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TEACHERS AND EDUCATIONAL QUALITY:
Monitoring Global Needs for 2015

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UNESCO Institute for Statistics, Montreal, 2006

UNESCO

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Foreword

Massive teacher shortages are quietly looming over countries in sub-Saharan Africa, the Arab States and South Asia and could risk efforts to provide every child with a good quality primary education by 2015. But it is not only the imperative of translating a target into sufficient numbers of teachers, but the support for teachers and teaching quality which will finally lead to the attainment of universal primary education.

This report provides a comparative assessment on the state of teachers and education quality based on a wide range of data sources, including school censuses, assessments of student and teacher knowledge, and statutory teacher data. It uses these data to highlight trends in teacher quantity and quality and explores the policy implications of bridging the gap between the two, especially in developing countries. It compares the strengths and shortcomings in the recruitment and deployment of teachers in countries around the world.

The greatest challenge lies in countries in sub-Saharan Africa. According to estimates presented in the report, the region will need to raise its current stock of teachers by 68% – from 2.4 to 4.0 million – in less than a decade. For example, by 2015, Chad will need almost four times as many primary teachers and Ethiopia will need to double its stock of primary teachers. Additional primary teachers will also be needed in countries in the Arab States and in South Asia.

Moreover, countries needing the most new teachers also currently have the least-qualified teachers. In countries that consider about nine years of schooling as the absolute minimum qualification to teach, 43% of teachers in the Congo and 55% of teachers in Lao PDR fall short of this standard. The report stresses that policies must address both teacher quantity and quality. Countries like Niger or Cambodia cannot achieve universal primary education simply by hiring more teachers but by training them well and by supporting them in the classroom. Quality teaching brings children into school and keeps them there.

At the same time, some countries will need fewer teachers because of declining school-age populations. China can expect to reduce its stock of teachers by 1.8 million in 2015, while more moderate reductions are projected for Brazil and India. This may provide an opportunity to improve education quality by investing more resources per teacher and pupil.

The report examines the recruitment and training of new teachers to better understand the trade-offs between increasing teacher supply and lowering educational standards. It also examines a set of policy variables associated with teacher deployment and working conditions – namely instructional hours, class size and salary structure – that can be adjusted to accommodate more pupils.

This report reflects the ongoing efforts of the UNESCO Institute for Statistics (UIS) to draw on and further develop the 'state of the art' in teacher-related indicators in order to provide a comparative perspective that informs policymaking. It uses a similar indicator framework as developed by the Indicators of National Education Systems (INES) project, which has made great strides in OECD countries. The UIS, together with the OECD, has already expanded this approach to the 19 countries that participate in the UIS/OECD World Education Indicators (WEI) programme. The special UIS data collection undertaken for this report carries this approach even further afield, resulting in a critical mass of countries across development contexts from which to analyse different policy approaches.

The use of this framework presents many new perspectives, but represents only a modest step towards a better understanding of teachers, teaching and education quality at the school level. Cross-national surveys of student achievement, such as those cited in this report (e.g. SACMEQ, PIRLS, TIMSS) provide another important source of information on teachers. With a select group of WEI countries, the UIS is currently involved in the collection of data on teachers and teaching at the school level. The WEI Survey of Primary Schools has interviewed thousands of school headmasters and 4th grade teachers in ten countries to help shed light into the black box of classroom teaching and learning processes.

Finally, this endeavour is of some significance to the broader efforts of UNESCO towards improving education quality as the world seeks to achieve the 2015 EFA goals. The Analysis and Information team of the UIS has worked hard to see to it that one of the Institute's main statutory responsibilities – to help Member States through better evidence-based policymaking – is a reality.

Michael Millward

Director a.i.
UNESCO Institute for Statistics

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Introduction

Concerns about existing or imminent shortfalls in the number of teachers have arisen for several decades in both more- and less-developed countries alike. But the nature of these shortages can differ in several important ways.

Some countries have well-established education systems which provide near universal coverage of the primary school-age populations and are increasingly doing so at the secondary level. Their teaching forces meet or exceed minimum qualifications and do reasonably well in terms of efficiency, quality and equity. The steady decline in the size of the school-age populations has meant that investments in education have grown. As a result, the challenge does not necessarily lie in responding to growing demand for education. Problems in teacher supply are more often about shortages of specialised teachers, either in terms of subject matter or the ability to work with pupils with special needs. There are also concerns about the ability to attract teachers to certain schools, particularly those serving the most disadvantaged pupils and communities.

There are other countries where school-age populations continue to grow steadily and universal primary or basic education has yet to be attained. In addition, teaching forces have low levels of qualifications. Here, the shortages reflect the insufficient supply or deployment of teachers to meet demand. To a much greater extent than in more-developed countries, the availability of resources is critical, especially in the wake of an emergency, epidemic or conflict. Public funds may be used to pay teachers' salaries, while communities are asked to contribute and organize the rest, with virtually no assistance. In addition, policy change, either positive or negative, can happen almost overnight. Some countries abolished primary school fees, for example, which has led to the influx of millions of new pupils with, and often without, the necessary resources in place.

This report focuses greater attention on the second group of countries, while recognising the common issues across both groups that may hinder effective teaching. The number of teachers needed in any country does not vary in simple proportion to the number of pupils. It also depends upon system efficiency, and how teachers are deployed to meet education quality and equity goals. It is essential to recognise that "no State should be satisfied with mere quantity, but should seek also to improve quality", as put forth by the UNESCO/ILO Recommendation concerning the Status of Teachers (1966) and echoed in the Education for All Dakar Framework for Action. Capacity alone will not ensure the effective teaching and learning required for universal primary education.

This chapter is divided into three sections. Section 1 describes global trends in the number of teachers. It begins by examining the interactions between factors changing teacher demand, such as population growth, access to education and system efficiency. It also provides a historical perspective on how teacher supply has changed in response to growing demand in previous decades.

The characteristics of the teaching force reflect levels of staff experience and costs. Section 2 looks at the composition of teaching forces across the world in terms of age and gender and discusses the different policy implications. (Chapter 2 continues this discussion in terms of teacher training, qualifications and academic knowledge.)

Section 3 presents projections of teacher stocks and the flows of additional teachers required to meet the goal of quality education for all by 2015. Countries with high population growth and low educational coverage of the school-age population may require a considerable number of new teachers.

SECTION 1. Teacher supply and demand: Global and regional trends

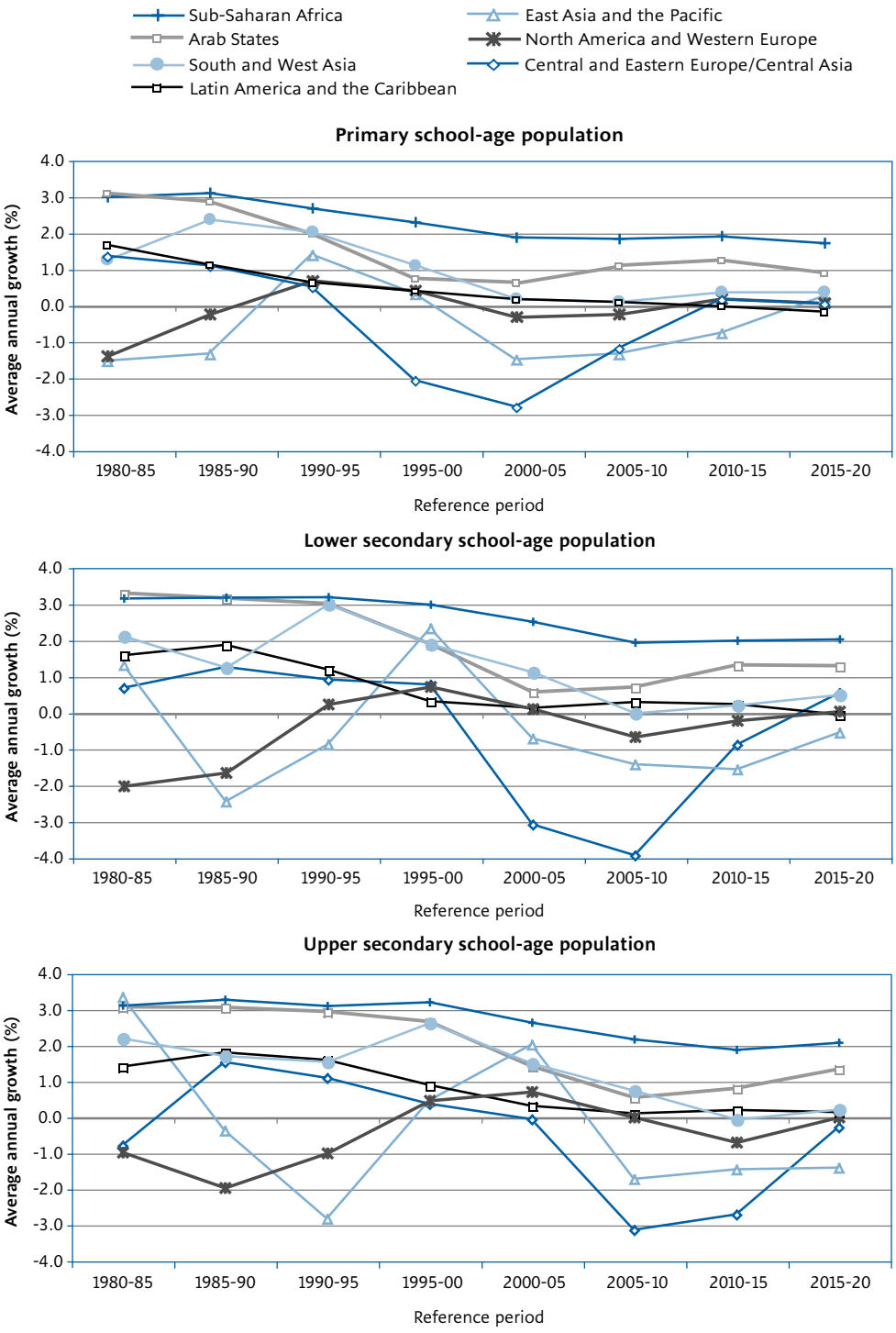
This section presents some of the main factors behind teacher demand, namely change in pupil numbers due to population growth and expanded access to education. It looks at the size of primary and secondary teaching forces across the world and how numbers have changed over time. It also examines the potential impact on pupil-teacher ratios and learning.

Patterns in population and pupil growth affect the aggregate demand for education which can lead to increases or reductions in staff size, especially at the primary level which is typically considered compulsory. In this case, aggregate demand is represented by the number of primary school-age children, all of whom should be attending school. An increasing number of countries are also trying to extend compulsory education to children of the lower secondary school age. Upper secondary education is considered compulsory in far fewer countries.

Figure 1.1 shows regional patterns of primary, lower secondary and upper secondary school-age population change over the period 1980 to 2020.

