

SUSTAINABLE DEVELOPMENT GOAL FOR EDUCATION CANNOT ADVANCE WITHOUT MORE TEACHERS

UIS FACT SHEET

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New projections, released on World Teachers' Day by the UNESCO Institute for Statistics (UIS), show that massive teacher shortages will continue to deny millions of children the right to primary education without renewed action. In the rush to get more teachers in classrooms, many countries are making difficult trade-offs in terms of the hiring of new recruits that can jeopardise the quality of education and the learning outcomes of generations to come.

NEW EDUCATION GOAL BUT CHRONIC SHORTAGES OF TEACHERS

The international community has pledged to provide every child with 12 years of education by 2030 as part of Sustainable Development Goal 4. This ambitious goal raises the hopes and expectations of children, families and entire communities around the world, as governments strive to expand and improve their education systems. But one of the first steps in transforming the goal into reality lies in ensuring that there are enough trained teachers in primary education classrooms right from the start. .

Today, at least 74 countries face an acute shortage of teachers, while about 59 million children are excluded from primary education and millions more struggle to learn in overcrowded classrooms. To reach every child in 2015, the world would need to hire an extra 2.7 million primary school teachers, according to data from the UNESCO Institute for Statistics (UIS) (see **Figure 1**). Of this total, 1.4 million are needed to replace teachers leaving the workforce, while the remaining 1.3 million are needed to expand access to primary education and underwrite quality by ensuring that there are not more than 40 students for every teacher.

To better evaluate the challenges ahead, the UIS has produced a new set of projections about the demand for and supply of primary teachers. To achieve universal primary education by 2020, for example, countries will need to recruit a total of 10.9 million primary teachers. This includes the creation of about 2.2 million new teaching positions and the replacement of 8.7 million teachers expected to leave the profession. By 2030, the total demand for teachers would rise to 25.8 million, with about 3.2 million new posts needed for universal primary education (UPE) and the remaining 22.6 million to compensate for attrition.

BOX 1. DOES YOUR COUNTRY FACE A TEACHER SHORTAGE?

See the [UNESCO eAtlas of Teachers](http://on.unesco.org/teachers-map) at <http://on.unesco.org/teachers-map> to get the latest data. The interactive maps and charts can be easily modified, shared on social media and embedded on your website or blog. The [eAtlas series](#) provides easy access to automatically updated data and indicators about key issues in education at <http://bit.ly/1K3O2Jw>

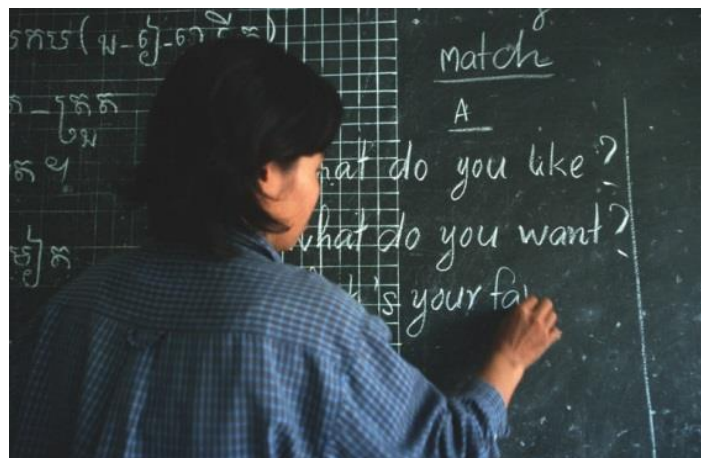
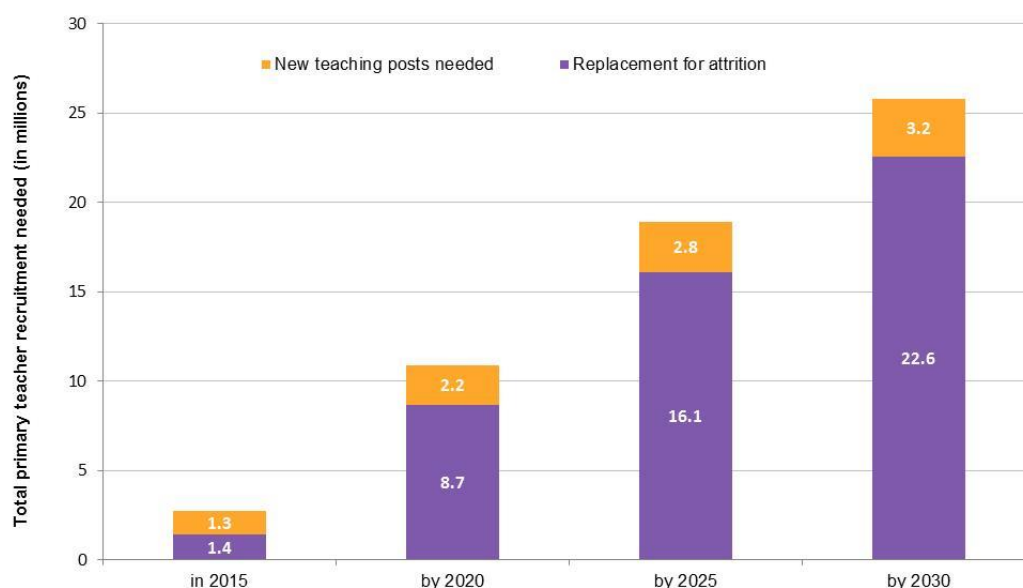


