



Transforming education from within

Current trends in the status and development of teachers

World Teachers' Day 2022

World Teachers' Day on 5 October is a yearly occasion to celebrate teachers and all related professionals for their work and their invaluable contribution to the shaping of citizens and communities. It is also a time for reflection and critical analysis of teachers' professional situation and the challenges they face.

This document aims to provide a contextual, data-driven overview of the key challenges facing teachers around the world in the aftermath of the COVID-19 pandemic and is intended to inform the discussions that will take place in the various sessions of the 2022 commemorations of this international day. It will also serve as a basis for further action and global engagement to strategically support teachers to innovate and transform teaching from within.

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The Global Education 2030 Agenda

UNESCO, as the United Nations' specialized agency for education, is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals by 2030. Education, essential to achieve all of these goals, has its own dedicated Goal 4, which aims to *"ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."* The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments.



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Introduction

The COVID-19 pandemic has been a challenging period for education, as for other sectors. But as well as challenges, crises present opportunities for renewal. The pandemic showed that we can only overcome 21st century challenges, such as climate change, rapid technological development and rising inequality, when we work together – and education must model this essential change.

Education has always been important in advancing the transformation of societies, so to build sustainable futures, education itself must be transformed. To build a better future, as the pandemic showed, we need flexible, adaptable education systems that can play their part in addressing the root causes of inequalities. In this transformation, teachers must be key agents of change. The COVID-19 pandemic demonstrated that teachers have the capacity to adapt educational provision to changing demands, including in content and organization, to make education more relevant and foster learning even in the most challenging contexts. The crisis showed that education can change, but for this change to take place, teachers need to be adequately supported and empowered to play their part.

This point is made in the report from the International Commission on the Futures of Education (UNESCO, 2021), which calls for a new social contract for education. The report emphasizes that education involves more than just transmitting knowledge: education must impart the values, norms, commitments and principles that shape global coexistence and help forge global citizens who can work together towards a sustainable and peaceful future. It highlights four main issues that must be addressed to reimagine teaching and the teaching profession and place teachers at the centre of the transformation process. First, teaching must be recast as a collaborative profession, which starts with recognizing teachers as reflective practitioners whose knowledge serves their learners, other teachers and education systems. Second, teacher professional development must be recognized as a lifelong journey and fostered through communities of practice, peer learning and other continuing education opportunities. Third, public solidarity is needed to transform teaching and improve education by improving teachers' working conditions and elevating teacher status, in part to ensure the profession is more appealing to younger generations and thereby to address teacher shortages. Finally, the report considers the role of teachers beyond schools and examines their role in decision-making and public debate about education, in which autonomy but also support is needed.

The Transforming Education Summit (TES), convened by the Secretary-General of the United Nations in September 2022, identified teachers, teaching and the teaching profession as one of its key thematic areas. The TES recognized that the education workforce must be professionalized, trained, motivated and supported to drive the transformation of education. For instance, teaching and learning was cited more frequently than any other topic as found in an analysis of 106 National Statements of Commitment (CGD, 2022). Developed through global consultations among a wide range of stakeholders, a discussion paper identified key challenges, as well as strategies and recommendations to enable the transformation of teachers, teaching and the teaching profession (UNESCO, ILO and TTF, 2022). Emerging from the paper, three action areas were elaborated to support and empower teachers and education personnel:

- Accelerate efforts to **improve the status of teachers and their working conditions** to make the teaching profession more attractive through robust social dialogue and teacher participation in educational decision-making
- Accelerate the pace and **improve the quality of teacher professional development** through the adoption of comprehensive national policies for teachers and teaching personnel
- **Improve financing for teachers** through integrated national reform strategies and effective functional governance and dedicated financial strategies.

This year's World Teachers Day draws on both the Futures of Education report and the Transforming Education Summit. While many of the effects of the pandemic have yet to be reflected in national

and international education statistics, this background paper aims to provide a contextual, data-driven overview of the key challenges facing teachers around the world in the aftermath of the COVID-19 pandemic and is intended to inform the discussions that will take place in the various sessions of the 2022 commemorations of this international day. This background paper will also serve as a basis for further action and global engagement to strategically support teachers to innovate and transform teaching from within.

SECTION 1: Teacher shortages - persistent gaps

An increase in the supply of qualified teachers is urgently needed to achieve universal primary and secondary education, but shortfalls persist, especially in sub-Saharan Africa. Gender imbalances are still prevalent both in teacher workforces and school leadership, and teacher attrition continues to have a major impact on teacher supply.

Target 4.c of the Sustainable Development Goals (SDGs) states that by 2030, an increase in the supply of qualified teachers is urgently needed. This is critical to ensure the achievement of target 4.1, universal primary and secondary education, which is essential to ensure better student outcomes and thus education transformation. In 2016, the UNESCO Institute for Statistics (UIS) projected that 68.8 million additional teachers (24.5 million in primary and 44.3 million in secondary education) would be needed to achieve universal primary and secondary education and fulfil the promise of SDG 4 by 2030. Shortfalls varied substantially by region, with the greatest numbers needed in sub-Saharan Africa (17 million) and Southern Asia (15 million) (UNESCO-UIS, 2016).

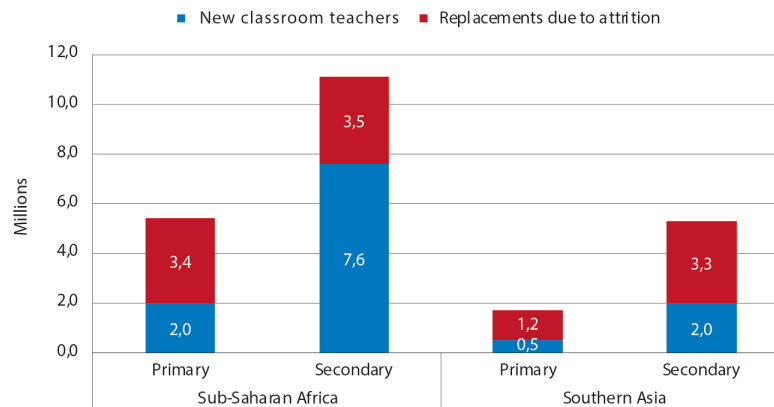
In 2022, all world regions still need more teachers, especially those that have rapidly growing school-aged populations. In most high-income countries where universal primary education (UPE) and universal secondary education (USE) have already been achieved or are very close to being achieved, demand for teachers is relatively low due to the often slow, stagnant or declining growth of school-aged populations. Nevertheless, since the return to in-person teaching after COVID-19 school closures, several high-income countries have reported a lack of teachers: 9,100 primary teachers are needed in the Netherlands (Paudal, 2022), 4,000 in France (Albert et al., 2022), 2,558 in Japan (Takahama and Ujioka, 2022) and many more in the United States (Natanson, 2022).

In many low-income countries and some middle-income countries, especially in Africa and Southern Asia, high birth rates mean that school-aged populations are rapidly increasing, so substantial additional demand for teachers is likely, representing significant but necessary claims on education budgets.

Based on the most recent analysis by the International Task Force on Teachers for Education 2030 (TTF), Figure 1 shows that teacher targets remain out of reach for the two regions with the greatest need. In sub-Saharan Africa, 16.5 million additional teachers are needed to achieve SDG 4: 5.4 million at primary level and 11.1 million at secondary. This includes new teaching posts required by education expansion as well as replacements needed due to teacher attrition. This is the first time the projected number of teachers has increased, and it has happened because teacher workforces are not increasing proportionally to the growth of school-aged populations, compounded by a rise in out-of-school children in sub-Saharan Africa: new estimates suggest 98 million were out of school in 2021 (UNESCO-UIS/GEMR, 2022), up from 93.3 million in 2018 (UNESCO-UIS, 2016b).

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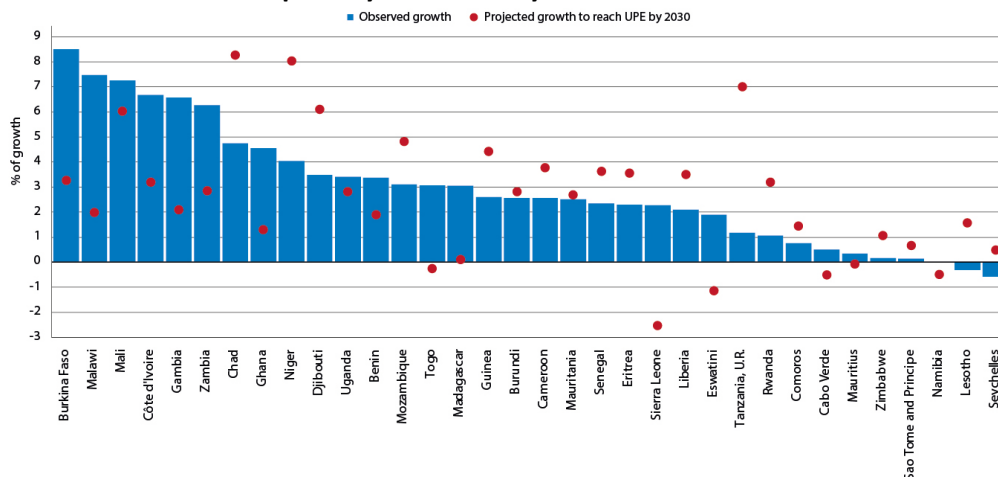
Figure 1: Teacher projections for sub-Saharan Africa and Southern Asia to meet Education 2030 targets, primary and secondary education, 2021



Source: International Task Force on Teachers for Education 2030, 2022a (based on data 15 September 2022).

Comparing current annual primary teacher growth rates with projected needs in sub-Saharan Africa shows that several countries are not on track to achieve UPE by 2030. This includes Chad and Niger, which need to increase primary teacher numbers by more than 8 per cent annually to double the total workforce of the primary teacher to reach UPE. Relatively fewer teachers are needed where annual teacher growth outpaces projected needs, for example in Burkina Faso, the Gambia, Ghana, Malawi and Sierra Leone (Figure 2). However, sustaining this growth will require significant effort, particularly during the COVID-19 recovery phase where further constraints can emerge.

Figure 2. Current and projected needed annual growth in teacher numbers in sub-Saharan African countries to achieve universal primary education by 2030



Source: International Task Force on Teachers for Education 2030, 2022a (based on data 15 September 2022).

On the other hand, in Southern Asia, new projections call for an additional 7 million teachers by 2030, including 1.7 million in primary and 5.3 million in secondary education – a considerable reduction from earlier projections. The lower primary teacher projection can be attributed to strong progress towards universal primary education in Bangladesh and India, as well as to declining birth rates (Arora, 2021; Bora et al., 2021; DESA, 2022; Pearce, 2021). Elsewhere in the region, in Afghanistan and Pakistan the annual growth rate of primary teachers would have to increase by about 50 per cent or more than 10 per cent annually to achieve UPE by 2030.

Across both regions, greater numbers of secondary than primary teachers are needed due to the larger capacity for expansion at that level. In sub-Saharan Africa, projected annual needs are far greater than current growth rates in most countries, meaning too few teachers will be available to achieve USE in 2030. The secondary teacher workforce needs to grow more than 15 per cent annually in Central African Republic, Chad, Ethiopia, Malawi, Niger and the United Republic of Tanzania. In Southern Asia, secondary teacher growth rates need to reach 9 per cent annually in Pakistan and 5 per cent in Bangladesh. Recent increases in India's secondary teacher workforce suggest it could be moving towards USE but sustaining this high expansion rate and recruiting enough teachers is a significant challenge (UNESCO, 2021).

More recently, teacher gaps in Europe have become a concern, exacerbated by global labour shortages after COVID-19. For example, in Sweden, a predicted 153,000 teachers will need to be trained by 2035 to replace those lost to retirement and attrition (Albert et al., 2022). Some countries are adopting new recruitment strategies, including the increased use of contract teachers. In Italy, where teachers are on average among the oldest in the region, 150,000 teacher posts have already been filled by contract teachers. France also plans to recruit contract teachers, who will be given very short 'emergency' forms of training (RFI, 2022).