FIGURE 1.1

Average annual change in school-age populations by education level and region, 1980 to 2020



Note: School-age groups correspond to national education systems.
Source: UN Population Division, 2004 revision.

How has the size of school-age populations changed? Global population growth has become more moderate since the 1980s, although there are still marked differences by country and region. For example, between 2000 and 2005, the UN estimates that the primary school-age cohort in sub-Saharan Africa grew by almost 10%, while falling by nearly 15% in the Central and Eastern Europe/Central Asia region (CEE/CA).

Between 1990 and 2005, the growth of the primary school-age cohort slowed across all regions, with negative growth in the CEE/CA region and East Asia and the Pacific. But from 2005 onwards, this population should stabilise or increase in the Arab States, CEE/CA region, and East Asia and the Pacific, and to a lesser extent in South and West Asia. Where positive, this growth will further burden primary education systems.

How do regional population patterns differ? The most common pattern is a slow but steady decline in the growth rates of school-age populations (although in some cases the level may still be high and positive). This is true for the Arab States, South and West Asia, Latin America and the Caribbean and sub-Saharan Africa. In each case, growth of the primary school-age population reached (or nearly reached) the lowest point by 2000-2005 and declines are expected to slow until 2015. Nevertheless, growth is still expected to reach 2% per year in sub-Saharan Africa and continue at 1% annually in the Arab States.

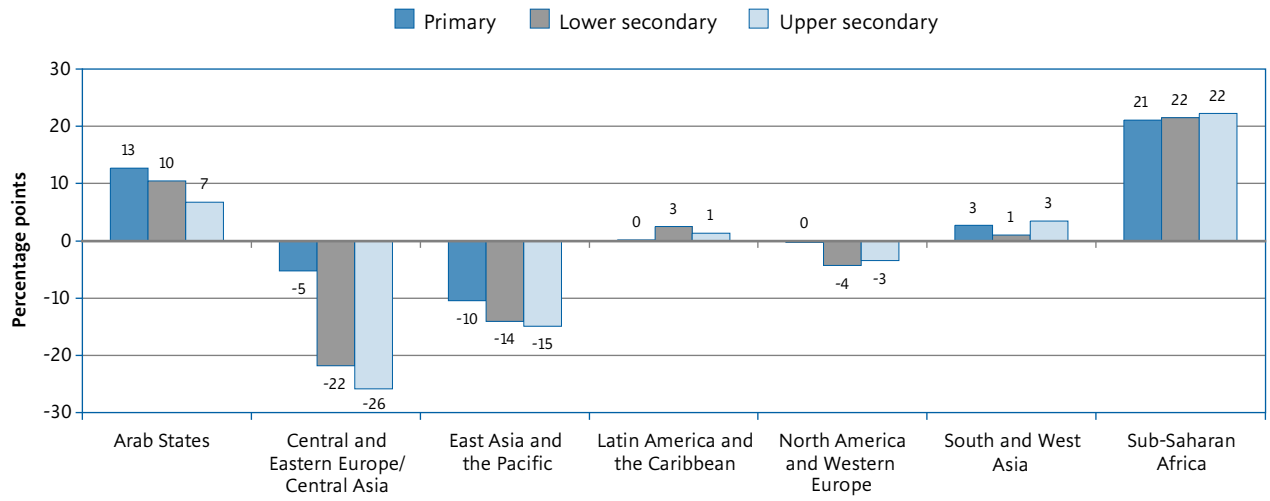
Another pattern reflects sharp declines in the growth of school-age cohorts followed by a recovery. This is the case for the CEE/CA region, North America and Western Europe. Falling birth rates in the early 1990s led to a dramatic drop in the school-age population in the CEE/CA region by the end of the decade. The growth rate for primary ages actually fell by 3% per year between 2000 and 2005. However, the future outlook is one of returning growth, with a very slight increase in the size of the primary school-age population projected for 2010-2015. In North America and Western Europe, the primary school-age population bottomed out in 2000-2005 and will recover slightly by 2010-2015. Years of low or negative growth has reduced the demand for primary education, meaning that investments in education have been focused on smaller primary school-age populations.

The third pattern reflects a more irregular trend which is found in the East Asia and the Pacific region. Here, growth rates across all population groups were low, recovered and fell again between 1990-2010, before being expected to recover somewhat by 2020.

By calculating the total percentage change, it is possible to summarise these patterns into a single measure of demand for primary education between 2005 and 2015, the target date to achieve international education goals. **Figure 1.2** shows that the number of primary school-age children will increase by 21% in sub-Saharan Africa and 13% in the Arab States. South and West Asia, Latin America and the Caribbean, as well as North America and Western Europe will see stable levels of school-age populations. However, they will decline by 10% in East Asia and the Pacific and by 5% in the CEE/CA region. The projected changes for lower and upper secondary school-age populations follow a similar pattern as at the primary level in most regions.

FIGURE 1.2

Percentage change in school-age populations by education level, 2005-2015



Note: School-age groups correspond to national education systems.
Source: UN Population Division, 2004 revision.

In absolute terms *(see **Table 1.1**)*, the expected change in the global primary school-age population between 2005 and 2015 will be almost 14 million more children worldwide. However, this figure masks considerable differences in regional patterns. East Asia and the Pacific can expect the largest drop, with about 19 million less primary school-age children and a reduction of 16 million children of lower secondary school age in 2015 compared to 2005. Expected growth rates in sub-Saharan Africa will translate into an additional 24 million primary pupils in 2015 than in 2005. The Arab States can expect another 5 million pupils over the same period.

TABLE 1.1

Projections of school-age populations by education level, 2005-2015 (in millions)

Region	Primary school age			Diff.	Lower secondary school age			Diff.	Upper secondary school age			Diff.
	2005	2010	2015	2005-2015	2005	2010	2015	2005-2015	2005	2010	2015	2005-2015
Arab States	39.7	41.9	44.7	5.0	21.1	21.9	23.3	2.2	20.2	20.8	21.6	1.4
Central and Eastern Europe/Central Asia	27.8	26.1	26.3	-1.5	30.6	25.0	23.9	-6.7	20.9	17.8	15.5	-5.4
East Asia and the Pacific	179.0	167.0	160.4	-18.6	110.6	102.9	95.1	-15.5	108.2	99.1	92.1	-16.1
Latin America and the Caribbean	58.7	58.9	58.8	0.1	36.3	36.8	37.2	0.9	30.5	30.6	30.9	0.4
North America and Western Europe	50.6	50.1	50.5	-0.1	31.8	30.7	30.4	-1.4	30.2	30.2	29.2	-1.0
South and West Asia	170.9	172.1	175.6	4.6	109.4	109.4	110.6	1.1	121.7	126.3	126.0	4.2
Sub-Saharan Africa	113.6	124.8	137.6	24.0	55.2	60.7	67.1	11.9	49.5	55.1	60.5	11.0
WORLD	**640.4**	**640.9**	**653.8**	**13.5**	**395.0**	**387.5**	**387.6**	**-7.4**	**381.2**	**379.9**	**375.7**	**-5.5**

Note: School ages are based on national definitions rather than fixed population cohorts.
Source: UN Population Division, 2005.

To meet the goal of universal primary education, all children must be in school, progressing and completing a good quality education. The school-age population estimates indicate the number of children that should be served, but what proportion currently attends school? How far are countries from providing universal primary education? It is therefore important to consider a range of indicators reflecting enrolment growth, participation and completion in order to better evaluate the educational coverage of the school-age population.

Table 1.2 presents trends in the number and growth of primary and secondary pupils by region between 1991 and 2004. The highest growth rates in the number of primary pupils were found in sub-Saharan Africa (3.8% yearly) and South and West Asia (2.5% yearly), which translated into increases of 40 million and 52 million more primary pupils respectively. In other regions the number of primary enrolments has remained stable or declined.

At the secondary level, enrolments grew in every region between 1991 and 2004. The number of secondary students has expanded at a faster rate than at the primary level. The number of students has increased by 3% to 4% yearly since 1991, compared to less than 1% at the primary level. This difference is mainly due to the lower baseline for growth in secondary enrolments.

In the future, it is highly possible that expansion in secondary education will impact the supply of teachers at the primary level. In North America and Western Europe, Latin America and the Caribbean and East Asia and the Pacific, the lower secondary level is already considered part of compulsory education for 90% or more of school-age children (UIS, 2005). Compulsory lower secondary education is less common in the Arab States, South and West Asia and is relatively rare in sub-Saharan Africa (ibid). But as these regions extend compulsory education, the primary and secondary sectors will increasingly compete for new teachers. In addition, primary teachers who upgrade their skills will move up to the secondary level, which can imply an increase in salary and professional status.

TABLE 1.2
Number of primary and secondary pupils by region, 1991–2004

Region	Primary students					Secondary students				
	in millions		Average annual growth (%)			in millions		Average annual growth (%)		
	1991	2004	1991-1996	1996-2000	2000-2004	1991	2004	1991-1996	1996-2000	2000-2004
Arab States	30.5	36.7	3.1	-0.3	1.1	14.9	27.3	2.9	7.6	4.2
Central and Eastern Europe/Central Asia	36.7	29.0	-1.1	-2.3	-2.1	42.3	47.6	1.3	2.2	-0.9
East Asia and the Pacific	206.9	206.0	0.8	0.2	-1.3	93.8	159.6	3.8	5.2	3.7
Latin America and the Caribbean	75.5	69.1	2.0	...	-0.3	22.4	57.0	3.9	...	0.8
North America and Western Europe	50.1	51.7	0.9	0.1	-0.5	56.3	62.7	2.1	0.5	-0.5
South and West Asia	135.4	187.9	2.4	1.1	4.1	71.3	117.7	4.5	3.5	3.7
Sub-Saharan Africa	63.2	102.9	2.4	4.4	5.1	14.3	31.3	4.8	6.6	7.5
WORLD	**598.3**	**683.3**	**1.5**	**0.2**	**1.2**	**315.5**	**503.1**	**3.4**	**5.2**	**2.5**

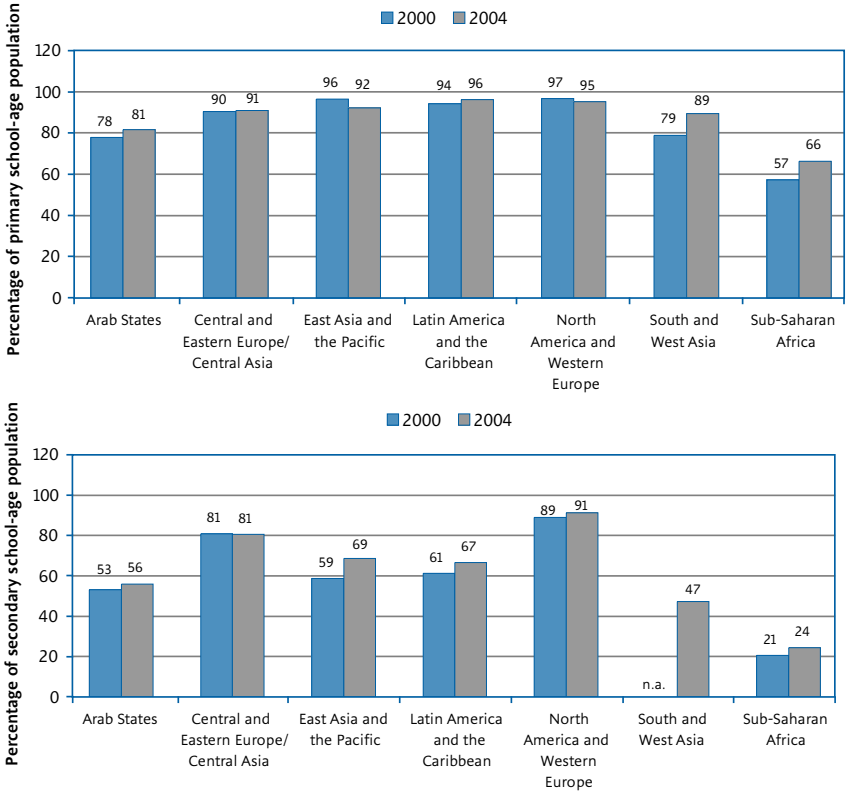
Coverage: Data cover more than 99% of world population.
Source: UNESCO Institute for Statistics database, 2006.