FIGURE 1. TOTAL NUMBER OF TEACHERS NEEDED TO ACHIEVE UNIVERSAL PRIMARY EDUCATION, 2015-2030



Source: [UNESCO Institute for Statistics database](#)

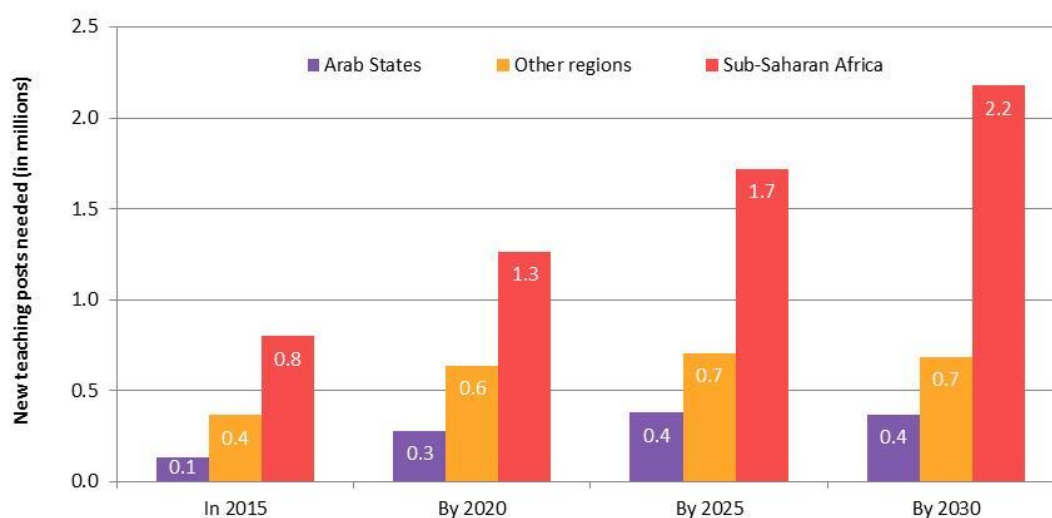
7 OUT OF 10 AFRICAN COUNTRIES FACE AN ACUTE SHORTAGE OF TEACHERS

The region facing the greatest challenges by a large margin is sub-Saharan Africa, which accounts for more than one-half (62%) of the additional teachers needed to achieve UPE in 2015 or two-thirds (67%) by 2030 (see **Figure 2**). Across the region, nearly 7 in 10 countries are faced with an acute shortage of teachers. And the situation in many countries may deteriorate as governments struggle with overcrowded classrooms and the rising demand for education from growing school-age populations: for every 100 children in 2013, there will be 142 primary school-age children in 2030. Sub-Saharan Africa alone will need to create 2.2 million new teaching positions by 2030, while filling about 3.9 million vacant positions due to attrition.