Contract teachers pose challenges in terms of qualifications and sustainability, and better long-term solutions are needed. Indonesia, for example, is recruiting 1 million teachers under contract, but has put examinations in place for them to become government employees (Cabinet Secretary of the Republic of Indonesia, 2021).

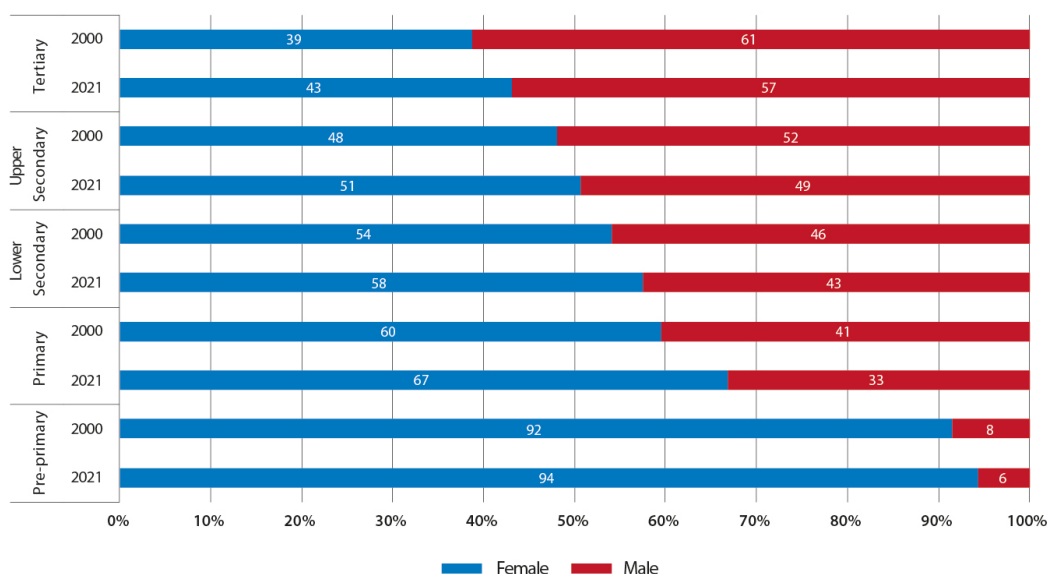
Gender representation in teaching is unequal

Women's participation in the teaching profession is marked by the same gender-based inequalities as society at large, which poses problems for female teachers in their lives and career development, and also impacts on educational quality and demand for education.

Gender has been shown to have an impact on students' attitudes, career aspirations and achievements (Beilock et al., 2010; Dee, 2005). The decision to become a teacher may be influenced by early role models in the classroom. Data show that countries with the lowest proportion of females in the primary teacher workforce are strongly correlated with low female enrolment in secondary education, which is a prerequisite for teacher training. While several other factors affect transition to higher levels, lack of role models cannot be discounted (UNESCO-UIS, 2010). Gender stereotypes and a lack of male teachers at early education levels have also influenced boys' disengagement from education (UNESCO, 2022).

Globally, the higher the level of education, the smaller the percentage of women in the profession, which disadvantages women, since higher levels usually mean higher status and salaries.

Teacher status also has a gendered dynamic. For example, the proportion of females versus males is strongly related to the level of education being taught. Figure 3 shows that, globally, the higher the level of education, the smaller the percentage of women in the profession, which disadvantages women, since higher levels usually mean higher status and salaries. In 2020, 92 per cent of pre-primary teachers were women, and women made up more than half of all teachers at all levels – except in tertiary education, where they represented 43 per cent. The feminization of the profession has continued over time. Although women's representation at tertiary level has increased, there is a lack of men in teaching mostly in lower levels.

Figure 3. Total global teachers disaggregated by sex, 2000 and 2020

Data source: UIS database, 2022a (accessed 15 September 2022).

Figure 4 shows wide regional differences also exist. In 2020, women represented about three-quarters of primary teachers or more in Central Asia, Europe and Northern America, Latin America and the Caribbean and Eastern and South-eastern Asia. The only region where women represented the minority of primary teachers was sub-Saharan Africa, where they comprised 46 per cent in 2020. The percentage of women in primary teaching has increased since 2000 in Oceania and Southern Asia, where previously there were more male than female teachers. Gender variations also exist within regions. For example, in sub-Saharan Africa, women comprised most primary teachers in southern Africa in 2020, including 75 per cent in Lesotho and 74 per cent in Botswana, but in Chad, Liberia and Togo, fewer than one in five were women.

Gender in school leadership continues to be an issue

School leaders have an important role in schools, providing guidance and setting the overall learning environment, and gender can play a part in the kind of environment school leaders foster. Data from various high- and upper-middle-income countries show that in lower secondary education, despite high percentages of female teachers, women are poorly represented in leadership positions, affecting not only labour equity but also school environments. For example, half or more of lower secondary teachers were women in Japan, the Republic of Korea and Türkiye, but women represented less than 20 per cent of principals in the Republic of Korea and less than 10 per cent in Japan and Türkiye (OECD, 2019). Women were also poorly represented in teacher leadership in Central and Western Africa, comprising 15 per cent or less in Burkina Faso, Chad, Côte d'Ivoire, the Democratic Republic of the Congo, Senegal and Togo. By contrast, women represented 54 per cent of school leaders in lower secondary schools in Madagascar, despite making up only 42 per cent of lower secondary teachers (PASEC, 2020).

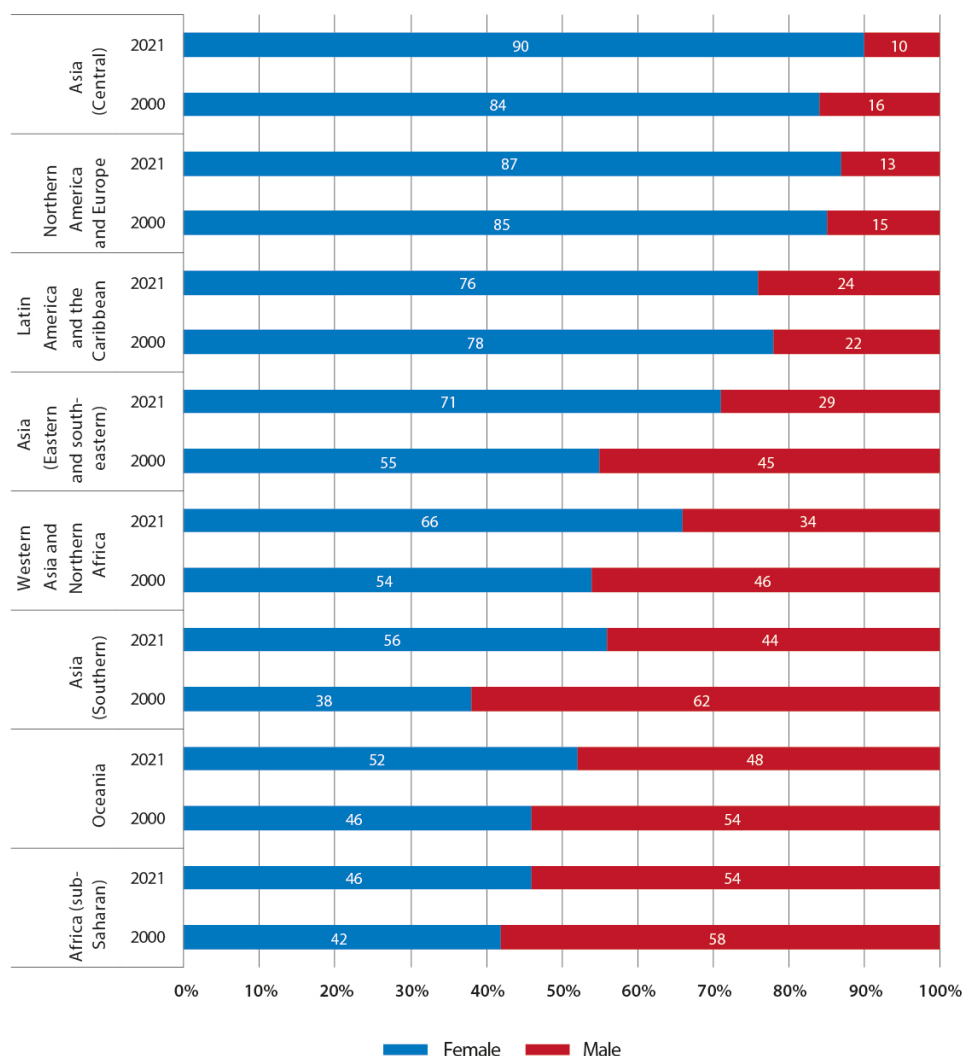
Teachers keep leaving the profession and absenteeism has increased

Teacher attrition is a major concern in building and sustaining a quality teaching workforce. Attrition not only means the loss of experienced teachers, but also poses additional costs in training and recruiting replacements – a challenge in countries with overstretched education budgets. Losing teachers during the school year can have serious implications for students and their learning, especially where experienced and trained teachers are difficult to recruit.

Teacher attrition has many causes, including a lack of financial incentives, poor working conditions,

high workloads, lack of preparation, poor administrative support, poorly designed classrooms and a lack of teaching resources. Emigration in search of better opportunities is also a source of attrition (UNESCO, 2018).

Figure 4: Teachers in primary education by region, disaggregated by sex and region, 2000 and 2020



Data source: UIS database, 2022a (accessed 15 September 2022).

Note: Data from Oceania do not include Australia and New Zealand.

Figure 5 shows a snapshot of attrition rates for male and female teachers in 2021, or the most recent year, in countries at different income levels. Teacher attrition can be unstable and vary substantially from year to year, yet rates remain very high in, for example, Algeria, Lebanon, Sierra Leone and Turks and Caicos Islands.

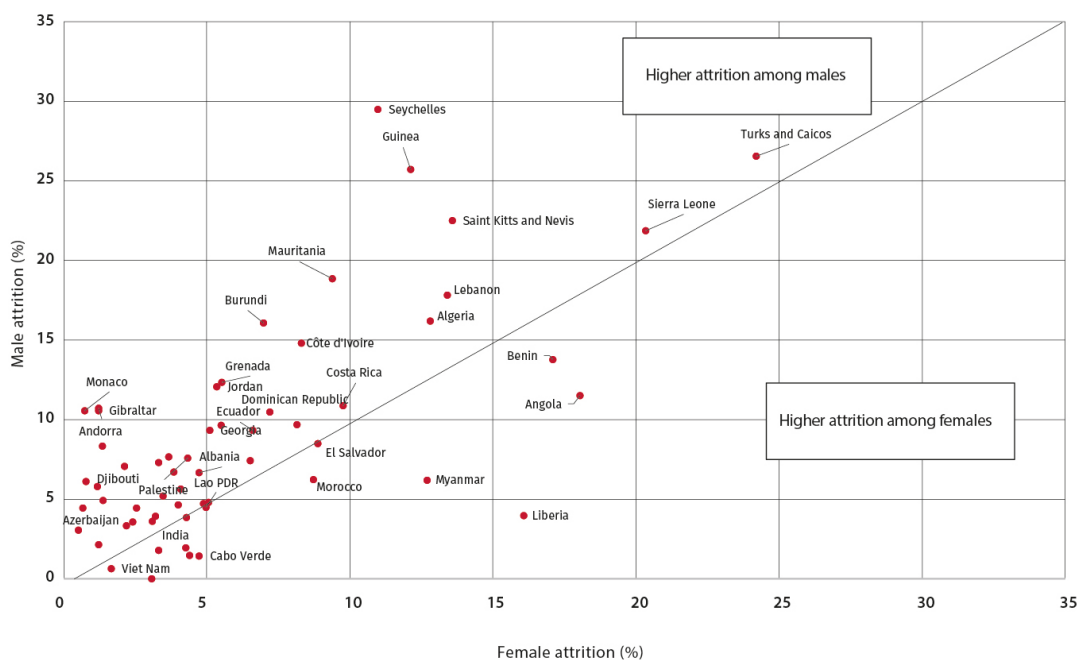
Gender can also be a determinant of teacher attrition. Men have more local labour market opportunities than women in various national economies, which may cause more men to leave teaching than women (Mulkeen, 2010). Attrition among males was at least double that of females in countries such as Burundi, China, Côte d'Ivoire, Grenada, Jordan, Mongolia and Saint Kitts and Nevis.

