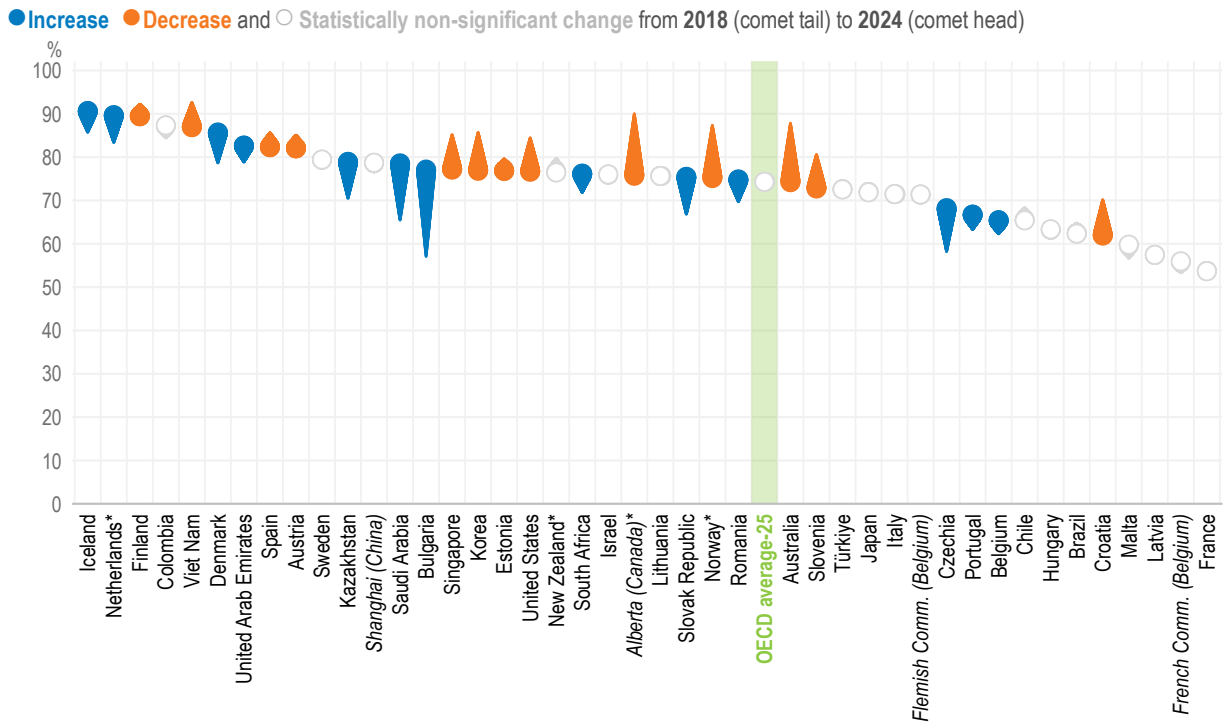
Note: The analysis presented in this box adopts a different definition of teachers than the one used in TALIS, as it refers to school teachers in primary, secondary and vocational education. See the Reader's Guide for more detailed information on how PIAAC data are used for this analysis.
Source: OECD (2023[45]), *Survey of Adult Skills 2023 (PIAAC) database,* https://www.oecd.org/en/data/datasets/piaac-2nd-cycle-database.html.

Teachers' satisfaction with their profession has evolved differently across education systems since 2018. In Saudi Arabia and South Africa, the share of teachers who report being, all in all, satisfied with their jobs has increased by more than 5 percentage points since 2018, while the reverse pattern is observed in Alberta (Canada)*, Australia, Croatia, France and Norway* (Table 2.7). In Bulgaria, Czechia and Saudi Arabia, the share of teachers who think that the advantages of being a teacher clearly outweigh the disadvantages has increased by more than 9 percentage points during the same period (Figure 2.5). The reverse pattern is observed in Alberta (Canada)*, Australia and Norway*.

Most teachers are not only satisfied with their profession but also with their current work environment. Four out of five teachers, or more depending on the measure, report being satisfied with their current work environment, on average (Table 2.8). In most education systems, teachers' satisfaction with the current environment has either not changed or improved since 2018 (Table 2.9). In Bulgaria, Hungary, Israel, Korea, Portugal, Saudi Arabia, Shanghai (China), Singapore and the United Arab Emirates, teachers' satisfaction with their current work environment has improved across all three dimensions measured by TALIS (enjoying teaching at their current school; not wanting to change to another school; and considering their current school as a good place to work).

Figure 2.5. Change in teachers' satisfaction with the profession, from 2018 to 2024

Percentage of lower secondary teachers who "agree" or "strongly agree" that the advantages of being a teacher clearly outweigh the disadvantages



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 2.7.

Teachers' overall job satisfaction, including satisfaction with both the profession and their current work environment, varies more within rather than between education systems. While average scale scores[4] across education systems differ by up to 2 index points, within-country gaps between the least and most satisfied teachers (measured by the difference in 10th and 90th percentiles of teacher job satisfaction) can reach up to 6 index points (Table 2.10). This finding, along with the variation in teachers' fulfilment of their lesson aims and teacher well-being, suggests that individual and school-level factors strongly shape teachers' experiences. It underscores the importance of providing adequate support – including non-material resources, such as training and leadership opportunities as well as collaborative work environment (see Chapters 4, 5 and 6) – to teachers who need it most.

Variation in teachers' professional outcomes by teacher and school characteristics

All teachers should have equal opportunities to thrive, regardless of who they are and where they teach. Examining variations in teachers' professional outcomes based on personal and contextual factors can help education authorities identify teachers most in need of support. Education authorities may consider allocating resources to better support teachers facing greater challenges. Failing to do so can lead to imbalances in teachers' professional outcomes and the concentration of struggling teachers in certain schools, which can lead to growing divides in student outcomes (OECD, 2020[39]; 2020[46]; 2019[47]; 2019[48]).

Teacher characteristics

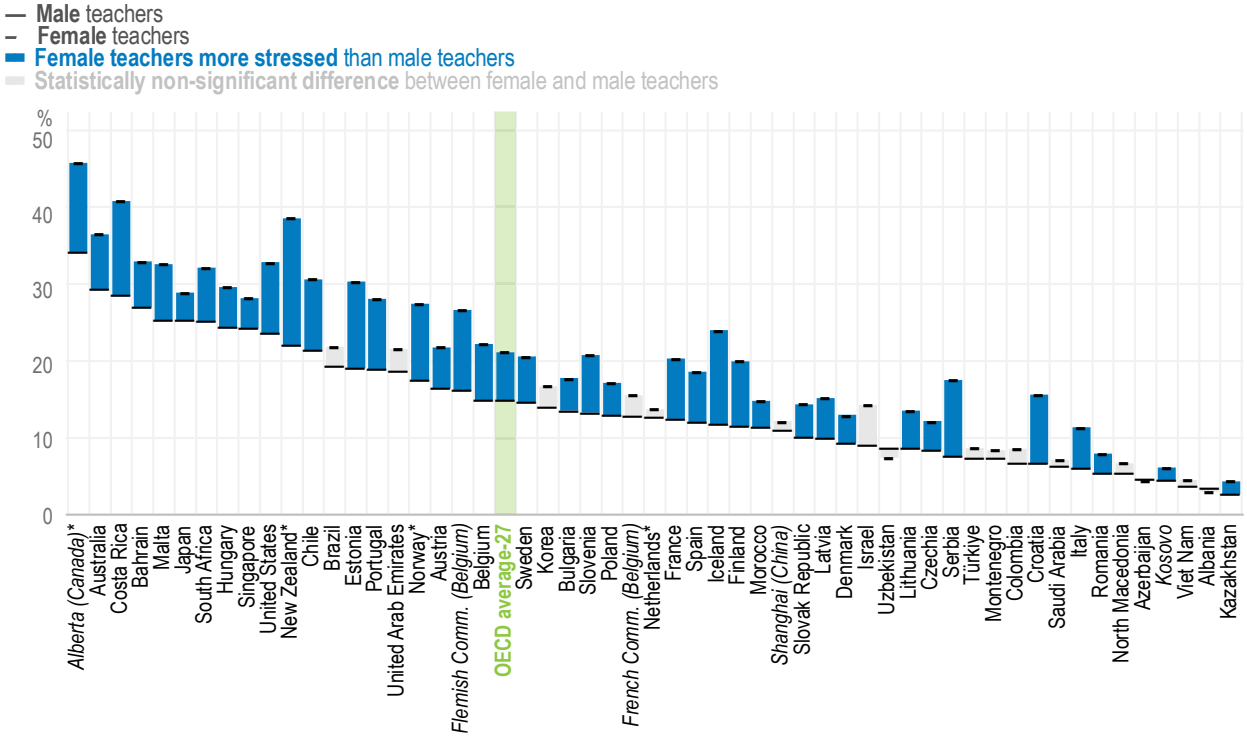
Gender

Female teachers are more likely to report fulfilling their lesson aims “quite a bit” or “a lot” regarding all seven areas measured by TALIS – cognitive activation, feedback, support for consolidation, adapting teaching to the different needs of students, supporting students' social and emotional learning, and classroom management (Table 2.12). In more than one-third of education systems, the share of female teachers who report achieving their lesson aims “quite a bit” or “a lot” is at least 5 percentage points higher than that of male teachers. In Alberta (Canada), Czechia, Denmark, Iceland, and Saudi Arabia, this difference ranges from 11 to 14 percentage points.

Female teachers are also more likely to report higher levels of stress than male teachers. The share of female teachers who report experiencing stress “a lot” in their work is 21% compared to 15% for male teachers, on average (Figure 2.6). This pattern holds in more than two-thirds of education systems. These findings suggest that education systems can consider providing different types of support to help teachers with different needs. For example, in Albania, the French Community of Belgium, Korea, Montenegro, the Netherlands*, North Macedonia and Uzbekistan, teachers’ work-related stress levels do not vary by gender or age. Although these results should be interpreted with caution due to potential mediating factors, such as workload, social expectations and domestic responsibilities, they reflect the broader trend of women reporting higher stress levels in general (Gallup, 2024[33]; Gao, Ping and Liu, 2020[49]; Matud, 2004[50]; Prowse et al., 2021[51]).

Figure 2.6. Teacher stress, by gender

Percentage of lower secondary teachers who report experiencing stress “a lot” in their work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 2.13.

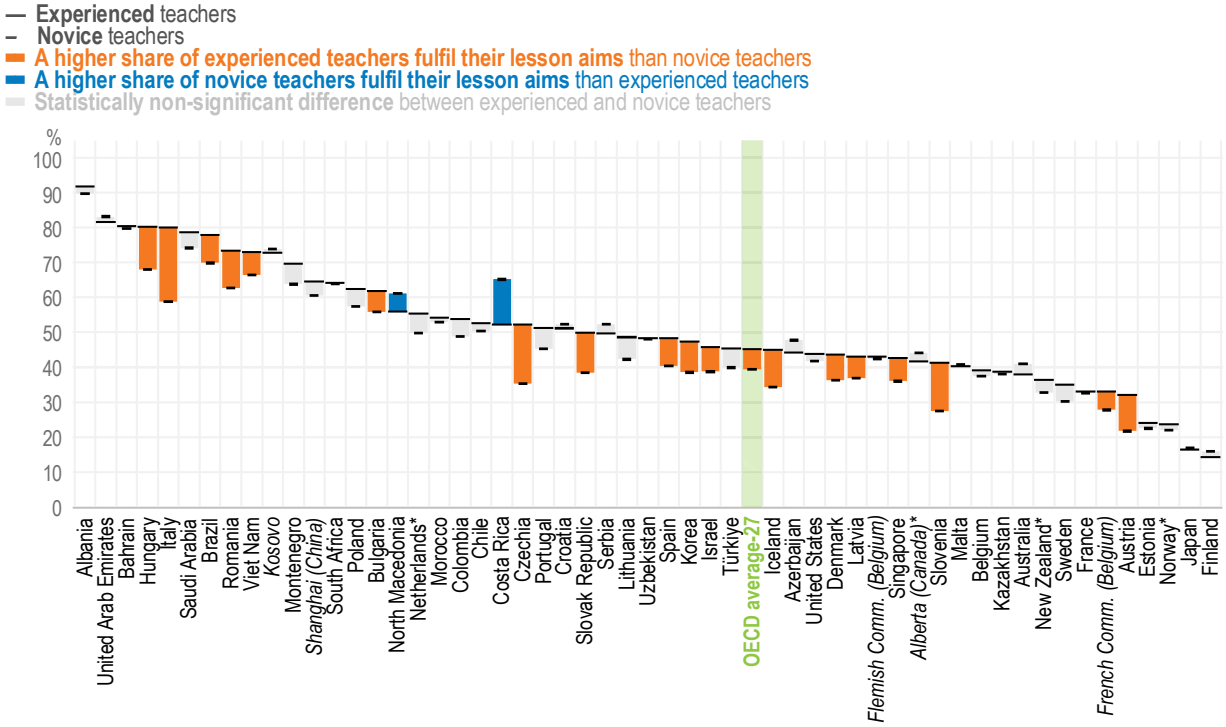
In most education systems, teacher job satisfaction does not vary by gender. Yet, in New Zealand* and Serbia, the share of male teachers who “agree” or “strongly agree” that, all in all, they are satisfied with their job is more than 5 percentage points higher compared to their female colleagues (Table 2.14).

Age and teaching experience

The evidence on the relationship between teaching experience and teacher effectiveness is mixed. Novice teachers, defined as those with up to five years of teaching experience, often face significant challenges and leave the profession at higher rates than their more experienced peers (Paniagua and Sánchez-Martí, 2018[52]). Some studies suggest that the benefits of additional years of experience tend to diminish after the early stages of a teacher’s career (Rivkin, Hanushek and Kain, 2005[5]), while others indicate that experience continues to play a significant role in teacher effectiveness even later in the profession (Papay and Kraft, 2015[53]). Teaching experience also appears to affect student achievement in a non-linear way – rising during the early and middle years, then gradually declining (Toropova, Johansson and Myrberg, 2019[54]).

Figure 2.7. Teachers' fulfilment of their lesson aims, by years of teaching experience

Percentage of lower secondary teachers who report fulfilling their lesson aims “quite a bit” or “a lot”



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Results refer to lessons taught over the week preceding the survey to a class randomly selected from teachers' current weekly timetables.
Source: OECD, *TALIS 2024 Database*, Table 2.15.

More experienced teachers are more likely to report meeting their lesson aims. The share of experienced teachers (i.e. those with more than ten years of teaching experience) who report fulfilling lesson aims across all seven areas covered by TALIS is 6 percentage points higher than that of novice teachers, on average (Figure 2.7), which could reflect the benefits of greater experience in the profession. This difference exceeds 10 percentage points in Austria, Czechia, Hungary, Iceland, Italy, Romania, the Slovak Republic and Slovenia. The only exceptions are Costa Rica and North Macedonia, where

novice teachers are more likely to meet their lesson objectives. Education systems, such as Estonia, Lithuania, Poland and Portugal are noteworthy because their teaching populations are among the oldest in the world (see Chapter 1), yet their experienced teachers are no more likely to fulfil their lesson aims than their novice teachers.

The share of older teachers (aged 50 and above) who report experiencing stress “a lot” in their work is 6 percentage points lower than that of younger teachers (under age 30), on average (Table 2.13). This suggests that education systems can consider providing different types of support to help teachers with different needs. Due to their experience, older teachers may be more adept at coping with the stresses of the profession. Furthermore, teachers who are unable to cope might have left the profession before the age of 50. The only exception is Bulgaria, where the share of older teachers who report experiencing stress “a lot” is 8 percentage points higher than among younger teachers. In Albania, Brazil, Colombia, the French Community of Belgium, Korea, Montenegro, the Netherlands*, North Macedonia, Saudi Arabia and Uzbekistan, teachers’ work-related stress levels do not vary by age and gender.

Older teachers also tend to be more satisfied with their jobs than their younger peers (Table 2.14). Apart from greater experience, older teachers may be more satisfied with their jobs due to job stability, stronger professional networks and adjusted expectations. Additionally, those who remain in the profession are often those who find it personally and professionally rewarding.

Career pathway

In response to growing teacher shortages, some countries are seeing a rise in second-career teachers entering the profession (see Chapter 1). Research has been inconclusive on the effectiveness of second-career teachers. Boyd et al. (2011[55]) show that teachers with prior professional experience are no more effective than other new teachers, and may even be less effective at raising students’ math scores. On the other hand, there is also evidence for second-career teachers having higher self-efficacy beliefs than first-career teachers (Troesch and Bauer, 2017[56]). Examining the professional outcomes of second-career teachers can reveal how well they manage job demands.

Based on TALIS 2024 data, second-career teachers (i.e. those with at least ten years of work experience in non-education roles and for whom teaching was not a first career choice) are equally likely to meet their lesson aims across the seven areas covered by TALIS in most education systems (Table 2.16). In Australia, Hungary, Kazakhstan, New Zealand* and the United Arab Emirates, the share of second-career teachers who report fulfilling their lesson aims “quite a bit” or “a lot” regarding all seven areas measured by TALIS is more than 10 percentage points lower compared to non-second-career teachers.

Regression analysis focusing on lesson aims related to five areas – teaching clarity, cognitive activation, feedback, support for consolidation, and adapting teaching to the different needs of students – indicates that in most education systems there is no statistically significant relationship between fulfilling lesson aims and being a second-career teacher (Table 2.17). This holds after accounting for teacher characteristics, including the type of teaching qualification completed, and school characteristics, in all but seven education systems. In Australia, the Flemish Community of Belgium, Morocco, South Africa and Türkiye, there is a negative relationship between fulfilment of lesson aims in the five areas and being a second-career teacher, while in Latvia and Shanghai (China), the opposite association is observed.

The share of teachers experiencing stress “a lot” does not vary by career pathway in most education systems (Table 2.18). Yet, like lesson aims, stress levels can be influenced by various factors, including gender, age, years of teaching experience, type of teaching qualification and the school context. Second-career teachers tend to report lower well-being after controlling for teacher characteristics, including the type of teaching qualification completed, and school characteristics in 11 education systems (Table 2.19).

The share of second-career teachers who are satisfied with their jobs is similar to that of other teachers, in most education systems (Table 2.20). Yet, in Alberta (Canada)*, Bahrain and Brazil, the share of second-career teachers who are satisfied with their jobs is lower compared to their peers. This difference is

particularly large in Alberta (Canada)* (20 percentage points) and Bahrain (19 percentage points). While in Bahrain the share of second-career teachers is fairly low (2%), in Alberta (Canada)*, second-career teachers make up 11% of the teaching force (see Chapter 1 and Table 1.14).

Results of regression analysis indicate that the association between job satisfaction and being a second-career teacher is negative in around one-fourth of the education systems, after controlling for teacher characteristics, including the type of teaching qualification completed, and school characteristics (Table 2.21). Lower job satisfaction among second-career teachers may indicate inadequate or irrelevant support, which can lead to disengagement, poor performance and attrition.

School characteristics

School characteristics refer to school-based contextual factors that can mediate the link between teachers' job demands, resources and professional outcomes. Variations in teachers' professional outcomes are analysed by the following school characteristics: school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.

Teachers' fulfilment of their lesson aims does not tend to vary by school characteristics (Table 2.22). However, on average, teachers in urban schools (i.e. those located in community with a population of over 100 000 people), publicly managed schools or schools with a high intake of disadvantaged students (over 30%) are more likely to experience stress "a lot" than their colleagues teaching in rural areas (up to 3 000 people), in privately managed schools or schools with a low intake of disadvantaged students (up to 10%) (Table 2.23). Higher stress levels in certain schools can undermine teacher well-being, reduce instructional quality, and contribute to higher turnover in schools that already face greater educational challenges (Viac and Fraser, 2020[10]). Education authorities may need to consider providing adequate resources and support for teachers teaching in these school contexts.

Box 2.3. Teachers' professional outcomes in primary education

Fulfilment of lesson aims

Teachers in primary education are more likely to fulfil their lesson aims than their colleagues in lower secondary education. Three in five primary teachers meet their lesson aims across all seven areas covered by TALIS, on average, ranging from over four in five in Brazil to less than one in five in Japan (Table 2.1). In particular, the share of teachers who fulfil their lesson aims in supporting students' social and emotional learning is between 3 percentage points (Saudi Arabia) and 23 percentage points (French Community of Belgium) higher in primary education.

The share of primary teachers fulfilling their lesson aims across all seven areas tend to be higher in privately managed schools compared to publicly managed schools (Table 2.22). In Morocco and Türkiye, the share of primary teachers who meet their lesson aims is 10 percentage points higher in privately managed schools.

The difference in the share of primary teachers fulfilling their lesson aims between socio-economically disadvantaged and advantaged schools (in favour of advantaged schools) ranges from 6 percentage points in the French Community of Belgium to 11 percentage points in Spain.

Well-being

Teacher well-being in primary education has decreased since 2018 (Table 2.4). In Australia[a], France and Japan, the share of primary school teachers experiencing "a lot" of stress in their work increased by more than 5 percentage points between 2018 and 2024. In Australia[a], Japan and Korea, the share

of primary school teachers reporting that their job negatively impacted their mental or physical health has increased by more than 5 percentage points during the same period. The only exception is the United Arab Emirates, where teacher well-being in primary education has increased since 2018.

Teacher stress levels in primary education do not tend to vary by school intake of students from socio-economically disadvantaged homes (Table 2.23). Yet, in the French Community of Belgium, the share of teachers in disadvantaged schools who report a high level of work-related stress is 6 percentage points higher compared to teachers in advantaged schools.

Job satisfaction

In Australia[a], France, Japan, Korea and Spain, primary school teachers' satisfaction with the teaching profession has decreased since 2018 (Table 2.7). In Korea, the share of teachers who report regretting their decision to become a teacher has increased by 20 percentage points since 2018. In the Netherlands* and the United Arab Emirates, however, teacher job satisfaction among primary teachers has increased during the same period.

Note: [a] Estimates for TALIS 2018 and the change between TALIS 2018 and TALIS 2024 should be interpreted with caution due to higher risk of non-response bias.

In Bahrain, Costa Rica and the United States, the share of teachers in publicly managed schools who report a high level of work-related stress is between 13 and 17 percentage points higher compared to teachers teaching in privately managed schools (Table 2.23). In Austria, Costa Rica and South Africa, the share of teachers in urban schools who report high levels of work-related stress is at least 10 percentage points higher compared to their colleagues working in rural schools (Table 2.23).

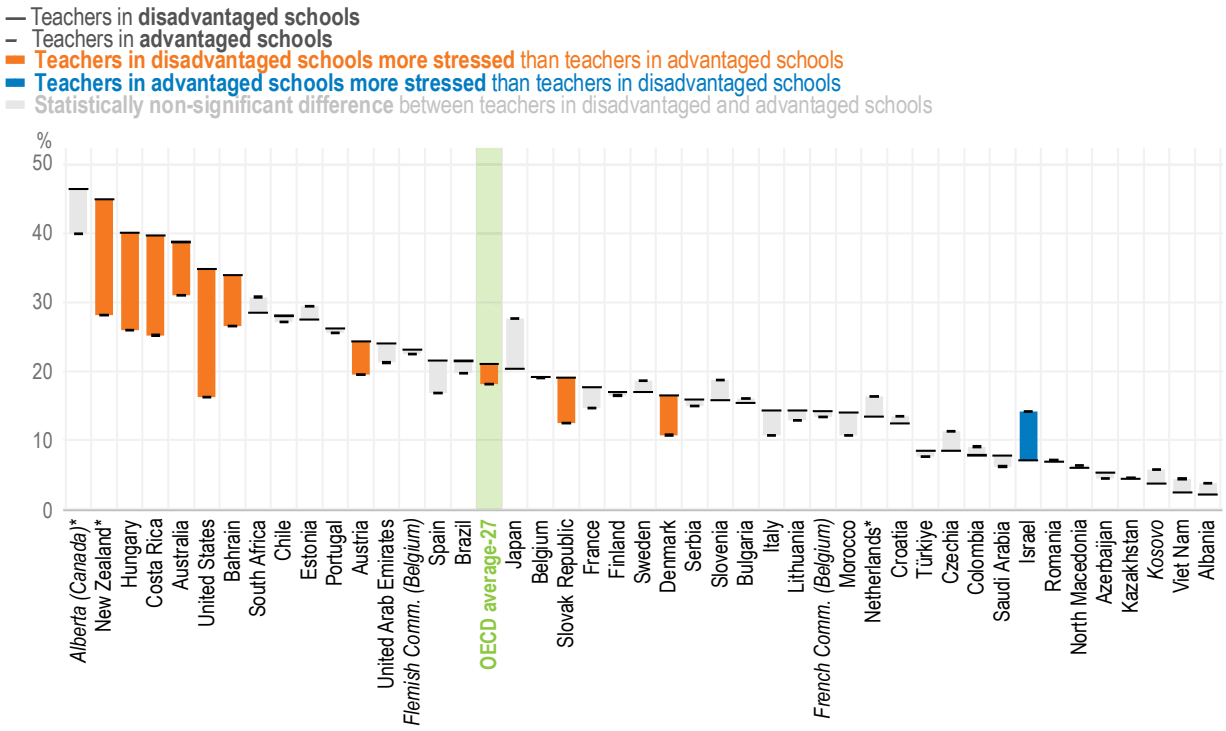
In Costa Rica, Hungary, New Zealand* and the United States, the share of teachers in disadvantaged schools who report a high level of work-related stress is between 14 and 19 percentage points higher compared to teachers in advantaged schools (Figure 2.8). In addition, in some education systems, such as New Zealand*, novice teachers, who tend to be less equipped to maintain discipline in the classroom, are more likely to work in disadvantaged schools (Chapter 1 and Table 1.11). It is only in Israel that teachers working in advantaged schools are more likely to report being stressed than their colleagues teaching in disadvantaged schools (Table 2.23). This might be partly explained by the fact that, in Israel, the share of novice teachers in advantaged schools is higher than in disadvantaged schools, which is uncommon internationally (Chapter 1 and Table 1.11).

The differences in teachers' work-related stress levels by school characteristics have not changed substantially since 2018 in most education systems (Tables 2.24, 2.25 and 2.26). However, there are exceptions to the general pattern:

- In Colombia, the share of teachers experiencing stress "a lot" was 13 percentage points higher in urban schools compared to rural schools in 2018. Based on TALIS 2024 data, teachers' work-related stress levels are similar across urban and rural schools (Table 2.24).
- In Estonia, the share of teachers experiencing stress "a lot" was 9 percentage points higher in publicly managed schools than in privately managed schools in 2018. This gap between publicly and privately managed schools is no longer observed according to TALIS 2024 data (Table 2.25).
- In New Zealand*, there was no statistically significant difference in the share of teachers experiencing stress "a lot" between advantaged and disadvantaged schools in 2018. Based on TALIS 2024 results, the share of teachers experiencing stress "a lot" is 17 percentage points higher in disadvantaged schools than in advantaged schools (Table 2.26).

Figure 2.8. Teacher stress, by school intake of socio-economically disadvantaged students

Percentage of lower secondary teachers who report experiencing stress “a lot” in their work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Advantaged schools refer to those with 10% or fewer students from socio-economically disadvantaged homes. Disadvantaged schools refer to those with more than 30% of students from socio-economically disadvantaged homes.
Source: OECD, *TALIS 2024 Database*, Table 2.23.

On average, the share of teachers “agreeing” or “strongly agreeing” that, all in all, they are satisfied with their jobs tend to be higher in rural schools, privately managed schools, advantaged schools and schools with no students who have difficulties understanding the language(s) of instruction (Table 2.27). Satisfied teachers tend to have higher self-efficacy (OECD, 2020[39]; 2014[40]) and are less likely to leave the profession (Canrinus et al., 2011[57]; Carver-Thomas and Darling-Hammond, 2017[58]; Whipp and Geronime, 2015[59]; Ingersoll, 2001[31]), which suggests that challenging environments in some countries might lead to difficulty in securing an adequate supply of teachers.

In most education systems, the differences in teacher job satisfaction by school characteristics remained similar between 2018 and 2024 (Tables 2.28, 2.29 and 2.30). Yet, there are some exceptions. In Alberta (Canada)* and Estonia, the share of teachers who are, all in all, satisfied with their jobs was not statistically significantly different between urban and rural schools in 2018. Based on TALIS 2024 results, however, a higher share of teachers report being satisfied with their jobs in rural schools than in urban schools (Table 2.28).

Box 2.4. Teachers' professional outcomes in upper secondary education

Fulfilment of lesson aims

Teachers in upper secondary education are less likely to fulfil their lesson aims than their colleagues in lower secondary education. Approximately 50% of upper secondary teachers meet their lesson aims across all seven areas covered by TALIS, on average, ranging from 79% in Saudi Arabia to 25% in Denmark (Table 2.1). Lesson goals related to adapting teaching to the different needs of students, supporting students' social and emotional learning, and classroom management are less likely to be achieved in upper secondary education. The share of teachers meeting lesson aims related to these areas is lower in upper secondary education compared to lower secondary education in Croatia, Denmark, the Flemish Community of Belgium, Slovenia and Türkiye.

In Portugal, Saudi Arabia and Türkiye, the share of upper secondary teachers fulfilling their lesson aims across all seven areas is higher in privately managed schools than in publicly managed schools (Table 2.22). The opposite pattern is observed in the United Arab Emirates.

Well-being

Teacher stress in upper secondary education has decreased between 2018 and 2024 in Denmark, Portugal and the United Arab Emirates (Table 2.4). Moreover, in Denmark, the share of upper secondary teachers reporting that their job leaves "a lot" of time for their personal lives increased by 8 percentage points during the same period.

Job satisfaction

Upper secondary teachers are more likely to report that the advantages of being a teacher clearly outweigh the disadvantages and that, if they could decide again, they would still choose to work as teachers (Table 2.6). In Croatia, Denmark and Slovenia, the share of teachers agreeing with these statements is over 5 percentage points higher among upper secondary teachers compared to lower secondary teachers. Since 2018, the share of upper secondary teachers reporting that the advantages of being a teacher clearly outweigh the disadvantages has increased in Denmark, Türkiye and the United Arab Emirates, while it has decreased in Slovenia (Table 2.7).

Teachers' personal resources and their professional outcomes

Contrary to teacher characteristics, which are more easily observable, teachers' personal resources are defined as employees' capacities to influence their work environment (Collie et al., 2020[60]) and as beliefs about the degree of control they have over it (Bakker and Demerouti, 2017[61]). Personal resources can increase employee engagement and help in achieving positive professional outcomes (Bakker and Demerouti, 2017[61]; Collie et al., 2020[60]).

TALIS 2024 collected information about teacher self-efficacy, motivation and teachers' beliefs about growth mindset. This section explores the extent to which teachers' professional outcomes vary in relation to their self-efficacy and beliefs about growth mindset. Motivation is examined in relation to career intentions in Chapter 7.

Self-efficacy

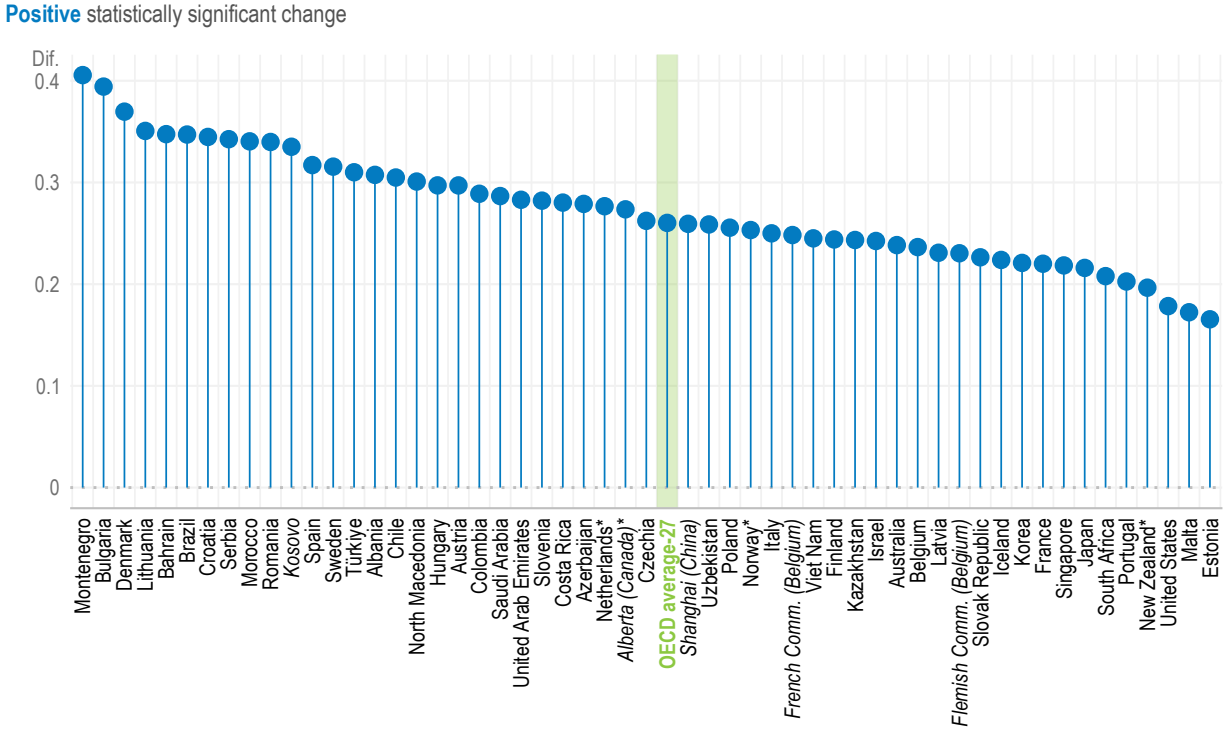
Self-efficacy reflects individuals' beliefs in their ability to perform tasks. Higher teacher self-efficacy is linked to better pedagogical practices, instructional quality (Holzberger, Philipp and Kunter, 2013[62]), and

improved student outcomes (Caprara et al., 2006[63]; Woolfolk Hoy and Davis, 2006[64]). TALIS views teacher self-efficacy as multidimensional, assessing the extent to which teachers can perform goal-oriented actions and focusing on three key areas: classroom management, instruction and student engagement.

As described in Chapter 1, teachers with higher self-efficacy tend to be older, more experienced, and have higher educational attainment, although exceptions exist across countries (see Chapter 1, Table 1.22). Gender differences are minimal overall, with female teachers slightly more represented, except in Japan, where male teachers lead.

Figure 2.9. Relationship between teacher job satisfaction and self-efficacy

Change in the scale of lower secondary teachers' job satisfaction[1] associated with an increase in the scale of self-efficacy[1,2]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and self-efficacy.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. Teacher characteristics include gender, age (standardised at the international level) and years of teaching experience (standardised at the international level). School characteristics include school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.
Source: OECD, *TALIS 2024 Database*, Table 2.35.

Regression analyses indicate that there is a positive association between teacher self-efficacy and teachers' fulfilment of their lesson aims regarding teaching clarity, cognitive activation, feedback, support for consolidation and adapting teaching to the different needs of students in all education systems

(Table 2.31). Notably, teachers who believe they can help every student progress "quite a bit" or "a lot" are four times more likely to report fulfilling their lesson aims regarding adaptive teaching, on average (Table 2.32). This relationship holds while controlling for teacher and school characteristics. Similarly, teachers who believe they can support students' social and emotional learning "quite a bit" or "a lot" are six times more likely to meet their lesson aims regarding adaptive teaching (Table 2.33).

TALIS 2024 data also show that teacher self-efficacy is positively associated with well-being (Table 2.34) and job satisfaction (Figure 2.9), after accounting for teacher and school characteristics. These findings are in line with research showing that teachers with high self-efficacy show higher job satisfaction and commitment, and are less likely to be affected by burnout (Avanzi et al., 2013[65]; Chesnut and Burley, 2015[66]; Klusmann et al., 2008[67]; Skaalvik and Skaalvik, 2010[68]).

Beliefs about growth mindset

Growth mindset refers to the belief that intelligence is malleable and can be developed through effort, perseverance and support from others (Dweck and Yeager, 2019[69]). A person with a growth mindset is more likely to embrace challenges and learn from setbacks than someone with a fixed mindset (Dweck, 2016[70]). A growth mindset is not a fixed trait. Most people hold both growth and fixed beliefs, which evolve over time (Dweck, 2016[71]). Research shows that teachers' beliefs in growth mindset can improve students' academic achievement, particularly for students at risk of falling behind (Bostwick et al., 2020[72]; Claro, 2021[73]; Dweck, 2010[74]). Results from the 2018 round of the Programme for International Student Assessment (PISA) suggest that teachers play a key role in fostering environments that support growth mindset and in providing ongoing guidance and feedback to aid student learning (OECD, 2021[75]).Based on Dweck's (2016[70]) model of two mindsets (fixed versus growth mindsets), TALIS 2024 asked teachers whether they believe that intelligence is not malleable and cannot be developed (i.e. fixed mindset) or the opposite (i.e. growth mindset).[5] Results show:

- Around four in five teachers on average "strongly disagree" or "disagree" with the statement that people's intelligence is something about them that they cannot change very much, ranging from less than 55% in Azerbaijan, Czechia, Kosovo, Montenegro, North Macedonia, Shanghai (China), South Africa and Viet Nam to over 90% in Australia, Chile, New Zealand* and the United States (Table 2.36).
- Similarly, around four in five teachers on average "strongly disagree" or "disagree" with the statement that everyone has a certain amount of intelligence and no one can really do much to change it (Table 2.36). However, in Lithuania, Montenegro, Shanghai (China), South Africa, Uzbekistan and Viet Nam, more than half of teachers share this view.
- Two out of three teachers on average "strongly disagree" or "disagree" with the statement that someone can learn new things, but people cannot really change their basic intelligence, ranging from below 40% in Czechia and Shanghai (China) to 85% in Chile and New Zealand* (Table 2.36).

The PISA 2022 results on 15-year-old students' growth mindsets show patterns similar to those found in the TALIS 2024 data for teachers, suggesting that beliefs in growth mindset may reflect broader cultural influences rather than being unique to teachers (OECD, 2024[76]; 2021[75]). Singapore and South Africa offer examples of how growth mindset principles can be embedded more broadly within an education system (Box 2.5).

Box 2.5. Supporting teachers' beliefs in growth mindset

Singapore

The belief that all students can learn and grow is a core professional value reflected in the Ethos of the Teaching Profession. This value is introduced early through the Ministry of Education's Introduction to Teaching Programme, which familiarises recruits with growth mindset principles before they enter the National Institute of Education (NIE).

NIE's Teacher Education Model for the 21st Century (TE21) emphasises reflection, adaptability and lifelong learning – traits aligned with a growth mindset. Student teachers build this mindset by curating digital portfolios that promote self-directed learning and critical reflection.

By embedding these principles in teacher preparation, Singapore fosters a culture where teachers model lifelong learning and demonstrate their belief in every student's potential.

South Africa

The Western Cape (South Africa) Education Department's "Transform to Perform" strategy aims to foster a growth mindset among students, teachers, non-teaching staff and school leaders. Alongside various resources – such as videos, FAQ sheets and implementation guides – the department has partnered with registered neuro-linguistic practitioners to deliver teacher training. The first training interventions were launched in 2020, with a goal of reaching over 20 000 educators within 4 years.

Source: NIE (n.d.[77]), *Three competency dimensions*, https://www.ntu.edu.sg/nie/about-us/programme-offices/office-of-teacher-education-and-undergraduate-programmes/te21/three-competency-dimensions; Jacovidis et al. (2020[78]), *Growth Mindset Thinking and Beliefs in Teaching and Learning*, https://inflexion.org/growth-mindset-thinking-and-beliefs-in-teaching-and-learning/; WCED (n.d.[79]), *Change Mindset*, https://wcedonline.westerncape.gov.za/change-mindset-cm-teachers.

The meta-analysis by Bardach et al. (2024[80]) indicates a positive association between teachers' beliefs in a growth mindset and their self-efficacy. Indeed, TALIS 2024 data show that teachers who endorse a growth mindset tend to report higher self-efficacy in student engagement, instruction, and overall, in over half of the education systems and on average. The association remains even after accounting for teacher and school characteristics (Tables 2.41, 2.42 and 2.44).

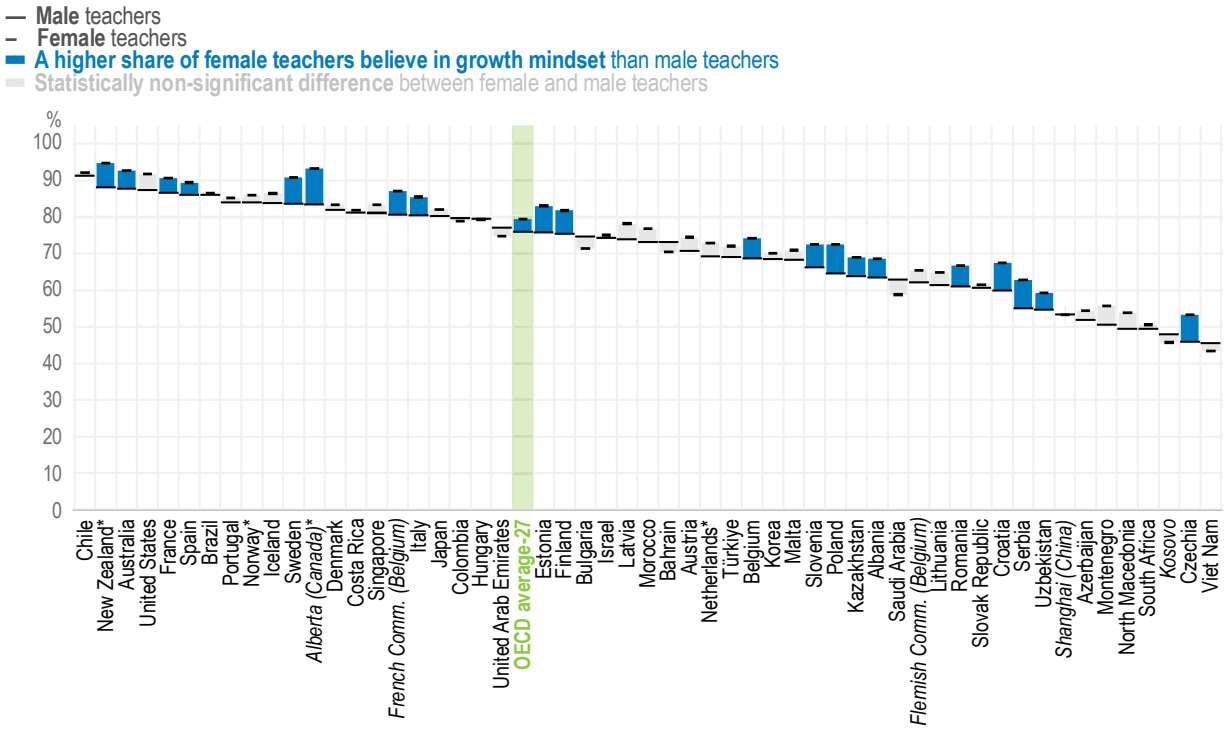
Regression analyses also indicate that teachers' beliefs in growth mindset relate differently to teacher well-being than to job satisfaction. While in most education systems, teachers' beliefs in growth mindset are not associated with teacher well-being, it is positively related to job satisfaction in around half of the education systems (Tables 2.39 and 2.40).

On average, belief in growth mindset is more prevalent among female teachers than male teachers and teachers under age 30 compared to their older peers (i.e. aged 50 or above) (Table 2.37). Furthermore:

- In Alberta (Canada)*, Poland and Serbia, the share of male teachers who "strongly disagree" or "disagree" with the statement that people's intelligence is something about them that they cannot change very much is between 8 and 10 percentage points lower compared to their female colleagues (Figure 2.10).
- In Azerbaijan, Lithuania and Uzbekistan, the share of teachers aged 50 and above disagreeing with the same statement is more than 14 percentage points lower compared to their peers under age 30.

Figure 2.10. Teachers' beliefs about growth mindset, by gender

Percentage of lower secondary teachers who “strongly disagree” or “disagree” that people’s intelligence is something about them that they cannot change very much



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 2.37.

Demands on teachers and their professional outcomes

Job demands include all physical, social or organisational aspects of a job that require sustained effort and are linked to physiological and psychological costs (Demerouti et al., 2001[81]). This report considers the following factors covered by the TALIS questionnaire under teachers’ sources of stress (“not at all”; “to some extent”; “quite a bit”; “a lot”) as demands that teachers face:

- workload
- adapting teaching to diverse learning needs
- maintaining discipline
- accountability
- keeping up with reforms.

This section explores the extent to which demands on teachers are related to their self-reported ability to fulfil lesson aims, as well as their well-being and job satisfaction. Chapter 3 examines how teachers experience demands across and within education systems.

The results presented in this section are based on linear regression analyses, which provide insights into how the scale scores of teachers’ professional outcomes change when teachers report a source of stress, while teacher and school characteristics included in the models are held constant. Teachers’ professional outcomes are measured in TALIS using scales, which combine information from teachers’ answers to

batteries of questions. The resulting scales – except for composite scales[6] that combine different scales – are standardised to have a standard deviation of two across all education systems participating in TALIS and where value 10 corresponds to the item mid-point value of the response scale.[7]

Demands and fulfilment of lesson aims

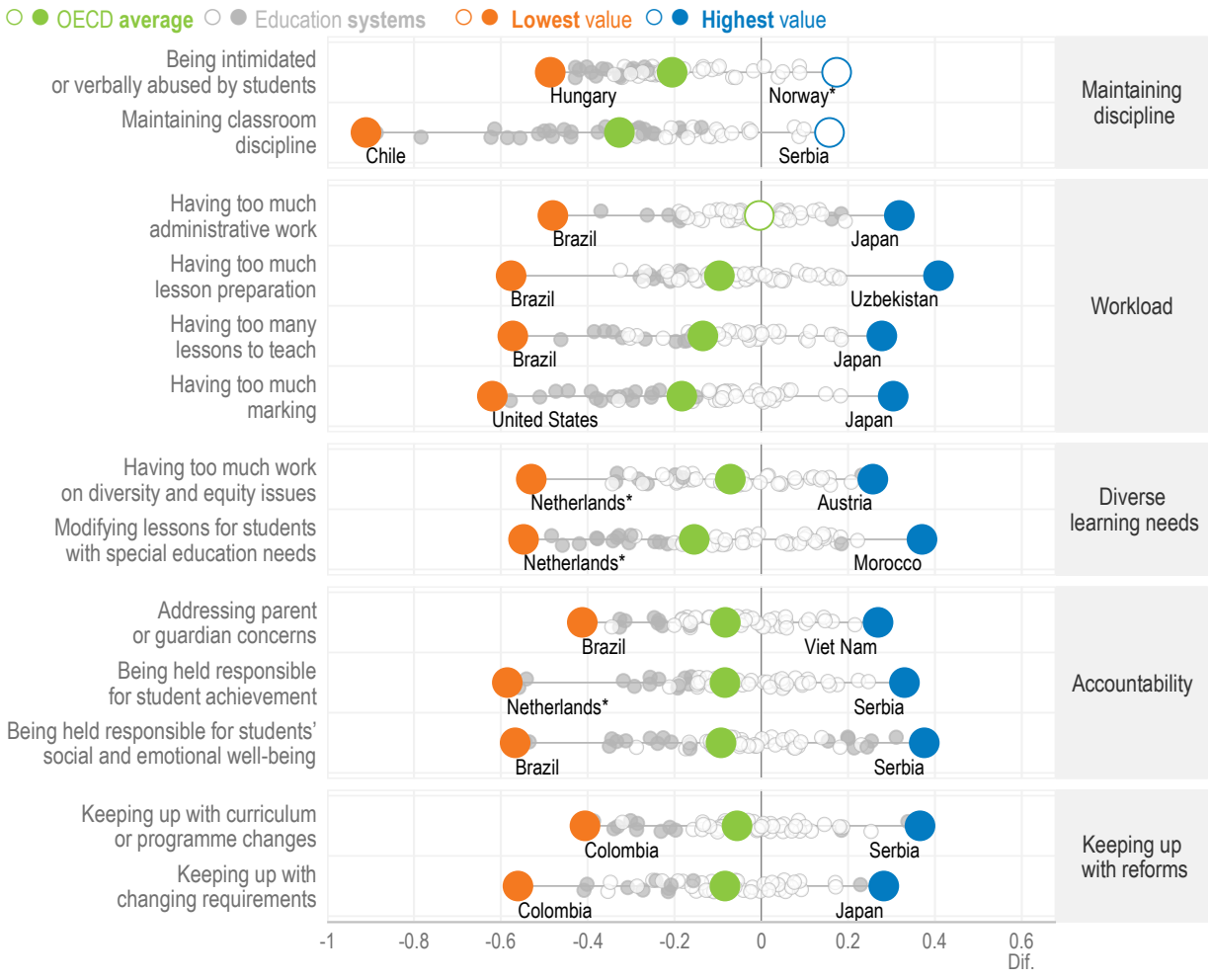
Regression analyses indicate that maintaining discipline might matter the most for teachers to meet their lesson aims. Maintaining classroom discipline and being intimidated or verbally abused by students are negatively associated with teachers' fulfilment of their lesson aims (regarding teaching clarity, cognitive activation, feedback, support for consolidation, and adapting teaching to the different needs of students) across most education systems, after accounting for teacher and school characteristics (Figure 2.11). For instance, in Hungary, teachers who report being intimidated or verbally abused by students as a source of stress "quite a bit" or "a lot" tend to report lower fulfilment of their lesson aims (i.e. associated with a decrease of around 30% of a standard deviation in the scale of fulfilment of lesson aims). In Chile, teachers who report maintaining classroom discipline as a source of stress "quite a bit" or "a lot" also tend to report lower fulfilment of their lesson aims – equivalent to almost 50% of a standard deviation decrease. In no education system, including Norway* and Serbia, is fulfilling lesson aims positively associated with the sources of stress of keeping order in class or being verbally abused by students.

These findings suggest that disruption can reduce instructional time, making it harder to achieve lesson goals. At the same time, not meeting lesson aims can also lead to more behavioural issues among students, which in turn can increase teacher stress.

In many education systems, reporting excessive workload, adapting teaching to diverse learning needs, accountability and keeping up with reforms as sources of stress "quite a bit" or "a lot" is not related to the fulfilment of lesson aims (Figure 2.11). In some, they are even positively related. For example, as shown on Figure 2.11, in Uzbekistan, teachers who report having too much lesson preparation as a source of stress "quite a bit" or "a lot" also tend to report higher fulfilment of their lesson aims (i.e. associated with an increase of 20% of a standard deviation in the scale of fulfilment of lesson aims). Stress from lesson preparation may reflect the significant effort teachers invest in preparation and planning, which in turn can support their ability to meet their lesson goals. In Viet Nam, teachers who report addressing parents' and guardians' concerns as a source of stress "quite a bit" or "a lot" tend to report higher fulfilment of their lesson aims – equivalent to almost 15% of a standard deviation increase. This suggests that accountability might help teachers fulfil their lesson aims if implemented properly.

Figure 2.11. Relationship between the demands on teachers and the fulfilment of their lesson aims

Change in the scale of lower secondary teachers' fulfilment of lesson aims[1] associated with encountering the following as sources of stress "quite a bit" or "a lot" at work[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between fulfilment of lesson aims and sources of stress, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "not at all" and "to some extent".
3. Results based on 13 separate linear regression analyses, showing the change in the scale of fulfilment of lesson aims associated with a one-unit increase in the explanatory variable. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs). Results refer to lessons taught over the week preceding the survey to a class randomly selected from teachers' current weekly timetables.
Source: OECD, *TALIS 2024 Database*, Table 2.45.

Demands and well-being

Regression analyses indicate that maintaining discipline, workload, adapting teaching to diverse learning needs and accountability might be more closely associated with teacher well-being than keeping up with reforms (Figure 2.12). These relationships hold in all education systems, after accounting for teacher and school characteristics. As shown on Figure 2.12, on average, teacher well-being decreases by less than 60% of a standard deviation, as measured by the scale of workplace well-being and stress, when teachers

report keeping up with changing requirements or with curriculum or programme changes as sources of stress "quite a bit" or "a lot". Teacher well-being tends to decrease by a greater extent, on average, when teachers report other sources of stress covered by TALIS. These findings suggest that maintaining discipline, workload, adapting teaching to diverse learning needs and accountability may have a more direct link with teachers' well-being, while reforms are more abstract and episodic, making them less taxing on well-being.

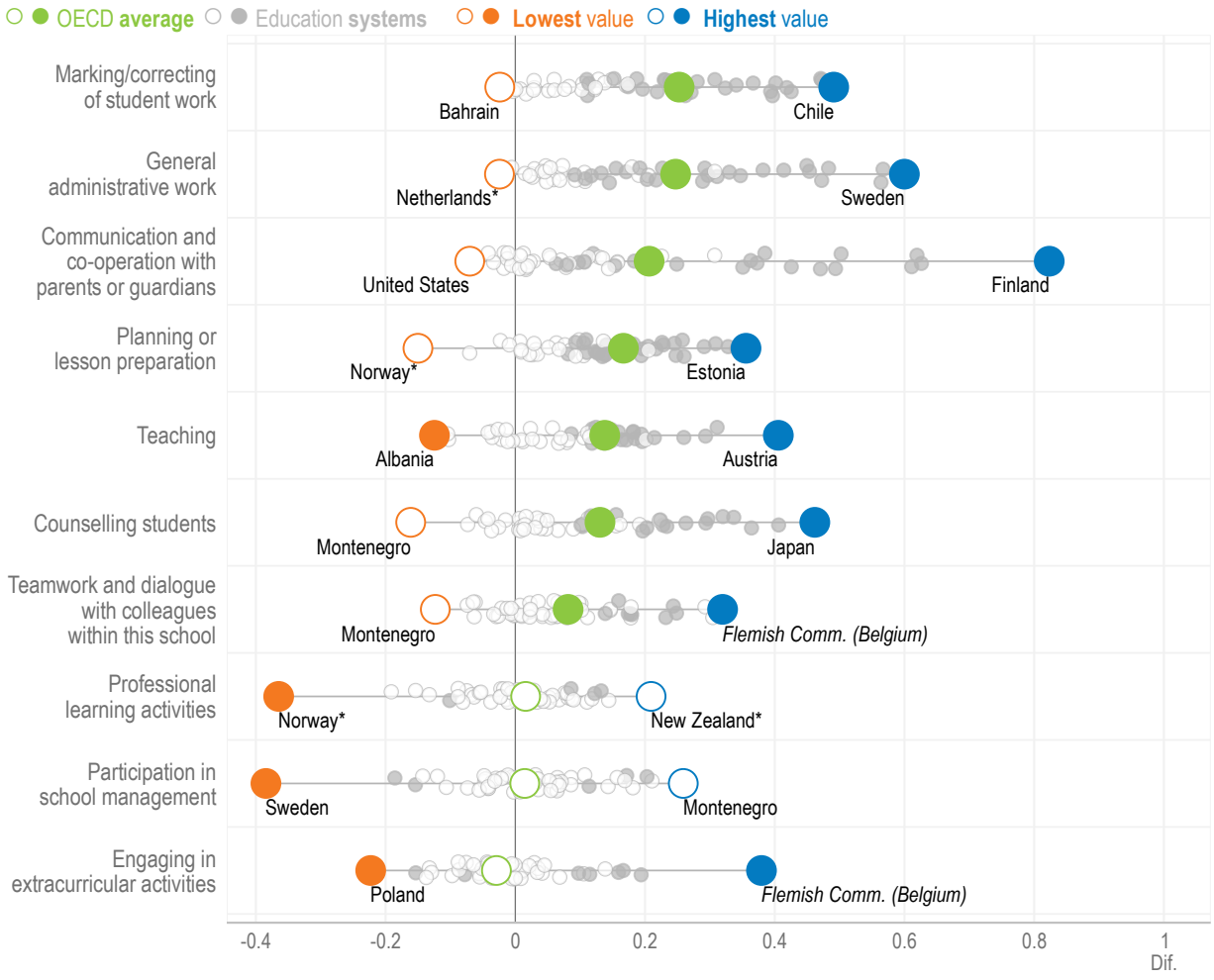
Figure 2.12. Relationship between the demands on teachers and their well-being

Change in the scale of lower secondary teachers' workplace well-being and stress[1] associated with encountering the following as sources of stress "quite a bit" or "a lot" at work[2,3]

Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between worse workplace well-being and sources of stress, while those below 0 reflect a negative relationship.
1. Higher values on the workplace well-being and stress scale reflect lower levels of well-being. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "not at all" and "to some extent".
3. Results based on 13 separate linear regression analyses, showing the change in the scale of workplace well-being and stress associated with encountering specific sources of stress "quite a bit" or "a lot" at work. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Table 2.46.

Figure 2.13. Relationship between teacher well-being and task intensity

Change in the scale of lower secondary teachers' workplace well-being and stress[1] associated with an increase in the hours full-time teachers report having spent on the following activities during the most recent complete calendar week[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between worse workplace well-being and weekly working hours, while those below 0 reflect a negative relationship.
1. Higher values on the workplace well-being and stress scale reflect lower levels of well-being. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
2. Weekly working hours standardised at the international level.
3. Results based on ten separate linear regression analyses, showing the change in the scale of workplace well-being and stress associated with a one standard deviation increase in weekly working hours spent on specific tasks. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Table 2.47.

Regression analyses focusing on full-time teachers show that, in comparison to teaching, lesson preparation, student counselling and other tasks, teacher well-being decreases most with additional time spent on administrative tasks, marking and communicating with parents (Figure 2.13). On average, a one standard-deviation increase in hours spent on marking, administrative tasks or communicating with parents by full-time teachers is associated with over a 10% standard deviation decrease in teacher well-being, as measured by the workplace well-being and stress scale. An increase of similar magnitude in hours spent on teaching or lesson preparation is associated with around 8% of a standard deviation decrease in teacher well-being. In contrast, time spent on professional learning activities, school management, or extracurricular activities is not statistically significantly associated with teacher well-being.

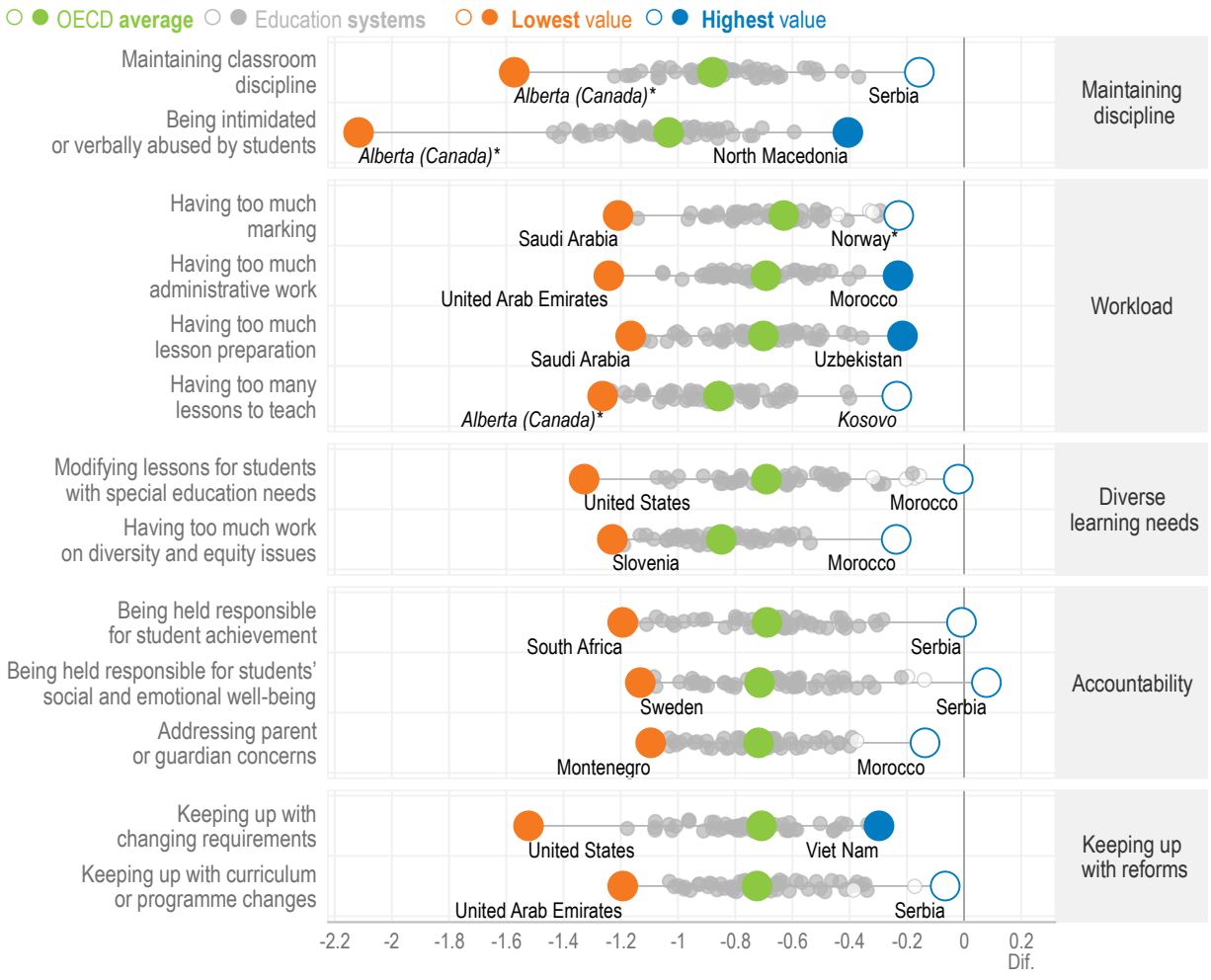
On average, teachers spend most of their time on teaching (23 hours per week) and lesson preparation (7 hours per week) (Chapter 3 and Table 3.10). However, as shown on Figure 2.13, an additional hour spent on administrative tasks, marking or communicating with parents, is associated with a steeper decrease in teacher well-being. Thus, even small increases in time spent on these non-teaching tasks – like administration, marking, or parent communication – can lead to lower teacher well-being.

Demands and job satisfaction

Regression analyses suggest that maintaining discipline, in particular being intimidated or verbally abused by students, might be more closely associated with job dissatisfaction than workload, adapting teaching to diverse learning needs, accountability and keeping up with reforms (Figure 2.14). On average, teachers who report being intimidated or verbally abused by students as a source of stress “quite a bit” or “a lot” tend to report lower job satisfaction (i.e. associated with a decrease of 50% of a standard deviation in the scale of job satisfaction). The negative relationship between maintaining discipline and job satisfaction holds in all education systems, after accounting for teacher and school characteristics. Supporting teachers in managing disciplinary issues is therefore an important way to help maintain their overall high job satisfaction.

Figure 2.14. Relationship between demands on teachers and their job satisfaction

Change in the scale of lower secondary teachers' job satisfaction[1] associated with encountering the following as sources of stress "quite a bit" or "a lot" at work[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between job satisfaction and sources of stress, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "not at all" and "to some extent".
3. Results based on 13 separate linear regression analyses, showing the change in the scale of teacher job satisfaction associated with encountering specific sources of stress "quite a bit" or "a lot" at work. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Table 2.48.

Table 2.1. Chapter 2 figures

Figure 2.1		Teachers' fulfilment of their lesson aims
Figure 2.2		Teacher well-being
Figure 2.2 (ISCED 1)	WEB	Teacher well-being
Figure 2.2 (ISCED 3)	WEB	Teacher well-being
Figure 2.3		Change in teacher stress, from 2018 to 2024
Figure 2.3 (ISCED 1)	WEB	Change in teacher stress, from 2018 to 2024
Figure 2.3 (ISCED 3)	WEB	Change in teacher stress, from 2018 to 2024
Figure 2.4		Teacher job satisfaction
Figure 2.4 (ISCED 1)	WEB	Teacher job satisfaction
Figure 2.4 (ISCED 3)	WEB	Teacher job satisfaction
Figure 2.5		Change in teachers' satisfaction with the profession, from 2018 to 2024
Figure 2.5 (ISCED 1)	WEB	Change in teachers' satisfaction with the profession, from 2018 to 2024
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Notes

[1] Refers to lessons taught over the week preceding the survey to a class randomly selected from teachers' current weekly timetables.

[2] The scale of fulfilment of lesson aims (complexity of teaching) (T4FULFIL) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following aims were fulfilled in the past week (TT4G58): "Presenting the content in a comprehensible way"; "Engaging students in work that challenges them"; "Providing students with feedback to support their learning "; "Offering students opportunities to practise what they learned"; "Adapting teaching to meet the different needs of students". Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale.

[3] Higher values on the workplace well-being and stress scale reflect lower levels of well-being. The scale of workplace well-being and stress (T4WELS) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following situations occur (TT4G76): "I experience stress in my work"; "My job leaves me time for my personal life"; "My job negatively impacts my mental health"; "My job negatively impacts my physical health". Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale.

[4] The scale of job satisfaction overall (T4JOBSAT) was constructed as an average of the two subscales: job satisfaction with profession (T4JSPROT) and job satisfaction with work environment (T4JSENVT). Standardised scale scores with a standard deviation of 2 and a mean of 10. The scale of job satisfaction with profession (T4JSPROT) was constructed using teacher responses ("strongly disagree", "disagree", "agree", "strongly agree") about the following statements related to how they feel about their job (TT4G78): "The advantages of being a teacher clearly outweigh the disadvantages"; "If I could decide again, I would still choose to work as a teacher"; "I regret that I decided to become a teacher"; "All in all, I am satisfied with my job". The scale of job satisfaction with work environment (T4JSENVT) was constructed using teacher responses ("strongly disagree", "disagree", "agree", "strongly agree") about the following statements related to how they feel about their job (TT4G78): "I would like to change to another school if that were possible"; "I enjoy working at this school"; "I would recommend this school as a good place to work".

[5] It is important to note that the TALIS instrument does not allow respondents who have no opinion about the mindsets to opt out. Moreover, the way the TALIS instrument measures beliefs in fixed versus growth mindset may be affected by: 1) acquiescence bias – the tendency to agree regardless of content; and 2) measurement error, as high cognitive load increases random responses (OECD, 2021[75]).

[6] There are two composite scales at the teacher level: the scale of self-efficacy (overall) (T4SELF) and the scale of job satisfaction (overall) (T4JOBSAT). These two scales are standardised to have a standard deviation of two across all education systems participating in TALIS and a mean of 10.

[7] While the annex tables present regression coefficients, the text mostly expresses the estimated associations in terms of standard deviation changes in the scale (this is done by simply dividing the estimated coefficient by 2). This is meant to facilitate interpretation, as all associations are expressed on the same metric. For more information on the scales, see Annex B.

3 The demands of teaching

This chapter examines teachers' working conditions, focusing on how they perceive the demands of teaching. It examines which teachers are more likely to report stress as a proxy for perceived workload challenges and demands, particularly in relation to workload, classroom discipline, student diversity, system-level change and teacher appraisal. The chapter explores how these reported challenges vary according to teacher characteristics, particularly years of experience and levels of confidence or self-efficacy. It provides a comparative picture of which teachers face the most demanding teaching contexts.

Highlights

- **Administrative workload remains a considerable demand for teachers.** On average across OECD education systems, about half of teachers report excessive administrative work as a source of work-related stress, particularly those with more than ten years of experience. However, in Colombia and Singapore, more novice teachers report this as a source of stress.
- **Even though administrative time has decreased in only 3 education systems since 2018, related stress shows different patterns.** In 18 education systems, teachers' reports of excessive administrative work as a source of stress have increased since 2018, but in only 9 of those education systems did time spent on administrative work increase. Conversely, in 11 education systems, the share of teachers who believe that administrative work is a source of stress has decreased even though the time spent on such tasks has not changed or even increased.
- **Adapting teaching to student diversity of needs – not academic differences – is consistently related to teacher stress.** Teachers are more likely to report stress related to classroom discipline when student diversity involves behavioural, linguistic, or special education needs, rather than when it involves academic differences (e.g. mixing low and high achievers). While this pattern holds for most education systems, no link is found in others, including those in Finland, Iceland, Israel, the Netherlands*, New Zealand*, Norway* and Sweden.
- **About one in five teachers report experiencing significant disruptive noise and disorder in their classrooms,** on average across OECD education systems, and the share of time spent on maintaining discipline has increased in almost all education systems since 2018. In 2024, more than 50% of teachers in Brazil report such challenges, and just over 33% of teachers in Chile, Finland, Portugal and South Africa do so. In contrast, fewer than 5% of teachers in Albania, Japan and Shanghai (China) report facing such disciplinary issues. Novice teachers report more classroom disruptions than their experienced colleagues in nearly all education systems.
- **Younger teachers (under 30) consistently report working in the most diverse classrooms**. Younger teachers are more likely to report working with students who have language difficulties, special education needs, and behavioural challenges than their older peers. In some education systems, these differences exceed 15-20 percentage points, including Colombia, Italy, Israel, Latvia, New Zealand* and Portugal.
- **Teachers' sources of stress are more closely linked to constant, unsupported change than to resource shortages.** While understaffing or lack of resources can be a source of stress, TALIS 2024 finds no consistent relationship across education systems between reported stress and structural resource gaps. Instead, stress is more strongly associated with the experience of constant, unsupported change – particularly when teachers feel overwhelmed by frequent initiatives or are asked to implement reforms without adequate support.
- **Teacher appraisal focuses on development, but formative support varies widely.** While teacher appraisal is widespread, what happens afterwards differs greatly. On average across OECD education systems, 65% of teachers are engaged in post-appraisal discussions about how to improve their teaching. Approximately 46% are offered development or training plans, but this ranges from under 15% in Iceland and Norway* to over 90% in Bahrain and Kazakhstan. Mentorship and financial incentives remain relatively rare (20% and 12%, respectively), and sanctions are even less common (below 3%).

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Introduction

Like all professions, teachers face a wide range of changing demands. They have to teach lessons, carry out administrative tasks, adapt to changing student populations, maintain classroom discipline, meet a wide range of learning needs, be held accountable for student performance, and keep up with changes in the profession. Job demands are considered as physical, social, or organisational aspects of work that require sustained effort and may lead to physiological or psychological strain (Demerouti et al., 2001[1]). Work-related stress is often conceptualised as an imbalance between job demands and the resources available to meet those demands. In other words, teachers may experience stress when what is expected of them outweighs the support, time, skills or coping mechanisms available to them.

How teachers respond to these demands depends on several factors. The confidence teachers feel in their work, both in teaching and managing their classrooms, can influence how they perceive professional demands. Another important related factor to assess is the amount of experience they have, which is closely tied to self-efficacy (see Chapter 1). Other elements to consider are the volume (how much there is) and the nature (the type of task) of the demands, and whether they have sufficient resources to cope. If teachers feel less confident and face high workloads, a diverse range of classroom needs, or high-stakes accountability pressures without adequate support, these demands can accumulate, undermining teachers' well-being and eroding their practice. On the other hand, if demands are coupled with higher confidence and relevant support, teachers can improve and meet rising expectations (Bakker and Demerouti, 2017[2]; Crawford, LePine and Rich, 2010[3]).

This chapter examines how often teachers report different demands as sources of stress. While stress is a common occurrence in any professional environment, identifying the sources of stress can help pinpoint where demands are not being met with sufficient support. By comparing data from previous cycles of the Teaching and Learning International Survey (TALIS), this chapter also looks at whether there have been changes in the perception of these demands as sources of stress.

Based on the findings presented in Chapter 2, which highlight the positive and strong relationship between self-efficacy and professional outcomes, this chapter begins by examining the relationship between self-efficacy and teachers' reports of two types of job demands: workload and maintaining classroom discipline. It then delves into teachers' reports on these areas in more detail, as well as their experiences with teaching students with diverse learning needs, teacher accountability, and keeping pace with reforms in the profession.

Self-efficacy and job demands

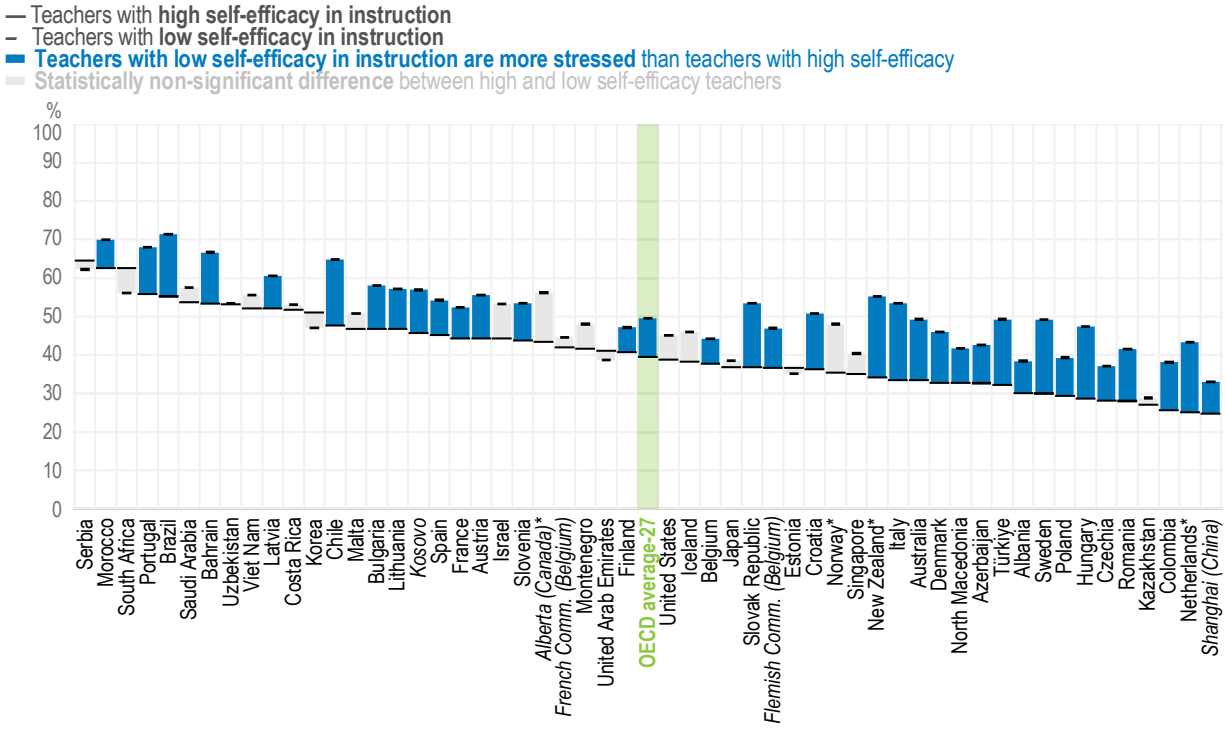
Teacher self-efficacy refers to a teacher's belief in their ability to perform specific teaching-related tasks effectively. It reflects their perceived competence in various professional practice domains, such as instruction and classroom management. These beliefs can be interpreted as teachers' confidence in their ability to manage their classrooms, deliver lessons and deal with the challenges of teaching.

As shown in Chapter 2, teachers reporting higher self-efficacy are also more likely to report greater job satisfaction, well-being and lower stress. Recent studies support these findings, showing that teachers with strong self-belief are more engaged and resilient (Skaalvik and Skaalvik, 2017[4]; Çetin, Frank and Jennings, 2024[5]). Research also highlights the relevance of self-efficacy for effective teaching, as it is consistently associated with high-quality pedagogical practices and stronger instructional outcomes (Klassen and Tze, 2014[6]; Zee and Koomen, 2016[7]). Effective planning, adaptive classroom management and the use of student-centred teaching strategies, for instance, have all been linked to higher teacher self-efficacy (Holzberger, Philipp and Kunter, 2013[8]; Klassen and Tze, 2014[6]).