The net enrolment rate is a measure of the coverage of the education system, representing the number of pupils divided by the intended age group (e.g. 7- to 12-year-olds). The rate should equal 100% if all children of the intended age group are enrolled. **Figure 1.3** shows regional progress towards greater coverage in primary and secondary education. The following regions are close to achieving universal coverage with rates exceeding 90%: North America and Western Europe, Latin America and the Caribbean, East Asia and the Pacific and Central and Eastern Europe/Central Asia. The largest gaps remain in sub-Saharan Africa and South and West Asia, although both regions have experienced considerable growth since 2000. From 2000 to 2004, the net enrolment rate gained 9 percentage points to reach 66% in sub-Saharan Africa and 10 points in South and West Asia to reach 89%.

At the secondary level, net enrolment rates cover a smaller proportion of the relevant age group, ranging from over 90% in North America and Western Europe to 24% in sub-Saharan Africa. The biggest gains since 2000 were recorded in East Asia and the Pacific (from 59% to 69%) and Latin America and the Caribbean (from 61% to 67%). Despite a slight increase in sub-Saharan Africa, less than one in four children of the relevant age is enrolled in secondary education.

FIGURE 1.3

Primary and secondary net enrolment rates, 2000 and 2004



Source: UNESCO Institute for Statistics database, 2006.

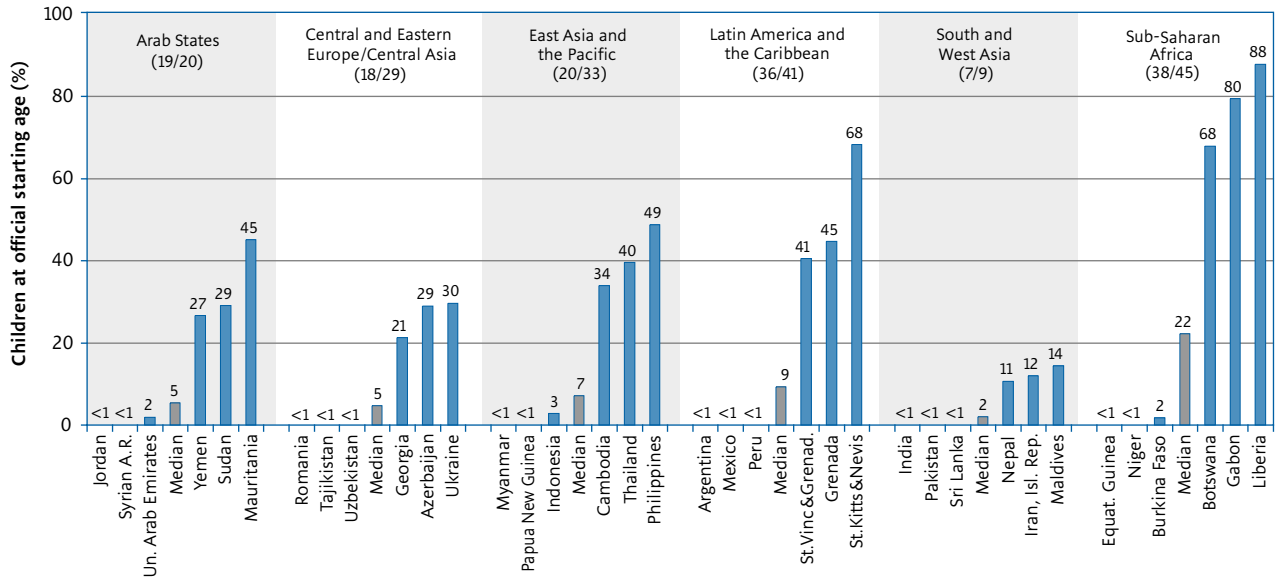
It is important to note that population growth and system coverage are not the only factors shaping demand for expanding teaching forces. By improving the efficiency of an education system, it is possible to reduce the need for more teachers. Two measures of internal efficiency reflect the ways in which pupils enter and advance within the system. The first measure is presented in **Figure 1.4**, which provides estimates, based on administrative data and household surveys, of the number of children at official school-entry age (according to national standards) who will enter school late.

The median is highest in sub-Saharan Africa where more than one in five children starts primary school late. However, there is considerable variation among countries with the highest rates: Liberia (88%), Gabon (80%) and Botswana (68%). Rates are lower in Niger and Burkina Faso, but so is the coverage of the school-age population.

There is also evidence of moderate rates of late school entry in other regions, notably in South and West Asia. Rates were not calculated for North America and Western Europe, where late school entry is not widespread. Late entry makes it difficult for teachers to manage a wide range of ages and skills in the same classroom. Furthermore, children who start school late are more likely to drop out (UIS/UNICEF, 2006).

FIGURE 1.4

Percentage of children who enter school late by region, 2000s



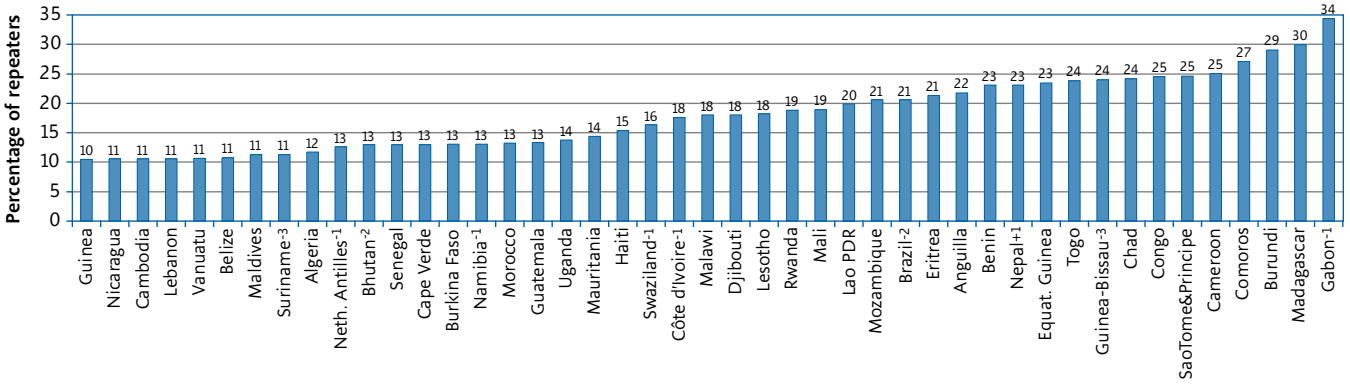
Source: UIS/UNICEF, 2006.

Another measure of internal efficiency is the extent to which children repeat grades. Repetition may reflect poor conditions of teaching and learning. It also increases pressure on teachers and resources. **Figure 1.5** presents data for countries where at least one in ten primary students repeated a grade in 2004. In a number of countries, almost all in sub-Saharan Africa, one in four – or even one in three – pupils repeated a grade.

Primary and secondary gross enrolment ratios reflect the capacity of the education system by representing the number of pupils (regardless of their age) as a percentage of the intended age group. This ratio can often exceed 100%. By subtracting net from gross ratios, it is possible to measure the proportion of pupils not of the official age group and, thus, who entered late or repeated.

FIGURE 1.5

Countries where the percentage of repeaters at the primary level exceeded 10% in 2004

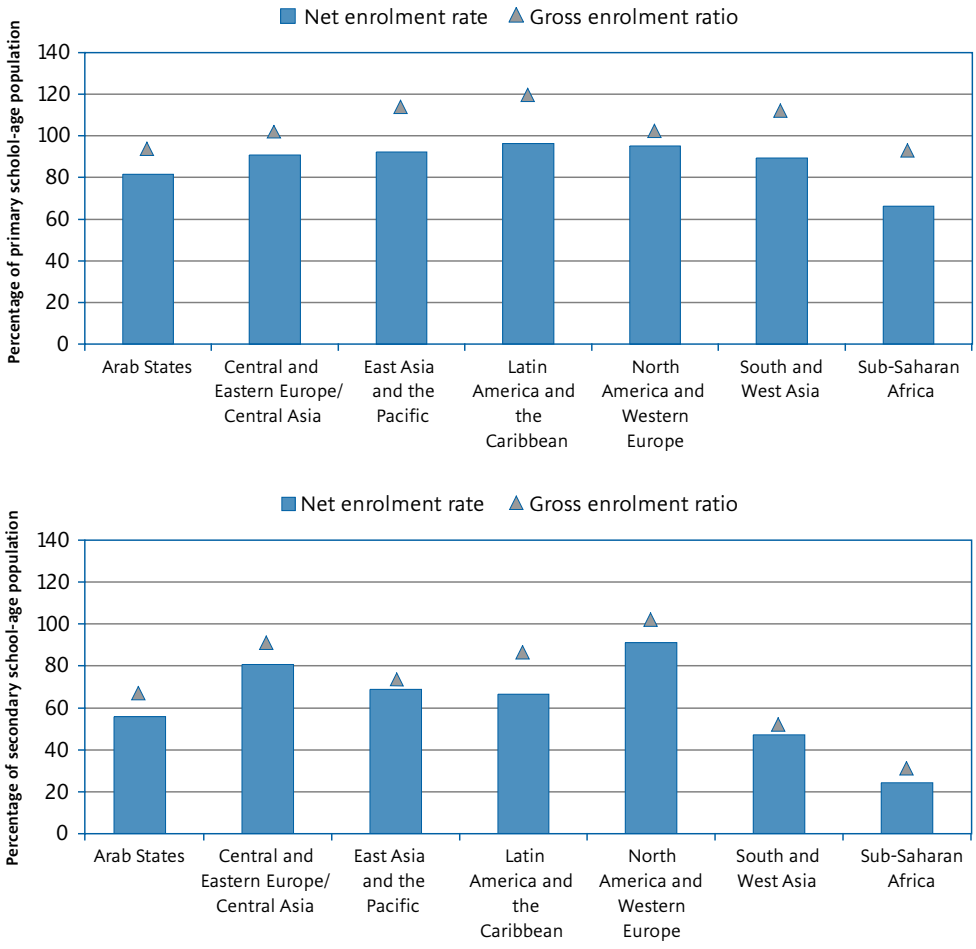


Notes: +1 Data refer to 2005; -1 Data refer to 2003; -2 Data refer to 2002; -3 Data refer to 2001.
Source: UNESCO Institute for Statistics database, 2006 and Annex 2, Statistical Table A2.3.