Women also leave teaching for many reasons, including pregnancy and childcare, poor working conditions for women in rural posts including lack of adequate housing and safety issues, or the

desire to find a post closer to family members (International Task Force on Teachers for Education 2030, 2010; Mulkeen et al., 2017; Stromquist et al., 2013). Attrition rates of female teachers were about double that of males in, for example, Angola, Myanmar and the British Virgin Islands.

Meanwhile, during the three years covering the pandemic (2020–2022), about half of respondent countries reported an increase in teacher absences, with slight variation across country income groups at primary and secondary education. While few low- and lower-middle-income countries reported information on teacher absences, data suggests that teacher absenteeism was a challenge globally (UNESCO et al., 2022).

Figure 5: Teacher attrition in primary education, 2021 or latest data available



Data source: UIS database, 2022a (accessed 15 September 2022).

Recommendations

To address persistent teacher shortages and the lack of diversity in the teaching profession, including gender equality, the international community agreed that actions were necessary during the Transforming Education Summit, in September 2022. In order to fill teacher gaps, education systems need to:

- Improve the status and social standing of the teaching profession to attract more candidates by reinforcing social dialogue and teacher participation in educational decision-making
- Formulate and implement teacher policies that calculate and cost the needs for expansion of the teaching workforce and progressively integrate contract-teachers into the public civil service, while also improving contractual conditions.
- Improve financing for teachers through integrated national reform strategies and effective governance, allocating 4 to 6% of GDP or 15 to 20% of public expenditure to education.
- Promote gender equality in the teaching profession and address gender biases at different education levels and specializations, supporting women to take on leadership roles.
- Develop more flexible qualification and accreditation processes that allow multiple entry points to attract additional candidates into the profession while maintaining quality standards.

SECTION 2: Teachers' working conditions - How valued is the teaching profession?

High pupil–teacher ratios continue to put pressure on teachers, and the COVID-19 pandemic has increased workloads, exacerbated by sometimes inadequate non-teaching working hours. Salaries are not competitive in most countries and more psychosocial support is needed to improve teacher well-being.

Good working conditions are essential to attract and retain teachers, enhance the status of the profession and ensure teachers are active agents in transforming education. However, too many teachers have insecure contracts, low wages, little recognition and heavy workloads, affecting their motivation and increasing attrition (International Task Force on Teachers for Education 2030, 2020b). Committing to improving teachers' working conditions, recognizing their status and inviting them to participate in social dialogue and decision-making is critical to transform education and ensure quality.

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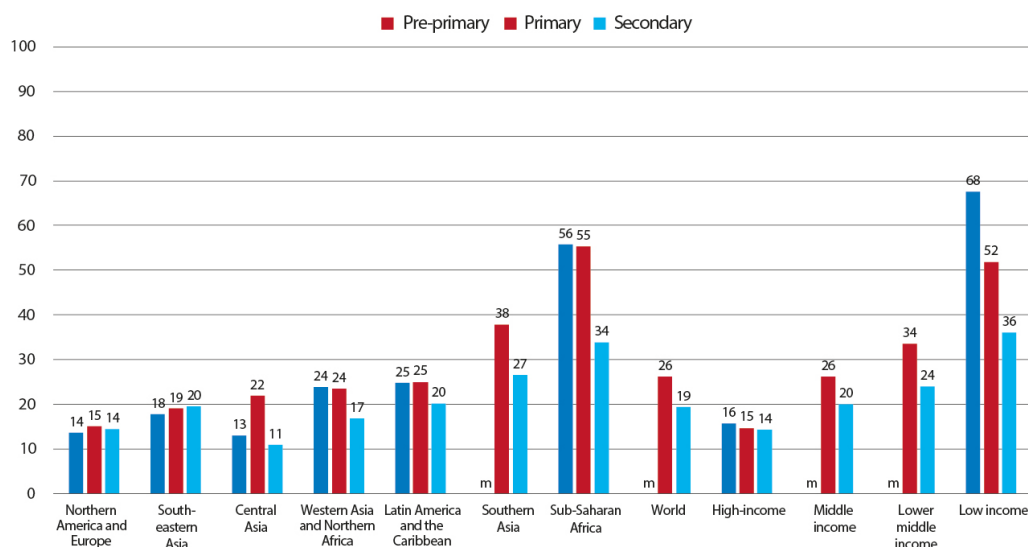
Class sizes and pupil–trained teacher ratios remain high

One crucial factor affecting teacher working conditions is pupil–teacher ratios (PTRs). High PTRs may signify high demand and reflect an overstretched teaching workforce, while low ratios may indicate additional capacity. PTRs are higher in primary education than in secondary, which can partly be attributed to the prevalence of single-classroom schools and the tendency for primary teachers to teach across subjects, where secondary teachers focus on just one or two. PTRs have implications on class size and potential for transforming teaching and learning. Smaller class sizes allow for more face-to-face time with students, closer relationships and better and more targeted pedagogies.

Since untrained teachers are used in many contexts, global monitoring uses the pupil–trained teacher ratio (PTTR), including just trained teachers, as an important proxy to shed light on teaching quality and the potential for transformational learning in classrooms. Figure 6 shows that in sub-Saharan Africa, 55 pupils on average shared one teacher with minimum qualifications, more than double the average global figure. Within the region, some countries have extremely high PTTRs, including Chad (89:1), Guinea (63:1) and Sao Tome and Principe (114:1). Madagascar, meanwhile, has a PTTR of 240:1. PTTRs are comparatively low in Botswana (26:1) and Cabo Verde (20:1). Teachers also had a high burden in Southern Asia, with 38 students per trained teacher. Bangladesh had a PTTR of 59:1 and Pakistan had 62:1. In India, by contrast, the PTTR has fallen from 38:1 to 29:1 between 2016 and 2021. Primary teachers in Europe and Northern America, where the PTTR was 15:1, were more likely to be able to provide more contact time to help transform students' learning.

Generally, PTTRs are lower in secondary education, yet many schools remain unprepared for transformative education, such as in Central African Republic, where the secondary education PTTR is 76:1. While the pre-primary sector remains small in most regions, pre-primary teachers are overstretched, especially in low-income countries, where the PTTR is 68:1, and in sub-Saharan Africa, with a PTTR of 56:1.

Figure 6: Pupil-trained teacher ratio (PTTR) by level and by region (based on total headcounts), 2020 or latest data available



Data source: UIS database, 2022a (accessed 15 September 2022).

Statutory working and teaching hours affect teachers' ability to transform education

Overly long statutory teaching and/or working hours may have implications for quality teaching, and thus teacher capacity to transform education. Good instruction requires preparation outside of regular teaching hours. Teachers must plan lessons, provide feedback and grade homework assignments and exams, as well as completing administrative tasks and engaging in professional development to learn new skills and develop innovative materials for students. Total teaching hours must therefore be balanced against teachers' total working hours; if teaching hours take up too high a proportion of total working hours, other responsibilities may be overlooked, impacting negatively on well-being and teaching quality. The negative impact of long teaching hours is likely amplified in countries where average class sizes are also relatively high, leaving insufficient time in the workday to engage in non-teaching activities.

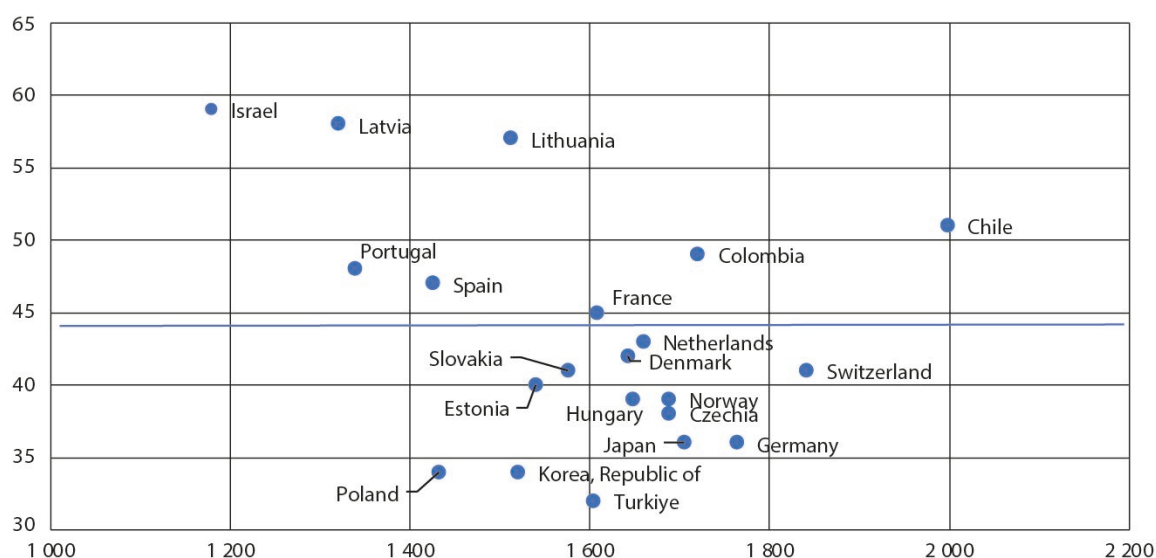
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The COVID-19 pandemic and the shift to remote teaching, along with new tasks associated with providing socio-emotional support to students and their families, increased the pressure on teachers and their working hours. A global survey found that 68.9 per cent of teachers reported working hours had increased as a result of COVID-19 (Thompson, 2021).

Teachers' statutory working and teaching hours vary considerably among the countries of the Organization for Economic Co-operation and Development (OECD) and differ according to education level (OECD, 2021), but on average, teaching time decreases as a proportion of total statutory working time as education level increases. Among lower secondary teachers, total annual working hours ranged from about 1,200 in Israel to almost 2,000 hours in Chile. In addition to working almost

50 per cent more than the average, lower secondary teachers in Chile spend slightly more than 50 per cent of their working time teaching. Working hours are also above average in Switzerland, but teachers there spend about 10 per cent less time teaching than in Chile. Teachers are permitted much more time for non-teaching activities in Poland, the Republic of Korea, and Türkiye spending less than 35% of working time teaching. Meanwhile, teachers in Israel and Latvia work fewer hours annually than the average but spend close to 60 per cent of them on teaching. For many teachers, this could mean carrying out non-teaching activities outside statutory working hours without compensation (Figure 7).

Figure 7: Percentage of lower secondary teachers' teaching time and total statutory working hours in selected high- and middle-income countries, 2020 or latest available year



Data source: OECD, 2021. Accessed on 03 October 2022.

Teachers' salary is a key component of working conditions

As the TES emphasized, accelerating efforts to improve teacher salaries is a key policy area in which decision-makers can have an impact (International Task Force on Teachers for Education 2030, UNESCO and ILO, 2022). Transforming education and ensuring quality requires highly talented and committed individuals, who should receive remuneration that corresponds to this high profile and responsibility. However, in many countries, teachers' salaries are not competitive. Comparing the average teacher salary in primary education to other professions requiring a comparable level of qualifications, Figure 8 shows that 6 out of 10 countries pay primary teachers less than other professions (UNESCO-UIS, 2022).