This is aligned with TALIS data, which show that in 34 of the 54 education systems participating in TALIS with available data (hereafter "education systems"), teachers with high instructional self-efficacy (those in the top quarter of the index) are less likely to report maintaining discipline as a source of stress (Figure 3.1). The differences are particularly pronounced in Hungary, Italy, the Netherlands*, New Zealand* and Sweden, where the gap between high- and low-efficacy teachers exceeds 18 percentage points.

Figure 3.1. Maintaining classroom discipline as a source of stress, by teacher self-efficacy in instruction

Percentage of lower secondary teachers who report that maintaining classroom discipline is a source of stress "quite a bit" or "a lot"



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Teachers with low self-efficacy in instruction refer to those in the bottom quarter according to the scale of self-efficacy in instruction (T4SEINS).
Teachers with high self-efficacy in instruction refer to those in the top quarter according to the scale of self-efficacy in instruction (T4SEINS).
Quartiles calculated within education systems.
Source: OECD, *TALIS 2024 Database*, Table 3.1.

A strong relationship is also observed between discipline-related stress and self-efficacy in classroom management. In 44 education systems, teachers with high self-efficacy in classroom management (those in the top quarter of the index) are consistently less likely to report discipline as stressful, often by over 40 percentage points (Table 3.2). Teachers who report higher self-efficacy in classroom management are also less likely to report maintaining discipline as a source of stress, even after controlling for the amount of time they spend on maintaining order in the classroom (Table 3.4). This suggests that confidence in classroom management skills and strategies is associated with how teachers perceive and experience these demands, regardless of the actual time spent on classroom management.

Moreover, across most education systems, teachers with high self-efficacy in classroom management report overwhelmingly fewer interruptions, having to wait for students to quiet down, having much disruptive noise and disorder and having many students who do not start working for a long time after the lesson begins (Table 3.5). Teachers with higher instructional or classroom management self-efficacy report spending less time keeping order and more time on actual teaching and learning, on average across OECD countries and territories with available data (hereafter, “on average”) (Tables 3.6 and 3.7). In five education systems, the differences in time spent teaching and learning between high- and low-self-efficacy teachers are about 10 percentage points or more.

These findings underscore that not all demands are uniformly perceived. In many cases, teachers' reports on these demands may relate more to their confidence in handling them, as is the case among class management demands, than to the nature of the tasks themselves. In contrast, other types of teacher demands related to workload (lesson planning, marking and administrative work) appear to be less closely associated with teachers’ levels of self-efficacy.

For example, confidence in one's teaching ability does not necessarily reduce stress about having too much lesson preparation. Only in Brazil and Italy do teachers with high instructional self-efficacy report this stress less frequently than those with low self-efficacy. Conversely, in Estonia, Kazakhstan, Korea, Malta, Montenegro, Morocco, North Macedonia and Uzbekistan, teachers with higher instructional self-efficacy report this stress more often (Table 3.1). Teachers with high classroom management confidence in 15 education systems do report less lesson preparation-related stress (3.2). However, overall, across education systems, lesson preparation stress appears to be unrelated to teachers’ self-efficacy.

Self-efficacy in instruction does not change teachers’ reports on having too many lessons to teach as a source of stress. In three education systems alone (Azerbaijan, Brazil and Colombia), teachers with high instructional self-efficacy report stress from excessive teaching to a lesser extent than those with lower self-efficacy in instruction. The opposite is true in Estonia, Korea, South Africa and the United Arab Emirates, where teachers with high instructional self-efficacy report stress from excessive teaching more frequently than those with lower self-efficacy (Table 3.1). However, when it comes to confidence in classroom management, in all education systems where there are differences (12 education systems), teachers with high self-efficacy report high teaching volume as a source of stress to a lesser extent, with the sole exceptions of North Macedonia and South Africa (Table 3.2).

Moreover, differences in stress related to excessive marking also show a limited connection to self-efficacy in most education systems. Only in Brazil, Kosovo and Sweden do teachers with high confidence in their instructional abilities report less that excessive marking is a source of stress. The opposite is true in Estonia, Finland, Slovenia and South Africa. Similar results can be observed for self-efficacy in classroom management (Table 3.1).

Finally, only in 13 education systems do teachers with high instructional self-efficacy spend less class time on administrative tasks than teachers with low instructional self-efficacy (in the bottom quarter of the index) (Table 3.7). Similar patterns emerge when looking at teachers' reports of stress. In most education systems, confidence in one’s instruction and in classroom management skills does not strongly differentiate teachers’ reports of stress related to administrative workload (Tables 3.1 and 3.2).

In the following sections, teacher reports on these various demands will be analysed regardless of their self-efficacy levels. Understanding these differences can be important for designing the right support mechanisms – such as mentoring, targeted professional development, and well-balanced workload policies – that enable all teachers to better navigate professional demands.

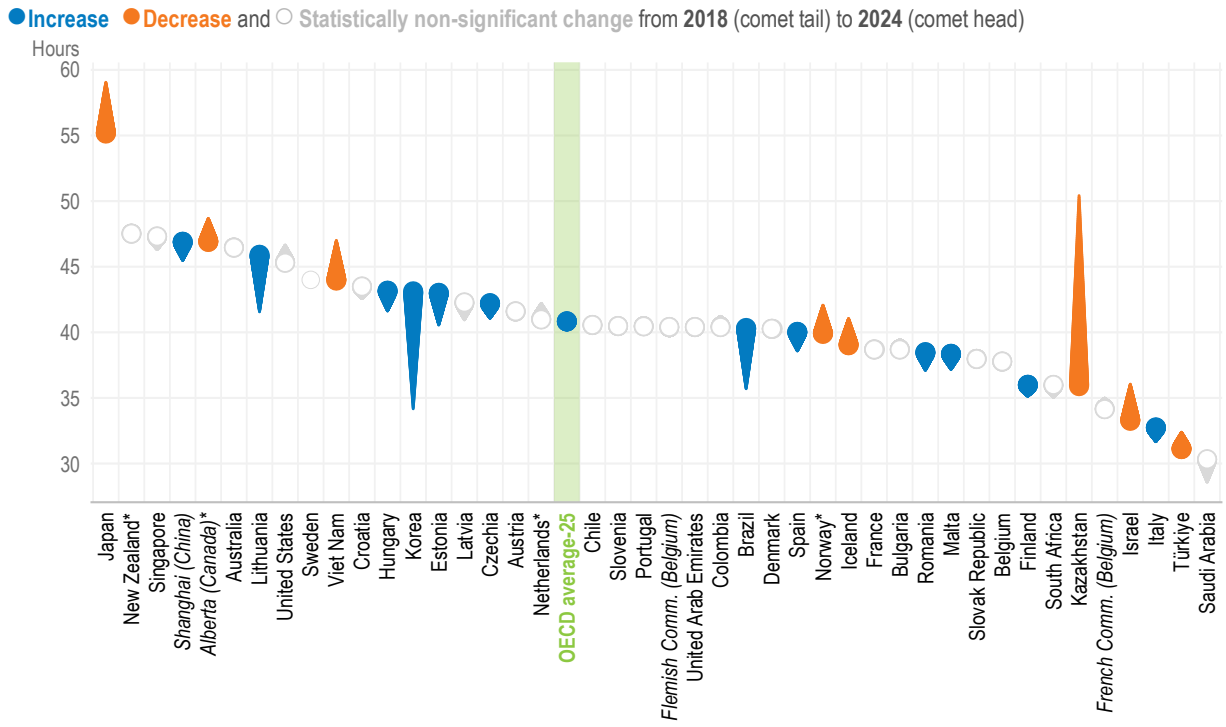
Workload

Teachers are often formally required to work a certain number of hours per year, as set out in collective agreements or other contractual arrangements (OECD, 2024[9]). However, formal time allocations rarely capture the full range of activities teachers undertake. They might perform administrative tasks, supervise school activities, and engage in a number of duties during and outside school working hours (see Box 3.1 for a comparative perspective with other professionals).

Full-time teachers report that they work almost half an hour more per week than in 2018, on average (Figure 3.2). However, there is significant variation between education systems. While working time has remained stable in about half of education systems, it has increased in 12, with increases of almost 5 hours per week in Brazil and about 9 hours per week in Korea. Conversely, total working time has decreased in 9 education systems, with a drop of about 4 hours per week in Japan and over 14 in Kazakhstan.

Figure 3.2. Change in teachers' total working hours, from 2018 to 2024

Average number of hours full-time lower secondary teachers report spending on job-related tasks during the most recent complete calendar week



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 3.8.

TALIS collects data on both total weekly workload, reported as a single figure, and disaggregated estimates of hours spent on specific tasks. The survey does not constrain teachers' responses, so the sum of disaggregated time spent on individual tasks (e.g. teaching, planning, marking and correcting, communicating with parents, etc.) can exceed the reported total workload. To analyse the distribution of working time across different activities, this chapter looks at the task-based data as a share of the sum of time devoted to all tasks among teachers working full-time.[1]

Teaching is the single most time-consuming task for teachers in all education systems. However, in most education systems, it does not account for the majority of teachers' total workload. On average, it accounts for about 43% of full-time teachers' self-reported total working time. Only in Finland and the French Community of Belgium does teaching account for at least 50% of total self-reported working time. On the other hand, in Azerbaijan, Japan, Shanghai (People's Republic of China, hereafter "China"), Singapore and Uzbekistan, teaching accounts for less than one-third of total working time (Table 3.10), which suggests that the nature of the work required of teachers can vary considerably across education systems. Some place greater emphasis on teaching, while others allow more time for other tasks (see Box 3.2). When interpreting these results, it is important to note that these differences partly reflect broader teacher working patterns, with teachers in Japan, Shanghai (China) and Singapore reporting higher total working hours than their peers in other education systems.

When looking at the differences in average teaching time by teachers' years of experience within education systems, there is no actual difference on average and across most education systems. In 11 education systems, however, novice teachers (those with up to five years of teaching experience) report teaching more hours per week than their more experienced peers (those with more than ten years of teaching experience), and by an average of about three teaching hours or more in Bahrain, New Zealand* and Türkiye. This situation could be problematic in certain contexts, as novice teachers may require more support (see Chapter 4). The opposite is true in six education systems only, where experienced teachers report more teaching hours per week, reaching over three hours more in Azerbaijan and Costa Rica (Table 3.12).

Lesson planning and marking and correcting student work are the next most time-consuming tasks, accounting for 14% and 9% of working time, respectively, on average (Table 3.10). In Japan, Shanghai (China) and Singapore, while having some of the lowest teaching hours, the average amount of time spent planning lessons is also around 14%. In these countries, the ratio of teaching to lesson preparation is among the highest, meaning that for every hour spent teaching, teachers spend comparatively more time preparing. Likewise, in both Shanghai (China) and Singapore, teachers spend over 10% of their working time marking and correcting student work (9% on average). The highest shares are in Morocco and Portugal (over 13%).

Novice and experienced teachers appear to organise their non-teaching time differently. On average, novice teachers spend over half an hour more per week on lesson planning than experienced teachers. In 12 education systems, novice teachers spend almost an additional 1-2 hours per week on preparation compared to more experienced teachers. In Albania, Kazakhstan, Kosovo, North Macedonia and Serbia, however, the opposite trend is true (Table 3.12).

On the other hand, marking and correcting are not tasks where differences by teachers' level of experience can be seen across most education systems. However, when differences do exist (in 19 education systems), it is experienced teachers who report spending more time per week, with differences reaching up to one hour or more (Table 3.12). These findings suggest that in a number of education systems, lesson planning may occupy more effort from new teachers, while marking and correcting responsibilities may increase with experience.

Teachers carry out a range of tasks which, although related to their work with students in the classroom, are not directly linked to their teaching time. On average, teachers report spending about 6% of their working time on administrative tasks, ranging from about 3% or less of total working time in Morocco and Romania, to over 9% in Japan and about 12% in Korea (where it is the third most time-consuming task after teaching and lesson preparation) (Table 3.10).

While there is no difference in most education systems, experienced teachers report spending more time per week on general administrative work compared to novice teachers in all 19 education systems where experience is a factor (over an extra hour in 5 of them) (Table 3.12).

Box 3.1. Teacher workload in a comparative perspective

The OECD Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), provides valuable comparative insights. By collecting information from adults in a range of occupations, including teachers, PIAAC allows comparisons of self-reported workload and work intensity across occupational groups (OECD, 2023[10]). In particular, it captures weekly working hours, including both paid and unpaid overtime, as well as the frequency of working at high speed or under tight deadlines.

In the majority of 26 countries and economies that participated in both surveys, teachers do not report working more hours per week than their non-teaching counterparts. In fact, in 13 of the 26, teachers report working fewer hours than similarly qualified workers. In 11 countries, there is no statistically significant difference in reported working hours between the two groups. Only in Japan and Singapore do teachers report working more hours per week than other similarly qualified workers (Table 3.13).

Workload, however, is not just about the number of hours worked. Work intensity – defined as how often professionals are required to work at a fast pace or under pressure – is another important component. In most countries and economies, there is no statistically significant difference in the proportion of teachers and similarly qualified professionals who report experiencing high work intensity. In 17 of the 26 participants in both surveys, teachers are just as likely as their non-teaching counterparts to report working very often (at least more than half of the time) at high speed or under tight deadlines (Table 3.15). In 8 countries and economies, teachers are less likely to report working to tight deadlines or at high speed than their counterparts in other sectors. In Chile, a higher proportion of teachers report working at a high intensity compared to other occupations.

These differences are likely to reflect variations in national working environments, institutional expectations, and the broader support systems available to teachers. Factors such as class sizes, students' diverse needs and accountability structures can all influence the intensity of teachers' daily work.

This comparative perspective does not ignore the unique challenges and pressures that teachers face – many of which are closely linked to their roles as educators, mentors and community leaders. Rather, it underscores the importance of considering both job-specific demands and broader systemic factors when designing policies aimed at improving working conditions, reducing stress and supporting the attractiveness and sustainability of the teaching profession.

Note: The analysis presented in this box adopts a different definition of teachers than the one used in TALIS, as it refers to school teachers, including those in primary, secondary, and vocational education. See the Reader's Guide for more detailed information on how PIAAC data are used for this analysis.
Source: OECD (2023[10]), *Survey of Adult Skills 2023 (PIAAC) database,* https://www.oecd.org/en/data/datasets/piaac-2nd-cycle-database.html.

Workload as a source of stress

As noted earlier, this chapter uses reported sources of stress to understand how teachers respond to work demands. Teachers' workload demands are shaped not only by regulations on the tasks teachers have to perform, but also by the broader nature of teaching itself, where formal time allocations rarely capture the full range of activities and teacher workload overall. Teachers' reports of certain tasks as sources of stress highlight areas where demands may feel particularly intense relative to available support. The focus here is on understanding which demands are most reported as sources of stress, who is most likely to report them and under what conditions.

Figure 3.3. Workload as a source of stress

Percentage of lower secondary teachers who report that the following are sources of stress “quite a bit” or “a lot”

Source: OECD, *TALIS 2024 Database*, Table 3.16

Preparing lessons, teaching and marking

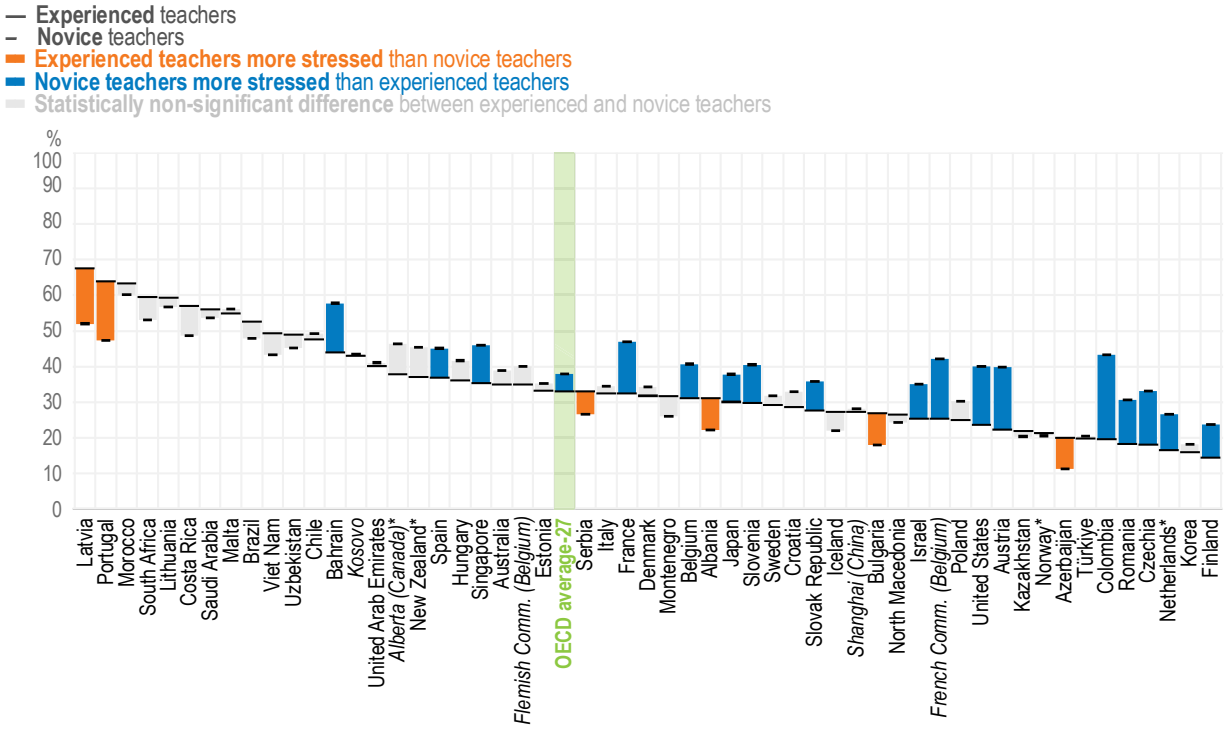
At the heart of the teaching profession lies teaching itself, supported by two tasks that enable teachers to plan, adapt and monitor student learning: lesson preparation and marking student work. These tasks are fundamental to the profession but can be sources of stress when there are insufficient resources or time to carry them out effectively. The following section explores how teachers experience these demands across different education systems and career stages.

Having too much lesson preparation can be interpreted as teachers having too many lessons to prepare or too much content to cover, given their working time or resources. Too much lesson preparation is reported as a source of stress by just over three in ten teachers across OECD education systems (35%) (Figure 3.3).

In Morocco, where teaching and lesson preparation together account for more than 60% of working time, this perception is particularly prevalent (63%) (Table 3.10). In the other two education systems with the highest levels of stress from too much lesson preparation, Latvia and Portugal (which have some of the oldest teaching populations), this is largely driven by experienced teachers, with gaps of over 15 percentage points compared to novice teachers (Figure 3.4). This is the opposite pattern of what is observed within education systems more broadly, as more novice teachers report having too much lesson planning as a source of stress compared to experienced teachers in 17 out of 23 education systems, where there is a difference between the two groups .

Figure 3.4. Lesson preparation as a source of stress, by years of teaching experience

Percentage of lower secondary teachers who report that too much lesson preparation is a source of stress "quite a bit" or "a lot"



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Source: OECD, *TALIS 2024 Database*, Table 3.16.

Box 3.2. Balancing teaching and non-teaching time in Iceland, Portugal and Singapore

How countries allocate teachers' workload and distribute their time across different activities can enhance – or hinder – teaching quality, student outcomes and teacher well-being. This box describes approaches from three TALIS participants.

Iceland

A collective labour agreement (2014) sets full-time teachers' working hours to 1 800 per year, or 40 hours per week. Within this envelope, teachers' time is divided into three components:

- Part A covers core tasks of teaching, such as preparation and follow-up.
- Part B covers all other non-teaching activities, including professional development, meetings with parents, record keeping, collaboration with peers and breaks.
- Part C covers special assignments, which are proposed by the school leader in agreement with the teacher (e.g. the management of school projects).

In the baseline model, full-time teachers spend approximately 641 hours per year on teaching and 395 hours on preparation (Part A), 150 hours on professional development, and 614 hours on other

tasks (Part B). Any time spent on Part C is supposed to be compensated by a reduction in the time spent on teaching and other tasks (Parts A and B).

In practice, the precise distribution of time between Parts A and B is determined at the school level. This is determined by a range of factors, including: the teacher's subject(s), class size and composition, required preparation and marking time, student assessments, the amount of teacher co-operation required, the use of new teaching methods, and communication with parents.

Portugal

In Portugal, full-time school teachers work 35 hours per week, consisting of 22 teaching hours, 2.5 hours for other school-related activities (e.g. meetings with colleagues or parents), and 10.5 hours for autonomous work (e.g. preparing lessons and student assessments). Teachers with sufficient experience benefit from a progressive reduction of their teaching hours, matched by a corresponding increase in the time they are expected to dedicate to other tasks. In line with the school leader's instructions, this time can be used, for example, to co-ordinate school projects, mentor teachers, design pedagogical resources or build partnerships with the local community. Teachers serving in leadership roles (e.g. as school co-ordinators or department heads) also benefit from a reduced teaching load.

In addition, each school receives a number of credit hours that are calculated based on the school's size, its socio-economic profile and the number of teachers with reduced teaching hours. School leaders can allocate these credit hours freely to reduce the teaching load of selected teachers, providing them with more time to engage in other activities. For example, school leaders might recognise a teacher's organisational talent by providing them with time to design and supervise innovative pedagogical projects.

Singapore

Singaporean teachers, and in particular novice teachers, spend considerably more time on non-teaching activities not measured in TALIS than their peers in other countries. This is partly enabled by the country's larger-than-average class sizes, which allow teachers to spend fewer hours – and a smaller share of their working time – on classroom instruction. It also reflects a system-wide commitment to supporting teachers' professional growth, particularly in the early years of their teaching careers.

Although the Ministry of Education does not prescribe a fixed schedule, teachers' working hours are generally distributed in similar ways across Singaporean schools. Notably, most schools formally embed dedicated time for learning and collaboration into teachers' weekly timetables.

A substantial portion of teachers' non-teaching time is devoted to collaborative lesson planning, curriculum design, assessment development and structured training programmes. Many Singaporean teachers also engage in activities that take place outside of their schools, such as participating in professional development activities (e.g. in-service workshops and courses run by the Academy of Singapore Teachers, as well as education conferences) and taking students on learning journeys or field trips.

Source: Boeskens, L. and D. Nusche (2021[11]), "Not enough hours in the day: Policies that shape teachers' use of time", https://doi.org/10.1787/15990b42-en; Icelandic Ministry of Education, Science and Culture (2014[12]), *Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report: Iceland*, https://www.government.is/library/01-Ministries/Ministry-of-Education/count_backgr_rep_iceland_2015_fin.pdf; Liebowitz, D., et al. (2018[13]), *OECD Reviews of School Resources: Portugal 2018*, https://doi.org/10.1787/9789264308411-en; Low, E.L, A. Lin Goodwin and J. Snyder (2017[14]), *Focused on Learning: Student and Teacher Time in a Singapore School*, https://edpolicy.stanford.edu/sites/default/files/scope-singapore-student-and-teacher-time-report-final_0.pdf; Ministry of Education (2022[15]), *Teacher Workload and Blended Learning*, https://www.moe.gov.sg/news/parliamentary-replies/20220215-teacher-workload-and-blended-learning; NCEE (2021[16]), *Lesson Time: Reimagining Teachers' Working Hours*, https://ncee.org/lesson-time-reimagining-teachers-working-hours/.

Compared to 2018, teachers across OECD education systems report spending about one additional half hour per week on individual lesson planning and preparation. However, in Japan, teachers report an average decrease of almost three-quarters of an hour per week (Table 3.8).

Reasons why teachers have too much lesson preparation can relate to several factors, including the number of lessons they have to teach, the needs of the students they teach or the content they have to cover. About three in ten teachers (31%) across OECD education systems report having too many lessons to teach as a source of stress. Brazil, Morocco, Portugal, Saudi Arabia and South Africa are among the countries where more than half of teachers report feeling stressed due to the number of lessons they have to teach. They are also education systems where over half of teachers report having too much lesson preparation as a source of stress (Table 3.16). Self-reported teaching hours in Morocco and Saudi Arabia, however, are similar to the OECD average, which suggests that the nature of teaching in these education systems may contribute to stress more than the volume (Table 3.8).

In a majority of education systems, teachers' reports on their teaching hours have remained unchanged. However, in 16 education systems, teachers report increases ranging from about half an hour per week in Austria to seven hours in Kazakhstan. Meanwhile, in Japan, Portugal and Türkiye, teachers report spending between half and about two-and-a-half fewer hours teaching per week in 2024 than in 2018 (Table 3.8).

In most education systems, the feeling of being overwhelmed by the volume of teaching is equally prevalent among teachers, regardless of their experience. However, when differences do exist, it is most often experienced teachers who report this, with an average difference of about 4 percentage points. In 18 education systems, experienced teachers report stress due to having too many lessons to teach more often than novice teachers, with the difference ranging from over 5 percentage points in Azerbaijan, Spain and Uzbekistan to almost 23 in Portugal. Nevertheless, the self-reported number of hours taught per week in Portugal is higher among novice teachers. In only 4 education systems – Bahrain, Colombia, Romania and the United States – do more novice teachers report having too many lessons as a source of stress compared to experienced teachers (Tables 3.16 and 3.12).

Moreover, 40% of teachers across OECD education systems report that too much marking is a source of stress. While there is much variation across education systems, in no education system is the proportion of teachers who consider excessive marking a source of stress below 20%. The share is approximately 25% in Finland and Iceland, about 50% in Australia, Bahrain, the Flemish Community of Belgium and Lithuania, and over 70% in Morocco, Portugal and South Africa (Table 3.16).

The feeling of stress related to excessive marking is shared across the teacher population in the majority of education systems. However, in 22 education systems, more experienced teachers report marking as a source of stress by an average of 4 percentage points, with the difference being particularly pronounced in Albania, Costa Rica and Serbia, where it exceeds 15 percentage points. Conversely, in Alberta (Canada)*, Bahrain, Colombia, Japan, Singapore and the United States, novice teachers report this source of stress, with a difference of between 5 and over 20 percentage points compared to experienced teachers (Table 3.16).

In 16 education systems, there has been an increase in the amount of time teachers report devoting to marking and correcting student work between 2018 and 2024.[2] On average, teachers report spending more time per week on these tasks, with the increase reaching over one weekly hour in Brazil, Malta and Slovenia. Only in six education systems has the amount of time decreased. Teachers in Singapore report spending about one hour per week less on marking and correcting student work in 2024 (Table 3.8).

General administrative work

Teachers do more than just teach; they also carry out a variety of other tasks that support the running of their schools and help them fulfil their professional responsibilities. General administrative work plays a

distinct role among these tasks. This includes non-pedagogical duties, such as school management tasks, paperwork, and other clerical responsibilities necessary for school operations, but not directly related to instruction. Examples include completing attendance records, managing timekeeping systems, processing forms and handling other bureaucratic requirements.

On average, around half of teachers report general administrative work as a source of stress (52%), the largest share compared to all other demands. However, in a number of education systems (11 out of 54), less than 33% of teachers report this as a source of stress, and in Kazakhstan and Morocco, it can be as low as about 25% or less. In Korea, the Netherlands* and Saudi Arabia, around 50% of teachers report this as a source of stress, and over 75% do so in the Flemish Community of Belgium and Portugal. In both these education systems, however, teachers spend less than three hours per week on general administrative work, which is similar to the OECD average (Tables 3.16 and 3.10). This finding suggests that in these education systems, factors such as the nature of administrative work, the combined burden of this work alongside other tasks, and social and cultural perceptions of the tasks that teachers should perform may related to teacher perceptions, rather than the amount of administrative work they do.

Experienced teachers report administrative workload as a source of stress more often than novice teachers (in 38 out of 54 education systems). The largest differences are found in Costa Rica, Malta, Montenegro and Serbia (about 22 percentage points or more). In these four education systems, less than 50% of novice teachers report this stressor, while almost 60% or more of experienced teachers do (Table 3.16). The opposite is true in only two countries, Colombia and Singapore, where novice teachers report this to a larger extent than experienced teachers, highlighting that the administrative burden is not experienced uniformly. These patterns align with actual time use as reported above: in all education systems where there are differences in reported time spent on administrative tasks by teacher experience, experienced teachers spend more time on administrative tasks than novice teachers (Table 3.12).

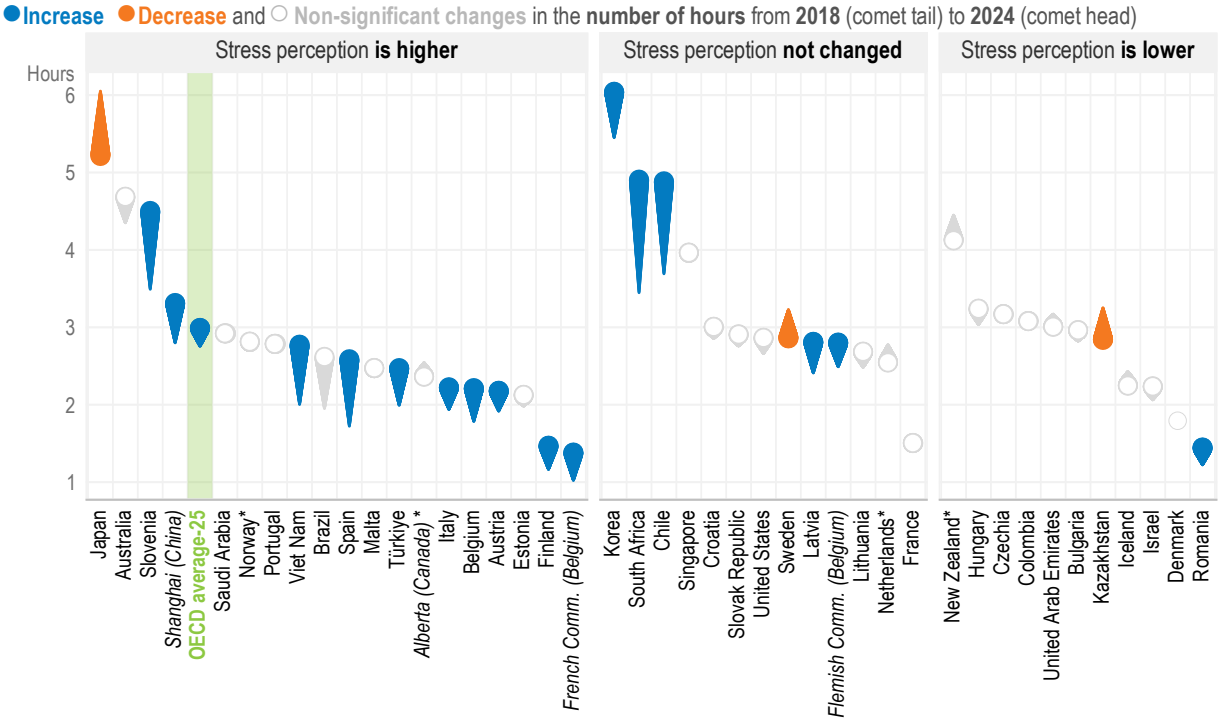
Moreover, there are substantial differences in the share of teachers reporting excessive administrative work as a source of stress between publicly managed and privately managed schools. Across education systems, more teachers in publicly managed schools report this as a source of stress than teachers in privately managed schools by 11 percentage points, on average. This is also the case in 17 out of 54 education systems, and the difference can be as high as about 29 percentage points in Denmark and the United States (Table 3.18).

Compared to 2018, teachers in three education systems – Japan, Kazakhstan and Sweden – report spending less time on administrative tasks. In Japan, the reported time decreased by almost one hour, while in Kazakhstan and Sweden, the change was less than half an hour (Table 3.8). In 18 education systems, teachers' reports of too much administrative work as a source of stress have increased between 2018 and 2024, ranging from over 2 percentage points in Portugal to about 18 percentage points in Spain (Table 3.17).

Nevertheless, in only half of those education systems has the time spent on administrative work increased since 2018. Conversely, in 12 education systems, the share of teachers who believe that administrative work is a source of stress has decreased, even though the time spent on such tasks has not changed or increased, as in Romania (Figure 3.5).

Figure 3.5. Changes in reported administrative workload and related stress, from 2018 to 2024

Change in weekly hours spent on administrative workload and in the share of teachers reporting administrative work as a source of stress, based on responses of lower secondary teachers



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Tables 3.17 and 3.8.

These findings suggests that the relationship between stress and administrative workload may be shaped by more than volume in most education systems. The nature of these activities matter, potentially including factors like the distribution and combination of tasks and the way in which tasks interact and compete for time. Although administrative tasks account for a comparatively small proportion of total working time, high levels of teachers report them as sources of stress. Teachers might see this type of work as interfering with their core professional activities – such as teaching and engaging with students – rather than as routine or neutral bureaucratic requirements.

Box 3.3. Variation in sources of stress among primary and upper secondary teachers

TALIS 2024 data show that factors contributing to stress – such as lesson planning, teaching load, classroom discipline and administrative work – do not affect all teachers equally. For example, the share of teachers reporting too much lesson preparation as a source of stress has increased since 2018 in five education systems for primary teachers, but has decreased in France and the United Arab Emirates (Table 3.17). In Morocco, three out of four primary teachers report this as a stressor. In five education systems, novice primary teachers are more likely than their experienced peers to report stress related to lesson preparation, with Morocco being the only country where more experienced teachers report this as a source of stress (Table 3.16).

Among upper secondary teachers, the prevalence of excessive lesson preparation as a source of stress has decreased compared to 2018, particularly in Denmark (by 25 percentage points) and Portugal (by

10 percentage points) (Table 3.17). At this level of education, teachers' reports do not vary according to their experience. Only in Slovenia and Türkiye, novice primary teachers are more likely than their experienced peers to report stress related to lesson preparation. In Portugal the opposite is true (Table 3.16).

The share of primary teachers reporting too many lessons to teach as a source of stress ranges from 15% in the Flemish Community of Belgium* to 79% in Morocco (Table 3.16). Between 2018 and 2024, the share of teachers reporting excessive teaching as a source of stress increased in the majority of education systems with available data for the two reference years (Table 3.17). In 5 out of 15 education systems, primary teachers are more likely to report too much teaching as a stressor than their lower secondary peers, with the largest difference observed in Morocco (12 percentage points more) (Table 3.16). Among upper secondary teachers, novice teachers report this stressor more than experienced ones only in Türkiye. In Denmark, the Flemish Community of Belgium and Portugal, experienced teachers are more likely to do so, by a margin of about 5 percentage points or more (Table 3.16). Teacher reports on this source of stress have decreased since 2018 in Portugal and the United Arab Emirates, but increased in Croatia, Slovenia and Türkiye (Table 3.17). Only in Croatia and Portugal do fewer upper secondary teachers report having too many lessons to teach as a source of stress, compared to lower secondary teachers. The opposite is observed in Denmark (Table 3.16).

Classroom discipline is another major source of stress for primary and upper secondary teachers, with increases observed since 2018. The only exceptions to this trend are primary teachers in France (17 percentage points) and upper secondary teachers in Portugal (11 percentage points) (Table 3.17). A larger proportion of novice teachers report this stressor in comparison to their more experienced peers, most notably among primary teachers in Australia (17 percentage points) and upper secondary teachers in the Flemish Community of Belgium (20 percentage points) (Table 3.16). When comparing across education levels, primary teachers report higher stress related to classroom discipline than lower secondary teachers in 5 out of 15 education systems. This difference is most pronounced in Japan (10 percentage points) and Korea (12 percentage points). Conversely, upper secondary teachers report less stress from discipline than their lower secondary counterparts in 6 of 8 education systems, particularly in Croatia (14 percentage points) and Portugal (13 percentage points) (Table 3.16).

Finally, having excessive administrative workload remains a significant stressor, especially for more experienced teachers at both the primary and upper secondary levels. The share of teachers reporting this source of stress has risen since 2018 (Table 3.17). Nevertheless, primary teachers report this stressor less frequently than lower secondary teachers in 5 out of 15 education systems, with the largest gap in New Zealand* (14 percentage points). A similar pattern is seen among upper secondary teachers in 5 of 8 education systems, most notably in Slovenia (16 percentage points) (Table 3.16).

Adapting teaching to diverse learning needs

Inclusive education refers to the capacity of schools to provide quality learning opportunities for all students, taking into account their diverse needs, abilities and expectations. Teachers face a wide range of demands arising from the need to support students with different academic profiles, learning needs and linguistic backgrounds. These demands can have a significant impact on how teachers experience and manage their daily work.

Mixed academic settings

TALIS 2024 data show that over half of teachers in all education systems report teaching in academically diverse classrooms, with an average of 73% across education systems in OECD countries. More than 20%

of teachers report that over 30% of their students are low academic achievers, on average. This figure exceeds 40% in the French Community of Belgium, Morocco and South Africa (Tables 3.19 and 3.23). Since all education systems will have higher- and lower-achieving students, the extent to which some teachers have more in a single classroom, can be a reflection of policies around grouping and sorting students.

Academically challenging settings are also more likely to experience classroom disruption. TALIS results show that the proportion of low-achieving students is more consistently associated with classroom disruption than other student intake characteristics, such as class size, language difficulties or special education needs (Table 3.24). This highlights a difference in how different types of diversity affect classroom dynamics: while behavioural and support needs may increase teachers' stress levels (see next section on “Maintaining discipline as a source of stress”), low academic achievement appears to be more strongly linked to classroom climate and the organisation of teaching.

Teaching in academically diverse classrooms requires increased instructional adaptation and differentiation – tasks that place high demands on teachers' time, focus and pedagogical agility (Hu, 2024[17]; Porta, 2025[18]). These demands increase when academic diversity intersects with other complex student needs. This may lead to increased disruption as more time and effort are required to manage differentiated instruction and maintain engagement.

Student background

In addition to academic diversity, other student characteristics can be important sources of demands for teachers. As mentioned in Chapter 1, at the school level, more students have difficulty understanding the language of instruction or have special education needs with respect to 2018. In many cases, these student characteristics may be interrelated, compounding their impact on teaching and learning conditions.

When examining the classroom-level TALIS data, it is found that, on average, about one in five teachers report that more than 10% of their students have difficulties understanding the language of instruction. While this is relatively low in education systems such as those in Albania, Croatia, Denmark, Lithuania, the Netherlands*, Poland, Serbia and Shanghai (China), it rises to about 25% in Bahrain, Saudi Arabia and the United States. It exceeds 60% in Morocco and South Africa (Table 3.23).

Students who are migrants or have an immigrant background, who are refugees or who belong to ethnic/national minorities or Indigenous communities, among others, may be more vulnerable to these linguistic challenges. These student profiles are represented in most of the education systems in TALIS 2024. However, in many education systems, the number of students with these profiles is low. For example, only 9% of teachers on average report teaching in classrooms where over 30% of students are immigrants or have an immigrant background (not including refugees). Similarly, on average, 16% of teachers report that 10% of their students belong to ethnic/national minorities or Indigenous communities, and only 4% of teachers report that over 10% of their students are refugees (Table 3.23).

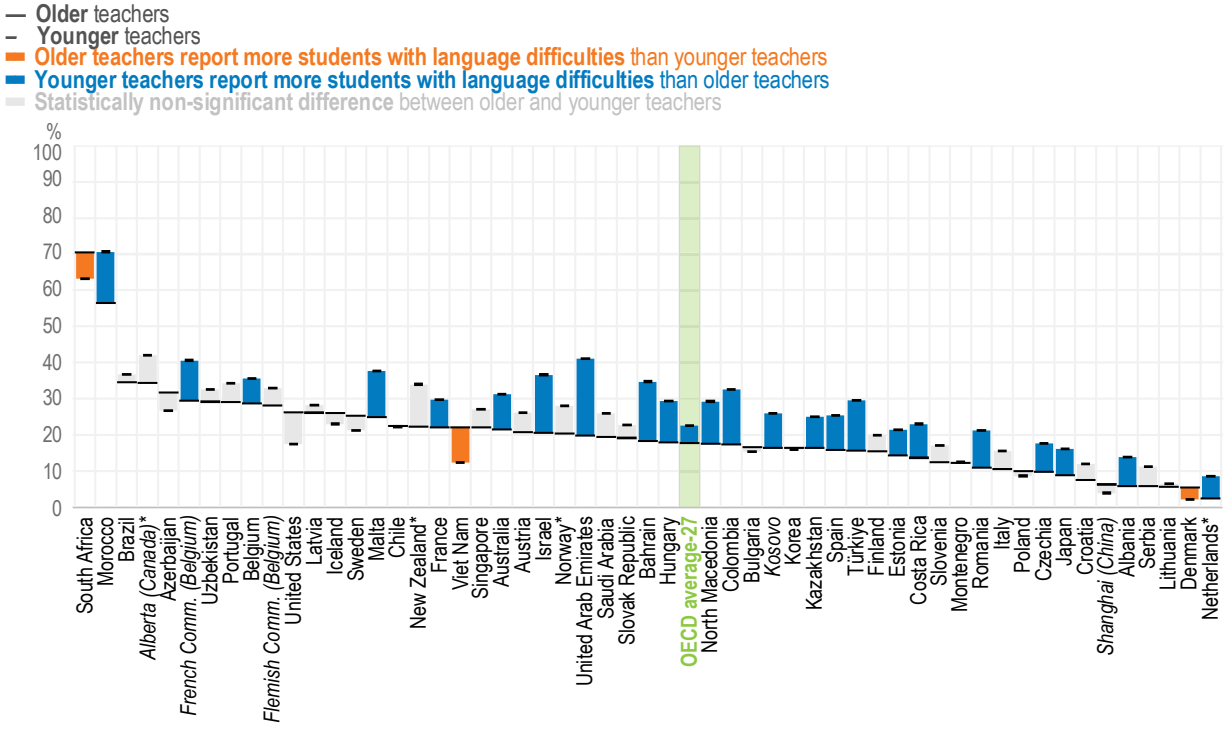
Other dimensions of diversity are more prevalent. Across education systems in OECD countries, 33% of teachers report that more than 10% of their students have special education needs. In some education systems, such as Chile, the Flemish and French Communities of Belgium, France and the Netherlands*, this proportion exceeds 50% (Table 3.23). There are several reasons for the large differences between education systems. Education systems may differ in how and when special education needs are identified or diagnosed. Policies also vary in terms of whether students with special education needs are placed in more specialised classrooms or tracks. In the Flemish Community of Belgium, for example, a policy reform in 2014 facilitated the enrolment of students with special education needs into regular schools and classrooms, which may explain the large shares reported by teachers.[3]

Teacher experience in diverse settings

TALIS 2024 data show that younger teachers (under the age of 30) disproportionately report the most diverse classrooms. This can expose them to demands which can be challenging early in their careers. For example, younger teachers are more likely to report that over 10% of their students have difficulties understanding the language of instruction (Figure 3.6). On average, the difference between younger and older teachers (those over age 50) is around 5 percentage points, but it rises to over 15 percentage points in Bahrain, Colombia, Israel and the United Arab Emirates. The pattern is reversed in only three education systems: Denmark, South Africa and Viet Nam (with a difference of 3 to almost 10 percentage points) .

Figure 3.6. Class intake of students with difficulties understanding the language of instruction, by teacher age

Percentage of lower secondary teachers reporting that more than 10% of students have difficulties understanding the language of instruction in the target class



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Older teachers refer to those aged 50 and above. Younger teachers refer to those under age 30. Results refer to lessons taught to a class randomly selected from teachers' current weekly timetables during the week preceding the survey.
Source: OECD, *TALIS 2024 Database*, Table 3.25.

A similar pattern holds for reports of students with special education needs. Younger teachers are more likely to work with such students than older teachers in 16 out of 54 education systems, with the average difference again around 5 percentage points (35% and 30%, respectively) The gap is largest in the Netherlands*, where 73% of younger teachers report teaching classes with a high share of students with special education needs, about 19 percentage points higher than their older counterparts. Only in Azerbaijan, Shanghai (China) and Uzbekistan is the opposite true (Table 3.26).

Similar disparities are observed in the case of behavioural problems. In most education systems, younger teachers are significantly more likely than older colleagues to report that over 10% of their students exhibit

behavioural problems (by 11 percentage points, on average). In Bahrain, the French Community of Belgium, Colombia, Latvia, New Zealand* and Portugal, this difference exceeds 20 percentage points (Table 3.27). It should be borne in mind that novice teachers' reports on behavioural problems may be related to their mastery of classroom management rather than the actual characteristics of their students.

These distribution patterns are important. Teachers often enter the profession while still developing their classroom management skills and confidence. Facing more complex student needs early in their careers, especially without robust support systems, can intensify the demands they experience and increase the risk of burnout. The mismatch between the complexity of teaching contexts and the preparedness of new teachers underlines the importance of equitable deployment strategies and targeted support.

Teachers' perspectives on stress in diverse education contexts

TALIS data provide insights into the extent to which adapting teaching to diverse learning needs is perceived as a source of stress for teachers. More than one-third of teachers (37%) across education systems in OECD countries report that modifying lessons for students with special education needs is a source of stress (3.16). However, this average conceals substantial cross-country variation. In Azerbaijan, Kazakhstan, Korea, Shanghai (China) and Singapore, fewer than 20% of teachers identify this as a source of stress. In contrast, in Lithuania, Norway*, Portugal and Sweden, this figure is over 50%.

These differences may reflect different system-level approaches to identifying and supporting students with special education needs. Countries differ in how and when needs are assessed, and in whether students are educated in inclusive settings or specialised programmes.

Differences also emerge within education systems. While teachers generally report similar stress levels regardless of experience, when differences occur, it is experienced teachers who tend to report modifying lessons for students with special education needs as a source of stress more often. This pattern is particularly pronounced in Brazil and Costa Rica, where the difference is almost 12 percentage points. In contrast, Austria, Bahrain, Colombia and Spain are the only education systems in which novice teachers report this stressor more frequently, by margins of about 5 to 11 percentage points (Table 3.16).

Moreover, slightly over one-quarter of teachers (27%) report too much work on diversity and equity issues, concerns or conflicts as a source of stress, on average. Substantial variation is also observed here. In Austria, Kazakhstan and the United States, fewer than 15% of teachers report this concern. In contrast, the figures are around 33% and 34% in the Flemish Community of Belgium, Korea and Spain, and over 45% in Brazil and South Africa.

Within education systems, this type of stress is generally reported across experience levels. However, when differences are observed, experienced teachers more frequently identify this issue as a stressor – this is the case in 16 education systems. Exceptions include Bahrain, Colombia and Kazakhstan, where novice teachers report higher levels of stress related to diversity and equity work, ranging from 3 to over 12 percentage points more than their experienced colleagues (Table 3.16).

These findings underscore the importance of addressing teachers' professional needs when working in classrooms that are rich with diverse student profiles, with special attention to the stage in their teaching careers. For example, TALIS shows that teachers who report adapting instruction to meet diverse learning needs as a source of stress are also more likely to report the need for continuous professional learning in the areas of teaching students with special education needs and teaching in multicultural or multilingual settings (Tables 3.30 and 3.31). Effectively supporting teachers in navigating the richness and complexity of diverse classrooms requires professional learning opportunities that are both continuous and carefully adapted, evolving alongside their experiences (see Chapter 4).

Maintaining discipline

Classroom management and discipline are key parts of teachers' responsibilities. In increasingly diverse classrooms, managing behaviour is a multifaceted task requiring both technical and socio-emotional skills, from maintaining focus during lessons to responding to disruptive behaviour and ensuring equitable participation. Analyses show that disruptive behaviour is closely linked to teachers' perceptions of their effectiveness: teachers are less likely to feel that they have achieved their lesson aims if they report behaviour issues in the classroom (Tables 3.32 and 3.33). In TALIS, teachers' perceptions of the disciplinary climate in the classroom are measured by the reported frequency of four disruptive situations in their classrooms:

- "I lose quite a lot of time because students interrupt the lesson"
- "I have to wait quite a long time for students to quiet down"
- "There is much disruptive noise and disorder"
- "Many students don't start working for a long time after the lesson begins".

About one in five teachers report experiencing significant disruptive noise and disorder in their classrooms, on average. More than 50% of teachers in Brazil report such challenges, and just over 33% of teachers in Chile, Finland, Portugal and South Africa do so. In contrast, fewer than 5% of teachers in Albania, Japan and Shanghai (China) report facing such disciplinary issues (Table 3.34). Brazil also stands out with the highest proportions of teachers reporting that they lose a lot of time due to waiting for students to quiet down and student interruptions (both around 43-44%), compared to the OECD averages of 15% and 18%, respectively (Table 3.34).

Classroom discipline demands are also not evenly distributed across the profession. Novice teachers report more classroom disruptions than their experienced colleagues in nearly all education systems. In Alberta (Canada)*, Austria, the Flemish and French Communities of Belgium, Chile, Denmark, Finland, Iceland, Italy and Spain, more than 40% of novice teachers report frequent disruptive noise, rising to 59% in Portugal and 66% in Brazil. Among experienced teachers, these rates are consistently lower, remaining below one-third in all education systems except Portugal (33%) and Brazil (53%) (Table 3.35). These findings highlight that classroom management skills can develop significantly with experience and that early-career teachers may require additional support in this area.

The importance of maintaining discipline

The most immediate consequence of classroom discipline demands is the loss of instructional time. Teachers report spending over 15% of lesson time keeping order in the classroom, on average. In Brazil, the French Community of Belgium, Saudi Arabia and Türkiye, this figure exceeds 20%, while in Albania, Czechia, Estonia and Lithuania, it falls below 10% (Table 3.36). TALIS data show that since 2018, the share of time allocated to maintaining discipline has increased in nearly all education systems, with Portugal being the only system where it has decreased (Table 3.37). The average share of class time spent on keeping order increased from 13% in 2018 to 16% in 2024 across OECD education systems. The largest increases of 5 percentage points or more occurred in Alberta (Canada)*, Colombia and Norway*. As mentioned before, different accumulating demands may put increasing pressure on teachers' core professional task of teaching. For example, without adequate time for planning and preparation, teachers may find it more difficult to deliver well-structured lessons, which in turn can make classroom management more challenging. Novice teachers who feel less confident or less prepared may be particularly affected by this dynamic.

Poor behaviour not only undermines classroom order and peer relationships but can also escalate into more serious incidents affecting the safety of both students and staff. Intimidation or bullying among students (or other forms of verbal abuse) on school grounds is the most reported form of safety issues

reported across education systems, on average. Approximately 19% of teachers work in schools where principals report student bullying or verbal abuse as a regular issue (occurring weekly or daily), on average. In Finland, Malta, Norway* and Sweden, over 40% of teachers work in such schools, and in the Flemish Community of Belgium, the figure reaches around 50% (Table 3.38). Variations on principals' reports on this issue may be related to active policy efforts and public campaigns on student bullying. These efforts can increase awareness and reporting in some education systems.

TALIS data show that principals are more likely to report intimidation or bullying among students on school grounds when teachers report that more than 10% of students in their classroom have behavioural problems, before and after accounting for teachers' and schools' characteristics (Table 3.41). Similar relationships can also be seen when teachers report classroom disruptions and spending more time maintaining order in the classroom (Tables 3.42 and 3.43).

While bullying on school grounds remains a persistent and relatively visible problem, it is increasingly accompanied by a parallel challenge: bullying that takes place online or cyberbullying. Unlike face-to-face incidents, online bullying can occur outside of school hours and platforms, making it much more difficult for principals and teachers to address. According to principals, online intimidation or bullying is reported at similar levels to in-school bullying across education systems: 18% of teachers work in schools where this is an issue, on average. In Australia, the French Community of Belgium, Malta, Norway* and Sweden, more than one in three teachers work in schools where this is a reported concern. In the Flemish Community of Belgium and Finland, more than half do (Table 3.38).

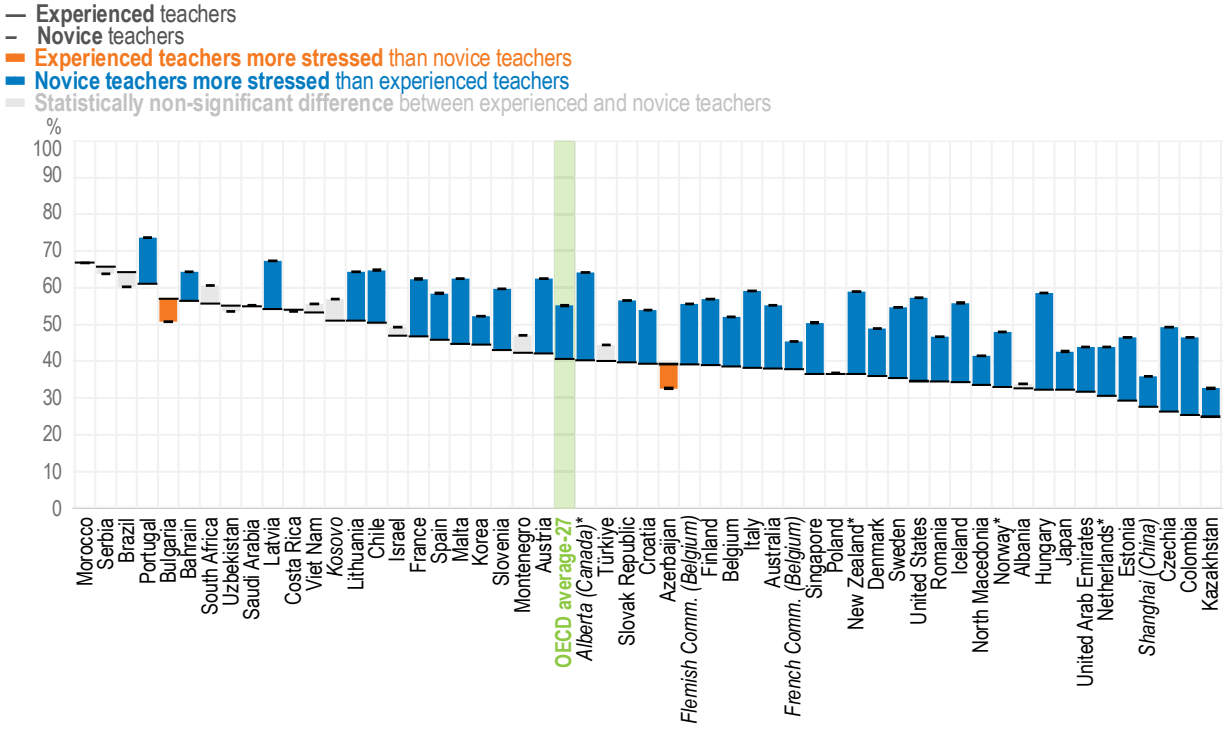
Verbal abuse or intimidation directed at teachers or staff is less prevalent. According to principals' reports, these concern 5% of teachers on average. On school premises, the figure exceeds 15% in Australia, the Flemish Community of Belgium and Malta. Online teacher intimidation concerns at least 5% of teachers in Colombia and South Africa, while it concerns 1% of teachers across OECD education systems (Table 3.38).

Maintaining discipline as a source of stress

Managing discipline is also a prominent source of reported stress (Figure 3.7). On average, 45% of teachers say that maintaining discipline causes them stress. This share rises to 55% among novice teachers, compared to 41% among experienced teachers. In almost all education systems, novice teachers are more likely to report this source of stress, except in Azerbaijan and Bulgaria, where the pattern is reversed and more experienced teachers report higher discipline-related stress by a margin of about 6 percentage points. More experienced teachers also report spending a greater proportion of class time on teaching and learning and less on maintaining order (Table 3.44).

Figure 3.7. Maintaining classroom discipline as a source of stress, by years of teaching experience

Percentage of lower secondary teachers who report that maintaining classroom discipline is source of stress "quite a bit" or "a lot"

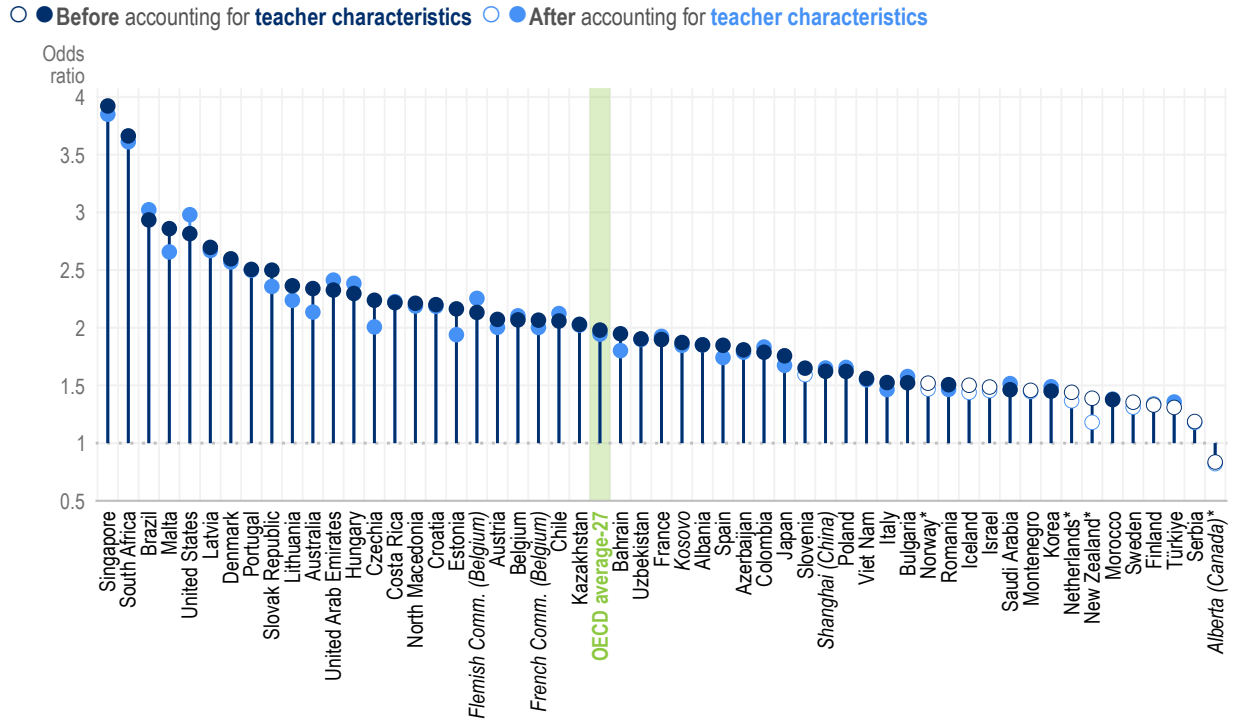


Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Source: OECD, *TALIS 2024 Database,* Table 3.16.

Finally, on average, about 18% of teachers report being intimidated or verbally abused by students as a source of stress. This proportion remains under 25% in the majority of education systems. However, in Brazil, 47% of teachers report this as a source of stress. While there are no notable differences among teachers, it is mainly novice teachers who report this source of stress the most (in 13 education systems). In Bulgaria, Costa Rica and Korea, however, it is more experienced teachers who report being intimidated or verbally abused as a source of stress (Table 3.16).

Figure 3.8. Relationship between the stressor of maintaining classroom discipline and diverse learning needs in the classroom

Change in the likelihood that lower secondary teachers report maintaining classroom discipline as a source of stress "quite a bit" or "a lot"[1] associated with diverse behavioural, language and special education learning needs in the classroom[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 1 indicate a positive association between teachers maintaining classroom discipline as a source of stress and diverse behavioural, language and special education learning needs in the classroom, while those below 0 reflect a negative relationship.
1. Binary variable: the reference category refers to "not at all" and "to some extent".
2. Binary variable: the reference category refers to a class where the share of students is up to 10% in more than one of the following categories: students with behavioural problems; students with difficulties understanding the language of instruction; students with special education needs.
3. Results based on binary logistic regression. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below one denotes a negative association; an odds ratio above one indicates a positive association; and an odds ratio of one means that there is no association. Teacher characteristics include gender, age (standardised at the international level) and years of teaching experience (standardised at the international level). School characteristics include school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.
Source: OECD, *TALIS 2024 Database*, Table 3.46.

Box 3.4. Disciplinary demands for primary and upper secondary teachers

Moving from primary to lower secondary and then to upper secondary levels, teachers tend to spend less time keeping order in the classroom (Table 3.36). In 6 out of 15 education systems with available data for primary and lower secondary education, primary teachers report spending more time on maintaining discipline than their lower secondary peers. The only exceptions are Morocco and the Netherlands*, where primary teachers report about 2 and 3 percentage points less, respectively. In seven education systems, no significant difference between both levels of education is observed.

The pattern is more consistent at the upper secondary level. In all education systems with data for both lower and upper secondary levels, upper secondary teachers report spending less time on discipline than their lower secondary colleagues. The largest difference is observed in Denmark, where the difference reaches 6 percentage points (Table 3.36).

Moreover, novice teachers consistently report facing these challenges more frequently than their experienced peers. No education system shows the opposite (Table 3.35). Among primary education teachers, the widest gaps by experience level are reported in New Zealand*, where novice teachers are significantly more likely to report having too much disruptive noise and disorder (26 percentage points), having to wait a long time for students to quiet down (23 percentage points), having many students that do not start working for a long time after the lesson begins (14 percentage points) and losing quite a lot of time because students interrupt the lesson (21 percentage points) (Table 3.34).

When comparing primary and lower secondary teachers, primary teachers in 6 out of 15 education systems report disruptive noise and disorder more frequently, with the largest difference observed in Korea (8 percentage points). The reverse is true only in Brazil, Spain and Türkiye. However, when examining classrooms where many students delay starting work, lower secondary teachers report this challenge more frequently in 10 education systems, most notably in Brazil (16 percentage points). Only Korea reverses this trend, with 3 percentage points more primary teachers identifying this issue (Table 3.34).

Among upper secondary teachers, the most notable gaps between novice and experienced teachers are found in Portugal for having too much disruptive noise and disorder (28 percentage points), having many students that do not start working for a long time after the lesson begins (22 percentage points) and losing quite a lot of time because students interrupt the lesson (18 percentage points). Regarding waiting for students to quiet down, the largest difference is seen in the Flemish Community of Belgium (16 percentage points) (Table 3.35).

Upper secondary teachers consistently report fewer classroom discipline issues than their lower secondary peers. The only exception is again the Flemish Community of Belgium, where a slightly higher share of upper secondary teachers report delays in students starting work (5 percentage points). The largest observed differences are in Portugal, where upper secondary teachers report substantially fewer problems with much disruptive noise and disorder (12 percentage points), having to wait a long time for students to quiet down (10 percentage points), having students that do not start working for a long time after the lesson begins (7 percentage points), and losing a lot of time because students interrupt the class (14 percentage points) (Table 3.34).

Teacher accountability

Teacher appraisal, the act of evaluating teacher performance, typically serves two main functions. The first is formative: helping teachers to improve their practice by identifying strengths and areas for development. The second is summative: determining how effective teachers are and holding them accountable (Santiago and Benavides, 2009[19]).

While appraisal systems are designed to support professional practice, they can also introduce new demands or increase existing pressures, especially if they are linked to student outcomes or implemented unevenly (OECD, 2013[20]). This section focuses on how appraisal is implemented across education systems, the extent to which it is reported as a source of stress, and which teachers are more likely to report it as a source of stress.

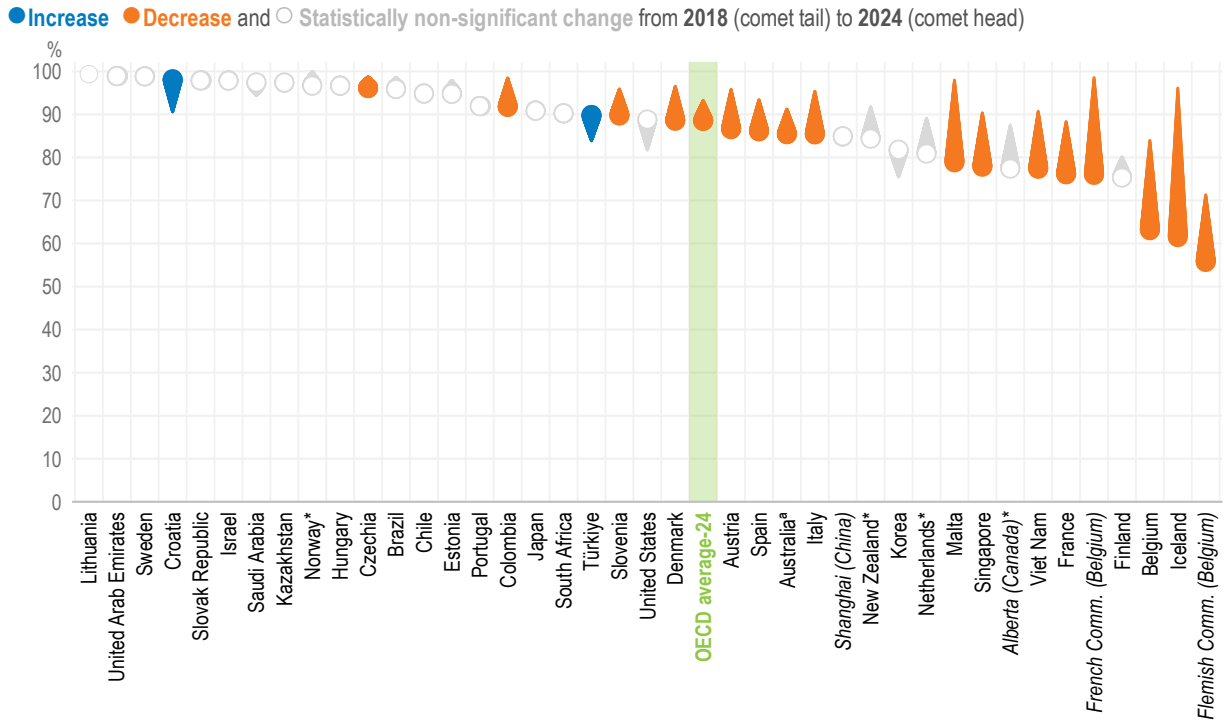
Appraisal is nearly universal. On average, 88% of teachers work in schools where they are formally appraised at least once a year by their school principal. Only in Finland and Italy do less than two-thirds of teachers work in schools where this is the case (62% and 59% respectively) (Table 3.47). In most education systems, the responsibility is shared by school management teams (66%) or assigned mentors (61%), while appraisal by fellow teachers is less common – on average, about 45% of teachers are appraised by their peers according to principals' reports. This latter form of appraisal is particularly rare in the French Community of Belgium and Finland (less than 10%) but highly prevalent in Shanghai (China) and Viet Nam, where nearly all teachers report being appraised by their peers.

In terms of appraisal methods, classroom observation remains the most widespread. According to school principals, 96% of teachers work in schools that use classroom observation as a formal appraisal method. This proportion exceeds 90% in almost all education systems, except for Denmark, Finland, Iceland and Spain (although even in these education systems, the proportion is over 70%) (Table 3.48). The use of this method has remained relatively stable since 2018, with few countries reporting significant changes (Table 3.49).

In contrast, the use of student performance data in appraisal is declining. Since 2018, 16 education systems reported a significant decrease in the use of external student results (e.g. national exams) (Figure 3.9). Similarly, 14 education systems exhibit a decline in the use of internal performance measures (e.g. school- or classroom-based results). These trends are particularly pronounced in the French Community of Belgium, where the use of both types of student data in appraisal has fallen by more than 20 percentage points between 2018 and 2024 (Table 3.49).

Figure 3.9. Change in the use of external student results for teacher appraisal, from 2018 to 2024

Percentage of lower secondary teachers working in schools where students' external results are used in the formal appraisal of teachers' work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 3.49.

These shifts may reflect a broader rebalancing of how performance evidence is used in teacher evaluation and professional learning in recent years. The disruptions caused by the coronavirus (COVID-19) pandemic may also have contributed to this shift. In many education systems, national examinations and regular school-based assessments were suspended or reduced during periods of school closure (OECD, 2021[21]). Consequently, there has been an increased reliance on other forms of teacher feedback.

Differentiated appraisal

Research suggests that teacher appraisal does not have to be uniformly applied. A differentiated approach adapts appraisal to the stage of a teacher's career and the aims of the appraisal system (OECD, 2013[20]; Danielson, 2011[22]; Danielson, 2001[23]). Developing such a system can be challenging, but it can also be more resource efficient as some teachers might be appraised less because they do not require continuous evaluation.

TALIS results suggest that many education systems might be practising differentiated approaches to appraisal. Although feedback practices differ across education systems, several clear trends emerge from TALIS 2024 data. Among the three most commonly reported forms of feedback for teachers, two are more prevalent for experienced teachers than for their novice counterparts. On average, the share of experienced teachers receiving feedback based on school- and classroom-based student results is 8 percentage points higher than for novice teachers (Table 3.52). The gap is especially wide in Estonia,

Italy and Poland, where it reaches 18 percentage points or more. One exception is Shanghai (China), where novice teachers report this type of feedback more frequently, though the difference is marginal (2 percentage points). Second, receiving feedback based on external student results shows the greatest difference by experience level. In most education systems, experienced teachers are more likely to receive feedback based on external assessments. Across education systems, the average difference is 17 percentage points, with 14 education systems reporting gaps exceeding 20 percentage points, and differences surpassing 30 percentage points in Italy and Portugal.

The third feedback method – classroom observation – shows more mixed patterns. In 11 education systems, novice teachers are more likely to report receiving feedback based on observation, with differences reaching over 12 percentage points in Alberta (Canada)* and the Flemish Community of Belgium, and about 16 percentage points in Israel. In contrast, in 16 education systems, experienced teachers report more frequent use of observation as a feedback method, with the most pronounced gap in Portugal (34 percentage points) and a modest 2-point average difference across education systems (Table 3.52).

Consequences following appraisal

Finally, while teacher appraisal systems often show more developmental approaches internationally, the specific supportive measures implemented vary widely across countries. On average, 65% of teachers are involved in post-appraisal discussions aimed at addressing any weaknesses in their teaching. However, this percentage ranges from over 95% in Bahrain and Kazakhstan to under 50% in Denmark, Finland, France, Japan, Korea and Portugal. Similarly, 46% of teachers are offered post-appraisal development or training plans, on average. Nonetheless, this ranges from less than 15% in Iceland and Norway* to 50% of teachers in Spain, and over 90% of teachers in Bahrain and Kazakhstan (Table 3.50).

Punitive consequences are less common. Financial incentives are reported by 12% of teachers, and formal sanctions (e.g. salary adjustments or contract termination) are rare, affecting about 3% of teachers across education systems (Table 3.50).

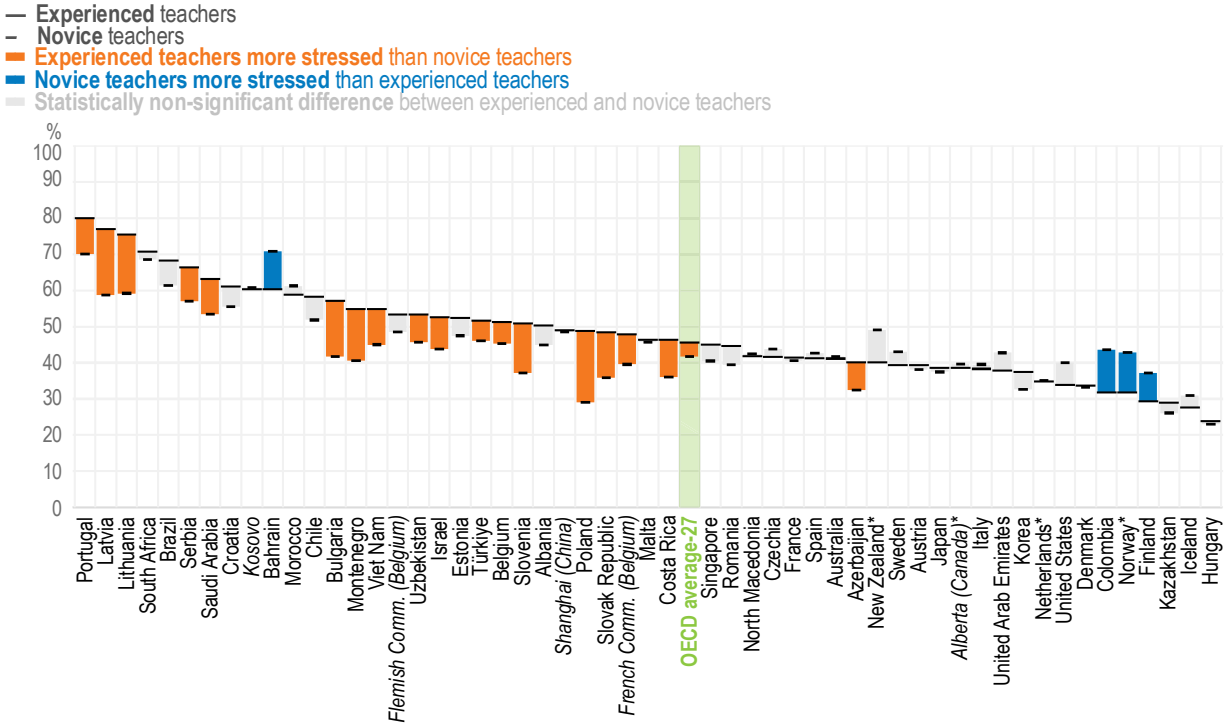
Teacher accountability as a source of stress

On average, 45% of teachers report that being held responsible for their students' achievement is a significant source of stress. This perception is particularly high in Latvia, Lithuania, Portugal and South Africa, where over 70% of teachers report such stress. In contrast, less than 33% of teachers in Finland, Hungary, Iceland and Kazakhstan report this (Table 3.16).

These perceptions can also vary depending on the teacher's profile. In 17 out of 54 education systems, experienced teachers are more likely than novice teachers to report being held accountable for student achievement as a source of stress (Figure 3.10). These differences are the largest in Bulgaria, Latvia, Lithuania and Poland, where they exceed 15 percentage points.

Figure 3.10. Being held responsible for student achievement as a source of stress, by years of teaching experience

Percentage of lower secondary teachers who report that being held responsible for student achievement is a source of stress "quite a bit" or "a lot"



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Source: OECD, *TALIS 2024 Database*, Table 3.16.

Moreover, other forms of accountability can also play an important role in teachers' perceptions of demands. For example, 40% of teachers report being held responsible for students' social and emotional well-being as a source of stress, on average. In nine education systems, the proportion of teachers exceeds half, reaching nearly 60% in Lithuania and Saudi Arabia. On the opposite end of the spectrum, only 12% report this in Hungary. While there is no clear pattern within education systems, in 12 education systems, more experienced teachers report this type of accountability as a source of stress with respect to novice teachers, with an average difference of 3 percentage points across education systems (Table 3.16).

Furthermore, addressing concerns from parents or guardians is another form of accountability. Teachers play an important role in providing parents with adequate, meaningful and clear information on their child's progress. Addressing parents' concerns is a source of stress for approximately 42% of teachers on average, and for more than 50% in Japan, Korea, Lithuania, Portugal and Slovenia. While in most education systems, teachers report this as a source of stress without distinction, in 12 education systems, experienced teachers are more concerned by this form of accountability than novice teachers, by 2 percentage points, on average. In six education systems, novice teachers are more likely than experienced teachers to report addressing parent or guardian concerns as a source of stress, particularly in Bahrain and Colombia, where the difference exceeds 10 percentage points (Table 3.16).

Furthermore, there are significant differences between reports from female and male teachers regarding addressing parents' concerns is a source of stress. On average, 44% of female teachers report this as a source of stress, compared to 35% of male teachers. This trend is evident in most education systems, with the difference exceeding 19 percentage points in Poland and Lithuania (Table 3.53).

Keeping up with reforms

Like other fields, education constantly evolves in response to social, technological, environmental and economic changes. Educational reforms aim to keep pace with these changes, but the process of reform also involves trade-offs. Research suggests that teachers are often asked to implement new initiatives with inadequate support, sometimes while previous changes are still taking root (Sykes, Schneider and Plank, 2012[24]; Fullan, 2007[25]; Hargreaves and Shirley, 2009[26]). TALIS 2024 data make it possible to explore how teachers perceive these systemic developments and whether they regard them as sources of stress.