TABLE 1. TOTAL NUMBERS OF TEACHERS NEEDED BY REGION, 2015-2030 (IN THOUSANDS)

Regions	Number of primary teachers in 2013 (in thousands)	New teaching posts needed to achieve UPE (in thousands)											
		In 2015			By 2020			By 2025			By 2030		
		Total recruitment needed	Of which:		Total recruitment needed	Of which:		Total recruitment needed	Of which:		Total recruitment needed	Of which:	
			Replacement for attrition	New teaching posts to achieve UPE		Replacement for attrition	New teaching posts to achieve UPE		Replacement for attrition	New teaching posts to achieve UPE		Replacement for attrition	New teaching posts to achieve UPE
Arab States	2,161	270	137	134	1,012	733	280	1,677	1,296	381	2,156	1,787	369
Central and Eastern Europe	1,142	214	117	97	595	424	171	872	725	148	1,075	999	76
Central Asia	336	68	34	34	216	130	86	311	224	87	369	307	62
East Asia and the Pacific	10,097	252	232	20	2,620	2,594	26	4,986	4,934	52	6,545	6,475	70
Latin America and the Caribbean	2,978	211	183	27	860	820	40	1,538	1,486	52	2,188	2,128	60
North America and Western Europe	3,707	403	331	72	1,442	1,278	164	2,456	2,238	218	3,449	3,161	288
South and West Asia	5,552	187	69	118	1,444	1,292	152	2,751	2,599	153	3,928	3,798	131
Sub-Saharan Africa	3,514	1,123	323	800	2,686	1,422	1,264	4,343	2,621	1,722	6,075	3,898	2,177
World	29,486	2,728	1,425	1,302	10,876	8,693	2,183	18,935	16,122	2,813	25,786	22,551	3,235

Source: [UNESCO Institute for Statistics database](#)

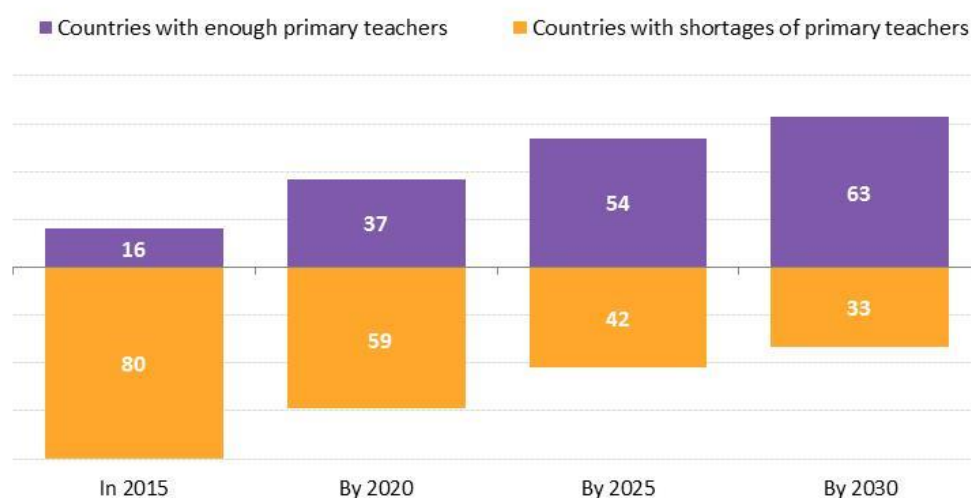
FIGURE 2. NUMBER OF NEW TEACHING POSITIONS NEEDED TO ACHIEVE UPE, 2015-2030

Source: [UNESCO Institute for Statistics database](#)

The Arab States is the region with the second-largest shortage of teachers, largely due to growth in its school-age population. By 2030, the region will need to accommodate an extra 7.1 million children in classrooms. Fortunately, several governments have put in place policies to steadily increase teacher recruitment over the past decade. If they continue along this path, the gap between the supply and demand for teachers should stabilise by 2025, even though the number of children starting school will continue to grow. To achieve UPE in 2030, the region will have to create 0.4 million new teaching positions while filling about 1.8 million vacant positions due to attrition.