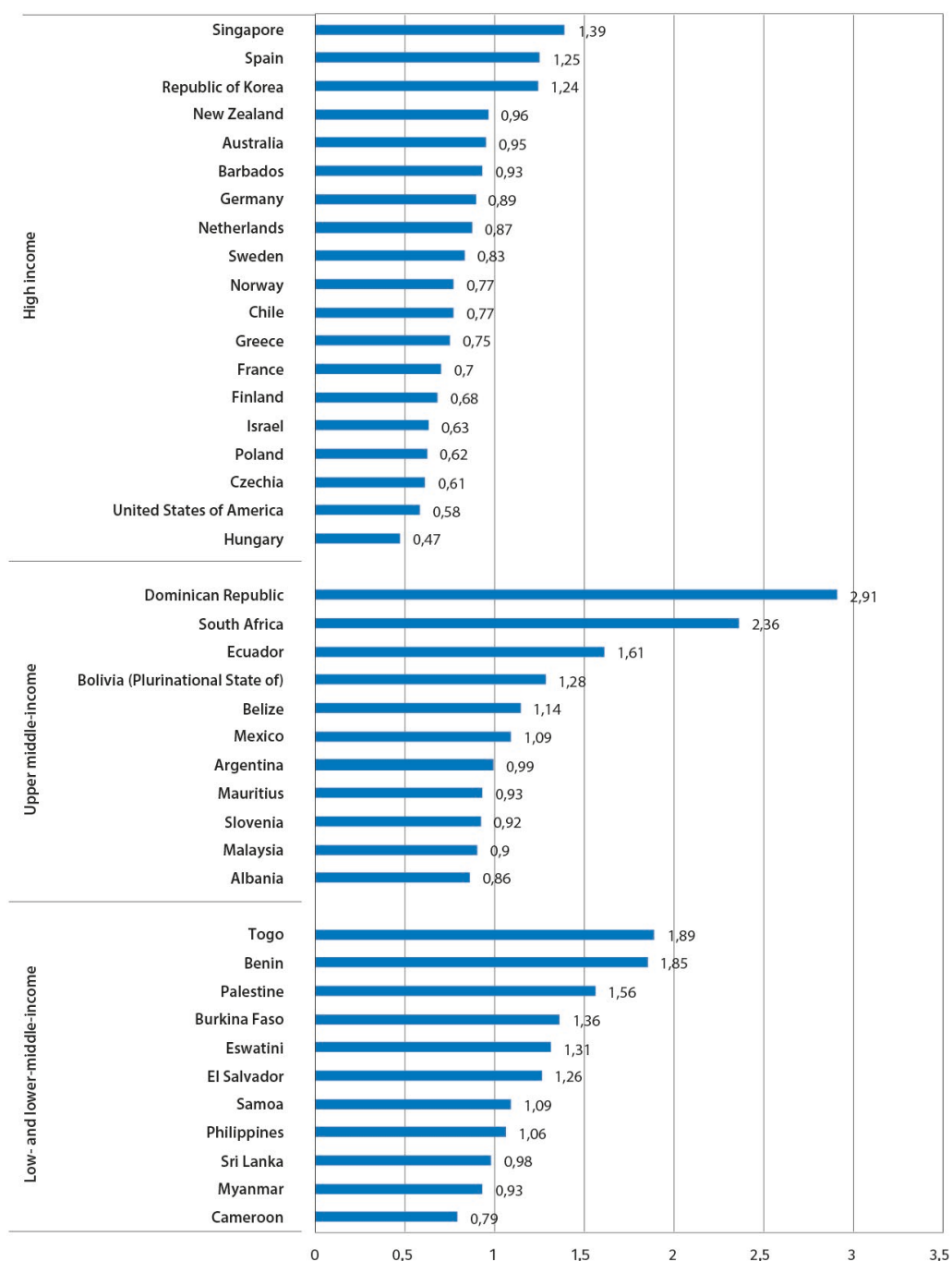
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High-income countries are least likely to pay teacher salaries that are higher than professionals with similar levels of qualifications and thus may face difficulties in attracting and retaining teachers. In

Finland, France and the United States, all of which report teacher shortages, primary teachers earn about three-quarters or less of the salaries of those in other professions requiring similar qualifications. In some Central and Eastern European countries, teachers earn even less, including in Hungary where teachers receive 0.47 times the salary of professionals with similar qualifications. Primary teachers are relatively well paid in the Republic of Korea, Singapore and Spain earning 1.39, 1.25 and 1.24 times the salary of other professionals.

Middle- and low-income countries appear more likely to pay primary teachers an average salary comparable to or competitive with professions requiring similar levels of qualifications. This is consistent with some previous analyses in sub-Saharan Africa, but it is certainly not universally the case (Evans et al., 2020). Among upper-middle-income countries, primary teachers earn almost three times the salary of comparable professionals in the Dominican Republic and more than twice the salary in South Africa. Among low-income countries, they earn almost twice as much in Benin (1.85) and Togo (1.89), while in Cameroon (0.79) they earn considerably less than professionals with comparable qualifications.

Figure 8: Average primary teacher salary in primary education relative to other professions requiring a comparable level of qualifications, both sexes, 2020 or latest data available



Data source: UIS database, 2022a (accessed 15 September 2022).

Comparing primary teacher salaries to those of other professions gives some insight into the competitiveness of the profession, but labour market dynamics vary within countries. Examining teacher salaries relative to GDP per capita sheds additional light on salary attractiveness. For instance, the mean primary teacher salary before bonuses, which can be significant in some countries, is more than five times the GDP per capita in Burundi, Lesotho and Togo (Bennell, 2022).

Due to salary adjustment policies and the recruitment of less qualified and contract/voluntary teachers, especially in francophone sub-Saharan African countries since about 2000, teacher salaries

have continued to decline relative to GDP per capita. Converting salaries into internationally comparable purchasing parity power values (PPP \$) can provide information on teacher salaries' absolute earning power in terms of maintaining an adequate standard of living (Bennell, 2022). Most teachers in Western Europe and Northern America earned between PPP \$40,000 and PPP \$60,000 per annum in 2020 PPP \$ (OECD, 2021) with salaries highest in Luxembourg (PPP \$70,000) and Switzerland (PPP \$60,000). Salaries were lowest in Hungary and Latvia, at about PPP \$16,000 each. In some middle-income countries, salaries were lower than PPP \$40,000 per annum, including Colombia (PPP \$22,000), Mexico (PPP \$21,000) and Türkiye (PPP \$29,000).

Figure 9 shows that primary teachers in 20 countries earn, on average, less than PPP \$7,500 per annum, which means that teachers' pay is largely inadequate to meet basic family needs. This comprises a large proportion of teachers from high population countries, including the Democratic Republic of the Congo, Ethiopia and Nigeria. Teacher salaries are highest, on the other hand, in the countries of southern Africa, including Botswana, Namibia and South Africa (Bennell, 2022).

Figure 9: Mean pay of primary school teachers in sub-Saharan Africa by annual income groups, rounded in 1000s purchasing power parity (PPP \$), 2020

Less than 5	5-7.5	7.5-10	10-15	15-20	More than 20
Central African Republic	Burundi	Burkina Faso	Benin	Côte d'Ivoire	Botswana
D. R. Congo	Ethiopia	Chad	Cameroon	Eswatini	Namibia
Gambia	Ghana	Guinea	Kenya	Lesotho	South Africa
Guinea-Bissau	Liberia		Mali		
Madagascar	Mozambique		Senegal		
Malawi	Nigeria		Togo		
Niger	Sierra Leone		Zambia		
Rwanda	U. R. Tanzania				
Somalia					
South Sudan					
Uganda					
Zimbabwe					

Source: Bennell, 2022.

Mean income estimates mask the actual level of salaries among primary school teachers in many low-income countries. Contract and community teachers account for sizeable proportions of teachers on government payrolls, particularly in francophone West Africa. There is no single definition of a contract teacher: in different countries, the terms part-time teacher, state contract teacher, national service contract teacher, community teacher and volunteer (*maître-parent*) all refer to contract teacher subtypes. However, contract teachers have in common that they are recruited through alternative pathways and agree to work outside the traditional employment arrangements of a civil service collective agreement. They receive a salary, but do not receive the benefits that apply under public sector norms, such as annual leave, pension or health insurance. As a result of

their status, contract teachers typically receive lower remuneration and have less job stability, since their employment is subject to public budget fluctuations, market pressures and education providers' ability to pay.

Primary teachers in 20 countries earn on average, less than PPP \$7,500 per annum, which means that teachers' pay is largely inadequate to meet basic family needs

Contract teachers represented 71 per cent of all pre-primary to secondary level teachers in Niger in 2017 (UNESCO-IIEP, 2020) and 64 per cent of primary teachers in Chad in 2014 (UNESCO, 2020). In Togo, about one-third of teachers were volunteer teachers in 2017/2018 (UNESCO-IIEP, 2019). Contract teachers increased as a proportion of all teachers in primary education in Burkina Faso, from negligible levels in 2002 to 81 per cent in 2015, but decreased in Mali, falling from 79 per cent in 2009 to 29 per cent in 2014, as a result of a government decision under pressure from teacher unions to grant civil service status to more than 40,000 contract and community teachers.

Recognizing work through equivalent, fair and competitive salaries is the basis for building better working conditions and status for teachers. As part of the TES, an analysis of National Statements of Commitment showed that Brazil will increase salaries for basic education teachers by 33.24 per cent in 2022, their highest adjustment on record. In Latvia, the lowest teacher wages will be increased at pre-primary level by 11.2 per cent and at primary level by 8.4 per cent.

More psychosocial and emotional support is needed

To improve teachers' working conditions, teachers' psychosocial well-being must be supported. During the pandemic, teacher well-being suffered due to heavier workloads, new routines, concerns about illness, balancing teaching with childcare, providing socio-emotional support to other teachers and students and other factors. Data from a joint survey show that in 2020/2021, about 50 to 60 per cent of countries, with little variation by income level, provided the necessary psychosocial support to promote teacher well-being, such as training and peer support groups (UNESCO et al., 2022). However, previous analyses show that teachers in about two-thirds of countries in sub-Saharan Africa received no psychosocial and emotional support (International Task Force for Teachers for Education 2030, 2021). The TES review of National Statements of Commitment shows that one-third of countries prioritized the need to support the psychosocial well-being of both students and teachers, including Albania and Kuwait.

Box 1:

Fostering intrinsic motivation in teachers through enabling teaching conditions

Teacher motivation is critical to the quality of teaching, and so to learning outcomes. Methods of extrinsic motivation, including remuneration, status, etc., have shown mixed results in encouraging teacher motivation and raising student outcomes. So, STiR Education studied the effects of intrinsic motivation, defined as 'the impetus to do something because it is inherently satisfying rather than being influenced by extrinsic instigators', to determine whether it can produce changes in education (Aslam and Rawal, 2019, p. 3). A mixed methods study conducted in Pakistan, Uganda and Viet Nam collected data from academics, international donors and civil society, and concluded that four key drivers of intrinsic motivation can positively impact teachers' behaviour and performance: autonomy, mastery (the desire to improve), purpose, and relatedness (connection with peers and students). School leaders must foster these intrinsic

motivations through creating enabling working conditions, including by lessening administrative workloads, providing accurate data to help teachers to make decisions, ensuring the support of peer networks to exchange ideas and building supportive working environments. This must be accompanied by political will at local level to support teachers and drive change in schools.

Source: Aslam and Rawal, 2019.

