GLOBAL EDUCATION MONITORING REPORT SUMMARY

2024/5

Leadership in education

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Global Education Monitoring Report

GLOBAL EDUCATION MONITORING REPORT

Leadership in education

LEAD FOR LEARNING

The Education 2030 Incheon Declaration and Framework for Action specifies that the mandate of the *Global Education Monitoring Report* is to be 'the mechanism for monitoring and reporting on SDG 4 and on education in the other SDGs' with the responsibility to 'report on the implementation of national and international strategies to help hold all relevant partners to account for their commitments as part of the overall SDG follow-up and review'. It is prepared by an independent team hosted by UNESCO.

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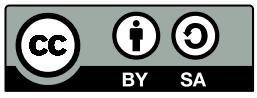

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Photography caption: in Basra, Iraq, school principal Ansal stands for a portrait in her office. She says,"Poverty, mental health, child labour, child marriage, are some of the main factors for our students … Poverty is the main issue that makes them drop out school".
Photo credit: © UNICEF/UN0614639/Ibarra Sánchez*

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KEY MESSAGES

Education leaders are more than managers. They are change agents.

- **Policymakers face a major challenge:** how to ensure that people with the right skills and vision are identified, selected, prepared and supported as leaders.
- **National plans at the school, system and political level need to nurture four essential leadership dimensions:** set expectations, focus on learning, foster collaboration and develop people. Yet a global review of school principal preparation and training programmes and courses suggests that barely half of them focus on any of these four dimensions – and just one third focus on all four.

Good schools need good school leaders.

- **Effective principals bring out the best in students.** In the United States, it was estimated that principal and teacher leadership inputs contributed up to 27% of the variance in student outcomes, ranking just below teachers' impact on learning among school-controlled factors.
- **Effective principals bring out the best in teachers.** A study of 32 countries affirmed that strong leadership correlates with improved teaching practices. Globally, 57% of countries expect principals to provide feedback to teachers based on their observations. However, the share of secondary school principals overseeing teaching activities fell from 81% in 2015 to 77% in 2022 in high-income countries.
- **Effective principals ensure their schools are safe, healthy and inclusive.** Preventing bullying and ensuring student safety are key objectives for school leaders. In the United States, principals adapted the curriculum to prioritize social and emotional well-being during the COVID-19 pandemic. In Malta, principals worked with communities to develop an inclusive school culture for migrants with language support.

Effective leadership demands fair hiring practices, trust and growth opportunities.

- **Talent recruitment and retention requires open and competitive hiring processes.** Limiting political discretion in appointing school principals improves school outcomes. Yet globally, only 63% of countries have open and competitive school principal recruitment processes in primary and secondary education.
- **The best teachers do not necessarily make the best principals.** But while almost all countries require principals to be fully qualified teachers, less than 3 in 10 also specify management experience.
- **Autonomy can unlock leaders' potential.** Higher-performing education systems tend to grant greater autonomy to principals over decisions on human and financial resources. But in richer countries, less than half of principals are responsible for course content or establishing teacher salary levels. And almost 40% of countries do not recognize higher education institutions' autonomy by law.
- **Professional leaders need preparation and training.** School leadership standards can help guide training by outlining the required competencies, which almost all countries have set. However, almost half of principals in richer countries do not receive any training before appointment and only 31% of all countries have regulations for the induction of new principals. Practical skills like data use, financial management and digital literacy are also essential, yet a quarter of principals in richer countries lack adequate training in such areas.

School leaders are expected to do too much with too little.

- **There are too many demands on school operations to leave enough time for principals to set a vision.** Expectations of principals are often too high. Principals are key to effective implementation of reforms. In some countries, they are also under intense scrutiny due to new accountability mechanisms. Yet a survey of principals in 14 middle-income countries showed that 68% of their time is spent on routine management tasks. About one third of public school principals and one fifth of private school principals in OECD countries reported lacking sufficient time for instructional leadership.

School leaders should not be heroes. Sharing leadership builds better schools.

- **Sharing leadership throughout the school creates a collaborative learning environment.** It empowers teachers to lead within their classrooms, students to be active leaders with their peers, and parents and community members to be involved. Yet collaboration is the most underemphasized of the four leadership dimensions in training programmes.
- **School leadership is too often hierarchical.** Assistant principals and teachers can help achieve school goals when enabled with clear roles, training and incentives. But only half of countries explicitly emphasize teacher collaboration in their leadership standards and barely one third of leadership training programmes focus on it. Some 81% of countries require school boards to include teachers and 83% to include parents, 62% community members and 57% students.

System leaders do not receive sufficient attention in leadership plans.

- **Education officials at the central and local levels are potential leaders.** They can drive system-wide improvement and alignment in education reform and policy. Countries increasingly recognize that these officials can have greater influence if they are given greater autonomy.
- **System leaders are effective when they work with other actors.** In the Mexican state of Puebla, the success of the education reform was the result of coordinated system-wide efforts that included the leadership of education officials.

Education ministers work in complex political environments and are stymied by short tenures.

- **Ministers balance multiple demands during short tenures and often do not have a background in teaching.** A new global database shows that half of education ministers since 2010 leave office within two years after their appointment; only 23% have prior experience of teaching in schools.
- **Political leaders need to be astute in political compromise and outreach to make reform happen.** Coalition and relationship building can make up for a lack of time and good data and in the face of conflicting opinions.
- **Short tenures make it hard to deliver reform.** Analysis of World Bank education projects between 2000 and 2017 in 114 countries found a substantive negative correlation between ministerial turnover and project performance.

More women in leadership can have positive outcomes in education.

- **Female political leaders have prioritized education more than their male peers.** Female parliamentarians have helped increase primary education spending globally. Yet, the percentage of female ministers has increased only from 23% in 2010–13 to 30% in 2020–23.
- **Some studies suggest that women achieve better learning outcomes than men as principals.** In francophone Africa, students in primary schools led by female principals outperformed those in schools led by male principals in mathematics and reading by at least six months.
- **While many women teach, far fewer lead schools.** The share of female principals in primary and secondary education is on average at least 20 percentage points lower than the average share of female teachers. Only 11% of countries globally have measures in place to address gender diversity in principal recruitment.

Many actors exercise leadership by influencing the direction of education systems.

- **Teacher unions, student unions, business leaders, academics and civil society hold governments to account, lobby and raise awareness.** Influence matters: In the United States, some think tanks score low on expertise but high on education discussions in Congress, with the reverse being the case for others.
- **International organizations help frame and inform the global debate on education, as well as fund countries' education systems.** However, competition for space and influence can distract them from the goal of education improvement and their legitimacy can be challenged by a lack of capacity or efficiency.

Education leaders are often taken for granted. Yet, they shape the direction of their schools, universities, departments and ministries, in ways often not seen. Their leadership styles reflect their personalities and expertise but also adapt to fit their teams' characteristics, their organizations' goals and the context in which they work. The variety of leadership styles is precisely why there is no easy way of demonstrating how they impact education. It is also why such impact is frequently overlooked. Yet the need for good school, system and political leaders is acute, as education challenges remain daunting.

Leadership is often associated with politics and business. Popular literature on management provides many examples of considering the skills, personality traits, behaviours, styles, motivations and values of leaders, with a tendency to focus on them as exceptional individuals. In one such example, a five-item list describes 'what effective leaders do'. The authors say that they set standards of excellence and an example for others to follow ('model the way'); envision an ideal of what an organization can become ('inspire a shared vision'); look for innovative ways to improve an organization ('challenge the process'); foster collaboration, strive to create an atmosphere of trust and make each person feel capable ('enable others to act'); and recognize the contributions that individuals make ('encourage the heart').

Leadership has been defined as 'a process of social influence, which maximizes the efforts of others, towards the achievement of a goal'. This definition has two implications: first, that leadership is not conferred automatically by being in a position of power but by an ability to affect other people's actions, and second, that leadership is framed in terms of a goal of which leaders play an important role in its formulation and behind which members of a team, organization or society can rally. In education, a recent definition mirrors these two concepts: 'leadership is the advocacy of a particular form of organizing': 'advocacy' stands for an influence process, while the 'form of organizing' alludes to a goal. As leadership in education involves specific goals, a process of influence to mobilize people towards them, and opportunities but also constraints to achieving them, three questions arise:

What goals do education leaders try to achieve? This report calls for all those interested in education to #LeadforLearning. Defining the objectives of learning is a political process that involves everyone with a stake in education. There is a perception – to which even this report sometimes contributes inadvertently, given its mandate to report on comparable education indicators – that learning objectives can be narrowed down to a set of measurable outcomes in subjects such as reading, mathematics and science. However, education has a much broader set of learning objectives: not only the transmission of knowledge and the acquisition of skills that lead to qualifications but also the empowerment of students to think and act responsibly and their socialization into shared practices and traditions. Defining the purpose must be the starting point in any discussion of leadership in education.

How do education leaders try to achieve these goals? The growth of schools and other education institutions into large organizations and the evolution of simple education bureaucracies into complex systems in industrialized countries have generated interest in education administration and management as a field. However, the role of education leaders was subsumed in these analyses, with researchers initially analysing the achievements of leaders as the work of great men. Gradually, a more systematic scientific approach was adopted, which started to see leadership as a potentially distinct element of education management. Researchers believed they could identify individual practices and organizational arrangements relating to leadership, which led to the critique that these two factors cannot be seen separately, as individuals make up organizations. More recently, the exercise of leadership has been recognized as being determined by the social **relations** within these education institutions and systems. Those working in education depend on each other; leadership functions therefore need to be to be shared in order to achieve education goals.

What may get in education leaders' way? Those in education leadership roles need to have the capacity to exercise the functions expected of them. But **context** matters too. Formal and informal social, economic, political and cultural rules and norms expand or limit individual education leaders' initiative and scope for action. Their freedom to make decisions is the result of governance and accountability rules, which vary greatly between countries, often reflecting cultural norms. Opportunities to exercise leadership also vary within countries, especially among education institutions. Each preschool, school, technical and vocational institute, college, university and adult education centre is situated in a different context and their leaders are faced with different expectations by the community they serve. Small and big, public and private, urban and rural, well-resourced and under-resourced education institutions face different conditions. Institutions operating in emergency contexts or in ethnically and linguistically diverse communities require leaders to be deeply knowledgeable and responsive to their environment.

Education leaders may be conflicted between different outcomes. It is possible that focusing on the improvement of measurable learning outcomes, which is the outcome examined by most research studies, may come at the expense of improvements in a range of other desirable education outcomes, such as establishing an inclusive environment or preparing learners to be ready to adapt to the future challenges of citizenship and climate change. Standardized performance measures risk leading to standardized approaches to management and leadership, which may not suit individual contexts. While this report looks at how countries have approached the questions of leadership standards, it only aims to describe their efforts than to prescribe their content or enforcement.

Do personalities or effective teams drive results in education? Critics argue that too much importance has been placed on individuals – and point out that leadership has risen from a modest role to being singled out as the second most important factor which explains learning outcomes. It could be misleading to credit individuals with single-handedly transforming education systems – which might be a bias inherent in Western culture. Appropriate institutional environments and good organizational structures may be more important. This does not mean that principals do not play a critical role, but that this role is a nuanced one. A closer look at the operation of an education institution could reveal that a positive education outcome may have been the work of several intrinsically motivated people who contributed their commitment and expertise. Portraying these people as followers, who are dependent on a leader, underestimates these contributions.

There is a contrast between control and empowerment of people to take decisions. Another opposition is between rules and the ability to act according to a circumstance regardless of any rules. While leaders' capacity and personal attributes matter, it may only be possible to put them to good use in enabling environments. Leaders also work in constrained contexts. While some leaders have the resources to implement their plans, others have to find solutions under adverse circumstances. Autonomy may allow education leaders to act, but it does not mean they are acting in their own interest rather than towards a common goal of achieving results.

While leadership is an appealing concept, this report is aware that it is not clear cut. It is often difficult to distinguish a good leader from a good manager. Despite lofty objectives, the work of education leaders tends to be mundane. School principals need to manage school budgets or hold meetings to take disciplinary decisions. Department heads and teacher leaders are likely to spend much time preparing timetables and organizing teacher recruitment. Local education officers will fret over getting textbooks delivered on time or paying subsistence allowances to teachers travelling for a training course. Ministers will need to respond to members of their constituency to satisfy petty requests or fend off media criticism about an official's transgression. All these regular responsibilities are not what leaders are usually associated with. Yet managing daily activities effectively to make time for future planning is at the heart of what leaders do. In reality, there is a continuum of activities and the distinction between education management and leadership can be artificial.