WHICH COUNTRIES WILL CLOSE THE GAP AND WHEN?

Today most countries face a teacher shortage of varying degrees. **Figure 3** presents the 96 countries facing the biggest challenges in achieving UPE. Only 37 countries – or two out of five (39%) – should have enough primary teachers in classrooms by 2020, and the share will rise to 56% by 2025. However, 33 countries – or 34% – will still not have enough teachers to achieve UPE until after 2030 if current trends continue.

FIGURE 3. NUMBER OF COUNTRIES ACCORDING TO THE DATE BY WHICH THEY ARE EXPECTED TO FILL THE TEACHER GAP, BASED ON CURRENT TRENDS

Source: [UNESCO Institute for Statistics database](#)

The good news is that several countries have recently managed to close the gap by steadily increasing their rates of teacher recruitment over the past decade.¹ They include Brunei Darussalam, Chile, Guatemala, Peru and Palestine. However, the pressure to hire more teachers will continue in countries like Guatemala and Palestine, where there is increased demand for education due to growing school-age populations. So they will have to maintain the steady growth in teacher recruitment each year in order to maintain the balance between the supply of and demand for teachers.

By looking at the average annual growth rates in teacher recruitment, it is possible to project when countries should have enough teachers in classrooms with not more than, on average, 40 pupils (see **Figure 4**).

Figure 4a shows countries that, at the current rate of recruitment, should have sufficient numbers of teachers in classrooms by 2020 (see also **Annex 1 for the estimated year**). For example, Mozambique has put in place policies to increase the rate of teacher recruitment by an average of 6% since 2007. If this growth continues, the country should be able to accommodate all primary school-age children by 2020, while reducing the ratio of pupils to teacher from 55 to 1 in 2013 to 40 to 1.

Figure 4b shows countries that should have enough teachers to achieve UPE between 2020 and 2030. In Zambia, for example, the supply of teachers has been growing by an average of 4% per year. Yet to achieve UPE, the workforce would need to grow by almost 10%. So if current trends continue, the country would not have enough teachers in classrooms until about 2029. Countries such as Chad, Guyana and Mali are expected to meet their teacher needs by 2022.

Figure 4c shows countries where the situation is getting worse rather than better and will continue to deteriorate unless action is taken. If current trends continue, there will be more children needing primary teachers in 2030 than today in Equatorial Guinea, Gambia, Pakistan, Uganda and the United Republic of Tanzania. This is largely due to demand from growing school-age populations. High attrition rates of teachers are also increasing the challenges ahead, while teacher recruitment rates are too low to keep up.

For example, the United Republic of Tanzania will continue to face a shortage of teachers even after 2030 if current trends continue. In 2013, 85% of primary school-age children were enrolled in primary school. To achieve UPE by 2030, the country would have to recruit 4% more teachers each year, compared to the current average annual growth rate of 3%.

The situation is even more extreme in Gambia and Pakistan, where only about seven in ten primary school-age children are currently enrolled in school and the pressure to expand access will increase with growing school-age populations. While faced with similar challenges, they have opted for different policy options which have a direct consequence on the projections.

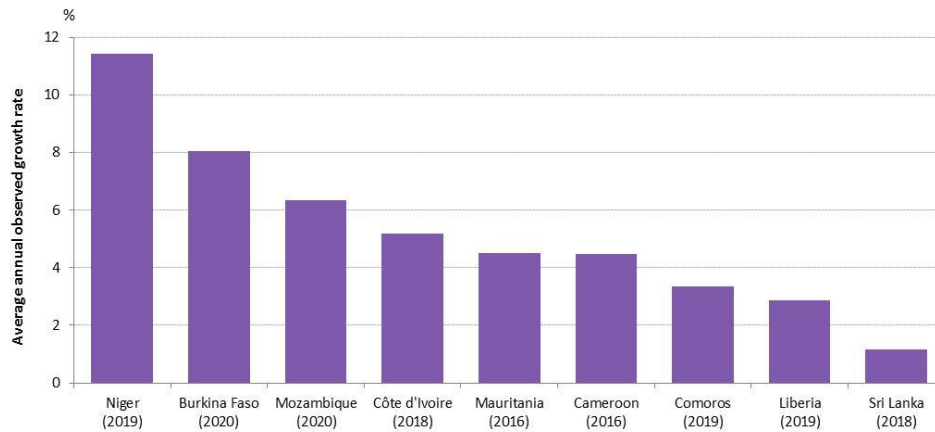
Over the past decade, Gambia has been raising teacher recruitment levels at an average rate of about 2%. So while many children remain excluded from education, those that do gain access are in classrooms with one teacher per 36 pupils. To accommodate all children by 2030, Gambia must raise its recruitment rate to almost 4% per year.