Some 44% of teachers report that they would like to see a period of stability before new changes are introduced in their schools, on average across OECD education systems. This sentiment is particularly strong in the Netherlands*, Shanghai (China) and Singapore, where at least two out of three teachers agree. Indeed, these three countries are at the top end when it comes to the share of teachers who believe that too many change initiatives are introduced in their schools (between 47% and 54%). In education systems such as Uzbekistan, up to 83% of teachers agree that too many initiatives are introduced, compared to an OECD average of 31% (Table 3.54).

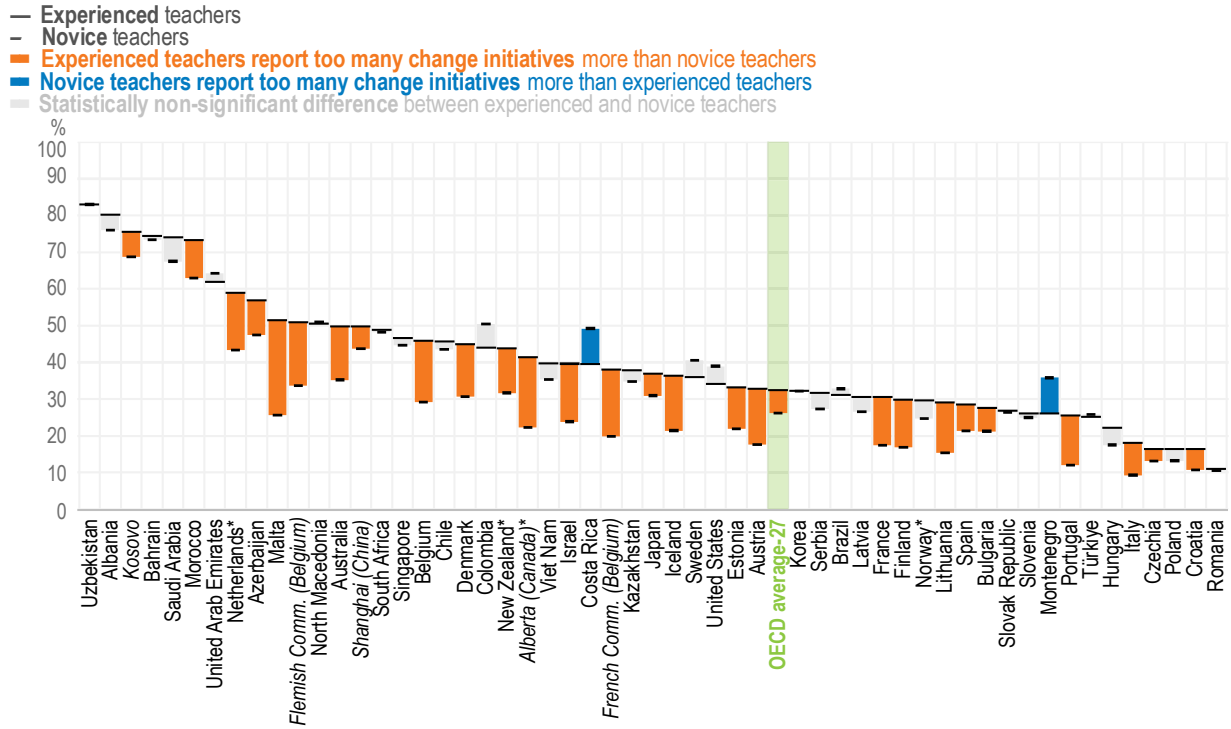
Approximately 31% of teachers report being asked to implement changes without the necessary resources, on average. This figure ranges from about 13% or less in Bulgaria, Czechia, Romania and the Slovak Republic to nearly 50% in France (Table 3.54). These patterns indicate that the perceived pressure of reform is shaped not only by its pace, but also by the support – or lack thereof – that teachers receive in implementing it.

Again, experience plays a role. In most countries, experienced teachers are more likely than their less experienced colleagues to report that too many changes are introduced in their schools, by an average of 6 percentage points across (Figure 3.11). Notably, the opposite pattern is observed in only two education systems: Costa Rica and Montenegro, where novice teachers are more likely to report this sentiment, by margins of almost 10 percentage points. These exceptions aside, this finding suggests that novice teachers are less likely to feel overwhelmed by new initiatives or simply have experienced fewer cycles of reform.

Another aspect to consider is whether teachers' age is a factor contributing to change fatigue. It is possible that teachers nearing retirement may experience more fatigue than their younger counterparts. However, this may be difficult to distinguish from teacher experience. TALIS data suggest that, on average, older teachers (aged 50 or over) report more frequently than younger teachers (under 30) that too many changes are introduced in their schools. Nevertheless, these differences are less consistent across education systems than those related to experience. In Bulgaria, Czechia, Denmark, Estonia, Italy, Japan, Kosovo, Montenegro, the Netherlands*, New Zealand* and Spain, for example, age is not a factor, whereas experience is. In Israel, it is more experienced teachers who report this sort of change fatigue, although younger teachers also report it more than older teachers do (Table 3.55).

Figure 3.11. Change fatigue, by years of teaching experience

Percentage of lower secondary teachers who "agree" or "strongly agree" that too many change initiatives are introduced at their school



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Source: OECD, *TALIS 2024 Database*, Table 3.55.

System reform as a source of stress

Across OECD education systems, more than one in three teachers (39%) report that keeping up with changing requirements from different authorities – whether local, regional or national – is a source of stress. While this figure reflects an important share of the profession, it obscures differences between education systems. In Latvia, Lithuania and Malta, over 67% of teachers report such stress, whereas in Azerbaijan, Kazakhstan, Morocco, the Netherlands* and Sweden, less than 20% do so (Table 3.16).

More experienced teachers report more stress from changing requirements (10 percentage points) compared to novice teachers, on average. This may reflect a longer accumulation of exposure to reform cycles or a more profound understanding of how policy changes impact classroom practice over time. In 29 out of 54 education systems, more experienced teachers are more likely to report this type of stress (Table 3.16).

Although policy reform is often linked to the availability of resources, TALIS 2024 data show that reported stress is more consistently associated with the experience of constant, unsupported change than with a general lack of human resources, for example (Tables 3.57 to 3.70). In other words, while the absence of resources such as support staff may be frustrating, teachers are more likely to report stress when change is frequent and when they are asked to implement reforms without the support to do so effectively. This

suggests that well-managed change processes may be just as important as resource investment in reducing teacher stress.

Furthermore, about one in three teachers (34%) report keeping up with curriculum or programme changes in their schools as a source of stress. This figure is over 60% in Lithuania and Malta, around 33% in Estonia, Italy and Shanghai (China), and under 20% in Finland, the Netherlands*, Poland and Sweden (Table 3.16).

In most participating education systems, experienced teachers report this more often as a source of stress than novice teachers. While the average difference is 6 percentage points, it reaches approximately 25 percentage points in Norway*. In only three countries – Bahrain, Colombia and the Netherlands* – do novice teachers report this as a source of stress to a greater extent. The difference is above 8 percentage points (Table 3.16).

Finally, while not universal, self-efficacy can be associated with how teachers perceive the need to keep up with changing requirements from different authorities. In 14 education systems, teachers with low self-efficacy are more likely to report this as a source of stress than those with high self-efficacy (Table 3.3). Furthermore, on average, fewer teachers with high self-efficacy report feeling tired due to changes in their schools and, most notably, being asked to implement change initiatives without the necessary resources (Table. Likewise, they are less likely to report that they would like to see a period of stability in 25 education systems (5 percentage point difference, on average).

These findings reinforce the idea that self-efficacy is an important lens through which to analyse teachers' perceptions of professional demands. Confident teachers are less likely to be stressed by new requirements. However, this relationship is not consistent in all areas of teachers' work. As with workload, teachers' perception of system-level demands – such as pressure to adapt to changing requirements or implement new initiatives – can be related to self-efficacy, but this varies depending on the nature of the demand. Understanding this variation could be key for supporting teachers in navigating the evolving complexity of their professional environments.

Table 3.1. Chapter 3 figures

Figure 3.1		Maintaining classroom discipline as a source of stress, by teacher self-efficacy in instruction
Figure 3.1 (ISCED 1)	WEB	Maintaining classroom discipline as a source of stress, by teacher self-efficacy in instruction
Figure 3.1 (ISCED 3)	WEB	Maintaining classroom discipline as a source of stress, by teacher self-efficacy in instruction
Figure 3.2		Change in teachers' total working hours, from 2018 to 2024
Figure 3.2 (ISCED 1)	WEB	Change in teachers' total working hours, from 2018 to 2024
Figure 3.2 (ISCED 3)	WEB	Change in teachers' total working hours, from 2018 to 2024
Figure 3.3		Workload as a source of stress
Figure 3.3 (ISCED 1)	WEB	Workload as a source of stress
Figure 3.3 (ISCED 3)	WEB	Workload as a source of stress
Figure 3.4		Lesson preparation as a source of stress, by years of teaching experience
Figure 3.4 (ISCED 1)	WEB	Lesson preparation as a source of stress, by years of teaching experience
Figure 3.4 (ISCED 3)	WEB	Lesson preparation as a source of stress, by years of teaching experience
Figure 3.5		Changes in reported administrative workload and related stress, from 2018 to 2024
Figure 3.5 (ISCED 1)	WEB	Changes in reported administrative workload and related stress, from 2018 to 2024
Figure 3.5 (ISCED 3)	WEB	Changes in reported administrative workload and related stress, from 2018 to 2024
Figure 3.6		Class intake of students with difficulties understanding the language of instruction, by teacher age
Figure 3.6 (ISCED 1)	WEB	Class intake of students with difficulties understanding the language of instruction, by teacher age

Figure 3.6 (ISCED 3)	WEB	Class intake of students with difficulties understanding the language of instruction, by teacher age
Figure 3.7		Maintaining classroom discipline as a source of stress, by years of teaching experience
Figure 3.7 (ISCED 1)	WEB	Maintaining classroom discipline as a source of stress, by years of teaching experience
Figure 3.7 (ISCED 3)	WEB	Maintaining classroom discipline as a source of stress, by years of teaching experience
Figure 3.8		Relationship between the stressor of maintaining classroom discipline and diverse learning needs in the classroom
Figure 3.8 (ISCED 1)	WEB	Relationship between the stressor of maintaining classroom discipline and diverse learning needs in the classroom
Figure 3.8 (ISCED 3)	WEB	Relationship between the stressor of maintaining classroom discipline and diverse learning needs in the classroom
Figure 3.9		Change in the use of external student results for teacher appraisal, from 2018 to 2024
Figure 3.9 (ISCED 1)	WEB	Change in the use of external student results for teacher appraisal, from 2018 to 2024
Figure 3.9 (ISCED 3)	WEB	Change in the use of external student results for teacher appraisal, from 2018 to 2024
Figure 3.10		Being held responsible for student achievement as a source of stress, by years of teaching experience
Figure 3.10 (ISCED 1)	WEB	Being held responsible for student achievement as a source of stress, by years of teaching experience
Figure 3.10 (ISCED 3)	WEB	Being held responsible for student achievement as a source of stress, by years of teaching experience
Figure 3.11		Change fatigue, by years of teaching experience
Figure 3.11 (ISCED 1)	WEB	Change fatigue, by years of teaching experience
Figure 3.11 (ISCED 3)	WEB	Change fatigue, by years of teaching experience

StatLink https://stat.link/0tgheo

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Notes

[1]. Some teachers may interpret the total workload question as referring only to contracted or official working hours, which provides a defined number of weekly hours, whereas task-based reporting encourages the inclusion of all activities, including off-site tasks. Moreover, this discrepancy is likely to reflect a combination of other factors. On the one hand, teachers may underestimate the full extent of their work when asked to provide a single figure, especially if their workload includes many fragmented or low-visibility tasks (e.g. emails, informal meetings, preparation at home). On the other hand, when breaking down time by task, teachers may inadvertently double-count concurrent activities with overlapping time or overestimate each component individually, leading to an inflated total when added together. However, this gap highlights that, like in many other professions, teachers may not have a clear or consistent sense of their total workload. While teaching time may be the clearest set of hours in a teacher's workload (i.e. teaching periods/hours are generally clearly identifiable and drive other tasks, such as lesson preparation), other tasks may be more difficult to identify due to their diffuse, irregular and overlapping nature.

[2]. When interpreting these results, it should be taken into consideration that, while teachers report working time spent on marking and correcting, they only report marking as a source of stress.

[3]. Following the ratification of the UN Convention on the Rights of Persons with Disabilities by the Flemish Parliament in 2009, the Flemish Community legally reinforced the right of students with special educational needs to be enrolled in mainstream education by passing the M-Decree in 2014. This included measures such as: 1) Updating the definition categories for students with special educational needs, including a category for children with autism; 2) Requiring mainstream schools to make reasonable adjustments to accommodate students with special education needs, such as providing specialist equipment and support staff, and only referring a student to special education after all such 'reasonable adaptations' have been tried. 3) Parents of children with special education needs who disagree with a school's refusal to enrol their child are given the right to appeal to a Student Rights Commission (Commissie inzake Leerlingenrechten or CLR). This commission comprises experts in equality and education law, and was created by the Parliamentary Act of 2002 on Equal Educational Opportunities.

4 Developing teacher expertise

This chapter looks at learning opportunities for teachers to develop their professional expertise and teaching skills, which are crucial resources that are essential for teachers to thrive on the job. The chapter follows teachers throughout their careers, starting with how they acquire their credentials through initial teacher education, continuing with induction and mentoring activities designed to help teachers start their careers on the right track, and then examining opportunities for continuous professional learning. The chapter examines how access to learning opportunities is associated with teachers' professional outcomes (like well-being and fulfilment of lesson aims) and attempts to inform policies by reporting on teachers' professional learning needs and the barriers they encounter to participating in professional learning.

Highlights

- While a large majority of **teachers** report that their initial teacher education prepared them well to deal with traditional topics like subject content, they **feel less prepared in** other, **less traditional areas.** Just 33% of recent graduates (teachers who obtained their first teaching qualification within the five years prior to the survey) feel prepared to teach in a **multicultural or multilingual setting**, and 44% feel prepared to **support students' social and emotional development**. Moreover, the share of recent graduates reporting a high **sense of preparedness on subject content, subject pedagogy, general pedagogy and classroom practices has declined in many countries since the previous TALIS cycle conducted in 2018**, suggesting, if not necessarily a worsening of the quality of initial teacher education, that teachers hold now a less positive opinion of it than in the recent past.
- **Mentoring is gaining popularity**. On average across OECD education systems, about one in four novice teachers (teachers with up to five years of teaching experience) has an assigned mentor, and four in five work in schools that offer a mentoring programme. **The share of novice teachers with an assigned mentor increased between 2018 and 2024 in about one-third of education systems** and decreased only in Kazakhstan and Singapore (where mentoring remains more common than in many other countries). In about one-third of education systems, novice teachers with an assigned mentor are more likely to report fulfilling their lessons' aims and enjoying higher job satisfaction. In about half of education systems, mentoring other teachers is also associated with higher job satisfaction.
- **While nearly all teachers participate in continuous professional learning, not all of them find that doing so has a positive impact on their teaching**. Just 55% of teachers report that the professional learning activities they participated in during the 12 months preceding the survey had a positive impact on their teaching, on average across OECD education systems. Almost all teachers find professional learning impactful in Albania, Brazil, Portugal, and Viet Nam, while only about one-third of them does so in the French Community of Belgium, Finland, France, Norway and Sweden. **Teachers' perceptions of the impact of a professional development activity are a stronger predictor of fulfilling their lesson aims than the actual content or focus of the activity.**
- **Many teachers are paying attention to the use of artificial intelligence (AI) for teaching and learning**. Some **29% of teachers report professional development needs in the use of AI**, more than for any other content area surveyed, and 38% participated in professional learning on this topic, on average across OECD education systems. Participation in training on AI is highest in Singapore (76%) and lowest in France (9%). While experienced teachers (those with over ten years of teaching experience) are more likely to report high needs in this area (30%, compared to 24% of novice teachers), a lower share actually participated in AI training (37%, compared to 40% of novice teachers).
- **Novice teachers need professional support to learn how to manage student behaviour in the classroom.** Some 30% of novice teachers report needing training focused on classroom management, on average across OECD education systems. Moreover, the share of novice teachers expressing such need has increased by 6 percentage points since 2018. Teachers reporting a high need for training in classroom management are less likely to report fulfilling their lesson aims. Receiving feedback on how to manage student behaviour can be an effective way for novice teachers to improve their classroom management skills: 76% of novice teachers (compared to 63% of experienced teachers) report that the feedback they received in the past 12 months led to a positive change in how they manage student behaviour in the classroom.

Introduction

As the quality of an education system cannot exceed the quality of its teachers (Barber and Mourshed, 2007[1]), the best education systems ensure that their teachers have the skills they need to deliver quality education, and that they keep these skills up to date and aligned with diverse and evolving settings and challenges (OECD, 2024[2]). This chapter examines how education systems provide teachers with the necessary learning opportunities to build their expertise at three different stages of their career:

- before they become teachers (initial teacher education),
- as they start their teaching career (induction and mentoring),
- throughout their professional life as teachers (continuous professional learning).

This chapter then explores what teachers think about these opportunities, and how participation in training and professional development activities is related to important professional outcomes, such as well-being, job satisfaction, and the fulfilment of lesson aims.[1]

Initial teacher education

Teachers must normally complete some form of initial training or acquire a qualification before being allowed to teach. Teachers can typically acquire their qualifications or credentials by following dedicated post-secondary programmes that cover subject matter, subject-specific pedagogy, general pedagogy and teaching practice. Fast-track or shorter programmes may also exist, whose duration or content is adapted to specific groups of candidates (e.g. candidates with relevant professional experience outside of teaching, combined with strong subject-matter knowledge, or those with previous teaching experience). Finally, in some cases a subject-matter qualification, without any specific training in pedagogy or practice, may be sufficient. The rules governing which qualifications teachers are required to possess vary between countries and over time, so that at any given point, teachers who have followed different paths may coexist. Research has found that untrained or unqualified teachers can be less effective than trained teachers (Metcalf, 1992[3]; Bressoux, Kramarz and Prost, 2009[4]), though a qualification is not a guarantee of teacher quality (Buddin and Zamarro, 2009[5]).

This section describes the pathways that teachers in education systems participating in the Teaching and Learning International Survey (TALIS) with available data (hereafter “education systems”) have followed to acquire their initial teaching qualification, and it reports on teachers’ views about the quality of their initial training.

How teachers are trained

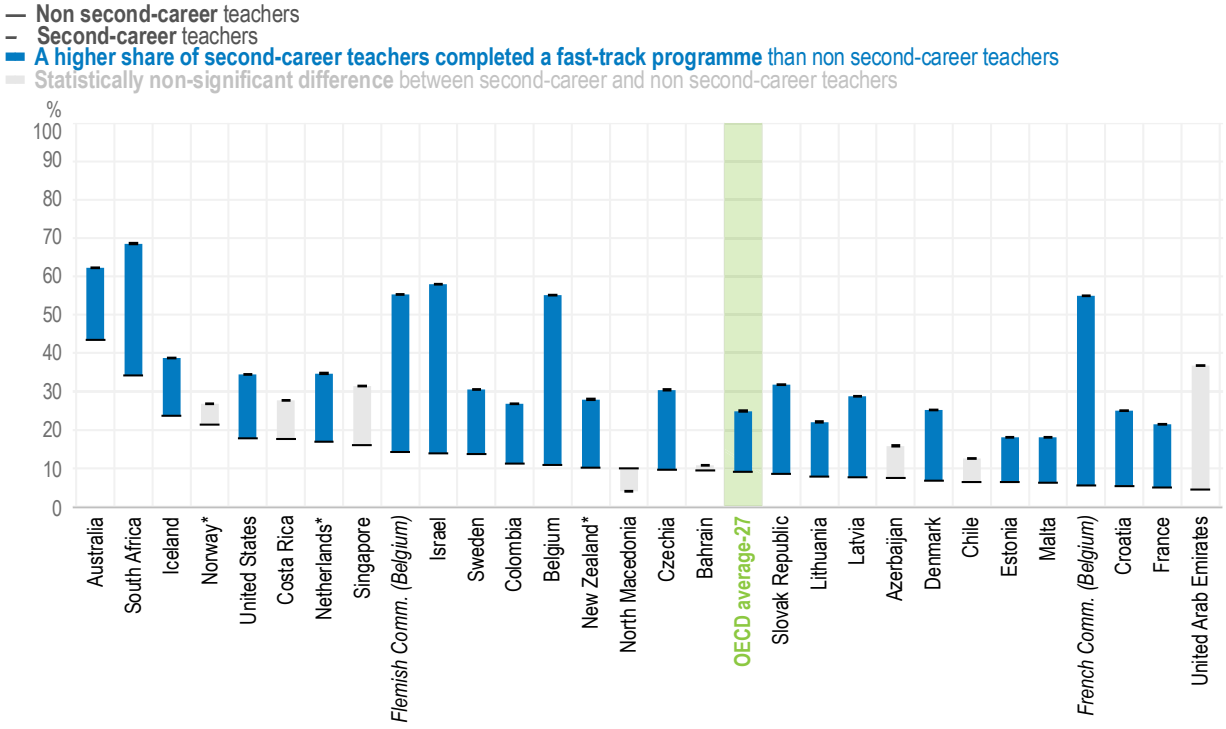
In most education systems, a regular teacher education or training programme is by far the most common way for teachers to obtain their first teacher qualification: almost four in five teachers follow this path, on average across OECD education system, and in 11 countries the share of teachers doing so exceeds 90%. In only six education systems (Australia, Costa Rica, Kazakhstan, Romania, Saudi Arabia and South Africa), the share of teachers following this path is below 50% (Table 4.1).

Fast-track programmes and subject-specific education or training are the second most common pathways to obtain a teaching qualification. The relative popularity of these two paths varies significantly across education systems. Subject-specific degrees are quite common in Italy, Kazakhstan, Romania and Saudi Arabia. In these countries, between 40% and 50% of teachers obtain their first teaching qualification in this way (Table 4.1). Fast-track programmes or other specialised teacher education programmes are common in Australia (47% of teachers), South Africa (37%), Iceland (27%), Saudi Arabia (22%) and the United States (20%).

The use of fast-track programmes is gaining popularity in many education systems. As many education systems are experiencing teacher shortages (UNESCO Institute for Statistics, 2016[6]; OECD, 2024[2]), these programmes may help by preparing new teachers more quickly and by attracting a more diverse set of candidates to the teaching profession. About one in five recent graduates (teachers who obtained their first teaching qualification within the five years prior to the survey) complete a fast-track programme as their first teaching qualification, compared to about one in ten older graduates, on average across OECD countries and territories with available data (hereafter, "on average"). In Iceland, 50% of recent graduates completed a fast-track programme, compared to 24% of older graduates. Similarly, in Latvia and Lithuania almost 40% of recent graduates completed such programmes, compared to 6% of older graduates. Fast-track programmes are also very popular among recent graduates in Australia and South Africa (46% and 40%, respectively), but in those two countries the differences between recent and older graduates are smaller (Table 4.1).

Figure 4.1. Participation in fast-track programmes to become teachers, by career pathway

Percentage of lower secondary teachers who completed a fast-track programme as their first teacher qualification



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Only education systems where at least 5% of lower secondary teachers completed a fast-track programme are displayed.
Second-career teachers are those with at least ten years of work experience in non-educational roles, for whom teaching was not their first career choice. All other teachers are considered non second-career teachers.
Source: OECD, *TALIS 2024 Database*, Table 4.2.

Fast-track programmes may also be designed as a way to cater to the needs of second-career teachers, who transition into teaching after working in other sectors for a significant period.[2] Second-career teachers may help address teacher shortages and bring important new perspectives and experience, but they may also present specific learning needs that tailored programmes should address (Paniagua and Sánchez-Martí, 2018[7]; Ruitenburg and Tigchelaar, 2021[8]). For example, they might be experts in content

knowledge but struggle with pedagogy and classroom management.[3] The percentage of second-career teachers increased in 15 education systems between 2018 and 2024 (Chapter 1, Table 1.16). In 2024 the share of second-career teachers is above 15% in six education systems, peaking at 21% in Iceland (Chapter 1, Table 1.14).

Some 50% of second-career teachers completed a regular education programme on average, compared to almost 80% of first-career teachers. Further, 25% of second-career teachers completed a fast-track programme, compared to 9% of first-career teachers (Figure 4.1). The decision to participate in regular or fast-track programmes is likely due to regulations and programme availability, both of which vary across education systems. In Australia, the Flemish and French Communities of Belgium, Israel and South Africa, between 50% and 70% of second-career teachers completed a fast-track programme. In those same education systems, the share of non second-career teachers who did so is between 19 and 49 percentage points lower.

What teachers think of their initial training

TALIS asks teachers two separate sets of questions to capture their opinion on their initial teacher education. The first asks teachers to what extent they agree with a set of statements about their initial teacher education. The second asks teachers to explicitly rate the extent to which their initial teacher education has prepared them for different aspects of teaching.

Around 75% of recent graduates (teachers who have completed their initial teacher education in the five years prior to the survey), on average, “agree” or “strongly agree” that the quality of their initial education was high overall (Table 4.3). Comparing perceived quality across different pathways is challenging due to the small sample size of teachers who completed non-regular teacher training. With this caveat in mind, there does not seem to be large differences in perceived quality of initial teacher education by type of training. In the Flemish Community of Belgium and Costa Rica recent graduates who completed a fast-track programme are significantly less likely than graduates of regular programmes to report that the quality of their initial education was high; the opposite holds in Türkiye (Table 4.4).

Recent graduates of regular programmes are on average more likely than graduates of fast-track programmes to report that their initial education provided them with a strong understanding of the subjects they teach. However, such a difference may well be due to fast-track programmes having a different focus, especially if they are catered to the needs of teachers who have already acquired strong subject-matter knowledge through other means.

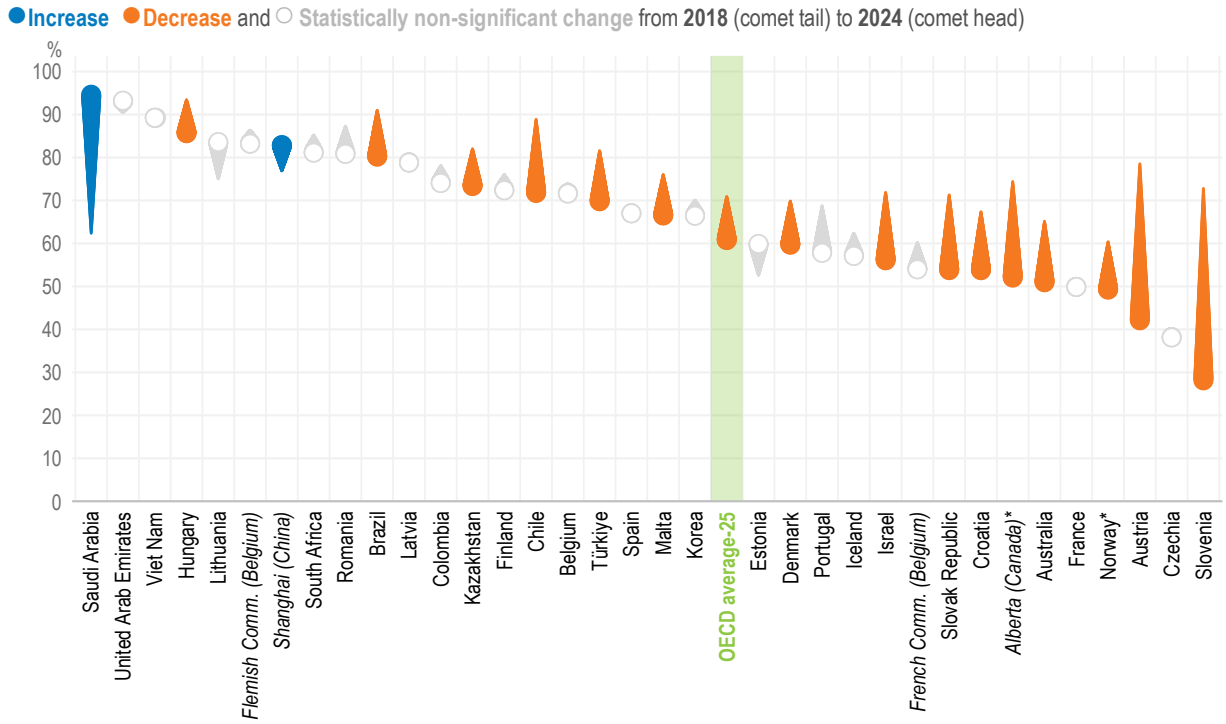
On the other hand, recent graduates from fast-track programmes are more likely than graduates of regular programmes to report satisfaction with other aspects of their initial teacher education. They are for example more likely (by 7 percentage points, on average) to report that their programme had a good balance between theoretical and practical aspects of teaching (Table 4.4). Nine in ten recent graduates from fast-track programmes in Estonia report this, compared to about six in ten graduates of regular programmes; similar differences are observed in Czechia (67% versus 40%). Graduates from fast-track programmes are also more likely (by 5 percentage points on average) to report that their initial education provided them with ideas for managing classroom behaviour successfully. On this dimension, differences are especially pronounced in Czechia (27 percentage points), the United States (21 percentage points) and Sweden (20 percentage points).

A large majority of teachers across OECD education systems report that their initial education made them feel prepared “quite a bit” or “a lot” on core traditional aspects of teaching, such as subject content, subject-specific and general pedagogy, and classroom practice in the subjects they teach (Table 4.5). On these topics there are generally not large differences between recent and older graduates, suggesting that the ability of initial teacher education programmes to deliver on these core aspects of teaching has not changed much over time.

Comparing the assessment of initial teacher education of teachers with different levels of experience may be problematic, though. Teachers who graduated a long time ago might have an imperfect recollection of their experience. More experienced teachers are also more likely to face different working conditions than their less experienced colleagues, which may affect their perceptions about their preparedness (see Chapter 3). An alternative approach could be used, comparing the perceptions of recent graduates across waves of the TALIS survey. This delivers indeed a different picture: the share of recent graduates reporting that their initial education made them feel well prepared on subject content, subject-specific pedagogy, general pedagogy and classroom practices declined in many education systems (Table 4.6). The fact that the perceptions of recent graduates about their initial education have deteriorated over time does not necessarily imply that the quality of initial teacher education has worsened. This change in perceptions could be due to various factors, such as recent graduates having higher expectations than in the past, or perceiving higher professional demands that their initial training did not address adequately. The largest average decline is in classroom practice (9 percentage points on average). On this dimension, large declines are observed in Slovenia (45 percentage points) and Austria (36 percentage points), as well as in 13 other education systems. Only in Saudi Arabia and Shanghai (People's Republic of China, hereafter "China") the percentage of recent graduates reporting high sense of preparedness on this topic has increased between 2018 and 2024 (Figure 4.2).

Figure 4.2. Change in recent graduates' sense of preparedness for classroom practice

Percentage of recently graduated lower secondary teachers who report that their formal education made them feel prepared "quite a bit" or "a lot" for classroom practice in some or all subject(s) they teach



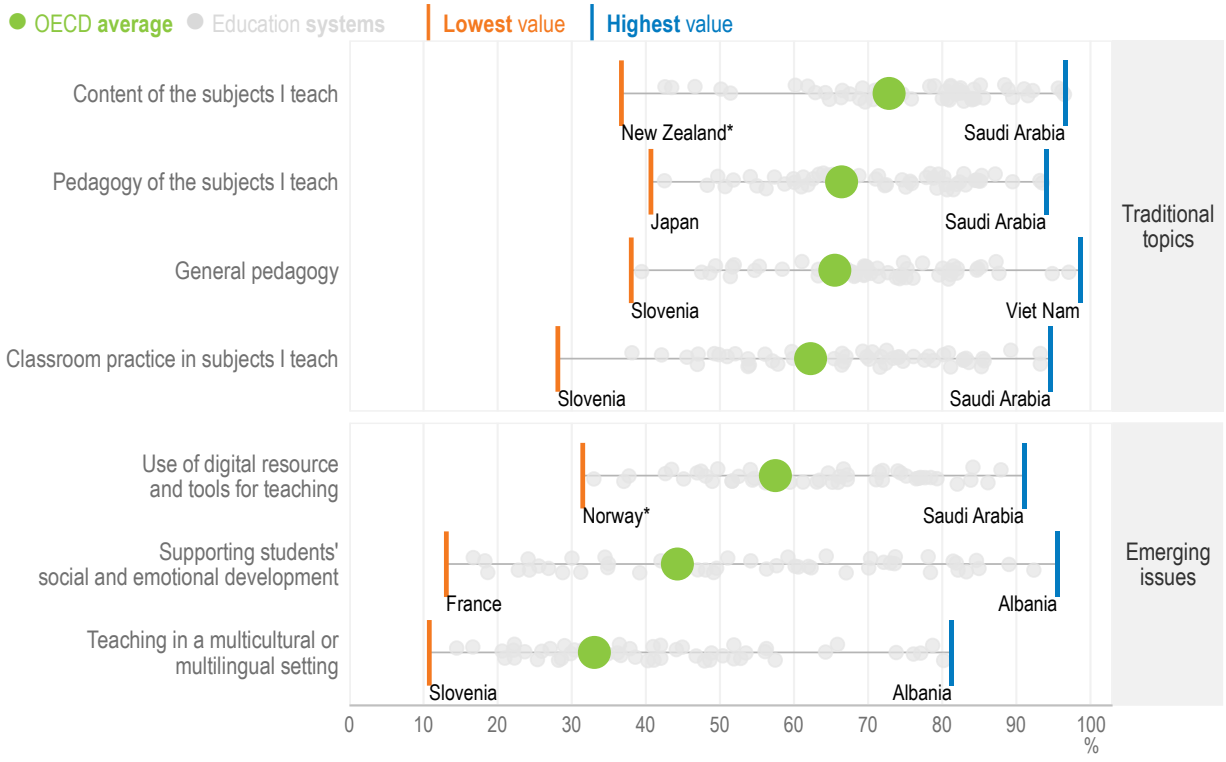
Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Recent graduates refer to teachers who completed their initial teacher education in the five years prior to the survey.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 4.6.

A similar pattern is observed for subject content, subject-specific pedagogy and general pedagogy, with average declines between 6 and 7 percentage points. More importantly, a consistent pattern of declining sense of preparedness emerges in most countries, with only a few exceptions like Saudi Arabia (for all three dimensions of subject content, subject-specific pedagogy and general pedagogy), Lithuania (for subject content only) and Finland (for general pedagogy).

In 2024 teachers feel far less prepared for emerging areas of teaching than for traditional topics. Only 33% of recent graduates, on average, report feeling prepared to teach in a multicultural or multilingual setting; 44% feel prepared to support students' social and emotional development; and 57% feel prepared to use digital resources and tools for teaching (Figure 4.3). Fewer than one in five recent graduates feel prepared to teach in a multicultural or multilingual context in Slovenia (11%), France (15%) and Japan (17%). Similarly, fewer than one in five recent graduates feel prepared to support students' social and emotional development in France (13%), the French Community of Belgium (17%), Norway* (18%) and Austria (19%).

Figure 4.3. Recent graduates' sense of preparedness for different aspects of teaching

Percentage of recently graduated lower secondary teachers who report that their formal education made them feel prepared "quite a bit" or "a lot" for various aspects of their teaching



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Recent graduates refer to teachers who completed their initial teacher education in the five years prior to the survey.
Source: OECD, *TALIS 2024 Database*, Table 4.5.

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Recent graduates feel more prepared to teach in multicultural contexts than older graduates in 16 education systems. Differences are particularly large in Denmark (44% of recent graduates feel prepared, compared to 20% of older graduates) and Iceland (33% versus 14%). This result is confirmed when comparing recent graduates in 2024 to recent graduates in 2018, with statistically significant increases in the share of recent graduates reporting to feel prepared in eight education systems (although declines are observed in Australia, Alberta (Canada)*, Chile and Slovenia) (Table 4.6).

Recent graduates also report feeling more prepared than older graduates to support students' social and emotional development in 15 education systems, particularly in Costa Rica (73% versus 56%), the United States (51% versus 35%), Alberta (Canada)* (42% versus 27%) and the Flemish Community of Belgium (47% versus 34%) (Table 4.5). In seven other education systems, however, the opposite seems to be true, with older graduates feeling more prepared than recent graduates to support students' social and emotional development.

In about 70% of education systems recent graduates are more likely than older graduates to report that their initial education and training made them feel prepared to use digital resources and tools for teaching (Table 4.5). However, it is difficult to disentangle the role played by initial teacher education programmes themselves from the one played by broader familiarity with digital tools in the society at large. On average, the share of recent graduates reporting feeling well prepared in the use of digital resources declined by 3 percentage points between 2018 and 2024; this average however is not very informative as it masks large increases in some countries (e.g. Saudi Arabia) and large declines in others (e.g. Slovenia) (Table 4.6).

Induction and mentoring activities

While teachers can have opportunities to concretely practice teaching during their teacher education, receiving dedicated support when starting a new job can still be important. This is true not only for novice teachers: more experienced teachers starting at a new school may also need support to better integrate into a new working environment, with new students and colleagues. This initial support often takes the form of induction, coaching or mentoring programmes.

Induction programmes for beginning teachers have been shown to increase teaching quality (as perceived by students) (Maulana, Helms-Lorenz and van de Grift, 2015[9]) and to reduce teacher attrition (Smith and Ingersoll, 2004[10]; Helms-Lorenz, van de Grift and Maulana, 2016[11]). The most effective induction programmes seem to be those that provide multiple types of support, including mentoring (Ingersoll and Smith, 2004[12]; Ingersoll and Strong, 2011[13]). The literature has also found that mentoring can improve teacher retention and student achievement (Rockoff, 2008[14]) and can facilitate knowledge transfer from highly skilled teachers (Papay et al., 2020[15]).

On the other hand, it may be challenging to scale up mentoring programmes while maintaining effectiveness: in a meta-analysis pooling data from 60 causal studies of teacher coaching programmes, Kraft, Blazar and Hogan (2018[16]), find that small trials (conducted on less than 100 teachers) had larger positive effects on instructional and achievement outcomes than larger programmes implemented at scale. One likely reason for this finding is that it is not easy to build a sufficiently large corps of teachers capable of coaching a large set of colleagues, possibly with diverse professional learning needs. These programmes remain promising, however, and technology may help address some implementation challenges by facilitating the recruitment of coaches and the efficient matching of mentor and mentees. Policy makers are increasingly conscious of the positive effects that these programmes can have, and Box 4.1 provides some examples of recent policy initiatives in some education systems participating in TALIS.

Box 4.1. Helping new teachers start off on the right foot

Professional learning approaches that foster deep collegial relationships have been identified as powerful drivers of teacher development, offering multiple benefits, including competence development and engagement, job satisfaction and enhanced self-efficacy, creative thinking and experimentation. For novice teachers, in particular, mentoring and induction can facilitate smooth transitions into a new position, thereby increasing their commitment to and understanding of the profession.

Czechia

In 2019, Czechia introduced a two-year structured induction system to better support beginning teachers. New teachers received mentoring, an adaptation period, and regular evaluations. Mentors were also supported through training, reduced workloads, and financial compensation – measures designed to strengthen early career retention and professional growth. In 2023, both the induction period and the mentor position were legally enshrined.

The Netherlands

Beginning primary school teachers in the Netherlands are supported through structured, continuous mentoring that extends from their teacher training into the first years of practice. Schools and training institutions collaborate to design tailored induction plans that include classroom coaching, peer support, and professional development, with the goal of improving teacher retention, well-being, and professional confidence. Teachers particularly value mentoring from dedicated coaches.

Teacher education institutes collaborate with schools that are identified as professional development schools – schools that play a central role in training future teachers. Together, they ensure a close connection between training and practice. Up to 40% of the Initial Teacher Education (ITE) curriculum can be conducted in these schools, including teaching practice, lectures and group work on methodology. These schools receive additional grants and are included in the teacher education accreditation process.

Singapore

Instructional mentoring is a central feature of teachers' professional learning in Singapore. First introduced as a form of structured support for new teachers, it is now also a key professional learning option for all teachers. All beginning teachers are paired with an instructional mentor in the first two years of their career. The mentor supports and helps them grow in their teaching practices via mutual lesson observations and regular professional conversations on enhancing teaching and learning. Experienced teachers looking to deepen their teaching practice can partner with a mentor for mutual professional learning and growth.

The Singapore Instructional Mentoring Approach (SIMA) guides instructional mentors in their practice and articulates the vision and mission of instructional mentoring. SIMA has the mission of supporting all mentees towards pedagogical excellence by focusing on three key areas: promoting mutual growth, relationship building and localising mentoring.

Türkiye

Given the young profile of the teaching workforce, helping new professionals to succeed in the early stages of their practice is particularly important for Türkiye. The Teacher Induction Programme (2016) assigns a mentor to teachers in their first six months of practice, along with various development activities both inside and outside the school setting, and assessment support. A formal probation appraisal at the end of the programme includes evaluations by the principal, the mentor and an

inspector, in addition to a written examination. Candidates who successfully complete the programme gain certification, while unsuccessful candidates can repeat the induction process in another school. The programme, which was initially implemented for 30 000 teachers from early childhood education to secondary education, was mostly well-received, with classroom observations seen as particularly valuable.

Source:
European Commission (2015[17]), *Shaping career-long perspectives on teaching: a guide on policies to improve Initial Teacher Education*, https://ec.europa.eu/education/library/reports/initial-teacher-education_en.pdf.
Eurydice (n.d.[18]), *Czechia - National reforms in general school education*, https://eurydice.eacea.ec.europa.eu/national-education-systems/czechia/national-reforms-general-school-education.
NCEE (2016[19]), "Singapore: A teaching model for the 21st century", https://ncee.org/empowered-educators-how-high-performing-systems-shape-teaching-quality-around-the-world/.
NCEE (2016[20]), "Preparing profession-ready teachers", https://ncee.org/empowered-educators-how-high-performing-systems-shape-teaching-quality-around-the-world/.
OECD (2024[2]), *Education Policy Outlook 2024: Reshaping Teaching into a Thriving Profession from ABCs to AI*, https://doi.org/10.1787/dd5140e4-en.
OECD (2023[21]), *Taking stock of education reforms for access and quality in Türkiye*, https://doi.org/10.1787/5ea7657e-en.

Participation in induction programmes

Induction programmes can be formal (e.g. regular supervision by a principal, reduced teaching load, formal mentoring arrangements with an experienced teacher) or informal (e.g. unstructured or unplanned activities comprising general introductions to a school and the work, informal peer work with other new teachers, a welcome handbook, etc.). On average almost seven in ten teachers report having taken part in induction programmes in their school (Table 4.7). Among teachers who have started working in their current school in the past five years, participation in informal induction programmes is more prevalent (57%) than participation in formal activities (44%).

To some extent, formal and informal programmes are substitutes: where participation in formal programmes is relatively low, participation in informal programmes tends to be relatively high, and vice versa. For example, participation in formal programmes among teachers who have recently joined their current school is lowest in Hungary and Portugal (19%), France (23%), Sweden (24%), and Denmark (28%), but in all these education systems participation in informal programmes is close to average levels if not above, ranging from 48% in France to 64% in Portugal (Figure 4.4). Similarly, participation in informal programmes is lowest in Türkiye (19%), Viet Nam (25%) and Japan (27%), but in these countries participation in formal programmes is much more frequent (47% in Türkiye, 63% in Japan and 74% in Viet Nam).

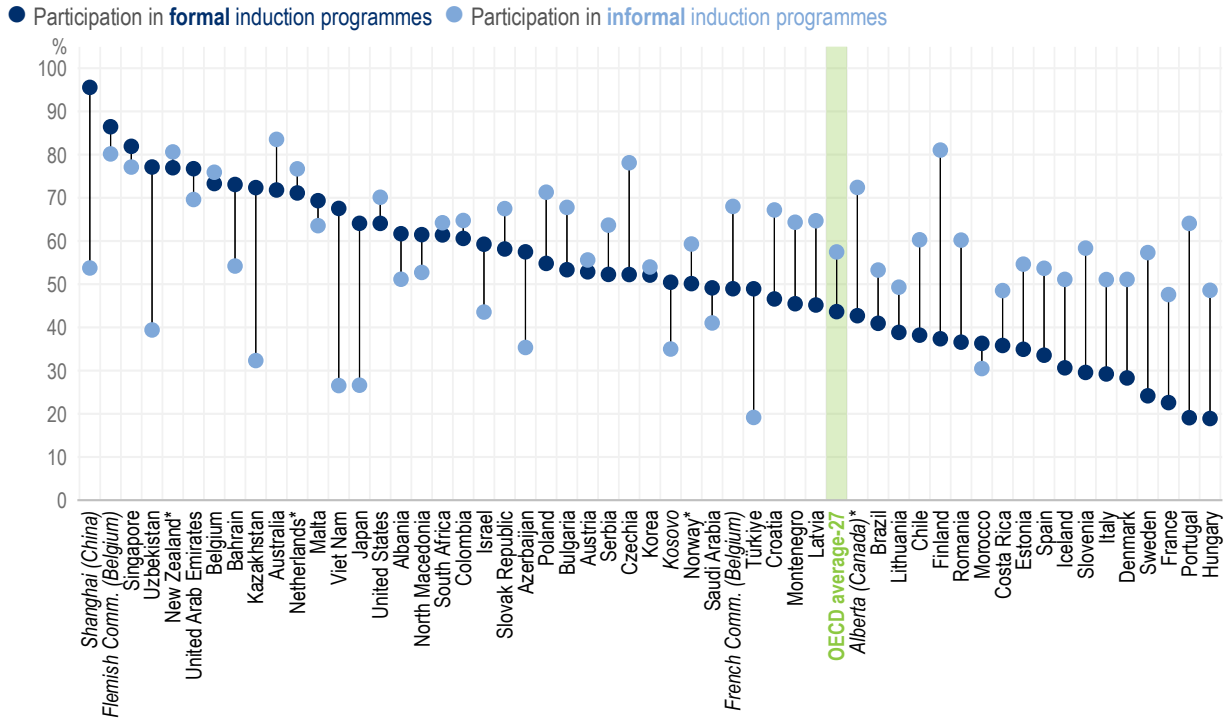
Shanghai (China), Singapore, the United Arab Emirates and Uzbekistan are the education systems where participation rates in formal induction programmes are highest (above 75%). Participation rates in informal induction programmes exceed 75% in Australia, Finland, Singapore and New Zealand*. Restricting attention again to teachers who joined their current school within the five years preceding the survey, the differences in participation rates between formal and informal programmes exceed 40 percentage points in Kazakhstan, Shanghai (China) and Viet Nam. On the other hand, Portugal and Finland place the strongest emphasis on informal induction programmes, with differences in participation rates between informal and formal programmes of 45 and 44 percentage points, respectively (Table 4.7).

Opportunities to benefit from induction activities often depend on the context in which teachers work. In almost one-third of education systems, public school teachers who have started working in their current schools in the five years before the survey have lower chances to benefit from induction activities (whether formal or informal). After accounting for a range of other teacher characteristics (e.g. teachers' gender,

age and teaching experience [hereafter “teacher characteristics”]) and school characteristics (e.g. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs [hereafter “school characteristics”]), Costa Rica and Romania are where working in a publicly managed school is associated with the largest reduction in the odds of having participated in induction activities in the current school (Table 4.8).

Figure 4.4. Participation in formal and informal induction programmes among teachers new to the school

Percentage of lower secondary teachers who report having taken part in induction activities when they began at their current school



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
The analysis is restricted to teachers who have started working in their current school in the five years prior to the survey.
Source: OECD, *TALIS 2024 Database*, Table 4.7.

Progress has been made since the last TALIS survey, conducted in 2018, as rates of participation in induction activities have strongly increased in all education systems that participated in both cycles of the survey. Participation in any induction programme (whether formal or informal) increased by 31 percentage points, on average (Table 4.9). In more than half of education systems, participation in informal activities increased more than participation in formal activities.

Mentoring

Support for incoming or novice teachers can sometimes take the form of mentoring or coaching programmes, where less experienced teachers are paired with a more experienced teacher who provides advice and support. About one in four novice teachers has an assigned mentor, on average (Table 4.10).

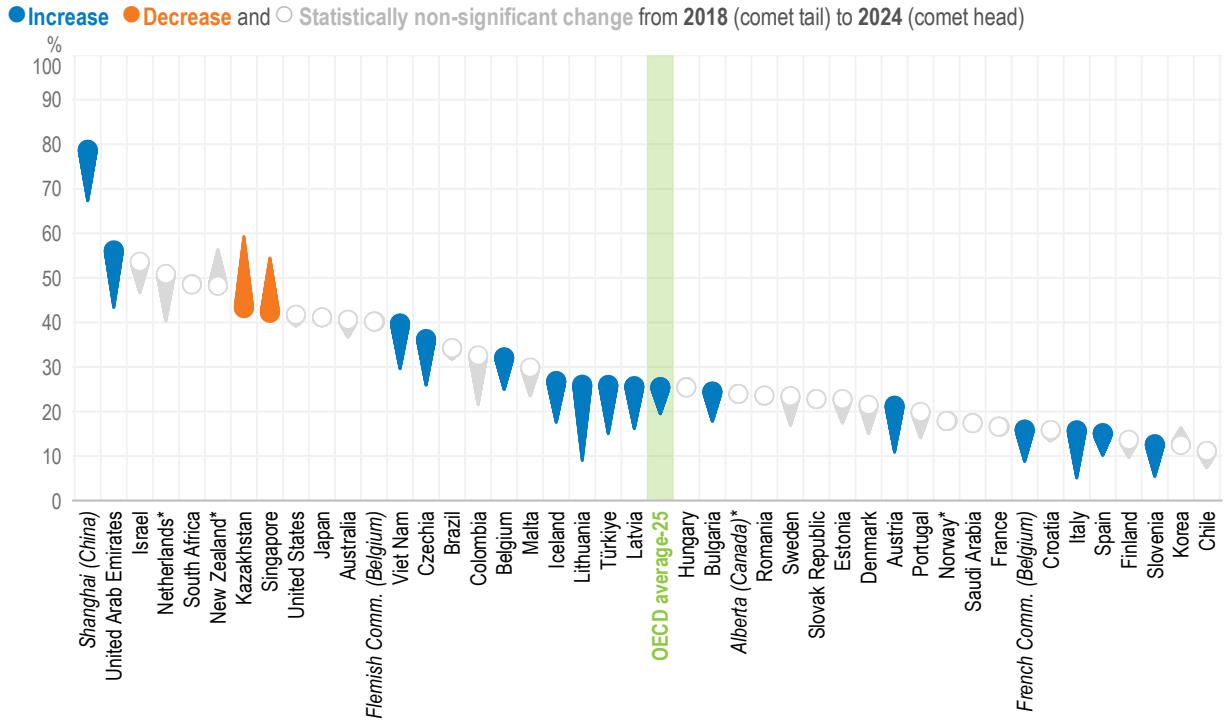
The share of novice teachers benefitting from a mentorship programme ranges from 5% in Montenegro to almost 80% in Shanghai (China).

Mentoring is predominantly addressed to novice teachers; only 5% of teachers with more than ten years of teaching experience have an assigned mentor, on average. Some education systems, however, seem to offer mentoring programmes throughout teachers' careers, with little difference between novice and experienced teachers. This is the case in Bahrain, Brazil, South Africa, the United Arab Emirates and Uzbekistan, where more than 30% of experienced teachers have an assigned mentor.

As the TALIS questionnaire only asks whether teachers are *currently* involved in mentoring, it does not capture mentoring experiences that teachers may have been involved in, at other points of their careers. This may for example underestimate the involvement of novice teachers in mentoring in cases where mentoring programmes are only offered for a limited number of years at the very early career. As the analysis in this report defines novice teachers as all teachers with up to five years of teaching experience, it does not capture the mentoring that a teacher who started their career four years ago had in the first two years of their career, for example.

Figure 4.5. Change in novice teachers' access to mentoring, from 2018 to 2024

Percentage of novice lower secondary teachers who have an assigned mentor



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 4.11.

Unfortunately, the TALIS sample size makes it challenging to further disaggregate the analysis of novice teachers. An alternative approach may consist of relying on the answers that principals gave about the presence of mentoring programmes in their school. This measure of (potential) "exposure" to mentoring, however, has its shortcomings, as it does not allow for an assessment of the actual uptake of mentoring

programmes. On average, almost four in five teachers work in schools offering some mentoring programmes, with a small difference of 3 percentage points between novice and experienced teachers (Table 4.10). Exposure to mentoring is nearly universal, with rates of exposure above 70% in 44 education systems. Only in Chile, Colombia and Costa Rica is the rate of exposure to mentoring programmes below 50% (at 34%, 43% and 46%, respectively).

Opportunities for novice teachers to benefit from mentoring increased between 2018 and 2024. In about half of education systems that participated in both cycles of TALIS, novice teachers saw an increase in the likelihood of having an assigned mentor (Figure 4.5). The share of novice teachers with an assigned mentor increased by 17 percentage points in Lithuania, and by more than 10 percentage points in Austria, Czechia, Italy, Shanghai (China), Türkiye, the United Arab Emirates and Viet Nam; however, it decreased from 59% to 43% in Kazakhstan and from 54% to 42% in Singapore. Even larger increases were recorded in the share of novice teachers working in a school offering some forms of mentoring programmes.

Continuous professional learning

Continuous professional learning is designed to support the professional development of all teachers throughout their careers. As schools need to prepare students for the evolving needs of rapidly changing societies, teachers need to regularly update their knowledge and skills. This means, for example, aligning the content of the curriculum with labour market demands, or changing teaching methods and adopt those proven effective by scientific research on how students learn.

Organisation and structure

Participation in some form of continuous professional learning is nearly universal: the share of teachers reporting that they participated in at least one professional development activity in the 12 months preceding the TALIS survey ranges from 87% in Kosovo to 100% in Albania, Alberta (Canada)*, Latvia, Lithuania, New Zealand*, Shanghai (China), Singapore and Viet Nam (Table 4.12). Rates of participation in continuous professional learning seem to be higher for teachers than for other comparable professions (Box 4.2). Professional learning activities most commonly take the form of traditional courses, workshops or seminars: 84% of teachers participate in such activities on average.

While almost all teachers in all education systems participated in at least one learning activity, the number of activities they participated in varies substantially. In the French Community of Belgium, Finland and France teachers participated in fewer than three learning activities on average, while in Albania, Kazakhstan, Lithuania, Shanghai (China), the United Arab Emirates, Uzbekistan and Viet Nam, the average number of activities ranges between 6 and 7.3.[4] Lack of information on the actual duration of such activities, however, calls for some caution in interpreting this information. In particular, the number of activities cannot be taken as a proxy for intensity of participation in training if teachers who engage in fewer activities also tend to engage in longer activities.

Box 4.2. Comparing teachers' participation in lifelong learning to other professions

Data from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), provide valuable comparative insights across professions, as the Survey collects a rich set of information on participation in adult training by the entire adult population, including teachers.[1] On average across OECD countries and economies participating in PIAAC, 73% of teachers report having participated in training activities, compared to 63% of adults in other professions (Table 4.13). Differences in participation rates between teachers and non-teachers are substantial in Austria, Croatia, Estonia and Korea, exceeding 20 percentage points. In the Flemish

Region (Belgium), Hungary, Ireland, Norway and Portugal teachers participated in fewer learning activities than other adults in the 12 months preceding the survey, whereas the opposite is true in Austria, Croatia, Korea, Lithuania and Singapore (Table 4.14).

The number of hours spent in training indicates training intensity. This information is available in PIAAC for the last training activity undertaken by the respondent.[2] Adults working in other professions tend to engage in longer training activities than teachers. Across OECD countries and economies, the last training activities teachers participated in lasted 26 hours, compared to 32 hours for non-teachers (Table 4.16). This pattern can be observed in many countries, but the estimates are surrounded by a large margin of uncertainty: only in Ireland, the Flemish Region (Belgium) and Switzerland is the number of hours spent in the last training activity significantly lower (statistically) for teachers than for adults working in non-teaching profession. The opposite is observed in the Slovak Republic, where teachers' last training activity lasted 25 hours, compared to 19 hours for the last training activity of adults in other professions.

Satisfaction with the last training activity, measured by the percentage of respondents who found it "moderately" or "very" useful is on average similarly high for both teachers and non-teachers, at about 83% (Table 4.15). Teachers in Japan, Poland and the Slovak Republic are more likely than non-teachers to find their training useful, while the opposite holds in France and Norway.

Finally, despite the high rates of participation, teachers are more likely than adults in other professions to report that they were unable to participate in some training activities they wanted to attend. About 34% of teachers on average report unmet demand for training, compared to 24% of adults working in other professions (Table 4.17). Differences between teachers and non-teachers in the likelihood of reporting unmet demand for training exceed 15 percentage points in Austria, Chile, Croatia, Finland, Japan, Lithuania and the Netherlands.

Note: 1. See the Reader's Guide for more detailed information on how PIAAC data are used for this analysis.
2. In this report, the analysis of questions on the last training activity is restricted to job-related training activities.
Source: OECD (2024[22]), *Survey of Adult Skills 2023 (PIAAC) database,* https://www.oecd.org/en/data/datasets/piaac-2nd-cycle-database.html.

Novice and experienced teachers show a similar propensity to participate in professional learning activities, with differences in participation rates that, while statistically significant, are negligible on average (95% of novice teachers participated in at least one professional learning activity in the 12 months prior to the survey, compared to 96% of experienced teachers) (Table 4.19). In some education systems these differences are more pronounced, however: rates of participation of novice teachers are for example between 4 and 6 percentage points lower than for experienced teachers in the French Community of Belgium, Denmark, Finland, Iceland and Portugal, and in 11 systems the difference in the number of different types of activities ranges between 0.5 and 0.9 percentage points. The lower engagement of novice teachers in professional learning might be worrisome for education systems like Estonia, Latvia and Lithuania, which have ageing teacher populations (Chapter 1, Table 1.4) and where many young teachers are likely to leave the profession (Chapter 7, Table 7.1). Novice teachers have lower rates of participation in professional learning activities in Estonia and Latvia, and in all three countries they participate in a lower number of different activities (Table 4.19).

The most evident difference between novice and experienced teachers is in the type of learning activities they participated in. Novice teachers were more likely to be enrolled in formal qualification programmes (attended by 29% of novice teachers and by 15% of experienced teachers on average), and to attend training focused on reflections on lesson observations (attended by 50% of novice teachers and by 48% of experienced teachers on average) (Table 4.18). More than half of novice teachers were enrolled in formal qualification programmes in Uzbekistan (52%), Romania (56%), Viet Nam (59%) and Saudi Arabia

(76%). On the other hand, less than one in ten novice teachers were enrolled in such programmes in Japan (9%) and Denmark (6%). Such differences are likely due to different regulations governing the accreditation of qualified teachers. Rates of participation in all other types of professional learning activities are generally higher for experienced than for novice teachers in most education systems. More research should be undertaken to better understand the reasons behind these differences, in particular whether they are driven by higher barriers to participation for novice teachers or by differences in professional learning needs, or simply by differences in the type of activities novice teachers need and engage with. For example, one possible explanation for the lower participation of novice teachers in many of the activities surveyed in TALIS might simply be the fact that novice teachers are more likely to be enrolled in formal qualification programmes, which are likely more demanding in terms of time and leave fewer opportunities for participating in other activities.

Most professional learning activities are predominantly attended in person or hybrid form (a blend of in-person and online participation). In some cases, this is due to the nature of the activities, which do not lend themselves naturally to a virtual environment (e.g. visits to other schools or organisations).

Virtual or online participation is relatively more common for self-initiated learning activities (on average 36% of teachers who participated in such activities did so virtually or on line), teacher networks and formal qualification programmes (33% of teachers), and education conferences (30% of teachers) (Table 4.12).[5] In some education systems, though, virtual or online participation in these activities is particularly common, often surpassing in-person participation. In Colombia, Costa Rica and Romania, virtual or online participation is more common than in-person participation in activities such as courses, seminars, workshops, education conferences, formal qualification programmes, formal and informal teacher networks, or self-initiated learning activities.

The possibility of online participation can potentially alleviate the barriers that some teachers face and that are often linked to personal situations or environmental circumstances. Teachers working (and living) in rural areas, for example, can take advantage of new technological possibilities to participate in activities that are not offered in their location. Teachers with parenting, caring, and/or personal responsibilities that restrict their ability to flexibly attend in-person training might find online participation attractive.

This is indeed what emerges in the TALIS data. Among teachers working in urban schools who participated in courses, seminars or workshops, for example, 44% of them did so in person, compared to 38% of teachers working in rural schools, on average (Table 4.20). Similar results hold for participation in education conferences (50% versus 44%) and for self-initiated learning activities (45% versus 40%). Brazil is the only country where teachers working in rural schools are more likely than teachers working in urban schools to participate in these activities in person.

Similar differences emerge for all three learning activities according to gender. Female teachers who participated in courses, seminars or workshops, in education conferences, and in self-initiated learning activities were less likely than their male colleagues to do so in person (Table 4.21).

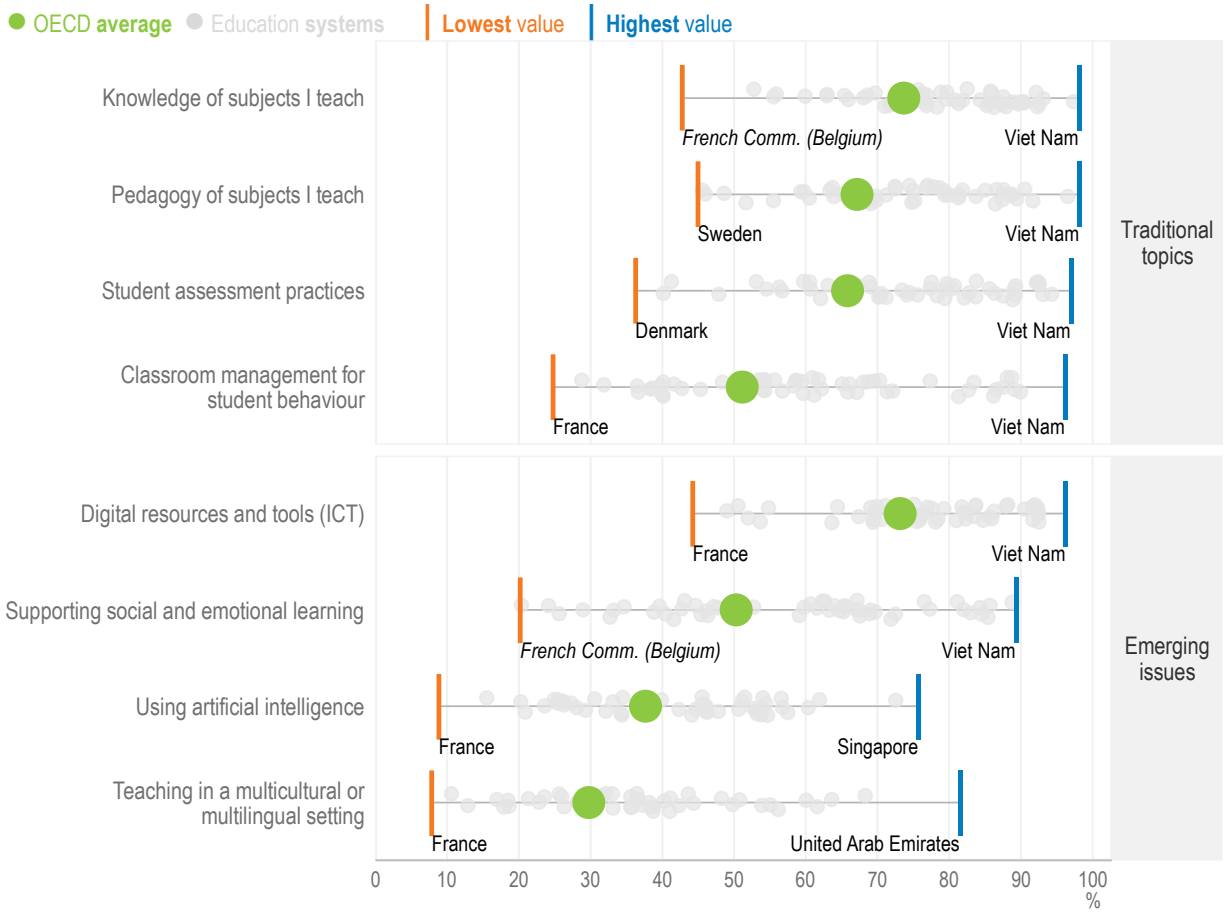
Professional learning activities tend to focus on traditional topics. The most common topic included in professional learning activities teachers attended, for example, is subject-specific knowledge and understanding (included in training activities of 74% of teachers, on average) (Figure 4.6). Only in the French Community of Belgium did fewer than half of teachers (43%) report that this topic was covered in their training.

However, there is some evidence that training on traditional topics is declining. Participation rates decreased between 2018 and 2024 by 2 percentage points for learning activities focused on subject-specific knowledge and by 6 percentage points for learning activities focused on subject-specific pedagogy, on average (Table 4.23). Participation in activities focused on student assessment practices slightly increased on average, but this is the result of large declines (between 16 and 23 percentage points) in Iceland, Finland and France and large increases (of about 20 percentage points) in Czechia and the

Slovak Republic. Similarly, the small average increase in participation in training focused on classroom management for student behaviour masks large cross-country differences, with strong increases in Saudi Arabia (16 percentage points) and the Slovak Republic (21 percentage points) and large declines in Estonia (19 percentage points).

Figure 4.6. Focus of teachers' professional learning activities

Percentage of lower secondary teachers who report that the following topics were included in their professional learning activities during the last 12 months



Source: OECD, *TALIS 2024 Database*, Table 4.22.

Consistent increases in participation (of about 8 percentage points, on average) were recorded in most countries in training focused on teaching students with special education needs and on teaching in a multilingual or multicultural setting (Table 4.23).

Regarding emerging issues, the use of digital resources and tools, whether focused on technical or pedagogical skills, is the most common focus of professional learning, with more than 60% of teachers attending training in either of these areas (Table 4.22). A larger share of teachers attended training focused on pedagogical skills for incorporating digital resources and tools into teaching (67% on average, compared to 62% of teachers attending training focused on technical skills for the use of digital resources and tools).

Between 2018 and 2024, participation in professional learning focused on digital resources and tools increased significantly in almost all education systems (Table 4.23). The average increase amounts to 12 percentage points, but the changes are much larger (between 25 and 36 percentage points) in Brazil, Czechia, the Flemish Community of Belgium, Portugal and Romania. In contrast, participation in training focused on information and communication technology (ICT) declined in France (by 6 percentage points), Iceland (by 11 percentage points), Sweden (by 16 percentage points) and Finland (by 25 percentage points).

Classroom management for student behaviour is where differences in participation between novice and experienced teachers are larger, possibly reflecting the higher needs of novice teachers in this area. TALIS shows that, on average, 57% of novice teachers attended training on this topic (as compared to 49% of experienced teachers), with only nine education systems having fewer than half of novice teachers attending such training (Table 4.22). Even in education systems where participation is lowest (Austria, the French Community of Belgium and Slovenia), more than one-third of novice teachers attended this type of training.

Half of teachers, on average, participated in training focused on supporting students' social and emotional learning (Table 4.22). Although there are no comparative data to assess how this has evolved since 2018, this relatively high rate of participation likely reflects the recent attention given to developing students' social and emotional skills. More than four out of five teachers in Albania, Azerbaijan, Bahrain, Kazakhstan, Saudi Arabia, Shanghai (China), the United Arab Emirates, Uzbekistan and Viet Nam attended learning activities focused on methods for supporting students' social and emotional learning, while only one in five did so in the French Community of Belgium and France.

Participation in training focused on the use of AI for teaching and learning is another indicator for which no previous data are available. Given how recent the diffusion of artificial intelligence is, it may be surprising that almost 40% of teachers across OECD education systems were trained on this subject in 2024 (Table 4.22). This could be seen as a positive example of how the offer of professional development activities can quickly adapt and respond to societal and technological evolutions. Rates of participation in training focused on AI exceeded 60% in four countries (Kazakhstan, Korea, Singapore and the United Arab Emirates). They were particularly low in France (9%) and the French Community of Belgium (16%). AI is also one of the topics where differences between novice and more experienced teachers are more pronounced, likely reflecting the higher sensitivity of novice teachers to the use of modern tools.

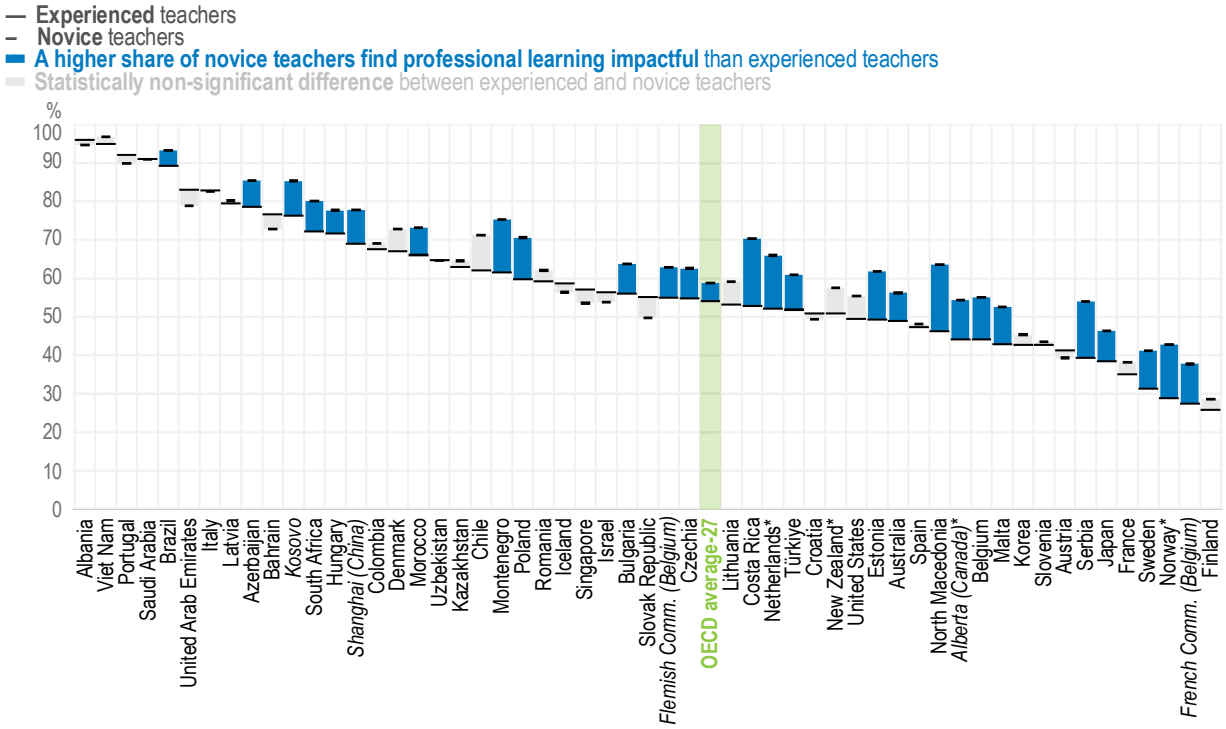
Impact of professional learning and outstanding professional learning needs

TALIS provides teachers with the opportunity to express their views on professional learning activities, specifically the impact that the activities they participated in had on their teaching, the learning needs they continue to have and the barriers they face in participating in further training activities. It is, however, important to keep in mind that interpreting this information is not always straightforward. Expressing high professional learning needs on a topic, for instance, may be driven not only by lack of actual skills in that area, but also by the circumstances and the environment in which teachers operate.

Not all teachers find that their learning activities have a positive impact on their teaching. On average, just over one out of two teachers report that the professional learning activities they participated in during the 12 months preceding the survey had a positive impact on their teaching "quite a bit" or "a lot" (Figure 4.7).[6] Younger (under the age of 30) and novice teachers are generally more likely to judge the learning activities they participated in as impactful (i.e. as having a positive impact on their teaching). Differences between novice and experienced teachers are largest in Costa Rica (18 percentage points), North Macedonia (17 percentage points) and Serbia (15 percentage points).

Figure 4.7. Teachers who find professional learning impactful, by years of teaching experience

Percentage of lower secondary teachers who report that the professional learning activities they participated in during the last 12 months had a positive impact on their teaching "quite a bit" or "a lot"



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.

Source: OECD, *TALIS 2024 Database*, Table 4.24.

Box 4.3. Perceived impact of continuous professional learning among primary and upper secondary teachers

Professional learning is a useful tool for teachers to upskill and improve their teaching, provided it is of high quality. Teachers who report that the professional learning they attended had a positive impact on their teaching are also more likely to report that they have fulfilled their lesson aims. This association holds in most education systems, and for teachers at all levels (Table 4.26).

In 12 out of 15 education systems with available data for primary and lower secondary education, primary teachers are more likely to report that their professional learning activities were impactful, compared to lower secondary teachers. The largest differences are observed in the Netherlands* and New Zealand* (Table 4.24). Among primary school teachers, women and novice teachers are more likely to report that professional learning was impactful compared to men and more experienced teachers. The largest differences are in New Zealand* (where the share of female teachers reporting their learning was impactful is 26 percentage points higher than for men) and France (with a difference of 16 percentage points between novice and experienced teachers).

Upper secondary teachers report that their professional learning was impactful at similar rates to that of their lower secondary colleagues. Also, among upper secondary teachers, women and novice teachers are more likely than men and experienced teachers to report that their professional learning was impactful.

Skills for using AI for teaching and learning is the area where the highest share of teachers across OECD education systems (29%) report having a “high” level of professional learning need (Table 4.27). More than 50% of teachers in Costa Rica, Morocco and Shanghai (China) report needing to gain skills for using AI. In comparison, less than 20% of teachers report such need in the Flemish Community of Belgium, Estonia, Italy, the Netherlands*, North Macedonia and Slovenia. On average, more experienced teachers are more likely than novice teachers to report professional needs in this area (30% compared to 24%).

In about half of education systems, attending professional development activities on the use of AI reduces the likelihood that teachers report high levels of need in this area, suggesting the training they attended was effective (Table 4.29). In contrast, the opposite relationship is observed in eight education systems, with teachers who have participated in training on AI being more likely to report learning needs in this area. This counterintuitive result may be due to the training not being of sufficiently high quality or to the fact that teachers undergoing such training become more aware of what they need to learn.

Almost 20% of teachers report learning needs in the use of AI and did not participate in training in this area (Table 4.30). This could signal barriers to participation or a lack of alignment between what is offered and what teachers need. Just a bit more than half of teachers in Morocco, and about one-third of teachers in Chile, Costa Rica and Türkiye report learning needs in the use of AI and did not participate in training in this area. On average, such misalignment between learning needs and the content of professional training is more prevalent among experienced teachers.

Box 4.4. Professional learning for the use of AI among primary and upper secondary teachers

In 5 out of 15 education systems with available data for primary and lower secondary education, a smaller proportion of primary school teachers report the need to learn skills for using AI. The largest difference is observed in New Zealand* (6 percentage points) (Table 4.27). Brazil and Morocco are the only two countries where the proportion of teachers reporting learning needs for the use of AI is larger among primary teachers than among lower secondary teachers. Among primary and lower secondary teachers, the likelihood of reporting learning needs in the use of AI is higher among more experienced teachers. Japan is the only exception to this pattern, at both the primary and lower secondary education levels.

Consistent with the fact that fewer primary school teachers report learning needs in the use of AI, rates of participation in training activities focused on AI also tend to be lower (Table 4.22). The largest differences between primary school and lower secondary school teachers in the propensity to participate in learning activities focused on the use of AI are in Australia (30 percentage points). Korea is the only country where primary school teachers are more likely than lower secondary school teachers to participate in training focused on the use of AI.