Must leadership be associated with change? Some argue that leadership is about being a change agent and that while management is about preserving the status quo, leadership is about changing it. Change management refers to implementing a change that been decided upon. Change leadership is about the need for change and rallying people behind that change. Still, it is necessary to ask if all change is good or whether resisting change, especially imposed externally, is also a sign of leadership. One commentator described, 'One element of recent times has been the constant change directed at schools: a stream of new movements, new programs and new directions. Unfortunately, some at all levels in education seem to be forever rushing to catch the next bandwagon that hits the scene … However, it is quite incorrect to assume that a school is effective only if it is undergoing change … We need to be reminded that change for the sake of change, including technological change, is not necessarily good; it must be tempered with wisdom, compassion and justice'.

Must leadership be associated with influence? Leadership generally has favourable connotations. However, its sources (which may include power) and its means (which may include manipulation) can have negative associations. Even 'influence' can equally be seen as positive or negative. One commentator asked: 'if leadership is a type, or aspect, of influence, doesn't that make 'leadership' unnecessary? That is, if it is influence we are really talking about, then why not stay with that word? … In short, when describing and analysing the flow of collective action and the conduct of persons as part of that process, why is it leadership we are talking about rather than influence or power?'

Leadership stands out among reasons for education success: Arguments include: 'Of all the factors that contribute to what students learn at school … leadership is second in strength only to classroom instruction. Furthermore, effective leadership has the greatest impact in those circumstances (e.g., schools 'in trouble') in which it is most needed. This evidence supports the present

TABLE 1:
Four school leadership dimensions describe principals' core practices

Dimensions	Indicative practices
Set expectations	Develop, communicate and explain a shared vision, mission and goals, including a focus on student achievement Hold high performance expectations, for staff and students Provide inspirational motivation, exerting influence by setting a personal example and representing the community Stay current and use data for decision making
Focus on learning	Focus on instructional development, e.g. through pedagogical supervision Provide instructional resources and materials and align them to instructional goals Plan, coordinate and evaluate the curriculum Protect staff from work distractions Monitor student progress
Foster collaboration	Develop a school culture and positive climate Maintain a safe, healthy school environment Raise resources strategically, build networks and manage risk Nurture collaboration, especially between teachers, and enable action Build relations and consult with families and community
Develop people	Keep track of teachers' professional development needs Provide individualized professional support and mentoring opportunities for teachers Evaluate teachers and reward good performance Provide intellectual stimulation Establish trusting relationships and manage conflict Be accessible

Source: Leithwood (2012) and Leithwood et al. (2020a).

widespread interest in improving leadership as a key to the successful implementation of large-scale reforms'; and 'There are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader'. This report intends to consider how this insight can be used to help decision makers design policies to ensure that each education institution and office will have leaders who are prepared to competently address and resolve education problems. This shifts the attention away from exceptional individuals to systematic processes.

The concept of school leadership and perceptions of leaders' roles has been changing. The general shift has been from seeing the school principal playing an administrative and bureaucratic function to expecting more involvement in working with teachers and other staff to improve school 'results'. Expectations about the form of these results are shaped by social preferences and the beliefs of education authorities and the education community, including leaders themselves.

Three dimensions of school leadership – setting expectations, focusing on learning and fostering collaboration – roughly correspond to the three leadership concepts – transformational, instructional and distributed – that have received the most attention in research, and a fourth dimension is closely linked to all three concepts:

- Setting expectations is related to transformational leadership, involving behaviours that influence, inspire and motivate school community members to improve the school.
- A focus on learning is related to instructional leadership, involving behaviours that influence, inspire and motivate the school community to improve learning outcomes.
- Fostering collaboration is related to distributed or shared leadership, which refers to how leaders interact and collaborate with others and share their responsibilities.

- Developing people is part of school leaders' human resource management responsibilities but requires them to further help their teams to learn and grow.

In each of the four dimensions, good leaders have been observed drawing from a repertoire of basic practices (**Table 1**). In fact, variations of these practices are relevant not only for school principals and teacher leaders but also for system leaders, especially at the local level. These four leadership dimensions are considered throughout the report.

SCHOOL LEADERSHIP: ROLES, IMPACT AND STANDARDS

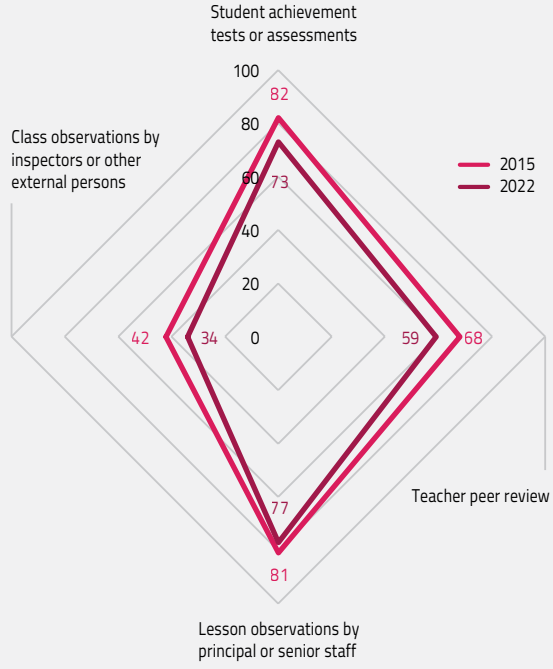
School principals have historically been seen mainly as administrators, but they are increasingly expected to take on roles with broader impact. Principals need to master a large set of skills to play these roles. They need to be able to use data, prioritize, plan, implement, supervise and assess to solve problems. They need to communicate effectively to develop a shared understanding, mobilize teams around objectives and promote professional growth. They need to have emotional intelligence, self-awareness, social awareness and self-regulation skills to build constructive relationships.

Principals are expected to set a vision for the school community. Globally, 78% of countries highlight this competency in their national standards. Brunei Darussalam and Malaysia emphasize the need for principals to have visionary and strategic planning skills to contribute to organizational excellence. Principals are also expected to uphold moral and ethical standards in exercising their leadership and, when possible, inspiring and leading by example. Kazakhstan emphasizes that principals should have an intolerance for corruption and academic dishonesty.

Principals are expected to be instructional leaders. Globally, 57% of countries expect principals to provide feedback to teachers based on observation. But practice may depart from what regulations demand on paper. A review of 14 low- and middle-income countries, including Ecuador, Kenya, Pakistan and the Philippines, found that principals spent 68% of their time on management tasks. Evidence from the Programme for International Student Assessment (PISA) suggests that oversight of teaching activities has slightly declined in recent years. The percentage of secondary school principals in OECD countries who reported that they or their senior staff colleagues observed lessons fell from 81% in 2015 to 77% in 2022 (**Figure 1**).

Principals are expected to foster collaboration. Half of countries require principals to promote teacher cooperation, for example, by fostering internal collaboration through professional learning communities, collaborative planning, interdisciplinary projects, teacher teams and peer feedback. In Viet Nam, principals establish professional teams of teachers grouped by grade level or subject area to focus on issues such as educational technology, support for learners with disability, school counselling, school educational plan development and textbook selection.

FIGURE 1:
School principals have reported a decrease in their oversight of teaching activities in high-income countries
Percentage of secondary school principals reporting selected teaching oversight activities, OECD countries, 2015 and 2022



Source: OECD (2023).

Principals are expected to help staff develop. Globally, 70% of countries assigned teacher evaluation to principals with objectives such as promotion, career advancement, quality assurance and accountability. In 48 education systems that took part in the 2018 Teaching and Learning International Survey (TALIS), 71% of teachers were formally appraised by their principals every year. Evaluation methods included analysing student results (94%), student surveys (82%), assessing teachers' content knowledge (70%) and self-assessments (68%). Analysis of 45 countries using data from the 2015 Trends in International Mathematics and Science Study found that teacher job satisfaction was higher when school leaders were accessible and supported instructional planning.

Principals can significantly influence a range of student and teacher outcomes. It is very difficult to evaluate the impact of principals. On the input side, practices are difficult to observe and hard to measure. Practices also interact with each other and with the context. On the output side, there are multiple units of observation – students, teachers, schools and communities. There are also multiple outcomes. Yet many studies are accumulating evidence of the impact of specific leadership practices on school organization, culture and teachers.

Most studies focus on the impact of principals on student learning, which is easier to quantify. An analysis of 1,800 schools in 8 countries found that improving a measure of management quality by 1 standard deviation led to an improvement in student outcomes by 0.23 to 0.43 of a standard deviation. A study tracking over 20,000 head teachers in England, United Kingdom, from 2004 to 2019 showed that replacing an ineffective head teacher (from the bottom 16%) with an effective one (from the top 15%) led to a two-grade improvement across all subjects or by one grade in a single subject in secondary schools. In Haiti, better routine management practices by principals significantly improved early grade reading scores by 0.43 of a standard deviation in schools heavily damaged by Hurricane Matthew.

Studies also show the impact of principals on a range of other education outcomes. Principals can have significant influence on student attendance and retention. In the Australian state of Victoria, collaborative efforts among principals raised attendance rates from 86.5% in 2022 to 88.6% in 2023, narrowing attendance gaps between school types. Effective principals create supportive environments that foster student emotional well-being. In Jamaica, secondary school principals play a role in hiring additional counsellors, allocating funds for student and staff support, and ensuring resources like breakfast programmes are available. Principals also follow culturally responsive practices to foster an inclusive environment, as in Malta, where they have promoted an inclusive school culture to support immigrant families and students.

Individual, school and system characteristics shape principals' leadership and their impact on student achievement. In South Africa, female principals are recognized for creating safer and more collegial learning environments, with clear staff responsibilities. Principals in disadvantaged schools in Argentina had less than half the years of experience compared to their peers in non-disadvantaged schools. Among 20 countries that took part in the 2022 PISA, the more that principals had the primary responsibility for human and financial resource decisions, the more likely it was that a country would be among those ranked more highly in terms of average performance in mathematics. However, too much responsibility without adequate resources can lead to stress and challenges.

Leadership standards can guide action and certification. Globally, 95% of countries have adopted standards, either through laws and policies or in stand-alone documents. In Rwanda, the 2020 Professional Standards for Effective School Leadership outlines key roles and competencies, including strategic direction, leading learning and teaching, managing the school, and engaging with the community. Only half of countries have standards for school principals that explicitly address support for teacher cooperation. But leadership standards have been criticized for overlooking differences in context and for over-reliance on Western models.

SCHOOL LEADERSHIP: SELECTION, PREPARATION AND CONDITIONS

Professionalization of school principalship is essential given the complexity of tasks involved. To develop into a profession, there is a need for clear, transparent and merit-based rules for recruitment and selection; appropriate training and development opportunities, including support in the early stages; and appealing working conditions to raise job satisfaction and prestige.