In Pakistan, the recruitment rate of teachers has fallen by an average of about 0.8% below zero in recent years. As a result, there are 43 pupils per teacher across the school system. So to reach all children by 2030, Pakistan needs to recruit 1.4% more teachers per year.

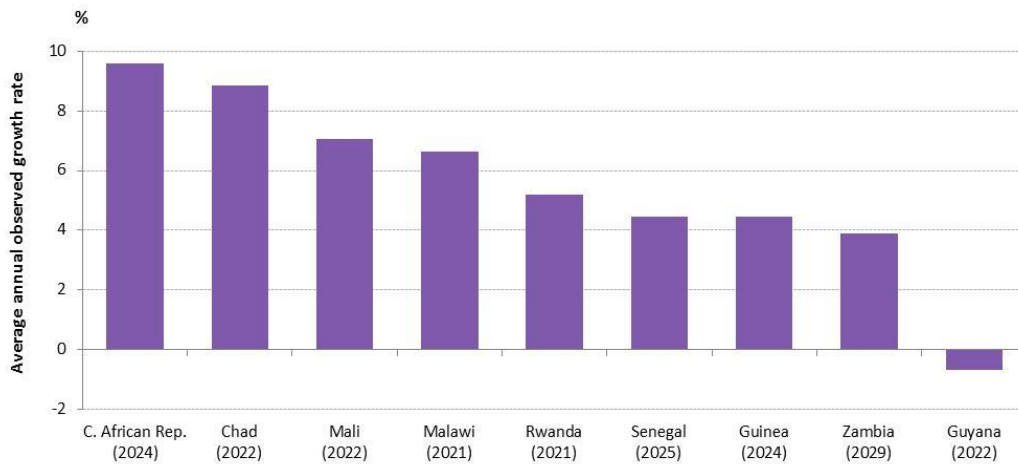
¹ While these countries (which also appear in Figure 3) are making important strides in teacher recruitment, there is no guarantee that they will actually achieve UPE. UIS projections indicate how many teachers would be needed to ensure that all children of primary school age are enrolled in school with a maximum pupil-teacher ratio (PTR) of 40 to 1. But in many countries, considerable numbers of children start school late and repeat grades. So as part of larger efforts to help children start and progress through school on time, governments may also need to boost teacher recruitment to accommodate these over-age children.

FIGURE 4. AVERAGE ANNUAL GROWTH RATE OF PRIMARY TEACHER WORKFORCE AND PROJECTED GROWTH RATE NEEDED TO ACHIEVE UPE

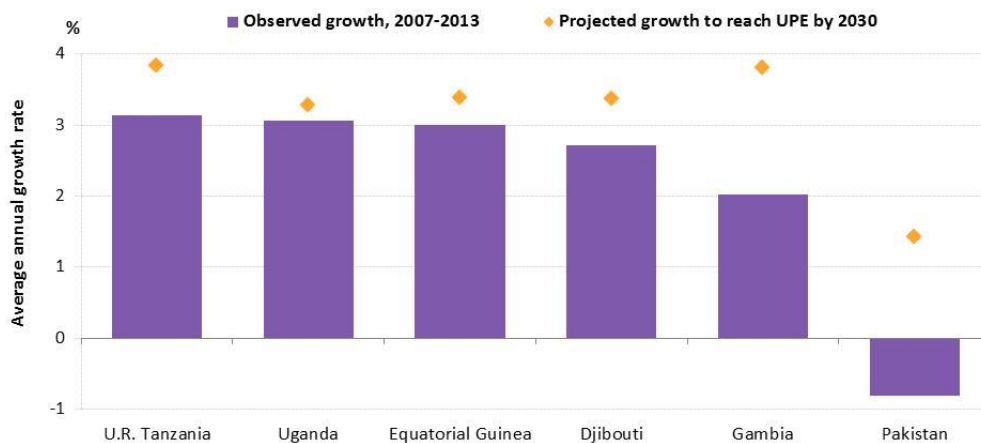
- Countries on track to close the gap by 2020