Upper secondary teachers, on the other hand, are more likely to report professional learning needs in the use of AI than their lower secondary colleagues, on average. Differences are small, however, and are only statistically significant in the Flemish Community of Belgium* and Portugal (Table 4.27). Large differences exist between upper secondary and lower secondary teachers in the likelihood of participating in training focused on the use of AI. Specifically, upper secondary teachers are significantly more likely to attend training focused on AI in Denmark, Portugal, Saudi Arabia and Slovenia (Table 4.22).

Teaching students with special education needs is the second most common area where teachers report high levels of professional development needs, with one in four teachers across OECD education systems reporting needs in this area. In Brazil, Colombia, Costa Rica, Japan, Kazakhstan, Morocco and South Africa more than 40% of teachers report high levels of need for professional development in this

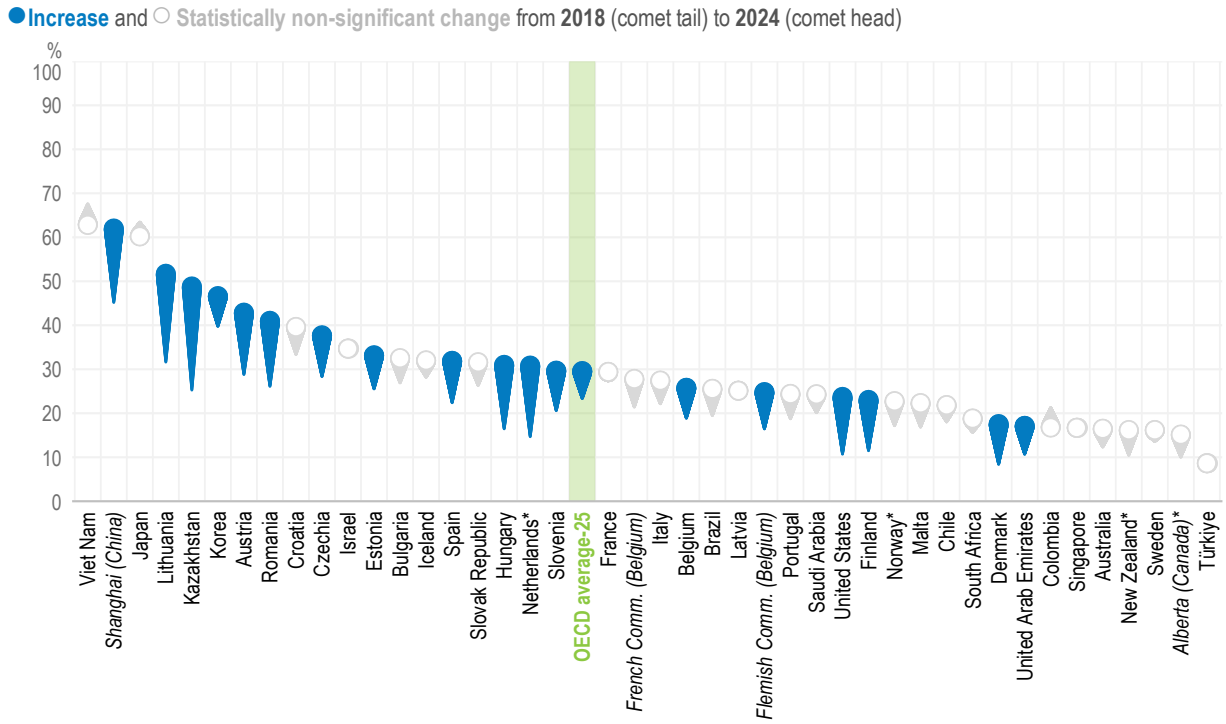
area, while only 9% do so in the United States (Table 4.27). Needs in this area have increased since 2018 in ten education systems (by 31 percentage points in Kazakhstan) and decreased in eight education systems (by 10 percentage points in Brazil; Table 4.31). In more than half of education systems, novice teachers are more likely than experienced teachers to report needs in this area (Table 4.27).

Slightly more than 10% of teachers on average (and 14% of novice teachers) report learning needs in teaching students with special education needs and do not participate or receive training in this area (Table 4.32). The share of teachers reporting such misalignment between learning needs and actual training participation is highest in Morocco and South Africa (around 30%).

Another area in which novice teachers express particularly high professional learning needs is classroom management for student behaviour: 30% of novice teachers across OECD education systems express needs in this area, compared to only 18% of experienced teachers (Table 4.27). Large differences across education systems exist, though: while more than 60% of novice teachers express needs in this area in Japan, Shanghai (China) and Viet Nam, less than 10% do so in Albania and Türkiye. In more than a third of education systems the share of novice teachers reporting learning needs in classroom management has increased since 2018, and there are no education systems in which this has decreased (Figure 4.8).

Figure 4.8. Change in novice teachers' learning needs regarding classroom management, from 2018 to 2024

Percentage of novice lower secondary teachers indicating that they have a "high" level of need for professional development in classroom management for student behaviour



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases,* Table 4.33.

Helping teachers improve their ability to manage student behaviour in the classroom is particularly important, given that teachers reporting high levels of need on classroom management are significantly less likely to report being able to fulfil their lesson aims (Table 4.34). The association is significant in more than half of education systems and is large (more than one-quarter of a standard deviation) in 12 education systems.

There is some evidence that participating in professional learning activities focused on classroom management reduces the likelihood of reporting high learning needs in this area, although the relationship is not statistically significant in many countries (especially when the sample is restricted to novice teachers, because the smaller sample size increases the uncertainty around the estimates; Tables 4.35 and 4.36). Less formal learning activities, such as receiving feedback from colleagues, the principal, or external individuals, also appear to be effective in helping teachers (especially those with less experience) improve their classroom management practices. On average, two out of three teachers (and three out of four novice teachers) report that the feedback they received had a positive impact on the way they manage student behaviour in the classroom (Table 4.37).

About 14% of novice teachers, and 10% of teachers overall, report high professional learning needs in classroom management but did not participate in training in this area (Table 4.38). Such misalignment between learning needs and actual training attended concerns more than one in four novice teachers in Austria, and more than one in five novice teachers in Estonia, Iceland, Japan, Lithuania and Slovenia.

Approximately one in five teachers across OECD education systems report high levels of need for professional learning focused on the use of digital resources, whether in terms of pedagogical or technical skills (Table 4.27). In these areas, more experienced teachers are more likely than novice teachers to report high levels of need for professional development activities. Despite the large expansion of participation in learning activities focused on the use of digital tools (Table 4.23), the share of teachers reporting learning needs in these areas has decreased since 2018 only in Croatia, Finland, the Netherlands* and Sweden, and it has increased in 27 other education systems, with the largest increases in Shanghai (China) (28 percentage points) and Kazakhstan (23 percentage points) (Table 4.31). This is likely due to ever-increasing demands on teachers to incorporate digital resources and tools in their work.

On the other hand, despite the fact that participation in professional learning focused on traditional topics, such as subject-specific knowledge, pedagogy, and student assessment practices, is particularly high, relatively few teachers report a high level of need for professional learning in these areas (12%, 13%, and 16% on average, respectively). Against this background, more than 40% of teachers in Japan, Kazakhstan, Shanghai (China), Uzbekistan and Viet Nam report a high level of need in all three areas. Furthermore, in a majority of education systems the share of teachers reporting needs in these three areas has increased since 2018. In a majority of education systems novice teachers are significantly more likely than more experienced teachers to report high levels of need in these three areas (Table 4.27).

Barriers to participation

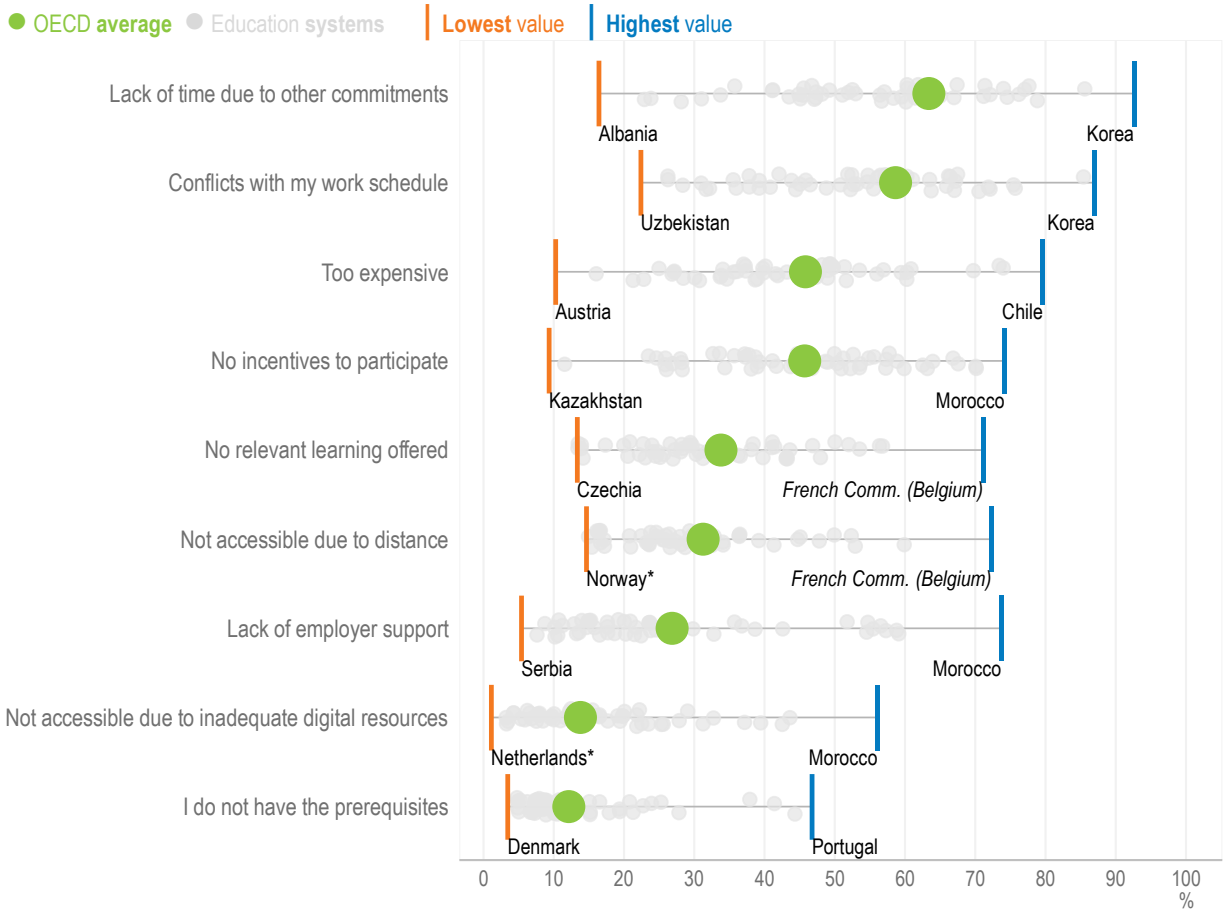
Lack of time due to other commitments or responsibilities is the factor that teachers are most likely to report as a barrier to their participation in professional learning. Some 63% of teachers across OECD education systems “agree” or “strongly agree” that time presents a barrier to their participation in professional learning (Figure 4.9). This is also the reported barrier that increased the most since 2018: the share of teachers indicating time is a barrier increased on average by 25 percentage points, with the largest increases in Australia (43 percentage points) and New Zealand* (41 percentage points) (Table 4.40). Not all teachers are equally likely to face this type of barrier, however. Younger (under the age of 30) and novice teachers tend to be more likely to report a lack of time as a barrier to participation in professional learning (Tables 4.42 and 4.41). The association with age is statistically significant in about half of education systems; when the association is not statistically significant, the estimated coefficients still suggest (in almost all cases) that the likelihood of reporting lack of time as a barrier decreases with age.

Conflicts with the work schedule are the second most commonly cited barrier, by almost 60% of teachers on average (Table 4.39). The share of teachers reporting this as a barrier has also increased since 2018 in about half of education systems, with larger increases (between 15 and 20 percentage points) in Alberta (Canada)*, Australia, the Flemish Community of Belgium, Estonia and Finland. At the same time, fewer teachers than in 2018 reported this as a barrier in Bulgaria, Japan, Kazakhstan, Lithuania, Saudi Arabia and Shanghai (China) (Table 4.40).

The cost of learning activities is the third most commonly cited barrier, reported by 46% of teachers, on average (Table 4.39). Differences across education systems in this respect could reflect regulations around whether systems or individuals are responsible for funding professional development. The evolution of this indicator since 2018 also varies across education systems: in 15 education systems the share of teachers reporting this as a barrier has declined, and in 15 other education systems it has increased. The largest declines are recorded in Japan (23 percentage points) and Bulgaria (20 percentage points); the largest increases are in Estonia and New Zealand* (13 percentage points) and South Africa (18 percentage points) (Table 4.40).

Figure 4.9. Barriers to teacher participation in professional learning

Percentage of lower secondary teachers who “agree” or “strongly agree” that the following present barriers to their participation in professional learning



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 4.39.

In 31 education systems novice teachers are significantly more likely to report lack of prerequisites as a barrier to participation in professional learning (Table 4.41). The difference is close to 10 percentage points on average, but it exceeds 20 percentage points in Chile and in the Slovak Republic. Azerbaijan is the only country where novice teachers are less likely than experienced teachers to report lack of prerequisites as a barrier to professional learning. This can be a cause for concern, as TALIS provides evidence that younger teachers are often more in need of engaging in professional learning (Table 4.27). Moreover, training seems to be more effective for novice teachers, as they are more likely to report that professional learning activities they participated in, or the feedback they received, had a positive impact on their teaching practices (Tables 4.24 and 4.37).

The characteristics of the school that teachers work in are sometimes related to the likelihood of teachers reporting different types of barriers to participating in professional learning. For example, teachers working in publicly managed schools are more likely to report a lack of digital resources as a barrier to participation in professional learning (with a statistically significant association in 11 education systems) (Table 4.43). They are also more likely to report a lack of offers of relevant professional learning (in 12 education systems) (Table 4.44). Furthermore, teachers working in publicly managed schools are more likely to report a lack of employer support as a barrier to participation in professional learning (with a statistically significant difference with teachers working in privately managed schools in about one-fifth of education systems; Table 4.46). In more than half of education systems, teachers working in schools located in rural areas are more likely to report distance as a barrier to participation in professional learning (Table 4.45).

How learning opportunities relate to teachers and teaching

Chapter 2 of this report examined important (self-reported) professional outcomes, such as teachers' well-being and work-related stress, job satisfaction and the degree to which they report being able to achieve their lesson aims.[7] All these outcomes are measured in TALIS using scales, which combine information from teachers' answers to batteries of questions. The resulting scales – except for composite scales[8] that combine different scales – are standardised to have a standard deviation of two across all education systems participating in TALIS and where value 10 corresponds to the item mid-point value of the response scale.[9] This section looks at how participating in learning opportunities at different stages of teachers' careers is related to these outcomes.

Well-being and job satisfaction

Teacher well-being and job satisfaction do not appear to be robustly and consistently related to the type of initial teacher education teachers attended, one possible reason being that in most countries the majority of teachers followed the same type of education, i.e. a regular teacher education programme. In some countries, however, the type of initial teacher education does seem to be related with teachers' professional outcomes.

When compared to teachers who attended a regular programme, teachers who followed a fast-track programme tend to report higher levels of well-being in Finland, Iceland, Portugal and South Africa (Table 4.47). A similar result emerges in Albania and the Slovak Republic for recent graduates (Table 4.48). Teachers who attended a fast-track programme also report higher job satisfaction than teachers who attended regular programmes in Colombia, Korea, Latvia, Malta, North Macedonia and the United States (though in some of these systems, participation in fast-track programmes is very low); in Australia and in the United Arab Emirates, however, the opposite result emerges (Table 4.49), including when the analysis is restricted to recent graduates (Table 4.50).

Teachers who attended subject-specific education only report higher levels of well-being than teachers who attended regular programmes in Austria, Hungary, Italy, Kazakhstan, Lithuania, North Macedonia and

Romania (Table 4.47); in Croatia, Estonia, Italy, North Macedonia and Portugal a similar result holds for recent graduates (Table 4.48). In the French Community of Belgium, Shanghai (China) and Uzbekistan, however, the opposite result holds, as well as in Türkiye and the United Arab Emirates for recent graduates. Teachers with a subject-specific education only report lower levels of job satisfaction in Albania, Colombia, Singapore, Spain and Uzbekistan, and higher job satisfaction in Hungary, Kazakhstan and North Macedonia (Table 4.49).

Teachers who have recently joined their current school and who have participated in induction programmes (whether formal or informal) tend to report higher job satisfaction, even after accounting for a range of teacher and school characteristics (Table 4.51). The relationship between participation in induction activities and job satisfaction is statistically significant in about half of education systems; and even when the margin of uncertainty is too large to exclude lack of a relationship, the estimated coefficient is never negative. Moreover, the size of the relationship is large, averaging 24% of a standard deviation across OECD education systems and ranging from 17% of a standard deviation in Italy to 72% of a standard deviation in Shanghai (China).

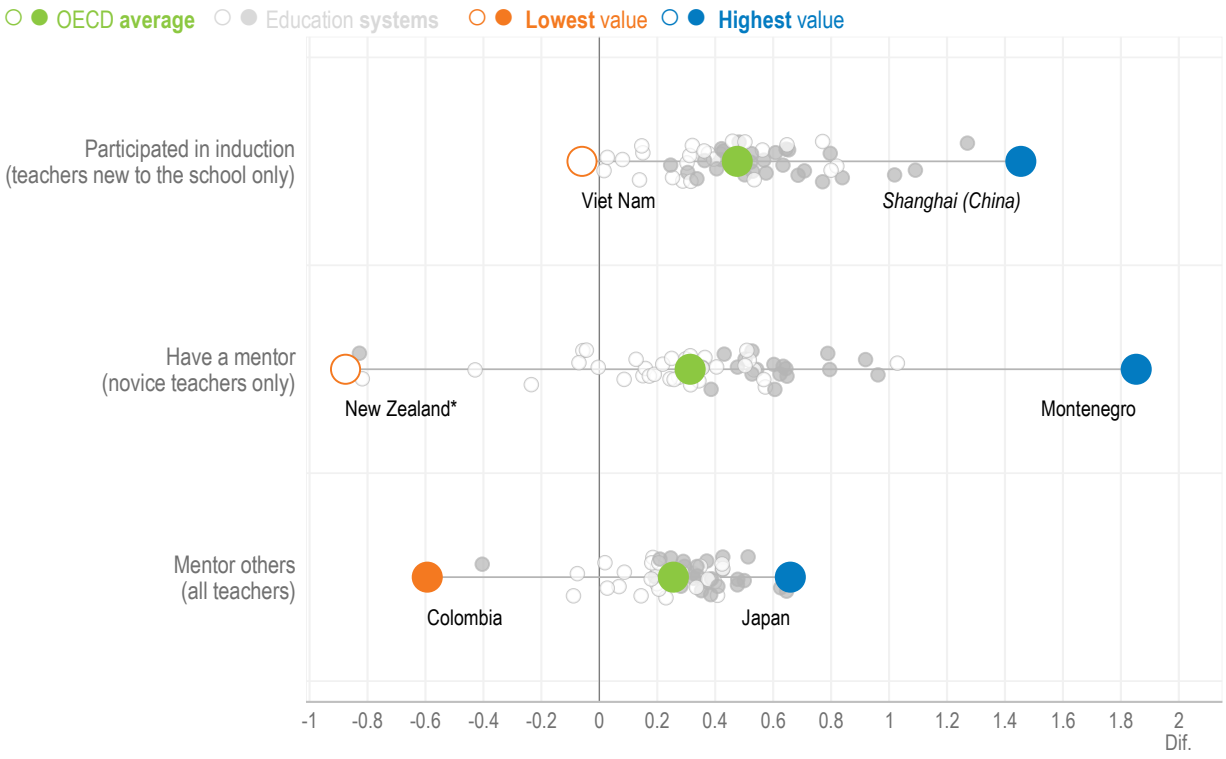
Similarly, there is a positive association between participation in induction activities and well-being for teachers who have joined their current school in the five years preceding the survey: participation in induction programmes is associated with a reduction of about 10% of a standard deviation on the scale of well-being and work-related stress, on average.[10] The association is statistically significant in only 11 education systems, however (Table 4.52).

Mentoring also appears to be positively correlated with teachers' professional outcomes. Novice teachers with an assigned mentor report higher job satisfaction in 20 education systems (Figure 4.10), and higher well-being in 8 education systems (Table 4.54). Although restricting the sample to novice teachers decreases the precision of the estimates, the size of the estimated coefficients is rather large: on average, having an assigned mentor is associated with an increase of 16% of a standard deviation on the job satisfaction scale, and the estimated coefficient is as large as 55% of a standard deviation in the Netherlands*. Moreover, as TALIS only asks whether teachers *currently* have a mentor, these estimates are likely to be a lower bound of the strength of the correlation between being mentored and professional outcomes, because the data cannot distinguish between teachers who have recently participated in a mentoring programme and those who have never done so.

Mentoring others is also positively associated with job satisfaction in about half of education systems, although the relationship is negative in Colombia and Malta (Figure 4.10).

Figure 4.10. Relationship between teacher job satisfaction and induction and mentoring

Change in the scale of lower secondary teachers' job satisfaction[1] associated with participation in induction activities, with having an assigned mentor, and with being an assigned mentor for one or more teachers[2]



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Teachers new to the school refer to teachers who have started working in their current school in the five years prior to the survey.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and induction and mentoring, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Results based on three separate linear regression analyses, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Tables 4.51, 4.53 and 4.55.

Fulfilment of lesson aims

Teachers who report that the quality of their initial teaching education was high are more likely to report that, in their lessons, they can achieve a range of objectives that characterise quality teaching (e.g. presenting content in a comprehensible way, offering opportunities to practice, adapting teaching to meet different students' needs, or managing student behaviour, to name a few). The association between the perceived quality of initial teacher education and the composite scale capturing achievement of these objectives during lessons is positive and statistically significant in about 70% of education systems. The strength of the relationship varies from 10% of a standard deviation in Italy and Japan to 40% of a standard deviation in Saudi Arabia (Table 4.59).

The relationship between fulfilment of lesson aims and the type of initial teacher education is instead much weaker, and statistically significant in only a few countries. When compared to teachers who attended a

regular teacher education programme, and after accounting for a range of teacher and school characteristics, teachers who attended a fast-track programme are less likely to report that they have fulfilled their lesson aims in Chile, France, Morocco and Serbia, and more likely to have done so in the French Community of Belgium, Costa Rica and Denmark (Table 4.56). Teachers who attended subject-specific education only are more likely to report achievement of lesson aims in Austria, Denmark, New Zealand* and the United Arab Emirates, and less likely to do so in eight other education system (with a larger negative association in Israel, Shanghai (China) and Viet Nam). Among recent graduates, teachers who attended fast-track programmes report more often to have fulfilled their lesson aims in Costa Rica and Sweden, but the opposite result holds in Australia, Estonia and France (Table 4.57). Recent graduates from subject-specific programmes more often fulfil their lesson aims in Austria, North Macedonia and the United Arab Emirates, and less often in the Flemish Community of Belgium, Colombia, France, Kazakhstan, Morocco and Türkiye.

Fulfilment of lesson aims is positively related to participation in either formal or informal induction programmes in ten education systems (Table 4.58). Novice teachers with an assigned mentor are also more likely to report higher scores on the scale measuring fulfilment of lesson aims. The relationship is statistically significant in 14 education systems, and the relationship is relatively strong, ranging between 20% of a standard deviation in Kazakhstan and almost 50% of a standard deviation in Costa Rica (Table 4.60).

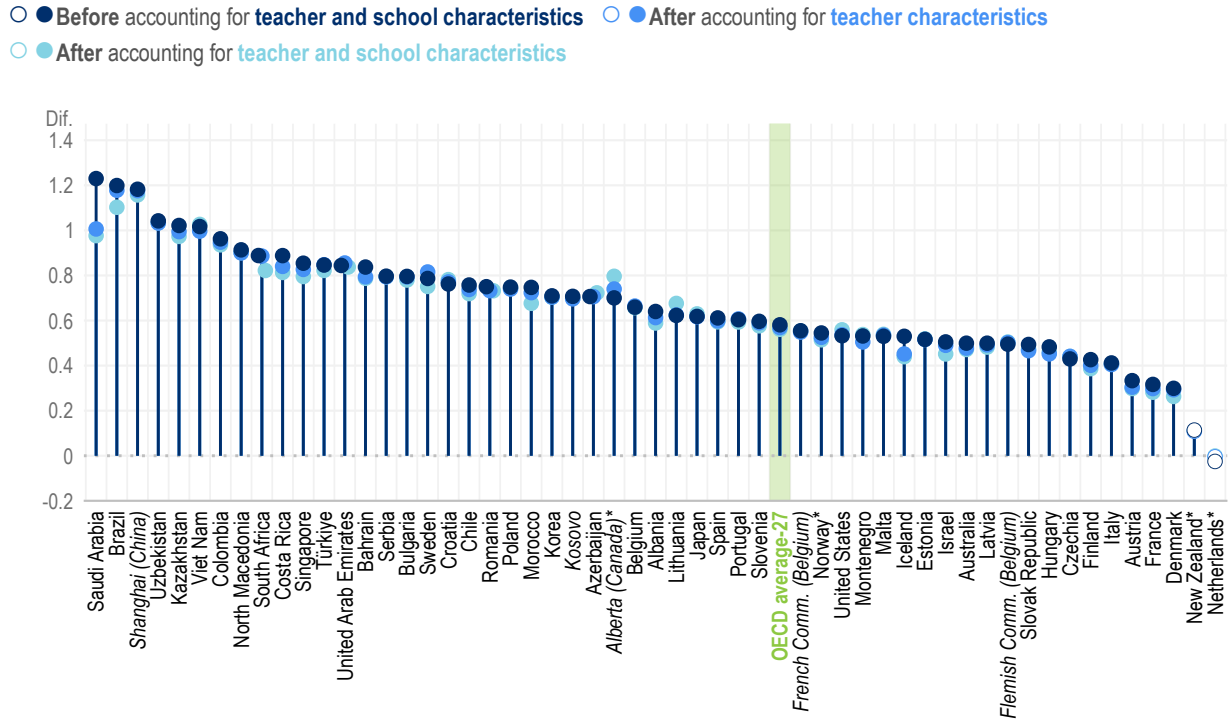
In 20 education systems, participation in professional learning activities based on reflections on lesson observations is positively associated with the fulfilment of lesson aims, controlling for teacher and school characteristics. A similar association is observable in 24 education systems for participation in self-initiated learning activities (Table 4.61).

The analysis shows no clear pattern linking the content of professional learning activities to fulfilment of lesson aims (Table 4.62). Rather than the content or focus of these activities, whether teachers themselves report that the activity had a positive impact on their teaching seems to be statistically associated with reporting higher fulfilment of lesson aims. In all education systems (except in the Netherlands* and New Zealand*) there is a strong and positive association between participation in impactful professional learning and the fulfilment of lesson aims (Figure 4.11). Teachers participating in impactful activities score on average 0.6 points higher on the fulfilment of lesson aims scale, corresponding to 30% of a standard deviation. The strength of the relationship ranges between 13% of a standard deviation in Denmark and 60% of a standard deviation in Shanghai (China).

Targeted learning activities can be related to the likelihood of achieving relevant lessons aims. For example, participating in activities covering methods for supporting students' social and emotional learning double, on average, the odds that teachers report having been able "quite a bit" or "a lot" to help students manage their own emotions, thoughts and behaviour (Table 4.63). The association is positive and significant in all education systems (except in the Netherlands*), and is particularly strong in Brazil, Italy, Saudi Arabia, South Africa, the United Arab Emirates and Viet Nam. Similarly, participating in learning activities focused on classroom management for student behaviour increases by 50% (on average) the odds that teachers report having been able to manage students' behaviour; the relationship is statistically significant in all but nine education systems (Table 4.64).

Figure 4.11. Relationship between teachers' fulfilment of their lesson aims and participation in impactful professional learning

Change in the scale of lower secondary teachers' fulfilment of lesson aims[1] associated with teachers reporting that the professional learning activities they participated in during the last 12 months had a positive impact on their teaching "quite a bit" or "a lot"[2,3]



Note: * Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between fulfilment of lesson aims and teachers reporting that the professional learning activities they participated in had a positive impact on their teaching, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "not at all" and "to some extent".
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. Teacher characteristics include gender, age and years of teaching experience; school characteristics include school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.
Source: OECD (2024), *TALIS 2024 Database*, Table 4.26.

Box 4.5. Making teacher training meaningful

Ensuring that teacher professional development remains relevant and responsive to teachers' needs is essential. TALIS shows that only participation in high-quality training that teachers themselves judge to have a positive impact on their teaching is associated with important professional outcomes, such as fulfilment of lesson aims. This box highlights how Serbia, Korea and Japan tailor training opportunities to teachers' professional development needs.

Serbia

In 2019, the Serbia Institute for Improvement of Education (IIE), in cooperation with the Ministry of Education and the United Nations Children's Fund (UNICEF), launched the National Education Portal (NOP). A central component of the portal is the ZUOVEdu distance-learning platform, which hosts professional development programmes for educators. All trainings are public, aligned with national education priorities, and allow participants to register electronically and receive official certification. From 2019 to 2024, nearly 360 000 teachers, school counsellors, and principals participated in over 5 000 training sessions on the ZUOVEdu distance-learning platform—averaging at least four trainings per educator.

To align training with educators' real needs, the IIE surveyed teachers to collect information on their attitudes and perceptions regarding professional development. Findings suggest that Serbian teachers valued the trainings that were practical, flexible, and applicable to their classroom needs. However, barriers such as financial constraints, lack of time, and uneven institutional support remained important obstacles for many teachers, and many teachers called for more relevant and accessible opportunities.

Korea

Korea's teacher training platform, Knowledge Spring (see Box 1.4 in Chapter 1 for more details), not only allows users to select content and resources based on their needs, but the platform is becoming increasingly sophisticated: Korea will launch a tool whereby teachers can self-assess their professional competencies and receive personalised training recommendations and will introduce digital badges to certify learning at four levels of interaction ("beginner", "doer", "mentor", "expert").

Japan

In 2022, Japan revised its system of teacher professional learning, seeking to tailor activities to individual, school and regional needs. To support this effort, in 2024, Japan launched the Platform for Teachers and Staff Development which includes the following:

- a recording system, which enables teachers to record their participation and/or completion of programmes
- a catalogue of development opportunities from which teachers and leaders can select those that best respond to their own and their school's needs
- a library of video teacher development programmes developed by universities, boards of education, and public-interest corporations, among others.
- tests to check teachers' acquisition of knowledge and skills or practice reports and reflective tasks that will help participants relate learning to their own practice.
- mechanisms for sharing development content and evaluating performance.

The platform can facilitate system-level monitoring and policy evaluation. By centralising the national professional learning offer, Japan can more easily ensure the quality of learning content and its alignment to national goals. There is also scope to collect data on teachers' learning pathways and evaluations at the system level.

Source:
Central Council for Education (2020[23]), *Realising a "New Way of Learning for Teachers" and Promoting Diverse Expertise*, https://www.mext.go.jp/content/20221219-mxt_kyoikujinzai01-1412985_00004-1.pdf.
OECD (2024[2]), *Education Policy Outlook 2024: Reshaping Teaching into a Thriving Profession from ABCs to AI*, https://doi.org/10.1787/dd5140e4-en.
OECD (2024[24]), "Policy dialogues in focus for Brazil: International insights for strengthening resilience and responsiveness in lower secondary education", https://doi.org/10.1787/e99f8322-en.

Table 4.1. Chapter 4 figures

Figure 4.1		Participation in fast-track programmes to become teachers, by career pathway
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Notes

[1] A more detailed analysis, including definitions, of these professional outcomes can be found in Chapter 2.

[2] This report defines second-career teachers as teachers with at least ten years of work experience in non-education roles and who reported that teaching was not their first career choice.

[3] This hypothesis is unfortunately difficult to test with TALIS data, as ideally one would need data at the moment second-career teachers enter fast-track or other types of programmes or are at the least at the very early stages of their career. Insufficient sample size prevents conducting a fine-grained analysis of second-career teachers in the very early stages of their teaching careers. The best approximation consists in comparing the professional learning needs of second-career teachers with those of other teachers (Table 4.28). When doing so, significant differences between second-career teachers and other teachers emerge only in a handful of countries, and the patterns are not always consistent. In four education systems (Austria, the Flemish and French Communities of Belgium and the United States) second-career teachers are indeed significantly more likely to report higher learning needs in classroom management for student behaviour (but the opposite is true in Portugal). Second-career teachers express higher learning needs in subject-matter pedagogy in Austria and Czechia, but the opposite is true in Kazakhstan and the United States. In the Flemish Community of Belgium second-career teachers express a higher learning need for subject matter content knowledge, but the opposite result holds in the United States.

[4] Note that these numbers should be interpreted as a lower bound of the number of activities teachers actually participated in. TALIS in fact does not ask explicitly how many learning activities teachers attended, but whether or not they participated to any of ten different types of learning activities (those reported in Table 4.18). As a result, the number of activities, by construction can't exceed ten.

[5] Note that these are relative frequencies not reported in Table 4.12. They can be easily obtained by dividing the share of teachers who participated in a given activity virtually or on line by the total share of teachers who participated in that activity.

[6] In the previous cycle of TALIS, conducted in 2018, 82% of teachers reported a positive impact on their teaching practices from their participation in continuous professional development activities (OECD, 2019, p. 160[25]). However, the data across the two cycles are not comparable, because of changes in how the question is formulated. In 2018, teachers were asked: *Thinking of all of your professional development activities during the last 12 months, did any of these have a positive impact on your teaching practice?*, to which they could answer either "Yes" or "No". In 2024 the question read: *Thinking of the professional learning activities in which you participated during the last 12 months, overall to what extent did they have a positive impact on your teaching?*, to which they could answer "Not at all", "To some extent", "Quite a bit" or "A lot".

[7] See Chapter 2 for a more extended discussion, definition and analysis of teachers' well-being and work-related stress, job satisfaction and fulfilment of lesson aims. For more information on the scales, see Annex B.

[8] There are two composite scales at the teacher level: the scale of self-efficacy (overall) (T4SELF) and the scale of job satisfaction (overall) (T4JOBSAT). These two scales are standardised to have a standard deviation of two across all education systems participating in TALIS and a mean of ten.

[9] Results presented in this section are mostly based on linear regression analysis. While the annex tables present regression coefficients, the text mostly expresses the estimated associations in terms of standard deviation changes in the scale (this is done by simply dividing the estimated coefficient by 2). This is meant to facilitate interpretation, as all associations are expressed on the same metric. For more information on the scales, see Annex B.

[10] Higher values on the workplace well-being and stress scale reflect lower levels of well-being.

5 Teacher leadership and autonomy

This chapter examines the autonomy and leadership opportunities experienced by teachers and how these resources relate to teachers' professional outcomes, such as their fulfilment of lesson aims, well-being and job satisfaction. It explores the extent to which teachers are involved in school-level decision making, how much autonomy they report over their teaching practice, and whether they have opportunities to assume professional leadership roles. It also analyses how these dimensions relate to teachers' self-efficacy.

Highlights

- **The involvement of teachers in school-level policy decisions affecting their practice is declining in many education systems.** According to principals, between 2018 and 2024, teachers' involvement in setting student assessment policies declined by an average of 3 percentage points on average across OECD education systems. Longer-term trends from 2013 to 2024 show even sharper drops – over 20 percentage points in countries like Serbia and Singapore. Only in Shanghai (People's Republic of China, hereafter "China"), is there an increase in teacher involvement between 2018 and 2024.
- **Opportunities for school-level agency are more common in rural and publicly managed schools.** On average across OECD education systems, 78% of teachers report that their school provides opportunities to participate in decision making, but this is more common in rural than in urban schools (on average 8 percentage-point difference). Teachers in publicly managed schools also report greater opportunities for participation than those in privately managed schools (a 2 percentage-point average difference), with gaps reaching over 14 percentage points in countries such as Japan and Singapore.
- **Teachers with higher instructional autonomy are more likely to report higher adaptability in their instruction, greater job satisfaction and greater well-being.** On average across OECD education systems, teachers with higher autonomy over instructional decisions – such as designing lessons, selecting teaching methods, and implementing the curriculum with flexibility – are more likely to report being able to tailor instruction to students' needs, in most cases by a large margin. They also report higher job satisfaction and lower stress. These relationships are consistent across most education systems, even after accounting for teacher and school characteristics.
- **The autonomy that teachers have is not necessarily dependent on their experience**. Across education systems, novice and experienced teachers often report similar levels of autonomy in instructional decisions. However, more experienced teachers (those with over ten years of experience) report greater autonomy in areas like selecting teaching methods, on average across OECD education systems. Korea and Costa Rica show a reverse pattern: novice teachers (those with under five years of experience) report higher autonomy than their experienced peers, by at least 8 percentage points across all areas in Korea, and by over 14 percentage points in selecting learning objectives and implementing the curriculum flexibly in Costa Rica.
- **Autonomy relates positively to teacher confidence, but education systems need to consider how, when and to whom it is granted.** TALIS data show that teachers who report higher levels of autonomy are also more likely to feel confident in their classroom management and teaching. This positive relationship between autonomy and self-efficacy is stronger and more consistent among experienced teachers. This suggests that systems might consider teachers' needs and profiles when determining how much autonomy they should have.
- **Empowering teachers as leaders – within schools and beyond – increases job satisfaction**. Teachers who are actively involved in school decisions, encouraged to lead initiatives, or believe they can influence education policy report higher levels of job satisfaction. This pattern holds across nearly all education systems, suggesting that autonomy and professional agency can contribute to teachers' sense of professional purpose and engagement.

Introduction

One of the most important policies an education system can make is to determine how much decision-making authority to give to teachers. On one hand, education systems want to ensure that high-quality education is delivered consistently. On the other hand, teachers know their students and are best positioned to adapt instruction to their diverse needs. This includes setting teaching goals, choosing pedagogical methods and navigating wider institutional expectations (Biesta, Priestley and Robinson, 2015[1]). When allocated strategically, teacher authority in decision making can be a powerful resource in improving the school environment and student learning.

Decision making in education systems is often structured through decision transfers, that is, the delegation of authority from central bodies to schools and, within schools, to teachers. While school-level decision making has long been a focus in education governance, there is increasing recognition that teacher-level autonomy, particularly in pedagogical and classroom decisions, is equally essential to effective school functioning and professional satisfaction (OECD, 2018[2]).

Teachers' day-to-day discretion includes selecting teaching materials, setting learning objectives, choosing assessment strategies and adapting pedagogy. These forms of instructional autonomy are not evenly distributed. In some education systems, more discretion is given to experienced teachers, while novice teachers operate within narrower, more prescriptive frameworks. Having autonomy influences not only how teachers work, but also how they perceive themselves as professionals (Hargreaves and Fullan, 2012[3]).

This chapter draws on data from the 2024 cycle of the Teaching and Learning International Survey (TALIS) to examine the decisions teachers make in different education systems. Specifically, it explores whether teachers have the opportunity to participate in decision making at the school level (school governance), whether they believe they can contribute to school leadership, and the extent of discretion they have over their classroom practice (instructional autonomy). This chapter also analyses whether these perceptions vary according to teacher characteristics (e.g. teachers' gender, age and teaching experience [hereafter "teacher characteristics"]) or school characteristics (e.g. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs [hereafter "school characteristics"]), and whether these beliefs have changed since previous TALIS cycles. Finally, this chapter examines how these factors relate to teachers' professional outcomes, including teacher well-being, job satisfaction, and the fulfilment of their lesson aims, as well as the extent to which their autonomy is oriented through formal appraisal.

Teacher leadership

A key dimension of teacher decision making is the extent to which teachers are involved in making decisions that affect the functioning of their schools (Hargreaves and Fullan, 2012[3]). In education research, distributed leadership is understood as a model in which leadership roles and responsibilities are shared among multiple actors within a school, including teachers (Muijs and Harris, 2006[4]). This is a form of agency – the capacity of individuals to act with purpose and influence (Biesta, Priestley and Robinson, 2015[1]) – that recognises the professional expertise of teachers and encourages their involvement in shaping classroom practice and school culture (OECD, 2018[2]).

Statutory rules and the way in which decision making is distributed in schools can play an important role in determining teachers' leadership responsibilities. Previous TALIS reports have shown that school leaders often share responsibility with teachers for key areas of school policy, particularly curriculum and instruction (OECD, 2020[5]). Shared decision-making arrangements are horizontal transfers of

responsibility from the school leadership to the professional teaching staff (see Box 5.1). As will be discussed in this chapter, teachers who are actively involved in such leadership roles often report higher levels of job satisfaction and professional well-being (Tables 5.62 and 5.61).

Participation in school governance

TALIS 2024 asks school principals whether teachers have "significant responsibility" in a number of areas at the school level: curriculum and instruction, setting school policies, and budget and staffing. Such involvement not only reflects the formal delegation of authority from school leadership but also signals a broader culture of professional trust and collaborative governance.

Curriculum and instruction

At the school level, teachers are more involved in areas and tasks more closely related to instruction, according to principal reports,[1] and as addressed in previous TALIS reports (OECD, 2020[5]). Three out of four teachers (77%) work in schools where they have significant responsibility in choosing learning materials, on average across OECD countries and territories with available data (hereafter, "on average") (Figure 5.1). At least five out of ten teachers work in such schools in 41 out of 54 education systems participating in TALIS with available data (hereafter, "education systems"). Over nine out of ten teachers in Austria, Denmark, Estonia, Iceland, Italy, the Netherlands*, Poland and Slovenia have such responsibility, while fewer than two out of ten teachers in Uzbekistan do (Table 5.1).

Teachers also play an important role in making decisions about the use of digital resources for instruction. In 40 of 54 education systems, at least one in two teachers has significant responsibility in this area. In contrast, fewer teachers are involved in determining course content. On average, some 47% of teachers work in schools where they have significant responsibility in this area (Table 5.1).

Moreover, teachers are more involved in decisions around course content in privately managed schools than in publicly managed schools in 13 education systems, with an average difference of 11 percentage points. While there are no differences by school type in most education systems, among those that do report differences, only Singapore shows more teachers in publicly managed schools reporting involvement in decisions around course content (Table 5.4).

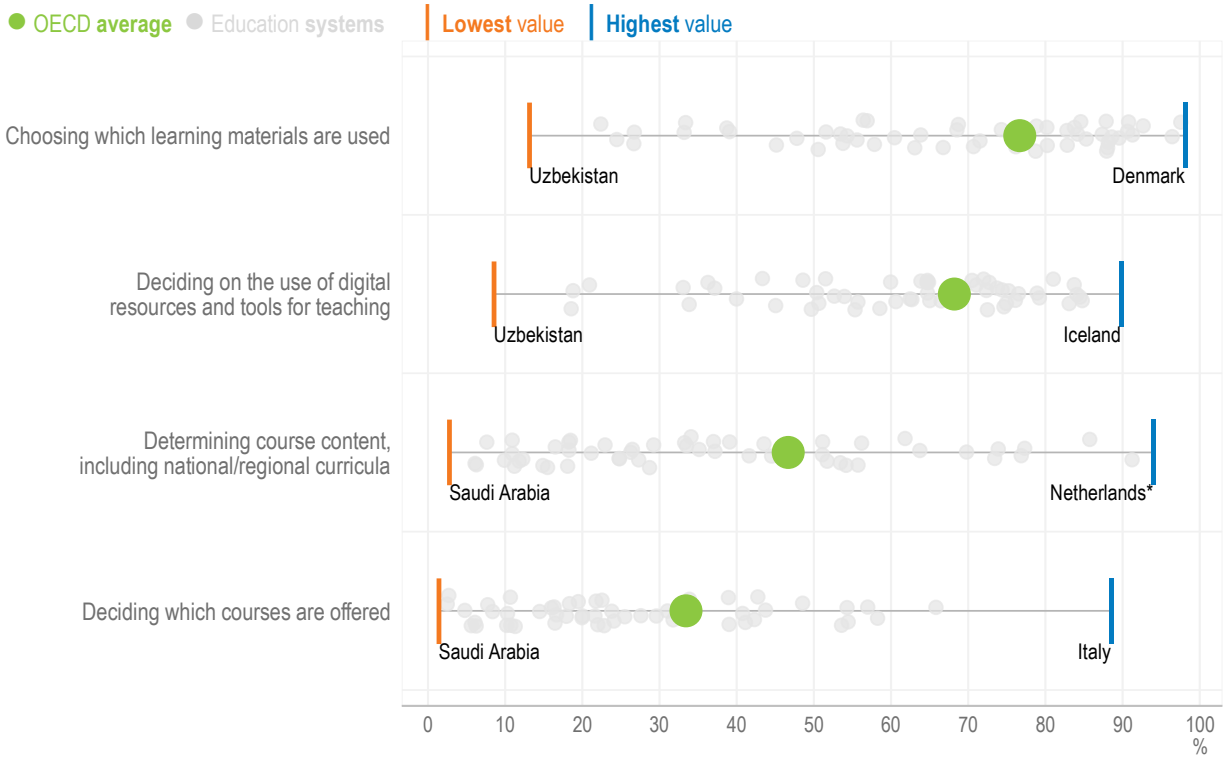
When it comes to deciding which courses are offered, on average, only 33% of teachers work in schools where they have significant responsibility. In most education systems, this responsibility lies primarily with school leadership. However, in Czechia, Estonia, Finland, Iceland, Italy, the Netherlands*, and Serbia, at least one out of two teachers participates in such decisions. This sort of responsibility is virtually non-existent in Saudi Arabia (Table 5.1).

While differences across schools are not the norm, in seven education systems, more teachers working in privately managed schools are involved in determining which courses are offered compared to those working in publicly managed schools, according to principals, with an average difference of 5 percentage points. Singapore is the only education system where more teachers working in publicly managed schools decide on which courses are offered (Table 5.5).

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Figure 5.1. Teachers' involvement in school decision making on curriculum and instruction

Percentage of lower secondary teachers working in schools where they have a significant responsibility for the following areas



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2024 Database*, Table 5.1.

School policies

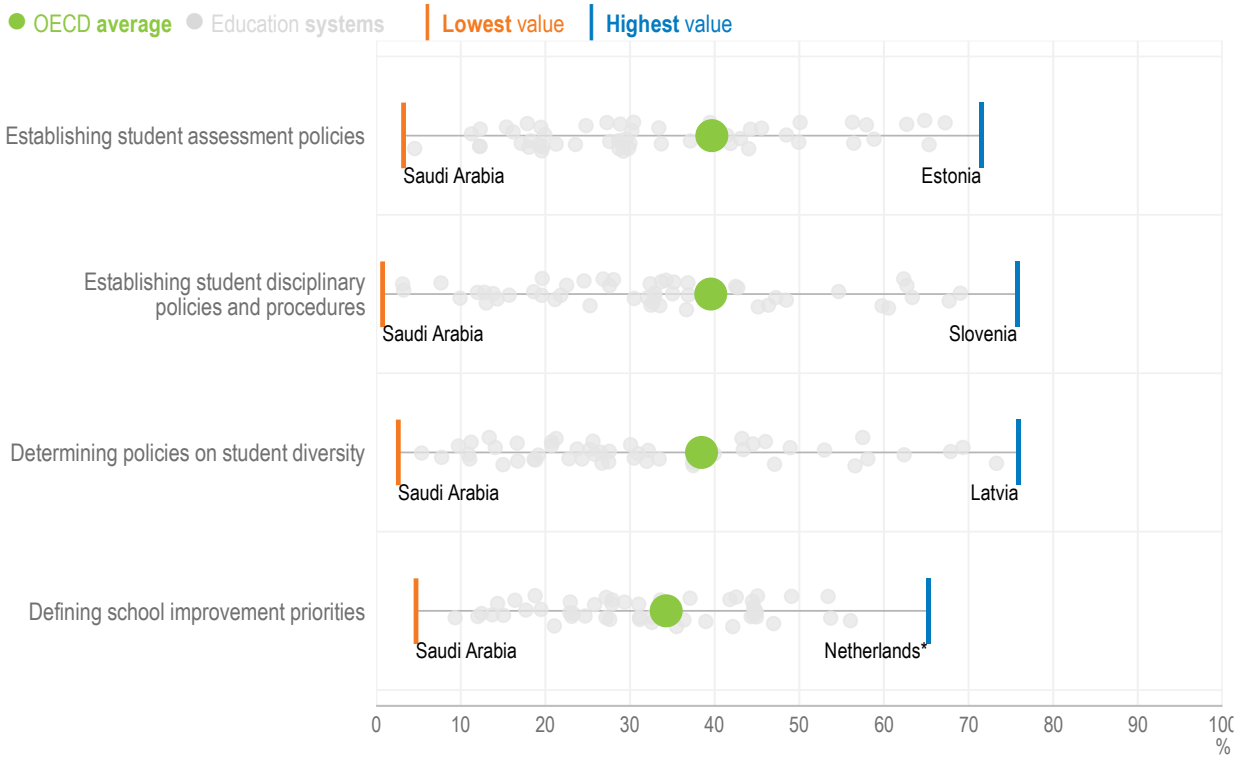
Teachers' influence on school policies is more limited. On average, fewer than one out of two teachers are reported to work in schools where they have significant responsibility for the school policies measured, including those related to school improvement, student assessment, discipline and diversity. However, as shown by the dispersion of results across education systems in Figure 5.2, the role of teachers in determining school policies varies considerably.

Fewer than four out of ten teachers, on average, work in schools where they are involved in defining school improvement priorities. There is some variation, however, depending on the education system. For example, at least five out of ten teachers in Estonia, Korea, the Netherlands* and Slovenia are involved in defining school improvement priorities, while fewer than one in ten teachers in Saudi Arabia and Viet Nam are involved (Table 5.2).

Similarly, four out of ten teachers work in schools where they are involved in setting student assessment policies (including national and regional assessments) on average. While there is great variation across education systems, teachers appear to be becoming less involved in setting student assessment policies at the school level. On average, there is a decrease of 3 percentage points between 2018 and 2024. Additionally, changes in long-term trends are numerous and can be substantial. In 15 education systems, the decline between 2013 and 2024 ranges from 8 percentage points in Spain to more than 20 percentage points in Serbia and Singapore. Only in Shanghai (China) is there an increase in teacher participation in this form of school-level decision making between 2018 and 2024 (Table 5.6).

Figure 5.2. Teachers' involvement in school decision making on school policies

Percentage of lower secondary teachers working in schools where they have a significant responsibility for the following areas



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2024 Database*, Table 5.2.

While differences by school type are not the norm, when they do occur, it is mostly teachers in privately managed schools who are reported to be involved in establishing assessment policies (nine education systems), with an average difference of 10 percentage points. Only in Singapore do more teachers in publicly managed schools report involvement in this area, according to school principals (Table 5.8).

Almost four out of ten teachers work in schools where they are involved in setting student disciplinary policies and procedures (39% on average). This involvement is particularly high in Czechia, Iceland and Slovenia, where more than 67% of teachers are involved, but it is less prevalent in Saudi Arabia, Sweden and Uzbekistan, where it is less than 5% (5.2). However, trends suggest that teacher involvement in this practice is also decreasing. There is an average decline of 3 percentage points between 2018 and 2024 across OECD education systems, and longer trends (2013 to 2024) show a decline in 13 education systems. Only in Japan and Shanghai (China) are there positive increases between 2018 and 2024 (around 11 percentage points) and in Korea for the longer trends (around 18 percentage points) (Table 5.6).

In ten education systems, teachers working in privately managed schools are reported to have more involvement in decision making about disciplinary policies and practices than teachers in publicly managed schools, with an average difference of 8 percentage points. However, in Costa Rica, the opposite is true, with a gap of over 26 percentage points (Table 5.9).

When it comes to policies on student diversity, teacher involvement concerns about 38% of teachers on average. The figure exceeds 67% in Estonia, Finland, Latvia, and Slovenia but is below 10% in Morocco, Saudi Arabia, Singapore and Uzbekistan. In contrast, policies on teacher diversity remain largely outside the purview of teachers. Only 20% of teachers are significantly involved, and in most systems, the figure is considerably lower. Estonia and Finland are notable exceptions, at just over 50% (Table 5.2).

Budget and staffing

Teachers across education systems have virtually no significant involvement in budget and staffing policies, such as dismissing or suspending teachers from employment, establishing teachers' starting salaries and determining teachers' salary increases. In some contexts, a very small number of teachers may have responsibility for appointing or hiring teachers (only in Denmark and the Netherlands* do slightly more than one in two teachers have this responsibility). Teachers rarely have significant responsibility for decisions on budget allocation within a school (6% on average). The only exceptions are Korea and Latvia, where 25% and 21% of teachers, respectively, work in schools where they have this responsibility, based on principals' reports (Table 5.3).

Box 5.1. Involving teachers in decision making at the school level

Slovenia

As part of the reform of its *gimnazija* (general upper secondary), Slovenia created school development teams, drawing on the concepts of distributed leadership, learning communities, and teachers as change agents.

With the support of school leaders, these teams promoted, steered and co-ordinated development processes in schools, through activities such as needs analysis and structured dialogue. School development teams also had support from the National Education Institute.

The reform aimed to:

- encourage individual teachers and interdisciplinary teams to adopt innovative teaching practices that promote higher-order thinking and key competences
- embed and sustain these changes at the school level through strategic planning, co-ordination, and whole-school implementation.

Initially, the primary focus was on the first of these aims, but it has since shifted to the second. The reform aimed to foster educational innovation by building professional capacity at the school level. To support this, it has expanded professional development and research networks, strengthened leadership, and invested in teaching and learning infrastructure.

The whole reform lasted around ten years. Ten schools participated in the initial pilot phase, which lasted three years. The reform was then rolled out to all *gimnazija* (more than 70 schools). Evidence shows that the key driver of change was the teachers, who took the lead in shaping reforms using nationally provided materials and support.

Colombia

The General Education Law (*Ley General de Educación*), enacted in 1994, established the framework for school governance in Colombia. Specifically, it outlined the roles and responsibilities of the School Governing Board and the Academic Council (*Consejo Directivo and Consejo Académico*), ensuring that teachers, along with other stakeholders, have a voice in the administrative and academic affairs of schools. Through their participation in these boards, teachers are given a say in the organisation,

pedagogical orientation, implementation and continuous improvement of the school curriculum and study plan.

In Colombia, the school calendar furthermore includes five weeks dedicated to institutional development, during which teachers work on the school's educational project, its study plan, pedagogical developments, self-evaluation and partnerships with other institutions. Colombian teachers are also involved in the design and implementation of education policy more widely (see Box 5.4).

Source: Congreso de la República de Colombia (1994[6]), *General Education Law (Law No. 115 of 1994)*, https://globalfoodlaws.georgetown.edu/documents/law-115-1994-general-education-law-colombia/; OECD (2016[7]), *Education Policy Outlook: Slovenia*, https://www.oecd.org/content/dam/oecd/en/about/projects/edu/education-policy-outlook/398027-Education-Policy-Outlook-Country-Profile-Slovenia.pdf; OECD (2019[8]), *Working and Learning Together: Rethinking Human Resource Policies for Schools*, https://doi.org/10.1787/b7aaf050-en.

Teachers' opportunities for leadership

Distributed leadership and teacher leadership are closely related, yet conceptually distinct. Distributed leadership, as addressed above, involves the delegation of authority, though the school principal may still retain final decision-making control (Harris, 2004[9]). In contrast, actual teacher leadership is the formal or informal recognition of teachers as leaders among their peers and school staff (Wenner and Campbell, 2016[10]). There has been much debate in the literature on how best to develop teacher leadership, how to encourage meaningful teacher participation in school decision making and how to ensure that such involvement improves teaching practices (Al-Yaseen and Al-Musaileem, 2013[11]; Yismaw and Bekalu, 2016[12]; Wenner and Campbell, 2016[10]). Yet, a consistent finding is that actual teacher leadership thrives in environments where leadership is genuinely shared – where decision making is distributed in name and supported by structures that enable teachers to shape school life (Oppi, Eisenschmidt and Jõgi, 2022[13]; Wenner and Campbell, 2016[10]; Gülmez, 2022[14])

This form of actual leadership can be grasped in how teachers perceive their opportunities to influence school decisions and take on leadership roles. In fact, much of teachers' agency can take place while they are engaged in other activities that overlap in time with their more structured duties. The question, then, is whether teachers believe that their schools provide sufficient opportunities for them to do so. TALIS 2024 offers valuable insights into teachers' perceptions of these opportunities in a number of areas.

TALIS shows differences between principals' and teachers' reports on leadership opportunities (OECD, 2020[5]). This misalignment may be partially explained by differences in perspective and the way the survey items are framed. For example, principals may provide a broader, more institutional perspective when describing the allocation of leadership responsibilities, potentially informed by formal policies, statutory definitions, or collective governance structures. In contrast, teachers may respond based on their direct, day-to-day experiences of agency and participation within their specific school context. Furthermore, differences in scope, reference point and framing may help to explain the apparent discrepancy. Specifically, principals are asked whether teachers actively participate in decision-making processes, whereas teachers are asked whether they perceive opportunities or are able to lead specific actions.

Making decisions about the school

TALIS 2024 asks teachers if their schools provide them with opportunities to actively participate in school decisions. Nearly eight out of ten teachers (78%) report that their school provides staff with opportunities to actively participate in school decisions, on average. This figure rises to more than nine out of ten teachers in Albania, Bulgaria, Uzbekistan and Viet Nam, but drops to below seven out of ten in Australia, the French Community of Belgium, Chile, Costa Rica and Israel (Table 5.10). Teachers in rural schools

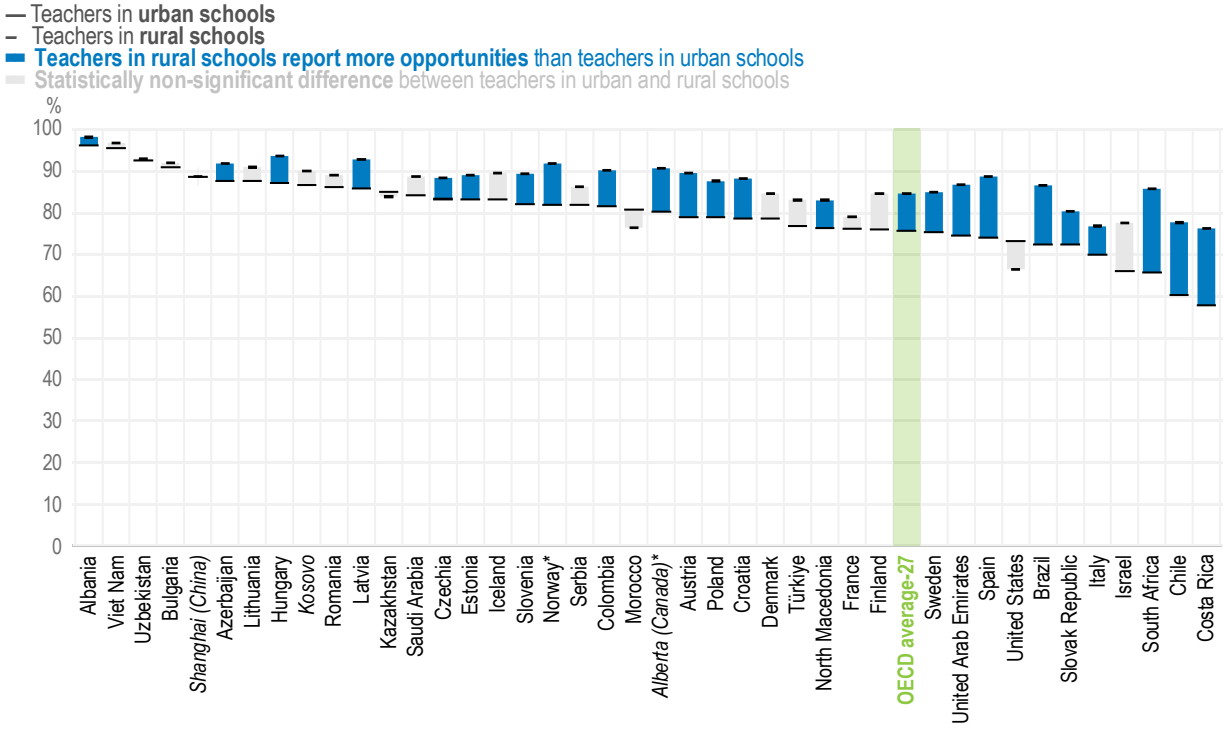
report these opportunities more often than those in urban schools, by an average of 8 percentage points, and up to 20 percentage points in South Africa (Figure 5.3).

Teachers in publicly managed schools report greater opportunities for participation in school decisions than those in privately managed schools (on average, 2 percentage points higher), with gaps reaching over 14 percentage points in countries such as Japan and Singapore. At the same time, in a number of education systems (5 out of 54), teachers in privately managed schools report the most such opportunities, with the differences between the two ranging from around 6 percentage points in Czechia to almost 15 percentage points in the United States (Table 5.12).

Disaggregating by years of experience reveals no consistent pattern for opportunities to participate in leadership. In 6 education systems, more experienced teachers report greater opportunities to participate, while in 11 education systems, novice teachers report more opportunities (Table 5.13). Gender differences are rare, but where they occur, male teachers are more likely to report opportunities to participate in school decisions, except in Uzbekistan, where the opposite is true (Table 5.10).

Figure 5.3. Opportunities for staff participation in school decision making, by school location

Percentage of lower secondary teachers who "agree" or "strongly agree" that their school provides staff with opportunities to actively participate in school decisions



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Rural schools refer to those located in rural areas or villages (up to 3 000 people). Urban schools refer to those located in a community with a population of over 100 000 people.
Source: OECD, *TALIS 2024 Database*, Table 5.12.

Contributing to school management

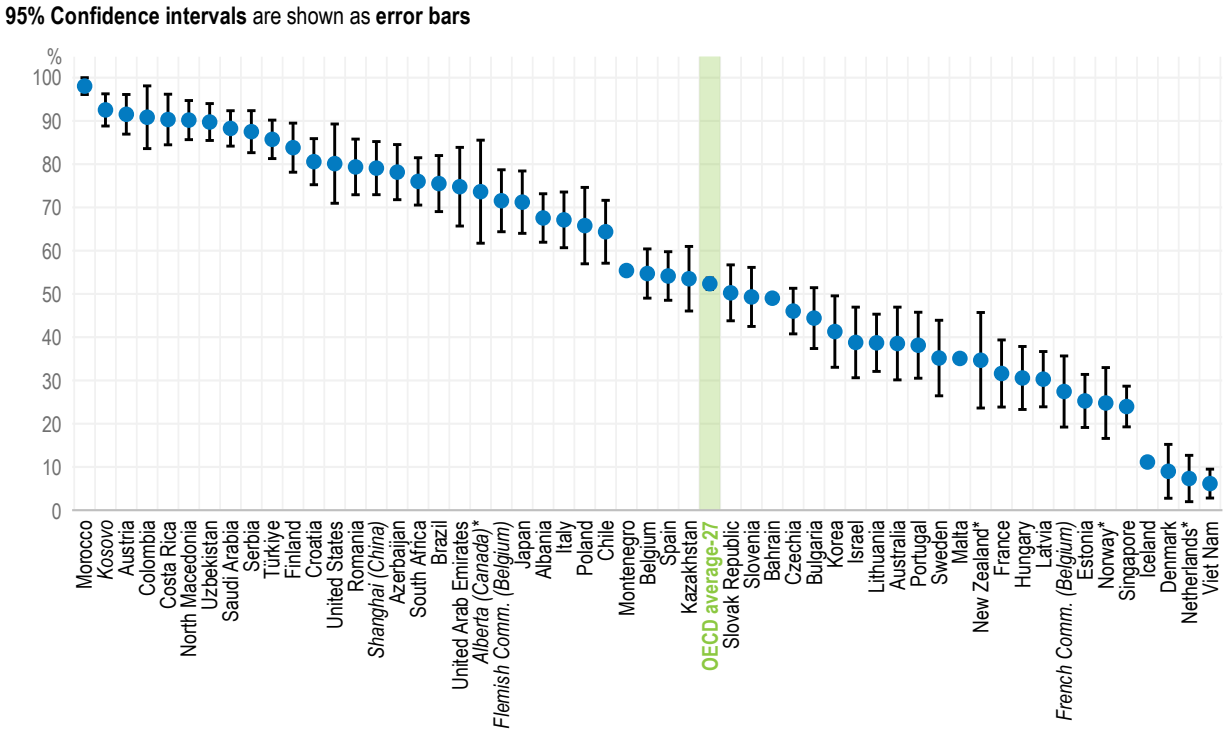
Schools can support shared leadership through formal mechanisms such as school management teams, which are bodies responsible for instructional planning, resource allocation, curriculum co-ordination, and

school-level decision making. These teams can offer structured avenues for teacher leadership and help embed teachers into a school's decision-making culture (Hallinger and Murphy, 2013[15]).

While the TALIS definition of school management teams is broad, it provides an idea of the extent to which teachers are represented in such decision making by proxy. According to TALIS 2024, about one out of two teachers (on average) are represented in school management teams, based on principals' reports (Figure 5.4). In education systems such as Austria, Colombia, Costa Rica, Kosovo, Morocco and North Macedonia, representation is widespread (over 90%). In contrast, in Denmark, the Netherlands* and Viet Nam, fewer than 10% of teachers work in schools where they are represented on these teams.[2]

Figure 5.4. Representation on the school management team

Percentage of lower secondary teachers working in schools where teachers are currently represented on the school management team



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results based on responses of principals.
Source: OECD, *TALIS 2024 Database*, Table 5.14.

In terms of change over time, the share of teachers represented in school management teams has shifted in only ten education systems. In eight of them, the representation of teachers has decreased compared to 2018 (Table 5.15). Only teachers in Australia and France report increased representation, by over 10 percentage points. In parallel, teachers self-report slightly more time devoted to school management in 2024, on average, suggesting some shift toward more formal participation (Table 5.16).

Experience and gender also play a role. In 24 education systems, experienced teachers report spending more time on school management than novice teachers. While gender differences are not widespread, when they do appear (in 12 education systems), they consistently favour male teachers, reinforcing that leadership roles may remain unequally distributed by gender in some contexts (Table 5.17).

Establishing the school climate

Teachers can help establish a school climate that is creative, collaborative and conducive to learning. TALIS also asks teachers whether their schools encourage them to initiate new ideas, whether they lead initiatives with other peers, and help shape school culture.

- **Leading new initiatives**: On average, 82% of teachers report that their school encourages staff to lead new initiatives. This sentiment is shared by a large majority of teachers in a number of education systems (at least 80% in 43 education systems). In Albania and Viet Nam, over 97% of teachers report this (Table 5.10).
- **Promoting professional learning communities**: On average, 79% of teachers report that teachers take leadership roles in this area, ranging from over 95% in Albania and Uzbekistan to 59% in Japan. This is also one of the most experience-sensitive indicators. In 18 education systems, novice teachers report greater leadership roles, reaching over 10 percentage points above their more experienced colleagues in Austria and Costa Rica. In contrast, in Albania, Azerbaijan and Kazakhstan, experienced teachers report these roles more often (Table 5.13).
- **Leading collaborative activities**: On average, 84% of teachers report initiating and leading collaboration with colleagues, with no education system having fewer than 72% of its teachers doing so. This suggests that collaborative professionalism is well embedded across most education systems (Table 5.10).

In most education systems, leadership opportunities are not necessarily related to teacher characteristics such as gender or experience. In Costa Rica, however, novice teachers report more of these opportunities than their experienced counterparts across all these dimensions, by margins of more than 11 percentage points. In Bahrain, the opposite is true, with experienced teachers reporting greater access to leadership opportunities (Table 5.13).

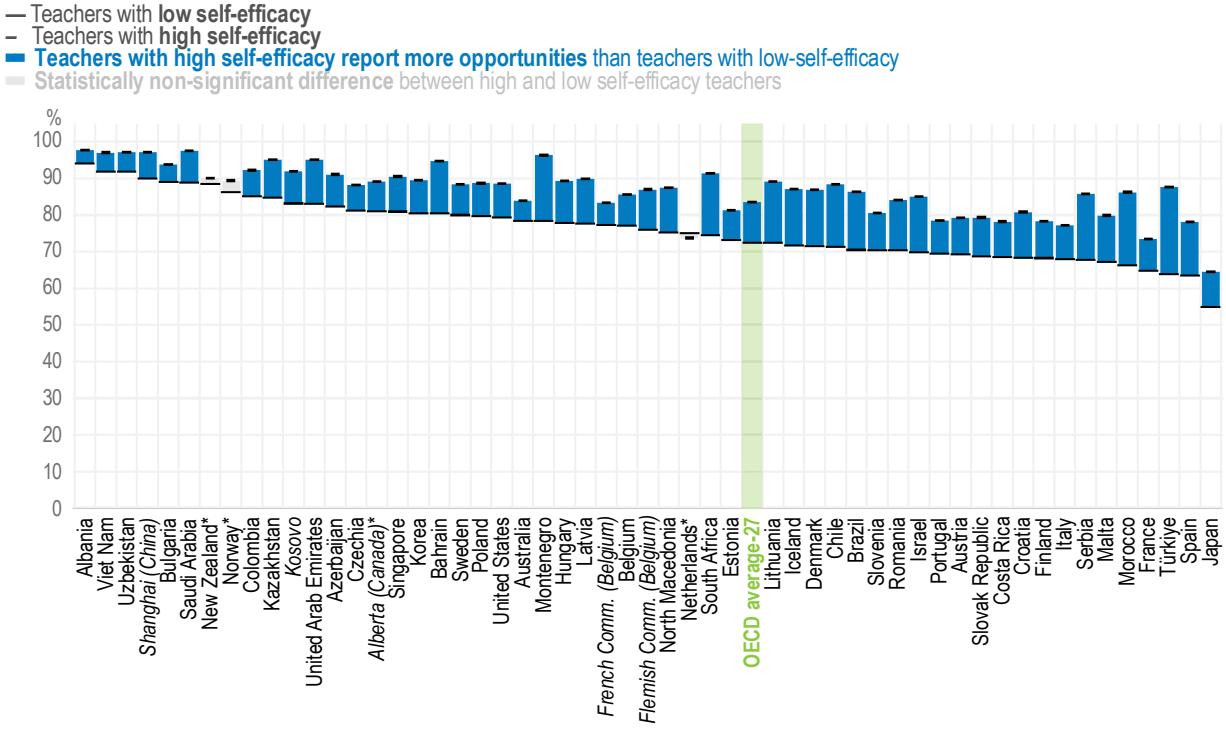
Other factors, including confidence, appear to play a more relevant role. Teachers with higher levels of instructional self-efficacy[3] (those in the top quartile of the self-efficacy index) report more leadership opportunities across all areas than their peers with low self-efficacy (in the bottom quartile) (Table 5.18). Teachers taking a leadership role in promoting a professional learning community are most strongly associated with higher self-efficacy (Figure 5.5). In all education systems, teachers with higher self-efficacy report leadership opportunities to a greater extent than their colleagues with lower self-efficacy (Tables 5.18 and 5.25).

These patterns may reflect two plausible mechanisms. First, teachers with high self-efficacy may be more inclined to take on leadership roles because they recognise the value of collaborative learning and are more confident in their ability to contribute effectively. This aligns with research indicating that teachers with high self-efficacy are more proactive, innovative and motivated to engage in collective professional activities (Tschannen-Moran, Hoy and Hoy, 1998[16]; Tschannen-Moran and Hoy, 2007[17]). Second, school leaders may deliberately assign leadership functions, such as guiding professional learning communities, to more experienced or confident teachers, perceiving them as better able to influence their peers and foster collaboration (York-Barr and Duke, 2004[18]).

Finally, school characteristics appear to play a limited role in shaping teacher leadership opportunities. In most education systems, there are no consistent patterns based on school location, school governance type or school intake of students from socio-economically disadvantaged homes. Where differences do exist, rural schools grant more opportunities to teachers, particularly in terms of taking a leadership role in promoting a professional learning community and encouraging staff to lead new initiatives (12 and 10 education systems, respectively) (Tables 5.20 and 5.19).

Figure 5.5. Teacher leadership in promoting professional learning communities, by self-efficacy

Percentage of lower secondary teachers who "agree" or "strongly agree" that their school provides staff with opportunities to take leadership roles in promoting professional learning communities



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Teachers with low self-efficacy refer to those in the bottom quartile. Teachers with high self-efficacy refer to those in the top quartile of the scale of teacher self-efficacy (T4SELF). Quartiles are calculated within each country/territory.
Source: OECD, *TALIS 2024 Database*, Table 5.18.

Box 5.2. Teachers establishing the school climate in primary and upper secondary education

TALIS data show that, as education levels increase (i.e. from primary to upper secondary), fewer teachers feel encouraged to lead new initiatives. Additionally, a smaller proportion of teachers at higher education levels indicate that they have opportunities to initiate and lead collaborative activities. Different patterns also emerge when factors such as school location (rural or urban) and school type (privately or publicly managed) are considered.

A larger proportion of primary teachers report feeling encouraged to lead new initiatives in their schools compared to their lower secondary counterparts in 9 out of 15 education systems with available data for primary and lower secondary education (5.10). The largest gap is observed in the Netherlands* (11 percentage points). In Australia and the French Community of Belgium, fewer primary teachers working in urban schools report receiving such encouragement compared to those working in rural schools (by at least 9 percentage points) (Table 5.19). In Morocco, a higher proportion of primary teachers working in privately managed schools report such encouragement than those working in publicly managed primary schools, with a difference of almost 6 percentage points. However, the most pronounced gaps are found among teachers in schools with large concentrations of students who have

difficulty understanding the language(s) of instruction. In four education systems, fewer primary teachers working in these schools report encouragement to lead new initiatives.

In contrast, fewer upper secondary teachers report being encouraged to lead new initiatives than their lower secondary peers in the Flemish Community of Belgium* (about 5 percentage points) and Slovenia (about 4 percentage points) (Table 5.19). In the United Arab Emirates, a higher proportion of teachers in rural and publicly managed upper secondary schools report this compared to their peers in urban or publicly managed schools (6 and 4 percentage points, respectively). Of the eight education systems with available data for upper secondary education, two show that less teachers working in schools where more than 10% of students have difficulty understanding the language(s) of instruction are encouraged to lead initiatives compared to those in schools with a smaller percentage of these students. The largest gap is seen in Türkiye (about 9 percentage points).

When looking at the role of teachers in initiating and leading collaborative activities in their schools, a higher proportion of primary teachers report engaging in these practices than lower secondary teachers in 8 out of 15 education systems (Table 5.21). The largest differences are found in Japan and the Netherlands* (about 10 percentage points). The French Community of Belgium is the only education system in which the opposite is true (4 percentage points). In Brazil and the French Community of Belgium, fewer teachers working in urban primary schools report initiating and leading collaborative activities compared to those in rural primary schools (11 and 9 percentage points, respectively). In Morocco, a higher proportion of primary teachers in privately managed schools engage in these practices than in publicly managed primary schools (about 8 percentage points).

At the upper secondary level, fewer teachers report initiating and leading collaborative activities in their schools, compared with lower secondary teachers in Denmark (6 percentage points) and the Flemish Community of Belgium* (4 percentage points) (Table 5.21). In the United Arab Emirates, fewer upper secondary teachers working in urban schools initiate and lead collaborative activities compared to those in rural schools, with a difference of almost 4 percentage points. Also in the United Arab Emirates, a greater proportion of upper secondary teachers in schools where over 30% of students come from socio-economically disadvantaged homes report engaging in these practices, with a difference of about 6 percentage points. In the Flemish Community of Belgium*, however, the opposite is true, with fewer teachers working in such schools reporting that they initiate and lead collaborative activities (about 7 percentage-point difference).