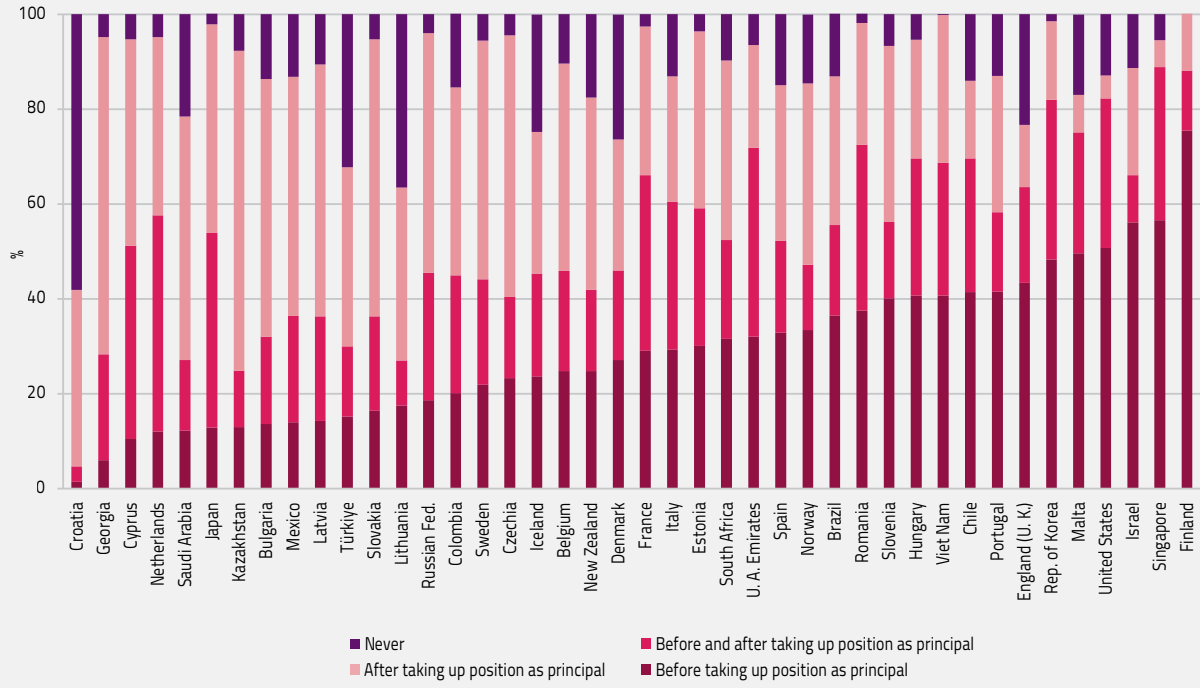
Improving selection processes is needed to professionalize principals' careers. Regardless of the degree of autonomy granted to schools, criteria that are objective, fair, inclusive, transparent and clearly defined enhance the credibility of the principal's role and improve outcomes. Internal promotion emphasizes knowledge and understanding of a school's culture, operations and challenges. Open recruitment can attract skilled external candidates with fresh perspectives for school growth.

Principal selection processes are becoming competitive. Both internal and open recruitment processes can use competition to evaluate candidates. Globally, 63% of countries apply open competitive recruitment in primary and secondary education while 8% apply open competitive recruitment only in primary and 3% only in secondary education. In Romania, competitive principal selection has led to improved student outcomes. In the Republic of Korea, three types of recruitment processes have coexisted. In 2012, 68% of appointments were 'by invitation' for regular schools, 30% were 'internal' (through promotion) for autonomous schools, and 2% were open, a share that increased to 10% as of 2022.

FIGURE 2:

Relatively few principals begin their tenure having done a course in school administration

Percentage of lower secondary school principals who have done a programme or course in school administration or principal training, by timing, selected middle- and high-income countries, 2018



Source: OECD (2019).

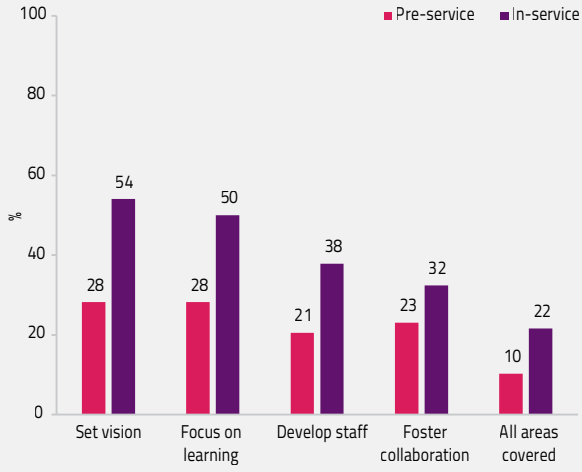
Principal recruitment and selection can be political. Patronage is a common feature of public sector appointments in many countries. In Brazil, where multiple forms of principal selection may exist in each state, the most common selection modalities in decreasing order were election (56%), political appointment (48%), and selection based on the submission of a proposal ('management plan') (33%) or on qualifications and certificates (30%). In Georgia, potential political influence on principal recruitment has been a focus of student protests.

Principal selection criteria are becoming more demanding. Globally, 46% of education systems require only teaching experience from principal candidates, 34% require teaching and management experience, 11% ask for any relevant experience in education,2% ask for experience in any other administrative or leadership position, and 7% make no specific requirements on experience. In Ethiopia, 53% of school leaders lacked prior management experience before being appointed.

Principals' academic background and experience vary by country, reflecting education attainment levels, demography and recruitment policies. In 39 education systems that took part in the 2019 Trends in International Mathematics and Science Study (TIMSS), among lower secondary school students, 2% had a principal without a bachelor's degree, 43% had a principal with a bachelor's degree and 55% had a principal with a postgraduate degree. In the 2018 TALIS, lower secondary school principals had an average tenure of 10 years, of which 7 were in the current school. In Japan and the Republic of Korea, the average tenure was less than 5 years, while in Colombia and the Baltic countries it was 13 to 16 years. School principals in Australia, New Zealand and Singapore had two times the length of prior experience (10 years) in other school management jobs than in other countries (5 years).

There is insufficient diversity in school leadership positions. Among about 40 countries with data in primary and secondary education, the average share of female principals was at least 20 percentage points lower than the

FIGURE 3:
Only one fifth of principal preparation and training programmes cover all four dimensions of leadership
Percentage of school principal preparation and training programmes, by area of focus, selected countries, 2024



Source: GEM Report team analysis based on the PEER country profiles.

average share of female teachers. In both primary and lower secondary education, the gap was at least 30 percentage points in Japan, the Republic of Korea, South Africa, Türkiye and Viet Nam. Gender quotas have been introduced in some countries, including Rwanda where 30% of leadership positions are reserved for women. In many countries, increased school population diversity has not been matched by education leadership diversity. In England, United Kingdom, Black students make up 32% and Asian and minority ethnic students make up 29% of primary and secondary school enrolments but only 2% of principals were from these groups in 2020.

The extent of principal preparation before appointment varies between countries. School leaders who have only been trained to be good teachers are insufficiently prepared for their role. In the 2018 TALIS, 88% of lower secondary school principals had at some point in their career completed a programme or course that included school administration or principal training as one of the elements. But only 30% of principals had completed a programme or course before they took on their job, 24% did so before and after they took on their duties, and 34% did so only after they started. Bulgaria, Mexico and the Netherlands were among the countries where fewer than one in five principals had followed a programme or course in school administration before taking up the position (**Figure 2**). Among those principals, 15% expressed a high level of need for training on equity and diversity, 28% on data use and 28% on teacher collaboration.

Leadership preparation and development programmes differ between countries. There are pre-service training programmes for aspiring principals, induction and initial programmes for novice principals, and continued professional development programmes for those who are already in the position, including those based on hands-on practical experience. In China, new principals must attend and complete a 300-hour training programme, while every in-service principal must complete a minimum of 360 hours of training every 5 years in authorized training institutions.

Preparation often does not go beyond theoretical knowledge. There are more benefits when preparation incorporates internships, mentoring and hands-on experience in real school settings. In Singapore, as part of the Leaders in Education Programme, all new principals receive the Mentoring Scheme induction programme during their first year of service. In Cambodia, the curriculum of the leadership programme includes professional development workshops, practice-based courses and school improvement projects, aligned with the school principal standards.

Countries continue to prioritize in-service over pre-service or induction training. Globally, 88% of countries describe in-service, continuous professional development for principals in their laws or policies but only 60% mention pre-service training and 31% induction training for school principals. In India, the 2020 National Education Policy requires school principals to complete at least 50 hours of continuous professional development annually. But in the 2018 TALIS, 46% of lower secondary school principals reported a conflict between professional development and work (82% in Japan), 36% cited a lack of incentives (84% in Saudi Arabia) and 32% concerns about the cost of training (68% in Colombia).

There is a noticeable imbalance in the coverage of key leadership areas. Information on 142 principal preparation and training programmes from 92 countries assess the extent to which they focused on the four core dimensions of leadership: setting a vision (42%) and focusing on learning (47%) were the two most common areas covered, followed by staff development (31%) and fostering collaboration (29%). Only 18% of all programmes covered all four dimensions. In-service, continuous professional development programmes are more likely to cover the four leadership dimensions than pre-service programmes. Analysis suggests that at least half of those programmes focus on transformational and instructional leadership, while shared leadership remains relatively underemphasized (**Figure 3**).

Well-designed leadership programmes improve education outcomes. In Argentina, primary school principals who received diagnostic-based feedback and understood how to use it helped their schools outperform control schools by 0.33 of a standard deviation in mathematics scores and 0.36 of a standard deviation in reading scores. In Guatemala, a training programme for school principals helped reduce student dropout by 4% at the modest cost of USD 3 per student.

Certification of school principals can improve quality leadership. Certification is a formal procedure through which principals' knowledge and skills are assessed, verified and recognized, and is an important step for professionalization. In the 2019 TIMMS, 68% of grade 4 and 71% of grade 8 students attended schools where principals had a school leader certificate or licence. In the Islamic Republic of Iran, the Ministry of Education issues certificates valid for five years based on competency assessments, which demonstrate a capability to hold a managerial position in schools. In the Philippines, aspiring and assistant principals must pass the National Qualifying Exam for School Heads. In South Africa, the Department of Education accredited the National Qualification for School Leadership, a compulsory professional qualification developed in partnership with 14 universities, unions, the South African Principal Association and various non-governmental organizations.

Working conditions for principals play a significant role in retention and job satisfaction. In Australia, principals reported working nearly 60 hours per week, with the two top causes of stress being the sheer quantity of work and the lack of time to focus on teaching and learning. In Greece, principals report being overwhelmed by administrative tasks, from managing substitute teacher salaries to handling school repairs, which detracts from their instructional leadership responsibilities. Finland has streamlined administrative processes for principals, allowing them to focus more on instructional leadership, improving both their job satisfaction and student outcomes.

Job satisfaction is high, but stress and burnout remain prevalent. According to the 2018 TALIS survey, some 79% of lower secondary school principals in 48 education systems agreed or strongly agreed that the advantages of their profession clearly outweighed the disadvantages, and 86% with the statement that, if they could decide again, they would still choose this job/position. Data on turnover are still limited. In the United States, there is no evidence to suggest increasing turnover rates. In 2021–22, it was estimated that 80% of public school principals had stayed in the school, 6% had moved to a different school and 11% had left the profession, a rate that was essentially unchanged from previous data collection efforts in 2012–13 and 2016–17. In Sweden, analysis of administrative data between 1980 and 2017 suggests that mobility had slightly increased over time but it was not necessarily attributable to worsening working conditions. However, stress and burnout are widespread. The COVID-19 pandemic placed much more pressure on principals. In Australia, 48% of principals triggered mental health 'red flag' warnings in 2022, indicating high stress levels.

Appraisal systems can enhance school principals' effectiveness. Globally, 78% of countries have appraisal systems for principals. But evaluation systems may not fully support principals' development. In 39% of countries, assessment is associated with sanctions and penalties. In Chile, principals sign a five-year performance-based contract and are responsible for achieving specific results related to enrolment, attendance and achievement. Performance agreements are directly tied to sanctions, including early termination of the contract if the municipality considers the principal's performance unsatisfactory. In the Republic of Moldova, the director's contract may be terminated in case of repeated unsatisfactory ratings from external evaluations. In contrast, school leaders in Singapore are evaluated based on a structured system linked to career progression, with principals who perform well moving into higher leadership roles.

SHARED SCHOOL LEADERSHIP

When principals share leadership responsibilities with staff, students, parents and the community, it can promote innovation, inclusion and improvements in learning environments. Despite this potential, school leadership often remains hierarchical and limits stakeholders' engagement. Principals do not receive enough preparation for fostering collaboration. Teachers need leadership training and autonomy. Student involvement is not well established. Parents and communities face barriers to their participation.

Assistant principals can help shape the school vision, manage operations and develop teaching strategies. Effective support for assistant principals includes clear authority, structured mentoring and ongoing training. However, there is still a lack of clarity on the role and assistant principals can lack the time to contribute to leadership. Assistant principals' representation on management teams varies globally, with full representation in Japan and Singapore, but only 21% in Colombia and 27% in Croatia. In Hong Kong, China, 300 vice-principals reported significant discrepancies between the time they allocated to different areas of work and their perceived importance of them.