- Countries expected to close the gap between 2020 and 2030



- Countries expected to close gap after 2030



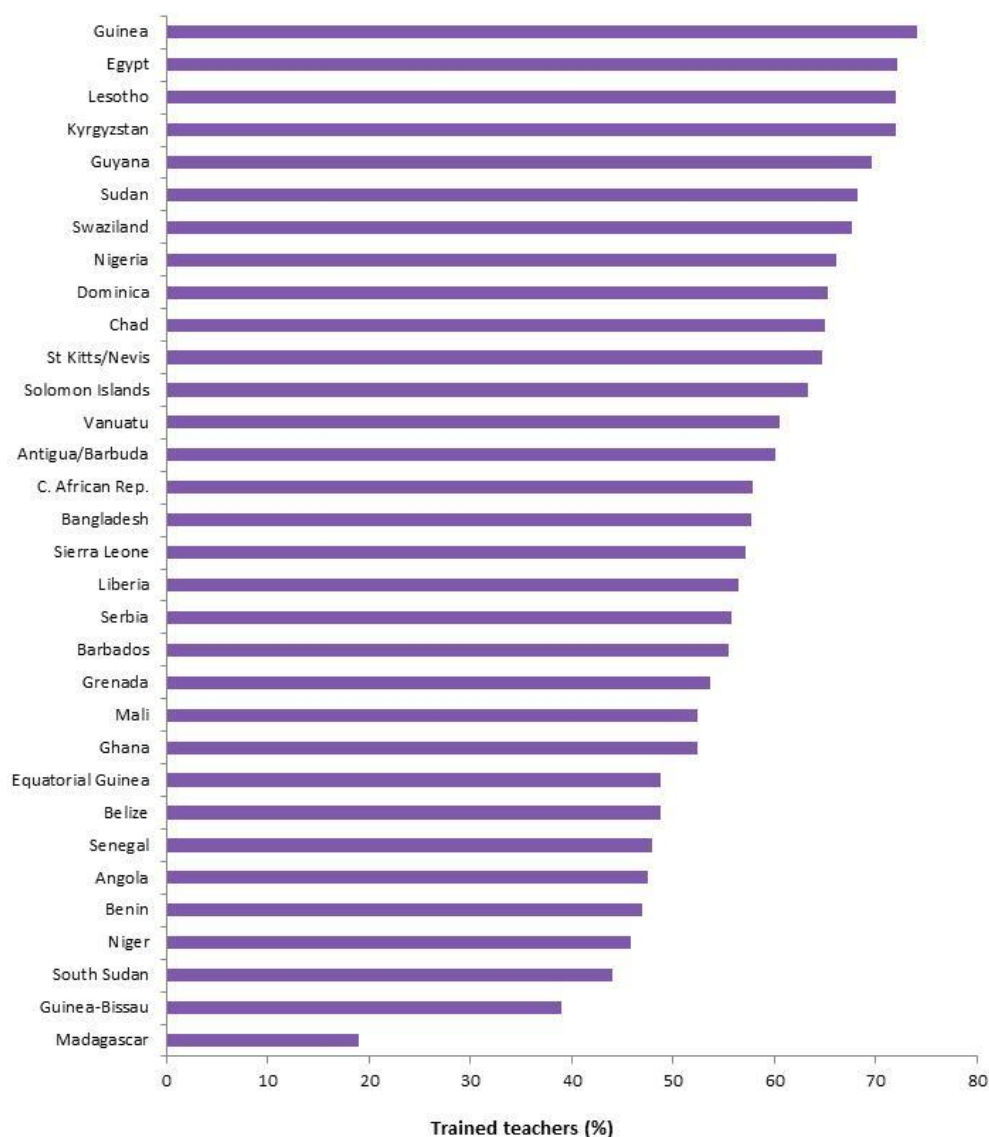
Source: [UNESCO Institute for Statistics database](#)