Recommendations

Valuing the teaching profession begins by providing teachers with decent working conditions that support quality teaching and learning. The profession should promote teachers' well-being in terms of workload and work intensity, balance of teaching and non-teaching working time, appropriate accountability mechanisms, fair and competitive remuneration and a supportive environment. In line with the ILO/UNESCO Recommendation concerning the Status of Teachers (1966) and the UNESCO Recommendation concerning the Status of Higher-Education Teaching Personnel (1997), education systems need to:

- Improve employment and working conditions of teachers by providing social protection, conciliation measures, fair workloads and allocating time for professional development and non-teaching activities.
- Ensure teacher salaries are competitive to those of other professions requiring similar levels of qualifications and include incentives to remain in the profession based on experience and qualifications, while providing vertical and horizontal mobility throughout teachers' careers.
- Provide teachers with enabling environments, free from violence and deprivation, and with adequate support and teaching resources for them to exercise their professional pedagogical judgement.
- Enhance the autonomy and agency of teachers and recognize their contributions.

SECTION 3: Teacher professional development challenges: Are teachers adequately prepared and supported to transform teaching and learning?

COVID-19 showed the importance of teacher training and professional development. In many countries, but especially in sub-Saharan Africa, the proportion of teachers with minimum required qualifications remains inadequate. In-service training is essential to transformational teaching, but CPD opportunities vary widely across countries. In general, CPD is more available to secondary teachers than to primary teachers.

Professional development opportunities empower and motivate teachers and thus are vital in efforts to transform education and encourage transformative teaching practices. During the COVID-19 school closures, teachers had to transform their teaching to work in online, remote and hybrid learning environments. The return to school represented a second significant shift in how teachers taught. During this time, the need for continuing professional development was particularly clear, as teachers had to develop new competences to continue teaching and supporting learners and their families. To enable teachers to build these skills, teachers need pre- and in-service training that is free, tailored to their needs, aligned with educational priorities and oriented towards future challenges and prospects. The TES showed broad consensus on the importance of teacher training to ensure teacher motivation and retention: 80 per cent of countries acknowledged teacher training in their National Statements of Commitment and highlighted exchange programmes, communities of practice and peer mentoring as means to foster teaching as a collaborative profession. One of the main TES recommendations was to accelerate ‘the pace of teacher professional development by means of initial teacher education and continuous in-service training (International Task Force on Teachers for Education 2030, UNESCO & ILO. 2022).

Teachers need pre- and in-service training that is free, tailored to their needs, aligned with educational priorities and oriented towards future challenges and prospects.

To ensure quality teaching, teachers need to be provided with at least minimum qualifications

Providing quality transformative education requires that teachers undergo rigorous initial teacher education that provides them with the knowledge, pedagogical skills and values to ensure they maintain and improve their professional capacity over a lifetime. At minimum, teachers need to develop competencies that foster transformative pedagogies, including on ICT and digital domains, social and emotional learning, global citizenship education, education for sustainable development, leadership training, inclusive education and instructional leadership, self-directed learning and reflexive practice. Achieving this requires effective and accredited initial teacher education programmes, practicums, high recruitment standards, induction, mentoring, evaluation mechanisms, and opportunities for continuing professional development to meet existing gaps.

Globally, by 2020, 86 per cent of all teachers in primary and around 84 per cent in secondary education had met the minimum qualifications to practice. However, there are substantial

differences between regions: at primary level, 98 per cent of teachers in South-eastern Asia had minimum qualifications, as compared to 69 per cent in sub-Saharan Africa. Minimum qualifications are generally higher at the secondary level, and proportions of teachers holding them ranged from 96 per cent in South-eastern Asia to just 61 per cent in sub-Saharan Africa.

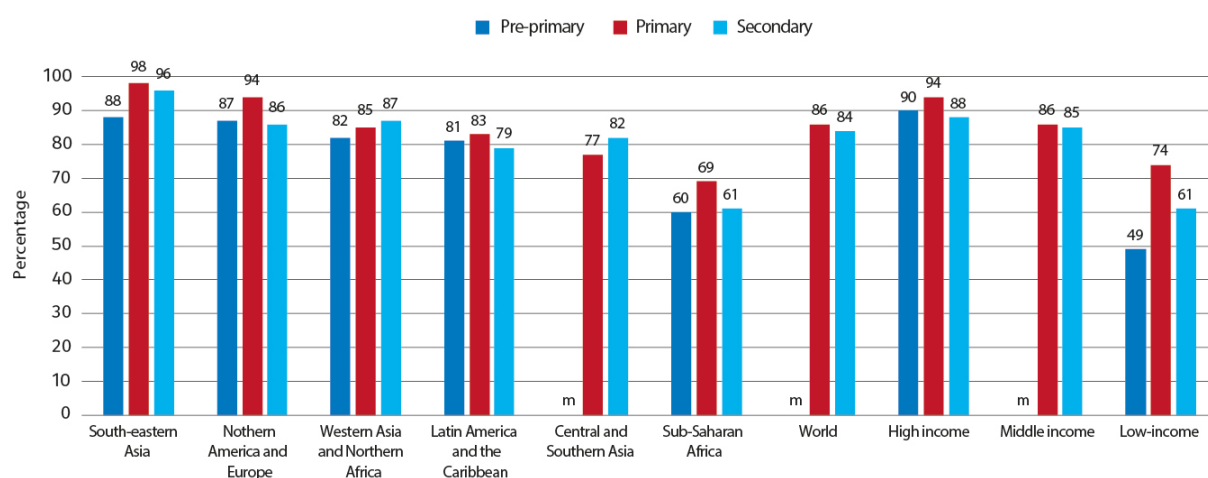
The potential for transformative teaching is most challenged in sub-Saharan Africa, where the proportion of teachers with minimum required qualifications has decreased since 2000, due to the growing number of private/community education providers, increased recruitment of contract teachers and constrained budgets (International Task Force on Teachers for Education 2030, 2020a). Training primary teachers adequately is falling short in Nigeria where 62 per cent have the minimum required qualification. Likewise in Chad and in Gabon, where training of primary teachers is equivalent to an upper secondary qualification, 63 and 52 per cent hold this requirement. In contrast almost 100 per cent of primary teachers in Botswana and Mauritius, 99 per cent in Cabo Verde, 98 per cent in Mozambique and 95 per cent in Namibia have minimum qualifications.

In secondary education, which requires a tertiary-level training in most countries, just 36 per cent of teachers in Benin, 22 per cent in Democratic Republic of the Congo, 29 per cent in Liberia and 34 per cent in Togo have minimum qualifications.

The potential for transformative teaching is most challenged in sub-Saharan Africa, where the proportion of teachers with minimum required qualifications has decreased since 2000, due to the growing number of private/community education providers, increased recruitment of contract teachers and constrained budgets.

In Southern Asia, 77 per cent of primary teachers held the minimum required qualifications, making it the region with the second lowest proportion. At country level, 100 per cent held minimum qualifications in Bhutan, 90 per cent in India, 83 per cent in Sri Lanka and 77 per cent in Pakistan (Figure 10).

Figure 10: Percentage of teachers with minimum required qualifications in primary and secondary education, by region and income level, 2020 or latest data available



Data source: UIS database, 2022a (accessed 15 September 2022).

SDG 4 specifically notes that more qualified teachers are needed in Small Island Developing States.

However, data show that in many countries in both the Caribbean and Oceania, a substantial proportion of teachers do not hold minimum qualifications: less than 70 per cent in several Caribbean countries, including Dominica, Grenada and Saint Kitts and Nevis, and about half or less in several countries in Oceania, including Fiji, the Marshall Islands and Micronesia.

Teacher professional development needs to be ensured through quality in-service training

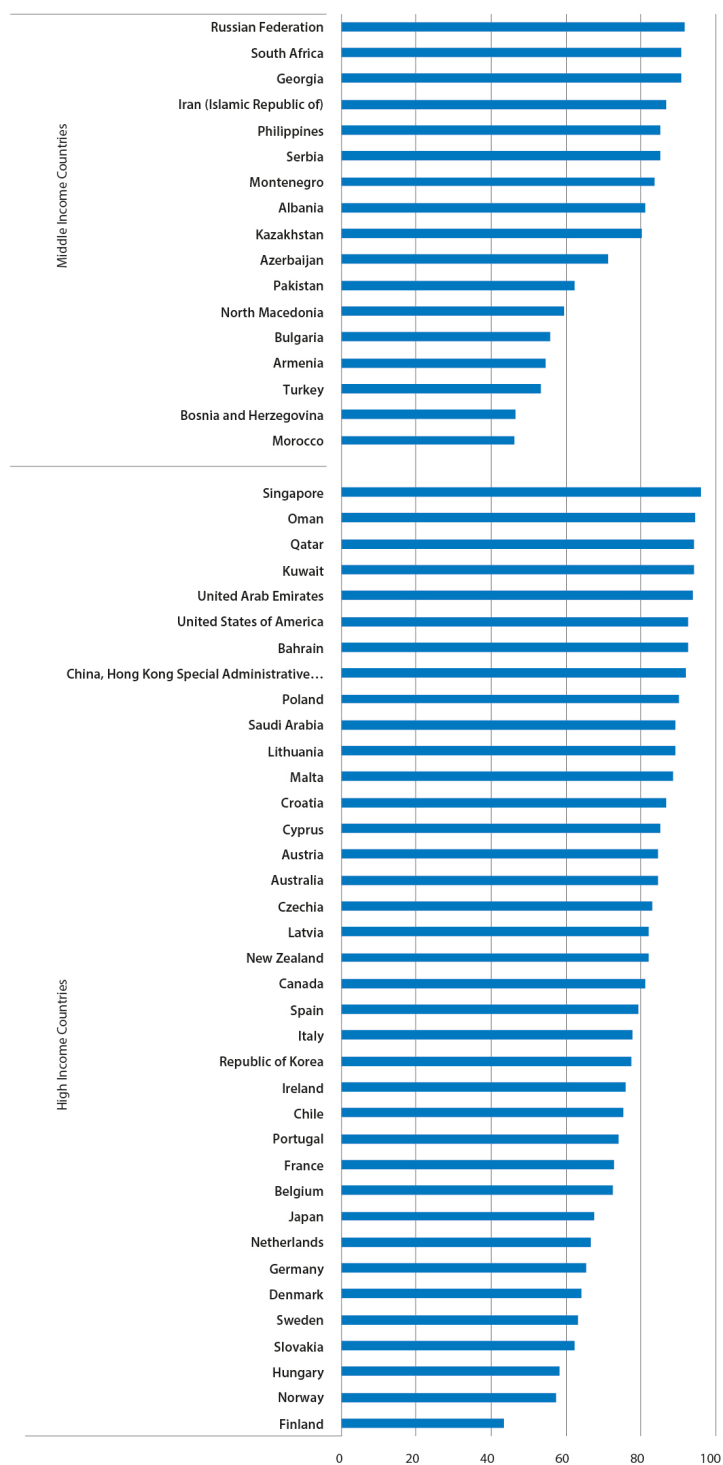
Continuing professional development (CPD) is an integral part of the professionalization of the teaching profession. It is crucial to supporting teachers in dealing with changing education environments and crises, and it can also help prevent stress and burnout. CPD should not only include new expertise and pedagogies, but also instruction in classroom management, enhanced ICT skills, teaching methods in multicultural and multilingual classrooms and teaching students with special needs (OECD, 2020). To help teachers play a transformative role, professional development needs to capitalize on teacher collaboration and peer learning to build transformative systems, processes and common teaching practices that are sustainable and can be integrated within classrooms and across time and space using traditional and digital technologies. In order to keep the most experienced teachers in the workforce, CPD should also be linked to standards and career progression opportunities that result in salary increases. Regular evaluation and assessment must ensure that training is of good quality and responds to local contexts and needs (International Task Force on Teachers for Education 2030, 2019).

In order to keep the most experienced teachers in the workforce, CPD should be linked to standards and career progression opportunities that result in salary increases. Regular evaluation and assessment must ensure that training is of good quality and responds to local contexts and needs.