Influencing education policy

Teachers can exert influence at various levels, including school-level decisions and, sometimes, broader education policy (see Box 5.4). While teachers report playing an active role within schools, few feel they have influence beyond the school level. Only 24% of teachers “agree” or “strongly agree” that they can influence education policy in their country, on average (Table 5.28). This perception of limited influence is widespread. In 19 education systems, fewer than 20% of teachers feel that they can influence policy, with the figure falling below 10% in Austria, the French Community of Belgium, Croatia and Poland. At the other end of the scale, over 70% of teachers in Albania, Saudi Arabia, the United Arab Emirates, Uzbekistan and Viet Nam feel that they can influence education policy.

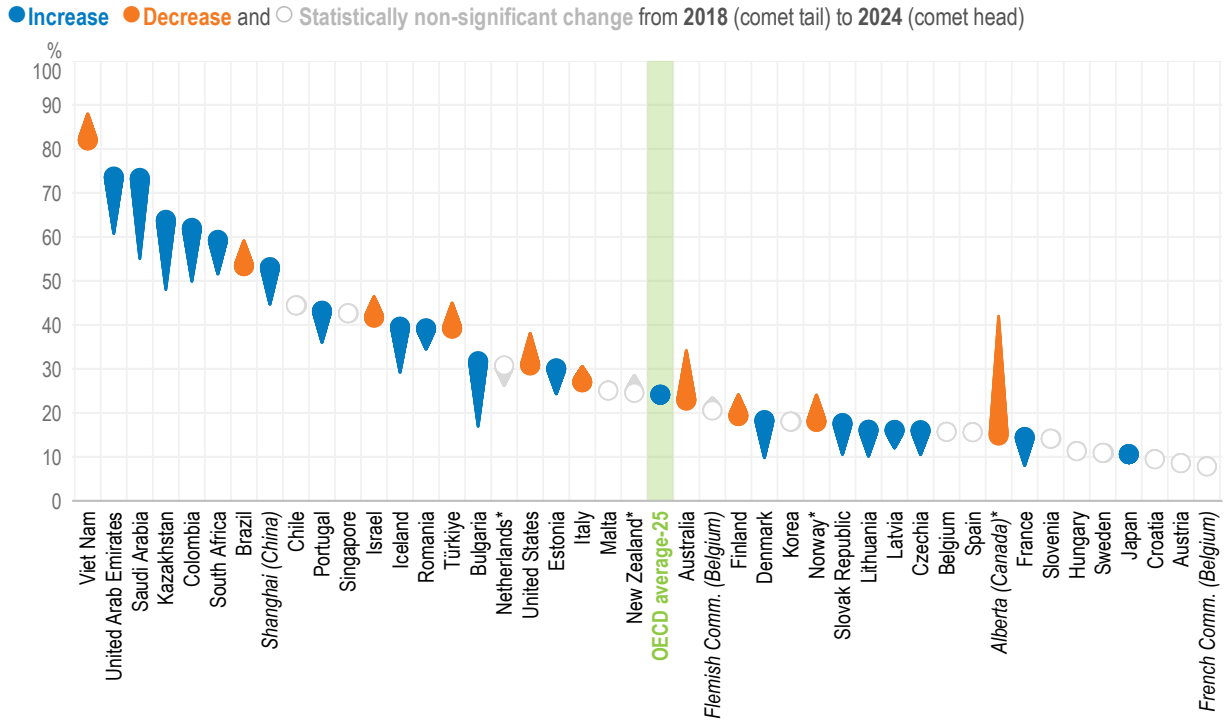
Teachers’ years of experience is a factor that can relate to the feeling of policy influence in a number of education systems. In 18 education systems, more novice teachers report the feeling of policy influence than their more experienced peers (6 percentage-point difference). Only in Albania and Uzbekistan do more experienced teachers report this (9 and 5 percentage points of difference, respectively) (Table 5.29).

Trends show a modest shift between 2018 and 2024, on average. The proportion of teachers who feel they can influence education policy has changed slightly (1 percentage point) (Figure 5.6). However, this

masks large differences between education systems. In 10 out of 43 education systems, fewer teachers feel this kind of influence, with changes between 2018 and 2024 ranging from 4 percentage points in Italy to 27 in Alberta (Canada)*. However, in 18 out of 43 education systems, the opposite is true, with more teachers feeling they can influence education policy in 2024. These include Denmark, France and Japan, which are the three education systems with a positive change that had the lowest shares in 2018. At the other end of the scale, Saudi Arabia has the largest increase (18 percentage points), although more than half of its teachers already shared this view in the previous TALIS cycle.

Figure 5.6. Change in teacher perceptions of their capacity to influence education policy, from 2018 to 2024

Percentage of lower secondary teachers who "agree" or "strongly agree" that teachers can influence education policy in their country/region



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 5.30.

These contrasting patterns suggest that increases in perceived influence may have different meanings depending on the historical and institutional context. One plausible explanation lies in the decision-making structures of education systems. Unlike in many other professions, where practitioners play a central role in shaping the standards and processes of their work, teachers often work under the direction of policymakers, administrators and stakeholders who are not involved in day-to-day classroom activities (Hargreaves and Fullan, 2012[3]; Biesta, Priestley and Robinson, 2015[1]). This governance distance may explain why they perceive their influence over policy to be limited, particularly in education systems where policy formation is highly centralised.

However, the disruption caused by the coronavirus (COVID-19) pandemic may have changed this traditional dynamic in some education systems. School closures and remote learning placed teachers in

the public spotlight, making their work highly visible to the public. In many education systems, teachers' voices became more prominent in debates around school reopening, digital learning and student well-being (OECD, 2020[19]; Thorn and Vincent-Lancrin, 2021[20]). This increased visibility may have led to improved perceptions of teachers' influence, particularly in countries where they were involved in designing or implementing emergency education responses (see Box 5.3).

Box 5.3. Perceptions of policy influence among primary and upper secondary teachers

Compared to previous TALIS cycles, the perception among teachers in primary and upper secondary education that they have influence over policy has changed in a number of education systems. However, a larger proportion of them still believe they have policy influence compared to their lower secondary peers.

Fewer primary teachers report having influence over policy compared to 2018 in Korea (5 percentage points), Spain (5 percentage points) and Türkiye (11 percentage points) (Table 5.30). The reverse occurred in France and the United Arab Emirates, where a greater proportion of primary teachers report having policy influence (an increase of 10 and 12 percentage points, respectively). In 5 of the 15 education systems for which data are available for both primary and lower secondary education, more primary teachers consider that they can influence policy than their lower secondary counterparts. The largest difference is found in Brazil (9 percentage points more) (Table 5.28). Korea is the only education system in which fewer primary teachers report having this influence than their lower secondary peers, with a difference of 8 percentage points.

The perception among upper secondary teachers that they have influence over policy has increased between 2018 and 2024. The largest increase was observed in the United Arab Emirates, where a 13 percentage-point difference was noted (Table 5.30). The only exception to this trend is Türkiye, where there has been an 8 percentage-point drop since 2018.

Furthermore, in three out of the eight education systems for which data on both upper and lower secondary education is available, a higher proportion of upper secondary teachers report having influence over policy than their lower secondary counterparts. The largest difference is observed in Slovenia (6 percentage points) (Table 5.28).

Box 5.4. Approaches to strengthen teacher involvement in policy making

Countries engage teachers in education policy making through a range of mechanisms that vary in structure and intensity. These approaches can be viewed along a continuum – from consultation, usually during early stages of reform, to collaboration in policy design and implementation, and finally to shared governance, where teachers or their representatives participate in formal decision-making processes (see Table 5.1).

Recent country examples illustrate this spectrum:

- Within the framework of a 2023 teacher valorisation strategy, **Colombia** plans to organise a series of regional consultations to gather teacher perspectives on key issues such as initial teacher education and continuing professional development, with a specific focus on teachers in rural and remote areas.

- In 2023, the **Moroccan** government and the teacher union reached an agreement whereby teachers would be automatically granted permanent status and rights similar to those of civil servants (regarding salary, family allowances, social security coverage and retirement benefits).
- In the **Netherlands**, the "teacher-civil servants" policy allows teachers to contribute to education policy while continuing their classroom duties by taking on part-time roles within local governments or the national Ministry of Education. This strengthens the connection between policy and practice by incorporating teachers' first-hand experience into decisions on issues such as workload, curriculum and teacher retention at various levels of government.

Table 5.1. Categorising approaches to teacher involvement in policy making

	Consultative	Collaborative	Shared governance
How it is formalised	Usually one-off, ad hoc or time-limited	Institutionalised for the duration of reform	Embedded in governance or legal frameworks
Nature of teacher role	Teachers give feedback or share views	Teachers co-design and/or pilot reforms	Teachers negotiate or jointly decide the need for policy and its content
Who is typically involved	Individual teachers or teacher representatives	Selected teacher networks, expert panels, teacher representatives	Unions, professional associations, collective bargaining agents
At what policy stage	Often in the agenda-setting or early consultation phases	Design and implementation support	Full policy cycle (design, negotiation, implementation, revision)
Examples (for illustrative purposes only)	Colombia	Netherlands	Morocco

Source: Ministry of National Education (Colombia) (2023[21]), *Lineamientos de política para la dignificación de la profesión docente*, https://www.mineducacion.gov.co; UNESCO (2024[22]), *Global Education Monitoring Report: Leadership in Education*, https://www.unesco.org/gem-report/en/publication/leadership-education?hub=343 .

Teachers' instructional autonomy

Instructional autonomy refers to the latitude teachers have to define and adapt their teaching contents, strategies and methods. Teachers who have instructional autonomy can make nuanced, informed choices about instruction in ways that best help their students learn (Skaalvik and Skaalvik, 2014[23]). However, autonomy is not a one-size-fits-all solution. Research also suggests that autonomy should be context-sensitive and developmentally appropriate (OECD, 2019[24]; Ingersoll and Strong, 2011[25]). For expert teachers, not having enough autonomy can restrict innovation. For novice teachers, having too much can be overwhelming. Ultimately, the goal of autonomy is not for its own sake, but to support teaching and learning. Ensuring that instructional autonomy is well-timed, well-supported, and equitably distributed is therefore essential to successful education.

TALIS asks teachers how much autonomy they have across two broad types of professional decisions and five instructional domains[4].

- Structural instructional decisions

1. Implementing the curriculum with flexibility
2. Selecting learning objectives
3. Choosing assessment activities

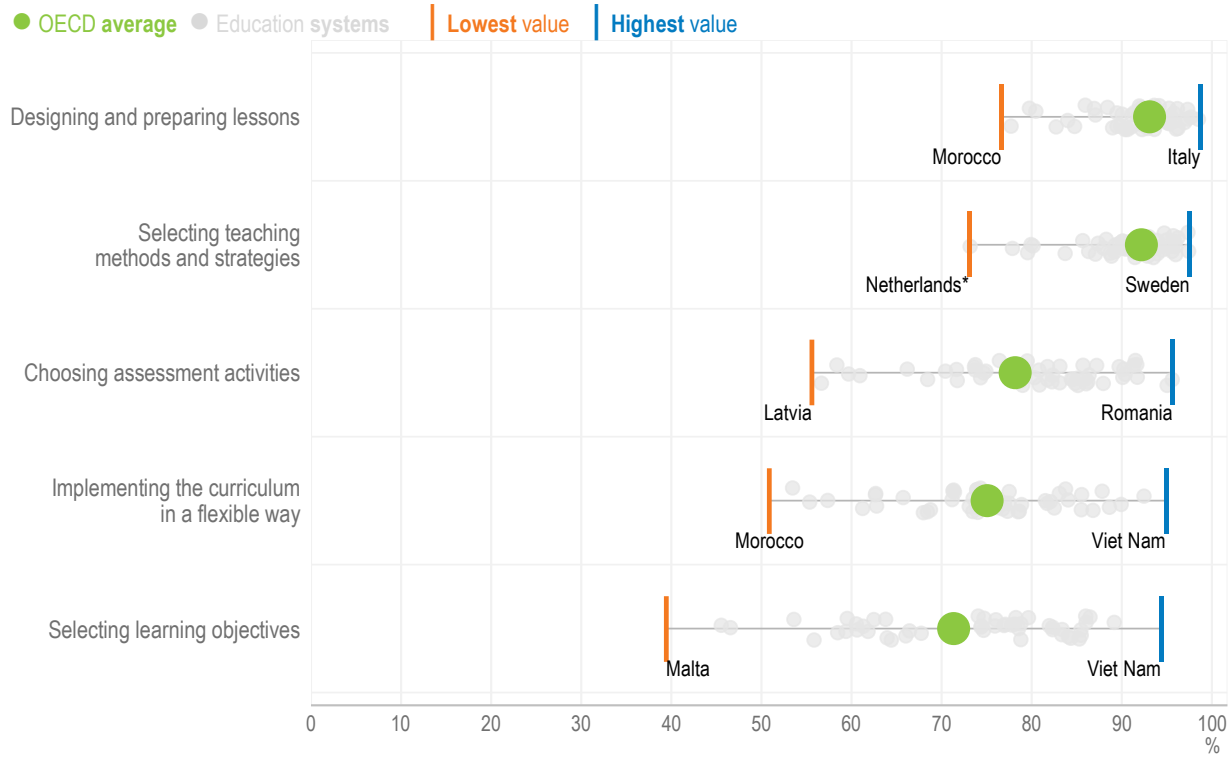
- Practical instructional decisions

4. Selecting teaching methods
5. Designing and preparing lessons

The flexibility and autonomy teachers have in implementing the curriculum and choosing their learning objectives can determine the extent to which other factors are aligned, such as deciding which methods and strategies to use in the classroom or which assessment activities are most appropriate. Such flexibility and autonomy can also give teachers more room for manoeuvre when the diversity of learning needs in the classroom is high. Most teachers across OECD education systems report a high degree of autonomy in these areas, but the degree of autonomy and the variation across education systems reveal important differences in how teaching autonomy is structured. For example, three out of four teachers report being able to implement the curriculum flexibly, on average (Figure 5.7). This is not the case in education systems such as those in Malta, Morocco, Portugal and the Slovak Republic, where less than 60% do so. In contrast, more than 85% of teachers in Alberta (Canada)*, Bulgaria, Colombia, Italy, Norway*, Sweden, the United States and Viet Nam report this level of autonomy (Table 5.31).

Figure 5.7. Teachers' autonomy in planning and teaching

Percentage of lower secondary teachers having “substantial” or “full” autonomy over the following aspects of planning and teaching



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Results refer to tasks teachers perform for a class randomly selected from their current weekly timetable during the week preceding the survey.
Source: OECD, *TALIS 2024 Database*, Table 5.31.

A similar pattern holds for the selection of learning objectives: 71% of teachers report autonomy in this area, on average. Less than 50% of teachers in Malta, Morocco, and Slovenia report such autonomy. In contrast, education systems in Azerbaijan, Bulgaria, Colombia, Italy, Japan, Kosovo, Romania, and

Viet Nam again stand out, with over 85% of teachers reporting autonomy in selecting learning objectives (Table 5.31).

Beyond these structural activities, autonomy is even more widespread when it comes to more practical, day-to-day pedagogical decisions. Designing and planning lessons, as well as selecting teaching methods, are areas where the large majority of teachers report having at least substantial (if not full) autonomy – both on average and across education systems – at 93% and 92%, respectively. Only a handful of education systems – Albania, Korea and Morocco – fall below 80% for these indicators. However, even in the education systems with the lowest proportions, more than 70% of teachers report some degree of autonomy.

Notably, only four education systems – Bulgaria, Colombia, Italy and Viet Nam – report that more than 85% of teachers have substantial or full autonomy across all five dimensions. This suggests that while most teachers report autonomy in at least some areas, very high levels of instructional autonomy across all five dimensions remain relatively rare.

Variation in instructional autonomy across schools

School characteristics and student population can play important roles in determining how much instructional autonomy is given to teachers. Teaching in a publicly managed school relates negatively to instructional autonomy in 15 education systems, after controlling for teacher characteristics (Table 5.39). Publicly managed schools in certain contexts may operate within specific, more prescriptive policy environments or employ different management practices.

Understanding how instructional autonomy is distributed in schools with diverse student populations can shed light on how teaching conditions are adapted to meet different learning needs. While no consistent international patterns emerge from the TALIS 2024 data, it does reveal meaningful country-specific differences that illustrate how autonomy is shaped in relation to classroom diversity.

Examining schools where over 10% of students have difficulty understanding the language of instruction reveals differences in the way structural instructional autonomy is granted to teachers in areas such as curriculum implementation, setting learning objectives, and choosing assessment activities. In Morocco, for instance, fewer teachers working in these linguistically diverse schools have autonomy in all three areas. A similar trend is observed in the United States, where fewer teachers in such schools report autonomy in selecting learning objectives and assessment activities (Tables 5.32, 5.34 and 5.35).

Conversely, in Türkiye, more teachers working in schools with students facing such difficulties report greater autonomy in implementing the curriculum flexibly and selecting assessment strategies. Teachers in Estonia and Hungary working in similar contexts also report greater autonomy in at least one of these structural domains. Setting aside structural areas, when it comes to practical instructional decisions, in Austria, Iceland and Latvia, fewer teachers in such challenging contexts report autonomy to select teaching methods and strategies and to design and prepare lessons (Tables 5.33 and 5.36).

A different picture emerges in schools with a high share of students with special education needs (30% or more). In these contexts, no education system shows that teachers have less structural autonomy. Conversely, in some education systems, teachers working in such schools report greater autonomy. For instance, in Spain, a higher proportion of teachers in these schools have flexibility in curriculum implementation and autonomy in assessment activities. Similarly, teachers in such schools in France have greater autonomy in implementing the curriculum flexibly and selecting learning objectives. In Kazakhstan, higher reported autonomy is observed among teachers in schools with large student populations who have special education needs, regarding both learning objectives and assessment activities (Tables 5.32, 5.34 and 5.35). The only differences in practical instructional decisions across schools can be seen in Brazil, where teachers working in schools with a high intake of students with special education needs have greater

autonomy in designing and preparing lessons. In Estonia, teachers in such schools have more autonomy to select teaching methods (Tables 5.33 and 5.36).

Although no overarching pattern links student diversity to autonomy levels across countries, the data suggest that some education systems calibrate instructional autonomy based on the characteristics or needs of the school. These country-specific findings highlight the variety of policy choices regarding the granting of instructional autonomy in different educational settings (see Box 5.6).

Box 5.5. Instructional autonomy among primary and upper secondary teachers

TALIS data show no consistent trend in the amount of instructional autonomy reported by primary and upper secondary teachers. However, when differences do appear, it is often the more experienced teachers who report higher levels of autonomy than their novice counterparts.

Among primary teachers, some of the largest gaps are found in Japan (Table 5.37). In this education system, more experienced primary teachers report having substantial or full autonomy in all measured domains in TALIS 2024 compared to novice teachers: implementing the curriculum flexibly (22 percentage-point difference), selecting teaching methods and strategies (16 percentage-point difference), choosing assessment activities (17 percentage-point difference), selecting learning objectives (14 percentage points) and designing and preparing lessons (5 percentage-point difference). Korea shows an opposite trend, with fewer experienced teachers reporting this instructional autonomy across most domains.

No clear pattern emerges when comparing the autonomy reported by primary and lower secondary teachers, but notable differences exist (Table 5.31). A larger proportion of primary teachers report having more autonomy than their lower secondary peers when it comes to implementing the curriculum flexibly in six education systems, with the largest difference observed in Korea (14 percentage points). A similar pattern emerges for selecting learning objectives, with the largest difference found in the French Community of Belgium (15 percentage points). Conversely, fewer primary teachers report having autonomy to select teaching methods and strategies in five education systems, with the largest difference found in the Flemish Community of Belgium* (9 percentage points), and autonomy to design and prepare lessons in four education systems, with the largest difference found in Morocco (7 percentage points).

In some education systems, a higher proportion of experienced upper secondary teachers report having greater autonomy than their less experienced counterparts. In Denmark, for example, more experienced teachers report having the autonomy to implement the curriculum flexibly and to choose assessment activities (with differences of about 13 and 15 percentage points, respectively). In the United Arab Emirates, more experienced teachers report having autonomy to select teaching methods and strategies (6 percentage points) and assessment activities (12 percentage points) (Table 5.37). However, in Türkiye and Portugal, fewer experienced than novice upper secondary teachers report having autonomy to select assessment activities and learning objectives (over 8 percentage points in Türkiye, and between 6 and 16 percentage points in Portugal, respectively).

Compared with their lower secondary counterparts, fewer upper secondary teachers report having the autonomy to implement the curriculum flexibly and select learning objectives in three and two education systems, respectively (Table 5.31). The largest differences are found in Portugal and the United Arab Emirates (about 4 percentage points) and Denmark (19 percentage points) for each practice, respectively. In contrast, upper secondary teachers in Saudi Arabia report having more autonomy when it comes to selecting teaching methods, assessment activities, and designing and preparing lessons than their lower secondary peers (by 2 to 3 percentage points).

Variation in instructional autonomy across teachers

How much autonomy education systems give to teachers can depend on the teachers' profile and teaching context. Research shows that novice teachers often benefit from more structured guidance as they are still developing the pedagogical knowledge and classroom management skills needed to make effective autonomous decisions (Ingersoll and Strong, 2011[25]; OECD, 2019[24]).

In addition to teacher characteristics, timing is an important consideration when education systems decide how much autonomy to give to teachers. When a new national curriculum is introduced or when teachers are working in unfamiliar pedagogical frameworks (e.g. technology-rich or inclusive classrooms), temporary limits on discretion – coupled with clear training and gradual responsibility – can help ensure successful implementation (Vähäsantanen, 2015[26]; Fullan, n.d.[27]). In these cases, instructional autonomy is not permanently reduced, but strategically calibrated to build capacity over time.

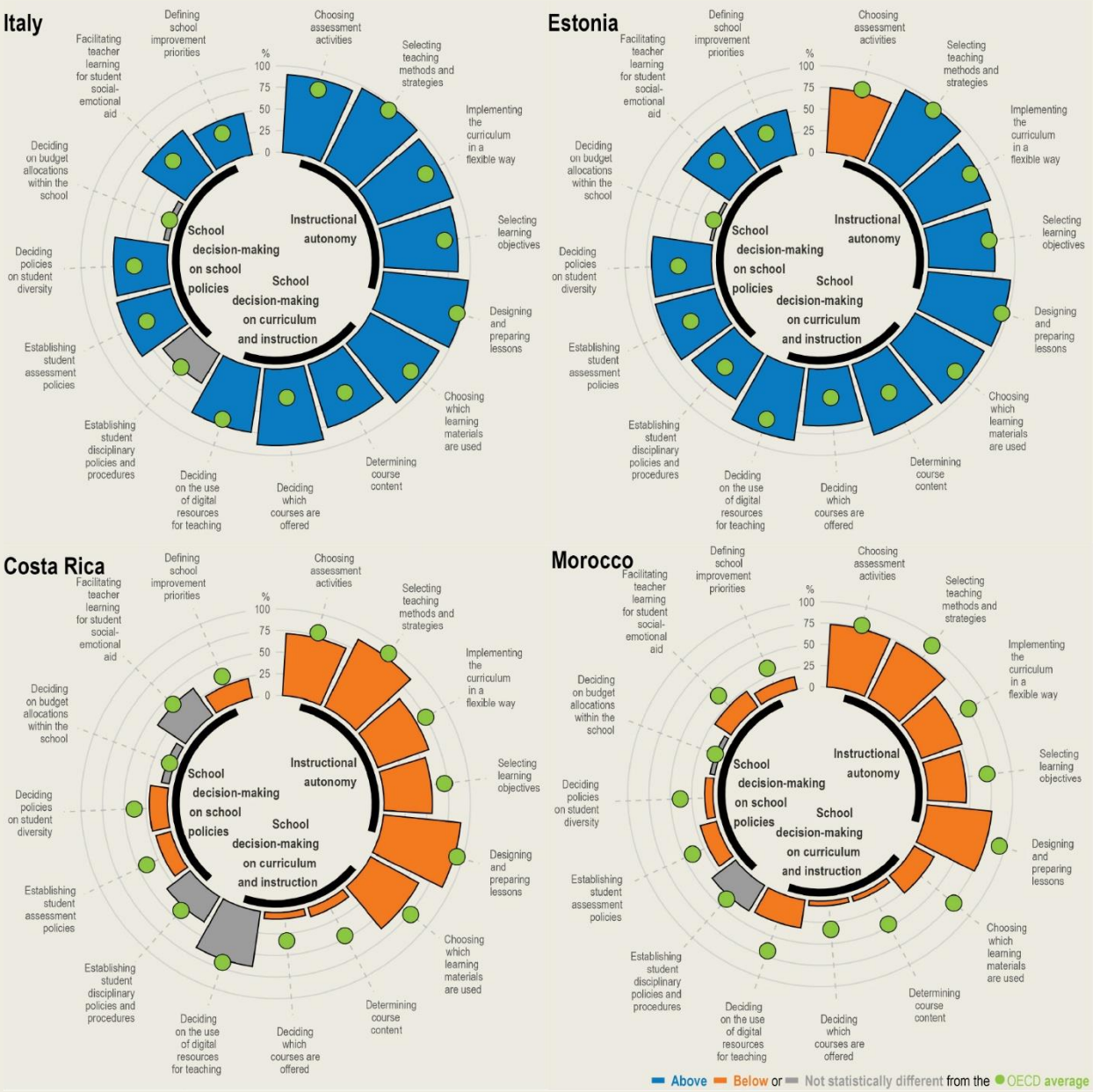
However, TALIS data show that in most countries, there are no actual differences between novice and more experienced teachers (Table 5.37). While more experienced teachers report greater autonomy in areas like selecting teaching methods, on average, in most education systems, there is no clear trend linking years of experience with greater autonomy. Only in ten education systems does autonomy relate positively with teachers' years in the profession (Table 5.38), and Korea and Costa Rica have the only systems with a reverse pattern: novice teachers report higher autonomy than their experienced peers, by at least 8 percentage points across all areas in Korea, and by over 14 percentage points in selecting learning objectives and implementing the curriculum flexibly in Costa Rica (Table 5.37). These findings suggest that in a large number of education systems, instructional autonomy is likely embedded in teaching practice, rather than gradually granted according to teachers' experience.

Box 5.6. System profiles of teacher decision-making authority

TALIS 2024 results indicate that the extent of teacher autonomy and agency varies considerably across education systems. Based on both teacher and principal reports, it is possible to create broad profiles of teacher decision-making authority. These illustrative profiles highlight different configurations of instructional autonomy and school leadership opportunities (Figure 5.8).

Figure 5.8. Teacher decision-making authority

Teachers' instructional autonomy and their participation in school decision-making processes, based on responses of lower secondary principals and teachers



Source: OECD, *TALIS 2024 Database*, Tables 5.1, 5.2, 5.3 and 5.31.

- **Systems with high teacher decision-making authority:** Teachers in Estonia and Italy report high levels of instructional autonomy in most measured areas, as well as strong involvement in school-level decision making (i.e. above the OECD average in at least two-thirds of the items covered by each area). In these education systems, both instructional autonomy and perceived agency appear to be well-aligned, and teachers consistently work in schools where they have the space to act professionally.
- **Systems with low teacher decision-making authority:** At the other end of the spectrum, teachers in Costa Rica and Morocco report comparatively low autonomy in the classroom, and work in schools where they have limited influence over school decisions. These education systems show consistently lower values across both teacher-reported and principal-reported indicators, placing them well below the OECD average (i.e. below the OECD average in at least two-thirds of the items covered by each area).
- **Systems with moderate teacher decision-making authority:** education systems like those in Lithuania and Serbia, fall closer to the OECD average (Tables 5.1, 5.2, 5.3 and 5.31). While levels of instructional autonomy in both countries are mostly in line with the OECD average, teachers' school decision-making opportunities sometimes differ. In Lithuania, teachers are highly involved in decisions regarding learning materials and course content, whereas in Serbia, teachers report fewer opportunities in these areas. However, the opposite is true for decisions on which courses are offered and policies on student diversity.

These system profiles are not intended to be prescriptive or exhaustive. Factors such as workload, support structures and school culture also shape the conditions under which autonomy is exercised. Nevertheless, they provide a comparative lens through which to understand how teacher agency is structured and experienced across countries.

Accountability

A critical policy question for education systems is how to determine whether teachers are exercising their instructional autonomy productively and helping students learn. Education systems develop teacher appraisal systems to evaluate teachers and hold them accountable for their teaching (OECD, 2013[28]). Strong appraisal systems can legitimise and support instructional autonomy in the classroom. Misaligned ones, however, could constrain instructional autonomy and limit teacher effectiveness.

In this context, it is important to examine how instructional autonomy interacts with teacher appraisal. Across the five areas analysed here, even among teachers who report substantial or full autonomy, a sizeable share work in schools where formal appraisal is infrequent or absent. For example, among teachers in Italy and Norway* who report "substantial" or "full" autonomy, about one in four are never appraised. In Finland, the share exceeds one-third (Tables 5.40, 5.41, 5.42, 5.43 and 5.44).

Among teachers who report high levels of autonomy in curriculum implementation, more than half in the French Community of Belgium, Finland and France work in schools where they are appraised less than once per year, or not at all (Table 5.40). The same is true for teachers who report high levels of autonomy in assessment activities in these education systems (Table 5.42). Conversely, in Albania, Bahrain, Latvia, Shanghai (China), Singapore, the Slovak Republic and the United Arab Emirates, virtually all teachers with high instructional autonomy are formally appraised at least once a year.

These contrasts show large differences in the role of appraisal systems in supporting or overlooking teacher autonomy. In education systems where appraisal is infrequent, high instructional autonomy may be indicative of institutional trust, or alternatively, of limited oversight and support. In education systems with frequent appraisals, instructional autonomy may be subject to (and limited by) more deliberate

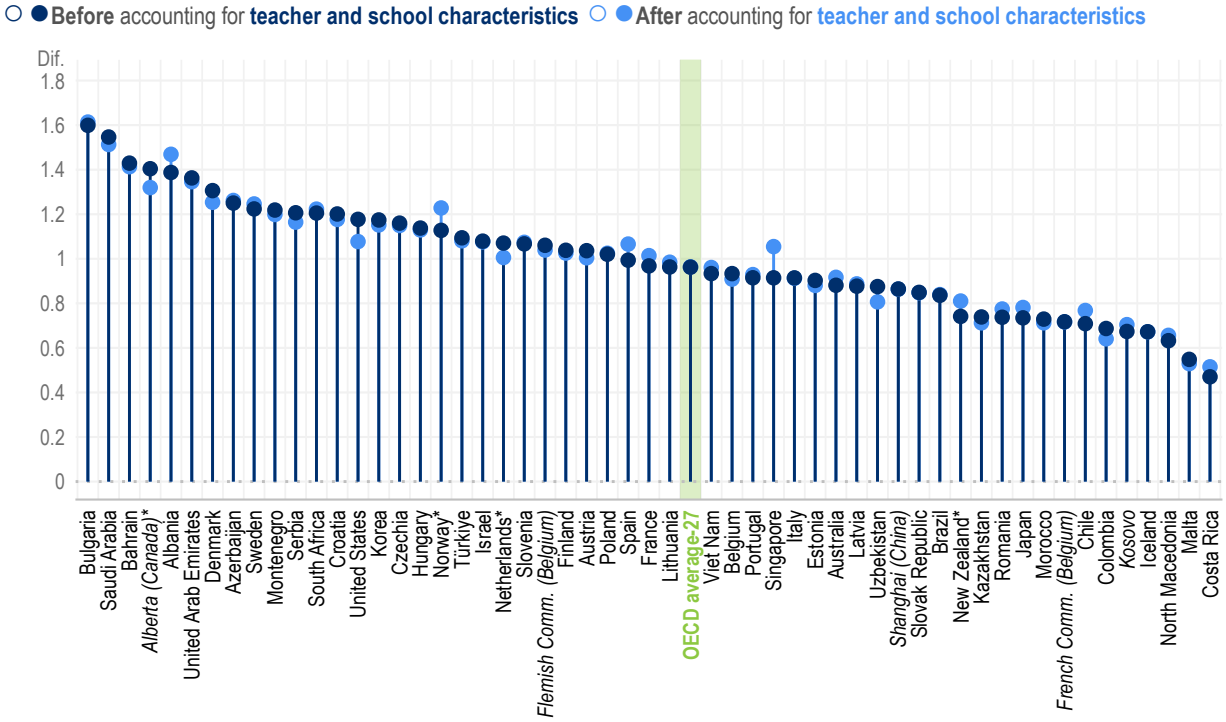
monitoring as part of a comprehensive framework of professional development and accountability (see Chapter 3). Understanding this relationship could help to clarify the broader institutional context in which instructional autonomy is exercised, as it is not only a matter of teacher agency, but also of organisational design and policy coherence.

Teachers' decision-making authority and professional outcomes

Chapter 2 of this report examined teachers' professional outcomes. TALIS data show that both participation in school leadership and instructional autonomy are positively related to teachers' professional outcomes. However, the strength and consistency of these relationships vary across education systems and according to teacher and school characteristics.

Figure 5.9. Relationship between teacher job satisfaction and participation in school decisions

Change in the scale of lower secondary teachers' job satisfaction[1] associated with teachers reporting that they "agree" or "strongly agree" that their school provides staff with opportunities to actively participate in school decisions[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and participation in school decisions, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "disagree" or "strongly disagree".
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. Teacher characteristics include gender, age (standardised at the international level) and years of teaching experience (standardised at the international level). School characteristics include school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.
Source: OECD, *TALIS 2024 Database*, Table 5.49.

Participation in school leadership

Not all participation in school leadership is equally related to job satisfaction. For example, simply spending more time on school management activities shows no consistent association with job satisfaction across education systems, either before or after controlling for teacher characteristics (Table 5.45). However, in Albania, Austria, Bahrain and Iceland, this relationship becomes positive after controlling for school characteristics. It is possible that in some contexts, participation in school management may reflect meaningful involvement in decision making, while in others it may be perceived more as an administrative burden.

More consistent positive relationships are observed in specific types of participation in school leadership, such as having opportunities to be actively involved in school decision making and being encouraged to lead new initiatives. These forms of participation in leadership are more strongly and consistently associated with job satisfaction, both before and after controlling for teacher and school characteristics (Figure 5.9 and Table 5.49). In contrast, leading one's own professional development shows weaker and less consistent associations with job satisfaction. Similar relationships exist between teacher well-being and these areas of participation in school leadership (Table 5.50).

Moreover, this pattern extends beyond the school level. Teachers who believe they can influence education policy in their country or region also report higher levels of job satisfaction. This pattern holds across nearly all education systems (Table 5.52). These findings are aligned with research that suggests that when teachers feel trusted and empowered to act – whether in their classrooms, their schools or the wider education system – they could likely be more professionally engaged and satisfied, not only as practitioners but also as contributors to their schools and education systems (Cann, Riedel-Prabhakar and Powell, 2020[29]; Dreer, 2022[30]).

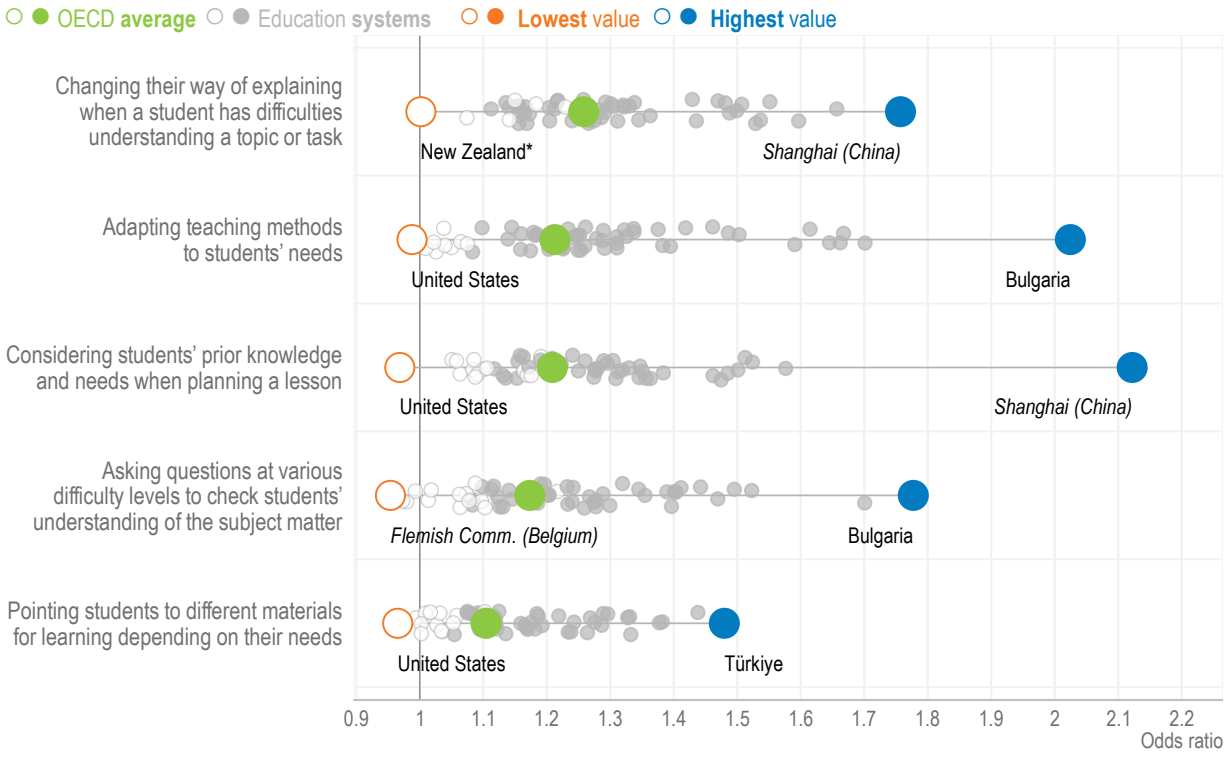
Instructional autonomy

TALIS data show that instructional autonomy is positively related to teachers' sense of fulfilment of their lesson aims before and after controlling for teacher and school characteristics (Table 5.53). Teachers with greater autonomy (as measured by the TALIS scale of teachers' autonomy in planning and teaching) are also more likely to say that they take students' prior knowledge and needs into account when planning a lesson, change the way they explain things when students struggle, and adapt their teaching. This is the case on average and in most education systems, both before and after controlling for teacher and school characteristics (Figure 5.10). In other words, autonomy relates not only to professional satisfaction but also to adaptive teaching.

Further analyses show that teachers with high instructional autonomy (in the top quartile of the autonomy scale[5]) are more likely to report confidence in several key teaching areas. For example, these teachers report to a greater extent being able to vary instructional strategies in their classroom by over 10 percentage points with respect to their peers with lower instructional autonomy (in the bottom quarter). This pattern is consistent across education systems. Likewise, teachers with higher instructional autonomy report to a larger extent being able to get students to follow classroom rules (with a difference of 6 percentage points across OECD education systems) and being capable of reducing achievement gaps between students (nearly 9 percentage-point difference, on average) (Table 5.59).

Figure 5.10. Relationship between teachers adapting their teaching to students' needs and instructional autonomy

Change in the likelihood of lower secondary teachers "frequently" or "always" using approaches to adapted learning[1] associated with an increase in the scale of instructional autonomy[2,3]



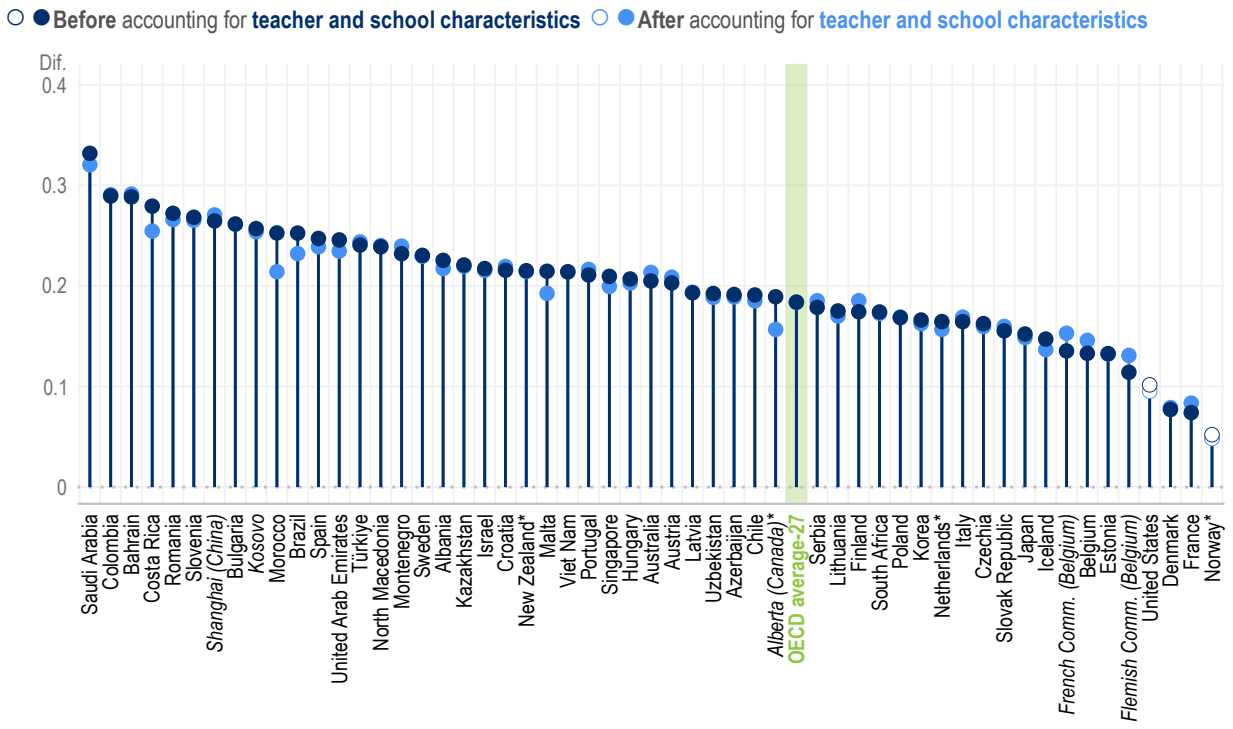
Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 1 indicate a positive association between adapting teaching to students' needs and instructional autonomy, while those below 1 reflect a negative relationship.
1. Binary variable: the reference category refers to "never or almost never" and "occasionally".
2. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale. For more information on the scales, see Annex B.
3. Results based on five separate binary logistic regressions. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below one 1 denotes a negative association; an odds ratio above one 1 indicates a positive association; and an odds ratio of one 1 means that there is no association. After controlling for teacher (i.e. gender, age and years of teaching experience) and target class characteristics (i.e. class size (standardised at the international level), class intake of students who have difficulties understanding the language(s) of instruction, class intake of low achieving students, and class intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Tables 5.54, 5.55, 5.56, 5.57 and 5.58.

Instructional autonomy is consistently positively associated with teachers' job satisfaction, before and after controlling for teacher and school characteristics (Figure 5.11). However, this relationship is not observed in Norway* and the United States. Teachers' well-being is also related to their level of instructional autonomy. In the majority of education systems, teachers who report greater instructional autonomy are also less likely to experience stress at work, feel that they do not have enough time for their personal lives, or report negative effects on their mental and even physical health (Table 5.62).

However, TALIS data suggest that teachers also need to feel confident in their ability to exercise instructional autonomy effectively. Across education systems, the strength of the relationship between autonomy and workplace well-being and stress decreases when self-efficacy is accounted for (Table 5.63).

Figure 5.11. Relationship between teacher job satisfaction and autonomy

Change in the scale of lower secondary teachers' job satisfaction[1] associated with an increase in the scale of instructional autonomy[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and instructional autonomy, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Standardised scale scores with a standard deviation of 2 and the value of 10 corresponding to the item mid-point value of the response scale.
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. Teacher characteristics include gender, age (standardised at the international level) and years of teaching experience (standardised at the international level). School characteristics include school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.
Source: OECD, *TALIS 2024 Database*, Table 5.61.

While teachers' self-efficacy, particularly their confidence in managing classrooms and delivering instruction, shows a consistent positive association with perceived autonomy (Tables 5.64, 5.65 and 5.67), the association between autonomy and self-efficacy is stronger and more consistently observed across a larger number of education systems for experienced teachers compared to novice teachers. This suggests that autonomy may become effective as teachers gain classroom experience and confidence in their professional judgement (Tables 5.68 and 5.69). These considerations highlight the importance of examining not only how much autonomy is granted, but also *when*, to *whom*, and under *what* institutional conditions.

For example, the observed relationships between self-efficacy and leadership opportunities highlight the need to consider self-selection mechanisms, whereby more confident teachers may be more inclined to take on leadership roles. Similarly, the relationship between instructional autonomy and self-efficacy

emphasises the importance of supporting teachers with lower levels of professional confidence, particularly novices, since self-efficacy tends to develop with experience in the classroom.

Ultimately, the goal is not autonomy for its own sake, but autonomy that is purposeful, supported and connected to teaching and learning, aligned with the characteristics of each education system. By understanding the conditions under which teachers are best able to exercise professional judgement, education systems can move towards a vision of teacher autonomy in decision making that empowers individuals, strengthens schools and contributes to better outcomes for students and teachers alike.

Table 5.2. Chapter 5 figures

Figure 5.1		Teachers' involvement in school decision making on curriculum and instruction
Figure 5.1 (ISCED 1)	WEB	Teachers' involvement in school decision making on curriculum and instruction
Figure 5.1 (ISCED 3)	WEB	Teachers' involvement in school decision making on curriculum and instruction
Figure 5.2		Teachers' involvement in school decision making on school policies
Figure 5.2 (ISCED 1)	WEB	Teachers' involvement in school decision making on school policies
Figure 5.2 (ISCED 3)	WEB	Teachers' involvement in school decision making on school policies
Figure 5.3		Opportunities for staff participation in school decision making, by school location
Figure 5.3 (ISCED 1)	WEB	Opportunities for staff participation in school decision making, by school location
Figure 5.3 (ISCED 3)	WEB	Opportunities for staff participation in school decision making, by school location
Figure 5.4		Representation on the school management team
Figure 5.4 (ISCED 1)	WEB	Representation on the school management team
Figure 5.4 (ISCED 3)	WEB	Representation on the school management team
Figure 5.5		Teacher leadership in promoting professional learning communities, by self-efficacy
Figure 5.5 (ISCED 1)	WEB	Teacher leadership in promoting professional learning communities, by self-efficacy
Figure 5.5 (ISCED 3)	WEB	Teacher leadership in promoting professional learning communities, by self-efficacy
Figure 5.6		Change in teacher perceptions of their capacity to influence education policy, from 2018 to 2024
Figure 5.6 (ISCED 1)	WEB	Change in teacher perceptions of their capacity to influence education policy, from 2018 to 2024
Figure 5.6 (ISCED 3)	WEB	Change in teacher perceptions of their capacity to influence education policy, from 2018 to 2024
Figure 5.7		Teachers' autonomy in planning and teaching
Figure 5.7 (ISCED 1)	WEB	Teachers' autonomy in planning and teaching
Figure 5.7 (ISCED 3)	WEB	Teachers' autonomy in planning and teaching
Figure 5.8		Teacher decision-making ability
Figure 5.9		Relationship between teacher job satisfaction and participation in school decisions
Figure 5.9 (ISCED 1)	WEB	Relationship between teacher job satisfaction and participation in school decisions
Figure 5.9 (ISCED 3)	WEB	Relationship between teacher job satisfaction and participation in school decisions
Figure 5.10		Relationship between teachers adapting their teaching to students' needs and instructional autonomy
Figure 5.10 (ISCED 1)	WEB	Relationship between teachers adapting their teaching to students' needs and instructional autonomy
Figure 5.10 (ISCED 3)	WEB	Relationship between teachers adapting their teaching to students' needs and instructional autonomy
Figure 5.11		Relationship between teacher job satisfaction and autonomy
Figure 5.11 (ISCED 1)	WEB	Relationship between teacher job satisfaction and autonomy
Figure 5.11 (ISCED 3)	WEB	Relationship between teacher job satisfaction and autonomy

StatLink https://stat.link/fuyg25

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Notes

[1] All of the findings in this section are based on principals’ reports.

[2] The proportion of teachers represented on school management teams is reported by school principals and may reflect the broad definition of the term in TALIS, which encompasses decision making in academic, administrative and clerical areas. In certain systems, the proportion of teachers on management teams can vary according to their orientation. Discrepancies between teachers' reports on their opportunities for decision making and the proportion of teachers represented on school management teams may be partly explained by this.

[3] The scale of teacher self-efficacy (T4SELF) was constructed as an average of the three subscales: self-efficacy in student engagement (T4SEENG); self-efficacy in instruction (T4SEINS); and self-efficacy in classroom management (T4SECLS). It has a standard deviation of 2.0, and the value of 10 corresponds to the midpoint of the scale.

[4] All of the domains related to instructional autonomy are based on teachers’ reports of their practice in a target class.

[5] The scale of autonomy of teaching (T4AUTCH) was constructed using teacher responses ("no autonomy", "limited autonomy", "substantial autonomy", "full autonomy") about how much autonomy they had over the following aspects (TT4G57): "Implementing the curriculum in a flexible way"; "Selecting teaching methods and strategies"; "Choosing assessment activities "; "Designing and preparing lessons". It has a standard deviation of 2.0, and the value of 10 corresponds to the midpoint of the scale.

6 Professional relationships in school communities

This chapter explores the professional relationships that shape teachers' experiences within their school communities. It begins by examining teacher collaborative practices and the conditions that support collegiality and shared responsibility. Then, the chapter looks at principal-teacher professional relationships and how school leadership can foster a collaborative school culture. Relationships with students are also explored. Finally, the chapter looks at how teachers engage with parents and guardians, including the frequency and mode of communication, the extent of parental involvement in school decisions, and how these factors relate to teachers' sense of being valued. The analysis highlights how strong, supportive professional relationships with various school stakeholders are associated with teachers' fulfilment of their lesson aims, their well-being and job satisfaction.

Highlights

- **Teachers are spending more time working together compared to 2018.** Full-time teachers report spending around 3 hours per week participating in teamwork and dialogue with colleagues on average across OECD education systems. This has increased in 28 education systems (and decreased in none) since 2018.
- **Teachers who report collaborating more tend to be more likely to fulfil their lesson aims.** There are many ways that teachers collaborate, but only 9% of teachers observe other teachers' classes and provide feedback monthly or more, on average across OECD education systems. In contrast, more than 50% of teachers in Kazakhstan, Shanghai (People's Republic of China, hereafter "China"), Uzbekistan and Viet Nam collaborate in this way.
- **Teachers who collaborate more frequently tend to be in the top quartile of self-efficacy in their country**. This is particularly the case when teachers engage in discussions about the learning development of specific students (22 percentage points more for teachers with high self-efficacy) and exchange teaching material with colleagues (18 percentage points more for teachers with high self-efficacy).
- **Teachers who report good professional relationships** with principals, other teachers, parents and guardians, and students **tend to report higher well-being and job satisfaction.**
- In general, **teachers report that they can rely on each other.** On average across OECD education systems, 86% of teachers at their school "agree" or "strongly agree" that they can rely on each other. This collegiality has decreased since 2018 in ten education systems and increased over the same time period in five education systems.
- **Nearly nine out of ten teachers report that their principals have good professional relationships with staff**, on average across OECD education systems. This is higher for teachers from rural schools or privately managed schools.
- **Over nine out of ten teachers report positive relationships between teachers and students** in their schools across OECD education systems. Teachers say that students and teachers usually get on well with each other; most teachers believe that student well-being is important; most teachers are interested in what students have to say; and if a student needs extra assistance, the school provides it.
- **Around two out of three teachers say that teachers are valued by parents and guardians at their schools**, on average across OECD education systems. This perception varies by education system, however. Although over 90% of teachers report high parental or guardian appreciation in Saudi Arabia, United Arab Emirates, Uzbekistan and Viet Nam, less than 50% of teachers in the French Community of Belgium, Croatia, France, and Japan report the same.

Introduction

One of the most important resources that teachers have is their relationships. Teachers interact with a wide variety of people in their working lives, including students, colleagues, principals, parents and guardians, and members of the wider community. This diverse range of stakeholders comprises the school community, which has a profound impact on the work, experiences and outcomes of teachers. The quality and nature of these relationships can influence how supported teachers feel in their roles, how effectively they collaborate, and how well they are able to meet the needs of their students (Muckenthaler et al., 2020[1]; Kelly, Merry and Gonzalez, 2018[2]). Understanding the interactions that teachers have can help identify the types of school communities where teachers tend to thrive.

This chapter examines teachers' professional relationships with other teachers, principals, their students and parents and guardians. It analyses whether different groups of teachers experience different types of relationships and how these relationships relate to teachers' professional outcomes (fulfilment of lesson aims, well-being and job satisfaction).

Professional relationships with other teachers

Professional relationships between teachers are a key part of the school community. Teacher collaboration and cohesion can have positive effects on both students and teachers (Muckenthaler et al., 2020[1]). Effective professional relationships can help teachers to learn from each other (Akinyemi, Rembe and Nkonki, 2020[3]), collaborate to understand individual student needs (Devecchi and Rouse, 2010[4]) and in some research, could be linked to teacher well-being (Soini, Pyhältö and Pietarinen, 2010[5]).

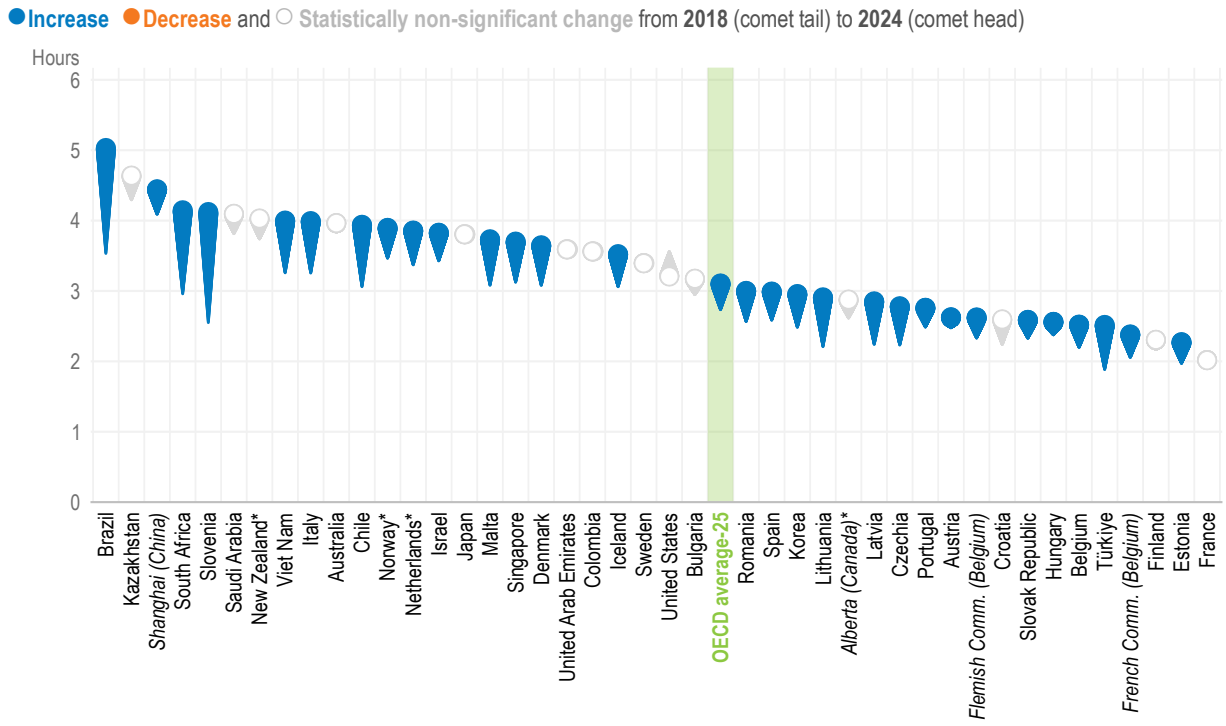
Full-time teachers in Bahrain, Brazil, Kazakhstan, and Uzbekistan report spending more than four and a half hours participating in teamwork and dialogue with colleagues during the most recent complete calendar week (Table 6.1).

Full-time teachers report spending more time in 2024 participating in teamwork and dialogue with colleagues, on average across OECD countries and territories with available data (hereafter, "on average"), 3.1 hours per week, compared to 2.7 hours in 2018 (Figure 6.1). There was an increase of 1 hour or more in Brazil (from 3.5 hours in 2018 to 5.0 hours in 2024), Slovenia (from 2.6 hours in 2018 to 4.1 hours in 2024) and South Africa (from 3.0 hours in 2018 to 4.1 hours in 2024) (see Chapter 2 for more details about teacher workload).

The Teaching and Learning International Survey (TALIS) 2024 aims to better understand how teachers are working together. TALIS asks two sets of questions about teachers' relationships with one another. The first is related to how teachers work together. The second is related to their collegiality, or teachers relying on each other.

Figure 6.1. Change in teachers' time spent on teamwork and dialogue with other teachers, from 2018 to 2024

Average number of hours per week that full-time lower secondary teachers spend participating in teamwork and dialogue with colleagues at their schools



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
The analysis is restricted to full-time teachers.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 6.2.

Working together

How teachers work together can take many forms, from occasional exchanges like sharing resources to sustained, goal-oriented work such as co-teaching (Vangrieken et al., 2015[6]). This kind of teamwork often involves shared decision making and reflection on practice, often aimed at improving teaching and learning at the student, class, or school level (Lomos, Hofman and Bosker, 2011[7]). When teachers work together with a focus on instructional improvement – such as reviewing evidence of student learning or giving feedback after classroom observations – it can foster collective learning. However, the benefits depend on the time invested and the clarity of goals (Levine and Marcus, 2010[8]). Effective joint work is often ongoing, grounded in shared values, and supported by active engagement from all participants (Griffiths et al., 2020[9]).

TALIS asks teachers about the activities that they engage in with colleagues and how frequently they do them per month. These forms of teachers working together can be categorised into two separate categories, namely:

1. **professional collaboration** (e.g. team teaching, providing feedback based on classroom observations, engaging in joint activities across different classes and participating in collaborative professional learning).

2. **exchange and co-ordination for teaching** (e.g. exchanging teaching materials, discussing the learning development of specific students, and working with other teachers to ensure common standards in evaluations for assessing student progress).

It is expected that more in-depth professional collaboration will be less commonly practised as these professional collaboration practices may be more time-consuming. Thus, these data should be interpreted with caution.

Regarding professional collaboration, 31% of teachers report teaching jointly as a team (Figure 6.2). Some 14% of teachers engage in joint activities across different classes and age groups monthly or more, and 9% of teachers observe other teachers' classes and provide feedback, on average. In contrast, more than 50% of teachers in Kazakhstan, Shanghai (China), Uzbekistan and Viet Nam collaborate by observing other teachers' classes and providing feedback (Table 6.3).

Regarding simpler exchanges and co-ordination for teaching, 60% of teachers, on average, engage in discussions about the learning development of specific students at least monthly (Figure 6.2). More than 80% of teachers in New Zealand*, Norway*, Poland and Sweden do so. About 45% of teachers, on average, exchange teaching materials with colleagues monthly or more. Over 70% of the teachers in Australia, New Zealand*, Norway*, Uzbekistan and Viet Nam do so. On average, 41% of teachers report working with other teachers to ensure common standards in evaluations for assessing student progress (Table 6.3).

Several factors, such as the size of the school and resource limitations, influence the frequency of teamwork. For example, more in-depth collaboration may be more time-consuming and require greater co-ordination and are thus less frequently practised. However, examining whether teachers report having never engaged in certain collaborative practices can reflect how an education system facilitates teacher collaboration.

Looking at professional collaboration activities, in general, it is more likely that teachers never do the following activities (Table 6.4):

- More than 60% of teachers in the French Community of Belgium, Croatia, Malta, Morocco and the Netherlands* report never teaching jointly as a team in the same class.
- More than 75% of teachers in the French Community of Belgium and Costa Rica report never observing other teachers' classes and providing feedback.
- More than 35% of teachers in Costa Rica, Korea, Malta, Morocco, Spain, Sweden and the United States report never engaging in joint activities across different classes and age groups.
- More than 40% of teachers in France and Morocco report never taking part in collaborative professional learning.

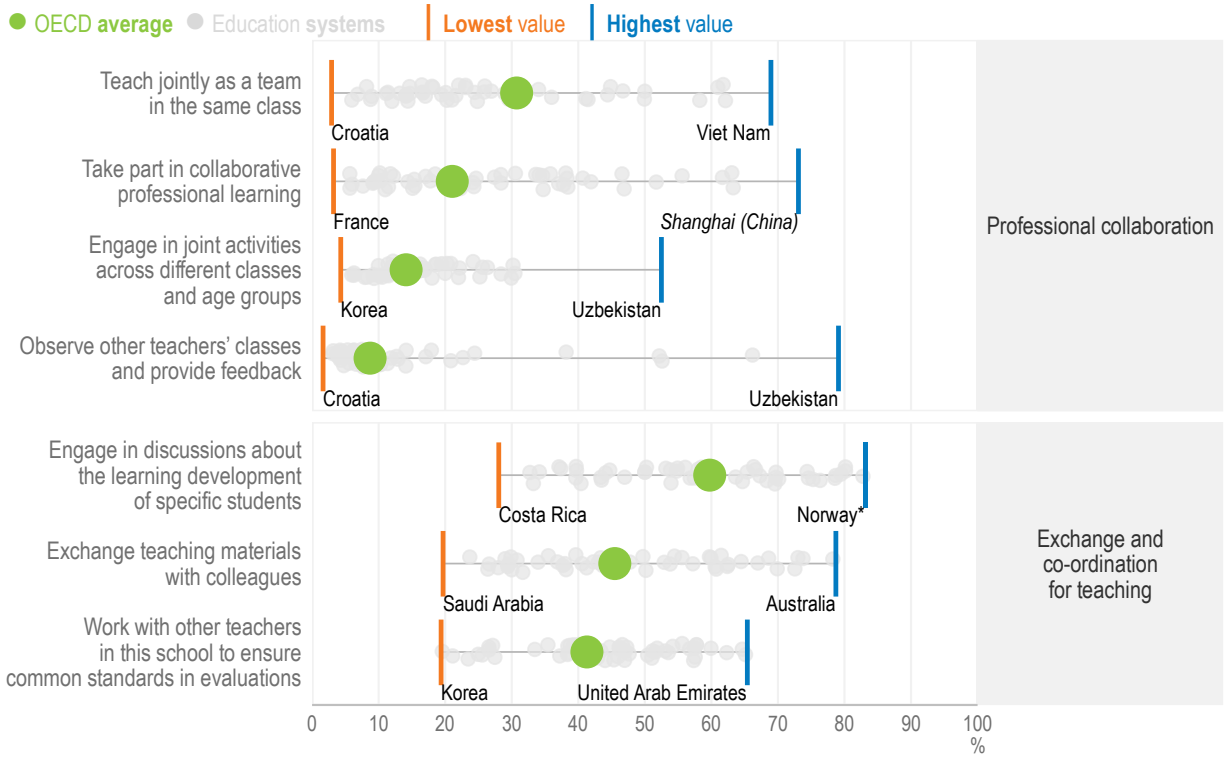
Focusing on the exchange and co-ordination for teaching activities, TALIS shows (Table 6.4) that:

- More than 15% of teachers in Bahrain, Brazil, Costa Rica, Morocco, Saudi Arabia and Türkiye report never exchanging teaching materials with colleagues.
- More than 10% of teachers in Azerbaijan, Costa Rica, France, Morocco and Viet Nam report never engaging in discussions about the learning development of specific students.
- More than 20% of teachers in Costa Rica, France and Morocco report never working with other teachers to ensure common standards for evaluation.

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

Figure 6.2. Teachers' collaborative practices

Percentage of lower secondary teachers who do the following activities at least once a month



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 6.3.

Looking across the data, there are some education systems where teachers report that they do most of all of the teamwork activities at least monthly and have a small percentage of teachers that say that they "never" do these activities (Table 6.4). These systems include Viet Nam, Shanghai (China), Norway* and the United Arab Emirates. On the other end of the spectrum, some education systems appear to have less frequent teamwork across all the activities listed. This includes Costa Rica, France and Morocco. See Box 6.1 for a discussion about how different education systems are supporting teaching as a team sport.

Who works together

TALIS 2018 data (OECD, 2020[10]) show that most of the variance in teachers' professional collaboration is at the individual (teacher level) but that the share of variation at the school level is not negligible. Thus, TALIS 2018 results suggest that teachers tend to collaborate with only a few colleagues, while others in the same school may not collaborate at all – leading to high within-school variation.

For professional collaboration activities, male and female teachers have very similar levels of participation (Table 6.3). There are some notable exceptions. For team teaching, 10% more male teachers report team teaching in Bulgaria and Montenegro, compared to female teachers. The reverse is true in four education systems participating in TALIS with available data (hereafter, "education systems"), in Austria, Spain, Türkiye and Viet Nam. Female teachers are more likely to take part in collaborative professional learning (22% of female teachers, compared to 19% of male teachers, on average). In Denmark and Iceland, more male teachers are report doing so. On average, male and female teachers participate in joint activities across different classes and age groups at similar rates.

Male teachers are more likely than female teachers, on average, to observe other teachers' classes and provide feedback in 21 education systems (Table 6.3). However, female teachers are more likely than male teachers to report doing so in three education systems: in Uzbekistan (82% of female teachers report doing so, compared to 73% of male teachers), Kazakhstan (54% of female teachers report doing so, compared to 49% of male teachers), and Viet Nam (female teachers, 68%; male teachers, 63%).

Box 6.1. Teaching is a team sport

In **Shanghai (China)**, teaching is both considered and actively developed as a collaborative profession. Schools are organised to facilitate daily interaction among teachers, with collaboration seen not as an add-on but as an essential part of their work. One of the key enablers of this model is a limited teaching load: teachers typically spend just 12 hours per week in the classroom, leaving ample time for joint activities, such as lesson observation, co-planning, and mentoring. See Box 3.2 in Chapter 3 for further discussion on the use of teachers' time across other TALIS participants.

This dedicated collaborative time allows teachers to learn from one another, support less experienced colleagues, and collectively refine their instructional practice. The sharing of best practices is not confined to formal workshops but is also embedded informally into everyday school life through peer observation and mentoring, activities where teachers engage in action research and experimentation, and more. In this way, Shanghai (China)'s approach reinforces the idea that teaching expertise is built collectively within schools – through sustained, structured professional collaboration.

The culture of collaborative professionalism among teachers has also contributed to the strength of school accountability in Shanghai (China), where all stakeholders share a sense of responsibility for school excellence and improvement.

Czechia increasingly recognises that teaching is not an isolated endeavour but a collective effort involving not only school stakeholders, but also families, and the community. In view of this, professional collaboration has been included as one of the six areas of Czechia's new Competency Framework for Graduates of Teacher Education (2023). This means that teacher education programmes are expected to help teacher candidates acquire competencies in this area alongside other key areas of teachers' professional competence, such as feedback and assessment.

Upon graduation, Czech teachers should be able to:

- Collaborate with colleagues: Teachers invite colleagues (or fellow students during teacher training) to observe their teaching. This is reciprocal so they would then observe the others teaching. This means joint reflection, including feedback, and sharing experiences and resources to inspire.
- Collaborate with families and the wider community: Teachers communicate appropriately about the progress of education, educational needs and development of students so that parents or guardians have enough information to effectively support their students' education. They support positive relationships in the wider school community and participate in activities that involve the wider school community in the education of students.

Source: NCEE (2016[11]), "Shanghai: Culture, policy and practice", https://ncee.org/empowered-educators-how-high-performing-systems-shape-teaching-quality-around-the-world/; OECD (2020[12]), *Benchmarking the Performance of China's Education System*, https://doi.org/10.1787/4ab33702-en; Ministry of Education, Youth and Sports of the Czech Republic (2023[13]), *Kompetenční rámec absolventa a absolventky učitelství: Společné profesní competence*, https://msmt.gov.cz/uploads/kompetencni_ramec_absolventa_2023_10.pdf.

Female teachers, on average, tend to report using exchange and co-ordination for teaching activities more than male teachers (Table 6.3). For example, they say that each month they engage in discussions about the learning development of specific students (12 percentage points more for female teachers), exchange

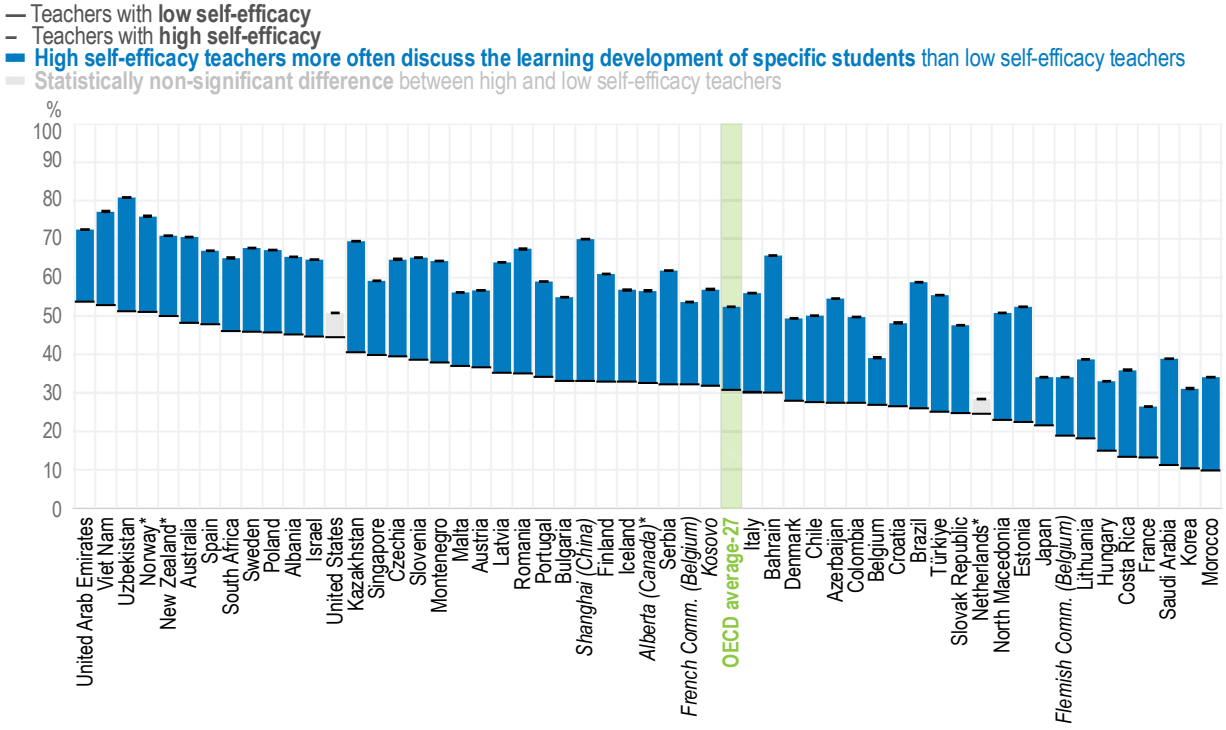
teaching materials with colleagues (11 percentage points more for female teachers) and work with other teachers in their school to ensure common standards in evaluations for assessing student progress (8 percentage points more for female teachers).

Novice teachers are more likely than experienced teachers to report using professional collaboration methods at least once a month, on average (Table 6.5). In particular, novice teachers report working with other teachers to ensure common standards in evaluations for assessing student progress in 13 education systems. This is particularly evident in Colombia (49% novice teachers do so, compared to 35% of experienced teachers), Costa Rica (35% of novice teachers; 23% of experienced teachers), the Netherlands* (44% of novice teachers; 23% of experienced teachers) and Shanghai (China) (64% of novice teachers; 49% of experienced teachers). These findings might reflect systems allocating resources to upskill novice teachers via mentoring and collaboration.

Of note, teachers in the top quartile of self-efficacy in their country tend to collaborate more in all the collaborative practices listed, on average (Table 6.6). This is particularly the case when teachers engage in discussions about the learning development of specific students (22 percentage points more for teachers with high self-efficacy) (Figure 6.3) and exchange teaching material with colleagues (18 percentage points more for teachers with high self-efficacy).

Figure 6.3. Teachers' engagement in discussions about specific students' learning development, by self-efficacy

Percentage of lower secondary teachers engaging in discussions about specific students' learning development at least once a month



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Teachers with low self-efficacy refer to those in the bottom quartile (T4SELF). Teachers with high self-efficacy refer to those in the top quartile of the scale of teacher self-efficacy (T4SELF). Quartiles are calculated within each country/territory.
Source: OECD, *TALIS 2024 Database*, Table 6.6.

Evolution of working together

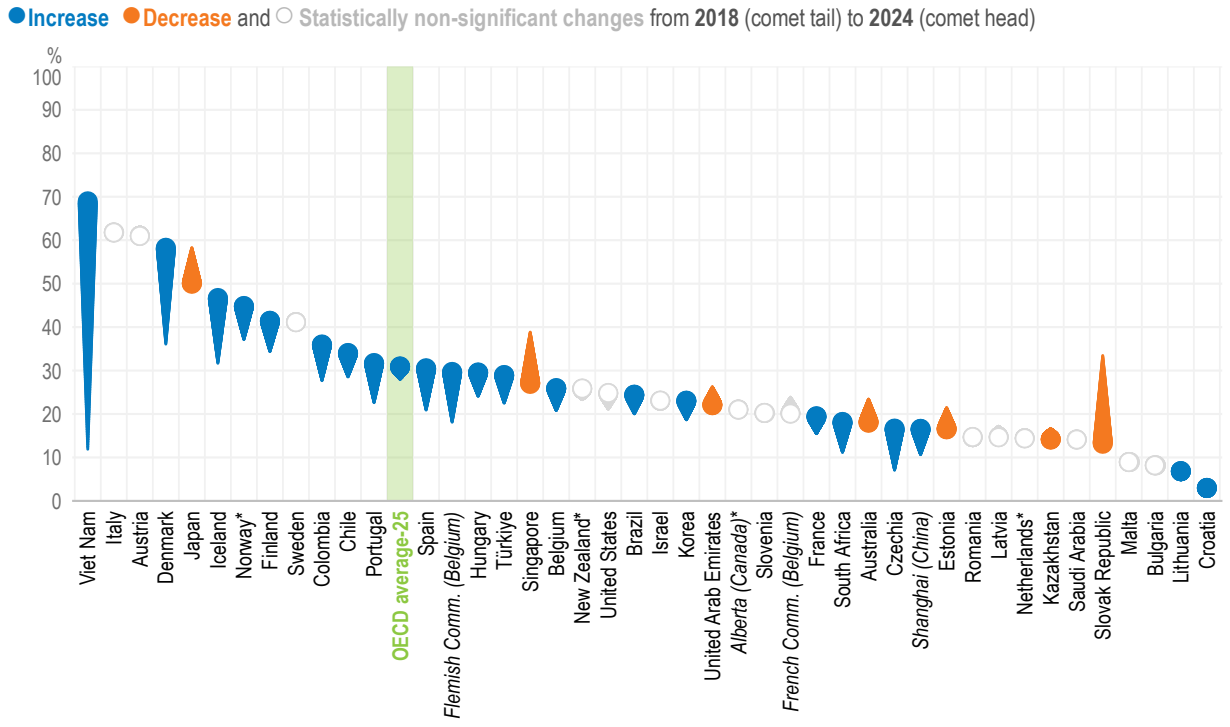
In general, teaching is becoming more team oriented. On average, there has been an increase in monthly activities of working together between 2018 and 2024 (Table 6.7).

In 23 education systems, there was an increase in teachers reporting that they participate in collaborative professional learning, with the largest increase being Viet Nam (a rise of 36 percentage points in 2024 compared to 2018) (Table 6.7). In seven education systems, teachers were less likely to report participating in collaborative professional learning at least monthly in their schools in 2024 compared to 2018. The largest decreases are seen in Saudi Arabia (15 percentage points less in 2024 compared to 2018), Singapore (12 percentage points less in 2024 compared to 2018), and Sweden (10 percentage points less in 2024).