Teachers in middle leadership roles, such as subject coordinators and curriculum heads, are vital for shaping teaching and learning. However, teachers in these roles often lack training in management and interpersonal skills. Their responsibilities can be unclear and the financial incentives insufficient. For example, Greece and Portugal do not provide additional compensation for management tasks. Teacher leaders' involvement in school management teams also varies widely: in Israel and Kazakhstan, department heads are members of over 85% of teams, while in France and Saudi Arabia, their involvement is under 10%. The International Study of Teacher Leadership advocates for integrating leadership dimensions into initial training for teachers so they can understand the connection between teacher leadership, school culture and teaching.

Teachers can lead effectively even without formal leadership roles. Mentoring peers, driving innovation and shaping school culture are important contributions. In Delhi, India, teachers were initially hesitant about being supervised but they eventually trusted their mentors and coordinators and recognized the support role of middle leaders. Teachers in leadership roles also connect schools with families and students. In New Zealand, they support students whose home language is not English by building relationships with their families and organizing events that boost students' self-esteem and pride in their language and culture.

Support staff can exercise leadership by identifying and addressing learning obstacles and then helping shape learning strategies. In the US state of New Jersey, principals relied on collective inputs from school psychologists, instructional specialists and district administrators to make informed decisions on inclusive education. School nurses also lead health initiatives, including vaccination campaigns, and help improve students' outcomes such as healthier eating and reduced anxiety.

Students can exercise both formal and informal leadership. Formal roles, such as on student councils and management committees, greatly impact students' educational environment and personal growth. Globally, 57% of countries mandate student representation on school boards and councils. While student councils are generally elected, they may have limited practical involvement in decision making, which ends up undermining student authority. In Poland, a study of secondary school councils found that many council supervisors imposed direction on students, stifling enthusiasm for active participation and decision making. Informal leadership includes personal learning plans and teacher–student meetings. Some governments establish open forums inviting students to express opinions on education, as seen in India's CBSE Expression Series and South Africa's National Youth Development Agency. While rare and experimental, schools like Mechai Pattana in Thailand facilitate students to be extensively involved in governance of all school operations and foster leadership through entrepreneurial ventures and community service.

Engaged parents and community members can steer schools towards their goals. AAs school management committee representatives, parents and community members oversee the management of school operations, policies, budgets and resources. In Albania and Ecuador, they influence school budgets and teacher evaluations, while in Kenya, they oversee operations and staffing. Parent–teacher associations address issues like girls' education in India, disability inclusion in South Sudan and support to disadvantaged students in Viet Nam. Principals foster the involvement of parents through regular communication, with 64% of countries requiring them to inform parents about school and student performance. Globally, 83% of countries mandate parental participation in school governance, though 62% include community members. Reported parental engagement levels are high in Latin American countries, such as Colombia (55%), the Dominican Republic (59%) and El Salvador (60%). In practice, the selection of school management committee and board members is influenced by social dynamics, which can lead to exclusion. In Honduras, a study of community-managed schools found that patronage undermined transparency and accountability.

SYSTEM LEADERSHIP

Education officials at the central and local levels can become system leaders. System leaders are education officials whose actions ensure more than just compliance with the managerial processes and administrative procedures for which they have been recruited. At the central level, they can use strategic thinking to anticipate needs, find solutions, and initiate policies and reforms. At the local level, depending on the governance arrangements, as district officers, supervisors or inspectors, they can make decisions on resource allocation, resource management and instructional support.

Alignment between policy design and implementation is a sign of leadership. In the Canadian province of Ontario, a study of more than 2,000 district and school leaders in 45 school districts showed that student learning was influenced by the exercise of system leadership, as evidenced by a vision, mission and goals; alignment of the instructional programme with these goals; coherent programme implementation; and the use of data. District leadership functions had an impact on education over

and above the type and quality of school leadership. The Mexican state of Puebla transformed the role and capacities of supervisors whose tasks had been limited to compliance. In Norway, municipal education officials reported contributing to inclusion through strengthening teacher autonomy and pedagogical competences.

Local leaders are more likely to contribute to improved education outcomes when they have the authority and the capacity to design and implement policies. In Colombia, large municipalities having full management responsibilities over teacher hiring, training and placement; school infrastructure; materials; and school transportation has been associated with a lower proportion of poorly performing students in Spanish and mathematics scores in grades 3, 5 and 9. But a decentralization reform in Morocco that aimed to grant regional authorities major administrative and financial autonomy did not lead to improved outcomes, partly due to weak local capacity and partly because the central level kept control over decision making.

System leadership can be limited by a lack of clear orientation and motivation to act towards a shared goal. A survey of national and district education officials in Brazil, the Dominican Republic, Guatemala and Peru showed that they could not identify up to four of the five tasks they are expected to perform according to the law. They also claimed responsibility for up to one in three tasks assigned to other government levels. The lack of understanding of their roles was negatively associated with school learning outcomes in their districts.

Responsibility for reforms is often withheld from those who are supposed to carry them out. Some countries make ambitious reform plans but transfer the implementation responsibility to other agencies or delivery units whose managers enjoy more autonomy in decision making. External consultants and advisers can define standards, evaluate systems and policy progress, and advise on reforms. For example, in Malaysia, the Performance Management and Delivery Unit promoted wide and regular consultation and close collaboration between central and local levels in policy prioritization, target setting and implementation monitoring. But delivery units have not always led to the expected results, primarily because little focus has been placed on transforming education officials' values, attitudes and capabilities, as was the case with the 2019 local government reform in the Punjab province of Pakistan.

System leaders should be instructional leaders. System leaders can help maintain a focus on learning outcomes by monitoring data to understand needs, facilitating professional development and providing pedagogical support. But a major challenge is that civil servants employed in such positions may not be prepared for the technical aspects of their work or may not even be aware of their intended role. In Ghana, a study of 174 district education offices based on dimensions of the World Management Survey showed that district officials are unlikely to strategically plan and monitor, as data are collected but not always reviewed and used.

School inspectors can potentially act as system leaders. Inspectors advise, assist and support several school principals at the same time. In the United Republic of Tanzania, the number of school visits and the way in which visits were conducted was one of the most important influences on improving learning. But overall, inspection remains limited to reporting with little effects on school performance. A study in the Shandong province of China showed that school improvement was conceived as compliance with national standards, regulations and policies, and inspectorates did not engage in identifying school processes and outcomes to be improved.

System leaders are not always selected to serve as such. Only 12% of planning officers in Ethiopia and fewer than 10% in Guinea had an education background in planning and management. In Bangladesh, India and Pakistan, civil servants are recruited for a lifelong career anywhere in the public administration and their skills are usually unrelated to the technical requirements of the rotating positions to which they are assigned. Loyalty to a cadre to which a civil servant belongs is emphasized rather than merit. In contrast, all senior civil servants in the Republic of Korea are appointed based on a mandatory leadership assessment. A group of trained assessors test the candidate's leadership capacity through simulated policy and management problems.

System leaders can be trained to perform leadership functions. Professional development opportunities can compensate for gaps in all areas of leadership. Brazil's Jovem de Futuro has trained directors, supervisors and regional directors in identifying student-centred objectives and ensuring action alignment. In some cases, private providers fill gaps in training on leadership. Edvolution Enterprise has so far trained 176 district education officials in collaboration with Malaysia's Ministry of Education.

POLITICAL LEADERSHIP

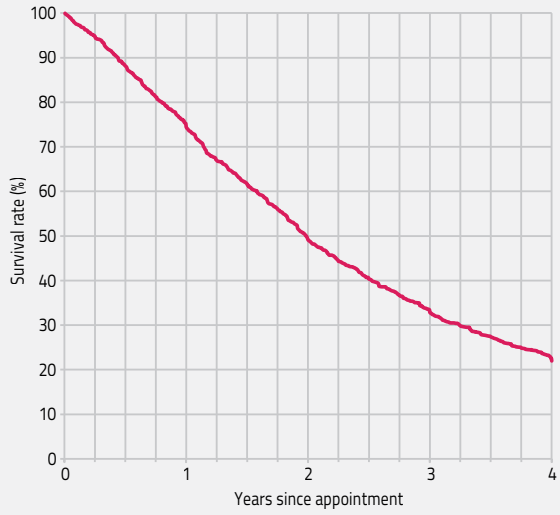
A range of actors play prominent roles in political and social processes to shape education goals and influence decisions. Visionary political leaders can prioritize education and build coalitions of action. Non-state actors can steer governments towards their education vision and demand that authorities are accountable. However, these actors' motivations and interests may not be fully aligned with the goal of education improvement. Moreover, their actions may be constrained by a lack of experience, resources and an enabling environment in which to exercise leadership.

Education features strongly in national political agendas. Education is frequently emphasized in national development plans. Governments also use education systems to promote certain visions of citizenship and national identity. A 2020 survey of over 900 senior officials from 35 governments in low- and middle-income countries found that they ranked socialization as the highest priority outcome, followed by secondary school completion, and then by foundational literacy and numeracy. The curriculum emphasis – in terms of the emphasis on patriotic content and symbols – can differ by type of political regime. When government changes are associated with major ideological shifts, education can become a major battleground.

Education actions are often driven by electoral gain rather than long-term considerations. While many governments try to shape education to fit their vision of national development, education decisions are often the result of electoral politics, which includes favours and exchanges between parties and voters. In 2021, 29% of countries were often or almost certainly likely to base their teacher hiring and firing decisions on political views. Close political ties can be detrimental for education outcomes. In Kenya, ethnic favouritism in education has led to the greater availability of schools and therefore more years of educational attainment for those who belong to the same ethnic group as the president and the education minister.

Politicians need time, support and inspiration to lead. Education ministers balance multiple demands during short tenures. Analysis based on a database of 1,412 ministers of education since 2010 compiled for this report shows that the average minister is 53 years old, highly educated (72% have a postgraduate degree) and male (73%). About 23% have prior experience teaching in primary and secondary education. The average tenure is just under 2 years and 3 months but is even lower, at 1 year and 11 months, for ministers from countries ranked at the top third of the Liberal Democracy Index. The probability of surviving as an education minister is 79% at one year, 49% at two years and 33% at three years (**Figure 4**).

FIGURE 4:
Within two years of their appointment, 51% of education ministers have left office
Probability that an education minister is still in office, by time elapsed since appointment



Note: The analysis covers the period 1 January 2010 to 31 December 2023 and includes 1,412 ministers of education from 211 education systems.
Source: GEM Report team analysis.

Education ministers have provided first-person accounts of their experiences and how they make change happen. Ministers in Canada and Denmark have highlighted the lack of preparation for the job and the difficulty in finding time to exercise leadership. In Peru, Sierra Leone and Delhi, India, ministers of education stressed how coalition building, relationship management and outreach helped them achieve their education outcomes. Ministers also seek to learn from examples of other countries or use such examples to frame their reforms.

Legislators can lead through exercising their functions. Parliamentarians can be key leaders through exercising critical responsibilities including legislating, advocating, shaping public finances, scrutinizing the executive's actions and representing their constituents. But voters sometimes evaluate their legislative representatives on the basis of direct constituency service. In Kenya, these voter preferences led to less focus on policy work. The gender of parliamentarians has been shown to matter for education policy efforts and outcomes. An analysis of 19 OECD countries between 1960 and 2015 revealed that increasing the share of female legislators by one percentage point increased public education expenditure as a share of GDP by 0.04 percentage points.

Teacher unions can lead change but are often portrayed as resistant to it. Teacher unions influence education policy through lobbying, collective bargaining and strikes. As the largest professional body of civil servants, they can also influence elections. Working towards improving teaching and learning requires engagement with teacher unions, since teachers are those who will implement reforms and can moderate opposition to them. In 2021, as part of a global survey of 128 union representatives, only 37% reported that unions were always or often consulted by governments on education policy. One criticism is that unions in some countries, such as Indonesia and Tunisia, have a weak scope to influence policy due to their weak capacity to formulate credible policy proposals.

Student unions can lead education and social transformation. Student unions use political activism to demand accountability in education and society. Student unions have advocated for the right to affordable education and inclusion in higher education representation. Relationships between student unions and governments is frequently confrontational, especially when student activists engage in or even lead wider demands for democratization and political reform. In many cases, these movements are suppressed with violence and their leaders are persecuted for political reasons and portrayed as seditious. However, when their actions lead to regime change, student leaders can be recognized as heroes. In Bangladesh and in Chile, the student movements represent a remarkable case of student leadership that has been institutionalized into government activity.