Teachers in secondary education have more opportunities than teachers in primary education to engage in in-service training (UNESCO/IEA, 2020). In fact, at lower secondary level, two-thirds of countries with data (mostly high- and middle-income countries) from all regions indicate that more than 90 per cent of lower secondary teachers have received in-service training during the last 12 months. According to Figure 12, a much larger range is apparent in primary education, with many countries providing much less training; in Europe, for example, only 56 per cent of primary teachers in Bulgaria and 47 per cent in Bosnia and Herzegovina had received training in the previous year. In developing countries, teachers receiving CPD at primary level also varied substantially, ranging from 62 per cent of teachers in Pakistan and 46 per cent in Morocco to 95 per cent in Viet Nam and 91 per cent in South Africa.

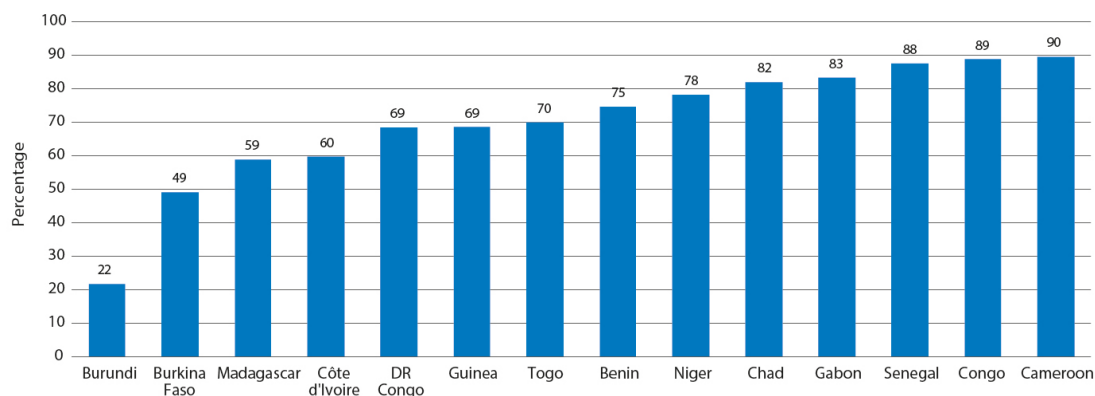
In-service training is particularly important in low- and lower-middle income countries in sub-Saharan Africa, where many unqualified personnel have been recruited to compensate for teacher shortages. Nevertheless, many countries do not provide opportunities for CPD. Just 20 per cent of primary teachers in Burundi received in-service training, compared to almost 80 per cent in Cameroon, Chad and Senegal (Figure 12).

Figure 11: Percentage of teachers in primary education who received in-service training in the last 12 months, 2019



Data source: UIS database, 2022a (accessed 15 September 2022).

Figure 12: Percentage of teachers who received in-service training over the past two years in selected sub-Saharan African countries, 2019



Source: Adapted from PASEC (2020); p. 194.

For CPD to meet teacher needs, making training opportunities accessible and available is necessary but insufficient. Training programmes must also be of good quality and tailored to needs and local context, and support mechanisms (such as time and resources) must be in place to enable teachers to participate in training (OECD, 2020). Technology can provide for increased access to CPD, especially in crisis contexts.

Box 2:

How does UNESCO support continuous professional development for teachers?

UNESCO is committed to teachers and to teacher professional development as a pillar to achieve SDG4 and provide quality and inclusive education for all. One key initiative is the [Global Teacher Campus](#), a flagship programme of UNESCO's Global Education Coalition, which seeks to provide teachers with professional development opportunities to increase their knowledge and practice on ICT skills and online, distance and hybrid education. The campus offers self-paced and facilitated courses free of charge.

Other efforts to support teacher professional development include more targeted country programmes in which UNESCO is a critical partner. Some examples are the [ImaginEcole](#) programme, created as a COVID-19 response to support online learning for teachers and students in 10 francophone African countries. In anglophone Africa, [Imagine Learning](#), a similar programme to support distance education and teaching, is currently supporting six countries. In the Caribbean, in 2021 the Global Education Coalition launched a [Distance Learning and Teacher Training Strategies programme](#) to train teachers on digital literacy using a train-the-trainer model, in which more than 12,000 teachers were prepared. The programme was delivered in collaboration with Blackboard and the Caribbean Centre for Educational Planning (CCEP) at the University of the West Indies, with financial support from the German Federal Ministry for Economic Cooperation and Development (BMZ) and local support for Jamaica from UNICEF Jamaica.

In support of policy-makers, the [International Task Force on Teachers for Education 2030](#), hosted by UNESCO, is promoting policy learning between countries, particularly on teacher professional development, the role of teacher standards and their relationships with career structure and pathways. The first workshop took place in June 2022 with a second to follow in November 2022. A separate workshop is organized for each main SDG region.

Box 3:**Teachers need to be prepared and empowered to provide education on sustainable development**

The ‘greening’ of education is one of the focal topics of the transforming education process. Given the current climate crisis, education for sustainable development (ESD) is essential to strengthen learners’ and societies’ adaptability and resilience through equipping people with the cognitive skills, values, behaviours and attitudes they need to actively contribute to sustainable futures. Teachers and other education personnel are crucial in facilitating and promoting ESD, as recognized in the Berlin Declaration on Sustainable Development (UNESCO and German Federal Ministry of Education and Research, 2021). Teachers, therefore, need to be supported to provide holistic ESD not only through relevant pre- and in-service training opportunities, as pledged in the Greening Education Partnership,¹ but also through access to ESD education resources and comprehensive curricula that prioritize ESD in teaching contents. At present, however, not all teachers feel well prepared to teach ESD, according to a global teacher survey, which found that:²

- Over 91 per cent of teachers consider the four sub-topics of ESD (sustainable consumption and production; climate change; human rights including gender equality; and cultural diversity and tolerance) to be important or very important, but do not necessarily feel confident to teach all the cognitive, behavioural and socio-emotional dimensions of ESD.
- More than one-third of teachers consider themselves able to explain well the cognitive dimensions of climate change, human rights and gender equality, and cultural diversity and tolerance, but only one-quarter feel the same about the behavioural dimensions.
- About 40 per cent of teachers reported rarely or never teaching about the cognitive dimension of climate change, human rights and gender equality, and cultural diversity and tolerance. More than 50 per cent rarely or never teach about corporate social responsibility, mostly due to a lack of knowledge and skills.
- Only about 55 per cent of teachers have received training on climate change and sustainable lifestyles.

Recommendations

As recognized during the Transforming Education Summit, strengthening the preparation and professional development of teachers is a priority to ensure they can support ongoing and future educational transformation. Education systems need to:

- Ensure teacher training programmes can absorb a sufficient supply of pre-service teachers to meet projected student needs by level, subject and region.
- Develop professional teacher standards and competency frameworks to guide the recruitment of teachers, revise the curricula of teacher initial education and inform continuous professional development.
- Recast teaching as a collaborative profession and reimagine professional development that employs communities of practice, mentorship programmes and peer-to-peer learning.
- Ensure continuing professional development is classroom-focused and teacher-led responding to the needs and aspirations of teachers.

¹ See Greening Education Partnership, part of the Transforming Education Summit: <https://www.un.org/en/transforming-education-summit/transform-the-world>.

² The Global Teacher Survey collected data through a global online survey targeting primary and secondary teachers and focused on their readiness to teach four thematic sub-areas of ESD and GCED: sustainable consumption and production; climate change; human rights including gender equality; and cultural diversity and tolerance. The survey was conducted between 1 March and 25 April 2021 (UNESCO and Education International, 2021).

- Integrate inquiry into teacher preparation by providing opportunities in pre- and in-service training to develop research skills and become lifelong learners.

SECTION 4: Innovation and teaching challenges

Teachers need a greater voice in decision-making, as well as more supportive environments, so that they can implement the classroom innovations that they are best placed to identify and develop. They also need professional development and practice to effect change in education, including access to ICT infrastructure in order to drive innovation, but access to ICT at primary level is poor in many regions.

Teachers' pedagogical knowledge has long been viewed as key to innovation in education. Pedagogical innovation has helped mitigate teaching challenges both with and without technology, including those associated with diverse classrooms and communities, changing contexts, and the different learning needs, paces and styles of individual learners.

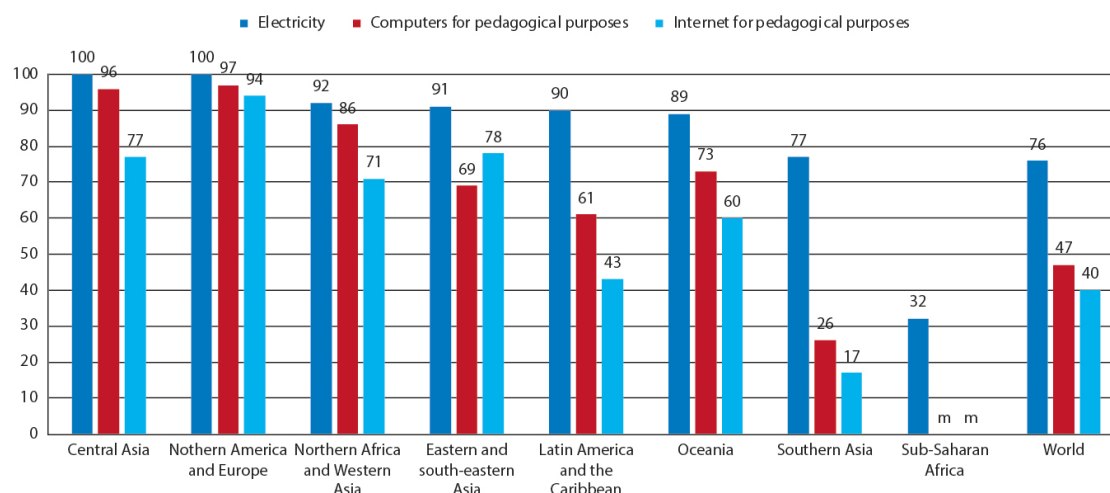
Simply defined, 'pedagogical innovation is a process that reinvents teaching practices, with the goal of better supporting student learning' (LaCroix, 2020). This may seem to be an everyday process, intrinsic to teaching practice. Nevertheless, while educational institutions have traditionally been the birthplace of most scientific or technological advances, education systems have proven to be the most disinclined to warmly embrace disruptive innovations, including those introduced by technological change. The accelerated pace of the digital transformation has brought opportunities for educational change and innovation, as seen during the COVID-19 crisis. Teachers should be the main innovators in this transformation, but they too often lack the access and support to make the most of this opportunity.

Teachers need better access to ICT infrastructure and more enabling environments

To make education systems resilient to future crises and avoid widening existing social inequities, teachers need access to adequate ICT infrastructure and environments that support them in their use. In primary education, throughout and after the COVID-19 crisis, sub-Saharan Africa was poorly equipped with the minimal facilities needed to enable decent technology-enabled teaching and learning, with just 32 per cent of schools even having electricity. Regional data are not available for computers and internet used for pedagogical purposes, but country data show they are available only in a minority of primary schools: fewer than 5 per cent in Burkina Faso, Liberia, Madagascar, Niger, Sierra Leone and Togo. Southern Asia fares slightly better, but the pattern is equally concerning. These two regions are home to the highest share of the world's out-of-school children, adolescents and youth. If digital technologies are to transform teaching in the region, transmit global advancements and open new worlds to millions of students, lack of school infrastructure within the existing digital divide remains a serious impediment (Figure 13).

To make education systems resilient to future crises and avoid widening existing social inequities, teachers need access to adequate ICT infrastructure and environments that support them in their use.

Figure 13: Availability of basic enabling ICT-mediated teaching and learning infrastructure in primary schools, 2020 or latest year available



Data source: UIS database, 2022a (accessed 15 September 2022).