Since 2018, 21 education systems have increased the practice of teaching jointly as a team (Figure 6.4). The largest increases were in Viet Nam (57 percentage-point increase since 2018) and Denmark (22 percentage-point increase). There has been a decrease in the number of teachers reporting that they teach jointly as a team in the same class at least once a month in seven education systems. The largest decrease is seen in the Slovak Republic (20 percentage points less in 2024).

Figure 6.4. Change in team teaching, from 2018 to 2024

Percentage of lower secondary teachers who teach jointly as a team in the same class at least once a month



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 6.7.

Collegiality

Interpersonal relationships, including mutual support, trust and solidarity, are key foundations of a collaborative school culture – an essential condition for effective professional collaboration (Hargreaves and Fullan, 2012[14]; Hargreaves and O'Connor, 2018[15]). The relationship between collegiality and

collaboration is reciprocal. Frequent collaborative interactions among colleagues can help strengthen trust, build positive relationships and contribute to a more supportive school climate (Rutter and Maughan, 2002[16]). To measure collegiality, TALIS asks teachers whether the teachers at their school can rely on each other. If teachers "agree" or "strongly agree" with the statement, they are considered to be working in a collegial environment.

On average, 86% of teachers at their school "agree" or "strongly agree" that they can rely on each other (Table 6.8). Only 55% of teachers report this in Costa Rica. On the other end of the scale, over 95% of teachers report this in Albania, the Flemish Community of Belgium, Shanghai (China) and Viet Nam.

In 38 education systems, there was no significant difference in teacher collegiality between schools that take in less than 10% of students from socio-economically disadvantaged homes and those teaching in schools with 30% or more of these students (Table 6.8). Exceptions to this include Costa Rica, where 73% of teachers in socio-economically advantaged schools report that they can rely on each other, compared to 52% of teachers at disadvantaged schools. In Denmark, teachers from advantaged schools report collegiality 12 percentage points more frequently. The United States shows a similar pattern, with a 9 percentage-point difference. Japan displays the opposite trend, with teachers from disadvantaged schools reporting that they can rely on each other 11 percentage points more frequently.

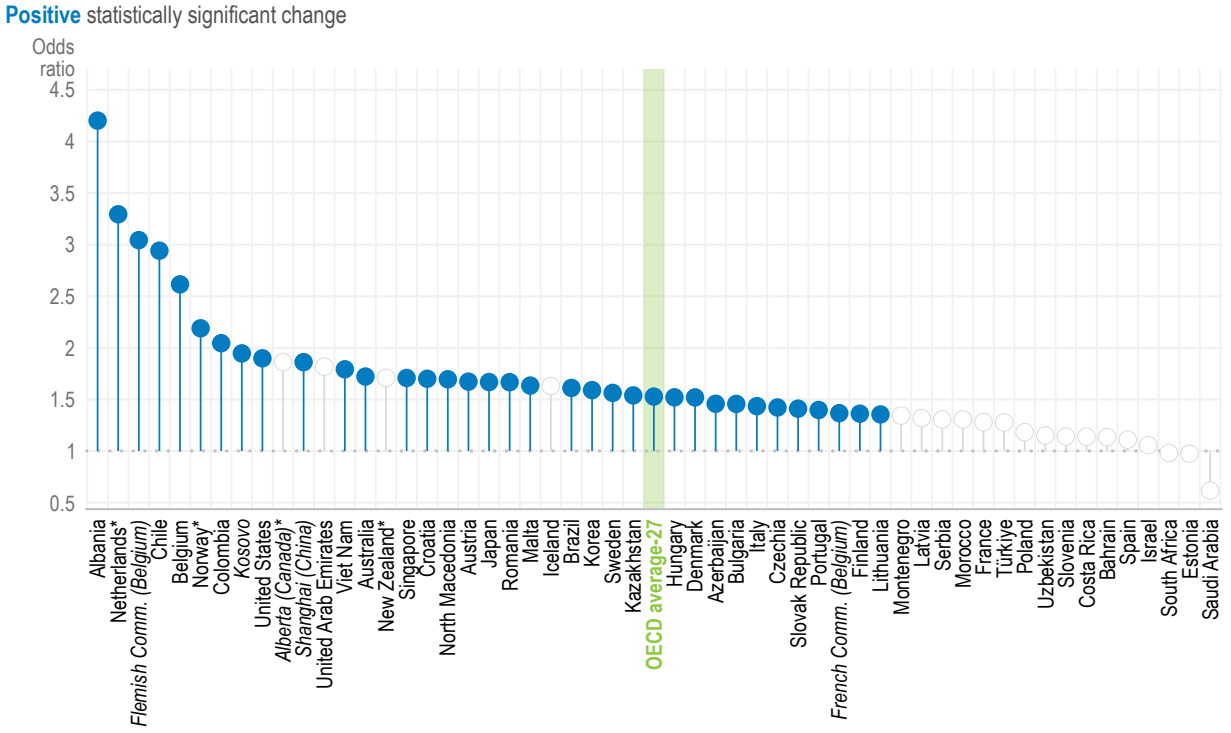
Teacher collegiality has decreased since 2018 in ten education systems, with the largest decrease in Japan (from 83% of teachers saying they can rely on each other in 2018 to 77% of teachers in 2024) (Table 6.9). On the other hand, teacher collegiality has increased over the same time period in five education systems, with a 12 percentage-point increase in Hungary (moving from 82% in 2018 to 94% in 2024).

Only three education systems – Alberta (Canada)*, Colombia and Italy – show a difference in teacher collegiality based on the proportion of students in the school with difficulties understanding the language(s) of instruction (Table 6.8). In Alberta (Canada)* and Italy, more teachers from schools with no such students report higher levels of collegiality, state they can rely on each other. Conversely, in Colombia, teachers from schools with more than 10% of students having language difficulties report higher collegiality, with 5 percentage points more of these teachers saying they can rely on each other.

Teachers who report that they exchange teaching materials tend report that they are in collegial environments in 34 out of 54 education systems (Figure 6.5) and if they engage in discussions about the learning development of specific students they tend to report that they are in collegial environments in 29 out of 54 education systems (Table 6.10). These results hold while accounting for teacher and school characteristics as well as other forms of collaboration, such as team teaching, providing feedback based on class observation and engaging in joint activities across different classes.

Figure 6.5. Relationship between teachers exchanging teaching materials with each other and collegiality

Change in the likelihood of lower secondary teachers "agree[ing]" or "strongly agree[ing]" that teachers can rely on each other[1] associated with teachers reporting that they exchange teaching materials with colleagues at least monthly[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 1 indicate a positive association between teachers reporting that they can rely on each other and that they exchange teaching materials with colleagues at least monthly, while those below 1 reflect a negative relationship.
1. Binary variable: the reference category refers to "disagree" and "strongly disagree".
2. Binary variable: the reference category refers to teachers reporting doing the following activities never or less than once a month.
3. Results based on binary logistic regression. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below one denotes a negative association; an odds ratio above one indicates a positive association; and an odds ratio of one means that there is no association. After controlling for teacher characteristics (i.e. gender, age and years of teaching experience), school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs), and other forms of collaboration.
Source: OECD, TALIS 2024 Database, Table 6.10.

Box 6.2. Professional relationships for primary school teachers

Professional relationships with other teachers

In terms of a school's collaborative culture, as a general trend, a larger share of female teachers collaborate with their peers. In 12 out of 15 education systems with available data for the primary education level, a larger share of female teachers exchange teaching materials with colleagues compared to their male counterparts (Table 6.3). The largest difference is observed in Korea (31 percentage points more). More female primary school teachers engage in discussions about the learning development of specific students, with the largest difference observed in Korea (24 percentage points more).

Professional relationships with principals

A larger share of primary school teachers believe that the principal encourages all staff to have a say in important decisions, compared to lower secondary teachers, in 10 out of 15 education systems with available data for both levels (Table 6.17). The largest difference is found in the Netherlands* (23 percentage points more). Similarly, more primary teachers report that the principal ensures that teachers' performance is monitored effectively, with the largest difference also found in the Netherlands* (27 percentage points more).

Professional relationships with parents and guardians

A larger share of primary teachers report that they collaborate with parents and guardians to enrich students' learning activities in general at least once a month, compared to lower secondary teachers. The largest differences are observed in Korea (27 percentage points more) and Brazil (23 percentage points more) (Table 6.36). Compared to TALIS 2018, not many differences are observed in teacher-student relationships (Table 6.28). Notably, in a third of countries with available data for both surveys, a larger proportion of primary teachers report that their school provides students with extra assistance if needed, compared to the previous survey. The largest difference is found in Korea (7 percentage points).

Professional outcomes

Primary school teachers who report having good relationships with people in the school community tend to have high levels of job satisfaction, similar to their lower secondary school peers (Table 6.16). The strongest relationship is seen with teachers who report that their principal has good professional relationships with staff and teachers who say they are valued by parents and guardians in the school.

Teachers' relations with other teachers and their professional outcomes

Regarding working together, teachers who report engaging in particular collaborative activities at least once a month tend to report higher levels of fulfilment of their lesson aims, even after accounting for teacher characteristics (e.g. teachers' gender, age and teaching experience [hereafter "teacher characteristics"]), school characteristics (e.g. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs [hereafter "school characteristics"]) and other forms of collaboration (Table 6.11). In 32 out of 54 education systems, teachers who participate in collaborative professional learning, a form of professional collaboration tend to report higher levels of fulfilment of their lesson aims. The same association is seen in 36 out of 54 education systems for teachers who report working with colleagues to ensure common standards in student

assessment, a form of exchange and co-ordination for teaching. Similarly, engaging in joint activities across different classes and age groups (in 30 out of 54 education systems), another form of professional collaboration tends to have an association with fulfilment of lesson aims. These findings suggest that both structured, in-depth collaboration and more routine co- ordination may support teachers in achieving their instructional goals.

In 12 out of 54 education systems, teachers who take part in collaborative professional learning at least once a month tend to report high levels of well-being after accounting for teacher characteristics, school characteristics and other forms of collaboration (Table 6.12).

Teachers who engage in exchange and co-ordination for teaching collaborative activities tend to report higher levels of job satisfaction (Table 6.13). In 21 out of 54 education systems, teachers who engage in joint activities across different classes and ages at least once a month (a form of professional collaboration) also tend to report higher levels of job satisfaction after accounting for teacher characteristics, school characteristics and other forms of collaboration. Similarly, in 21 out of 54 education systems, teachers who take part in collaborative professional learning tend to have higher levels of job satisfaction controlling for all the same factors. There also tends to be a positive relationship in 19 out of 54 education systems between job satisfaction and exchanging teaching materials with colleagues and in 22 out of 54 education systems, working with other teachers to ensure common assessment standards after accounting for teacher characteristics, school characteristics and other forms of collaboration.

Regarding collegiality, there are very few education systems that have a statistically significant association with teacher collegiality and those who team teach, those who engage in joint activities across different classes and age groups and those who observe other teachers' classes and provide feedback, while accounting for teacher and school characteristics as well as other forms of collaboration (Table 6.10). Similarly, the number of hours they spend on teacher collaboration is not related to their reported collegiality, which suggests that the type of collaboration is more strongly related to collegiality than the amount of collaboration (Table 6.14).

Teachers who report that they can rely on each other tend to report higher levels of well-being in 37 out of 54 education systems (Table 6.15). Teachers who report that they can rely on each other tend to report higher levels of job satisfaction in all education systems (Table 6.16). These relationships hold even after accounting for teacher and school characteristics as well as collegiality and relationships with the principal, parents and guardians.

Professional relationships with principals

Principal-teacher professional relationships can have an impact on the individual teacher as well as the school community as a whole. TALIS 2024 sheds light on what teachers think about this professional relationship, whether those views change depending on teacher or school characteristics, whether principal characteristics impact those views, and what the relationship is between teacher-principal relations and outcomes for teachers, including job satisfaction, well-being, and fulfilment of their lesson aims.

TALIS asks teachers about their views of their principals, including their opinions on whether the principal has a vision for the school, whether they feel the principal offers opportunities for teachers to be involved in decisions, and whether the principal maintains good professional relationships with staff, parents, guardians and students. TALIS also asks principals about their leadership style and practices.

Teachers' views of their principals are generally positive on average:

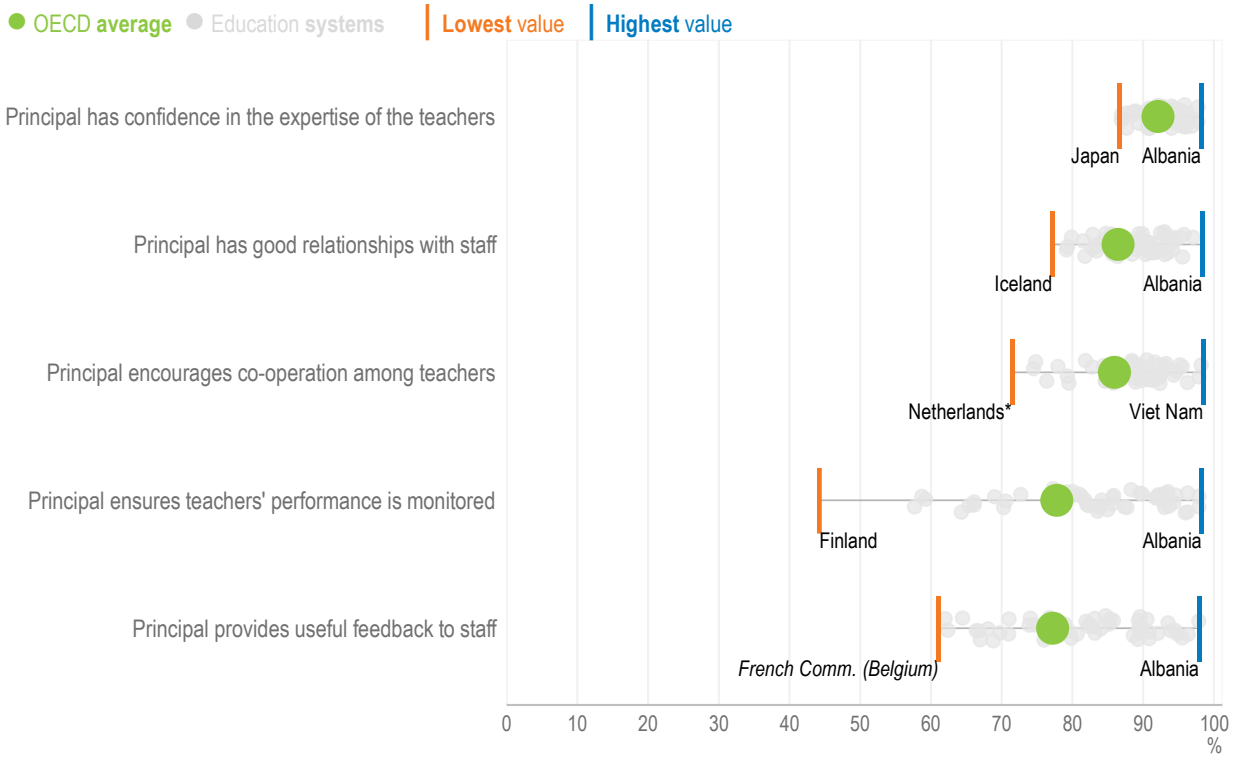
- Some 86% of teachers agree that their principal has good professional relationships with staff, ranging from 77% to 98% of teachers within education systems (Figure 6.6). Similarly, 86% of

teachers agree that their principal ensures that teachers feel responsible for their students' learning outcomes, ranging from 71% to 98% of teachers within education systems (Table 6.17).

- Some 78% of teachers agree that the principal ensures that teachers' performance is monitored effectively, ranging from 44% to 98% of teachers within education systems (Table 6.17). Only 44% of teachers report this in Finland, 58% in Iceland and 59% in Denmark and the Netherlands*. This could indicate that principals are less involved in teacher performance monitoring within these education systems.
- Some 77% of teachers also agree that their principal provides useful feedback to teachers and staff, ranging from 61% to 98% of teachers within education systems (Table 6.17). Education systems with less than 65% of teachers reporting this are the French Community of Belgium, Denmark, Finland and Iceland.
- Some 92% of teachers agree that their principal has confidence in the expertise of the teachers at their school, ranging from 87% to 98% of teachers within education systems (Table 6.18).

Figure 6.6 Teachers' views of their principals

Percentage of lower secondary teachers who "agree" or "strongly agree" the following statements about their school



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Tables 6.17 and 6.18.

Teachers in rural schools tend to be more likely to agree that the principal has good professional relationships with staff by an average of 3 percentage points (Table 6.19). Around 89% of teachers in rural schools in Iceland reported this compared to 75% of teachers in urban schools (to note, many schools in Iceland that are classified as rural function as urban areas with full infrastructure and services). The reverse is true in three education systems and especially in France (89% in urban schools compared to 74% in rural areas).

Teachers in privately managed schools tend to be more likely to agree that their principal has good professional relationships with staff by an average of 2 percentage points (Table 6.19). This is particularly the case in Costa Rica (13 percentage points more in privately managed schools), Australia and Azerbaijan (both 6 percentage points more). The reverse is true in Malta (9 percentage points more in publicly managed schools compared to privately managed schools) and Spain (4 percentage points more).

In 12 out of 54 education systems, more novice teachers (i.e. those with up to five years of teaching experience) agree that their principal provides useful feedback to teachers and staff (79% of novice teachers compared to 77% of experienced teachers [i.e. those with more than ten years of teaching experience]) (Table 6.20). This represents a difference of more than 12 percentage points in the Flemish Community of Belgium, the French Community of Belgium, and Denmark. Czechia is the only education system where the reverse is true.

In 11 education systems, more younger teachers (aged 30 and below) believe that the principal has confidence in the expertise of the teachers than older teachers (aged 50 and above). Bahrain is the only system with the opposite trend (11 percentage points more) (Table 6.18). Novice teachers are more likely to agree that the principal has confidence in the expertise of teachers at their school in 13 education systems, particularly in Norway* (8 percentage points more than experienced teachers). The reverse is true in Bahrain, with experienced teachers agreeing with this statement by 6 percentage points more.

On average, there is no difference between female and male teachers in terms of agreeing that their principal has confidence in their expertise. However, six education systems show exceptions to this pattern (Table 6.18). In five education systems, female teachers are more likely than male teachers to agree that principals have confidence in their expertise. The United States is the only system where the opposite is observed: male teachers agree more than their female peers, by a margin of 5 percentage points.

Some characteristics of the principal also have an impact on whether teachers agree that their principal has confidence in the expertise of the school's teachers. In eight education systems, if the teacher's principal is male, more teachers agree with the statement compared to teachers who have a female principal (Table 6.21). There is more than a 5 percentage-point difference (favouring male principals) in Chile and Costa Rica. The reverse is true in Alberta (Canada)* (6 percentage points more for female principals) and Saudi Arabia (2 percentage points more for female principals). In most education systems, the age of the principal is weakly related to whether teachers agree that their principal has confidence in the teachers. However, in two education systems, teachers who have a principal who is younger than 40 are more likely to report this: Czechia and Latvia (4 percentage points more for younger principals). Finally, the number of years that the principal has been a principal shows a difference in just three systems – Australia, Kosovo and Uzbekistan – in favour of more experienced principals.

Leadership styles

A collaborative school environment, one that facilitates teacher collaboration, can be influenced by a principal's leadership style. In TALIS, there are two particular leadership styles that are linked to school environments that help teachers work together. The first is: Instructional leadership that focuses mostly on high-quality instructional practices and developing a professional learning community where teachers learn with and from each other (Hallinger, 2003[17]).

TALIS asks principals how frequently they take actions to support co-operation among teachers to develop new teaching practices; if they take actions to ensure that teachers take responsibility for improving their teaching skills; and if they take actions to ensure that teachers feel responsible for their students' learning outcomes. Principals with high self-reported instructional leadership qualities report that they regularly do these things.

Teachers in Japan and Latvia who work with these principals are more likely to say that the principal provides useful feedback to teachers (there is no significant relationship in the other education systems)

(Table 6.22). Teachers who have principals who report high instructional leadership qualities are more likely to agree that the principal encourages co-operation among teachers to develop new teaching practices than those who have principals with lower instructional leadership qualities. This is the case in Denmark, Kazakhstan, Romania, Singapore and Slovenia. However, the reverse is true in Montenegro and North Macedonia. See Box 6.3 for more information about how education systems can strengthen instructional leadership.

The second leadership style is giving opportunities for teachers and other stakeholders to participate in school decisions. In this form of leadership, stakeholders like teachers and parents and guardians take part in decision making and are encouraged and enabled to have a meaningful say (Nadeem, 2024[18]). Therefore, interactions between the principal and teachers are a key priority (Harris, 2009[19]).

TALIS asks teachers whether their principal encourages all staff to have a say on important decisions. In 2024, 78% of teachers on average "agree" or "strongly agree" with this statement, ranging from 61% to 96% across education systems (Table 6.17).

This perception of principal support appears closely linked to broader school participation opportunities. Teachers who say that their school provides staff with opportunities to actively participate in school decisions tend to be more likely to agree with a range of positive statements about their principal compared to those teachers who say their school does not provide such opportunities (Table 6.23). For example:

- The principal encourages all staff to have a say in important decisions (90% of teachers who agree that their school offers participation opportunities also agree that the principal encourages all staff to actively participate in school decisions compared to 33% of those who disagree that their school provides such opportunities).
- The principal provides useful feedback (86% of teachers who agree that their school provides staff with opportunities to actively participate in school decisions also agree that the principal provides useful feedback compared to 44% of those who disagree).
- Good professional relationships with staff (94% of teachers who agree that their school provides staff with opportunities to actively participate in school decisions compared also agree that the principal has good professional relationships with staff, compared to 59% of teachers who disagree).
- The principal encourages teacher co-operation to develop new teaching practices (93% of teachers who agree that their school provides staff with opportunities to actively participate in school decisions also agree that the principal encourages teacher co-operation to develop new teaching practices compared to 60% of teachers who disagree).
- Principals have a clear vision for their school (93% of teachers who agree that their school provides staff with opportunities to actively participate in school decisions agree that principals have a clear vision for their school compared to 63% of teachers who disagree).

Box 6.3. Policies to strengthen instructional leadership in Azerbaijan

The OECD/UNICEF's *Education in the Eastern Partnership: Findings from PISA* report (OECD/UNICEF, 2024[20]) underscored the need for Eastern Partnership (EaP) countries to further strengthen school leadership as a way to support learning.

One EaP country that has been investing in this area since 2013 is Azerbaijan, which has:

- **Re-oriented principals' responsibilities**: Azerbaijani principals are now expected to take on a more instructional role, supporting teachers, and ensuring the quality of the learning and teaching process.

- **Introduced a new recruitment model for principals that is merit- and competence-based, as well as transparent.** The selection process involves four steps: 1) the candidates' applications; 2) and 3) an exam which consists of a standardised multiple-choice test and a written essay focusing on labour and education legislation, school management and finance, and the application of quantitative analysis of school data; and 4) an interview administered by the Ministry of Education commission. School principal selection and appointments (and dismissals) are made by the Ministry of Education, with no role for regional or municipal educational authorities at any stage of the process.
- **Begun to offer specific training to school leaders** (e.g. on education management, finance and law). The training is offered by universities and independent organisations, such as the Azerbaijan Teacher Development Centre.

A study by Kazimzade (2017[21]) found that, despite progress, some challenges remain. The training on offer is expensive and remains inaccessible to many, particularly those in remote regions. Even individuals who are able to participate in the training programmes and are selected receive little or no follow-up support afterwards.

Source: Kazimzade, E. (2017[21]), *School Principalship Developments in Azerbaijan: Challenges of Professional Development of School Leaders vs. Managers*; OECD/UNICEF (2024[22]), *Education in the Eastern Partnership: Findings from PISA*, https://doi.org/10.1787/d5d6f109-en.

Teachers' relations with principals and their professional outcomes

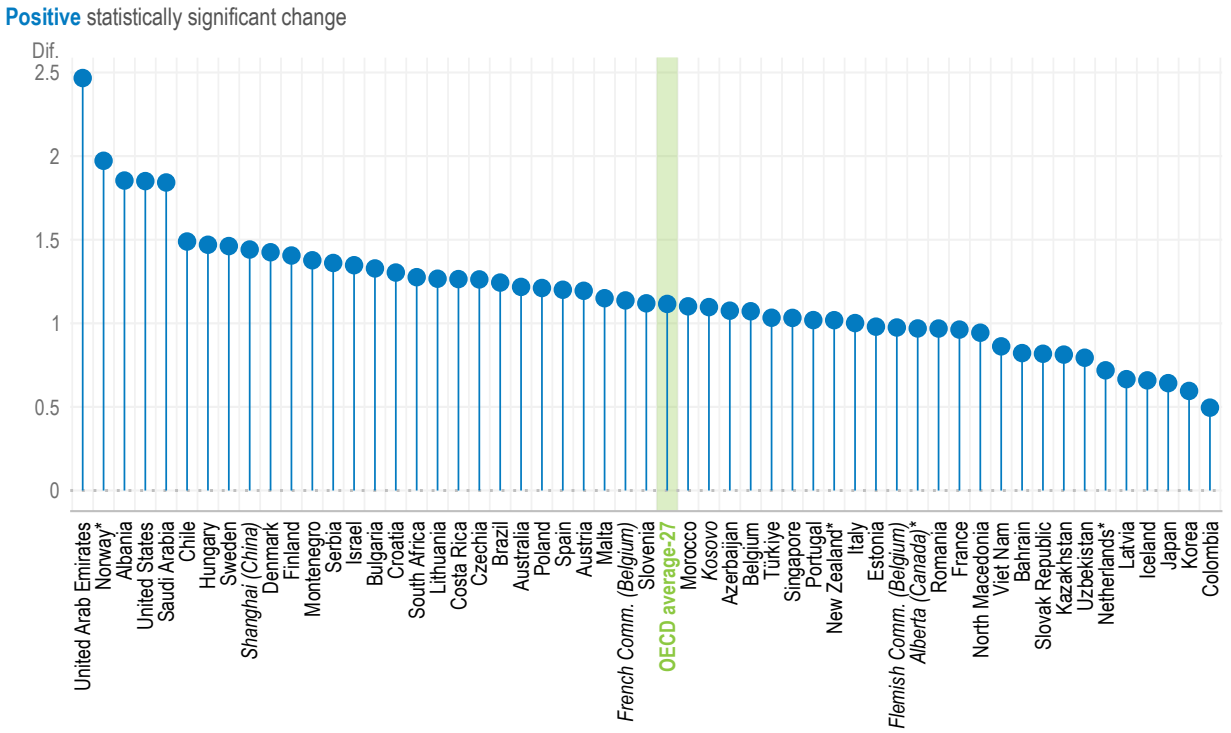
In 21 out of 54 education systems, teachers who report that the principal provides useful feedback to teachers and staff tends to be positively associated with higher fulfilment of their lesson aims even after accounting for teacher characteristics, school characteristics and other principal-teacher factors (Table 6.24). In 17 out of 54 education systems, teachers who report that the principal ensures that teachers' performance is monitored effectively tends to be positively associated with higher fulfilment of their lesson aims even after accounting for teacher characteristics, school characteristics and other principal-teacher factors.

The well-being and job satisfaction of teachers tends to be strongly related to having a supportive principal. In around half of education systems, teachers who "agree" or "strongly agree" that the principal has confidence in the expertise of teachers at their school, and those who agree that the principal has good professional relationships with staff tend to report higher well-being (Table 6.25). In most education systems, teachers who report that the principal has confidence in the expertise of teachers at their school, and those who agree that the principal has good professional relationships with staff tend to report higher job satisfaction (Table 6.26). Teacher well-being and job satisfaction also tends to be positively related to principals who provide useful feedback to staff and ensure that teachers' performance is monitored effectively. Teachers also tend to report higher job satisfaction when principals provide useful feedback and ensure that teachers' performance is monitored effectively (Table 6.26). All these relationships hold even after accounting for teacher characteristics, school characteristics and other principal-teacher factors

Teachers who report that their principal has good professional relationships with staff tend to report that they are satisfied with their job even after accounting for teacher and school characteristics as well as collegiality and relationship with the principal, parents and guardians. This is the case in all education systems (Figure 6.7). Finally, in over eight out of ten education systems, teachers who report that their principal has good professional relationships with staff tend to report higher levels of well-being even after accounting for teacher and school characteristics as well as collegiality and relationship with the principal, parents and guardians (Table 6.15).

Figure 6.7. Relationship between teacher job satisfaction and principals' professional relationship with staff

Change in the scale of lower secondary teachers' job satisfaction[1] associated with teachers "agree[ing]" or "strongly agree[ing]" with the statement that "the principal has good professional relationships with staff"[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and good principal-staff professional relations, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to "disagree" or "strongly disagree".
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. After controlling for teacher characteristics (i.e. gender, age and years of teaching experience), school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs), and relationships with the principal, other teachers, and parents and guardians.
Source: OECD, *TALIS 2024 Database*, Table 6.16.

Teacher-student relations

Teacher-student relations is an important element of school community, as trusting interpersonal relationships between staff and students can improve student academic achievement (Li, Bergin and Olsen, 2022[23]) as well as improve outcomes for teachers, such as well-being (Spilt, Koomen and Thijs, 2011[24]). TALIS asks teachers if: 1) students and teachers usually get along well with each other; 2) most teachers believe that student well-being is important; 3) most teachers are interested in what students have to say; and 4) a student needs extra assistance, the school will provide it.

In general, teachers report good student-teacher relationships in their schools. Over nine out of ten teachers, on average, "agree" or "strongly agree" with all four statements. Approximately 97% of teachers

report that most teachers believe student well-being is important, and 96% report that students and teachers usually get along well with each other (Table 6.27). Around nine out of ten teachers report that, if a student needs extra assistance, the school provides it, and that most teachers are interested in what students have to say. This result echoes reports from students in PISA 2022 (OECD, 2023[25]). Students were asked if their mathematics teacher gives extra help when students need it. On average, 8% of students reported that this never or hardly ever happened compared to 92% of students reporting that it happened in some, most or every lesson (Table II.B1.3.1, OECD PISA 2022).

TALIS 2024 shows a marginal increase in the number of teachers reporting good student-teacher relationships, on average, on all four statements, compared to TALIS 2018 (Table 6.28):

- The percentage of teachers who agree that teachers and students usually get along well with each other increased in eight education systems between 2018 and 2024 and decreased in three education systems during the same time period.
- The percentage of teachers who agree that most teachers believe that student well-being is important increased in eight education systems between 2018 and 2024, while it decreased in three education systems. The largest decrease was in Czechia (8 percentage points). This could be linked to the addition of social and emotional skills in many curricula (see Chapter 1 for a discussion about social and emotional learning).
- The proportion of teachers who agree that most teachers are interested in what students have to say increased in 16 education systems between 2018 and 2024, while it decreased in 2 education systems.
- The percentage of teachers who agree that if a student needs extra assistance, the school will provide it increased in 13 education systems and decreased in 5 education systems between 2018 and 2024.

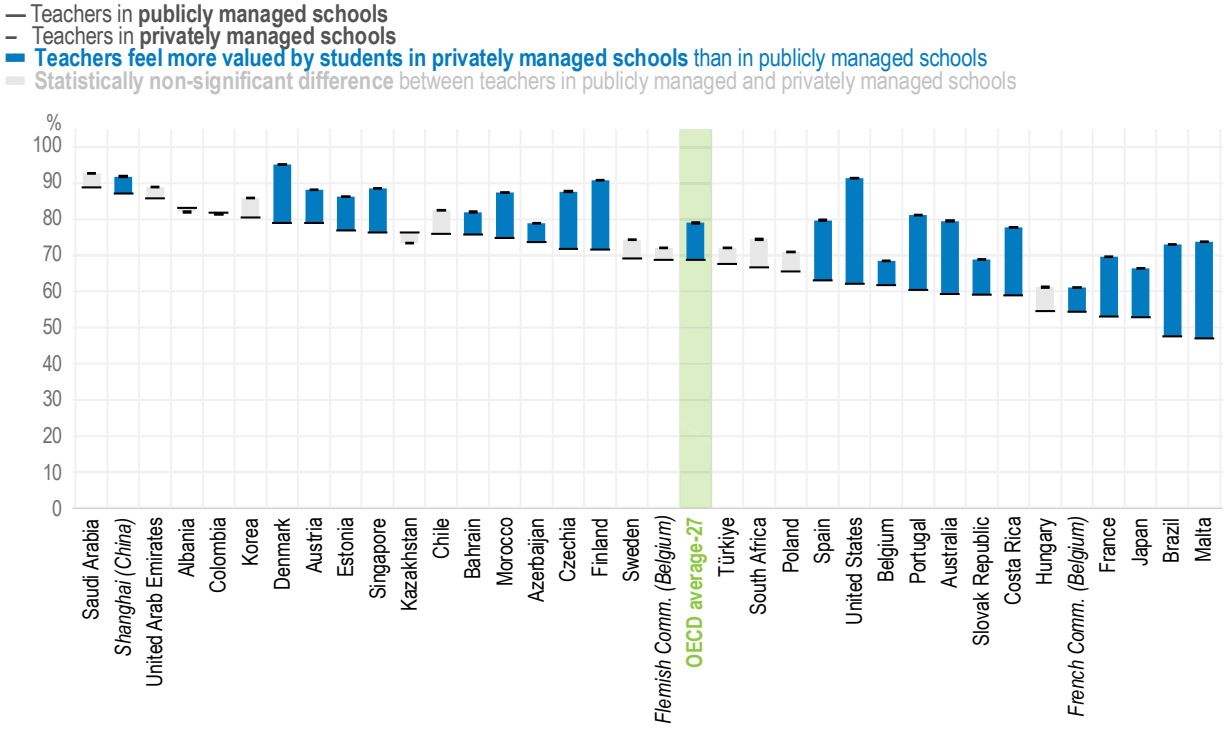
TALIS also asks teachers if they agree that in their school, teachers are valued by students. Around seven in ten teachers, on average, agreed that teachers are valued by students (ranging from 53% to 96%) (Table 6.29). Around three quarters of teachers older than 50 report that they feel valued by students compared to 65% of teachers under the age of 30, on average. This was the case in 25 education systems. When looking at experience, 73% of experienced teachers feel valued by students compared to 66% of novice teachers, on average. Experienced teachers report feeling valued more than novice teachers in 24 education systems, with novice teachers reporting this more in one education system alone, Costa Rica.

A larger share of teachers who work in privately managed schools feel valued by students (12 percentage points more than teachers in publicly managed schools) (Figure 6.8) and teachers who work in socio-economically advantaged schools (12 percentage points more than teachers who work in disadvantaged schools) (Table 6.30). Around three quarters of teachers who work in schools with fewer students who have difficulties understanding the language(s) of instruction report feeling valued by students (compared to 66% of those who work in schools with over 10% of these students).

More teachers who work in schools with over less than 10% of students with special education needs report that in their school, teachers are valued by students (4 percentage points more than those working in schools with more than 30% of these students) (Table 6.30). There were particularly large differences in the Slovak Republic (33 percentage points less for teachers working in schools with over 30% of students with special education needs). Nevertheless, this trend does not apply to every education system. In Colombia, more teachers in schools with a high intake of students with special needs report that they are valued by students (13 percentage points more than teachers in schools with no intake of students with special education needs).

Figure 6.8. Teachers feeling valued by students, by school governance type schools

Percentage of lower secondary teachers who "agree" or "strongly agree" that, in their school, teachers feel valued by students



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
A publicly managed school is a school whose principal reported that it is managed by a public education authority, government agency, municipality, or governing board appointed by government or elected by public franchise. A privately managed school is a school whose principal reported that it is managed by a non-governmental organisation (e.g. a church, trade union, business or other private institution). In the Principal Questionnaire, this question does not make any reference to the source of the school's funding, which is reported in the preceding question.
Source: OECD, *TALIS 2024 Database*, Table 6.30.

Teachers who report having higher self-efficacy in classroom management tend to report good student-teacher relations even after accounting for teacher and school characteristics (Table 6.31). This is the case for almost all education systems.

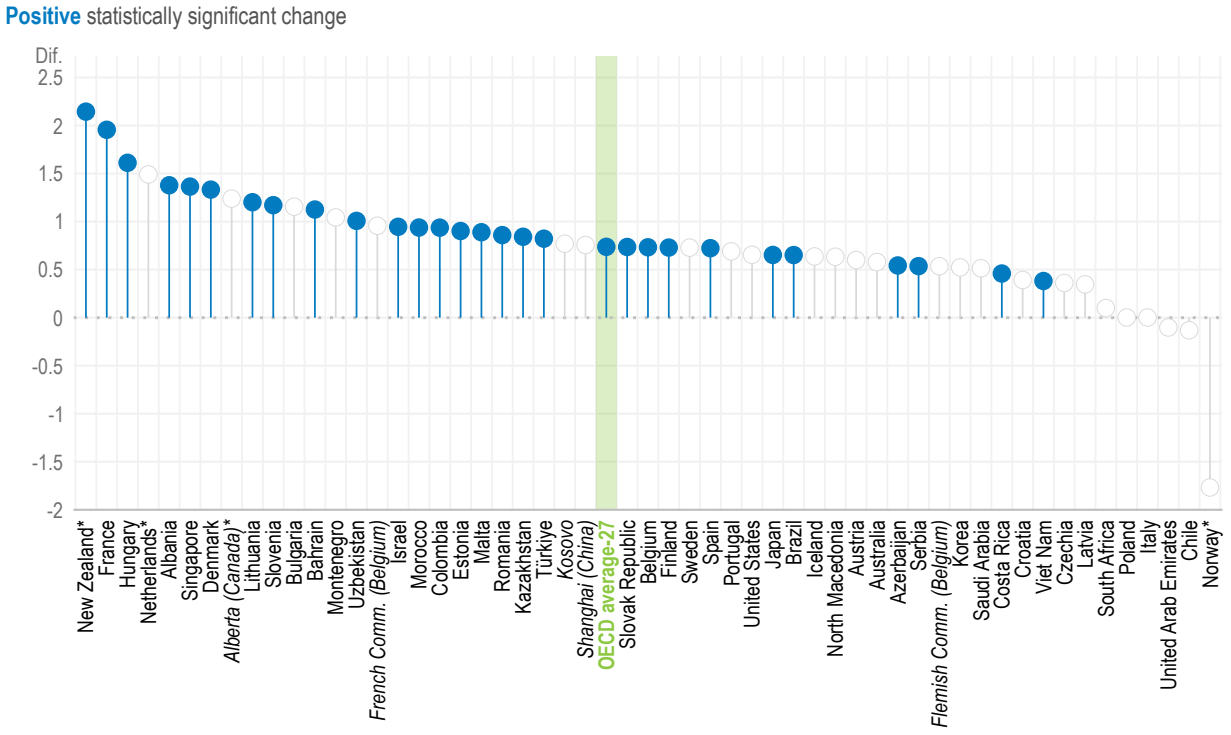
In seven education systems, teachers who spend more time counselling students (one hour unit increase) are less likely to agree that teachers and students get along well together, after accounting for teacher and school characteristics (Table 6.32). This counselling includes student supervision, mentoring, virtual counselling, career guidance and behaviour guidance. There is no significant association between the time spent counselling students and the likelihood of teachers and students getting along well in the other 47 education systems.

Teachers' relations with students and their professional outcomes

Positive student-teacher relationships tend to be associated with teachers feeling greater job satisfaction in 28 education systems (Figure 6.9). In 20 education systems, teachers' well-being is also positively associated with their agreement that teachers and students usually get along well with each other (Table 6.15). These relationships hold even after accounting for teacher and school characteristics as well as collegiality and relationship with the principal, parents and guardians.

Figure 6.9. Relationship between teacher job satisfaction and student-teacher relationships

Change in the scale of lower secondary teachers' job satisfaction1 associated with teachers “agree[ing]” or “strongly agree[ing]” with the statement that “teachers and students usually get on well with each other”[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 0 indicate a positive association between teacher job satisfaction and positive student-teacher relationships, while those below 0 reflect a negative relationship.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Binary variable: the reference category refers to “disagree” or “strongly disagree”.
3. Results based on linear regression analysis, showing the change in the outcome variable associated with a one-unit increase in the explanatory variable. After controlling for teacher characteristics (i.e. gender, age and years of teaching experience), school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs), as well as relationships with the principal, other teachers, and parents and guardians.
Source: OECD, *TALIS 2024 Database*, Table 6.16.

Looking particularly at teachers’ belief that student well-being is important, there tends to be a strong positive relationship with teachers’ job satisfaction in 46 education systems (Table 6.33), a positive relationship with teacher well-being in 32 education systems (Table 6.34) and fulfilment of lesson aims in 28 education systems (Table 6.35) after accounting for teacher and school characteristics.

Professional relationships with parents and guardians

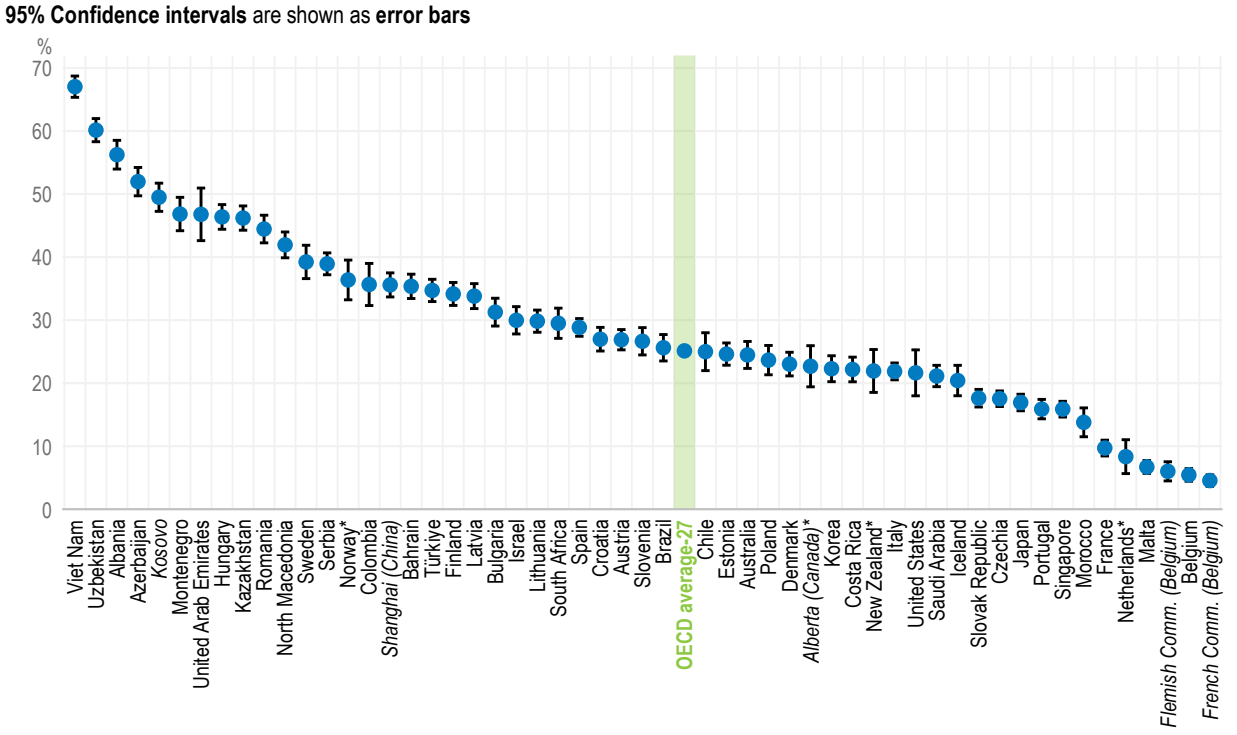
Parents and those who have parental roles play a crucial role in their children’s learning from birth and a child’s home life can influence a student’s academic achievement (Stroetinga, Leeman and Veugelers, 2018[26]). Collaborating with parents and guardians to support in-school learning has been linked to higher student achievement, skill building for parents and guardians, and stronger school-community relationships

(Castro et al., 2015[27]; Gordon and Cui, 2012[28]). Since children spend more time at home and in their communities than in school, connecting in-school learning with their broader environment is essential for their development (Darling-Hammond and Bransford, 2007[29]). This requires teachers to collaborate with families and other stakeholders beyond the school setting, which is an increasingly important professional practice for many teachers (Guerriero, 2017[30]).

Approximately 25% of teachers report collaborating with parents and guardians to enrich students' learning activities at least once a month, on average (Figure 6.10). Over 50% of teachers in Albania, Azerbaijan, Uzbekistan and Viet Nam say that they collaborate with parents and guardians on a monthly basis. In contrast, less than 10% of teachers in the Flemish Community of Belgium, the French Community of Belgium, France, Malta and the Netherlands* report the same. See Box 6.4 to see how different education systems are rethinking how teachers collaborate with parents and guardians.

Figure 6.10. Teachers' collaboration with parents and guardians

Percentage of lower secondary teachers who report collaborating with parents and guardians to enrich student learning, at least monthly



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, TALIS 2024 Database, Table 6.36.

Full-time teachers report that they spend 1.8 hours per week communicating and co-operating with parents and guardians (Table 6.1). The highest amount of time spent is 3.6 hours in Azerbaijan, 3.4 hours in Kazakhstan, 3.3 hours in Uzbekistan and 3.1 hours in Costa Rica. The time spent communicating and co-operating with parents has increased in 24 education systems since 2018 and decreased in just 2 (Table 6.2).

Box 6.4. Rethinking teacher-parent collaboration

Chile

A specific initiative in Chile offered each participating parent the chance to receive a high frequency of information via SMS messages regarding the attendance, behaviour and mathematics test scores of their children. After four months, the students involved had higher math grades, improved attendance and a lower prevalence of bad behaviours, and they were less likely to fail the grade at the end of the year. This initiative was run by a private organisation with funding from competitive grants provided by the Ministry of Education.

New Zealand

The Education Review Office (ERO) found that Māori children tended to achieve higher outcomes in Kaupapa Māori and Māori-medium education pathways. This success is attributed, in part, to the strong engagement of families and communities in these schools. In these settings, teachers shared resources and strategies that parents and children could use together at home. At their best, these relationships were reciprocal – teachers and parents engaged in two-way learning, sharing insights and listening to each other's perspectives.

The ERO's study found that, with support from school leaders, teachers in Kaupapa Māori and Māori-medium schools:

- involved parents in setting goals and identifying next learning steps with their children
- prioritised frequent and meaningful conversations to better understand each student's broader context at home and at school, helping to shape holistic and authentic learning goals
- responded promptly to information on student progress
- persisted in finding inclusive and effective ways to engage all parents
- systematically worked to assess, strengthen and sustain relationships with students and their parents.

Poland

The Jerzy Regulski Foundation in Support of Local Democracy (FSLD), led by the Polish Ministry of National Education in partnership with the Foundation for the Development of Local Democracy, promoted stronger collaboration among teachers, parents and students. Its main goal was to modernise the way school communities work, encouraging joint responsibility in organising school life. To support this, the project provided workshops to build participants' skills in initiating and sustaining meaningful co-operation. In addition, each participating school or preschool received tailored support from expert consultants to help develop a customised collaboration plan adapted to their specific context. The programme, which ran between 2013 and 2015, was implemented in 1 034 schools from all over Poland, and was co-financed by the European Social Fund. An online platform has been created to share the programme's outputs, including best practices, experiences and workshop materials.

Source: Berlinski, S. et al. (2021[31]), "Reducing parent-school information gaps and improving education outcomes: Evidence from high-frequency text messages," https://www.povertyactionlab.org/evaluation/reducing-parent-school-information-gaps-and-improving-education-outcomes-evidence-high; Education Review Office (2015[32]), *Educationally Powerful Connections with Parents and Whanau*, https://ero.govt.nz/our-research/educationally-powerful-connections-with-parents-and-whanau; FRDL (n.d.[33]), *Jerzy Regulski Foundation in Support of Local Democracy*, https://frdl.org.pl/jerzy-regulski-foundation-in-support-of-local-democracy-fsld; OECD (2024[34]), *OECD Economic Surveys: New Zealand 2024*, https://doi.org/10.1787/603809f2-en; Schleicher, A. (2018[35]), *Valuing our Teachers and Raising their Status: How Communities Can Help*, http://dx.doi.org/10.1787/9789264292697-en.

Certain teacher characteristics, such as gender and age, relate to the frequency with which teachers collaborate with parents and guardians. On average, 27% of female teachers report collaborating with parents and guardians to enrich students' learning compared to 20% of male teachers (Table 6.36). While this pattern varies across education systems, there are no education system where male teachers report contacting parents on a monthly basis more than female teachers. The share of younger teachers who collaborate with parents regularly (i.e. at least once a month) is 5 percentage points higher compared to older teachers, on average. This is true in 20 education systems. However, Czechia, Morocco, Romania, the Slovak Republic and Uzbekistan show the reverse pattern.

School-level characteristics are weakly related to how many teachers collaborate with parents and guardians monthly (Table 6.37). Some exceptions to this include Brazil and Hungary, where teachers in rural schools report at least 9 percentage points more that they collaborate with parents and guardians compared to urban schools. In contrast, teachers in urban schools in Morocco, Serbia and the United States are report 10 percentage points more that they collaborate compared to those in rural schools. Around 10 percentage point more teachers in privately managed schools in Morocco, Saudi Arabia and Türkiye report that they collaborate compared to teachers in publicly managed schools. The reverse is true in Finland (10 percentage points more for publicly managed schools) and Denmark and Korea (both 8 percentage points more for publicly managed schools).

Teachers' perception of being valued by parents and guardians

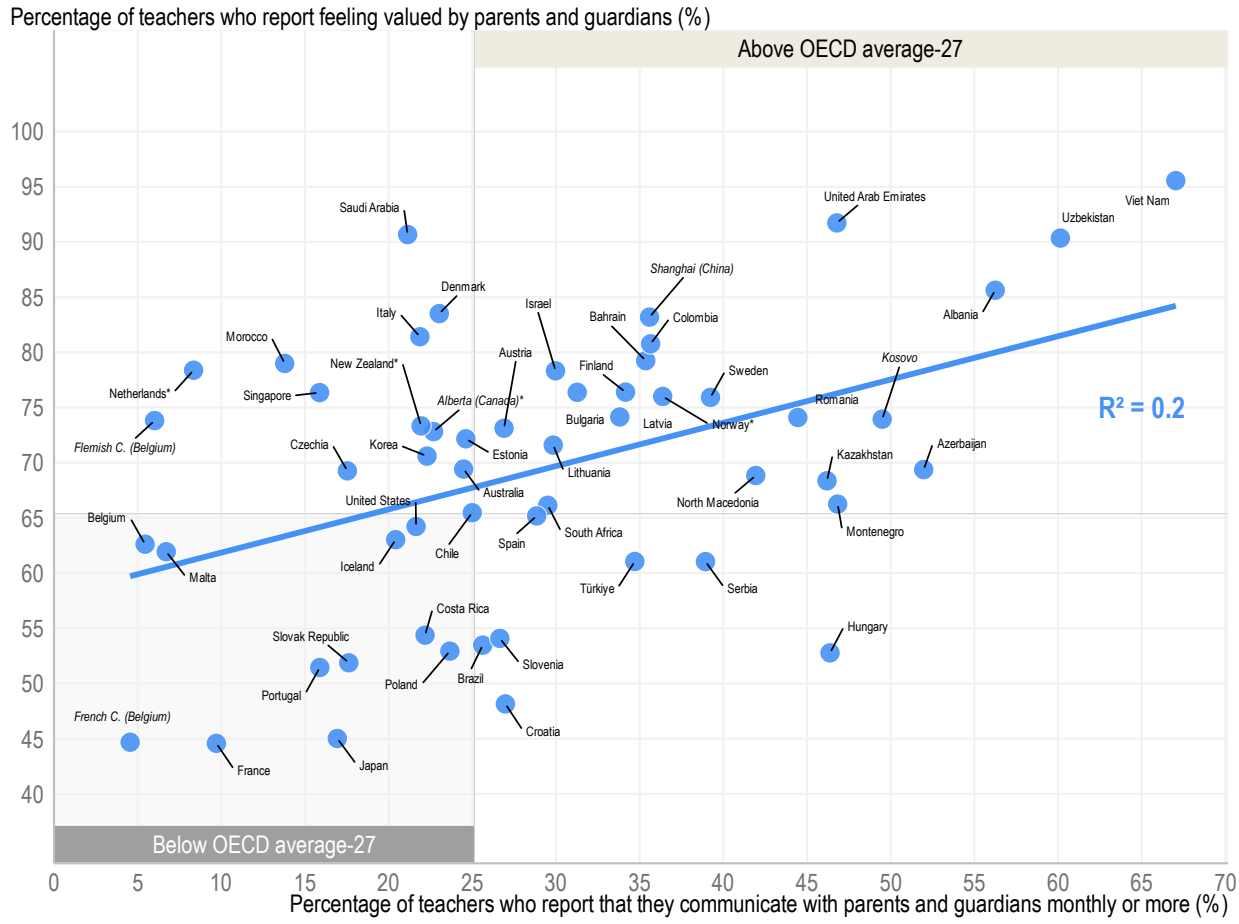
Perception of being valued by different stakeholders within the school community and the broader community can have an impact on teachers' commitment and success in the classroom (Price and Weatherby, 2017[36]). This can link to perceptions of job status and job satisfaction (see Chapter 7). TALIS asks teachers about whether they feel valued by parents and guardians in their schools.

Some 65% of teachers report that in their school, teachers are valued by parents and guardians, on average (Table 6.38). Over 90% of teachers report this in Saudi Arabia, the United Arab Emirates, Uzbekistan and Viet Nam. On the other end of the scale, less than 50% of teachers say they are valued by parents and guardians in the French Community of Belgium, Croatia, France and Japan.

System-level analysis shows a moderate correlation between the percentage of teachers who report collaborating with parents and guardians at least monthly and the share who feel valued by them (the linear correlation coefficient between these two variables is r=.45) (Figure 6.11). Yet, this association is less evident in some education systems. For instance, teachers in Hungary, Serbia and Türkiye are above average in reporting that they collaborate with parents and guardians at least monthly, and are below average in reporting that they feel valued. On the other hand, teachers in the Flemish Community of Belgium, Morocco the Netherlands*, Saudi Arabia and Singapore, among other education systems, are below average in reporting monthly collaboration with parents and guardians, but report feeling valued at above-average levels.

Figure 6.11. Relationship between collaborating monthly with parents and how valued teachers feel by parents

Percentages of lower secondary teachers who report collaborating with parents and guardians to enrich student learning at least monthly, and those who report that they feel valued by parents and guardians



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
The system-level linear correlation coefficient (r) between collaborating monthly with parents and how valued teachers feel by parents can be calculated by taking the square root of the R-Squared (R^2) highlighted on the figure.
Source: OECD, *TALIS 2024 Database*, Table 6.36 and 6.39.

School factors seem to have an effect on the perception of being valued by parents and guardians (Table 6.38):

- 76% of teachers at privately managed schools agree that parents and guardians value them compared to 63% of teachers at publicly managed schools. This difference exceeds 20 percentage points in Costa Rica, France, Japan, Malta, Portugal and the United States.
- A 9 percentage-point difference is observed between teachers teaching in socio-economically advantaged schools and those teaching over 30% of students from socio-economically disadvantaged schools (Figure 6.12).
- On average, 62% of teachers who teach at schools with over 10% of students who have difficulties understanding the language(s) of instruction report that they feel valued compared to 70% of teachers who teach at schools that have none of these students.

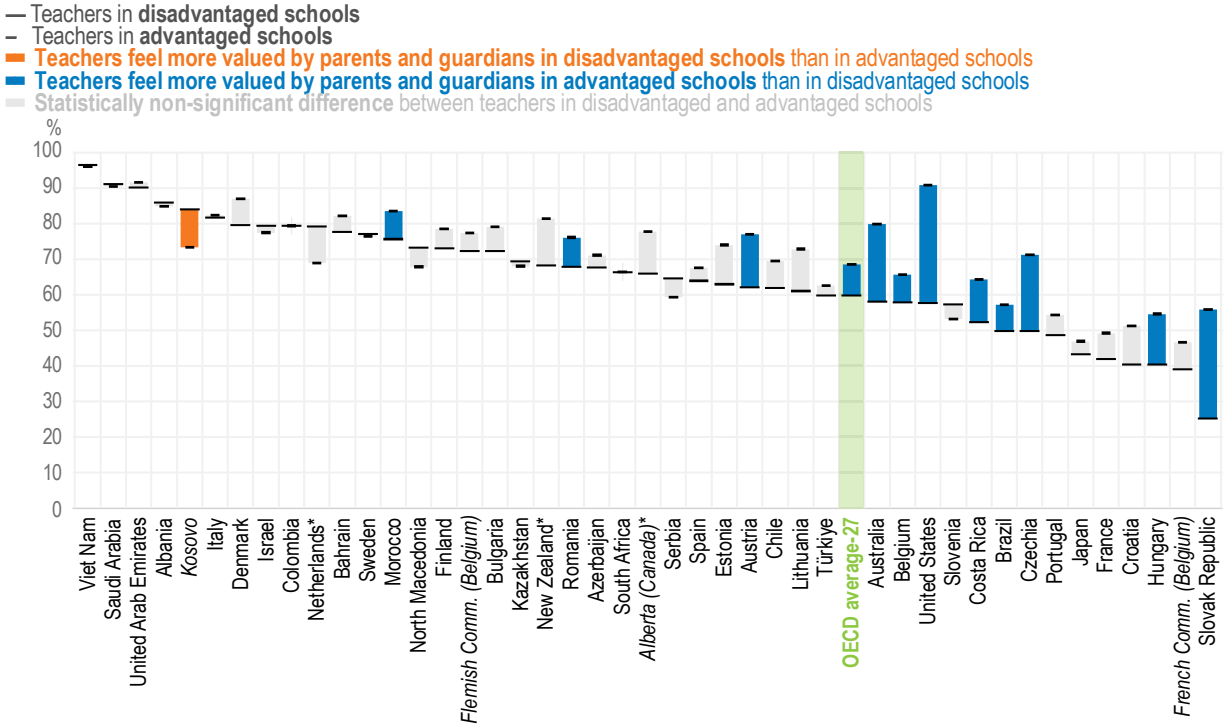
- On average, 62% of teachers at schools with over 30% of the student body with special education needs report that they feel valued by parents and guardians compared to 67% of teachers in schools with none of these students.

However, some education systems do not follow these general trends (Table 6.38):

- In Kosovo, 84% of teachers in more socio-economically disadvantaged schools report feeling valued by parents compared to 73% of teachers in more socio-economically advantaged schools (Figure 6.12).
- In Bahrain and North Macedonia, teachers who teach more students who have difficulties understanding the language are report more often that they feel valued by parents than those who teach none of those students.
- Finally, in Colombia, 92% of teachers who teach in schools with student intake of over 30% with special education needs report feeling valued by parents compared to 79% of teachers in schools with 10% or less of these students.

Figure 6.12. Teachers feeling valued by parents and guardians, by school intake of students from socio-economically disadvantaged homes

Percentage of lower secondary teachers who "agree" or "strongly agree" that teachers at their school feel valued by parents and guardians



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Advantaged schools refer to those with 10% or fewer students from socio-economically disadvantaged homes. Disadvantaged schools refer to those with more than 30% of students from socio-economically disadvantaged homes.
Source: OECD, *TALIS 2024 Database*, Table 6.38.

In 25 out of 54 education systems, teachers who report collaborating with parents and guardians at least monthly tend to be more likely to agree that they are valued by parents and guardians (Table 6.40). This relationship holds after controlling for teacher and school characteristics. In 47 out of 54 education systems, teachers who agree that parents and guardians have active opportunities to participate in school decisions also tend to report they are valued by parents and guardians, even after accounting for teacher and school characteristics (Table 6.42).

Around seven in ten teachers say they communicate with parents using digital resources and tools "quite a bit" or "a lot", on average (Table 6.43). This is 3 percentage points more common for female teachers and 5 percentage points more common for teachers under 30 years of age. Years of teaching experience has no significant association with teacher communication with parents on average.

Teachers' relations with parents and guardians and their professional outcomes

Teachers who collaborate with parents and guardians at least once a month tend to report higher levels of fulfilment of their lesson aims, even after accounting for teacher and school characteristics. This is the case in 51 out of 54 education systems (Table 6.44). Similarly, teachers who collaborate with parents on a monthly basis tend to report higher job satisfaction (Table 6.45). There is a less strong relationship between teachers who collaborate with parents and those who tend to report higher levels of well-being, with a relationship shown in 15 out of 54 education systems (Table 6.46).

In all education systems, teachers who report that they are valued by parents and guardians tend to report higher well-being (Table 6.15) and higher job satisfaction (Table 6.16). These relationships hold even after accounting for teacher and school characteristics as well as collegiality and relationship with the principal and students.

Box 6.5. Professional relationships for upper secondary teachers

Professional relationships with other teachers

Since 2018, upper secondary teachers in five out of the six education systems with available data have increased the number of hours they spend on teamwork and dialogue with colleagues (Table 6.2). The largest increase was observed in Slovenia, where teachers reported spending 2.5 hours on this task in 2018, compared to 4.0 hours in 2024. This was a similar amount of time to their lower secondary colleagues.

In terms of the number of hours communicating and co-operating with parents, Croatia, Slovenia and the United Arab Emirates have shown an increase since 2018 (Table 6.2). The Flemish Community of Belgium and Denmark spend less time communicating with parents than their lower secondary colleagues (Table 6.1).

Compared to 2018, a larger proportion of upper secondary teachers are interested in what students have to say and get along with their students (Table 6.28). The largest differences are found in Croatia (5 percentage points more in 2024 compared to 2018 of teachers agreeing that they are interested in what students have to say, and 4 percentage points more in 2024 compared to 2018 of teachers agreeing that students and teachers get on well with each other).

Regarding the school's collaborative culture, a larger proportion of female teachers engage in discussions about the learning development of specific students, with the largest difference found in Croatia (16 percentage points more for female teachers) (Table 6.3). More female teachers also exchange materials with colleagues; the largest difference is observed in Portugal (14 percentage

points more). In terms of working with teachers to ensure common standards for assessing student progress, the largest difference is again observed in Portugal (14 percentage points more for female teachers).

Professional relationships with principals

Teachers who report that the principal has good professional relationships with staff tend to have higher job satisfaction (Table 6.16). In a similar way, for six out of the seven upper secondary systems, teachers who report that they can rely on each other tend to have higher levels of job satisfaction and teachers who feel valued by parents and guardians in the school have higher job satisfaction.

In nearly half of education systems with available data for upper secondary education, teachers whose principals report instructional leadership qualities are more likely to agree that the principal ensures that teachers take responsibility for improving their teaching skills (Table 6.22). The largest difference is found in Slovenia, where this agreement is 16 percentage points higher among teachers with highly instructionally focused principals. The same pattern applies to views on whether the principal provides useful feedback to teachers and staff, with Slovenia again showing the largest difference (16 percentage points higher). Croatia is the only exception to this trend: there, teachers whose principals report lower instructional leadership qualities are more likely to believe the principal has good professional relationships with staff.

Table 6.1. Chapter 6 figures

Figure 6.1		Change in teachers' time spent on teamwork and dialogue with other teachers, from 2018 to 2024
Figure 6.1 (ISCED 1)	WEB	Change in teachers' time spent on teamwork and dialogue with other teachers, from 2018 to 2024
Figure 6.1 (ISCED 3)	WEB	Change in teachers' time spent on teamwork and dialogue with other teachers, from 2018 to 2024
Figure 6.2		Teachers' collaborative practices
Figure 6.2 (ISCED 1)	WEB	Teachers' collaborative practices
Figure 6.2 (ISCED 3)	WEB	Teachers' collaborative practices
Figure 6.3		Teachers' engagement in discussions about specific students' learning development, by self-efficacy
Figure 6.3 (ISCED 1)	WEB	Teachers' engagement in discussions about specific students' learning development, by self-efficacy
Figure 6.3 (ISCED 3)	WEB	Teachers' engagement in discussions about specific students' learning development, by self-efficacy
Figure 6.4		Change in team teaching, from 2018 to 2024
Figure 6.4 (ISCED 1)	WEB	Change in team teaching, from 2018 to 2024
Figure 6.4 (ISCED 3)	WEB	Change in team teaching, from 2018 to 2024
Figure 6.5		Relationship between teachers exchanging teaching materials with each other and collegiality
Figure 6.5 (ISCED 1)	WEB	Relationship between teachers exchanging teaching materials with each other and collegiality
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StatLink https://stat.link/2c3sbt

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7 Sustaining the teaching profession

This chapter examines teachers' career intentions and their relationship to professional outcomes – their well-being and job satisfaction. The analysis explores four key areas associated with teachers' intentions to stay in or leave the profession. First, it examines teachers' career intentions and the demands they face. Second, it investigates teachers' intrinsic motivations, including their sense of social utility and enjoyment of teaching, and how they vary across individuals and schools. Third, it analyses the status and attractiveness of the teaching profession from multiple perspectives – in the eyes of policymakers, in the media, and in society more broadly. Finally, it examines teachers' employment terms, including job stability, flexibility, and teachers' satisfaction with their working conditions, considering how both personal and contextual factors shape these experiences.

Highlights

- **The risk of teacher attrition is highest among those under age 30 and over 50.** In line with the general trend observed among younger employees, teachers (under age 30) are more likely to plan to leave teaching within five years than their colleagues aged 30 to 49. Moreover, among teachers who are not about to retire, the share of those at age 50 and above who plan to leave the profession within five years is higher compared to their peers under age 30 in almost one-third of education systems.
- **Teachers with low self-efficacy or intrinsic motivation are more likely to intend to leave the profession.** Teachers who are not about to retire, nonetheless, intend to leave the profession within five years, are overrepresented in the bottom quartile for self-efficacy, meeting lesson goals, social utility motivation and enjoyment of teaching.
- **Discipline and behaviour issues as sources of stress are important predictors of teachers' intention to leave teaching.** On average across OECD education systems, teachers who report being intimidated or verbally abused by students, or who find maintaining classroom discipline highly stressful, are twice as likely to want to leave teaching within five years.
- **Teachers' sense of value matters, and their social status can be improved.** Teachers who feel their profession is valued by society are more than 10% less likely to consider leaving teaching within five years, even after accounting for teachers' intrinsic motivations, contract modalities and satisfaction with employment terms, including salary. The share of teachers who think that teachers' views are valued by policymakers and in society has increased since 2018 by more than 10 percentage points in Bulgaria, Colombia, Denmark, Kazakhstan, Saudi Arabia and Shanghai (People's Republic of China, hereafter "China").
- **Younger and novice teachers face more job insecurity.** Teachers under 30 and those with five years of teaching experience or less are more likely than their older and more experienced colleagues to be employed on fixed-term or part-time contracts. However, the age- and experience-related gaps in fixed-term contracts have narrowed since 2018 in several education systems.
- **Salary is just one of many factors shaping teachers' decisions to leave the profession**. Intrinsic motivations – such as social utility of teaching and enjoyment of the work – as well as broader employment conditions, including material benefits, opportunities for career progression, and work schedules, are more consistent predictors of teachers' career intentions.
- **Satisfaction with employment terms (excluding salaries) is closely linked to teachers' likelihood of staying in the profession.** Notably, teachers who are satisfied with their employment terms (excluding salary) are almost 40% less likely to consider leaving the profession within the next five years, on average across OECD education systems. The share of teachers who are satisfied with employment terms (excluding salary) varies widely across education systems, ranging from over 80% in some to below 40% in others. Satisfaction is higher among teachers in rural and privately managed schools.
- **Satisfaction with the terms of employment (including salary) has increased in many education systems since 2018.** In Denmark, Iceland and Kazakhstan, the share of teachers being satisfied with their terms of employment (barring salaries) has increased by more than 20 percentage points. Salary satisfaction has risen by the same margin in Bulgaria, Colombia, Kazakhstan, Romania and Shanghai (China).

Introduction

Given the critical role of teaching, one of the most important responsibilities for education systems is to sustain an adequate supply of motivated and capable teachers. Many education systems are facing teacher shortages (see Chapter 1). They might struggle to attract sufficient numbers of new entrants to the profession, while simultaneously contending with high attrition rates in the context of an ageing workforce and a tight labour market (OECD, 2024[1]; 2024[2]). In contrast, some systems may face challenges related to teacher mobility. Where the teaching profession is relatively rigid, it can be difficult to renew the teacher workforce and ensure it remains aligned with evolving priorities (UNESCO, 2024[3]).

This chapter examines teachers' career intentions and analyses whether these intentions relate to certain types of schools, teachers and the demands teachers face. It then analyses teachers' intrinsic motivations to teach and their connection to career plans. The chapter also discusses the status of the teaching profession from multiple perspectives and how this connects with teachers' career intentions. Finally, it explores teachers' employment terms and satisfaction with these conditions, investigating how both employment arrangements and satisfaction levels vary based on personal and contextual factors.

Teachers' career intentions

The Teaching and Learning International Survey (TALIS) 2024 asks teachers how many years they intend to continue working as teachers. Analyses of these data pay greater attention to responses from younger teachers, as older teachers might retire soon.

In many fields, younger employees (under age 35) are more likely to look for another job than their older peers (Gallup, 2024[4]), driven by factors like changing societal norms, shifting career goals, and lack of support (OECD, 2025[5]). Similarly, teachers under age 30 are more likely to want to leave teaching in the next five years than their colleagues between the ages of 30 and 49 (Table 7.1).

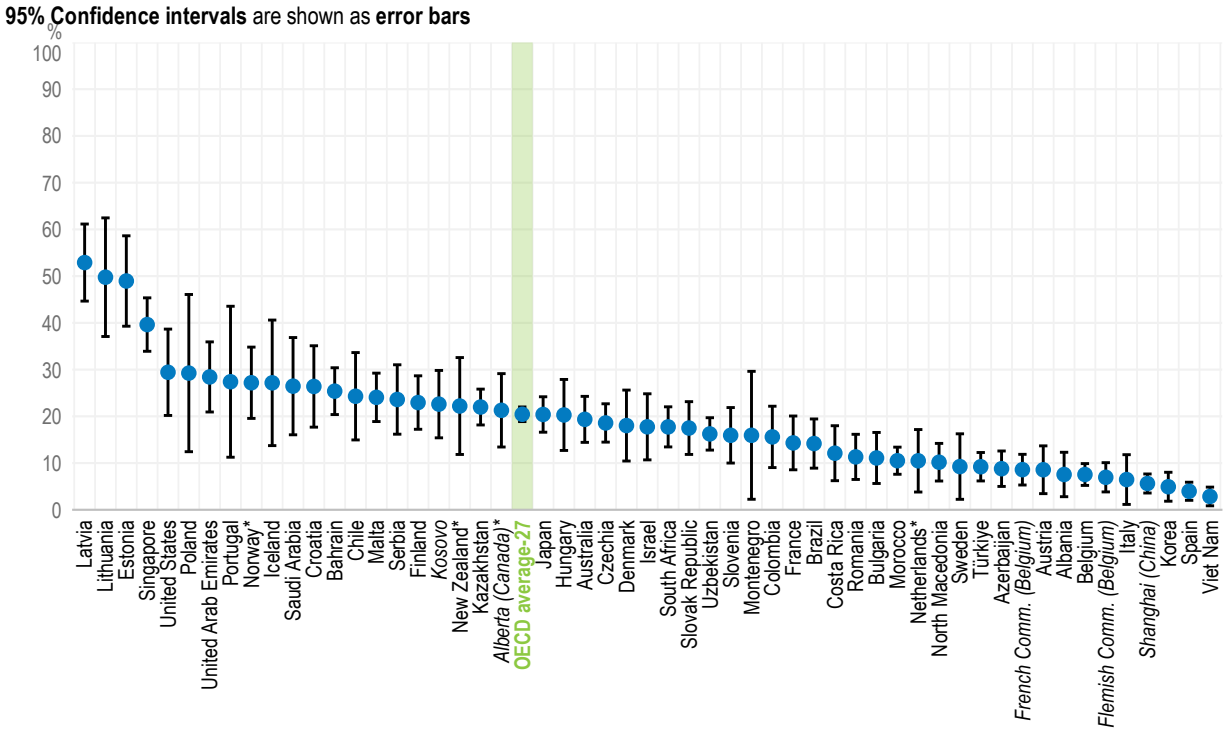
Two out of ten teachers under age 30 report intending to leave teaching within the next five years, on average across OECD countries and territories with available data (hereafter, "on average") (Figure 7.1). This is 5 percentage points higher compared to their peers between ages 30 and 49 (Table 7.1). While fewer than one in ten teachers under the age of 30 want to leave the profession within the next five years in 13 education systems participating in TALIS with available data (hereafter, "education systems"), this rises to more than four in ten teachers below the age of 30 who want to leave in Latvia (53%), Lithuania (50%) and Estonia (49%). The results of Estonia, Latvia and Lithuania, where the average age of teachers (ranging from 49 to 51) is among the highest across education systems, warrant particular attention (see Chapter 1 and Table 1.3).

The first years of a teaching career tend to be particularly challenging (Paniagua and Sánchez-Martí, 2018[6]). As highlighted in Chapter 3, teachers under 30 are most often found in diverse classrooms, exposing them to complex challenges early in their careers. Thus, a high share of younger teachers wanting to leave partly reflects early-career self-selection, but it may also signal poor working conditions and inadequate practical preparation that only become apparent after entering the profession.

It is important to note that substitute, emergency or occasional teachers filling in on a temporary basis (i.e. for no longer than six consecutive weeks) are not sampled in TALIS 2024. Early career teachers, who are often overrepresented in this group, tend to face higher risk of attrition (Paniagua and Sánchez-Martí, 2018[6]). As a result, TALIS 2024 may underestimate the risk of teacher attrition among younger teachers.

Figure 7.1. Career intentions among teachers under age 30

Percentage of lower secondary teachers under age 30 who express the intention to leave teaching within the next five years



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2024 Database*, Table 7.1.

On average, the share of teachers below 30 who intend to leave teaching within the next five years has increased by 3 percentage points since 2018 (Table 7.2). While this share has decreased in three education systems (Singapore, South Africa and Sweden) since 2018, it has increased in seven education systems (Alberta [Canada]*, Australia, Croatia, Finland, France, Japan and Norway*) during the same period. The share of teachers between the ages of 30 and 49 who intend to leave teaching within the next five years has decreased by 5 percentage points or more since 2018 in Bulgaria, Saudi Arabia, South Africa, Sweden and the United Arab Emirates (Table 7.3). Conversely, this share has increased by more than 5 percentage points in Australia, Colombia, Croatia, Estonia, Finland, Latvia, and Norway*.

TALIS 2024 asks teachers how likely they are to leave teaching within five years due to taking up a non-teaching position within education, taking a job outside of education, pursuing further education or training, for personal or family reasons, or retirement. On average, the most common reasons reported by teachers under 30 to plan to leave teaching within the next five years are personal or family reasons (46%), a job outside of education (46%), and further education or training (42%) (Table 7.5). For teachers between the ages of 30 and 49, the most common reasons are personal or family reasons (44%), a job outside of education (39%), and a non-teaching position within education (36%), on average. Teachers at age 50

* For countries highlighted with an asterisk (*), estimates should be interpreted with caution due to higher risk of non-response bias. See the Reader's Guide and Annex A for more detail.

and above report retirement (55%), personal and family reasons (43%), and a job outside of education (26%) as the most common reasons for planning to leave the profession within five years.

The remainder of this chapter, which explores what characteristics might be related to teachers' career intentions, focuses on teachers who report that retirement from the work sector is "not at all likely" or "not very likely" to lead them to leave teaching within the next five years. The share of teachers who are not about to retire, nonetheless, intend to leave the profession within five years is 17%, on average, ranging from less than 6% in Korea, Portugal and Viet Nam to over 30% in Estonia, Latvia and Lithuania (Table 7.6).