Figure 1.6 shows that there are differences between gross and net rates in every region. The largest gaps in primary education are found in regions with the lowest rates of coverage (e.g. sub-Saharan Africa and South and West Asia), as well as in those with high rates of repetition, such as Latin America and the Caribbean. This suggests that the gross enrolment ratio better reflects the capacity of a system to provide education. Despite poor coverage in some countries, education systems still manage to serve more pupils than are found in the primary school-age population. At the secondary level, the difference between gross and net rates is less marked, although still prevalent in Latin America and the Caribbean.

FIGURE 1.6

Gross enrolment ratios and net enrolment rates, 2004



Source: UNESCO Institute for Statistics database, 2006.

Changes in primary and secondary teaching forces from 1971 to 2004

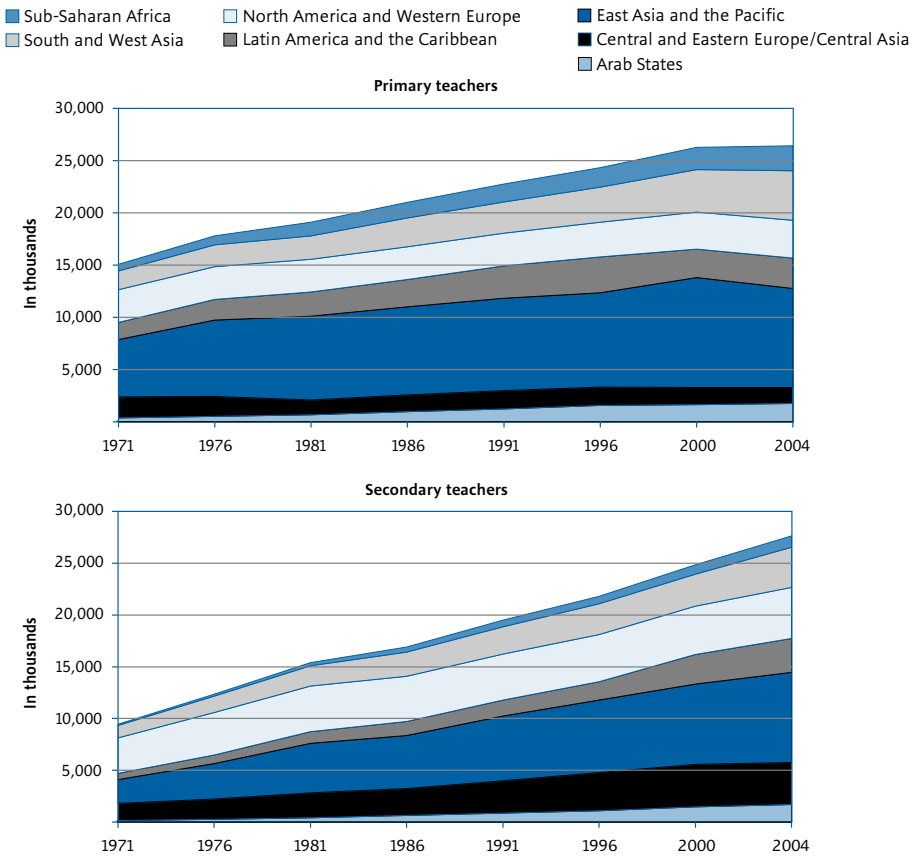
How have the numbers of teachers changed in response to fluctuations in demand for primary and secondary education? The global teaching force has generally seen strong growth since 1971. However, growth rates have dropped off since 2000 at the primary level *(see **Figure 1.7**)*.

In 2004, there were more than 54 million primary and secondary teachers in the world. Seven countries account for more than one-half of the total number: China (11.1 million), India (6.0 million), the United States (3.3 million), Indonesia (2.6 million), Brazil (2.3 million), the Russian Federation (1.7 million) and Mexico (1.1 million).

This section presents data on teacher stocks which should be distinguished from flows, both into and out of the teaching profession *(see **Box 1.1**)*. From a policy perspective, teacher stock numbers can be used for assessing costs, while flows are important in terms of assessing needs for the initial and ongoing training of teachers.

FIGURE 1.7

Primary and secondary teaching forces by region, 1971-2004



Source: UNESCO Institute for Statistics database, 2006.

Box 1.1 Distinguishing between stocks and flows of teachers

'Teacher stock' refers to the current number of teachers in the teaching force. Typically, this figure remains relatively steady over time which often gives the impression of stability. However, stock is determined by the flows of teachers in and out of the profession, which may be considerable in size.

Data on flows provide a better measure of change in teacher forces. Are teachers leaving the profession at a younger age than before? Do those teachers have particular skills in certain subject areas that those entering lack? Do new teachers have a better grasp of new curricula?

These issues underscore the inherent complexity in the management of teaching forces and the need for relevant monitoring data. While teacher flows are crucial for policymaking, many countries lack the infrastructure and/or capacity to implement educational management information systems which could provide reliable data on a regular basis.

Table 1.3 shows that the total number of primary teachers rose from 22.8 to 26.4 million, or by 16%, between 1991 and 2004. For the first time, there are now more secondary teachers (27.6 million) than at the primary level, with a 42% increase over the same period. This can be explained by two factors, apart from the growth in the number of secondary pupils. First, the duration of the secondary level is often longer than at the primary level. Moreover, the greater number and specialised nature of subjects in secondary curricula typically require more teachers.

While the change in absolute numbers of teachers provides some insight into the capacity of national systems to expand, it is important to compare the pace of change across regions. Table 1.3 shows that levels of growth are generally linked to the demand for education, with greater numbers of teachers corresponding to growth in pupil numbers. This is clearly the case in South and West Asia, as well as in sub-Saharan Africa. The exception is the Central and Eastern European/Central Asia region, where there have been fewer teachers since 2000 at both primary and secondary levels because of falling numbers of pupils.

TABLE 1.3

How has the number of primary and secondary teachers changed since 1991?

Region	Primary teachers					Secondary teachers				
	In thousands		Average annual growth rate (%)			In thousands		Average annual growth rate (%)		
	1991	2004	1991-1996	1996-2000	2000-2004	1991	2004	1991-1996	1996-2000	2000-2004
Arab States	1,243	1,761	4.7	1.3	1.8	871	1,697	4.4	8.3	3.4
Central and Eastern Europe/Central Asia	1,736	1,539	0.1	-1.4	-1.7	3,127	4,058	3.4	2.7	-0.3
East Asia and the Pacific	8,860	9,444	0.4	3.8	-2.6	6,240	8,700	2.4	2.5	3.0
Latin America and the Caribbean	3,070	2,940	2.1	...	1.8	1,538	3,284	2.7	...	3.6
North America and Western Europe	3,153	3,589	1.1	1.5	0.4	4,451	4,913	0.6	0.5	1.2
South and West Asia	2,995	4,769	2.3	5.0	4.0	2,628	3,900	2.4	0.9	6.1
Sub-Saharan Africa	1,713	2,377	1.7	3.2	3.0	634	1,060	2.9	5.3	4.3
WORLD	**22,771**	**26,420**	**1.3**	**1.9**	**0.2**	**19,490**	**27,613**	**2.3**	**3.3**	**2.7**

Source: UNESCO Institute for Statistics database, 2006.

Box 1.2 Ensuring that teacher counts and indicators are cross-nationally comparable

The seemingly simple task of counting the number of teachers by level of education is actually subject to certain measurement constraints. There are several important requirements to ensure comparability across countries.

Using a common definition for a teacher

For the purposes of international data collection, classroom teachers are defined as professional personnel involved in direct student instruction. This involves planning, organizing and conducting group activities whereby students' knowledge, skills and attitudes develop as stipulated by educational programmes (UNESCO-UIS/OECD/Eurostat, 2005). The classification includes classroom teachers, special education teachers in whichever setting they teach, and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or one-on-one inside or outside a regular classroom. This excludes staff with some teaching duties but whose primary function is either managerial or administrative, as well as student teachers, teachers' aides and para-professionals.

Teacher counts are subject to two types of error: inclusion and exclusion. These errors may vary in magnitude depending upon the situation in a country.

Inclusion errors, which are probably the most common, involve counting teachers who do not meet the criteria set out for international comparisons. First, this may include teachers who were never or are no longer in the school. For example, there are 'ghost' teachers – those who appear on the rolls but not in the classrooms because they have left the profession. Second, there are teachers who are not directly responsible for classroom instruction. Rather, they are involved with management, administration or even ancillary duties (e.g. preparing meals, working in school library, etc.).

Exclusion errors occur when teachers who do meet the criteria are not counted as teachers. There may be education staff who are not recognised as teachers but who are responsible for classroom instruction. This could include headmasters who are also classroom teachers. Outside of the formal system, figures do not reflect classroom teachers who are working in NGO-supported, community or home-based schools. This is especially important in post-conflict contexts.

Using full-time equivalencies – rather than teacher headcounts – to judge quantity

In terms of hours of instruction, a part-time teacher (distinct from substitute or supply teachers who are typically not included in teacher counts) works less than one who is full-time. Thus it is important to account for this difference where part-time teachers are prevalent. Indeed, some countries have developed ways of calculating full-time equivalencies. For example, two half-time teachers could equal one full-time teacher. The UIS is working towards collecting data on full-time equivalencies for both teachers and pupils, but at this time, an insufficient number of countries are reporting this information. As a result, this study is based on teacher headcounts, which may be less of an issue at the primary level because there are generally fewer part-time teachers. Full-time equivalencies are also linked to student headcounts, both of which are needed to produce indicators like the pupil-teacher ratio.