Historically, access tends to be better at higher levels of education, but basic facilities are both inadequate and insufficiently used for learning across the curriculum. While data on teachers' access to facilities do not exist globally, teachers in the OECD and most developed countries tend to have access at least to their own devices – but this remains insufficient for ICT-enabled pedagogical innovations to take place (OECD, 2019).

Teachers need more training to use new methods

Teachers need to be appropriately prepared, including on digital skills, inclusive education and special needs, to fully engage in pedagogical innovation and transform education. Among several high- and middle-income countries, more than 90 per cent of teachers and principals attended at least one professional development activity prior to the survey. Of those teachers, 82 per cent reported that the training had a positive impact on their teaching practice. However, teachers still consider their ability to innovate impeded by lack of advanced ICT skills, as well as of skills to teach in multicultural, multilingual settings and to teach learners with special needs (OECD, 2019). The situation in other countries is mixed; for example, half of the countries in sub-Saharan Africa indicated they

Box 4:

The recent **2022 Global Connectivity Report** noted that a 'growing "connectivity canyon" is emerging between the hyperconnected and the "digitally destitute", with more than one-third of humanity still totally offline.' It described multiple digital divides:

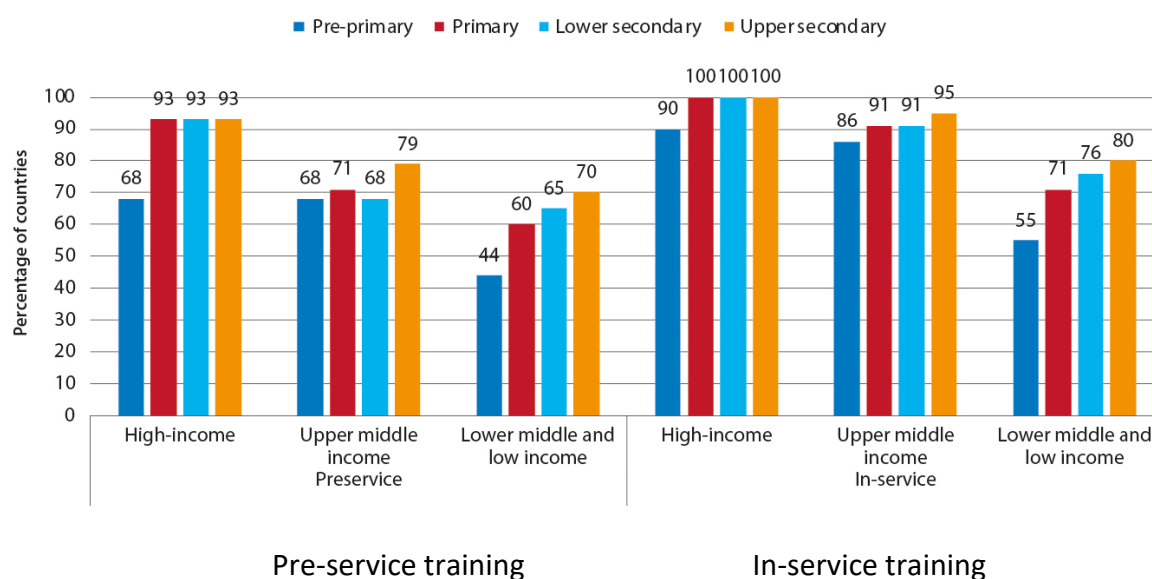
- The Income Divide: the level of internet use in low-income countries (22 per cent) remains far below that of high-income countries, which are approaching universal use (91 per cent)
- The Urban-Rural Divide: the share of internet users is twice as high in urban areas as in rural areas
- The Gender Divide: globally, 62 per cent of men are using the Internet, compared with 57 per cent of women
- The Generation Divide: in all regions, young people aged 15 to 24 are more avid internet users (72 per cent online) than the rest of the population (57 per cent)
- The Education Divide: in nearly all countries where data are available, rates of internet use are higher for those with more education – and in many cases, far higher (ITU, 2022).

trained half or less than half of all teachers to use distance learning methodologies, while one-quarter trained 25 per cent or less (International Task Force on Teachers for Education 2030, 2021).

Half of the countries in sub-Saharan Africa indicated they trained half or less than half of all teachers to use distance learning methodologies, while one-quarter trained 25 per cent or less.

The need for digital literacy skills has become particularly urgent during the COVID-19 pandemic and many countries have taken action to address it. According to the latest Joint Survey Report on National Education Responses, the majority of responding countries reported enhanced in-service teacher training provision in digital skills beyond the pandemic (Figure 14). More countries reported plans for in-service training than for pre-service training. The proportion also increased for higher levels of education ([UNESCO et al., UNICEF, World Bank and OECD, 2022](#)).

Figure 14: Share of respondent countries reporting enhanced provision of digital training for teachers beyond the pandemic, 2021/2022



Data source: UNESCO, UNICEF, World Bank and OECD, 2022.

In the same survey, 57 per cent of respondent countries reported having planned for additional professional development on digitalization for pre-primary teachers in the budget for the 2021/22 school year, compared to only 53 per cent in the 2020/21 school year. In primary and lower secondary education, the number decreased slightly, from 77 per cent for 2021/22 to 74 per cent in 2020/21 (UNESCO et al., 2022). This trend is reflected in other digitization measures, suggesting a risk that the need for digital literacy training for teachers is perceived as temporary and pandemic-related, and expected to decrease as schools reopen. But for teachers to be able to use relevant and up-to-date digital teaching content and methods in the future, appropriate continuing education opportunities must be provided on a permanent basis and must be included in teacher career development plans.

Transformation and innovation can be most effective when all learners are able to participate. Training for teachers on inclusive education has been reported as available in just 61 per cent of countries, with Latin America and the Caribbean in the lead, followed by Europe and Northern America. Fewer than 1 in 10 primary school teachers in francophone African countries had training in inclusive education and just 6 per cent of teachers working in special needs and inclusive schools were trained to work with children with disabilities and special needs (UNESCO, 2020).

Teachers need to be both actors in and beneficiaries of more supportive policy and institutional frameworks to thrive at pedagogical innovation

Throughout the pandemic, anecdotal evidence shows that policy-making and decision-making processes remained largely top-down, with teachers having little or no voice in influencing critical decisions affecting their capacity to innovate within their classroom settings, where they are best placed to introduce adaptive teaching practices. Although collaboration skills are viewed as key to pedagogical innovations, only 21 per cent of teachers among OECD countries participating in TALIS 2018 reported participating in collaborative professional learning and 28 per cent in team-teaching at least once a month (OECD, 2019).

Yet, across OECD TALIS 2018 participating economies, 81 per cent of teachers reported working in a collaborative school culture characterized by mutual support. On average, 61 per cent of teachers reported their predominant method of collaboration as ‘discussing the learning development of specific students’ while 47 per cent reported ‘exchanging teaching materials with colleagues’. Only 9 per cent of teachers reported having been involved in other forms of interdependent professional collaboration, such as ‘providing observation-based feedback to colleagues’, at least once a month.

An average of 71 per cent of teachers who reported having received feedback found it useful for their teaching practice. Teachers who reported being involved in their school decision-making tended to engage more frequently in professional collaboration, which could prove to be a useful guideline for education systems.

School principals and other instructional leaders need empowering accountability frameworks to support teachers with resilient and innovative coping strategies for future disruptions

The pandemic showed that to build resilient and agile education systems, education leaders need to be ready to provide teachers with supportive environments to develop and sustain pedagogical innovations. At the same time, greater use of technology and artificial intelligence to monitor education performance carries the risk of increased managerialism, surveillance and control of teachers. Evidence shows that trust and a feeling of security are essential if teachers are to thrive in their profession and feel motivated and empowered to innovate and shape teaching practices. Inadequate accountability systems tend to undermine this and risk compromising teachers’ autonomy. As outlined in the Futures of Education report, accountability systems need to shift from compliance with rigid metrics to shared goal-setting and assessment, focusing on collegiality and collaboration (International Commission on the Futures of Education, 2021).

Box 5:**VVOB & Rwanda Initiative: A roadmap to improve school resilience through innovative community and system-wide leadership**

In response to the COVID-19 school closures, Belgium's VVOB worked with Rwanda launching the *Building resilience in Leading Teaching and Learning Together program*, to mitigate the effects of the pandemic and future crises on teaching and learning in Rwanda and, to lay the groundwork for further scaling of the current Leading, Teaching and Learning Together (LTLT) program. It recommended to:

- Train school leaders and local school governance on crisis communication and ensure a feasible communication plan is developed for keeping communication lines with teachers, parents and students open during school closures.
- Upgrade the ICT skills of all education stakeholders and carefully plan for remote teaching to prepare for new lockdowns/school closures.
- Involve parents in the planning process so that decisions on remote teaching are tailored to the specific context of children and their parents.
- Develop entrepreneurship opportunities for teachers so that they do not directly lose all their income when (private) schools close.
- Further strengthen existing ties with community chiefs, parents and health centres.
- Support school leaders and local governance in setting up data management systems to follow-up on drop-out and student attendance.
- Create opportunities for guidance and counselling for teachers. Either appoint and train existing staff to do this or work with external parties.

Recommendations

Transformation in education requires teachers to be more adaptive and innovative. As highlighted in the report of the International Commission on the Futures of Education, and the conclusions of the Transforming Education Summit, education systems need to:

- Foster teacher agency and autonomy, providing incentives for teacher collaboration and innovation, including the expansion of effective evidence-based pedagogies and technology.
- Promote the co-creation of educational resources and implement continuous reforms to curricular and evaluation frameworks with the participation of teachers.
- Nurture partnerships for innovation to leverage and stimulate policy and practice, including the integration, use and scaling up of technology-based solutions.
- Develop teacher policies and frameworks that recognize and promote innovation.

Conclusion

World Teachers' Day is a yearly occasion to celebrate teachers and all related professionals for their work and their invaluable contribution to the shaping of citizens and communities. It is also a time for reflection and critical analysis of teachers' professional situation and the challenges they face. With less than eight years to go before the 2030 deadline, we can only conclude that 2015's goal of substantially increasing the supply of qualified teachers will not be achieved.

As this paper has shown, teacher shortages are persistent. A gender imbalance also continues, both among classroom teachers and school leaders. Too many teachers are leaving the profession, often early in their careers, due to unattractive working conditions. In many countries, teachers face overcrowded classrooms, longer working hours and a lack of professional and socio-emotional support. The profession is undergoing major changes as a result of the COVID-19 crisis, which has led to increasingly heterogeneous classrooms, higher expectations for keeping track of learners at risk of dropping out, and changes in working methods, with digital technologies used ever more extensively without being accompanied by the necessary training for teachers.

In spite of the new challenges faced in the profession, salaries and incentives have rarely improved. In fact, after the COVID-19 crisis, the number of contract teachers is increasing, including in some high-income countries like Italy. For many teachers, teaching has become a source of stress with no prospect of improvement – especially since social dialogue, in its current state of practice, does not always give teachers a voice in policy design. Teachers are often asked only to comment on predetermined policy proposals that do not necessarily address their problems or priorities.

Policy-makers need to address teachers' working conditions, professional preparation and support, including in innovation, and secure their participation in the development of all policies that impact on their profession. Otherwise, teachers will become more and more disaffected, and will not be able to act as the change agents envisioned by the global community at the Transforming Education Summit.