Employer organizations can shape education policies to improve workforce competitiveness. But a review of 28 national employer and business membership organizations found that most could not fully lead skills systems. In the United States, only 3% of more than 1,100 district superintendents rated business leaders as well-informed and 14% rated them as misinformed about public education. One common leadership role for employer organizations is in establishing sector skills councils. In countries with an established dual vocational education system, such as Germany and Switzerland, businesses have offered apprenticeship contracts, assured training quality and organized examinations.

Researchers exert leadership by influencing policy proposals. Some actors have significant influence by providing thought leadership, producing commissioned research, participating in policy debates and serving in roles in government committees, which can support evidence-based policymaking. But while there has been a rise in emphasis on evidence-based policymaking and understanding 'what works' in education, there has also been criticism that this approach has narrowed the range of what has been researched and it needs to be asked 'for what' something might be working.

International organizations play a very influential role in education. International organizations may differ in their origins, governance, membership and audiences, as well as in the types of education they promote. Yet they can exercise leadership just the same. However, they face challenges. They need to actively communicate a distinct message to be relevant. Often, they compete with each other for influence to attract attention and funding. They derive legitimacy from mandates, funding and data. The OECD has been influential with the generation and use of evidence, the World Bank with its financial and technical assistance, and UNESCO with its rights-based policies on issues such as inclusion. But their ability to lead can be eroded by weak internal procedures, vulnerability to fads, imposition of conditionalities, excessive competition and member states' interference.

Accountability is part of leadership. Civil society is often the strongest advocate for paying attention to education issues that matter. Long-standing national and international campaigns have focused on school infrastructure, textbook supply, data availability, debt relief and tax reform. Non-governmental organizations have advocated for the right to education and the inclusion of groups that are not meaningfully included. Their accountability role, however, depends on their relations with government. The media has a key role in holding governments accountable and raising awareness. Investigative journalism can highlight issues that need to be uncovered, such as teacher shortages, sexual abuse scandals and improper use of funds. Independence from vested interests is a precondition for the media to be credible and fulfil its leadership role but declining resources have hampered journalism.

RECOMMENDATIONS

Leadership matters in education. It helps education institutions, education systems and societies to change for the better. Leaders do not act on their own – they respond to other actors who help shift the political system: members of parliament, researchers, international organizations, civil society, trade unions, media and many others. All of them exercise leadership, helping influence countries towards specific education and broader societal goals. Some politicians, for example, have made inclusive and equitable education of good quality a priority in their countries through forward-looking reforms and adequate resource allocation. But before delving into the 'how' of leadership – and risk it becoming an end in itself – it is important to look into 'what' leadership is meant to achieve.

Leadership is exercised in many ways and multiple forms, given differences in contexts, values, personalities and organizations. The range of outcomes to which leaders contribute is so wide that focusing on any single one for analytical convenience underestimates the full impact of leadership. Stories of good leaders inspire but can only offer direct lessons to those in similar situations. The challenge is to draw from these individual stories and focus on institutional mechanisms that nurture rather than stifle talented leaders of all styles and backgrounds, in all contexts. In many countries, education leaders are often thought of only as administrators or managers. Yet in recent years, some countries have recognized the full scope of their roles and built foundations for their professionalization. Other countries have even taken steps to shape approaches to leadership, urging leaders to engage more with those around them. Change can be slow, however, when it involves long-standing cultures and traditions.

This report's four recommendations focus on actions governments can take to foster leadership in education at school and in the civil service. They are underpinned by the four dimensions of an education leader's role that are relevant for them to lead effectively, whether they work in a school or a government education office: as introduced at the start of the summary – to set expectations, to focus on learning, to foster collaboration and to develop capacity. These dimensions should be the basis upon which to build coherent national strategies of education leadership that cut across all levels of the system. For an education system to work well, leaders at different levels need to be working in the same direction to achieve common goals.

RECOMMENDATION 1. TRUST AND EMPOWER

Create the enabling conditions for school principals to improve education

There can be no leadership when there is no opportunity to make decisions. Education leaders contribute to education improvement in all circumstances and contexts, but their influence is greater the more they are trusted to use their skills. Education systems therefore need to empower school principals with sufficient autonomy to manage financial and human resources and to make decisions related to teaching and learning.

But introducing autonomy will not be sufficient without support measures. Governments must be clear about the scope of school leaders' decision-making authority. They need to allocate adequate resources in a timely, equitable and predictable manner. School leaders need to be accountable to governments and communities for the responsible use of these resources to achieve feasible education outcomes. Governments must develop leaders' capacity to use resources effectively and their own capacity to monitor schools and use the information effectively. Trust should be developed further by meaningful and regular engagement. And governments need to be aware of and protect school leaders from the potential downsides of greater autonomy.

RECOMMENDATION 2. SELECT, DEVELOP AND RECOGNIZE

Invest in the professionalization of school principals

a. Select talented school principals through inclusive recruitment

Approaches to recruitment need to be inclusive and recognize that good leadership potential can be found in those who are 'modest and self-effacing, surprised to be singled out as effective leaders'. Talented people are likely to be discouraged if processes are closed and inequitable. While there may be alternative pathways to becoming a school leader, it is highly unlikely that someone could be appointed outside of the pool of current teachers. It, therefore, makes sense for initial teacher training to incorporate elements of leadership development. Talent spotting and succession planning should be integral components of recruitment strategies. Offering management and leadership roles in advance is desirable where circumstances allow. However, it is crucial to ensure that these approaches are free of bias, stereotypes and favouritism, and to avoid hierarchical structures, partisanship or patronage.

Selection criteria should be clearly defined, objective and transparent to ensure that qualified candidates, regardless of their background or gender, have equal opportunities to demonstrate their diverse leadership skills. Politics should not play a role in the choice of school leaders. The lack of diversity in leadership positions is a problem for education decision making at all levels. Currently, 8 in 10 countries do not have measures in place to ensure balanced representation. Open selection processes could help reduce disparity in representation in leadership positions, but temporary quotas may be needed where problems persist.

The best teachers need not make the best principals – and care should be exercised to avoid signalling that the position of a principal is a reward for the best teachers. On the other hand, being a good teacher is important to succeed as a principal. The review of selection processes for this report shows that almost all countries consider teaching experience as a prerequisite for being a school leader. But only about 3 in 10 also specify management experience. Selection criteria should therefore be broadened and diversified.

b. Prepare, train and support school principals to focus on the core dimensions of their role

A global review of training courses for this report, both pre-service and in-service, suggests that barely half of training courses focus on any of the four dimensions of instructional leadership, expectations and vision, collaboration and alliances, and staff development – and just one third on all four. Training programmes need to pay attention to each of these four dimensions but tend to be primarily academic and do not distinguish between needs arising at different career stages.

Some types of support, such as induction, coaching and mentorship, are critical for novice and early career leaders' success, yet their role is downplayed. Only 3 in 10 countries have regulations to provide training for new principals after their appointment. Preparation programmes should include a practice or experiential learning element and enlist the support of coaches and mentors.

Professional development programmes should fill gaps, especially for leaders whose previous training did not cover the four core dimensions. Competences that can be nurtured include a range of good observation, listening, social, emotional and analytical skills. Training should also cover any government reform priorities to support their implementation, including familiarizing school leaders with core legislation and regulations, and developing practical skills in data, financial, human resource and pedagogical management. Ultimately, principals need to feel comfortable in making decisions. One quarter of school principals in upper-middle- and high-income countries have expressed the need for training in these areas. Specialized knowledge is needed to implement policies on inclusion and on digital transformation. Other education policy areas, such as greening and health and nutrition, will also require school leaders to develop capacity.

With a growing range of responsibilities, leadership is often associated with stress and burnout. It is therefore necessary to give access to professional counselling and mental health services, and to create a supportive network within the school environment where leaders can discuss challenges and seek assistance. The costs of these investments will be offset because sufficiently supported school leaders will be less likely to quit.

c. Set and implement school leadership standards and recognize their achievement

Globally, almost half of countries have adopted stand-alone national professional standards or competency frameworks which outline the required competencies of aspiring and practising school principals and indicate desirable practices. Standards are particularly important where perceptions of school principals' roles remain limited to administration and management. They help communicate national priorities and can be used to guide selection, preparation and training. But they should not create uniformity and should reflect the country's education and cultural context, avoiding the temptation to import standards from other countries without adapting them to the local context.

School leaders' performance should be assessed against these standards and intended education outcomes. The primary intention of such appraisal should be formative: to give feedback and recommend changes in practice. Appraisal systems can be used as a basis to develop a certification process that recognizes the professional competences of school leaders. Well-organized appraisal systems can further be used to develop career advancement pathways.

RECOMMENDATION 3. SHARE

Promote shared leadership and collaborative school cultures

Leadership is sometimes thought of as a series of heroic acts. But school leaders are not and should not be seen as heroes; it is not possible for them to do everything and do it on their own. They need to lead through collaboration to achieve common goals so that all stakeholders are motivated to work in the same direction using their respective strengths.

Leadership status needs to have deeper roots than a position of power. It needs to be earned through daily practice that demonstrates integrity, commitment, ability and humanity. These qualities are strengthened if leadership functions are shared, formally and informally, with members of a management team (e.g. the vice principal or heads of department), teachers and school support staff, students, parents, and community members. School principals need to know how to meaningfully use structures, such as school management committees and student councils, as forums for consultation and engagement. Such collaborative relationships strengthen governance, improve decision making, enhance accountability, and foster inclusive and resilient environments. Policies on shared school leadership should be developed and implemented. Yet only about half of countries emphasize teacher collaboration in their leadership standards. And barely one third of leadership programmes reviewed for this report focused on developing school leaders' preparedness to share responsibilities through openness, collaboration and partnerships.

Professional development programmes should, therefore, help school principals to clarify roles; delegate responsibilities; empower colleagues, students and parents and recognize their unique contributions; create an environment where everyone feels valued; establish clear communication channels and regular feedback mechanisms; build teams; and see the school as a learning organization that works toward common goals.

RECOMMENDATION 4. INVEST IN SYSTEM LEADERS

Develop education officials' capacity to serve as system leaders

Education system leaders are among the least studied education actors – and quite possibly not sufficiently prepared. Yet they are entrusted with major responsibilities to initiate and implement education system reforms instigated by the government and to support quality assurance processes. Sometimes, instead of empowering them, their functions are outsourced or transferred to new governance structures.

The same challenges that affect the professionalization of school principals are exacerbated for these civil servants. Recruitment and selection processes are slow to change because public administration reforms move at a slow pace. Preparation and professional development are hampered by the fact that education sector expertise may not be a prerequisite. This makes it very difficult for officials to fulfil one of their main functions: to lead instructional support. They also tend to see their role as one of control rather than support. Appraisal mechanisms lack measurable objectives, which could be used to give feedback.

Professional development programmes need to build capacity for education officials, with a particular emphasis on instructional leadership and quality assurance. In increasingly complex environments, education officials also need preparation in crisis management.

Monitoring education in the Sustainable Development Goals

KEY MESSAGES

More children are in school and progressing through education today than ever before.

- The participation of children under 3 in education has increased globally and, most notably, by over 10 percentage points in sub-Saharan Africa over the past decade.
- Since 2015, 110 million more children, adolescents and youth have gone to school.
- Completion rates are also rising: 40 million more young people are completing secondary school today than in 2015.
- Since 2010, the tertiary education gross enrolment ratio has increased from 30% to 43% and even faster in Latin America and the Caribbean and in Eastern and South-eastern Asia.

But those left behind are the hardest to reach, leading to stagnation and, in cases of conflict, a reversal of education development.

- Enrolment at age 5 has stagnated at around 75% for the past decade.
- Globally, 251 million children and youth remain out of school, a reduction of just 1% since 2015, of which 129 million are boys and 122 million are girls. Exclusion is exacerbated by social norms and poverty: Around 6 in 10 children, adolescents and youth are out of school in Afghanistan and Niger.
- Too many children start school late and repeat grades in sub-Saharan Africa: 26% are at least two years too old for their grade in primary school; 35% are over-age in lower secondary school.
- The secondary completion rate has increased from 53% in 2015 to 59% in 2023. Globally, 650 million leave school without a secondary school certificate.
- Gender gaps in secondary completion rates have been eliminated globally, but remain wide in sub-Saharan Africa, where the pace of progress over the past decade has been half of that in Central and Southern Asia, the only other region where girls are behind boys.
- The percentage of adults with at least secondary completion has increased on average by 5 percentage points in the past 10 years. At this rate, it would take another 80 years to achieve universal secondary completion.
- Only 3% of adults participate in education and training. Participation rates have fallen in more than half of the countries with trend data available since 2015.
- Attacks on schools totaled some 3,000 in 2022, exacerbated by the war in Ukraine, and again in 2023 by the war in the State of Palestine. As of July 2024, 61% of schools in Gaza had been hit directly.