QUANTITY VERSUS QUALITY: GETTING ENOUGH TRAINED TEACHERS IN CLASSROOMS

Having enough teachers is a necessary but not a sufficient condition to improve education quality: newly hired teachers also need to be motivated, well trained and willing to expand their pedagogical approaches. To fully understand the challenge at hand, it is helpful to know how many trained teachers each country has and how many additional trained teachers are needed. Unfortunately, in many low-income countries reliable information of this nature is lacking. In addition, national teacher education programmes differ widely in terms of their content, duration and qualification levels, so global and regional comparisons should be used and interpreted with caution.

Where primary education systems have expanded rapidly, many teachers have been recruited without meeting national minimum qualifications and training standards. According to UIS data, in 32 of the 94 countries with data, less than 75% of primary school teachers were reportedly trained according to national standards in 2013 (see **Figure 6**). More than one-half (18 out of 32) of these countries are in sub-Saharan Africa, where less than one-half of the teachers in classrooms are trained in Angola, Benin, Equatorial Guinea, Guinea-Bissau, Madagascar, Niger, Senegal and South Sudan.

FIGURE 6. COUNTRIES WITH LESS THAN 75% OF TRAINED TEACHERS, 2013 OR LATEST YEAR AVAILABLE

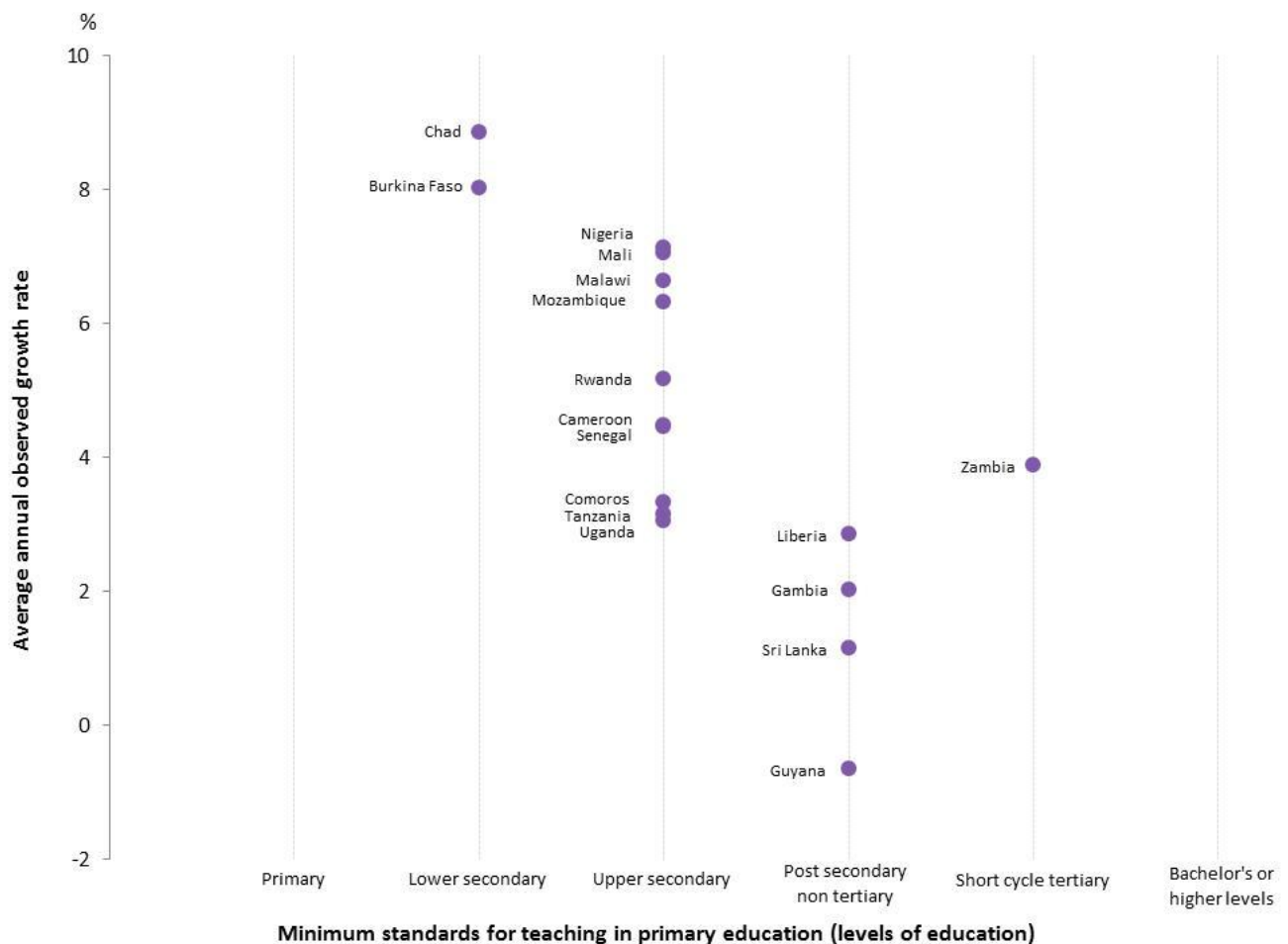


Source: [UNESCO Institute for Statistics database](#)

As shown in Figure 4, many countries have been increasing their rates of teacher recruitment over the past decade in order to expand access to education. But these policies generally involve a trade-off favoring quantity over quality. Further analysis is possible by comparing the growth in recruitment with the minimum qualifications required to teach in each country (see **Figure 7**).

Figure 7 shows that those countries that managed to boost recruitment had relatively low entry-level requirements in terms of teacher qualifications. For example, Burkina Faso and Chad have managed to recruit 8% to 9% more teachers each year over the past decade. Yet these new recruits only needed to have a lower secondary education to join the profession, according to national standards. In contrast, primary school teachers in Zambia are required to complete at least a short cycle of tertiary education. So the country had a smaller pool of potential recruits but still managed to hire 4% more teachers each year.