There are important constraints to teacher supply that must be taken into consideration. For example, the teaching force may be affected by situations of instability, conflict and war *(see **Box 1.3**)*. The prevalence of HIV/AIDS can impact education systems in a myriad of ways. **Box 1.4** focuses specifically on teachers facing the epidemic in sub-Saharan African countries. In addition, teaching forces are increasingly shifting across national borders are due to globalisation. **Box 1.5** describes an effort to better regulate the recruitment of teachers in Commonwealth countries.

Box 1.3 Restoring childhood through teaching

Violent conflict is "the epitome of development in reverse", as so poignantly stated by the World Bank. Even after the guns quiet, a culture of violence may fester. Education can help to contain that poison or it can be used to propagate lingering division. The solution, however, does not lie in building new classrooms. "Teachers are the most important resource in education reconstruction," according to a recent World Bank report* analysing post-conflict experience the world over.

Globally, there are at least 50 million displaced persons, about one-half of whom are cross-border refugees and the rest internally displaced (World Bank, 2000). At least 12 countries have more than 200,000 of their citizens living in neighbouring countries because of conflict, and five have more than 400,000: Afghanistan, Angola, Burundi, Palestinian Autonomous Territories and Sudan.

Teachers can help these people restore the core values of their societies by enabling pupils to recover their lost childhood. But they are also among the first victims of conflict. In Rwanda, more than two-thirds of primary and secondary teachers were either killed or fled, according to the World Bank report. "In Cambodia the carnage was even greater, leaving the system with almost no trained or experienced teachers." In Timor-Leste, 80% of primary teachers were Timorese and remained. But almost all of the secondary teachers were Indonesian. They never returned.

Yet according to the World Bank report, the challenge is generally "not recruitment of new teachers but improving the quality of the teaching force in terms of qualifications, experience and competence". The case of Lebanon reflects a pattern observed in most countries in the reconstruction process. After the conflict, only 50% of Lebanon's teachers were qualified. Making matters worse, many of those teachers left the profession for other job opportunities and were replaced by under- or unqualified people.

This highlights one of the most difficult trade-off decisions when rebuilding education systems. The temptation is to opt for an approach of "access first, quality later". But evidence from the World Bank study stresses the opposite.

Education quality deteriorates for many reasons, including poor deployment of teachers; a lack of learning materials and supplies; disrupted and reduced school days; high dropout rates; and repetition among pupils. The report also highlights the problems of outdated and inappropriate curricula and inadequately prepared staff after the collapse of teacher-training programmes and services. These problems and others "continue to undermine the quality of learning for many years even after the problems of access have been addressed".

The most successful countries integrated quality as a frame of reference from the very start of the education reconstruction process. It is therefore essential to keep communities, parents and teachers involved in discussions on ways to improve quality, step by step. In short, there are no quick solutions but some basic lessons learned from diverse experience, especially concerning teacher training, which is a critical element shaping quality education.

To begin with, initial training is generally left best to non-governmental organizations (NGOs), according to the report, because of their flexibility and efficiency. In some cases, NGOs can work in regions or refugee camps which central authorities cannot access. Longer-term training is clearly more complicated. Most school systems emerging from crisis are faced with an influx of untrained teachers. However, central authorities often lack the capacity to coordinate the diverse range of private- and donor-sponsored initiatives. Recent experience in Kosovo, for example, shows that the most efficient solution lies in appointing a 'lead agency' – in this case, the Kosovo Educator Development Program – which coordinated the various training activities in the aftermath of the conflict. This helped the Minister of Education to lay the foundations for longer-term policymaking for its most-valued resource: teachers.

*World Bank (2005). *Reshaping the Future: Education and Post-Conflict Reconstruction*. Washington, DC: World Bank.

Box 1.4 The impact of HIV/AIDS on education systems

An important constraint to the supply of teachers is HIV/AIDS. Found across the world, the epidemic is concentrated in some of the poorest countries, especially in Southern Africa. The ten countries with the highest prevalence rates, estimated at 39% to 12%, are Swaziland, Botswana, Lesotho, Zimbabwe, South Africa, Namibia, Zambia, Malawi, Central African Republic and Mozambique (UNAIDS, 2005). It is estimated that more than one in three persons in Botswana and Swaziland are infected with the virus (ibid). While rates are lower in other regions, there is concern that they could increase without greater focus on preventative measures.

The ten countries listed above generally have education systems and primary participation rates well above the average for sub-Saharan Africa. In 1990, the combined primary net enrolment rate for these ten countries was considerably higher than for the rest of the region. Furthermore, pupil-teacher ratios were generally lower than those found in other countries of the region.

HIV/AIDS can impact education systems in many different ways. For example, children with the virus or with infected family members may not be able to attend school regularly or may have no choice but to leave school early. Absenteeism is common among school personnel and classroom teachers, many of whom later succumb to the disease.

In short, the debilitating nature and mortality of the disease lead to the loss of trained teachers, who are precious. This loss impacts education systems in complex ways, which are often difficult to assess. For example, the virus is prevalent among student teachers and within teacher-training facilities. This reduces the pool of potential teachers and the number of specialist teachers in high demand (especially in languages, mathematics and sciences). The epidemic has also caused huge imbalances in teacher deployment, especially in rural zones, leaving fewer staff to manage larger classes.

Are teachers at greater risk than the general population? Early research suggested that prevalence rates were higher among teachers (Malaney, 2000), but more recent studies seem to provide evidence to the contrary (Bennell et al., 2002; Bennell, 2003; Bennell, 2005). A recent study in South Africa, one of the first to follow cohorts of teachers, showed that infection rates among educators were lower than that of the general adult population (MTT, 2005).

HIV/AIDS is often concentrated in rural areas, precisely where education systems are hit the hardest. Shisana et al. (2005) found that in South Africa, where rates varied between 22% in KwaZulu-Natal to 6% in Gauteng province, teacher mobility and deployment to rural areas were associated with higher HIV prevalence. In other words, posting teachers away from their homes and families heightened the risk of transmission.

The epidemic's impact on teachers must be analysed on a country-by-country basis. It is impossible to make broad generalisations (Bennell, 2005). Moreover, the process of collecting data is extremely complicated and delicate. In some places, the stigma is so strong that the disease is not even listed as the cause of death. A recent study of educator attrition and mortality in South Africa, one of the first based on direct observation, shows that the factors underlying teacher attrition can vary. However, in areas with high rates of HIV/AIDS prevalence, a growing number of teachers are leaving the profession for health reasons (ibid).

The expansion of education systems in the last several decades has led to a redistribution of the world's teachers. In 2004 the share of the world's primary teachers sharply declined in comparison to 1971 in North America and Western Europe, as well as in Central and Eastern Europe/ Central Asia, falling from 21% to 14% and from 13% to 6% respectively. East Asia and the Pacific had the largest proportion of primary teachers in 2004, with 36% of the world total. The shares of teachers, although small, grew in sub-Saharan Africa and the Arab States.

At the secondary level, there was a major regional shift. In 1971, North America and Western Europe held a plurality of secondary teachers (36%). But the share began to fall as systems expanded in other regions, dropping to 19% by 2000, well behind East Asia and the Pacific (31%). Latin America and the Caribbean, sub-Saharan Africa and the Arab States saw their shares of the world's secondary teachers increase over this period. These figures reflect the rising educational levels, especially in high-population, middle-income countries, such as Brazil, China and Egypt.

Pupil-teacher ratios

How does this growth in teachers compare to that of pupils? The number and distribution of teachers are important policy parameters helping to determine the quality of education. The pupil-teacher ratio is a commonly-used indicator, reflecting the human resource capacity of education systems.

Box 1.5 Brain drain and the international mobility of teachers

In the face of growing teacher shortages, more-developed countries have increasingly turned to recruiting trained teachers from less-developed countries. Governments have even set up special agencies to recruit teachers from abroad (NASUWT, 2005). According to Education International, there are some 100 private agencies in the United Kingdom which recruit teachers from Barbados, Guyana, Jamaica and Trinidad and Tobago, for example (STPD, 2005). A recent OECD report stated that about 10,000 overseas teachers were recruited in 2000 (OECD, 2005).

The migration of skilled workers from poor to richer countries is not a new phenomenon, and remittances from abroad play an important role in many national economies. They can even help to support national education services. However, governments have voiced concern about this loss of well-qualified professionals, which impacts the functioning of public services, especially in small states. Planned recruitment from South to North can be seen to contradict, in some ways, the goals of Education for All.

Mobility does not just occur between poor and rich countries, but across neighbouring countries as well. Private agencies recruit teachers from Canada for schools in the United States and likewise South Africa recruits from Zimbabwe, to name but a few examples.

This has led to the passage of The Protocol for the Recruitment of Commonwealth Teachers, adopted in 2004 by Ministers of Education from Commonwealth countries. It presents a 'code of conduct', which outlines the rights and responsibilities of recruiting and source countries, as well as recruited teachers. While recognising the benefits of well-managed teacher exchanges, it stresses that recruitment can also harm a national education system by taking away its best asset: trained teachers.

It should be stressed that this indicator is not a measure of class size or the number of pupils a teacher faces in the classroom. Direct measures of class size are not widely available across countries. It is also important to note that the ongoing debate over the effects of class size on educational outcomes has largely focused on countries with low pupil-teacher ratios. Few would defend the benefits of having a single teacher lead a class of 60 or more pupils, as observed in many less-developed countries.

High pupil-teacher ratios can signify an overstretched teaching staff, while low ratios may represent additional capacity. However, the pupil-teacher ratio is a national average which can conceal considerable variation between regions and schools *(see **Box 1.6**)*. For instance, a country's national primary pupil-teacher ratio could be 42:1, but some schools may have one teacher for every 20 pupils, while others have one for every 100 pupils. Moreover, the ratio depends on an accurate count of teachers with instructional duties and should ideally be adjusted to account for different modes of teacher deployment, such as part-time and shift/flow teaching (Motivans, 2005).

Figure 1.8 reflects trends in regional averages for primary and secondary pupil-teacher ratios between 1991 and 2004. For most regions, the average ratio at the primary level is considerably lower than that observed in South and West Asia and sub-Saharan Africa.

Pupil-teacher ratios remained stable or declined slightly between 1991 and 2004 for all but two regions. In South and West Asia, the secondary ratio grew between 1996 and 2000, while it grew in sub-Saharan Africa. By 2004, primary pupil-teacher ratios for South and West Asia and sub-Saharan Africa reached 41:1 and 44:1 respectively.

Pupil-teacher ratios are higher at the primary than the secondary level in all regions. This is due mainly to the more diversified curricula and need for specialised teachers in secondary programmes. Most regions experienced modest increases at the secondary level between 1991 and 1996, which then stabilised (unlike patterns at the primary level). The most notable exception is sub-Saharan Africa, where the average secondary pupil-teacher ratio rose from 22:1 to 25:1.

Figure 1.9 presents changes in numbers of pupils and teachers, as well as pupil-teacher ratios, at the country level. In most countries which provided data, the pupil-teacher ratio has fallen since 1991. However, the opposite trend was noted in sub-Saharan Africa, which had the highest median, 46:1, in 2004.