In most education systems, teachers' intentions to leave teaching within the next five years do not vary by gender (Table 7.6). Yet, there are exceptions to this general pattern. In Albania, Malta, Morocco, North Macedonia, Romania and Uzbekistan, the share of male teachers who are not about to retire, but plan to leave teaching within the next five years, is over 5 percentage points higher than among female teachers. The reverse pattern is observed in Lithuania, the Netherlands* and the United States.

Among teachers who are "not at all likely" or "not very likely" to retire within the next five years, the share of those aged 50 and above who nonetheless plan to leave the profession within that period is higher than that of their peers under age 30 in nearly one-third of education systems (Table 7.6). In contrast, in Bahrain, Estonia, Latvia, Portugal and Singapore, younger teachers are more likely to intend to leave teaching. Together with the findings on differences in career intentions between teachers under age 30 and those aged 30 to 49, these results suggest that the risk of teacher attrition is highest among those under age 30 and over 50.

Box 7.1. Teachers' career intentions in primary and upper secondary education

In Japan, Saudi Arabia and the United Arab Emirates, the share of teachers under age 30 in primary education who wish to leave teaching within five years is more than 5 percentage points higher than among teachers between the ages of 30 and 49 (Table 7.1). Conversely, similar to lower secondary education, in Morocco, teachers under age 30 in primary education tend to be less likely to want to leave teaching in the next five years than their colleagues between ages 30 and 49.

Since 2018, the share of teachers below 30 who intend to leave teaching within the next five years has increased by more than 5 percentage points in Australia[a] (8 percentage points) and Japan (14 percentage points) in primary education, while it has decreased in the United Arab Emirates by 15 percentage points in upper secondary education (Table 7.2).

The share of primary teachers between the ages of 30 and 49 who plan to leave teaching within the next five years has increased by 7 percentage points since 2018 in Australia[a], France and Japan (Table 7.3). In the United Arab Emirates, the share of teachers between the ages of 30 and 49 who intend to leave teaching within the next five years has decreased by 10 percentage points since 2018 in both primary and upper secondary education.

Except for Japan, Türkiye and the United Arab Emirates, primary teachers who are not about to retire and report high self-efficacy are equally likely to report their intention to leave the profession within five years as their colleagues with low self-efficacy (Table 7.10).

Note: [a] Estimates for TALIS 2018 and the change between TALIS 2018 and TALIS 2024 should be interpreted with caution due to higher risk of non-response bias.

Teachers in certain school contexts may face greater challenges, such as limited resources or high workloads. Understanding how these contexts might relate to teachers' career intentions can support targeted efforts to provide resources and sustain the profession.

Teachers' career intentions do not tend to vary by school context. Yet, the share of teachers who are not about to retire but intend to leave teaching within five years is higher in urban schools than in rural schools in ten education systems, and on average (Table 7.7). In Austria, Azerbaijan, Iceland, Kosovo, North Macedonia, Poland, South Africa, Spain and Türkiye, this difference is over 5 percentage points.

Research suggests that teachers who are satisfied with their jobs tend to stay in the profession (Canrinus et al., 2011[7]; Carver-Thomas and Darling-Hammond, 2017[8]; Ingersoll, 2001[9]; Whipp and Geronime, 2015[10]). Regression analyses using TALIS 2024 data show that teachers who, all in all, are satisfied with their jobs are five times less likely to want to leave teaching within the next five years than their colleagues who are not satisfied with their jobs, on average, while accounting for teacher characteristics (e.g. teachers' gender, age and teaching experience [hereafter "teacher characteristics"]) and school characteristics (e.g. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs [hereafter "school characteristics"]) (Table 7.8). These findings hold even after accounting for teacher well-being (Table 7.9).

TALIS 2024 data also show that, on average, teachers who are not about to retire but intend to leave the profession within five years are overrepresented in the bottom quartile for self-efficacy and meeting lesson goals compared to those in the top quartile (Tables 7.10 and 7.11).

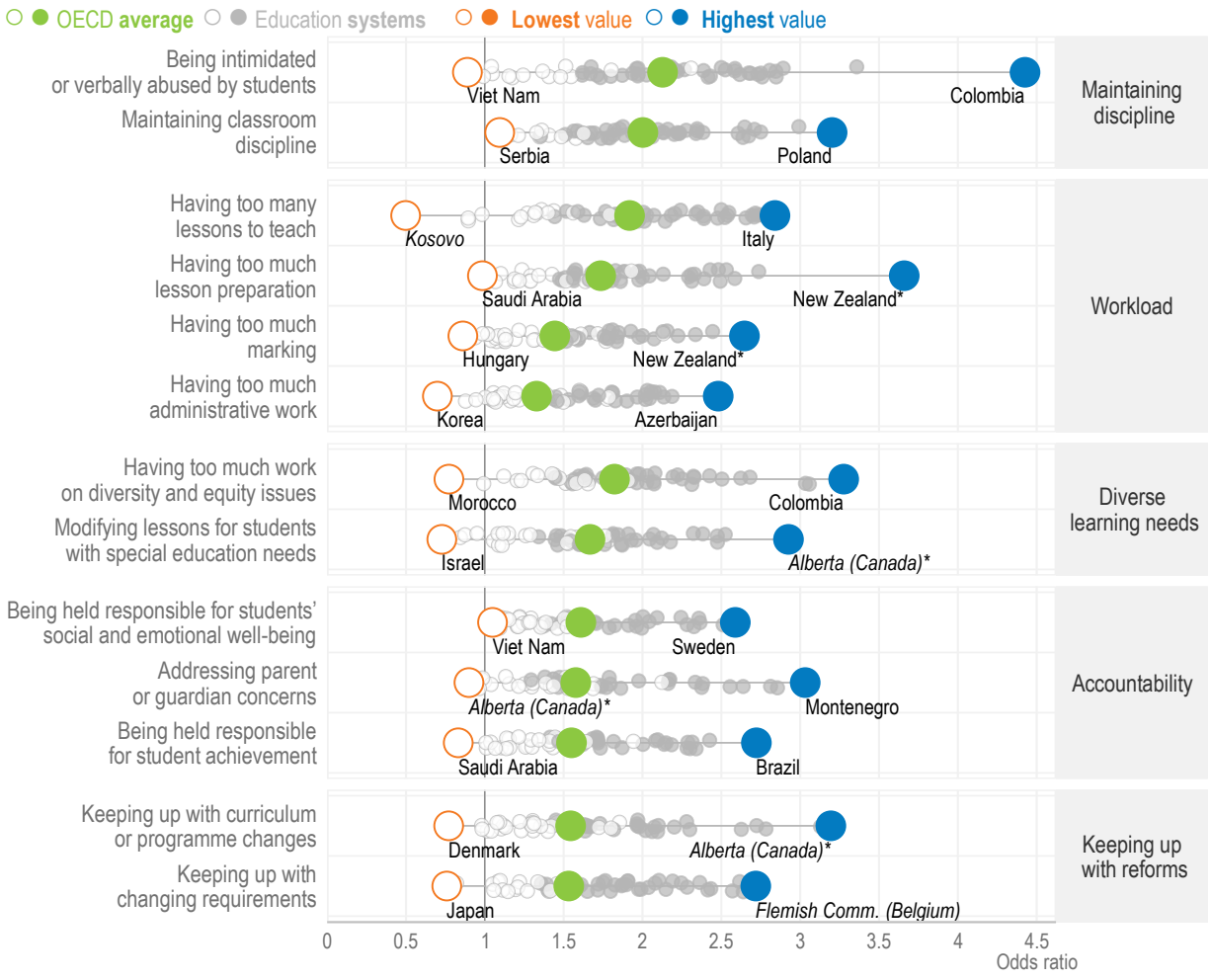
Demands on teachers and career intentions

Job demands include all physical, social, or organisational aspects of a job that require sustained effort and are linked to physiological and psychological costs (Demerouti et al., 2001[11]). Among others, TALIS identifies the following as demands that teachers face: 1) workload; 2) adapting teaching to diverse learning needs; 3) maintaining discipline; 4) accountability; and 5) keeping up with reforms. Chapter 2 examined the extent to which demands on teachers are related to their self-reported ability to fulfil lesson aims, as well as their well-being and job satisfaction. Chapter 3 explored how teachers experienced demands across and within education systems. This section explores how much they relate to teachers' career intentions.

Regression analyses indicate that discipline and behaviour issues might be more closely associated with teachers' intention to leave teaching than many other demands, such as workload, adapting teaching to diverse learning needs, accountability and keeping up with reforms (Figure 7.2). On average, teachers who report being intimidated or verbally abused by students, or who consider maintaining classroom discipline as sources of stress "quite a bit" or "a lot" are twice as likely to wish to leave teaching within five years. These relationships hold after accounting for teacher and school characteristics.

Figure 7.2. Relationship between the demands on teachers and their career intentions

Change in the likelihood of lower secondary teachers reporting that they intend to leave the profession within the next five years[1] associated with encountering the following as sources of stress "quite a bit" or "a lot" at work[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 1 indicate a positive association between teachers' intention to leave the profession and sources of stress, while those below 1 reflect a negative relationship.
The analysis is restricted to teachers who report that retirement from work sector is "not at all likely" or "not very likely" to lead them to leave teaching within the next five years.
1. Binary variable: the reference category refers to teachers reporting that they want to continue working as a teacher for more than five years.
2. Binary variables: the reference category refers to "not at all" and "to some extent".
3. Results based on 13 separate binary logistic regressions. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below 1 denotes a negative association; an odds ratio above 1 indicates a positive association; and an odds ratio of 1 means that there is no association. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language[s] of instruction, and school intake of students with special education needs).
Source: OECD, *TALIS 2024 Database*, Table 7.12.

Teachers' intrinsic motivations

Intrinsic motivation refers to the drive to engage in an activity because it is inherently interesting or enjoyable, rather than for some separable outcome like a reward or external pressure. Intrinsic motivation can be considered a personal resource that can reduce the impact of job demands, boost engagement, and support positive professional outcomes. Understanding teachers' motivations to teach can help inform policies on attracting, recruiting and retaining teachers (OECD, 2025[12]).

TALIS 2024 categorises intrinsic motivation into feelings of social utility and enjoyment of teaching. The survey measures feelings of social utility by asking how important the following factors are: "Teaching allows me to influence the next generation"; "Teaching allows me to work against social disadvantage"; and "Teaching makes a worthwhile social contribution". The survey measures enjoyment of teaching by asking how much teachers agree that: they like the subject they teach; they often feel happy while they teach; and the interesting challenges of teaching give them satisfaction.

This section examines the extent to which teachers' intrinsic motivations vary according to teacher and school characteristics. Additionally, it investigates the links between teachers' intrinsic motivations and their intention to continue teaching.

Social utility

Over 60% of teachers report that influencing the next generation and making worthwhile social contribution are factors of "high importance" to them as teachers, on average (Figure 7.3). While in Bahrain, Brazil, Israel and the United Arab Emirates, over four out of five teachers rate influencing the next generation as highly important, in Bulgaria, Finland, the French Community of Belgium, Italy, Japan, the Netherlands* and Norway*, less than half of the teachers report the same (Table 7.13).

The share of female teachers reporting social utility as a highly important factor to teach tends to be higher compared to male teachers (Table 7.13). Yet, in Japan and Shanghai (China), male teachers are more likely to report that influencing the next generation is of high importance.

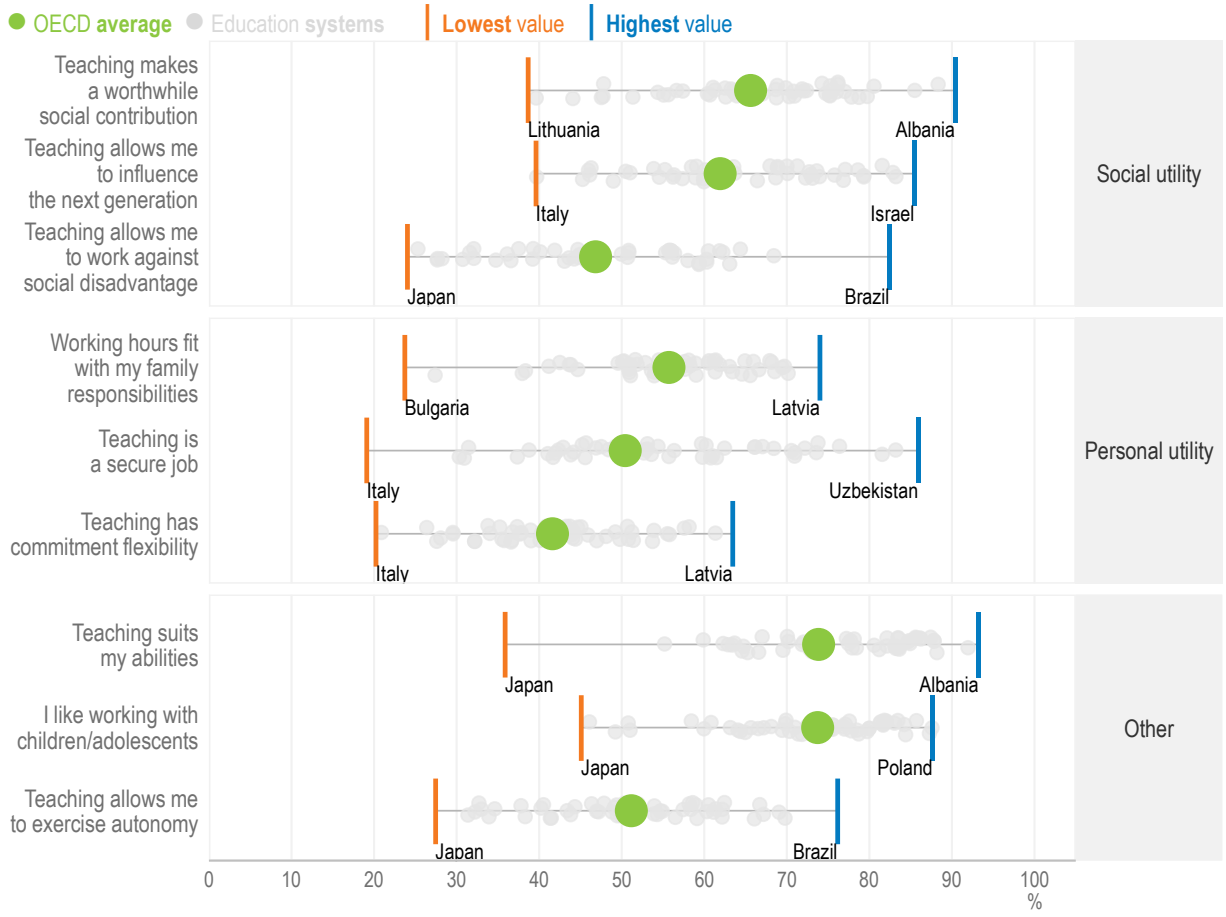
Influencing the next generation is more often mentioned as a highly important factor to teach by teachers under age 30 compared to their colleagues aged 50 and above in over one-fourth of education systems, and on average (Table 7.14). In contrast, in Albania, Bahrain, Kazakhstan, Shanghai (China) and the United States, older teachers are more likely to report that influencing the next generation is highly important.

The share of teachers who report that working against social disadvantage is of "high importance" to them is 6 percentage points higher among those teachers who work in disadvantaged schools, on average (Table 7.16). In Australia and the United States, this difference is around 20 percentage points. This suggests that teachers who value working against social disadvantage may actively seek positions in disadvantaged schools, reflecting a strong sense of purpose. Alternatively, teaching in such environments may heighten awareness of inequality, strengthening teachers' commitment to addressing it. The only exception to the general pattern is Costa Rica, where teachers in advantaged schools are more likely to rate working against social disadvantage as highly important.

Social utility motivation to teach is negatively associated with the intention to leave the teaching profession within the next five years in most education systems, after accounting for teacher and school characteristics (Table 7.17). After accounting for enjoyment of teaching, another intrinsic motivator, the relationship between social utility motivation and career intentions remains significant in less than half of education systems.

Figure 7.3. Motivations to teach

Percentage of lower secondary teachers who report that the following factors are of "high importance" to them as a teacher



Source: OECD, *TALIS 2024 Database*, Table 7.13.

TALIS 2024 data also show that teachers who are in the top quartile for social utility motivation and are not about to retire are less likely to plan to leave the profession within five years (Table 7.19). On average, among teachers not approaching retirement, the share planning to leave teaching within five years is 8 percentage points lower among those in the top quartile of social utility motivation compared to those in the bottom quartile.

Enjoyment of teaching

Almost all teachers in all education systems report teaching with enthusiasm in general, feeling happy while teaching and liking the subject(s) they teach (Table 7.20). In addition, 90% of teachers "agree" or "strongly agree" with the statement that the interesting challenges of teaching give them satisfaction, on average (Table 7.20). However, only around 75% of teachers report this in France, Morocco and Türkiye.

Compared to their colleagues under age 30, teachers at age 50 and above are more likely to report that the interesting challenges of teaching give them satisfaction (Table 7.21). Older teachers may find greater satisfaction in teaching challenges due to accumulated experience and confidence in handling complex

situations. Older teachers who are still in the profession might also be a self-selecting population; those who do not enjoy teaching may have left already.

In almost all education systems, the joy of teaching is negatively associated with the intention to leave the teaching profession within the next five years, after accounting for teacher and school characteristics, social utility motivations, contract modalities and satisfaction with the terms of employment (including salaries) (Table 7.22). On average, the share of teachers (among those who are not about to retire) who intend to leave teaching in the next five years is 18 percentage points lower in the upper quartile of teaching enjoyment compared to the bottom quartile (Table 7.23).

Status of the teaching profession

High-performing education systems often have many teachers who feel valued, and there is a positive link between the profession's societal prestige and student achievement (Dolton et al., 2018[13]; Schleicher, 2018[14]). Higher social status of the teaching profession can help attract high-calibre candidates to the profession and retain experienced teachers, serving as a key extrinsic motivator. Han (2018[15]) finds that a 1% rise in teachers who feel teaching is valued is associated with a 1% increase in the odds that students aspire to become teachers.

In light of the coronavirus (COVID-19) pandemic, greater public appreciation for teachers, and shifts in teaching practices, teachers may now feel more valued. However, long-term effects on the profession's perceived value remain unclear, making it important for TALIS 2024 to monitor these trends across countries (OECD, 2025[12]).

International performance benchmarks, such as the Programme for International Student Assessment (PISA), can also shape public perceptions of the teaching profession. Strong results may enhance teachers' sense of societal appreciation, while poor outcomes can shift blame onto teachers (Spruyt et al., 2021[16]).

In the eyes of policymakers

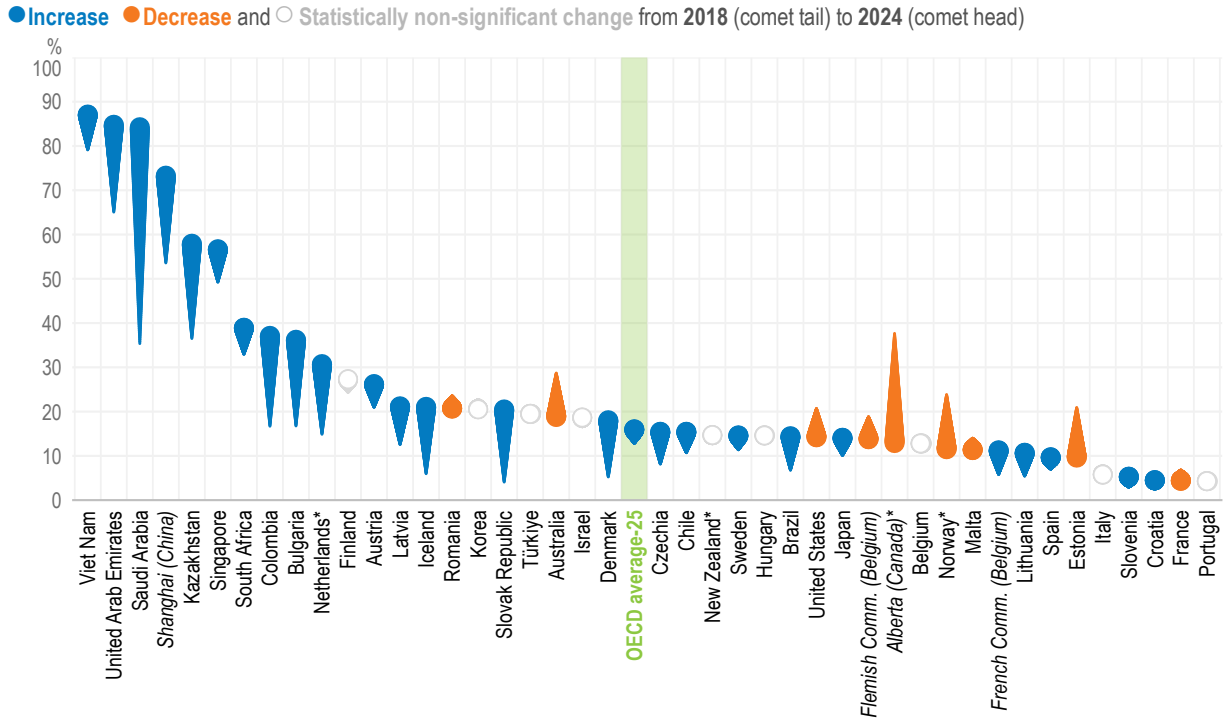
The share of teachers who "agree" or "strongly agree" that teachers' views are valued by policymakers in their country/region, ranges from over eight in ten in Saudi Arabia, the United Arab Emirates, Uzbekistan and Viet Nam, to less than one in ten in Croatia, Estonia, France, Italy, Portugal, Slovenia and Spain (Table 7.24).

Teachers' perceptions of the value policymakers place on the profession are closely related to their satisfaction with salaries. On average, teachers who are satisfied with their salaries tend to be over three times more likely to report that teachers' views are valued by policymakers (Table 7.25). This holds after accounting for teacher and school characteristics, contract modalities and satisfaction with the terms of employment (barring salaries).

The share of teachers who think that policymakers value their views has increased since 2018 in around half of education systems (Figure 7.4). While this increase has been over 10 percentage points in ten education systems (Bulgaria, Colombia, Denmark, Iceland, Kazakhstan, the Netherlands*, Saudi Arabia, Shanghai [China], the Slovak Republic and the United Arab Emirates), three education systems (Alberta [Canada]*, Estonia and Norway*) show a decrease of similar magnitude since 2018.

Figure 7.4. Change in teachers' perceptions of the value policymakers place on the profession, from 2018 to 2024

Percentage of lower secondary teachers who “agree” or “strongly agree” that teachers’ views are valued by policymakers



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 7.26.

Teachers who agree that teachers' views are valued by policymakers are around 35% less likely to want to leave teaching within the next five years, on average, after controlling for teacher and school characteristics (Table 7.27). After accounting for teachers’ intrinsic motivations, contract modalities and satisfaction with the terms of employment (including salaries), the relationship remains significant in only eight education systems (Table 7.27).

In the media

Media coverage plays a key role in shaping public attitudes toward teaching and teachers (Alhamdan et al., 2014[17]; Arnold and Rahimi, 2024[18]). Positive portrayals of teachers can boost the profession's prestige and respect, while negative coverage can undermine it. Evidence leans towards the somewhat negative portrayal of teachers by the media (Oxley and Kim, 2023[19]; Shine, 2020[20]).

While over eight in ten teachers “agree” or “strongly agree” that teachers are valued in the media in their country/region in Saudi Arabia, the United Arab Emirates, Uzbekistan and Viet Nam, less than one in ten teachers report the same in the French Community of Belgium, Croatia, France, Japan and Poland (Table 7.24).

The share of teachers reporting that teachers are valued in the media has increased since 2018 in over half of education systems (Table 7.26). In Bulgaria and Saudi Arabia, the increase has been over

20 percentage points. Conversely, since 2018, the share of teachers who feel valued in the media has declined in seven education systems, notably by 23 percentage points in Alberta (Canada)* and 14 percentage points in the United States.

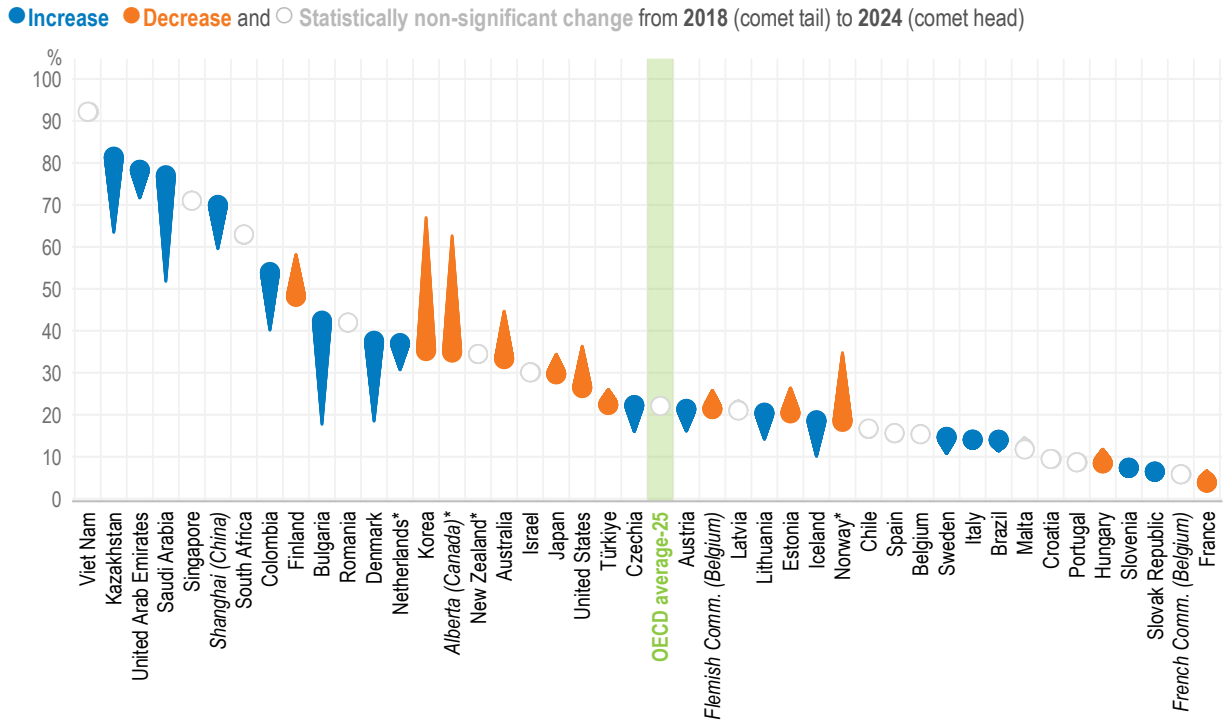
By boosting the profession's prestige, positive media coverage of teachers can play a role in addressing teacher retention. Teachers who report that teachers are valued in the media are 25% less likely to want to leave teaching within the next five years, on average, after accounting for teacher and school characteristics (Table 7.28). However, this relationship is no longer statistically significant on average once teachers' intrinsic motivations, contract modalities and satisfaction with terms of employment (including the salary) are controlled for.

In society

Teachers' views on the profession's societal value closely align with how they perceive media representation and policymakers' regard for their opinions. While over eight in ten teachers "agree" or "strongly agree" that teachers are valued in society, in Kazakhstan, Uzbekistan and Viet Nam, less than one in ten teachers report the same in the French Community of Belgium, Croatia, France, Hungary, Portugal, the Slovak Republic and Slovenia (Table 7.24).

Figure 7.5. Change in teachers' perceptions of the value of the teaching profession by society, from 2018 to 2024

Percentage of lower secondary teachers who "agree" or "strongly agree" that the teaching profession is valued by society



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018 and TALIS 2024 Databases*, Table 7.29.

In around one-third of education systems, the share of teachers who think the teaching profession is valued in society has increased since 2018 (Figure 7.5). This increase is over 10 percentage points in Bulgaria, Colombia, Denmark, Kazakhstan, Saudi Arabia and Shanghai (China). In contrast, the share of teachers who report that the teaching profession is valued in society has decreased by more than 10 percentage points since 2018 in Alberta (Canada)*, Australia, Finland, Korea and Norway*.

Teachers feeling valued in society matters not only for attracting high-calibre candidates to the profession, but also for retaining teachers. Teachers who agree that their profession is valued in society are more than 10% less likely to want to leave teaching within the next five years, on average, after controlling for teacher and school characteristics, teachers' intrinsic motivation, contract modalities and satisfaction with the terms of employment (including salary) (Table 7.30). These results indicate that elevating the status of teaching can help in sustaining the profession.

Attractiveness of the profession

TALIS considers choosing to teach as a first career choice as a signal of how attractive the profession is.[1] Over six in ten novice teachers (with up to five years of teaching experience) report that teaching was their first choice as a career, on average (Table 7.31). While more than nine in ten novice teachers report teaching as their first career choice in Saudi Arabia, Shanghai (China) and Viet Nam, fewer than 50% of teachers do so in Bulgaria, Czechia, Estonia, Italy, Latvia, Lithuania, the Slovak Republic and Spain.

Box 7.2. Status of the teaching profession in primary and upper secondary education

Teachers' perception about their social status do not tend to vary between primary and lower secondary education. However, in Korea, the share of teachers who "agree" or "strongly agree" that teachers are valued in society is 16 percentage points higher in lower secondary education than in primary education (Table 7.24). In contrast, in the Netherlands*, the share of teachers who believe teachers are valued by society is 8 percentage points higher in primary education than in lower secondary education.

The share of teachers in primary education who think the teaching profession is valued in society has increased since 2018 in the Netherlands* and the United Arab Emirates, while it has decreased in Australia[a], the Flemish Community of Belgium*, Japan and Korea (Table 7.29).

The share of teachers who "agree" or "strongly agree" that teachers are valued in society tends to be higher in upper secondary education than in lower secondary education (Table 7.24). This difference is particularly pronounced in Denmark (20 percentage points).

Since 2018, the share of teachers in upper secondary education who believe the profession is valued by society has risen by 8 percentage points in the United Arab Emirates and 19 percentage points in Denmark (Table 7.29).

On average, novice teachers are more likely to report that teaching was their first choice as a career in primary education than in lower secondary education. In Australia, the Flemish Community of Belgium*, Korea, Slovenia, Spain and the United Arab Emirates, the share of novice teachers who report teaching as their first career choice is over 5 percentage points higher in primary education than in lower secondary education (Table 7.31).

Since 2018, the share of novice teachers in primary education who report that teaching was their first career choice has increased in Korea and the United Arab Emirates, while it has decreased in the Flemish Community of Belgium* (Table 7.32).

In Croatia, Denmark, the Flemish Community of Belgium and Slovenia, the share of novice teachers who report teaching as their first career choice is over 10 percentage points higher in lower secondary

education than in upper secondary education (Table 7.31). These results may reflect the larger proportion of vocational teachers in upper secondary education, who often teach alongside careers in their own fields.

In the United Arab Emirates, the share of novice teachers in upper secondary education who report that teaching was their first career choice has increased by 11 percentage points since 2018 (Table 7.32).

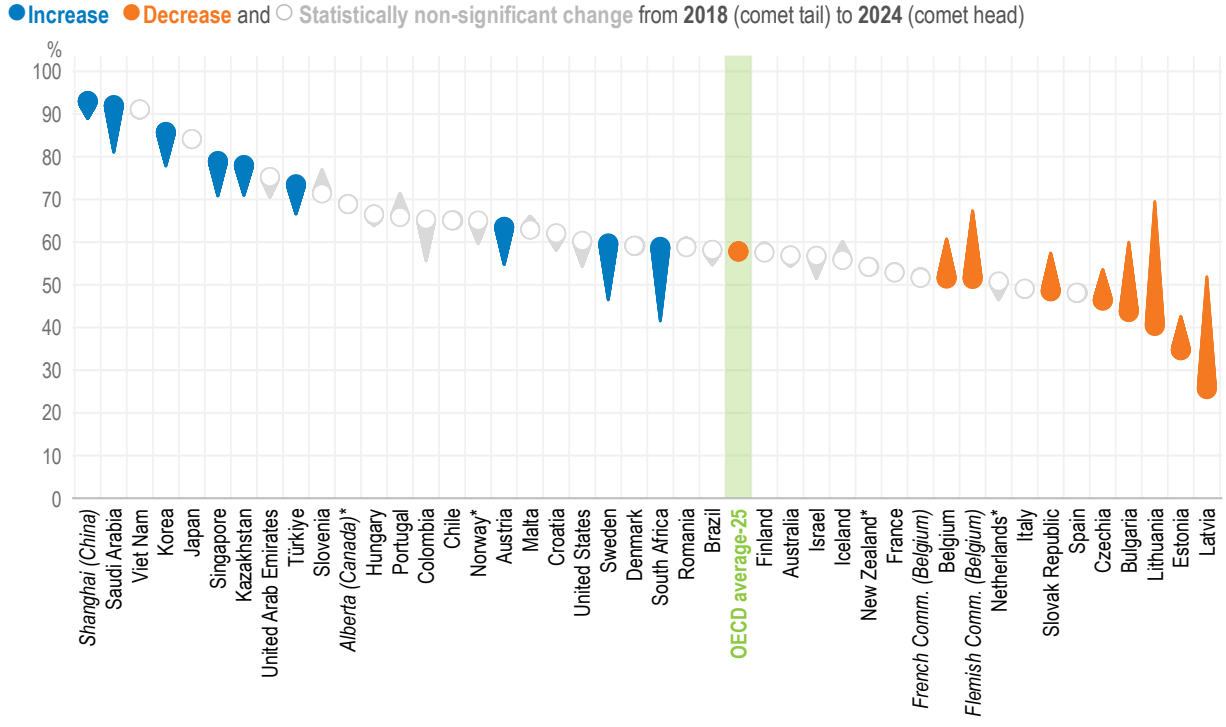
Note: [a] Estimates for TALIS 2018 and the change between TALIS 2018 and TALIS 2024 should be interpreted with caution due to higher risk of non-response bias.

Novice teachers whose first career choice was teaching are less likely to intend to leave the profession. On average, novice teachers for whom teaching was a first career choice are 40% less likely to plan to leave the profession within five years (Table 7.34). These results hold after controlling for teacher and school characteristics, teachers' intrinsic motivation, contract modalities and satisfaction with the terms of employment (including salary).

The share of novice teachers who report that teaching was their first choice as a career has increased in nine education systems since 2018 (Figure 7.6). The increase was more than 10 percentage points in Saudi Arabia, South Africa and Sweden. In South Africa, students pursuing teaching degrees in priority areas are offered full-cost bursaries.[2] Yet, in seven education systems, the reverse pattern is observed. Notably, in Latvia and Lithuania, the share of novice teachers who report that teaching was their first career choice has decreased by 26 and 29 percentage points, respectively.

Figure 7.6. Change in teaching as a first career choice among novice teachers, from 2018 to 2024

Percentage of novice lower secondary teachers who report that teaching was their first career choice



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 7.32.

Examining the variation in the share of first-career teachers across age cohorts can also shed light on the evolution of the profession's attractiveness. In Estonia, Latvia and Lithuania, the share of teachers at the age of 50 and above who report that teaching was their first career choice is more than 20 percentage points higher than among teachers under the age of 30 (Table 7.33). These systems face an ageing teacher population, a high risk of attrition among teachers under 30 and decreasing attractiveness of the profession. While competitive salaries help attract prospective teachers, education systems are also investing in broader strategies to elevate the profession's status and appeal (Box 7.3).

Box 7.3. Beyond pay: National strategies to enhance the appeal of teaching

Estonia

Estonia promotes the teaching profession through both innovative recruitment and public recognition. The *Noored Kooli* (Youth to School) programme, which has been in place since 2006, attracts top university graduates to teach for two years while receiving leadership and pedagogical training. Popular and competitive, the programme fosters future education leaders both inside and outside schools. The annual Teacher of the Year Gala also boosts the profession's public visibility and prestige.

French Community of Belgium

The "Teaching, More than a Profession" campaign aims to deconstruct preconceived ideas about teaching and highlight the positive impact that teachers have on the lives of their students. It presents teaching as an enriching profession, carrying a deep meaning and offering many opportunities for personal and professional development.

Flemish Community of Belgium

The "Teaching Is Giving Everything" campaign facilitates information and shares stories that aim to elevate and enhance the status of the teaching profession. The campaign highlights the many benefits of teaching, including the satisfaction in witnessing students' growth and achievements, as well as attractive employment conditions, such as competitive salaries, Internet allowances, vacation periods, and, if permanently employed, job security and government pensions.

Source: OECD (2024[1]), *Education Policy Outlook 2024: Reshaping Teaching into a Thriving Profession from ABCs to AI*, https://doi.org/10.1787/dd5140e4-en; UNESCO (2024[3]), *Global Report on Teachers: Addressing Teacher Shortages and Transforming the Profession*, https://unesdoc.unesco.org/ark:/48223/pf0000388832.

Teachers' terms of employment

Good working conditions are positively associated with health, well-being, skills development and productivity (Cazes, Hijzen and Saint-Martin, 2015[21]; Eurofound and International Labour Organization, 2019[22]). Employment terms, such as remuneration and contractual arrangements, are part of a broad set of work-related characteristics that determine the quality of a job. Favourable employment terms can serve as an extrinsic motivator, enhancing professional outcomes by mitigating the negative effects of job demands and increasing employee engagement.

This section examines teachers' employment terms, their satisfaction with these terms and the extent to which these terms have evolved in recent years. It also explores the associations between teachers' employment terms and their career intentions. In addition, this section investigates the extent to which teachers' satisfaction with their employment terms vary by personal and contextual factors.

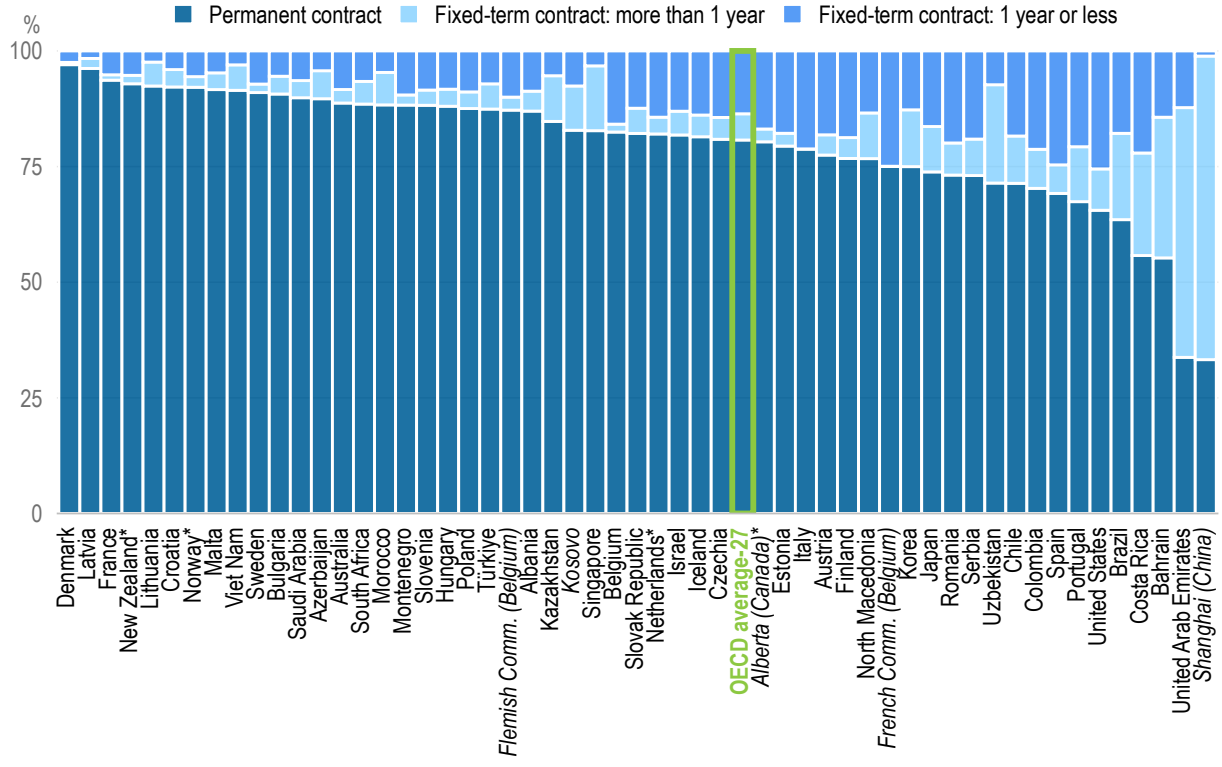
Stability

Like most employees, the majority of teachers want job security. An important component of teachers' job security is their contract modality. Permanent contracts are not limited in duration, whereas fixed-term contracts have a specified duration. Fixed-term employment involves some degree of insecurity and unpredictability, which may cause strain and prevent some employees from functioning optimally in their work environment (de Cuyper, de Witte and Van Emmerik, 2011[23]). On the other hand, fixed-term contracts make it easier for schools and education authorities to respond to changes in their organisational and teaching needs (Bertoni et al., 2018[24]; Bruns, Filmer and Patrinos, 2011[25]).

TALIS 2024 measures job stability by asking teachers whether they hold permanent or fixed-term contracts. To determine the importance of job stability for teachers, the survey asks how important "teaching is a secure job" is to them. Four out of five teachers have a permanent contract, on average (Figure 7.7). The share of teachers with a permanent contract is, however, below three out of five in Shanghai (China) (33%), the United Arab Emirates (34%), Bahrain (55%) and Costa Rica (56%).

Figure 7.7. Teacher employment on permanent and fixed-term contracts

Percentage of lower secondary teachers



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Permanent employment refers to an ongoing contract with no fixed endpoint before the age of retirement.
Source: OECD, *TALIS 2024 Database*, Table 7.35.

In most education systems, fixed-term contracts with a duration of one year or less are more prevalent than fixed-term contracts with a duration of more than one year (Figure 7.7). On average, 6% of teachers have fixed-term contracts with a duration of more than one year, and 14% have a fixed-term contract of one year or less. While longer fixed-term contracts can offer temporary stability, they may also delay access to permanent positions, leaving teachers in prolonged job insecurity.

The share of teachers with a permanent contract has evolved differently across education systems since 2018 (Table 7.36). In the Flemish Community of Belgium, Chile and New Zealand*, the share of teachers

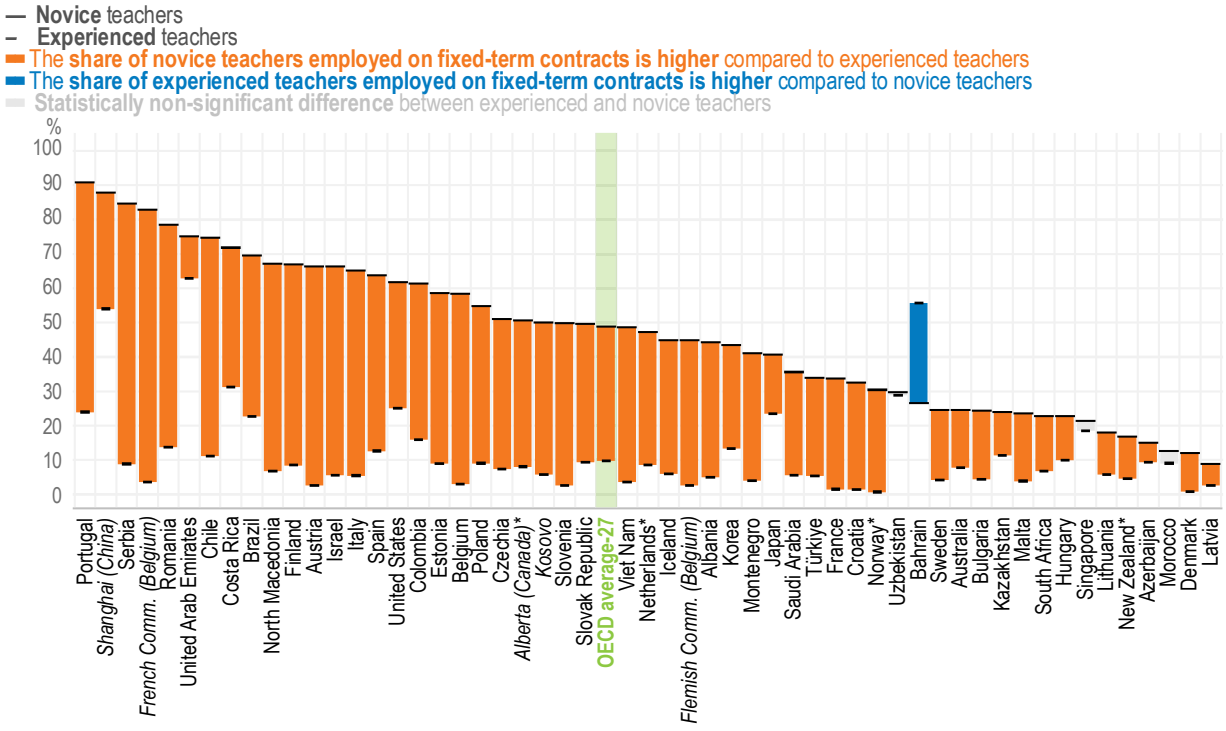
with a permanent contract has increased by more than 5 percentage points since 2018. In the Flemish Community, the period for teachers to obtain a permanent contract was legally shortened in 2022. In contrast, the share of teachers with a permanent contract has decreased by over 5 percentage points in Brazil, Estonia, Korea, Portugal,[3] Saudi Arabia and the United Arab Emirates. In Portugal, around 30% of teachers on permanent contracts were recruited under the Portuguese Labour Code, which limits successive temporary contracts, while around 5 600 were hired through dynamic recruitment processes. Their salaries have been adjusted to reflect their length of service.[4]

The share of teachers employed on a fixed-term contract with a duration of more than one year has increased by more than 5 percentage points since 2018 in Brazil, Korea and the United Arab Emirates. In addition, the share of fixed-term contracts with a duration of one year or less has increased by the same magnitude in the French Community of Belgium, Brazil, Estonia, Korea and Saudi Arabia.

Male teachers are more likely to be employed on fixed-term contracts. The share of male teachers on fixed-term contracts is higher compared to female teachers in almost one-third of education systems, and on average (Table 7.37). This difference ranges from 13 to 16 percentage points in Bahrain, Estonia, Serbia and the United Arab Emirates.

Figure 7.8. Teacher employment on fixed-term contracts, by years of teaching experience

Percentage of lower secondary teachers employed on fixed-term contracts



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Novice teachers refer to those with up to five years of teaching experience. Experienced teachers refer to those with more than ten years of teaching experience.
Source: OECD, *TALIS 2024 Database*, Table 7.37.

The share of teachers employed on a fixed-term contract is considerably higher among younger teachers (under age 30) and novice teachers (those with up to five years of teaching experience) compared to their

older colleagues (those aged 50 and above) and more experienced colleagues (those with more than ten years of teaching experience) (Figure 7.8). Yet, differences in teachers' employment status by age and teaching experience have been decreasing in several education systems, including Australia, Austria, the Flemish Community of Belgium, Italy, Japan, Spain and Sweden (Tables 7.38 and 7.39). Novice teachers often start on fixed-term contracts as a trial period, which gives schools opportunities to evaluate them before giving them a permanent contract (OECD, 2019[26]). In turn, these contracts also give novice teachers the opportunity to evaluate the school as a workplace and teaching as a profession in general.

Half of teachers report that job security is of "high importance" to them as teachers, on average (Table 7.13). In Azerbaijan, Kazakhstan and Uzbekistan, over four in five teachers consider job security highly important. In contrast, in Bulgaria, Czechia, Italy, Japan, the Netherlands* and Portugal, less than two in five teachers do so. In over half of education systems, female teaches are more likely than male teachers to report job security as highly important (Table 7.13), while second-career teachers are less likely compared to other teachers to do so in almost one-fourth of education systems (Table 7.15).

On average, the share of teachers who are employed on a fixed-term contract while reporting job security as highly important (hereafter, "involuntary fixed-term contract") is 9%, ranging from less than 3% in Denmark and Latvia to more than 40% in Shanghai (China) and the United Arab Emirates (Table 7.41). In most education systems, being employed on a fixed-term contract involuntarily is not associated with career intentions (Table 7.42). This relationship holds after controlling for teacher and school characteristics, teachers' intrinsic motivations, and their satisfaction with the terms of employment (including salaries). However, in Azerbaijan, Hungary, Israel, Japan, Korea and Romania, teachers being employed on a fixed-term contract involuntarily are more likely to intend to leave teaching within the next five years.

Flexibility

Job flexibility refers to employees' ability to determine when and how much to work. Formal employment flexibility is often expressed as part-time arrangements, which have decreased slightly since 2019 in OECD countries (OECD, 2024[27]; 2017[28]). Part-time work can support work-life balance and well-being, but may limit career progression and pension benefits (OECD, 2019[29]; 2017[28]; 2010[30]). Part-time work may be either voluntary or involuntary, with the latter often reflecting reduced hours or underreported workload.

TALIS 2024 measures job flexibility by asking teachers whether they work full-time (more than 90% of full-time hours) or part-time (71-90% of full-time hours, 50-70% of full-time hours, or less than 50% of full-time hours). To assess the importance of job flexibility for teachers, the survey asks teachers how important "working hours fit with my responsibilities" and "teaching has commitment flexibility" are to them.

Approximately 20% of teachers are employed part-time (working up to 90% of full-time hours), on average (Figure 7.9). Yet, more than 60% of teachers work part-time in Brazil and the Netherlands*. Teachers employed part-time are much more likely to work in multiple schools compared to their colleagues working full-time (Table 7.44).

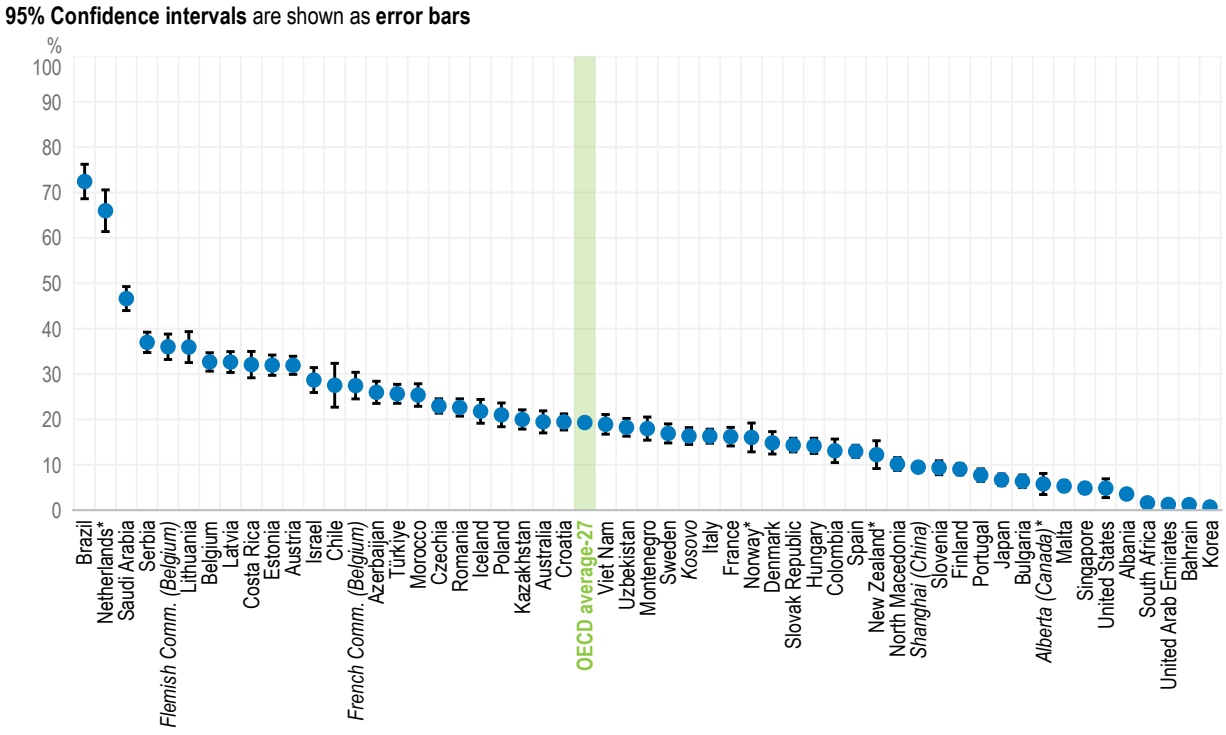
The change in the share of teachers employed part-time since 2018 varies across education systems (Table 7.46). In Czechia, the Netherlands*, Shanghai (China) and Türkiye, the share of teachers employed part-time has increased by 5 percentage points or more since 2018. Conversely, in Chile, Colombia, Saudi Arabia and Viet Nam, the share of teachers employed part-time has decreased by the same degree since 2018.

The prevalence of part-time work varies by gender, with different patterns observed across education systems (Table 7.47). In 15 education systems, male teachers are more likely to be employed part-time, with the largest differences observed in Estonia, Latvia, Lithuania, Serbia and the Slovak Republic. In another 14 education systems, female teachers are more likely to be employed part-time. The difference in favour of female teachers is above 10 percentage points in Australia, Austria, the Flemish Community

of Belgium, the Netherlands*, New Zealand* and Saudi Arabia. The Netherlands* is not only the education system with the highest share of part-time work among female teachers (76%), but part-time work among male teachers has also increased considerably since 2018 (from 36% to 54%) (Table 7.48).

Figure 7.9. Teachers working part-time

Percentage of lower secondary teachers working part-time



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Part-time teachers refer to those who work up to 90% of full-time hours.
Source: OECD, *TALIS 2024 Database*, Table 7.47.

Novice teachers are more likely to be employed part-time than their more experienced colleagues, in about two-thirds of education systems, as well as on average (Table 7.47). Similarly, younger teachers are more likely to work part-time than older colleagues in around half of education systems, and on average. The reverse pattern is observed in Australia, the Flemish Community of Belgium and Singapore. These results may reflect that young people increasingly value work-life balance and flexible or reduced working hours (OECD, 2025[5]). It also may reflect the fact that newer members of the profession have difficulty securing full-time employment. Among teachers under age 30, part-time work has increased in five education systems (Austria, Czechia, Hungary, Shanghai [China] and Türkiye), while it has decreased in nine education systems (Table 7.49).

Around 50% of teachers report that working hours that fit with family responsibilities is of “high importance” to them, on average (Table 7.13). Convenient working hours regarding family responsibilities are reported as an important factor by at least seven in ten teachers in Israel and Latvia. On average, about four out of ten teachers report that teaching’s commitment flexibility (e.g. travel, part-time work, family commitments) is of high importance, ranging from around two in ten in Bulgaria and Italy to more than six in ten in Israel and Latvia.

The importance of job flexibility tends to vary by age. Teachers under age 30 are more likely to report convenient working hours and commitment flexibility as important factors (Table 7.14). These findings reflect similar differences observed among generations in the general population (OECD, 2025[5]).

The share of teachers working part-time even though not considering job flexibility as highly important[5] (hereafter, "involuntary part-time work") is 7% on average, ranging from less than 1% in Bahrain, Korea, South Africa and the United Arab Emirates, to 33% in the Netherlands* (Table 7.50). In most education systems, involuntary part-time work is not associated with teachers' career intentions (Table 7.51). Yet, in some education systems, such as Colombia, Czechia, Estonia, Hungary, Japan, Lithuania, the Slovak Republic, Slovenia and Norway*, teachers working part-time involuntarily are more likely to want to leave teaching within the next five years than their colleagues working full-time and those working part-time voluntarily (i.e. considering job flexibility as highly important). This holds after controlling for teacher and school characteristics, teachers' intrinsic motivations and satisfaction with the terms of employment (including salaries). Teachers in involuntary part-time roles may feel undervalued or frustrated by reduced hours and limited income, contributing to a higher desire to leave.

Satisfaction with the terms of employment

Non-salary terms

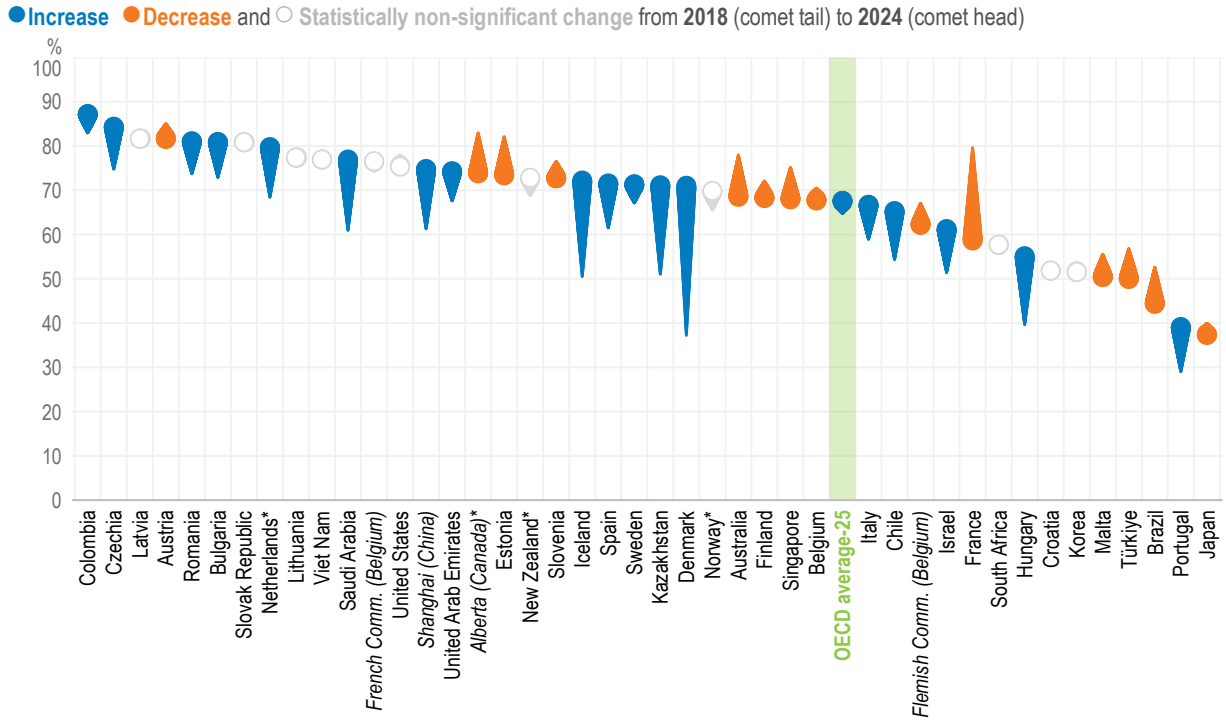
TALIS 2024 asks teachers whether they are satisfied with their terms of employment, apart from salary, including benefits, work schedule and other aspects of their employment. Around two in three teachers "agree" or "strongly agree" that they are satisfied with their terms of employment (barring salaries), on average (Table 7.52). While in Austria, Bulgaria, Colombia, Czechia, Latvia, Poland, Romania, the Slovak Republic and Uzbekistan, at least 80% of teachers are satisfied with their terms of employment (excluding salaries), fewer than 40% report the same in Japan and Portugal.

Teachers' satisfaction with their terms of employment (barring salaries) has increased in 19 education systems since 2018 (Figure 7.10). In Chile, Denmark, Hungary, Iceland, Kazakhstan, the Netherlands*, Portugal, Saudi Arabia, Shanghai (China) and Spain, the share of teachers who "agree" or "strongly agree" that they are satisfied with their terms of employment (barring salaries) has increased by 10 percentage points or more since 2018. In contrast, in 13 education systems, satisfaction with employment terms (excluding salaries) has decreased since 2018. In France, the share of teachers who are satisfied with their terms of employment (barring salaries) has decreased by 21 percentage points.

In most education systems, teachers' satisfaction with their employment terms (barring salaries) does not vary by contract duration (Table 7.55). Regression analyses also show that, in most education systems, among teachers who value job security highly, satisfaction with employment terms (barring salaries) is not associated with contract duration, after accounting for teacher and school characteristics (Table 7.58). Teachers being employed on fixed-term contracts involuntarily may be compensated for job insecurity through benefits, such as support for professional development, reimbursements, materials or salary increases. Similarly, in the majority of education systems, among teachers who do not consider job flexibility highly important, satisfaction with employment terms (barring salaries) does not vary by part-time/full-time status (Tables 7.56 and 7.59). Teachers who are satisfied with their terms of employment (barring salaries) tend to be more satisfied with their jobs and almost 40% less likely to want to leave teaching within the next five years, on average, after controlling for teacher and school characteristics, teachers' intrinsic motivations, contract modalities and satisfaction with salary (Tables 7.60 and 7.61). These results suggest that satisfaction with the terms of employment (barring salaries) is a consistent predictor of job satisfaction and career intentions across education systems.

Figure 7.10. Change in teachers' satisfaction with employment terms (excluding salaries), from 2018 to 2024

Percentage of lower secondary teachers who “agree” or “strongly agree” that they are satisfied with their terms of employment



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Terms of employment refer to the terms of teaching contracts or employment, for example, benefits and work schedule, excluding salary.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 7.54.

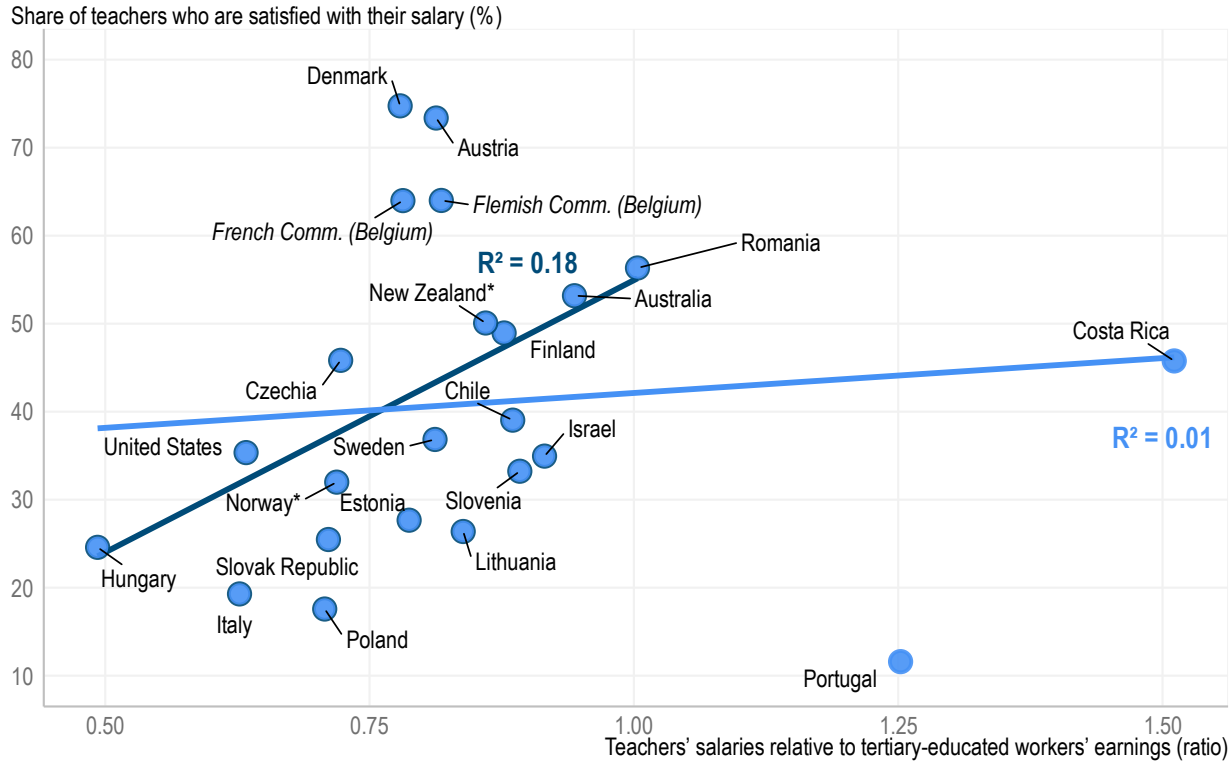
Salary

Remuneration plays an important role in attracting and retaining teachers by ensuring their work is financially sustainable and competitive with other professions (OECD, 2024[1]; OECD, 2024[2]; Park and Byun, 2015[31]; UNESCO, 2024[3]). While some studies suggest that teachers’ relative salaries are associated with teaching quality and student outcomes (Dolton and Marcenaro-Gutierrez, 2011[32]; Hanushek, Piopiunik and Wiederhold, 2014[33]), others find no clear connection between teacher pay and student performance (Akiba et al., 2012[34]). Yet, as teachers’ salaries represent the largest share of the current expenditure on education within education systems (OECD, 2023[35]), pay rises have been modest in many education systems.

TALIS 2024 does not collect data about the level of teachers’ salaries. However, data from *Education at a Glance* (OECD, 2024[2]) show that statutory salaries of teachers at the lower secondary level increased by 4% in real terms between 2015 and 2023. According to the latest data available, the actual salaries of full-time teachers working in publicly managed schools at the lower secondary level are 84% of the earnings of tertiary-educated workers, on average across OECD countries, ranging from 49% in Hungary to 151% in Costa Rica (OECD, 2024[2]).

Figure 7.11. Teachers' relative earnings and their salary satisfaction

Based on responses of lower secondary teachers working full-time in publicly managed schools and system-level data on teacher salaries relative to earnings of tertiary-educated workers



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Annual average teacher salaries (including bonuses and allowances) of 25-64 year-old full-time teachers working in public schools in lower secondary general programmes.
The system-level linear correlation coefficient (r) between the relative earnings and teachers' salary satisfaction can be calculated by taking the square root of the R-Squared (R^2) highlighted on the figure.
Source: OECD, *TALIS 2024 Database*, Tables 7.65 and 7.62.

TALIS 2024 collects information on teachers' satisfaction with their salaries by asking them about their level of agreement on whether they are satisfied with the salary they receive for their work. Around two in five teachers "agree" or "strongly agree" that they are satisfied with their salaries, on average (Table 7.63). In Austria, the Flemish and French Communities of Belgium, Bulgaria, Colombia, Denmark, Kazakhstan, the Netherlands*, Saudi Arabia and Uzbekistan, more than three in five teachers are satisfied with their salaries, while in Iceland, Malta, Portugal and Serbia, less than one in five teachers report the same.

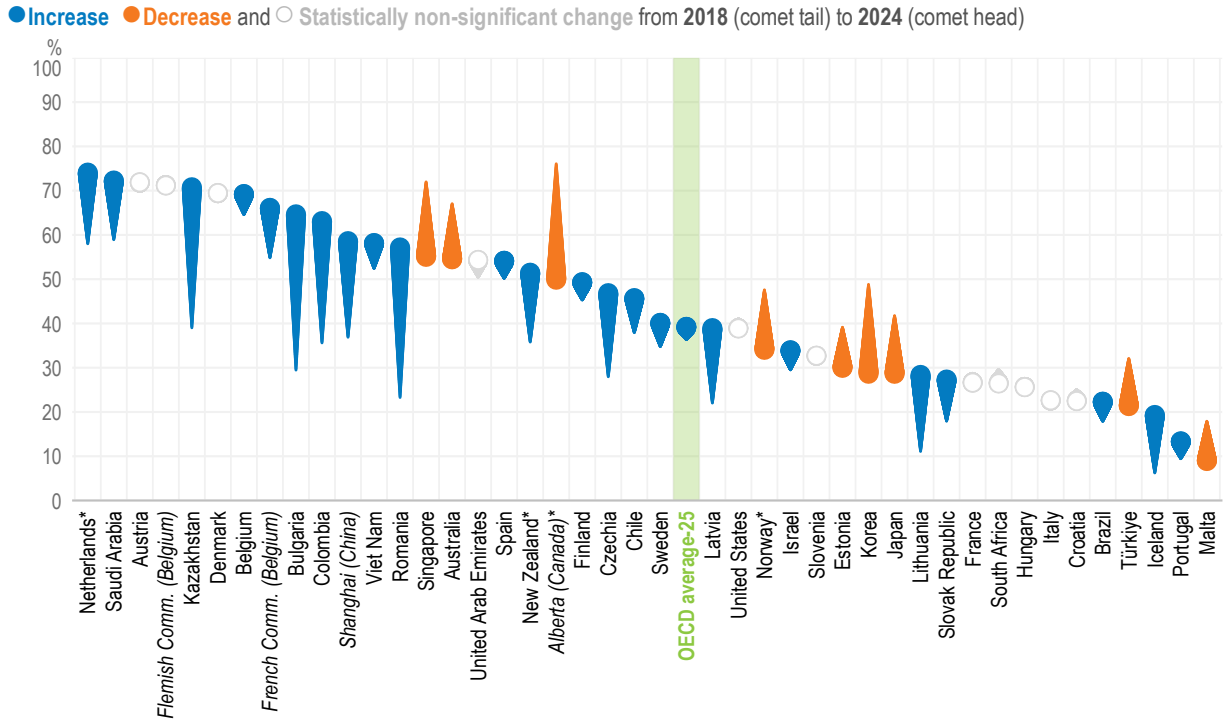
Based on 23 education systems with available data, relative earnings matter for teachers' salary satisfaction only up to a point (Figure 7.11). Across 21 education systems where the ratio of teachers' salaries to the earnings of tertiary-educated workers is at or below 1, the system-level correlation between relative salaries and salary satisfaction is relatively strong (the linear correlation coefficient is r=.43). However, when Cost Rica and Portugal – where the relative salary ratio ranging from 1.51 to 1.25 – are included, the correlation at the system level becomes negligible (r=-.01).

The share of teachers who are satisfied with their salaries has increased in 23 education systems since 2018 (Figure 7.12). The increase has been over 15 percentage points in Bulgaria, Colombia, Czechia, Kazakhstan, Latvia, Lithuania, the Netherlands*, New Zealand*, Romania and Shanghai (China). Education systems often use a mix of strategies to improve teacher pay, including raising starting salaries,

restructuring pay scales and linking pay to performance or responsibilities (Box 7.4). Based on data from *Education at a Glance* (OECD, 2024[2]), in Colombia, Czechia, Lithuania and New Zealand*, teachers' statutory salaries increased between 2015 and 2023 by 10% to 72% in real terms. In the Netherlands*, where statutory salaries are above the OECD average, salaries kept their value during the same period. In Kazakhstan, teacher salaries doubled between 2020 and 2024 (Box 7.4). On the contrary, the share of teachers who report being satisfied with their pay has decreased since 2018 in nine education systems, and by more than 15 percentage points in Alberta (Canada)*, Korea and Singapore.

Figure 7.12. Change in teachers' salary satisfaction, from 2018 to 2024

Percentage of lower secondary teachers who "agree" or "strongly agree" that they are satisfied with the salary they receive for their work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Source: OECD, *TALIS 2018* and *TALIS 2024 Databases*, Table 7.67.

Box 7.4. Increasing the financial attractiveness of the teaching career

Austria

Austria overhauled its teacher pay structure with a 2013 law that was implemented fully by 2019. The reform ended automatic biennial increments and instead introduced higher starting salaries as well as a simplified pay scale with seven steps. Upper-tier earnings were also lowered. The law also raised qualification requirements and slightly increased workloads, particularly in federal schools.

Brazil

Since 2025, Brazil has offered exclusive benefits to teachers through partnerships with public banks and other ministries. These include perks such as credit cards with no annual fee, hotel discounts, and special conditions for purchasing products and equipment.

In addition, a scholarship is available to undergraduate teaching students who score at least 650 points on the national university entrance exam. The scholarship totals BRL 1 050 (Brazilian reals) (equal to approximately USD 190.50 [US dollars]) per month, with BRL 700 (USD 127) available immediately and BRL 350 (USD 63.50) placed in a savings account, accessible once the teaching student joins the public school system as a teacher within five years of graduating.

Kazakhstan

At the end of 2019, Kazakhstan introduced a comprehensive reform aimed at enhancing the social and professional status of teachers. The reform was designed to address long-standing challenges, such as low prestige, high turnover and difficulties in attracting talent, particularly in rural areas.

Central to this reform was a significant increase in teachers' salaries, aimed at enhancing the profession's attractiveness and addressing issues such as low prestige and high turnover. Salaries began rising with a 25% increase in January 2020 and doubled over four years. The policy affected over 500 000 educators nationwide.

Romania

In 2024, Romania increased teacher salaries by an average of 25%, with beginner teachers receiving up to 31.7% more. The focus on entry-level pay supports efforts to attract qualified candidates, following stricter entry requirements for teacher training.

Despite intentions to link performance, career progression, and pay, salaries largely remain seniority-based. Merit bonuses are limited and typically tied to raw student test scores, rather than broader measures of teaching effectiveness or contextualised outcomes.

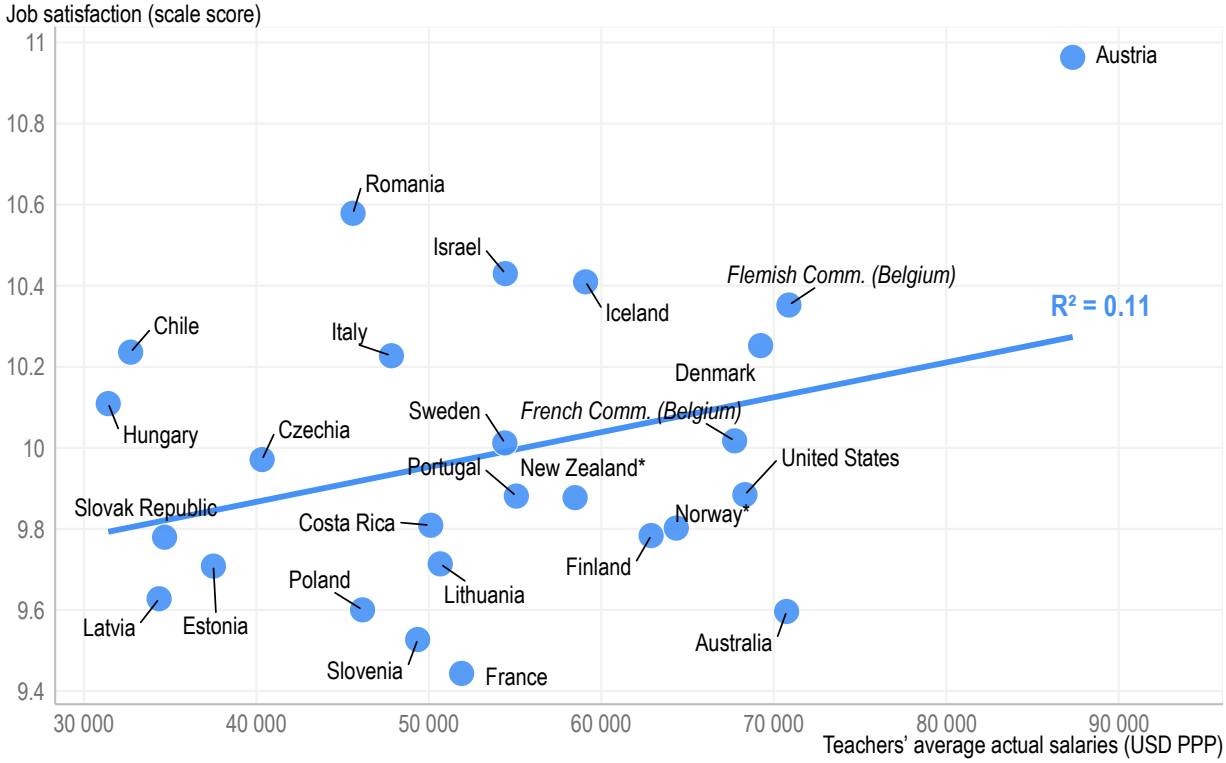
Romania also plans to replace the 20% salary top-up for teachers in disadvantaged or remote areas with a relocation bonus equal to five gross minimum salaries. Additionally, commuting costs will be covered for teachers working outside their local area.