FIGURE 7. MINIMUM STANDARDS OF QUALIFICATION REQUIRED FOR TEACHING IN PRIMARY EDUCATION (NATIONAL NORMS) AND AVERAGE ANNUAL GROWTH RATE OF RECRUITMENT OF TEACHERS, 2007-2013



Source: [UNESCO Institute for Statistics database](#)

CONCLUSION

The Sustainable Development Goal to provide every child with 12 years of quality education will remain just that – a goal – without urgent action to address the chronic teacher shortages. In response, the international community has pledged to substantially increase the supply of qualified teachers, especially in the least-developed countries.

But the data show that in the rush to get more teachers into classrooms, many countries resort to hiring staff with no or little training. In privileging quantity over quality, these policies can ultimately harm generations of children, striving not just to enrol in school but learn the most fundamental skills.

As countries endeavour to achieve universal primary and secondary education, the UIS will continue to provide the data needed to better target policies and resources to reach the most marginalised children and youth. In particular, the UIS will be creating new indicators to reflect the supply of and demand for teachers at the both the primary and secondary education levels.

For more information about UIS projections on teachers, consult the following resources:

- [UNESCO eAtlas of Teachers](http://www.uis.unesco.org/data/atlas-teachers/en) (<http://www.uis.unesco.org/data/atlas-teachers/en>)
- [Infographic](http://www.uis.unesco.org/education/documents/wtd-2013-if-web-en.pdf) presenting key data and messages (<http://www.uis.unesco.org/education/documents/wtd-2013-if-web-en.pdf>)

Please consult the [UIS website](http://www.uis.unesco.org) <http://www.uis.unesco.org> to access the UIS Data Centre and subscribe to eAlerts on the Institute's latest publications and data releases.

For more information about UIS projections on teachers, please consult:

- The [UNESCO eAtlas of Teachers](http://on.unesco.org/teachers-map) at <http://on.unesco.org/teachers-map>
- [UIS infographics 2015](http://www.uis.unesco.org/Education/Pages/world-teachers-day-2015.aspx) at <http://www.uis.unesco.org/Education/Pages/world-teachers-day-2015.aspx>