Across sub-Saharan Africa, the stocks of pupils and teachers grew by more than 5% annually. But most countries could not balance this growth, which has led to increases in already high pupil-teacher ratios. Ethiopia now has 72 pupils per teacher and another five countries have ratios exceeding 60:1 (Chad, Congo, Malawi, Mozambique and Rwanda). Yet at the same time, a considerable number of countries were still able to reduce the number of pupils per teacher, such as Burundi and Burkina Faso, although these ratios still exceed the regional median. Gabon, Senegal, Seychelles and Togo all managed to bring their respective ratios below the regional average.

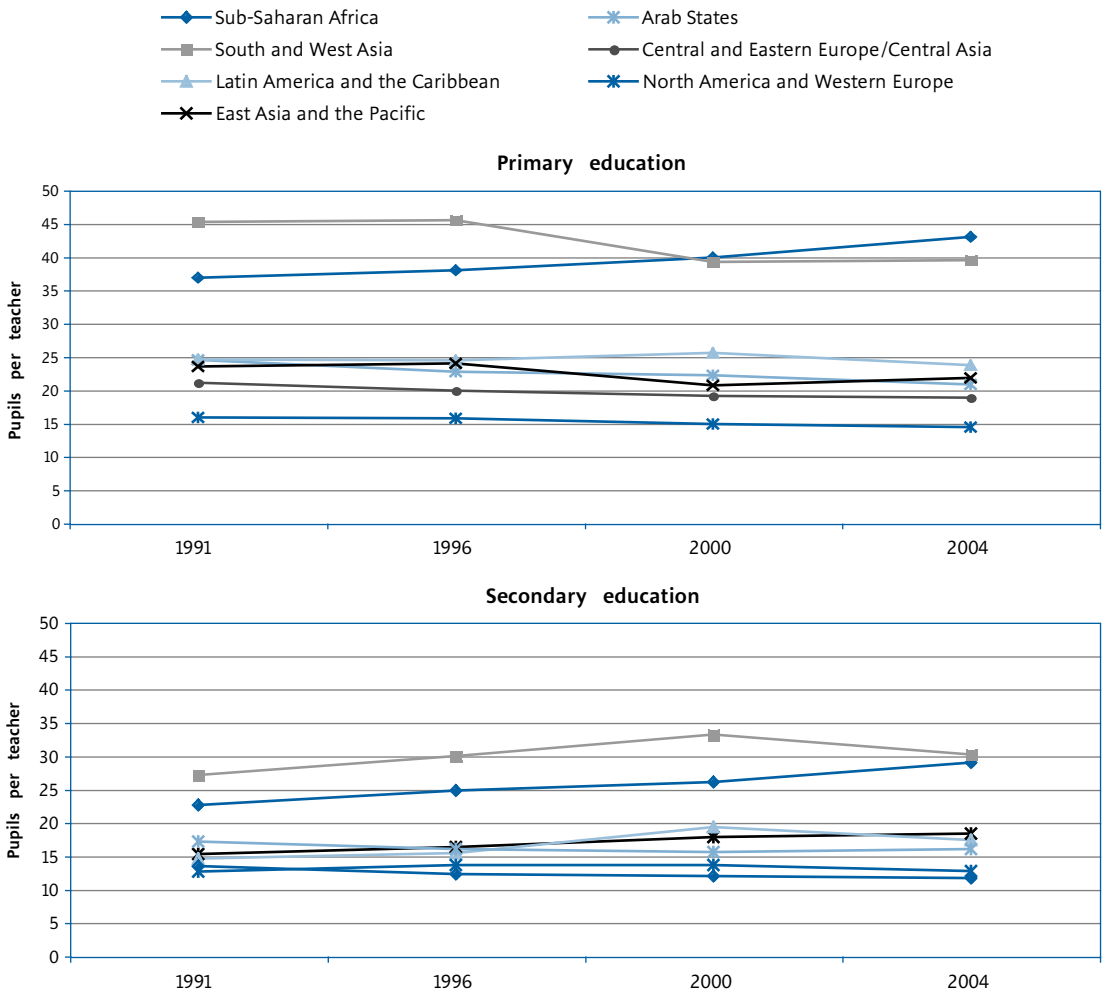
In South and West Asia, the median is also high at 40:1, although data were available for only seven of the nine countries. The pupil-teacher ratio fell slightly in India and

Pakistan. The greatest changes occurred in Afghanistan, where the number of pupils grew on average by more than 16% per year and the teacher stock increased by 13% each year.

The remaining regional medians are already quite low, ranging from 13:1 in North America and Western Europe to 22:1 in Latin America and the Caribbean. Countries with particularly high pupil-teacher ratios include: Mauritania (44:1) in the Arab states; Cambodia (55:1) in East Asia and the Pacific; and Nicaragua (35:1) in Latin America and the Caribbean. Bulgaria and Kenya, both of which fall below their respective regional medians, saw increases in the ratios due to cuts in teacher stocks.

FIGURE 1.8

Primary and secondary pupil-teacher ratios by region, 1991-2004



Note: Weighted averages.
Source: UNESCO Institute for Statistics database, 2006.

FIGURE 1.9

Annual average change in the number of pupils and teachers and pupil-teacher ratios in primary education, 1991-2004

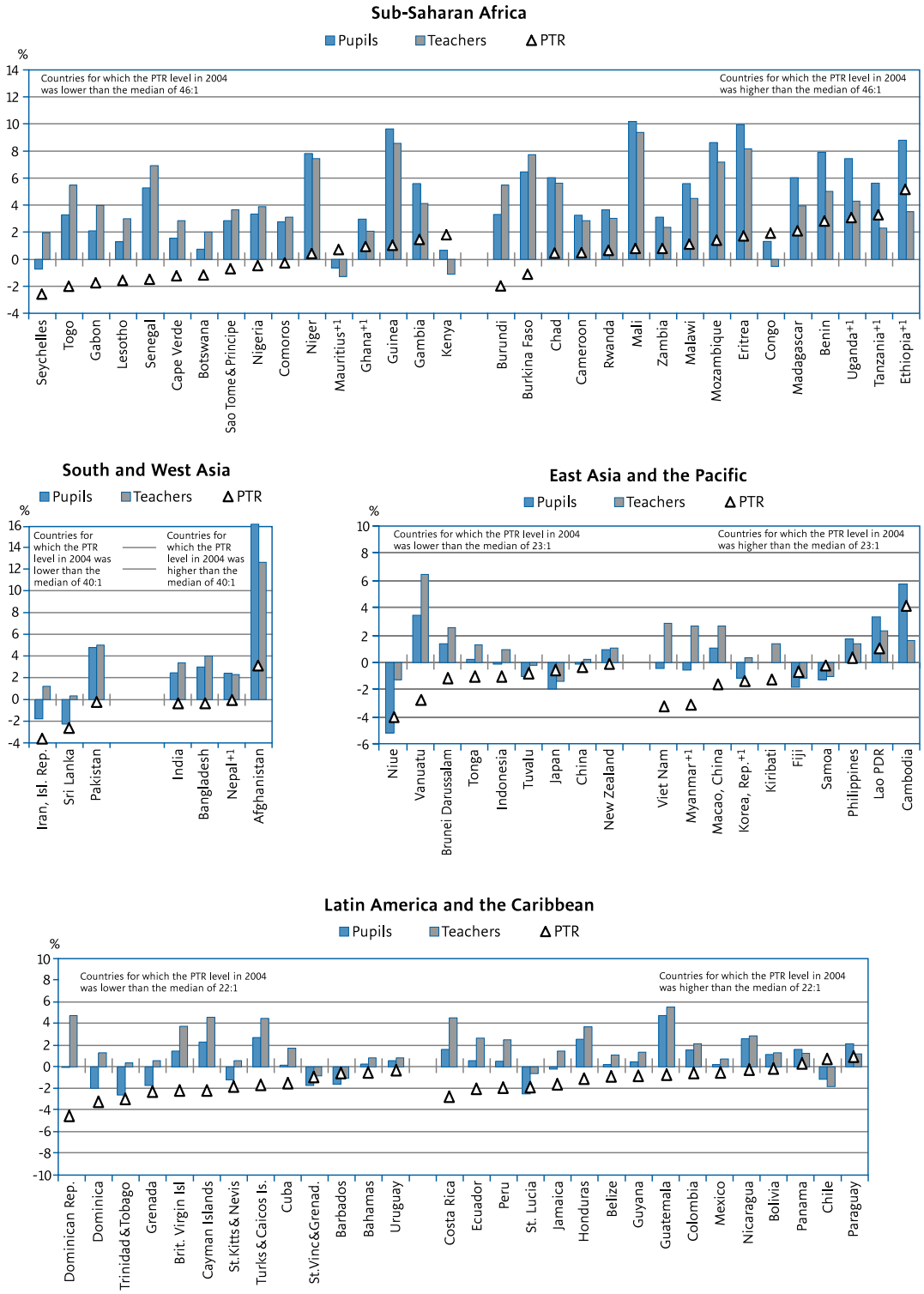
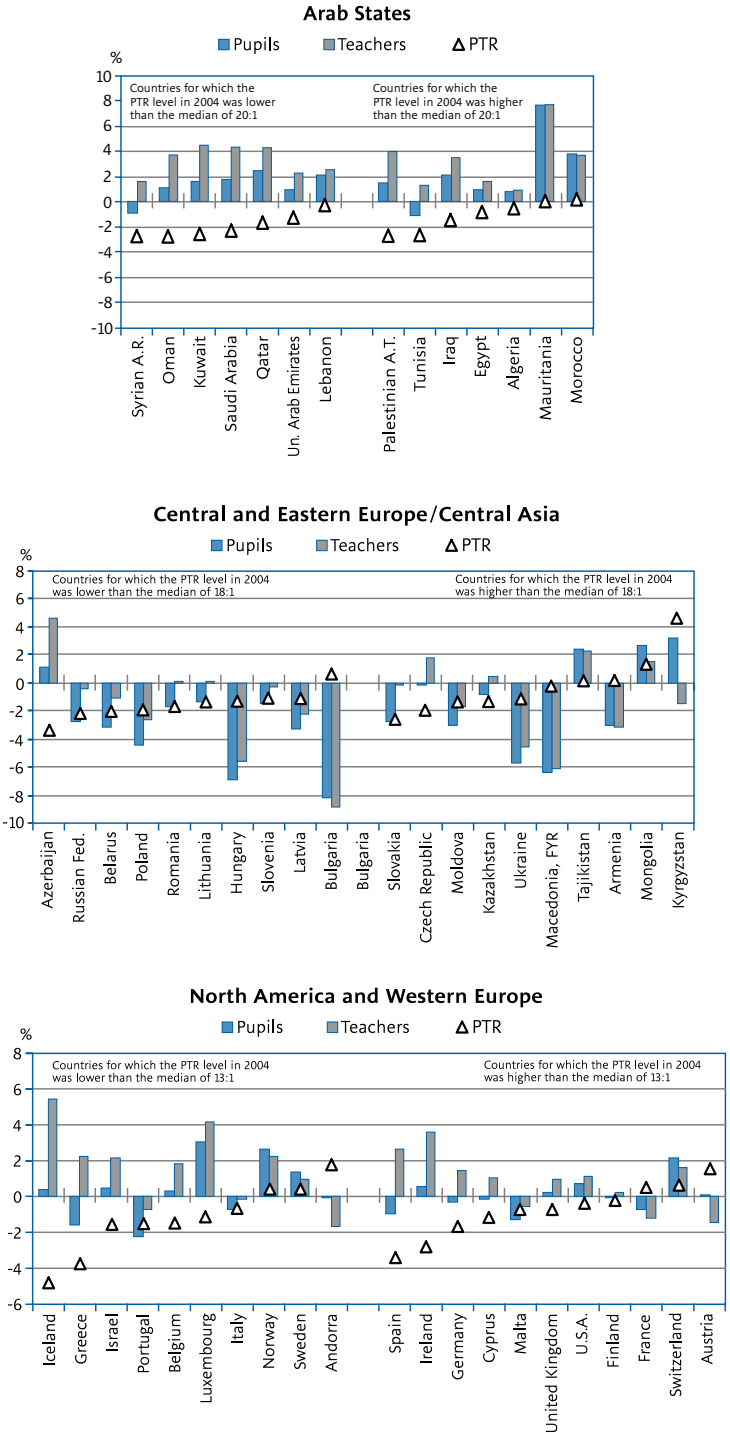