References

- Albert, E., Weider, T., Hivert, A-F., Bonnel, O. and Morin, V. 2022. Teacher shortages; A common problem throughout Europe's schools. *Le Monde*, 1 September. https://www.lemonde.fr/en/international/article/2022/09/01/teacher-shortages-a-common-problem-throughout-europe-s-schools_5995460_4.html.
- Arora, A. 2021. In a first, India's fertility rate falls below replacement level. What it means. *India Times*, 26 November. <https://www.indiatoday.in/india/story/india-fertility-rate-declines-replacement-level-meaning-nfhs-survey-1880894-2021-11-25>.
- Aslam, M. and Rawal, S. 2019. *The Role of Intrinsic Motivation in Education System Reform*. London, STiR Education. <https://stireducation.org/wp-content/uploads/The-Role-of-Intrinsic-Motivation-in-Education-System-Reform.pdf>.
- Beilock, S. et al. 2010. Female teachers' math anxiety affects girls' math achievement. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, Vol. 107/5, pp. 1860-1863. <https://www.pnas.org/doi/full/10.1073/pnas.0910967107>.
- Bennell, P. 2022. How well paid are primary school teachers in Sub-Saharan Africa? A review of recent evidence. *KSD Working Paper 16, Brighton, Knowledge and Skills and Development*. Available at paulbennell.co.uk. Forthcoming.
- Bora, J. K., Saikia, N., Kebede, E. B. and Lutz, W. 2022. Revisiting the causes of fertility decline in Bangladesh: the relative importance of female education and family planning programs. *Asian Population Studies*.
- Crawford, L., Hares, S., & Oyewande, O. 2022. What do Countries Prioritise in Education? An Analysis of the "Statements of Commitment" at the Transforming Education Summit. Washington D.C./ London: Center for Global Development.
- Chapman, D.W. 1994. *Reducing Teacher Absenteeism and Attrition: Causes, Consequences and Responses*. Paris, UNESCO-IIEP.
- DESA. 2022. World Population Prospects 2022. New York: DESA. <https://population.un.org/wpp/>.
- Dee, T. 2005. A teacher like me: Does race, ethnicity, or gender matter?. *American Economic Review*, Vol. 95/2, pp. 158-165. <https://www.aeaweb.org/articles?id=10.1257/000282805774670446>.
- Evans, D., Yuan, F. and Filmer, D. 2020. *Teacher Pay in Africa: Evidence from 15 countries*. Policy Research Working Paper 9385. Washington D.C., World Bank.
- Indonesia. Cabinet Secretariat. 2021. Gov't to Hire 1 Million Contract Teachers: Education Minister. <https://setkab.go.id/en/govt-to-hire-1-million-contract-teachers-education-minister/>.
- International Commission on the Futures of Education. 2021. *Reimagining Our Futures Together: A New Social Contract for Education*. Paris, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379381>
- International Task Force on Teachers for Education 2030. 2010. *Teacher Attrition in Sub-Saharan Africa: The Neglected Dimension of the Teacher Supply Challenge*. Paris, UNESCO. <https://teachertaskforce.org/knowledge-hub/teacher-attrition-sub-saharan-africa-neglected-dimension-teacher-supply-challenge>.

- . 2019. *Teacher Policy Development Guide*. Paris: UNESCO.
 - . 2020a. *A Review of the Use of Contract Teachers in Sub-Saharan Africa*. Paris, UNESCO. <https://teachertaskforce.org/knowledge-hub/review-use-contract-teachers-sub-saharan-africa>.
 - . 2020b. World teachers' day 2020 fact sheet. Paris, UNESCO. <https://teachertaskforce.org/knowledge-hub/2020-world-teachers-day-fact-sheet>.
 - . 2022a. *An Analysis of Teacher Shortages in Sub-Saharan Africa and Southern Asia*. Commissioned research paper for the International Task Force on Teachers for Education 2030. Paris, UNESCO.
 - . 2021. World Teachers' Day 2021 fact sheet. Paris: UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379187>.
 - . 2022b. *Innovation in teacher policy and practice in education recovery: Final Report of the 13th Policy Dialogue Forum*. https://teachertaskforce.org/sites/default/files/2022-05/2022_April_TTF_13th-Policy-Dialogue-Forum-final-report_EN.pdf.
- International Telecommunication Union. 2022. *Global Connectivity Report 2022. Achieving universal and meaningful connectivity in the Decade of Action*. Geneva: ITU.
- Karamperidou, D., Brossard, M., Peirollo, S. and Richardson, D. 2020. *Time to Teach: Teacher Attendance and Time on Task in Eastern and Southern Africa*. Innocenti Research Report. Florence, UNICEF Office of Research.
- La Croix, E. 2020. Pedagogical innovation: New institutional theory and the beyond borders experiential learning program. *Journal for Social Thought*. Vol. 4(1); June 2020.
- Mulkeen, A. 2010. *Teachers in Anglophone Africa. Issues in Teacher Supply, Training, and Management*. Washington D.C., World Bank.
- Mulkeen, A., Ratteree, W. and Voss-Lengnik, I. 2017. *Teachers and Teacher Policy in Primary and Secondary Education*. Bonn, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).
- Natanson, H. 2022. 'Never seen it this bad': America faces catastrophic teacher shortage. *Washington Post*, 4 August. <https://www.washingtonpost.com/education/2022/08/03/school-teacher-shortage/>
- OECD. 2019. *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*. Paris, OECD Publishing.
- . 2020. *TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals*. Paris, OECD Publishing.
- . 2021. *Education at a Glance. OECD Indicators*. Paris, OECD. <https://www.oecd-ilibrary.org/sites/b35a14e5-en/index.html?itemId=/content/publication/b35a14e5-en>.
- PASEC. 2020. *PASEC 2019 Quality of Education Systems in French-speaking sub-Saharan Africa. Teaching/ Learning Performance and Environment in Primary Education*. Dakar: CONFEMEN. http://www.pasec.confemen.org/wp-content/uploads/2022/06/RapportPasec2019_GB_Web.pdf.

- Paudal. 2022. Schools in the Northern Netherlands open again, but teacher shortage now extends to Groningen. 29 August. <https://www.paudal.com/2022/08/29/schools-in-the-northern-netherlands-open-again-but-teacher-shortage-now-extends-to-groningen-now/>
- Pearce, F. 2021. India defuses its population bomb: Fertility falls to two children per woman. *Science*, Vol. 374, No. 6574. <https://www.science.org/content/article/india-defuses-its-population-bomb-fertility-falls-two-children-woman>.
- Pommiers, E. 2022. En pleine crise du recrutement des enseignants, une rentrée scolaire sur le fil: 'Notre inquiétude est de savoir comment cela va se passer dans quelques semaines' (In the midst of a recruitment crisis, the return to school hangs by a thread: 'Our anxiety is to know how it will happen in a few weeks'). *Le Monde*, 2 September. https://www.lemonde.fr/societe/article/2022/09/02/rentree-scolaire-en-pleine-crise-du-recrutement-des-enseignants-une-reprise-sur-le-fil_6139925_3224.html. https://www.lemonde.fr/en/international/article/2022/09/01/teacher-shortages-a-common-problem-throughout-europe-s-schools_5995460_4.html
- RFI. 2022. France to fast-track training of school teachers to fill 4,000 vacancies. 25 August. <https://www.rfi.fr/en/france/20220825-france-to-fast-track-training-of-school-teachers-to-fill-4-000-vacancies>
- Stromquist, N .P., Lin, J., Corneilse, C. and Klees, S. J. 2013. Women teachers in Liberia: Social and institutional forces accounting for their underrepresentation. *International Journal of Educational Development*, Vol. 33, No. 5.
- Takahama, Y. and Ujioka, M. 2022. Public schools in Japan suffering from record teacher shortage. *Asahi Shimbun*, 29 May. <https://www.asahi.com/ajw/articles/14620602>
- Thompson, G. 2021. *The Global Report on the Status of Teachers 2021*. Brussels, Education International. <https://www.ei-ie.org/en/item/25403:the-global-report-on-the-status-of-teachers-2021>.
- UNESCO. 2018. *Global Education Monitoring Report 2019: Migration, Displacement and Education: Building Bridges, not Walls*. Paris, UNESCO.
- . 2021. *No Teacher, No Class: State of the Education Report for India 2021*. New Delhi, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379115.locale=en>
- . 2022. *Leave No Child Behind: Global Report on Boys' Disengagement from Education*. Paris, UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000381105>.
- UNESCO and Education International. 2021. *Teachers Have Their Say: Motivation, Skills and Opportunities to Teach Education for Sustainable Development and Global Citizenship*. Paris, UNESCO and Education International.
- UNESCO and German Federal Ministry of Education and Research. 2021. Berlin Declaration on Education for Sustainable Development. Berlin, UNESCO and German Federal Ministry of Education and Research. <https://en.unesco.org/sites/default/files/esdfor2030-berlin-declaration-en.pdf>.
- UNESCO/IEA. 2020. *Measuring Global Education Goals: How TIMSS Helps; monitoring progress towards Sustainable Development Goal 4 using TIMSS (Trends in International Mathematics*

- and Science Study*). Paris, UNESCO and International Association for the Evaluation of Educational Achievement.
- UNESCO-IIEP. 2019. *Togo – Analyse du secteur de l'éducation* (Togo – Analysis of the education sector). Dakar, UNESCO International Institute for Educational Planning.
- . 2020. *Niger – Analyse du secteur de l'éducation* (Niger – Analysis of the education sector). Dakar, UNESCO International Institute for Educational Planning.
- UNESCO, ILO and TTF. 2022. *Transforming Education Summit – Action Track 3 on Teachers, Teaching and the Teaching Profession*. Discussion paper. Paris, UNESCO, International Labour Organization. <https://teachertaskforce.org/knowledge-hub/transforming-education-summit-action-track-3-teachers-teaching-and-teaching>.
- UNESCO, UNICEF, World Bank and OECD. 2021. *What's Next? Lessons on Education Recovery: Findings from a Survey of Ministries of Education amid the COVID-19 Pandemic*. Paris, New York, Washington D.C., UNESCO/UNICEF/World Bank/OECD.
- UNESCO-UIS. 2010. *Global Education Digest 2010. Comparing Education Statistics Across the World*. Montreal, UNESCO Institute of Statistics.
- . 2016a. The World Needs Almost 69 Million New Teachers to Reach the 2030 Education Goals. UIS Fact Sheet, October 2016, No. 39. Montreal, UNESCO Institute of Statistics.
- . 2016b. Leaving no one behind: How far on the way to universal primary and secondary education? Policy Paper 27/ Fact Sheet 37. Montreal, UNESCO Institute of Statistics.
- . 2019. New Methodology Shows that 258 Million Children, Adolescents and Youth Are Out of School. Montreal, UNESCO Institute of Statistics. <http://uis.unesco.org/sites/default/files/documents/new-methodology-shows-258-million-children-adolescents-and-youth-are-out-school.pdf>.
- . 2022a. UIS database: Montreal, UNESCO Institute of Statistics.
- . 2022b. Survey on National Education Responses to COVID-19 School Closures: 4th Iteration. Montreal, UNESCO Institute of Statistics.
- UNESCO-UIS/GEMR. 2022. New estimation confirms out-of-school population is growing in sub-Saharan Africa. Fact Sheet 62/ Policy Paper 48. Montreal/ Paris: UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000382577>.
- UNESCO-UIS, UNICEF, World Bank and OECD. 2022. *From Learning Recovery to Education Transformation: Insights and Reflections from the 4th Survey on National Education Responses to COVID-19 School Closures*. Paris/ New York, Washington D.C., UNESCO/UNICEF/World Bank/OECD.
- Utuonoye, V. U. 2019. *Causes of Boys' Academic Underachievement in the Turks and Caicos Islands*. Ed. D. Thesis. University of Sheffield. <https://etheses.whiterose.ac.uk/26813/1/Ed. D Thesis - Causes Of BAU-Final -Award Version for upload.pdf>



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Transforming Education from within

Current trends in the status and development of teachers

World Teachers' Day 2022

World Teachers' Day is a yearly occasion to celebrate teachers and all related professionals for their work and their invaluable contribution to the shaping of citizens and communities. It is also a time for reflection and critical analysis of teachers' professional situation and the challenges they face. This background paper aims to provide a contextual, data-driven overview of the key challenges facing teachers around the world.

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