Standards for teachers are often too low or not met.

- Insufficient teachers in classrooms can be due to a shortage of applicants or a shortage of vacancies. The first is more common in rich countries: only 4% of 15-year-olds in the richest countries want to become teachers; the second in poorer countries: in Senegal, there was a surplus of over 1,000 qualified teachers in 2020 alone.
- Many teachers do not have the minimum required qualifications. In sub-Saharan Africa, the share has dropped from 70% in 2012 to 64% in 2022. In Europe and Northern America, it has dropped from 98% in 2010 to 93% in 2023.
- Standards vary across regions. Most countries require teachers to have a bachelor's degree to teach in primary education, while 17% of sub-Saharan African countries accept a lower secondary certificate.

Learning outcome levels were declining even before COVID-19 but the pandemic coincides with an acceleration of that trend.

- It is difficult to establish trends, as there remains an acute data gap globally: low coverage of learning assessments means there is no information on 680 million children.
- Evidence from 70 upper-middle and high-income countries that took part in the 2022 PISA (at the end of lower secondary school) shows that the share of students proficient in reading fell by 9 percentage points from 2012 to 2018 and by 3 more points to 47% in 2022.

- The share of these students proficient in mathematics increased by 2 percentage points from 2012 to 2018 but fell by 8 points to 36% in 2022. A long-term decline may have been ongoing since 2009. COVID-19 may have accelerated the decline but might mask other structural factors.
- Evidence from 6 sub-Saharan African countries that took part in the 2021 and 2023 AMPL surveys (at the end of primary school) shows that only about 1 in 10 students reached the minimum proficiency level in reading and 2 in 10 in mathematics.

Technology helps learners access education who previously could not but brings new issues.

- In upper secondary education, 8 in 10 schools are connected to the internet. Countries' progress towards their connectivity benchmarks is only three percentage points off track.
- There are major gaps between countries in familiarity with basic computer-related activities: 8 in 10 adults in high-income countries but only 3 in 10 adults in middle-income countries can send an email with an attachment.
- With respect to smartphone-related activities, 51% of youth and adults could set up security measures for digital devices in high-income countries compared to 9% in middle-income countries.
- Formal education is linked to higher digital skills acquisition. In the European Union, the share of adults with basic digital skills rises from 34% among those with lower secondary education to 51% for those with upper secondary education and 80% for those with post-secondary education.
- A faster increase in the prevalence of bullying for girls than for boys aligns with their higher vulnerability to cyberbullying. Girls are at higher risk, at least partly because they spend more time on social media.

Climate change poses challenges to infrastructure and curricula.

- Globally, almost one in four primary schools do not even have access to basic drinking water, sanitation and hygiene, yet governments need to also make more extensive investments to protect students and schools from rising temperatures and natural disasters.
- A new indicator which monitors green education content shows that climate change education needs to be taught more in the earlier grades and across more subjects than just science.

National and international investment in education is declining.

- Globally, public education expenditure fell by 0.4 percentage points of GDP between 2015 and 2022: the median level fell from 4.4% to 4%.
- The share of education in total public expenditure decreased by 0.6 percentage points from 13.2% in 2015 to 12.6% in 2022.
- The growing weight of debt servicing has implications for education spending. Sub-Saharan African countries spent almost as much on debt servicing in 2022 as they did on education.
- In terms of the twin international benchmarks of spending at least 4% of GDP and at least 15% of public expenditure for education, 59 out of 171 countries met neither target.
- Education spending per child has largely stayed the same since 2010.
- The share of aid going to education dropped from 9.3% in 2019 to 7.6% in 2022.

INTRODUCTION

The first **Conference on Education Data and Statistics** (EDS Conference) was organized by the UNESCO Institute for Statistics in February 2024 in Paris, in collaboration with the *Global Education Monitoring Report* team. It was attended by representatives from 130 countries. It had three key objectives: to establish an international community of practice of education statisticians guiding the Technical Cooperation Group (TCG) on SDG 4 indicators; to communicate, discuss and reach consensus on concepts, definitions, methodologies and operational aspects of indicator measurement in the form of recommendations and guidelines for adoption as international standards; and to debate the impact of technological developments on education statistics. It was the inaugural conference of a series, which will convene every three years and whose decisions will be implemented by the TCG, now renamed the Education Data and Statistics Commission.
The EDS Conference filled an important gap. To compare, the International Conference of Labour Statisticians, which has been leading the work on standardizing labour statistics, celebrated its centenary in 2023.

The second edition of the **SDG 4 Scorecard** was launched at the EDS Conference. It is the annual snapshot of country progress towards their 2025 and 2030 national targets, or benchmarks, a process that is well established by now. To date, 77% of countries have submitted at least one benchmark and another 7% of countries, which are members of the Caribbean Community and the European Union, have committed through their regional targets.
In total, countries have set 54% out of all possible target

values for 2025 and 2030. The indicators with the highest benchmark submission rates are the early childhood education participation rate (72%) and the upper secondary completion rate (70%). The lowest submission rates are observed for the gender gap in upper secondary completion (36%) and the new benchmark indicator on school internet connectivity (33%).

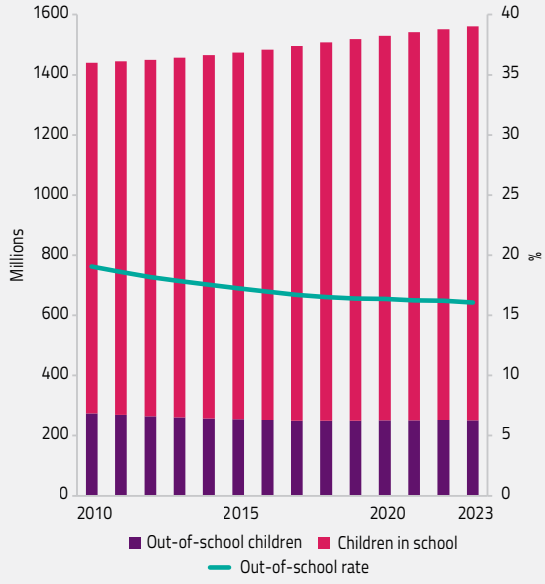
When the UN General Assembly adopted the SDG global indicator framework in 2017, it scheduled two Comprehensive Review processes to be led by the Inter-agency and Expert Group on SDG Indicators. The first (2019–20), during which the completion rate was adopted as a global indicator, focused on indicator methodology. The second is taking place in 2024–25 and focuses on indicator coverage: data must be available for at least 40% of countries and of the population, at least in the regions where the indicator is relevant. This criterion affects several SDG 4 indicators, notably: the percentage of children developmentally on track (4.2.1), functional literacy and numeracy proficiency (4.6.1), and the minimum proficiency in reading and mathematics (4.1.1). The last indicator has sufficient coverage at the end of primary (b) and lower secondary (c) levels, but data are available for only 16% of the population and 20% of countries at the grade 2/3 (a) level. Efforts are underway to ensure more countries collect such data but also to enable some assessments, which currently do not meet the reporting criteria for the minimum proficiency level, to report on some of its precursor skills.

TARGET 4.1. PRIMARY AND SECONDARY EDUCATION

It is estimated that 251 million children and youth were out of school in 2023. Although about 110 million more children, adolescents and youth have enrolled in school since 2015, the out-of-school population has declined by just 3 million, or 1%, at the same time (**Figure 5**). In contrast, in the 8 years before 2015, the out-of-school population had declined by 43 million, or by 14%. The rate of progress has therefore slowed down by over 90%. This estimate does not capture some populations affected by crisis where data collection processes have broken down. By one estimate, adding the potential out-of-school population in five of the countries with the largest emergencies – Burkina Faso, Myanmar, the State of Palestine, South Sudan and Sudan – would increase the out-of-school population by 5.5 million.

The out-of-school rate fell from 17.2% in 2015 to 16.1% in 2023. Among school-age children, adolescents and youth, it was 33% in low-income, 19% in lower-middle-income, 8% in upper-middle-income and 3% in high-income countries. Globally, about 10% of primary school age children, 14% of lower secondary school age adolescents and 30% of upper secondary school age youth are out of school. Stagnation kicked in around or shortly before 2015. This predates COVID-19 and does not appear to be related to it.

FIGURE 5:
Since 2015, the out-of-school population has stagnated
Out-of-school rate, out-of-school children and enrolled children in primary and secondary education, 2000–23



Source: VIEW database.

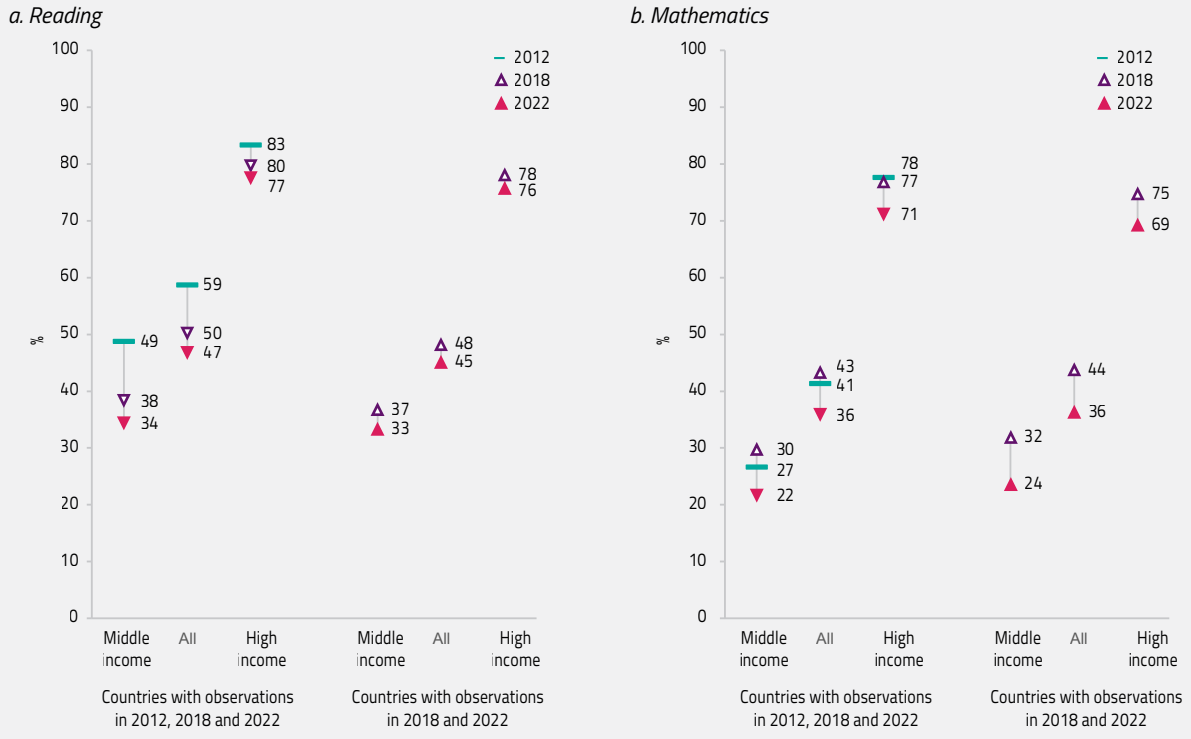
Completion rates have steadily increased, albeit slowly. The primary completion rate increased from 85% to 88%, or by 3.1 percentage points between 2015 and 2023, and the lower secondary completion rate increased from 74% to 78%, or by 4 percentage points. The upper secondary completion rate increased from 53% to 59%, or by 5.9 percentage points, which is equivalent to an annual growth of 0.7 percentage points. Considering those who complete each cycle late would increase the completion rate by 4.4 percentage points in primary and lower secondary education and by 3.3 percentage points in upper secondary education. This means, for example, that ultimately 62% of youth complete upper secondary school. Sub-Saharan Africa is the region with the largest discrepancy between timely and ultimate completion rates. In 2023, 67% of children had completed primary school on time but 78% did with several years of delay, a difference of 10.4 percentage points.