FIGURE 1.9 continued

Annual average change in the number of pupils and teachers and pupil-teacher ratios in primary education, 1991-2004



Note: +1 Data refer to 2005.
Source: UNESCO Institute for Statistics database, 2006.

This section has identified how key factors can interact to shape the demand for education and the need for teachers. **Table 1.4** categorises systems according to their primary education coverage, efficiency and quality against a wider political, economic and demographic background. This approach can clarify the range of policies corresponding to the specific strengths and weaknesses of an education system. For example, a country may have good coverage and low pupil-teacher ratios, but high rates of pupils entering school late or repeating grades. The interactions between these factors must be recognised before embarking upon a particular set of teacher-related policy responses.

Population growth puts pressure on educational systems. Countries with high growth rates generally face a battery of problems in improving coverage, efficiency and quality. Many less-developed countries must confront high population growth rates combined with low rates of coverage. This combination often leads to difficulties in student progression and high pupil-teacher ratios. This is the worst-case scenario because policy trade-offs are needed to make improvements across multiple fronts.

The combination of low population growth and coverage is generally reserved to Asia, especially South and West Asia. Population growth has dropped off but there are still many children who are out of school. Countries in this situation still need to invest in education infrastructure and to recruit additional teachers to meet demand.

A more common scenario combines low population growth and high rates of participation. This is the case for many of the upper- and middle-income countries in North America and Western Europe, Central and Eastern Europe/Central Asia, as well as Latin America and the Caribbean. This is the best case scenario: fewer teachers are needed, which widens the possibility of greater investments per pupil and in education infrastructure. This scenario is also found in some countries in Southern Africa. They are faced with the sharp impact of HIV/AIDS on population growth (which is low and stable) and have the highest school participation rates in the region. However, they can improve internal efficiency, as in many Latin American countries.

TABLE 1.4

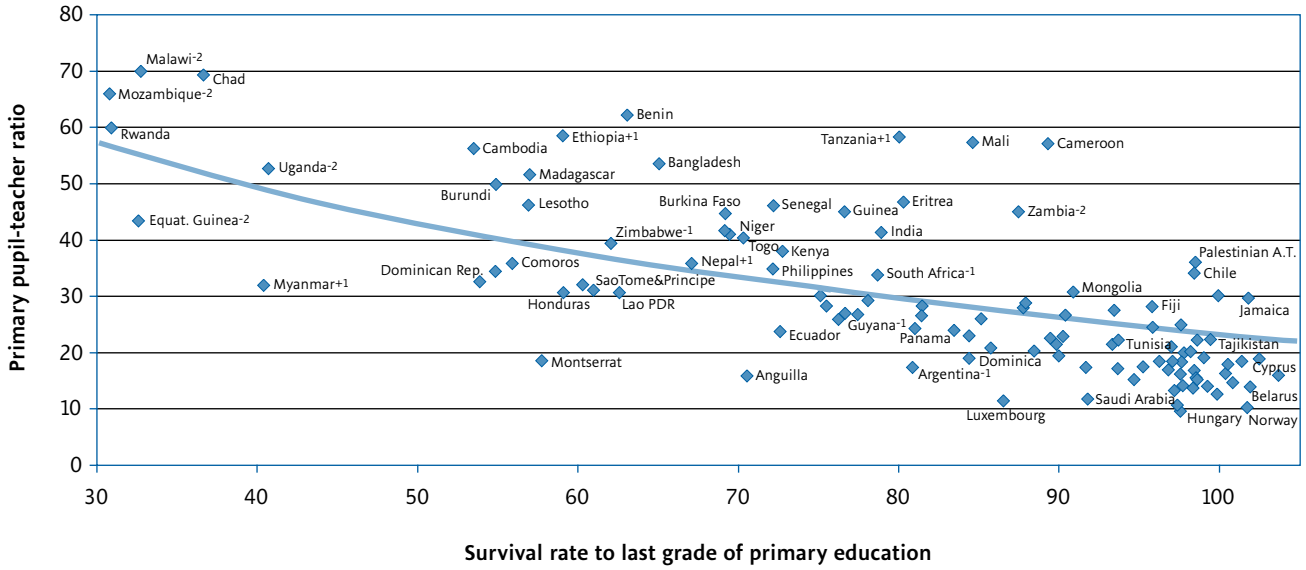
How factors interact to influence demand for education and teachers

Contexts		Not near universal provision		Near universal provision	
		Insufficient internal efficiency (10% or more repetition)	Sufficient internal efficiency (10% or less repetition)	Insufficient internal efficiency (10% or more repetition)	Sufficient internal efficiency (10% or less repetition)
Low or stable population growth	Insufficient quality (40:1 or more PTR)				
	Sufficient quality (40:1 or less PTR)				Best case scenario
High population growth	Insufficient quality (40:1 or more PTR)	Worst case scenario			
	Sufficient quality (40:1 or less PTR)				

How do changes in these factors relate to education quality? **Figure 1.10** provides an example by taking a measure of the quality of the education system, national pupil-teacher ratios and the relationship to a measure of outputs, in this case the primary survival rate. The countries with the lowest survival rates – notably Chad, Equatorial Guinea, Madagascar and Malawi – also face high rates of population growth, late entry, repetition and elevated pupil-teachers ratios. In Chad, only one in three pupils starting primary school reaches the final grade. In contrast, Togo, with a pupil-teacher ratio below the regional median of 44:1, achieved a primary survival rate of 70%. Education quality depends upon the combination of all of these factors.

FIGURE 1.10

Primary pupil-teacher ratios and survival to last grade of primary education, 2003



Coverage: Based on 124 countries providing data for both indicators.
Notes: Since survival rates are based on two years of data, 2003 is the most recent year available.
+1 Data refer to 2004; -1 Data refer to 2002; -2 Data refer to 2001.
Source: UNESCO Institute for Statistics database, 2006 and Annex 2, Statistical Table A2.3.

Box 1.6 Regional disparities in education resources

The right to education, recognised by the international community for the last half century, has spawned increasing interest in the equity of education systems in countries. However, the term "equity" is subject to a variety of interpretations. Most would agree that an "equitable" system provides high-quality education to all children, regardless of their background or where they live. But opinions diverge about which aspects of education should be distributed "equitably" to whom and to what degree.

A recent study commissioned by the UIS presents a framework for measuring educational equity which was applied to 16 of the world's most populous countries: Argentina, Bangladesh, Brazil, Canada, China, Ecuador, Egypt, India, Indonesia, Mexico, Nigeria, Pakistan, Peru, the Russian Federation, South Africa and the United States.

The framework uses geographic regions within countries as the unit of analysis.[2] Pupil-teacher ratios, considered to be one of the most important measures of educational quality, are the main focus of the report. It specifically examines regional disparities in these ratios (horizontal equity), as well as the relationship between regional wealth and pupil-teacher ratios (equal educational opportunity).

According to the study, the countries vary considerably in terms of their regional disparities in pupil-teacher ratios. At the primary level, Mexico reports the smallest gap, followed closely by Peru, Argentina, Brazil and Indonesia. Disparities fall in the middle range in Bangladesh, China, Ecuador and the United States, but are the greatest in Nigeria, Pakistan, India and Egypt.

At the secondary level, China, Indonesia, Mexico and Peru have the smallest regional disparities in pupil-teacher ratios, followed by Brazil, Ecuador and Nigeria in the middle-range. Disparities increased in Egypt and the United States but were significantly larger in Pakistan, Argentina and India.

Wealthier regions tend to have greater access to human resources for education (lower pupil-teacher ratios). Argentina, Brazil, Canada, China, Egypt, India and Peru perform poorly in the area of equal educational opportunity at both the primary and secondary levels. This is also the case for secondary education in Mexico but not at the primary level, where poorer regions tend to have lower pupil-teacher ratios.

A comparison between the mid-1990s and early 2000s does not show any consistent movement towards greater equity in the 16 countries. India made the greatest gains at the primary level but still had the greatest disparity in pupil-teacher ratios during the most recent school year. At the secondary level, India improved on two of the equity measures but showed a decline on two others.

[2] In federal countries, these units are generally states, provinces and other political jurisdictions with authority over education; in non-federal countries, the units are usually the first administrative entity below the national level.

Source: Based on Sherman and Poirier (2006), "Analysing educational equity in large countries". Montreal: UIS.

SECTION 2. THE CHARACTERISTICS OF TEACHING FORCES

This section examines indicators which reflect the characteristics of national teaching forces in terms of age and sex. These characteristics provide a valuable perspective for planning and managing education systems. Policies that successfully balance youth, experience and gender within a teaching force can have a positive impact on both access to education and the quality of provision.

The age distribution of teachers

Data on the age distribution of teachers can be used to anticipate potential changes in the composition of the teaching force. Moreover, teacher age provides a proxy for the overall 'experience' of a teaching force, based on the assumption that older teachers have accrued greater years of service. An older profile reflects more experience but a younger age profile can indicate a higher level of pre-service training. This is particularly true where standards have been raised over time and young teachers entering the profession are likely to have higher qualifications or more training than their older and more experienced counterparts. But experience also comes at a cost. An older age profile may be associated with the higher wages and benefits that accrue with years of service.