Source: MEC (n.d.[36]), *Mais Professores*, https://www.gov.br/mec/pt-br/mais-professores; OECD (2024[37]), "Reforming school education in Romania: Strengthening governance, evaluation and support systems", https://doi.org/10.1787/5333f031-en; Ministry of Justice of the Republic of Kazakhstan (2019[38]), *On the Status of a Teacher*, https://adilet.zan.kz/eng/docs/Z1900000293; The Astana Times (2019[39]), *Kazakh President to increase teachers' salaries twofold to improve national education quality*, https://astanatimes.com/2019/08/kazakh-president-to-increase-teachers-salaries-twofold-to-improve-national-education-quality/.

Regression analyses suggest that, in terms of job satisfaction, non-salary aspects of employment may matter more than salary (Tables 7.60 and 7.68). On average, satisfaction with non-salary employment terms is associated with a 0.52 standard deviation increase in the scale of teacher job satisfaction, compared to a 0.36 standard deviation increase associated with salary satisfaction – after controlling for teacher and school characteristics, teachers' intrinsic motivations, and contract modalities. At the system-level, a moderate correlation is observed between actual salaries and job satisfaction (the linear correlation coefficient between these two variables is r=.33) (Figure 7.13).

Figure 7.13. Actual teacher salaries and job satisfaction

Based on job satisfaction[1] of lower secondary teachers working in publicly managed schools and system-level data on teachers' average actual salaries[2,3]



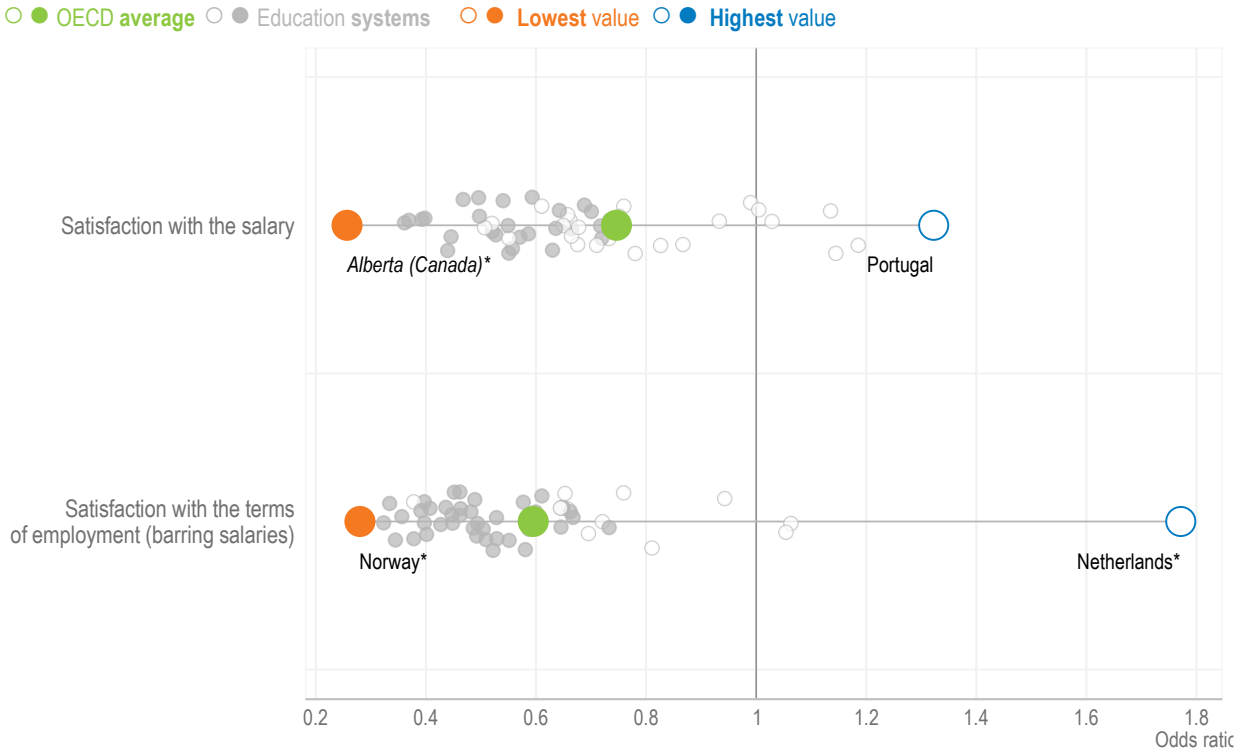
Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
1. Standardised scale scores with a standard deviation of 2 and a mean of 10. For more information on the scales, see Annex B.
2. Annual average salaries (including bonuses and allowances) of 25-64 year-old teachers in equivalent USD, converted using purchasing power parities (PPPs) for private consumption.
3. The system-level linear correlation coefficient (r) between the relative earnings and teachers' salary satisfaction can be calculated by taking the square root of the R-Squared (R^2) highlighted on the figure.
Source: OECD, *TALIS 2024 Database*, Tables 7.69 and 7.62.

Teachers who are satisfied with their salaries are 25% less likely to want to leave teaching within the next five years, on average, after accounting for teacher and school characteristics, teachers' intrinsic motivations and contract modalities (Figure 7.14). After holding satisfaction with other terms of employment (barring salaries) constant, the negative association remains statistically significant in only about one-fifth of education systems.

These findings suggest that salary is just one of many factors related to teachers' job satisfaction and their decisions to leave the profession. Intrinsic motivations – such as social utility of teaching and enjoyment of the work – as well as other employment conditions, including material benefits, opportunities for career progression, and work schedules, are more consistent predictors of teachers' career intentions.

Figure 7.14. Relationship between teachers' career intentions and satisfaction with their employment terms

Change in the likelihood of lower secondary teachers reporting that they intend to leave the profession within the next five years[1] associated with teachers "agree[ing]" or "strongly agree[ing]" that they are satisfied with their terms of employment[2,3]



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Statistically significant coefficients are highlighted with filled circles (see Annex B). Filled circles above 1 indicate a positive association between teachers' intention to leave the profession and sources of stress, while those below 1 reflect a negative relationship. The analysis is restricted to teachers who report that retirement from the work sector is "not at all likely" or "not very likely" to lead them to leave teaching within the next five years.
1. Binary variable: the reference category refers to teachers reporting that they want to continue working as a teacher for more than five years.
2. Binary variables: the reference category refers to "disagree" and "strongly disagree".
3. Results based on two separate binary logistic regressions. An odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable. An odds ratio below 1 denotes a negative association; an odds ratio above 1 indicates a positive association; and an odds ratio of 1 means that there is no association. After controlling for teacher (i.e. gender, age and years of teaching experience) and school characteristics (i.e. school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs), as well as teachers' intrinsic motivations and contract modalities.
Source: OECD, *TALIS 2024 Database*, Tables 7.70 and 7.61.

Variation in satisfaction with the terms of employment

Analysing differences in teachers' satisfaction with their employment conditions based on personal and contextual factors can help identify those most in need of support. In the majority of education systems, being satisfied with the terms of employment (barring salaries) is not related to teachers' gender, once age, years of teaching experience, school characteristics, contract modalities and personal utility motivations (i.e. job security and flexibility) are accounted for (Table 7.57). Yet, there are 12 education systems where female teachers are less likely to be satisfied with their employment terms (barring salaries), even after controlling for potential mediating factors. Notably, in Croatia, Estonia and the Netherlands*, female teachers are over 40% less likely to be satisfied with their employment terms. On the contrary, in Albania and Uzbekistan, female teachers are over 30% more likely to be satisfied with their terms of employment (barring salaries).

The association between teachers' satisfaction with their salaries and gender varies across education systems (Table 7.66). In Albania, Austria, the French Community of Belgium, Denmark, Japan, Kosovo, Romania, Saudi Arabia, Spain and Uzbekistan, female teachers are more likely to be satisfied with their salaries, after accounting for age, years of teaching experience, school characteristics, contract modalities and personal utility motivations (i.e. job security and flexibility). In Iceland, Kazakhstan, Korea, Malta, Türkiye, the United Arab Emirates and Viet Nam, the reverse pattern is observed.

In more than one-third of education systems, novice teachers are more likely than experienced teachers to report satisfaction with their employment terms (barring salaries) (Table 7.52). There are only four education systems – Austria, Bahrain, Japan and Singapore – where the share of teachers satisfied with their terms of employment is higher among experienced teachers. The same overall pattern – where novice teachers are more likely to be satisfied with employment conditions – holds true when focusing solely on full-time teachers (Table 7.53). These results suggest that although novice teachers are more often on fixed-term or part-time contracts, their lower expectations regarding employment terms may be associated with higher levels of satisfaction. Moreover, these results may also reflect young people's growing preference for work-life balance and flexible or reduced hours (OECD, 2025[5]).

Even though teachers' salaries tend to increase with years of experience, novice teachers are more likely to be satisfied with their salaries, in 16 education systems, and on average (Table 7.63). In particular, the share of novice teachers who are satisfied with their salaries is at least 15 percentage points higher than that of their more experienced colleagues in Estonia, Italy, Montenegro, North Macedonia, Portugal and Serbia. In contrast, there are 13 education systems where more experienced teachers are more likely to be satisfied with their salaries.

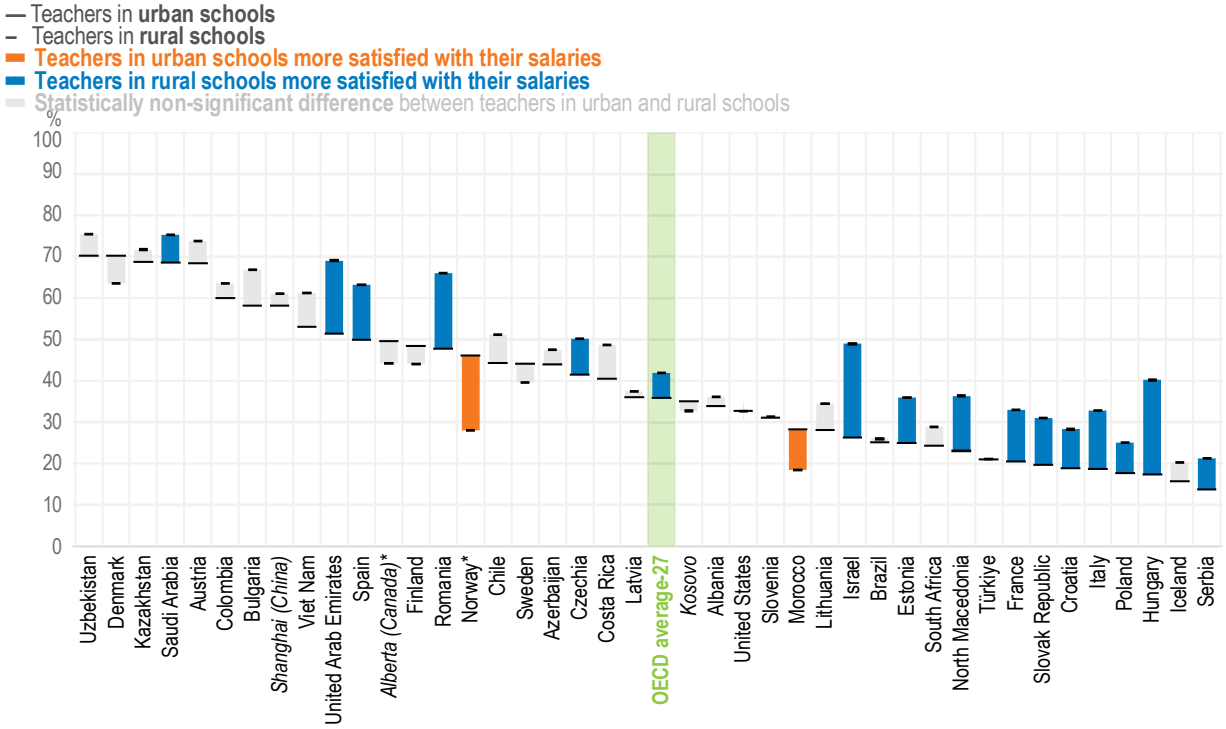
Salary satisfaction is not only linked to salary levels but also to pay progression (OECD, 2020[40]). As shown by TALIS 2018 (OECD, 2020[40]), more experienced teachers tend to be less satisfied with their salaries in education systems where the teacher salary structure is relatively flat (i.e. salaries increase moderately in the first 10-15 years). According to the latest available data from *Education at a Glance* (OECD, 2024[2]), in 9 out of 41 education systems – including Hungary, Iceland and Italy – the ratio of statutory salaries for teachers with ten years of experience and starting salaries[6] is below 1.1. In contrast, in Colombia, Korea, the Netherlands* and New Zealand*, the ratio exceeds 1.5. Focusing on full-time teachers who work in publicly managed schools, Hungary, Iceland and Italy are among the education systems where experienced teachers are less likely to be satisfied with their salaries than their novice peers, whereas in Korea and New Zealand*, the reverse pattern is observed (Table 7.65). Thus, flat salary progression is linked to lower salary satisfaction among experienced teachers, whereas steeper pay trajectories – where salaries increase with years of experience, as seen in Korea and New Zealand* – are associated with higher levels of satisfaction over time.

In 12 education systems, a lower share of experienced teachers working full-time in publicly managed schools report being satisfied with their salaries compared to novice teachers (Table 7.65). This difference ranges from 16 to 21 percentage points in Italy, Montenegro and North Macedonia. In contrast, there are 11 education systems where the reverse pattern is observed. In Bahrain, New Zealand*, Singapore and Slovenia, the share of experienced teachers working full-time in publicly managed schools who report being satisfied with their salaries is more than 15 percentage points higher than that of novice teachers.

Teachers in rural schools tend to be more satisfied with their employment terms (including salaries) than their colleagues in urban schools . In Israel and Norway*, the share of teachers who "agree" or "strongly agree" that they are satisfied with their terms of employment (excluding salary) is more than 15 percentage points higher in rural schools than in cities (Table 7.71). Differences in salary satisfaction (in favour of teachers in rural schools) are above 15 percentage points in Hungary, Israel, Romania and the United Arab Emirates (Figure 7.15). These differences may reflect incentives to attract teachers to underserved areas, as well as fewer job alternatives and greater purchasing power in rural regions.

Figure 7.15. Teachers' salary satisfaction, by school location

Percentage of lower secondary teachers who “agree” or “strongly agree” that they are satisfied with the salary they receive for their work



Note: *Estimates should be interpreted with caution due to higher risk of non-response bias.
Rural schools refer to those located in rural areas or villages (up to 3 000 people). Urban schools refer to those located in a community with a population of over 100 000 people.
Source: OECD, *TALIS 2024 Database*, Table 7.75.

In Hungary and Lithuania, the gap in salary satisfaction between teachers working in rural schools and those teaching in cities has increased (in favour of teachers in rural schools) since 2018 (Table 7.76).

Teachers in privately managed schools are often more satisfied with their employment terms (including salaries) than those working in publicly managed schools (Tables 7.71 and 7.75). The share of teachers who “agree” or “strongly agree” that they are satisfied with their terms of employment (excluding salary) is higher in privately managed schools than in publicly managed schools, in 12 education systems, and on average (Table 7.71). In Morocco, this difference is 31 percentage points. In Colombia and Spain, however, the reverse pattern is observed. In these education systems, the share of teachers who are satisfied with their jobs is higher in publicly managed schools compared to their peers in privately managed schools.

Similarly, teachers in privately managed schools tend to be more satisfied with their salaries in 12 education systems, and on average (Table 7.75). The largest gaps in salary satisfaction are found in Albania (35 percentage points), the United States (30 percentage points) and Morocco (28 percentage points). The gap in salary satisfaction between teachers working in privately managed and publicly managed schools has increased considerably (in favour of teachers in privately managed schools) since 2018 in the United States (Table 7.77). Yet, there are exceptions to the general pattern. In Austria, Denmark, Saudi Arabia, Spain, Türkiye and the United Arab Emirates, teachers in publicly managed schools are more likely to be satisfied with their salaries.

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StatLink https://stat.link/pbef45

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Notes

[1] TALIS does not measure the overall number of applicants who enrol to regular or fast-track teacher education or training programmes. Therefore, TALIS cannot provide insights into the overall attractiveness of the teaching profession.

[2] Recipients of the Funza Lushaka Bursary Programme are required to teach in public schools for the duration of the funding received. For more details about this programme, see https://www.funzalushaka.doe.gov.za/.

[3]. In Portugal, the number of teachers employed on permanent contracts had reached around 8 000 by 2023. Approximately 30% of teachers on permanent contracts were recruited under the Portuguese Labour Code, which restricts successive temporary contracts, while around 70% were hired through dynamic recruitment processes. These teachers' salaries were adjusted to reflect their length of service.

[4]. For more details, see https://diariodarepublica.pt/dr/detalhe/portaria/118-a-2023-212905835.

[5]. The importance of job flexibility to teachers is assessed based on how important they consider working hours that accommodate family responsibilities (TQ-73c) and the flexibility of teaching commitments, such as travel, part-time work and family obligations (TQ-73d).

[6] Refers to annual salaries of full-time teachers in public institutions, in equivalent USD converted using PPPs for private consumption.

Annex A. Technical notes on sampling, participation rates and adjudication

Sampling procedures

The objective of the Teaching and Learning International Survey (TALIS) 2024 was to obtain a representative sample of teachers for each International Standard Classification of Education (ISCED) level in which an education system participated. The international sampling plan employed a stratified two-stage probability sampling design. Schools served as the first-stage units (primary sampling units), randomly selected from within strata. Teachers were then randomly selected from the list of eligible teachers within those schools, serving as secondary sampling units. A more detailed description of the survey design and its implementation can be found in the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

Education systems had the option to limit the coverage of their TALIS 2024 implementation for reasons of practicality, safety or economy. However, they were encouraged to minimise such exclusions and ensure that their national survey population covered at least 95% of teachers. National Project Managers (NPMs) were required to document the reasons for each exclusion, along with details such as the school's size, location and student population, for every ISCED level in which the system participated.

Sample size requirements

To ensure reliable estimation and allow for some non-response, the minimum sample size was set at 20 teachers per participating school. A minimum of 200 in-scope schools were to be selected, resulting in a nominal international sample size of at least 4 000 teachers per ISCED level.

Education systems could expand their samples by selecting more schools, more teachers per school or both. In some cases, systems were required to increase the number of teachers sampled within schools to offset selecting too many schools with fewer than 20 teachers.

For systems with a limited number of eligible schools, the sample size requirement was reduced. In a few instances, where the average number of teachers per school was lower than expected, the number of schools sampled was increased to meet the minimum required number of participating teachers.

In many systems, ISCED level divisions do not align with distinct school buildings or administrations. For example, schools covering Grades 8 to 12 span ISCED levels 2 and 3, but may not fully represent all of ISCED Level 2.

If a system participated in multiple modules at different ISCED levels, overlap control was applied to avoid selecting the same schools for multiple modules. While teachers may work across ISCED levels and belong to multiple target populations, it was not feasible for them to complete separate questionnaires for each level. Similarly, principals were not expected to complete multiple questionnaires for different ISCED levels within the same school. As a result, schools were generally selected for only one ISCED level, and only teachers at that level were listed and sampled.

However, in response to requests from two education systems, the selection of the same schools for two modules was permitted. In such cases, principals were required to complete multiple questionnaires, while teachers within each school were still sampled for only one ISCED level.

Definition of teachers and principals

A teacher at ISCED Level 1, 2 or 3 is defined as someone who, as part of their regular duties at a school, provides instruction in programmes corresponding to that ISCED level. Teachers who teach a mix of programmes across different ISCED levels within the target school are included in the TALIS target population. There is no minimum threshold for the amount of instruction a teacher must provide at any of the three ISCED levels to be included.

The international target population of TALIS 2024 includes only teachers who teach regular classes in ordinary schools, as well as the principals of those schools. The following teachers are considered out of scope for TALIS 2024:

- teachers teaching in schools exclusively serving students with special education needs[1]
- teachers teaching exclusively to adults
- substitute and emergency teachers
- teachers who also act as school principals
- teachers on long-term leave (e.g. disability, sabbatical)
- teachers who had taken part in the TALIS 2024 field trial.

Non-teaching staff (nurses, school psychologists, teachers' aides, etc.) are also out of the TALIS 2024 international target population.

A principal is defined as the individual with the highest level of responsibility for the administrative, managerial and/or pedagogical leadership of a school. This role may include overseeing students, supervising teachers, engaging with parents and guardians, and planning, preparing and implementing the school's pedagogical activities. Principals may also dedicate part of their time to teaching.

Adjudication process

Adjudication is the process of determining whether the data released were "fit for use" as intended. The issues examined concerned, among others, the questionnaire adaptation to national context, translation and verification, quality of the sampling frame, handling of out-of-scope and refusal units (i.e. teachers and/or schools), within-school sampling, data collection, data cleaning, the reports of quality observers, participation rates and overall compliance with the technical standards.

During the adjudication session, each individual dataset (one per module per education system) was submitted to the same examination. Principal/school data were adjudicated independently of teacher data.

Once each survey process had been assessed, a recommended adjudication rating was formulated. While the rating was mostly dictated by the participation rate thresholds set in the TALIS 2024 Technical Standards (see Table A A.1 and Table A A.2), the adjudication committee at times improved the rating of a dataset if, after expert consideration, unique and favourable conditions were met (e.g. closeness to the threshold value and/or the non-response bias analysis (NRBA) report showing evidence for negligible bias risks).

To note, the adjudication rating is made at the education system level. However, potential non-response bias is specific to each estimate. Therefore, some estimates of systems with an adjudication rating of "good" might still have a high non-response bias; correspondingly, some estimates of systems with an adjudication rating of "poor" might still be reliable. For more detailed information, please refer to the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

The adjudication rules, based on participation rates for principals and teachers, are displayed in Table A A.1 and Table A A.2.

Table A A.1. Adjudication rules for school or principal data

School/principal participation before replacement	School/principal participation after replacement	Risk of non-response bias	Rating
≥75%	≥75%		Good
≥50% but <75%	≥75%		Fair (A)
≥50% but <75%	≥50% but <75%	Low	Fair (C)
≥50% but <75%	≥50% but <75%	High	Poor (D)
<50%			Insufficient

Note: A school was deemed a participating school if the principal returned their questionnaire with at least one question answered.
Source: TALIS 2024 Technical Standard 3.26.

Table A A.2. Adjudication rules for teacher data

School participation before replacement	School participation after replacement	Teacher participation after school replacement[1]	Risk of teacher non-response bias	Rating
≥75%	≥75%	≥75%		Good
≥75%	≥50% but <75%			Fair (A)
≥50% but <75%	≥75%	≥75%		Fair (B)
≥50% but <75%	≥75%	≥50% but <75%	Low	Fair (C)
≥50% but <75%	≥75%	≥50% but <75%	High	Poor (D)
≥50% but <75%	≥50% but <75%			Poor (E)
<50%	≥75%			Poor (F)
<50%	<75%			Insufficient

Note: A school was deemed a participating school if at least 50% of the selected teachers returned their respective questionnaires with at least one question answered.
1. It refers to teachers' participation rate in participating schools.
Source: TALIS 2024 Technical Standard 3.27.

The following bulleted list aims to help data users understand what constitutes limitations on use or quality of the data:

- **Good:** the data of the participating system can be used for all reporting and analytical purposes and should be included in international comparisons.
- **Fair (line A):** national and subnational estimates can be produced; some teacher/staff characteristics may be less precise, as indicated by a larger standard error (s.e.), hence the warning "fair", but with no additional warnings to users deemed necessary.
- **Fair (line B, only for teacher data adjudication):** national and subnational estimates can be produced; some subnational estimates may be of lower precision (larger s.e.) if the sample size is locally low, hence the warning "fair", but with no additional warnings to users considered necessary.
- **Fair (line C):** national and subnational estimates can be produced; some subnational estimates may be of lower precision (larger s.e.) if the sample size is locally low, hence the warning "fair", but with the possible inclusion of a note on data quality that points to the outcome of the NRBA; school participation somewhat lower than under (B), meaning that comparison of subnational estimates needs to be done with care given that some of these results are based on just a few schools; comparison of small subnational estimates with similar groups from other education systems is unlikely to uncover statistically meaningful differences because of potentially overly large standard errors.

- **Poor (line D):** in addition to the warnings issued for the previous category, a note that warns users of higher risks of non-response bias in some estimates should be appended; comparisons of subnational estimates need to be limited to the groups with the larger sample sizes (because the sample at this point represents between 37% and 56% of teachers/staff from a relatively small sample of schools, comparisons with similar groups in other education systems is inadvisable).
- **Poor (line E, only for teacher data adjudication):** subnational estimates are not recommended; a note pointing out the difficulty of obtaining a representative sample of schools, therefore, needs to be appended.
- **Poor (line F, only for teacher data adjudication):** limitations similar to those for line E, but with the inclusion of a note pointing out the difficulty of obtaining at least 50% participation of the selected sample of schools; evident risk of having a non-representative sample of schools.
- **Insufficient:** weights should not be calculated for any official tabulations, meaning that data should not be incorporated into international tables, models, averages, etc.

Participation rates and adjudication ratings

The participation rates and adjudication ratings for each participating education system, by module and population, are presented in Table A A.3, Table A A.4, Table A A.5, Table A A.6, Table A A.7 and Table A A.8. Detailed results of unweighted and weighted participation can be found in Annex G of the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

Table A A.3. ISCED Level 2: Principal participation and recommended ratings

Participating education system	Number of participating principals	Estimated size of school population	Principal participation before replacement (%)	Principal participation after replacement (%)	Recommended rating
Albania	282	1 090	99.6	100.0	Good
Alberta (Canada)	139	1 152	38.5	50.3	Insufficient
Australia	181	2 575	63.0	89.9	Fair
Austria	266	1 446	83.6	96.7	Good
Azerbaijan	222	4 090	99.7	100.0	Good
Bahrain	115	116	99.1	99.1	Good
Belgium	262	1 226	65.0	73.4	Fair
Brazil	212	56 460	89.9	94.3	Good
Bulgaria	208	1 691	97.7	98.7	Good
Chile	362	5 776	70.0	84.3	Fair
Colombia	189	15 310	63.8	68.5	Fair
Costa Rica	183	939	85.7	87.1	Good
Croatia	259	857	87.8	87.8	Good
Cyprus	99	100	99.0	99.0	Good
Czechia	346	2 819	99.8	100.0	Good
Denmark	189	1 555	54.9	80.9	Fair
Estonia	192	367	94.1	94.1	Good
Finland	226	723	99.6	100.0	Good
Flemish Community (Belgium)	139	791	57.1	66.2	Fair
France	171	6 780	86.0	87.0	Good
French Community (Belgium)	123	436	76.0	83.8	Good

Participating education system	Number of participating principals	Estimated size of school population	Principal participation before replacement (%)	Principal participation after replacement (%)	Recommended rating
Hungary	231	2 665	93.5	93.9	Good
Iceland	109	140	77.9	77.9	Good
Israel[1]	198	1 232	92.5	93.0	Good
Italy	198	5 799	97.5	98.0	Good
Japan	200	10 277	89.5	98.1	Good
Kazakhstan	371	6 676	99.1	99.1	Good
Korea	173	3 085	65.3	85.6	Fair
Kosovo	222	630	99.1	99.1	Good
Latvia	213	514	96.3	97.9	Good
Lithuania	211	738	98.7	100.0	Good
Malta	50	55	90.9	90.9	Good
Montenegro	130	161	80.7	80.7	Good
Morocco	398	3 860	99.7	100.0	Good
Netherlands	78	1 345	35.6	52.3	Insufficient
New Zealand	90	1 871	27.2	51.4	Insufficient
North Macedonia	201	335	99.6	99.6	Good
Norway	147	1 093	44.5	69.7	Insufficient
Poland	279	12 502	93.6	99.6	Good
Portugal	224	1 195	98.8	99.3	Good
Romania	216	4 587	100.0	100.0	Good
Saudi Arabia	319	7 743	95.6	95.6	Good
Serbia	199	1 129	98.5	99.5	Good
Shanghai (China)	205	689	100.0	100.0	Good
Singapore	154	189	95.6	96.9	Good
Slovak Republic	239	1 608	95.7	99.0	Good
Slovenia[2]	207	443	77.4	79.1	Good
South Africa	318	7 806	84.4	84.6	Good
Spain	494	7 151	97.7	97.9	Good
Sweden	183	1 693	86.4	88.8	Good
Türkiye	226	16 723	98.5	98.5	Good
United Arab Emirates	210	875	98.8	98.8	Good
United States[3]	152	59 531	48.0	59.4	Insufficient
Uzbekistan	210	10 485	100.0	100.0	Good
Viet Nam	202	11 439	100.0	100.0	Good

Note: A school was deemed a participating school if the principal returned their questionnaire with at least one question answered.
1. Israel: Ultra-Orthodox schools were excluded after the survey administration due to very low participation rates. They are not considered in the participation rate but contribute to the exclusion rate.
2. Slovenia: The school sample was identical for ISCED Level 1 and Level 2. Principals were asked to participate in both questionnaires but did not in many cases. Eleven items were copied between ISCED levels in these cases.
3. United States: The national centre managed questionnaire delivery from their own servers using the platform provided by the IEA in a single participant setup. Following data collection, the United States assessed disclosure risk and applied related measures based on federal requirements (https://nces.ed.gov/fcsm/dpt/). No documentation of these measures was provided.

Table A A.4. ISCED Level 2: Teacher participation and recommended ratings

Participating education system	Number of participating schools	Number of participating teachers	Estimated size of teacher population	School participation before replacement (%)	School participation after replacement (%)	Teacher participation in participating schools (%)	Overall teacher participation (%)	Recommended rating
Albania	282	4 029	11 830	99.6	100.0	99.4	99.4	Good
Alberta (Canada)	153	1 823	11 190	46.4	56.4	82.2	46.4	Insufficient
Australia	179	3 035	122 147	66.6	88.5	86.7	76.7	Fair
Austria	247	4 335	43 477	77.5	89.8	85.9	77.2	Good
Azerbaijan	222	4 307	95 548	99.5	100.0	98.4	98.4	Good
Bahrain	116	3 104	4 581	100.0	100.0	97.7	97.7	Good
Belgium[1]	273	5 175	40 763	67.5	76.5	84.5	64.6	Fair
Brazil	207	3 009	590 695	89.9	92.4	95.2	87.9	Good
Bulgaria	210	3 629	21 777	97.9	99.6	99.1	98.7	Good
Chile	353	2 319	59 796	66.2	79.8	84.0	67.0	Fair
Colombia	213	3 010	167 714	71.7	77.2	91.9	70.9	Fair
Costa Rica	187	3 026	14 638	87.6	89.0	94.2	83.8	Good
Croatia	268	3 163	15 957	90.5	90.5	82.6	74.8	Good
Cyprus	99	1 793	4 151	99.0	99.0	91.2	90.3	Good
Czechia	346	6 369	49 671	99.7	100.0	98.4	98.4	Good
Denmark	189	2 488	23 083	53.5	80.0	85.6	68.5	Fair
Estonia	199	3 339	8 860	97.5	97.5	89.1	86.9	Good
Finland	226	4 300	20 980	99.6	100.0	94.8	94.8	Good
Flemish Community (Belgium)[2]	143	2 444	24 689	58.1	68.3	84.2	57.5	Poor
France	161	2 877	206 033	80.2	81.7	76.4	62.4	Good
French Community (Belgium)	130	2 731	16 075	81	88.4	84.7	74.9	Good
Hungary	235	3 890	43 537	95.1	95.5	92.6	88.4	Good
Iceland	131	1 427	1 982	94.2	94.2	81.6	76.9	Good
Israel[3]	196	3 227	35 940	92.0	92.0	87.4	80.5	Good
Italy	200	3 874	168 045	98.5	99.0	92.4	91.5	Good
Japan	201	3 558	209 963	90.2	98.5	97.7	96.2	Good
Kazakhstan	377	7 360	205 012	99.8	99.8	99.6	99.3	Good
Korea	169	3 098	76 205	65.3	83.7	91.0	76.2	Fair
Kosovo	222	3 281	7 339	99.1	99.1	91.4	90.6	Good
Latvia	215	4 088	9 219	97.2	98.6	91.0	89.8	Good
Lithuania	210	4 223	16 848	99.1	99.5	97.1	96.6	Good
Malta	48	2 263	3 265	88.6	88.6	81.3	72.0	Good
Montenegro	126	1 354	2 186	78.3	78.3	84.0	65.7	Fair
Morocco	398	6 112	71 394	99.7	100.0	98.3	98.3	Good

Participating education system	Number of participating schools	Number of participating teachers	Estimated size of teacher population	School participation before replacement (%)	School participation after replacement (%)	Teacher participation in participating schools (%)	Overall teacher participation (%)	Recommended rating
Netherlands	84	1 271	58 097	37.6	56.4	73.7	41.5	Insufficient
New Zealand	97	1 204	24 847	28.1	43.0	73.1	31.5	Insufficient
North Macedonia	202	3 992	7 322	100.0	100.0	94.9	94.9	Good
Norway	112	1 528	20 156	34.1	53.9	73.1	39.4	Insufficient
Poland	279	3 783	172 089	93.6	99.6	94.7	94.4	Good
Portugal	224	3 511	38 887	98.7	99.1	92.2	91.4	Good
Romania	216	3 873	64 851	100.0	100.0	97.4	97.4	Good
Saudi Arabia	326	3 306	112 606	98.1	98.1	94.6	92.8	Good
Serbia	199	4 007	23 354	98.5	99.5	95.6	95.2	Good
Shanghai (China)	205	4 078	44 556	100.0	100.0	98.4	98.4	Good
Singapore	156	3 355	10 601	96.9	98.1	97.2	95.3	Good
Slovak Republic	242	4 190	22 949	97.1	100.0	96.1	96.1	Good
Slovenia	222	2 831	8 269	82.7	84.2	89.1	75.0	Good
South Africa	361	3 301	87 309	92.8	93.3	91.2	85.0	Good
Spain	507	9 098	198 806	99.8	100.0	94.1	94.1	Good
Sweden	196	3 065	33 858	92.7	95.1	76.4	72.7	Fair
Türkiye	229	4 932	291 832	99.6	99.6	97.2	96.8	Good
United Arab Emirates	212	4 369	28 559	99.5	99.5	98.4	97.9	Good
United States[4]	154	1 988	1 206 856	49.6	60.2	82.8	49.8	Poor
Uzbekistan	210	4 431	306 057	100.0	100.0	98.7	98.7	Good
Viet Nam	202	4 348	305 410	100.0	100.0	99.0	99.0	Good

Note: A school was deemed a participating school if at least 50% of the selected teachers returned their respective questionnaires with at least one question answered.
1. Belgium: Some sampled schools of the Flemish Community were located in the same places. The national centre advised these schools to distribute teachers between listing forms to avoid being selected multiple times. This deviation from the procedures could not be corrected for.
2. Flemish Community (Belgium): Some sampled schools were located in the same places. The national centre advised these schools to distribute teachers between listing forms to avoid being selected multiple times. This deviation from the procedures could not be corrected for.
3. Israel: Ultra-Orthodox schools were excluded after the survey administration due to very low participation rates. They are not considered in the participation rate but contribute to the exclusion rate.
4. United States: The national centre managed questionnaire delivery from their own servers using the platform provided by the IEA in a single participant setup. Following data collection, the United States assessed disclosure risk and applied related measures based on federal requirements (https://nces.ed.gov/fcsm/dpt/). No documentation of these measures was provided. The rating was defined as "poor" although the participation rate of schools before replacement did not completely reach 50%.

Table A A.5. ISCED Level 1: Principal participation and recommended ratings

Participating education system	Number of participating principals	Estimated size of school population	Principal participation before replacement (%)	Principal participation after replacement (%)	Recommended rating
Australia	178	7 023	63.0	85.6	Fair
Belgium	333	4 241	61.1	81.0	Fair
Brazil	284	93 385	84.1	93.2	Good

Flemish Community (Belgium)	158	2 417	46.4	75.6	Insufficient
France	322	34 412	91.9	93.3	Good
French Community (Belgium)	175	1 824	76.2	86.6	Good
Japan	202	19 323	87.4	98.1	Good
Korea	198	6 133	66.1	88.4	Fair
Morocco	389	23 888	98.7	98.7	Good
Netherlands	132	5 993	43.8	68.3	Insufficient
New Zealand	141	2 044	34.8	58.1	Insufficient
Saudi Arabia	204	12 267	92.8	92.8	Good
Slovenia[1]	206	443	77.1	78.8	Good
Spain	487	13 736	97.2	97.2	Good
Türkiye	231	16 361	97.1	97.1	Good
United Arab Emirates	206	789	99.6	99.6	Good

Note: A school was deemed a participating school if the principal returned their questionnaire with at least one question answered.
1. Slovenia: The school sample was identical for ISCED Level 1 and Level 2. Principals were asked to participate in both questionnaires but did not in many cases. Eleven items were copied between ISCED levels in these cases.

Table A A.6. ISCED Level 1: Teacher participation and recommended ratings

Participating education system	Number of participating schools	Number of participating teachers	Estimated size of teacher population	School participation before replacement (%)	School participation after replacement (%)	Teacher participation in participating schools (%)	Overall teacher participation (%)	Recommended rating
Australia	178	3 003	137 078	63.0	85.6	89.9	76.9	Fair
Belgium	326	4 913	63 889	59.9	79.3	84.2	66.8	Fair
Brazil	279	2 994	667 700	81.0	90.9	97.4	88.5	Good
Flemish Community (Belgium)	146	2 258	38 107	42.1	69.9	88.0	61.5	Insufficient
France	291	1 993	179 824	89.1	91.2	88.9	81.1	Good
French Community (Belgium)	180	2 655	25 783	78.2	89.1	81.3	72.4	Good
Japan	202	3 356	311 128	87.4	98.1	97.9	96.0	Good
Korea	184	3 124	122 407	60.3	82.1	90.6	74.4	Fair
Morocco	394	4 905	192 370	100.0	100.0	99.1	99.1	Good
Netherlands	140	1 305	60 642	46.9	72.2	85.3	61.6	Insufficient
New Zealand	130	1 529	21 009	30.6	54.7	79.5	43.5	Insufficient
Saudi Arabia	218	3 783	213 117	99.1	99.1	94.6	93.8	Good
Slovenia	220	3 615	12 379	81.8	83.5	91.5	76.4	Good
Spain	500	8 060	201 862	99.2	99.2	94.7	94.0	Good
Türkiye	232	4 053	205 969	97.5	97.5	96.3	93.9	Good
United Arab Emirates	206	4 091	25 817	99.5	99.5	97.5	97.0	Good

Note: A school was deemed a participating school if at least 50% of the selected teachers returned their respective questionnaires with at least one question answered.

Table A A.7. ISCED Level 3: Principal participation and recommended ratings

Participating education system	Number of participating principals	Estimated size of school population	Principal participation before replacement (%)	Principal participation after replacement (%)	Recommended rating
Croatia	180	381	90.0	90.0	Good
Denmark	179	610	54.4	77.1	Fair
Flemish Community (Belgium)	137	744	47.6	65.2	Insufficient
Portugal	203	731	98.9	100.0	Good
Saudi Arabia	214	5 131	92.5	92.5	Good
Slovenia[1]	104	140	74.3	74.3	Good
Türkiye	197	10 741	97.0	97.0	Good
United Arab Emirates	197	629	98.3	98.3	Good

Note: A school was deemed a participating school if the principal returned their questionnaire with at least one question answered.
1. Slovenia: The rating was defined as "good" although the participation rate of schools did not completely reach 75%.

Table A A.8. ISCED Level 3: Teacher participation and recommended ratings

Participating education system	Number of participating schools	Number of participating teachers	Estimated size of teacher population	School participation before replacement (%)	School participation after replacement (%)	Teacher participation in participating schools (%)	Overall teacher participation (%)	Recommended rating
Croatia	192	3 497	14 212	96.0	96.0	85.7	82.3	Good
Denmark	179	2 550	16 672	58.3	79.3	86.1	68.3	Fair
Flemish Community (Belgium)[1]	141	2 427	47 252	50.5	67.1	86.5	58.1	Poor
Portugal	203	3 878	34 288	99.6	100.0	93.9	93.9	Good
Saudi Arabia	226	3 952	107 791	98.7	98.7	94.1	92.9	Good
Slovenia	113	2 717	6 076	80.7	80.7	83.4	67.4	Good
Türkiye	201	4 976	287 877	99.0	99.0	95.5	94.5	Good
United Arab Emirates	200	4 228	20 222	99.5	99.5	98.8	98.3	Good

Note: A school was deemed a participating school if at least 50% of the selected teachers returned their respective questionnaires with at least one question answered.
1. Flemish Community (Belgium): Some sampled schools were located in the same places. The national centre advised these schools to distribute teachers between listing forms to avoid being selected multiple times. This deviation from the procedures could not be corrected for.

References

OECD (forthcoming), *TALIS 2024 Technical Report*, TALIS, OECD Publishing, Paris. [1]

Notes

[1] Similar to TALIS 2013 and 2018, teachers working with special education needs students within regular school settings were considered in scope. If a school is composed exclusively of such teachers, the school itself was considered out of scope.

Annex B. Technical notes on analyses in this volume

Use of teacher and school weights

The statistics presented in this report were derived from data obtained through samples of schools, principals and teachers. Samples were collected following a stratified two-stage probability sampling design. This means that teachers (secondary sampling units) were randomly selected from the list of in-scope teachers for each of the randomly selected schools (first-stage or primary sampling units). For these statistics to be meaningful for a country, they needed to reflect the whole population from which they were drawn and not merely the sample used to collect them. Thus, survey weights must be used in order to obtain design-unbiased estimates of population or model parameters.

Final weights allow the production of country-level estimates from the observed sample data. The estimation weight indicates how many population units are represented by a sampled unit. The final weight is the combination of many factors reflecting the probabilities of selection at the various stages of sampling and the response obtained at each stage. Other factors may also come into play as dictated by special conditions to maintain the unbiasedness of the estimates (e.g. adjustment for teachers working in more than one school).

The statistics presented in this report that are based only on responses of principals were estimated using school weights (SCHWGT). Results based only on responses of teachers or on responses of teachers and principals (i.e. responses from school principals merged with teachers' responses) were weighted by teacher weights (TCHWGT).

Use of scales

In this report, several scales are used, in particular in regression analyses. TALIS 2024 scales were constructed using the same international model parameters to be statistically equivalent across countries/territories and populations, facilitating scale score comparability across education systems. In general, scale scores created for TALIS 2024 can be used in different types of analyses, including comparisons of country/territory means for each individual scale.

TALIS 2024 scale scores are standardised to have a standard deviation of 2 across all education systems participating in TALIS and where value 10 corresponds to the item mid-point value of the response scale. The only exceptions are the composite scales that combine different scales. These are standardised to have a standard deviation of 2 across all education systems participating in TALIS and a mean of 10.

To note, direct mean comparisons across different scales and across TALIS cycles are not meaningful. It is also important to note that analysing different scale scores based on the same items (e.g. a composite scale and its subscales) requires caution, as shared variance can influence the results. A detailed description of the construction and validation of TALIS 2024 scales can be found in Chapter 11 of the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

Self-efficacy in student engagement

The scale of self-efficacy in student engagement (T4SEENG) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following statements can occur (TT4G27): "Get students to believe they can do well in school work"; "Help students value learning"; "Motivate students who show low interest in school work"; "Help students think critically".

Self-efficacy in instruction

The scale of self-efficacy in instruction (T4SEINS) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following can occur (TT4G27): "Craft good questions for students"; "Use a variety of assessment strategies"; "Provide an alternative explanation, for example when students are confused"; "Vary instructional strategies in my classroom".

Self-efficacy in classroom management

The scale of self-efficacy in classroom management (T4SECLS) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following can occur (TT4G27): "Control disruptive behaviour in the classroom"; "Make my expectations about student behaviour clear"; "Get students to follow classroom rules"; "Calm a student who is disruptive or noisy".

Self-efficacy (overall)

The scale of teacher self-efficacy overall (T4SELF) is a composite scale score that was constructed as an average of the three subscales: self-efficacy in student engagement (T4SEENG), self-efficacy in instruction (T4SEINS) and self-efficacy in classroom management (T4SECLS). Composite scale scores have a mean of 10 and a standard deviation of 2.

Growth mindset

The scale of growth mindset (T4GROMST) was constructed using teacher responses ("strongly agree", "agree", "disagree", "strongly disagree") about the following statements related to intelligence and learning (TT4G30): "Everyone has a certain amount of intelligence and no one can really do much to change it"; "People's intelligence is something about them that they can't change very much"; "Someone can learn new things, but they can't really change their basic intelligence".

Use of digital resources and tools for whole class instruction

The scale of use of digital resources and tools for whole class instruction (T4DRTWCI) was constructed using teacher responses ("never or almost never", "occasionally", "frequently", "always") about the frequency of doing the following in the target class (TC4G52): "Use digital resources and tools to present information through direct instruction"; "Use digital resources and tools to enable collaboration with other classrooms, schools, or experts outside of this school"; "Support collaboration among students using digital resources and tools"; "Give students problems that can only be solved by using digital resources and tools".

Based on the results of measurement invariance testing, comparisons across education systems of the results of this scale are affected by substantial model fit issues in the most restricted multi-group model and must be interpreted with considerable caution. For more detail see Chapter 11 of the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

Use of digital resources and tools for individualised instruction and assessment

The scale of use of digital resources and tools for individualised instruction and assessment (T4DRTIIA) was constructed using teacher responses (“never or almost never”, “occasionally”, “frequently”, “always”) about the frequency of doing the following in the target class (TC4G52): “Provide digital feedback on student work”; “Use digital resources and tools that provide personalised learning paths for students”; “Use digital resources and tools to assess student learning”; “Provide digital resources and tools that allow students to plan and monitor their own learning”.

Perceived classroom disruption

The scale of perceived classroom disruption (T4CLSDIS) was constructed using teacher responses (“not at all”, “to some extent”, “quite a bit”, “a lot”) about the extent to which the following situations can occur (TT4G54): “There is much disruptive noise and disorder”; “I have to wait a long time for students to quiet down”; “Many students don’t start working for a long time after the lesson begins”; “I lose quite a lot of time because students interrupt the lesson”.

Adaptive learning

The scale of adaptive learning (T4ADLE) was constructed using teacher responses (“never or almost never”, “occasionally”, “frequently”, “always”) about the frequency of performing the following actions in the target class (TC4G55): “I consider students’ prior knowledge and needs when planning a lesson”; “I point students to different materials for learning depending on their needs”; “I change my way of explaining when a student has difficulties understanding a topic or task”; “I adapt my teaching methods to students’ needs”; “I ask questions at various difficulty levels to check students’ understanding of the subject matter”.

Instructional autonomy

The scale of instructional autonomy (T4AUTCH) was constructed using teacher responses (“no autonomy”, “limited autonomy”, “substantial autonomy”, “full autonomy”) about how much autonomy they had over the following aspects (TT4G57): “Implementing the curriculum in a flexible way”; “Selecting teaching methods and strategies”; “Choosing assessment activities”; “Designing and preparing lessons”.

Fulfilment of lesson aims

The scale of fulfilment of lesson aims (complexity of teaching) (T4FULFIL) was constructed using teacher responses (“not at all”, “to some extent”, “quite a bit”, “a lot”) about the extent to which the following aims were fulfilled in the past week (TT4G58): “Presenting the content in a comprehensible way”; “Engaging students in work that challenges them”; “Providing students with feedback to support their learning”; “Offering students opportunities to practise what they learnt”; “Adapting teaching to meet the different needs of students”.

Social and emotional skill development

The scale of social and emotional skill development (T4SESDEV) was constructed using teacher responses (“never or almost never”, “occasionally”, “frequently”, “always”) about the frequency of developing the following student skills in the target class (TC4G61): “Managing their own emotions, thoughts, or behaviour”; “Empathising with others”; “Establishing and maintaining healthy relationships with others”; “Making caring and constructive choices about their personal actions”.

Teacher-student relations

The scale of teacher-student relations (T4STUD) was constructed using teacher responses ("strongly disagree", "disagree", "agree", "strongly agree") about the following statements related to what happens at their school (TT4G65): "Teachers and students usually get on well with each other"; "Most teachers believe that the students' well-being is important"; "Most teachers are interested in what students have to say"; "If a student needs extra assistance, the school provides it".

Personal utility motivations to teach

The scale of personal utility motivations to teach (T4MOPU) was constructed using teacher responses ("not important at all", "of low importance", "of moderate importance", "of high importance") about how important the following factors are to them (TT4G73): "Teaching is a secure job"; "Working hours fit with my family responsibilities"; "Teaching has commitment flexibility (travel, part-time, family commitments)".

Social utility motivations to teach

The scale of social utility motivations to teach (T4MOSU) was constructed using teacher responses ("not important at all", "of low importance", "of moderate importance", "of high importance") about how important the following factors are to them (TT4G73): "Teaching allows me to influence the next generation"; "Teaching allows me to work against social disadvantage"; "Teaching makes a worthwhile social contribution".

Workplace well-being and stress

The scale of workplace well-being and stress (T4WELS) was constructed using teacher responses ("not at all", "to some extent", "quite a bit", "a lot") about the extent to which the following situations occur (TT4G76): "I experience stress in my work"; "My job leaves me time for my personal life"; "My job negatively impacts my mental health"; "My job negatively impacts my physical health".

Higher values on the workplace well-being and stress scale reflect lower levels of well-being.

Job satisfaction with the profession

The scale of job satisfaction with the profession (T4JSPROT) was constructed using teacher responses ("strongly disagree", "disagree", "agree", "strongly agree") about the following statements related to how they feel about their job (TT4G78): "The advantages of being a teacher clearly outweigh the disadvantages"; "If I could decide again, I would still choose to work as a teacher"; "I regret that I decided to become a teacher"; "All in all, I am satisfied with my job".

Job satisfaction with the work environment

The scale of job satisfaction with the work environment (T4JSENVT) was constructed using teacher responses ("strongly disagree", "disagree", "agree", "strongly agree") about the following statements related to how they feel about their job (TT4G78): "I would like to change to another school if that were possible"; "I enjoy working at this school"; "I would recommend this school as a good place to work".

Job satisfaction (overall)

The scale of job satisfaction overall (T4JOBSAT) is a composite scale score that was constructed as an average of the two subscales: job satisfaction with the profession (T4JSPROT) and job satisfaction with

the work environment (T4JSENVT). Composite scale scores have a mean of 10 and a standard deviation of 2.

Joy of teaching

The scale of joy of teaching (T4JOYTCH) was constructed using teacher responses (“strongly disagree”, “disagree”, “agree”, “strongly agree”) about the following statements (TT4G80): “I like the subject(s) that I teach”; “I often feel happy while I teach”; “I generally teach with enthusiasm”; “The interesting challenges of teaching give me satisfaction”.

Instructional leadership (principal)

The scale of instructional leadership (principal) (T4PLEADS) was constructed using principal responses (“never or rarely”, “sometimes”, “often”, “very often”) about the frequency of engaging in the following activities in the school during the last 12 months (TC4G27): “I took actions to support co-operation among teachers to develop new teaching practices”; “I took actions to ensure that teachers take responsibility for improving their teaching skills”; “I took actions to ensure that teachers feel responsible for their students’ learning outcomes”.

International averages

This report includes eight arithmetic and one weighted average (for more detail about the country coverage of the international averages, see Table A B.1):

- **OECD average-27**: arithmetic average based on International Standard Classification of Education (ISCED) Level 2 teacher or principal data across 27 OECD education systems with a data adjudication rating of “good”, “fair” or “poor”. The report refers to the average teacher as equivalent shorthand for the average teacher “across the 27 OECD education systems participating in TALIS”.
- **OECD average-25**: arithmetic average based on ISCED Level 2 teacher data across 25 OECD education systems with a data adjudication rating of “good”, “fair” or “poor” that participated in both the TALIS 2018 and TALIS 2024 cycles.
- **OECD average-24**: arithmetic average based on ISCED Level 2 principal data across 24 OECD education systems with a data adjudication rating of “good”, “fair” or “poor” that participated in both the TALIS 2018 and TALIS 2024 cycles.
- **TALIS average-49**: arithmetic average based on ISCED Level 2 teacher or principal data across 49 TALIS 2024 education systems with a data adjudication rating of “good”, “fair” or “poor”.
- **TALIS ISCED 1 average-12**: arithmetic average based on ISCED Level 1 teacher or principal data across 12 TALIS 2024 education systems with a data adjudication rating of “good”, “fair” or “poor”.
- **TALIS ISCED 3 average-8**: arithmetic average based on ISCED Level 3 teacher data across eight TALIS 2024 education systems with a data adjudication rating of “good”, “fair”, or “poor”.
- **TALIS ISCED 3 average-7**: arithmetic average based on ISCED Level 3 principal data across seven TALIS 2024 education systems with a data adjudication rating of “good”, “fair”, or “poor”.
- **OECD PIAAC average-29**: arithmetic average based on data across the 29 OECD countries and territories that participated in the Survey of Adult Skills 2023.
- **EU total-22**: weighted average based on ISCED Level 2 teacher or principal data across all European Union (EU) member states that participate in TALIS with a data adjudication rating of “good”, “fair” or “poor”. The EU total represents the 22 EU member states that also participated in TALIS 2024 as a single entity and to which each of the 22 EU member states contribute in proportion to the number of teachers or principals, depending on the basis of the analysis.

Therefore, the EU total is calculated as a weighted arithmetic mean based on the sum of final teacher (TCHWGT) or principal (SCHWGT) weights by country, depending on the target population.

Education systems that did not meet the TALIS technical standards with respect to participation rates are not included in international averages:

- ISCED level 1 (teacher and principal data): the Flemish Community of Belgium, the Netherlands and New Zealand.
- ISCED level 2 (teacher and principal data): Alberta (Canada), the Netherlands, New Zealand and Norway.
- ISCED level 3 (principal data): the Flemish Community of Belgium.

Table A B.1. Country coverage of international averages in TALIS 2024

Country/territory	OECD average-27	OECD average-25	OECD average-24	TALIS average-49	TALIS ISCED 1 average-12	TALIS ISCED 3 average-8	TALIS ISCED 3 average-7	OECD PIAAC average-29	EU total-22
Albania				X					
Alberta (Canada)								X	
Australia	X	X		X	X				
Austria	X	X	X	X				X	X
Azerbaijan				X					
Bahrain				X					
Belgium	X	X	X	X	X				X
Flemish Community (Belgium)						X		X	
French Community (Belgium)									
Brazil				X	X				
Bulgaria				X					X
Chile	X	X	X	X				X	
Colombia	X	X	X	X					
Costa Rica	X			X					
Croatia				X		X	X		X
Cyprus*				X					X
Czechia	X	X	X	X				X	X
Denmark	X	X	X	X		X	X	X	X
Estonia	X	X	X	X				X	X
Finland	X	X	X	X				X	X
France	X	X	X	X	X			X	X
Hungary	X	X	X	X				X	X
Iceland	X	X	X	X					
Israel	X	X	X	X				X	
Italy	X	X	X	X				X	X
Japan	X	X	X	X	X			X	
Kazakhstan				X					
Korea	X	X	X	X	X			X	
Kosovo				X					
Latvia	X	X	X	X				X	X
Lithuania	X	X	X	X				X	X

Country/territory	OECD average-27	OECD average-25	OECD average-24	TALIS average-49	TALIS ISCED 1 average-12	TALIS ISCED 3 average-8	TALIS ISCED 3 average-7	OECD PIAAC average-29	EU total-22
Malta				X					X
Montenegro				X					
Morocco				X	X				
Netherlands								X	
New Zealand								X	
North Macedonia				X					
Norway								X	
Poland	X			X				X	X
Portugal	X	X	X	X		X	X	X	X
Romania				X					X
Saudi Arabia				X	X	X	X		
Serbia				X					
Shanghai (China)				X					
Singapore				X					
Slovak Republic	X	X	X	X				X	X
Slovenia	X	X	X	X	X	X	X		X
South Africa				X					
Spain	X	X	X	X	X			X	X
Sweden	X	X	X	X				X	X
Türkiye	X	X	X	X	X	X	X		
United Arab Emirates				X	X	X	X		
United States	X	X	X	X				X	
Uzbekistan				X					
Viet Nam				X					

Note: *Cyprus did not participate directly in TALIS 2024: its data collection and processing were managed exclusively by the international research consortium. Its data are reported in the result tables listed in Annex C.
The countries/territories not covered by TALIS but included in the OECD PIAAC average-29 are: England (United Kingdom), Germany, Ireland and Switzerland.

In this publication, the OECD average is generally used when the focus is on providing a global tendency for an indicator and comparing its values across education systems. In the case of some education systems, data may not be available for specific indicators, or specific categories may not apply. Therefore, readers should keep in mind that the term “OECD average” refers to the OECD education systems included in the respective comparisons. In cases where data are not available or do not apply to all sub-categories of a given population or indicator, the “OECD average” may be consistent within each column of a table but not necessarily across all columns of a table.

Standard errors and significance tests

The statistics in this report represent estimates based on samples of teachers and principals, rather than values that could be calculated if every teacher and principal in every country had answered every question. Consequently, it is important to measure the degree of uncertainty of the estimates. In TALIS, each estimate has an associated degree of uncertainty that is expressed through a standard error. The use of confidence intervals provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. From an observed sample statistic and assuming a normal distribution, it can be inferred that the corresponding population result would lie within the confidence interval in 95 out of 100 replications of the measurement on different

samples drawn from the same population. The reported standard errors were computed with a balanced repeated replication (BRR) methodology.

Differences between sub-groups

Differences between sub-groups along teacher (e.g. female and male teachers) and school characteristics (e.g. schools with a high concentration of students from socio-economically disadvantaged homes and schools with a low concentration of students from socio-economically disadvantaged homes) were tested for statistical significance. All differences marked in bold in the data tables of this report are statistically significantly different from 0 at the 95% level.

In the case of differences between sub-groups, the standard error is calculated by taking into account that the two sub-samples are not independent. As a result, the expected value of the covariance might differ from 0, leading to smaller estimates of standard error as compared to estimates of standard error calculated for the difference between independent sub-samples.

Differences between cycles

Differences between TALIS cycles (e.g. change between 2018 and 2024) were tested for statistical significance. All differences marked in bold in the data tables of this report are statistically significant at the 95% level. As samples from different TALIS cycles are considered independent, the standard error for any comparison between cycles is calculated with the expected value of the covariance being equal to 0.

Statistics based on regressions

Regression analysis was conducted to explore the relationships between different variables. Multiple linear regression was used in those cases where the dependent (or outcome) variable was considered continuous. Binary logistic regression was employed when the dependent (or outcome) variable was a binary categorical variable. Regression analyses were carried out for each country separately. Similarly to other statistics presented in this report, the OECD and TALIS averages refer to the arithmetic mean of country-level estimates, while the EU total is calculated as a weighted arithmetic mean based on the sum of final teacher (TCHWGT) or principal (SCHWGT) weights by country, depending on the target population.

Control variables included in a regression model are selected based on theoretical reasoning and to the extent possible limited to the most objective measures or those that do not change over time:

- Controls for teacher characteristics: teacher's gender, age and years of teaching experience.
- Controls for target class characteristics: class size, class intake of students who have difficulties understanding the language(s) of instruction, class intake of low achieving students, and class intake of students with special education needs.
- Controls for school characteristics: school location, school governance type, school intake of students from socio-economically disadvantaged homes, school intake of students who have difficulties understanding the language(s) of instruction, and school intake of students with special education needs.

In the case of regression models based on multiple linear regression, the explanatory power of the regression models is also highlighted by reporting the R-squared (R^2), which represents the proportion of the observed variation in the dependent (or outcome) variable that can be explained by the independent (or explanatory) variables.

In order to ensure the robustness of the regression models, control variables were introduced into the models in steps. This approach also required that the models at each step be based on the same sample.

The restricted sample used for the different versions of the same model corresponded to the sample of the most extended (i.e. with the maximum number of independent variables) version of the model. Thus, the restricted sample of each regression model excluded those observations where all independent variables had missing values.

Regression analyses presented in this report handle missing data by listwise deletion. In the result tables, regression models that are based on 25% to 50% of the full sample are highlighted with a † next to the country/territory label. Analyses based on less than 25% of the full sample are excluded from the report.

Restrictive models that include many independent variables and are based on small samples can lead to limited variability in some independent variables. This, in turn, may cause the corresponding coefficients to appear either very small or very large. In this report, such independent variables are treated as constants and therefore excluded from the regression model. These suppressed variables are marked with the missing value symbol “m” in the results tables. Please note that this approach – suppressing independent variables with little or no variability – is not applied to control variables.

Multiple linear regression analysis

Multiple linear regression analysis provides insights into how the value of the continuous dependent (or outcome) variable changes when any one of the independent (or explanatory) variables varies while all other independent variables are held constant. Everything else held constant, on average, a one-unit increase in the independent variable (X_i) is associated with an increase in the dependent variable (Y) by the units represented by the regression coefficient (β_i):

$$\mathrm{Y} = \beta_0 + \beta_1 X_1 + \ \ldots \ + \beta_i X_i + \varepsilon$$

When interpreting multiple regression coefficients, it is important to keep in mind that each coefficient is influenced by the other independent variables in a regression model. The influence depends on the extent to which independent variables are correlated. Therefore, each regression coefficient does not capture the total effect of independent variables on dependent variables. Rather, each coefficient represents the additional effect of adding that variable to the model, if the effects of all other variables in the model are already accounted for. It is also important to note that, due to the cross-sectional nature of TALIS data, no causal conclusions can be drawn.

Regression coefficients in bold in the data tables are statistically significantly different from 0 at the 95% confidence level.

Binary logistic regression analysis

Binary logistic regression analysis enables the estimation of the relationship between one or more independent (or explanatory) variables and the dependent (or outcome) variable with two categories. The regression coefficient (β) of a logistic regression is the estimated increase in the log odds of the outcome per unit increase in the value of the predictor variable.

More formally, let Y be the binary outcome variable indicating no/yes with 0/1, and p be the probability of Y to be 1, so that $p = prob(Y = 1)$. Let $X_1 , \ldots X_k$ be a set of explanatory variables. Then, the logistic regression of Y on $X_1 , \ldots X_k$ estimates parameter values for $\beta_0, \beta_1, \ldots \ \beta_k$ via the maximum likelihood method of the following equation:

$$Logit(p) = \ \log(p/(1-p)) = \beta_0 + \beta_1 X_1 + \ \ldots \ + \beta_k X_k$$

Additionally, the exponential function of the regression coefficient $\left(exp(\beta)\right)$ is obtained, which is the odds ratio (OR) associated with a one-unit increase in the explanatory variable. Then, in terms of probabilities, the equation above is translated into the following:

$$p = exp(\beta_0 + \beta_1 X_1 + \ \ldots \ + \beta_k X_k / 1 + exp(\beta_0 + \beta_1 X_1 + \ \ldots \ + \beta_k X_k))$$

The transformation of log odds (β) into odds ratios $(exp(\beta); OR)$ makes the data more interpretable in terms of probability. The odds ratio (OR) is a measure of the relative likelihood of a particular outcome when a specific condition is present (the antecedent) compared to when it is not. The odds ratio for observing the outcome when an antecedent is present is:

$$OR = (p_{11}/p_{12})/(p_{21}/p_{22})$$

where p_{11}/p_{12} represents the "odds" of observing the outcome when the antecedent is present, and p_{21}/p_{22} represents the "odds" of observing the outcome when the antecedent is not present. Thus, an odds ratio indicates the degree to which an explanatory variable is associated with a categorical outcome variable with two categories (e.g. yes/no) or more than two categories. An odds ratio below one denotes a negative association; an odds ratio above one indicates a positive association; and an odds ratio of one means that there is no association. For instance, if the association between being a female teacher and working part-time is being analysed, the following odds ratios would be interpreted as:

- **0.2**: Female teachers are five times less likely to work part-time than male teachers.
- **0.5**: Female teachers are half as likely to work part-time than male teachers.
- **0.9**: Female teachers are 10% less likely to work part-time than male teachers.
- **1**: Female and male teachers are equally likely to work part-time than male teachers.
- **1.1**: Female teachers are 10% more likely to work part-time than male teachers.
- **2**: Female teachers are twice more likely to work part-time than male teachers.
- **5**: Female teachers are five times more likely to work part-time than male teachers.

The odds ratios in bold indicate that the relative risk/odds ratio is statistically significantly different from 1 at the 95% confidence level. To compute statistical significance around the value of 1 (the null hypothesis), the relative-risk/odds-ratio statistic is assumed to follow a log-normal distribution, rather than a normal distribution, under the null hypothesis.

Pearson correlation coefficient

In this report, Pearson correlation coefficients are used to quantify relationships between system-level statistics. Correlation coefficients measure the strength and direction of the statistical association between two variables. They vary between -1 and 1; values around 0 indicate a weak association, while the extreme values indicate the strongest possible negative or positive association. The Pearson correlation coefficient (indicated by the letter *r*) measures the strength and direction of the linear relationship between two variables.

Rotated questionnaire design

The TALIS 2024 applied a rotated questionnaire design, which implies that some questions are administered on all three teacher forms (i.e. common questions), while others are rotated across the different forms and do not appear on all three teacher forms. Rotated questions are mainly administered on two and, in some limited cases, only one out of the three forms.

To the extent possible, this report presents analyses based on at least two-thirds of the full sample. Analysis based on a one-third sample can be viable as well, including for trend analysis. However, analyses

of questions administered to a one-third sample that involve cross-tabulation or regression analysis are more likely to result in otherwise statistically significant differences or regression coefficients go undetected. For more detail about the TALIS 2024 rotated questionnaire design, see Chapter 3 of the *TALIS 2024 Technical Report* (OECD, forthcoming[1]).

Changes between TALIS cycles and implications for analyses

Change in the definition of the target population between TALIS cycles

The fourth TALIS cycle (i.e. TALIS 2024) allows analysis of changes over a 16-year period. Nevertheless, such analysis poses certain challenges: country coverage and the target population within a given country may differ across cycles; the variables of interest could change due to changes in the questionnaires; moreover, the context of teaching and learning might also change. Therefore, comparisons across cycles need to be interpreted with care.

In TALIS 2008, teachers whose teaching was directed entirely or mainly at students with special education needs were not part of the target population. However, this changed for TALIS 2013 and onwards, as teachers of students with special education needs got included in the target population. Hence, estimates representing the change from 2008 to 2024 need to be interpreted with caution. Nevertheless, it is important to note that teachers who work in schools that teach only special education needs students were excluded from all TALIS cycles.

Change in the ISCED classification

The classification of levels of education is based on the International Standard Classification of Education (ISCED). ISCED is an instrument for compiling statistics on education internationally. In TALIS 2008 and 2013, ISCED-97 was used to report on teachers' and principals' educational attainment. The first classification, ISCED-97, was revised and the new one, ISCED-2011, was formally adopted in November 2011. ISCED-2011 is the basis of the education levels presented in the TALIS 2018 and 2024 questionnaires for teachers and principals.

The result tables reporting teachers' educational attainment in this report are based on ISCED-2011. A correspondence table (Table A B.2) was used to translate ISCED-97 education categories used in TALIS 2008 and 2013 into the categories of ISCED-2011, in order to produce tables reporting changes in teachers' educational attainment from 2008 to 2024, and from 2013 to 2024. This correspondence table was used to compile Table BMUL.TR1.TQ03 in Chapter 1. Changes over time in teachers' educational attainment will need to be interpreted with caution because of the change in the classification.

For certain countries, the correspondence between ISCED-97 and ISCED-2011 was revised to reflect country specificities, compared to the general approach presented in Table A B.2. Namely, for Table BMUL.TR1.TQ03, ISCED-97 Level 5B was reclassified as ISCED-2011 Level 6 in the cases of the Flemish Community of Belgium and Italy.

In Portugal, the teachers with a "pre-Bologna master's degree" are categorised as ISCED Level 6. The question is presented in a way that prevents the disaggregation between "pre-Bologna master's degree" and "doctoral degree".

In Slovenia, teachers with a "pre-Bologna bachelor's degree" are categorised as ISCED Level 5 (which typically corresponds to short-term tertiary education). The question is presented in a way that prevents the disaggregation between "pre-Bologna bachelor's degree" and "bachelor's degree".

Table A B.2. Correspondence between ISCED-2011 and ISCED-97 levels used in TALIS 2018 publications

TALIS 2008 ISCED-97	TALIS 2013 ISCED-97	ISCED-97 categories	TALIS 2018 ISCED-2011	ISCED-2011 categories
–	–	–	Level 0	**Early childhood education** Refers to early childhood programmes that have an intentional education component and aim to develop cognitive, physical and socio-emotional skills necessary for participation in school and society. Programmes at this level are often differentiated by age.
–	–	–	Level 01	*Early childhood educational development*
Level 0	Level 0	**Pre-primary education** Initial stage of organised instruction, designed primarily to introduce very young children to a school-type environment.	Level 02	*Pre-primary education*
Level 1	Level 1	**Primary education or first stage of basic education** Normally designed to give students a sound basic education in reading, writing and mathematics.	Level 1	**Primary education** Designed to provide a sound basic education in reading, writing and mathematics and a basic understanding of some other subjects. The entry age is between 5 and 7. Typical duration is 6 years.
Level 2	Level 2	**Lower secondary education or second stage of basic education** The lower secondary level of education generally continues the basic programmes of the primary level, although teaching is typically more subject-focused, often employing more specialised teachers who conduct classes in their field of specialisation.	Level 2	**Lower secondary education** Completes provision of basic education, usually in a more subject-oriented way with more specialist teachers. Programmes may differ by orientation, general or vocational, though this is less common than at upper secondary level. Entry follows completion of primary education and typical duration is 3 years. In some countries, the end of this level marks the end of compulsory education.
Level 3	Level 3	**Upper secondary education** The final stage of secondary education in most OECD countries. Instruction is often more organised along subject-matter lines than at ISCED Level 2 and teachers typically need to have a higher level, or more subject-specific, qualification than at ISCED Level 2.[1]	Level 3	**Upper secondary education** Stronger specialisation than at lower secondary level. Programmes offered are differentiated by orientation: general or vocational. Typical duration is 3 years.
Level 4	Level 4	**Post-secondary non-tertiary education** These programmes straddle the boundary between upper secondary and post-secondary education from an international point of view, even though they might clearly be considered as upper secondary or post-secondary programmes in a national context.[2]	Level 4	**Post-secondary non-tertiary education** Serves to broaden rather than deepen the knowledge, skills and competencies gained in the upper secondary level. Programmes may be designed to increase options for participants in the labour market, for further studies at tertiary level, or both. Usually, programmes at this level are vocationally oriented.
Level 5	Level 5	**First stage of tertiary education** ISCED Level 5 programmes have an educational content that is more advanced than those offered at Levels 3 and 4.	–	–
Level 5B	Level 5B	*ISCED 5B programmes are generally more practical/technical/occupationally specific than ISCED 5A programmes.*	Level 5	**Short-cycle tertiary education** Serves to deepen the knowledge developed at previous levels by imparting new techniques, concepts and ideas not generally covered in upper secondary education.
Level 5A Bachelor's	Level 5A	*ISCED 5A programmes are largely theoretically based and are intended to provide sufficient*	Level 6	**Bachelor's or equivalent level** Designed to provide participants with

TALIS 2008 ISCED-97	TALIS 2013 ISCED-97	ISCED-97 categories	TALIS 2018 ISCED-2011	ISCED-2011 categories
degree		*qualifications for gaining entry into advanced research programmes and professions with high skill requirements.*		intermediate academic and/or professional knowledge, skills and competencies, leading to a first degree or equivalent qualification. Typical duration is 3-4 years' full-time study.
Level 5A Master's degree			Level 7	**Master's or equivalent level** Stronger specialisation and more complex content than bachelor's level. Designed to provide participants with advanced academic and/or professional knowledge. May have a substantial research component.
Level 6	Level 6	**Second stage of tertiary education** This level is reserved for tertiary programmes that lead to the award of an advanced research qualification. The programmes are devoted to advanced study and original research.	Level 8	**Doctoral or equivalent level** Designed to lead to an advanced research qualification. Programmes at this level are devoted to advanced study and original research, and exist in both academic and professional fields.

1. There are substantial differences in the typical duration of ISCED Level 3 programmes, both across and between countries, typically ranging from two to five years of schooling.
2. They are often not significantly more advanced than programmes at ISCED Level 3, but serve to broaden the knowledge of participants who have already completed a programme at Level 3. Students are typically older than those in ISCED 3 programmes.
Source: UNESCO-UIS (2012[2]), *International Standard Classification of Education: ISCED 2011, UNESCO Institute for Statistics*, Montreal, http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf.

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Annex D. List of TALIS 2024 contributors

TALIS is a collaborative effort, bringing together expertise from participating countries that share an interest in developing a survey programme to inform their policies about teachers, teaching and learning. This report is the product of collaboration and co-operation among the member countries of the OECD, the partner countries participating in the fourth round of TALIS, the European Union and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Engagement with bodies representing teachers (Education International) and regular briefings and exchanges with the Trade Union Advisory Council (TUAC) at the OECD have been very important in the development and implementation of TALIS. In particular, the co-operation of the teachers and principals in the participating schools has been crucial in ensuring the success of TALIS.

The TALIS Governing Board has, in the context of OECD objectives, driven the development of TALIS and has determined its policy objectives. This includes the objectives of the analysis and reports produced, the conceptual framework and the development of the TALIS questionnaires. The governing board has also overseen the implementation of the survey and the preparation of this report.

Participating countries implemented TALIS at the national level at national project centres through, among others, national project managers (NPMs), national data managers (NDMs) and national sampling managers (NSMs), who were subject to rigorous technical and operational procedures. The NPMs played a crucial role in helping to secure the co-operation of schools, to oversee the national adaptation, translation and validation of the questionnaires, to manage the national data collection and processing and to verify the results from TALIS. The NDMs co-ordinated data processing at the national level and liaised in the cleaning of the data. The NSMs were responsible for implementing TALIS, respecting sampling procedures and other rigorous technical and operational procedures.

A Questionnaire Expert Group (QEG) was established to translate the policy priorities into questionnaires to address the policy and analytical questions that had been agreed by the participating countries. A Technical Advisory Group (TAG) was assembled to advise during the decision-making process for technical or analytical issues. A group of subject-matter experts and analysts were also critical in the analytical phase and drafting of the initial reports.

The co-ordination and management of implementation at the international level was the responsibility of the appointed contractor, the International Association for the Evaluation of Educational Achievement (IEA) and its consortium members, the Australian Council for Educational Research (ACER, Melbourne, Australia), cApStAn and RAND Europe AISBL. The TALIS 2024 Consortium included staff from the IEA offices in Amsterdam and Hamburg, ACER, cApStAn and RAND Europe AISBL. IEA Hamburg was responsible for the overall survey planning, survey administration, the international data management, item analyses and scaling for the TALIS core. IEA Amsterdam was responsible for overseeing the verification of the translation and for the implementation of the international quality control programme. The sampling unit at the IEA Hamburg, developed the sampling plan, advised countries on its application, calculated the sampling weights and advised on the calculation of sampling errors. cApStAn linguistic quality control, Brussels Belgium, was responsible for organising and implementing the translation verification process for all administered languages. ACER developed the conceptual framework and provided advice on item development for the TALIS core.

The OECD Secretariat had overall responsibility for managing the programme, monitoring its implementation on a day-to-day basis and serving as the secretariat of the TALIS Governing Board.

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Notes

[1] This information was correct as at 23 September 2025.

TALIS

Results from TALIS 2024

The State of Teaching

The OECD Teaching and Learning International Survey (TALIS) is the world's largest survey of teachers and principals. In 2024, educators from 55 education systems provided information about what they do and how they are doing. They explain if and how they use artificial intelligence, why they became teachers and if they wish to continue teaching. Governments use data from TALIS to make policies that improve teaching and learning conditions in their schools.

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