Globally, it is estimated that 58% of students achieve the minimum proficiency level in reading and 44% in mathematics at the end of primary school. Similarly,

FIGURE 6:

Since 2012, the percentage of students achieving minimum proficiency has fallen by 12 percentage points in reading and 6 percentage points in mathematics

Percentage of students achieving a minimum level of proficiency at the end of lower secondary, selected middle- and high-income countries, 2012, 2018 and 2022



Source: GEM Report team analysis based on PISA data.

64% of students achieve the minimum proficiency level in reading and 51% in mathematics at the end of lower secondary school. There has been much attention on the potential impact of COVID-19 on learning outcomes due to the disruption caused by school closures. The release of the 2022 PISA, which assesses students at the end of lower secondary school, provides an opportunity to address this question. In the case of reading, the share of students who achieved the minimum proficiency level fell by 9 percentage points from 2012 to 2018 and by a further 3 points in 2022 (**Figure 6a**). In the case of mathematics, the percentage of students who achieved the minimum proficiency level increased by 2 percentage points from 2012 to 2018 but there was a fall by 8 points in 2022 (**Figure 6b**).

TARGET 4.2. EARLY CHILDHOOD

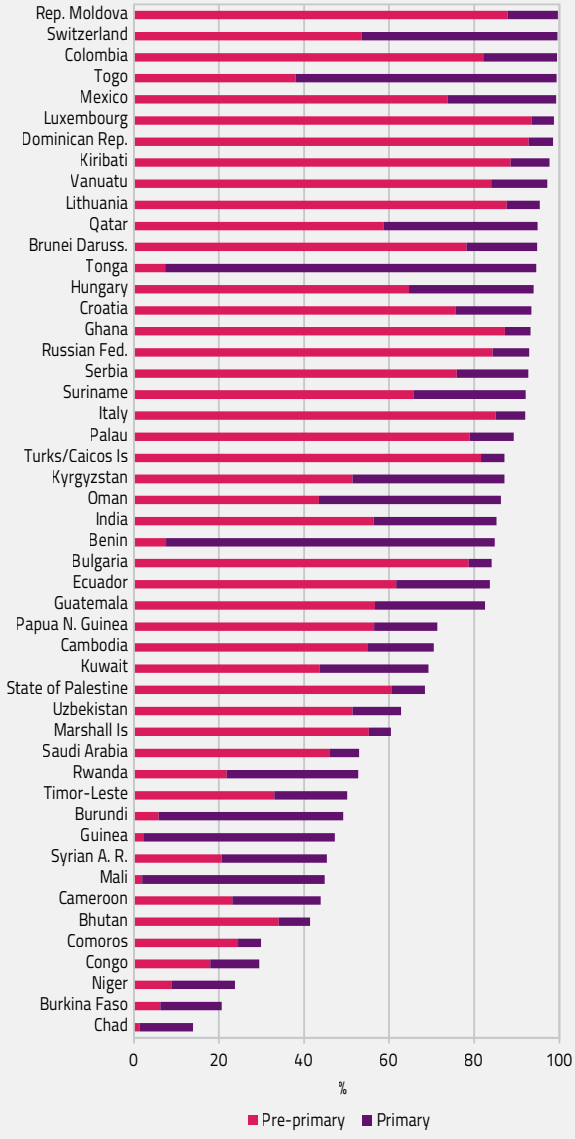
Over the past decade, participation in early childhood education has increased for younger children (aged 0–3) but remained relatively stable for older ones. Between 2013 and 2023, the share of children enrolled in education one year before the official primary entry age has stagnated at around 75%, although it increased by about 7 percentage points in Northern Africa and Western Asia (to 51%) and sub-Saharan Africa (to 49%), the two regions lagging furthest behind.

Early entry into primary education hinders analysis of SDG global indicator 4.2.2, which does not distinguish between those enrolled in pre-primary education and those who enter primary education a year early. In at least 49 countries, over 5% of children are enrolled in primary education one year earlier than the official entry age for that level (**Figure 7**). Excluding children enrolled in primary education would lead to a 20% drop to the value of the indicator. In Burundi, where the official entry age for primary education is 7, nearly 90% of 6-year-olds enrolled are in primary instead of pre-primary education. In Burkina Faso, the net enrolment of children one year younger than the official primary entry age increased considerably from 3% in 2011 to 21% in 2020. However, much of this increase was due to an increase in early enrolment in primary education.

FIGURE 7:

Many children are enrolled in primary education one year before the official entry age

Share of children enrolled one year before the official entry age for primary education, by education level, 2018–20



Note: Countries shown have at least 5% of children enrolled in primary education one year before the official entry age.
Source: UIS database.

Pre-primary attendance is associated with better overall child development. Results from UNICEF's new monitoring tool, the Early Childhood Development Index 2030, show that children who are richer and those attending pre-school are more likely to be developmentally on track. In Eswatini, 74% of children attending pre-primary education are developmentally on track, compared to 38% of those not attending. Supportive home environments can improve child development, including school readiness, early literacy and numeracy skills, and social and emotional skills. However, in at least 10 sub-Saharan African countries, over 30% of children were left under inadequate supervision. Moreover, caregivers need training. A survey of caregivers in low- and middle-income countries found that only half engaged in key activities essential for stimulating learning and school readiness.

Preschool leadership is important, particularly pedagogical leadership, although many preschool leaders have no preparation or requirements to work to. Administrative tasks often dominate. In Israel and Türkiye, ECCE leaders spend less than 20% of their time on pedagogical leadership.

TARGET 4.3. TECHNICAL, VOCATIONAL, TERTIARY AND ADULT EDUCATION

The median adult participation rate in formal and non-formal education and training is 3%. The share exceeds 5% in 40 countries and 10% in 15 mostly high-income countries. For 78 countries with data in 2013 and 2023, the median adult participation rate fell by 0.5 percentage points. This mainly reflects the fact that the data for high-income countries, which have high levels of participation and high levels of reporting, refer to 2022 and were still bearing the impact of COVID-19. In terms of gender gaps, the situation in rich countries contrasts with that in poor countries. In high-income countries, 73 men participate in education and training for every 100 women whereas in low-income countries, only 50 women participate for every 100 men.

The median youth enrolment rate in technical and vocational education and training (TVET) increased from 2% to 5% between 2010 and 2023. In 38 countries with available data, there were about 80 women enrolled in TVET for every 100 men, while basically the opposite was true in higher education. In eight countries, men were more likely than women to participate in both tertiary and TVET and, in six countries, women outnumbered men in both. The tertiary education gross enrolment ratio increased from 30% in 2010 to 37% in 2015 and 43% in 2023. Enrolment ratios increased rapidly in this period in Latin American and the Caribbean (by 16 percentage points) and in Eastern and South-eastern Asia (by 34 percentage points). In contrast, the ratio decreased in Oceania and stagnated in sub-Saharan Africa.

Higher education leaders are confronted with major challenges such as rapid technological change, political instability, pressures on public spending, higher student diversity and more scrutiny. Yet they often do not have the autonomy to take decisions. Almost 40% of countries do not recognize institutional autonomy by law. Most leaders are academics who were promoted with little to no management training, although various countries are addressing this with training. Women are under-represented in higher education leadership, making up only 25% of the top 200 higher education universities worldwide.

TARGET 4.4. SKILLS FOR WORK

Globally, data on information and communication technology (ICT) skills are unevenly collected, with much higher coverage in richer countries. Among those reporting in 2021, the acquisition of ICT skills is unevenly distributed. For instance, 80% of youth and adults in the median high-income country could send an email with an attachment compared to 32% in middle-income countries. New activities are being monitored related to smartphone use, although data are available for fewer countries. Among high-income countries, 38% of youth and adults could verify the reliability of online information compared to 10% in middle-income countries. Formal education is important for acquiring digital skills. In the European Union, the share of adults with basic digital skills ranged from 34% among those who had at most completed lower secondary education to 51% among those who had completed upper secondary education and 80% among those who had some post-secondary education.

In the average country, the share of the population with at least secondary school attainment increased by 0.5 percentage points per year between 2012–13 and 2022–23. At this pace, it would take 80 years to achieve universal secondary completion. But there is also significant variation within each group of countries. For example, among countries whose starting point was below 20% in 2012–13, India increased by 18 percentage points in 10 years whereas Guatemala, Niger and Senegal almost stagnated. Among countries whose starting point was between 20% and 40% in 2012–13, Malta increased by 21 points and Portugal by 16 points in 10 years while the Dominican Republic and Honduras stagnated. This means that despite some clear average trends, no country's trajectory is predetermined.

Leadership skills and behaviours can be acquired through education. Leadership training has expanded from an exclusive activity for a few adult students to being more comprehensive, while expanding its objectives to prepare the future generation, not just for business but also for social advocacy. It is important to acknowledge the social factors that shape leadership skills and provide equal opportunities for all youth to develop these skills.

TARGET 4.5. EQUITY

Globally, gender parity has nearly been achieved on average in out-of-school rates since 2015. However, more boys than girls remain out of school in Eastern and South-eastern Asia, Europe and Northern America, and Latin America and the Caribbean, where disparity has widened: from 107 boys in 2015 to 113 boys for every 100 girls out of school in 2023.

Gender parity has also been maintained globally in primary and lower secondary completion since 2015 but there has been a reversal in upper secondary education: 97 young women were completing for every 100 young men in 2010 but 97 young men were completing for every 100 young women in 2020. There are two regions remaining with disparity at the expense of girls in upper secondary completion, but Central and Southern Asia has moved towards parity at twice the rate as sub-Saharan Africa. The location gap has also narrowed: in 2010, 41 youth in rural areas were completing upper secondary school for every 100 youth in urban areas; by 2022, this ratio had improved to 67 rural for every 100 urban youth.

In high-income countries, there are 88 males achieving minimum proficiency in reading for every 100 females, while in middle-income countries there are only 72 males for every 100 females reaching that level. On average, there are no substantial gender differences in mathematics proficiency. But only 47 students from the lowest socio-economic group achieved minimum proficiency in mathematics for every 100 students from the highest socio-economic group. Such disparities also affect European counties: in Finland, Malta, Poland, Spain and Switzerland, 60 students from the lowest quintile achieve minimum proficiency for mathematics for every 100 students from the richest quintile.

In 2015, the median percentage of children receiving instruction in their home language in early grades was 84%; the median dropped slightly to 82% by 2022. Data at the end of primary school are more limited, but African countries including Cameroon, Chad, Congo and Côte d'Ivoire have shown the significant increases in the share of students at the end of primary school receiving instruction in their home language.

TARGET 4.6. YOUTH AND ADULT LITERACY

Literacy rates have progressed over the past decades through generational shifts. Low- and lower-middle income countries show the greatest difference in literacy rates across generations, reflecting sharply increasing trends in education participation. In India, where data come from national household or labour force surveys, the difference in literacy rates between the younger (aged 15 to 24) and the older (65 or above) cohorts is above 45 percentage points. In Mozambique, where data for all age groups come from the Household Budget Survey, the literacy rate of the adult population (56%) is nearly double that of the elderly population (29%).

As many countries achieve close to universal literacy for their young populations, disparities across gender, income and location tend to disappear. In Nepal, only 24 elderly women are literate for every 100 elderly men. The gender gap reduces to 73 to 100 for those aged 25 to 64 and has reached parity among those aged 15 to 24. But pockets of disadvantaged groups with low literacy rates can be found, even in countries with overall high levels of literacy. In Peru, for example, 95% of adults are literate, but the same is true for only 78% of women in rural areas and 84% of women from the poorest wealth quintile.

Family literacy policies should take a long-term approach to changing cultures of learning, particularly among disadvantaged families and communities; be comprehensive and well-resourced to allow for sustainability; work towards greater inclusion and thereby close social, gender, ethnic and digital gaps; promote partnership and collaboration by reaching across departments, ministries and institutions; and use a lifelong learning perspective to motivate disadvantaged learners to engage and remain engaged in literacy learning.

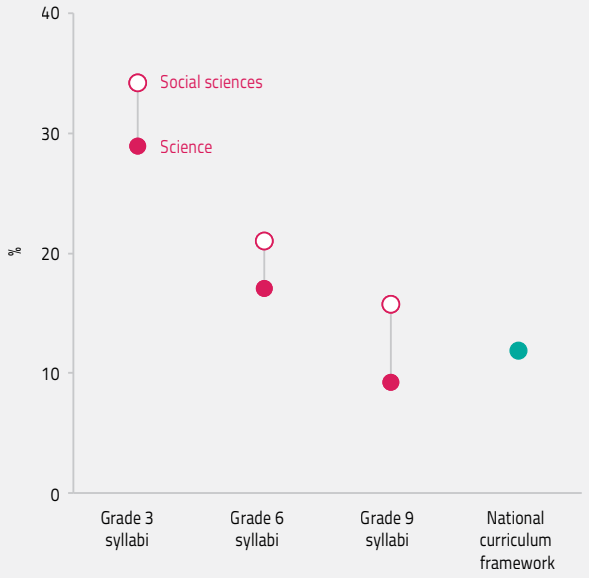
TARGET 4.7. SUSTAINABLE DEVELOPMENT AND GLOBAL CITIZENSHIP

The *Global Education Monitoring Report* team, the Monitoring and Evaluating Climate Communication and Education (MECCE) Project, and UNESCO have collaborated to analyse the prevalence of green content in national curriculum frameworks and the syllabi of science and social science subjects. Among 76 countries, 34% of countries did not include green content in grade 3 social science syllabi, compared to 21% in grade 6 and 16% in grade 9 (**Figure 8**). Richer countries and countries more vulnerable to the effects of climate change do not necessarily include more green content.

The percentage of schools that provides life skills–based HIV and sexuality education has been relatively stable over time. Almost 80 countries report against the indicator. Of those, one third report that all schools at every level of education provide life skills–based HIV and sexuality education, including Burundi, Thailand and Uruguay. In 10% of countries, including Algeria, Mauritania and Uganda, there are no schools at any level which provide this type of knowledge. Only 9% of countries have no upper secondary schools providing life skills–based HIV and sexuality education, compared to 25% of primary schools.

Civic education programmes must address two particular challenges: first, declining voter turnout (e.g. from 77% in the 1960s to 67% after 2010 globally), despite growing levels of education; and second, large gender and socioeconomic gaps in political aspirations and intended participation. Girls often grow up convinced that political leadership is

FIGURE 8:
Syllabi are more likely to include green content in lower secondary than in primary education
Share of countries which do not include any green content, by document type, grade and domain



Source: GEM Report, MECCE project and UNESCO database.

predominantly a male activity. In the United States, in an experiment in which children were asked to draw a political leader, the likelihood that girls would draw a man increased with age, from 47% among 6-year-olds to 75% among 12-year-olds, while the percentage of boys who did the same was stable at each age, at just above 70%. Studies of the link between education and political participation have been mostly inconclusive. Beyond classroom instruction, extracurricular activities and the school's ethos can affect civic learning and shape identity formation (ethnic, political or any other sort of self-image), agency and self-efficacy.

TARGET 4.A. EDUCATION FACILITIES AND LEARNING ENVIRONMENTS

In 2023, 77% of primary schools had access to basic drinking water globally. Coverage was similar for basic sanitation and hygiene services. Global progress has been slow, but a few countries have considerably improved since 2015. In Rwanda, the share of primary schools with access to a handwashing facility increased from 40% in 2015 to 100% since 2021.

In 34 of the 66 countries with available data, bullying increased by at least 2 percentage points for girls between 2018 and 2022. The same was true for boys in only 22 countries. In Türkiye, the share of 15-year-old girls who experienced bullying increased by 18 percentage points compared to 7 percentage points for boys.

The top 10 countries by number of attacks represented 68% of the global attacks on education in 2022 and 80% in 2023. Since 2013, Afghanistan and the State of Palestine have each suffered over 100 attacks on education every year except for one. In 2023, the State of Palestine suffered 720 attacks on education.

In 2022, 418 million children were receiving school meals globally, 30 million more than in early 2020, before the COVID-19 pandemic. Coverage varies widely, from less than 5% of primary school children in Algeria and Cameroon to nearly 100% in several European and Latin American countries. These estimates tend to ignore that many students attend private schools. The Gambian school meal programme covers 47% of students enrolled but, given that one third of primary school students are enrolled in private institutions, the coverage of public school students is 70%.

Dealing with rising temperatures that harm students' well-being and hamper their ability to focus has been a major concern in many countries. Solutions range from high-cost items, such as air conditioning, to simpler steps such as painting exterior walls white and using blinds and awnings. In Indonesia, replacing dark roofs with a coating of white paint reduced inside temperatures by over 10°C. Climate-related hazards such as wildfires, storms, floods, droughts and rising sea levels can devastate education systems. Pacific Island states make up 5 of the top 10 countries with the highest economic losses resulting from damaged or destroyed critical infrastructure, including schools, which were attributed to disasters.

TARGET 4.B. SCHOLARSHIPS

In 2022, USD 4.6 billion of official development assistance (ODA) was disbursed in the form of scholarships and imputed student costs, a 31% increase compared to 2015. Scholarship levels declined sharply by 26% between 2019 and 2021 as a result of the COVID-19 pandemic and, despite recovering, were still slightly below the 2019 levels in 2022.

Globally, the number of outbound international students has tripled since 2000. Among the regions highlighted in SDG target 4b, the number of outbound international students grew slower than the global pace in Africa and Small Islands Developing States and at a faster pace in the Least Developed Countries. France and Germany are the main donors who report scholarships and, especially, student imputed cost spending as ODA. In Africa, France accounts for almost two thirds of the total ODA and Germany for almost one third of the remainder. Other countries that

allocate ODA for scholarships include Hungary (which spent USD 31 million for students from Africa), the Republic of Korea (which spent USD 22.5 million for students from Least Developed Countries), and Australia and New Zealand (which spent USD 23.5 million for students from Small Island Developing States).

The share of ODA for scholarships from countries that are not members of the OECD Development Assistance Committee rose from 1% in 2014 to 9% in 2022. Qatar, Romania, Saudi Arabia and Türkiye have significantly increased their ODA on scholarships, from just USD 29 million in 2013 to USD 450 million in 2022. Since 2018, a large part of ODA has gone to Syrian students. China has developed into being a major scholarship provider for students from developing countries, although calculating the flows is not straightforward.

TARGET 4.C. TEACHERS

The share of teachers with the minimum required qualifications has been decreasing worldwide. At the primary level, the share has decreased from 90% in 2010 to 85% in 2023, as the total number of teachers increased by over 5 million. In Europe and Northern America, the share of teachers with minimum qualifications has gradually decreased from 98% in 2010 to 93% in 2023.

Teacher shortages are a global phenomenon, but they can stem from two different challenges: an insufficient supply of teachers (not enough qualified candidates) or an insufficient demand for teachers (not enough vacancies are created). These two challenges are often conflated because they lead to common outcomes, such as high pupil/teacher ratios, a high share of non-qualified or non-trained teachers, the strong prevalence of teaching 'out of field' (i.e. a subject unrelated to the teacher's specialization), double shifts and multigrade classes. Teacher shortages in rich countries tend to come from the supply side, with low interest among young people in the profession and falling enrolment in teacher preparation programmes. In Australia, the number of graduates from initial teacher education declined by 17% between 2017 and 2020, and a series of reforms, including scholarships for teacher education programmes, have been introduced. By contrast, in some poor countries, the number of qualified teaching candidates surpasses the number of available teaching positions. In Senegal, where around 25% of teachers do not have the minimum required qualifications, the government only hired 2,000 of the 3,000 candidates who successfully passed the competition to become teachers in 2020.

In-service training is a key factor in retaining teachers, yet only 45% of countries have a policy on compulsory continuous development for pre-primary education and 53% have one for primary and secondary education. Richer countries are both more likely to have a higher academic requirement for teachers and to mandate compulsory professional development.

FINANCE

In 2022, global education spending, which aggregates contributions from governments, donors and households, increased by 0.8% to USD 5.8 trillion, despite a fall in government spending, from USD 4.39 trillion to USD 4.33 trillion. Globally, public education expenditure levels have fallen by 0.3 to 0.4 percentage points of GDP between 2015 and 2022: the median level has fallen from 4.4% to 4% and the mean level has fallen from 4.6% to 4.3%. Taking the median as a measure, public education expenditure has increased rapidly in low-income countries from 2.6% in 2010 to 3.2% in 2015 and 3.8% in 2022. In contrast, it fell from 4.5% in 2013 to 3.5% in 2021 in lower-middle-income countries (**Figure 9.a**).

Total public education spending as a share of GDP is the product of two indicators: the volume of total public expenditure and the priority governments assign to education in their budget. The latter has declined by 0.6 percentage points from 13.2% in 2015 to 12.6% in 2022, in other words by more than the fall in total public expenditure on education as a share of GDP. The share of education in total public expenditure increased in low-income countries from 13.2% in 2015 to 15.6% in 2022 but fell rapidly from 17.1% in 2011 to 13.8% in 2022 in lower-middle-income countries, a possible impact of the growing debt crisis (**Figure 9.b**). Relative to the twin international benchmarks of spending at least 4% of GDP and at least 15% of public expenditure for education, 59 out of 171 countries met neither target, while only 34 met both.

In the context of the constant pressure on education budgets, it is becoming more difficult to offer competitive pay packages to attract talented individuals to become school principals. Nevertheless, a few countries, including Italy (from already high levels) and Latvia (from low levels), have significantly increased salaries for principals in recent years. Italy introduced a reform of school leadership autonomy, which significantly improved principals' salaries.

Total aid to education reached a record high of USD 16.6 billion in 2022, up from USD 14.3 billion in 2021, growing in real terms by 16% year on year. Despite the increase in the overall volume of aid to education, the share of education in total ODA, which increased from 8.2% in 2013 to 9.3% in 2019, has fallen, reaching 7.6% in 2022. Climate finance, a potentially critical source to address the impact of climate change, has not been tapped at all in education.

FIGURE 9:
Global public education expenditure has fallen since 2015

a. Public education expenditure as a share of GDP, by country income group, 2010–2022

b. Share of education in total public expenditure, by country income group, 2010–2022

Source: EFW database.

Households contribute about one quarter of global education expenditure, a share which has slightly increased in recent years. Households allocated a median of 2.9% of their household budgets to education in lower-middle-income countries compared to 1.3% in high-income countries. In some countries, such as India, household education spending increased from 2.1% to 2.8% of GDP between 2010 and 2021, while in others like Kenya, it dropped from 4.3% to 3% over the same period. Regional differences are stark; for example, households in Namibia spend six times more on education than those in Senegal.

Leadership in education

LEAD FOR LEARNING

Education leaders shape the direction of their teams, institutions and countries. There is no one way to lead, making it difficult to measure leaders' impact. Yet good school, system and political leaders are acutely needed to help drive education in the right direction, as the challenges remain daunting.

The concept of school leadership has played out differently across countries and over time. The scope to exercise functions and make decisions, the working context and personal backgrounds shape leaders' actions. Moreover, there is growing recognition of the need to shift the emphasis on administrative and bureaucratic functions to education outcomes, such as learning, inclusion and well-being.

The *2024/5 Global Education Monitoring Report* assesses progress towards the 2030 targets and shows that, while more children are in school and completing secondary education than ever before, there is stagnation in many areas. Leadership is central to addressing this. There are no schools that improve student outcomes without a good leader showing the way. Building on a review of legislation and policies on the selection, preparation and working conditions of school principals in 211 education systems, the report discusses policy levers to attract and retain talented leaders.

Leadership's potential is not limited to school leaders: it extends to individuals in positions elsewhere in the education system as well as outside of it, from assistant principals, teachers and students, when leadership is shared, to political leaders, civil society, international organizations, unions and the media, who help shape education goals.

The report calls for efforts to develop leaders in four key leadership dimensions so that they can *set expectations, focus on learning, foster collaboration and develop people*. For these dimensions to be realized, people in leadership positions should be trusted and empowered; recruited through fair hiring practices; supported to grow; and encouraged to develop collaborative cultures. The report also calls for investment in education officials' capacity to serve as system leaders, with a particular emphasis on instructional leadership and quality assurance.

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Global Education Monitoring Report

4 QUALITY EDUCATION

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