OECD countries began issuing warnings from the 1990s, with the realisation that aging teaching forces might eventually lead to shortages as personnel approached the compulsory retirement age (OECD, 2005). For example, more than 60% of all primary teachers are over 40 years of age in Canada, Italy and the Netherlands; and more than 40% are over 50-years-old in Germany and Sweden. These proportions are even higher among upper secondary teachers (Siniscalco, 2002).

Data from a special UIS survey on teachers provide insight into the age profiles of teaching forces in a number of low- and middle-income countries. **Figure 1.11** shows that in most of these countries, primary teachers reflect a more youthful profile, with less than 20% aged 50 years or older. In Burkina Faso, Indonesia and Jordan, more than one-half of primary teachers are under 30 years of age. Niger's young primary teaching force is partly the result of policies enacted in the late 1990s which made retirement mandatory after 30 years of service regardless of age (IMF, 2001). Consequently, less than 1% of teachers are 50 years or older. While this may reduce the number of staff at the higher end of the pay scale, it can also incur costs in terms of education quality, with the loss of mentors to both pupils and new teachers alike.

As in the case of the OECD countries, some developing and middle-income countries also face increasingly older primary teaching forces. Examples include Kenya, Chile and the Philippines, where 51%, 47% and 43% of primary teachers, respectively, are 50 years or older. Kenya might face a rather severe shortage in the near future. According to the Kenyan Teachers Service Commission, a large swathe of the primary teaching force will retire in the next five years as 28% are between the ages of 50 and 55 years (Oketch, 2006). This situation stems from a combination of factors and policies, notably the suspension of teacher recruitment in 1998 as a cost-cutting measure following a financial crisis (ibid).

Figure 1.11 shows that the proportions of older teachers (i.e. 50 years and older) at the lower and upper secondary levels were similar to those at the primary level. However, the

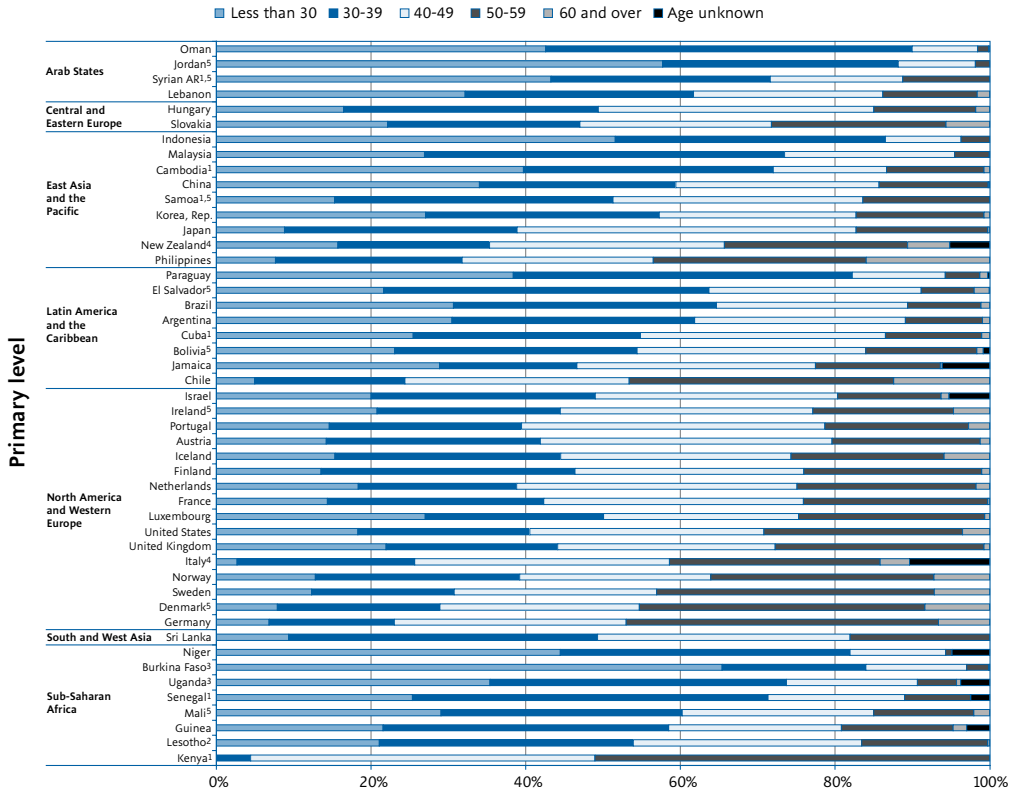
proportion of secondary teachers below the age of 30 is typically smaller, probably due to the longer length of time required to complete the appropriate training. It is also not uncommon for primary teachers to obtain additional training and enter the secondary sector later in their careers.

In some countries, the secondary teacher profile is also young. In China, Cuba, Jordan, Oman, Samoa and the Syrian Arab Republic, more than 35% of all secondary teachers are 30 years old or younger. In Oman, the figures are 66% and 51% for lower and upper secondary levels respectively, and in China, they are 46% and 36%.

The distribution of teachers by age can vary within countries. In general, older, more experienced teachers are concentrated in urban areas and younger, less experienced teachers are posted to remote or rural areas.

FIGURE 1.11

Teachers by age group and education level, 2003

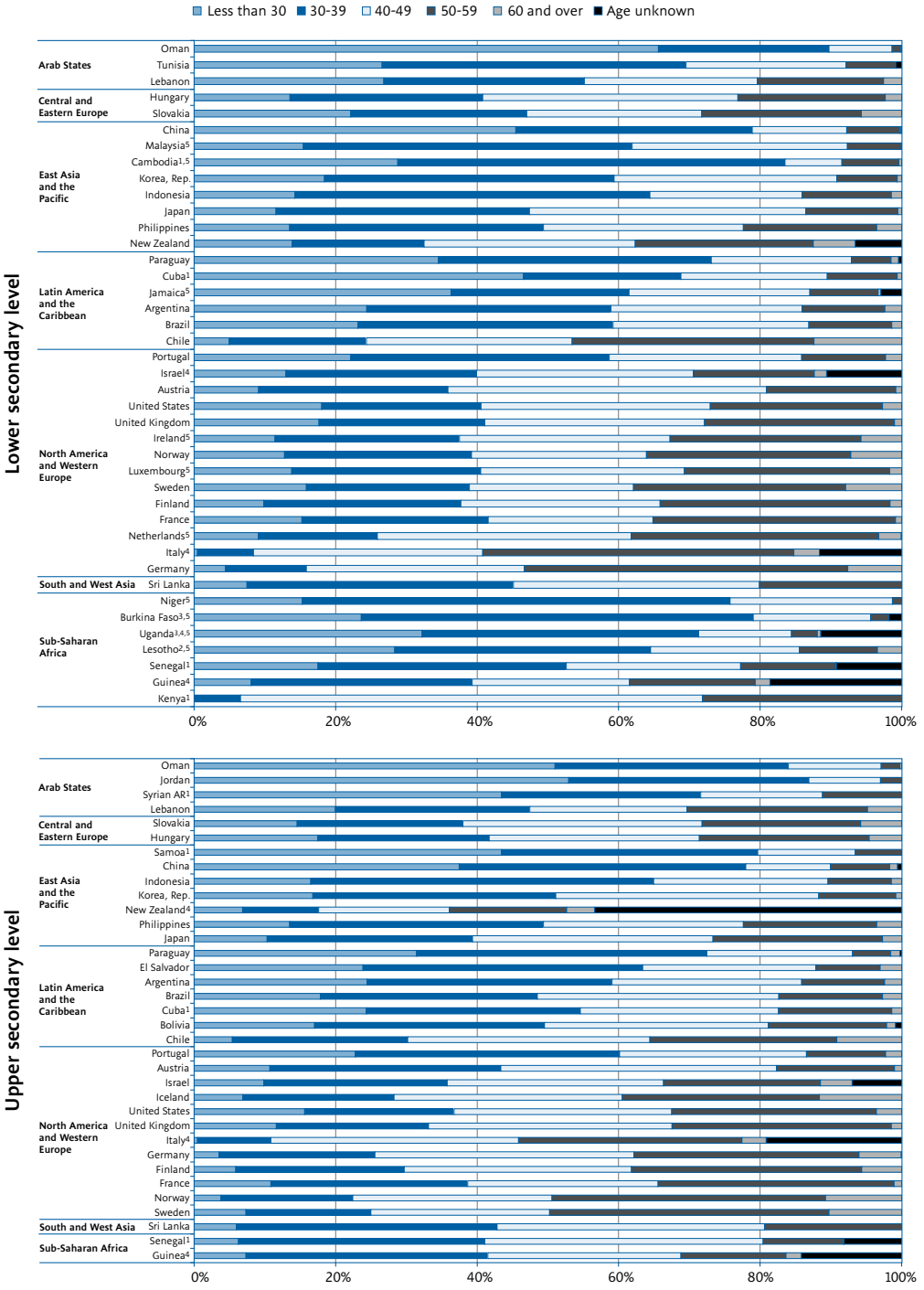


Notes: Countries are ranked according to the proportion of teachers aged 50 years and older.
1) Public institutions only.
2) Independent private institutions are excluded.
3) Coverage not available.
4) Ages for more than 10% of teachers are unknown.
5) Includes lower secondary teachers.

Source: UNESCO Institute for Statistics database, 2006 and UNESCO/OECD/WEI, 2005.

FIGURE 1.11 continued

Teachers by age group and education level, 2003



Notes: Countries are ranked according to the proportion of teachers aged 50 years and older.
1) Public institutions only.
2) Independent private institutions are excluded.
3) Coverage not available.
4) Ages for more than 10% of teachers are unknown.
5) Includes upper secondary.

Source: UNESCO Institute for Statistics database, 2006 and UNESCO/OECD/WEI, 2005.

The gender profile of teaching forces

The proportion of teachers by sex is a commonly-used indicator which reflects the overall gender balance in the teaching force. It also reflects broader dynamics shaping social, economic and labour conditions. As a result, it can be difficult to draw firm policy conclusions based upon this indicator alone. However, it is important to consider that large gender disparities among teaching forces appear to have an impact on educational quality and the demand for education, particularly among girls and young women (UNESCO, 2000).

There has been considerable debate about the influence a female or male teacher might have on school participation and performance. For example, a woman primary teacher could provide a positive role model for girls. In fact, as the proportions of female teachers rise in many developing countries, so do the shares of girls enrolled in school. Where proportions of female teachers are very low (20%), only seven to eight girls enter primary education for every ten boys (UNESCO, 2003).

The precise extent to which a female presence in the classroom can influence a young girl's chances of pursuing her education is difficult to evaluate. There are undoubtedly a range of factors to be taken into consideration. Yet clearly, as more girls enter and complete basic education, more are eligible to continue their studies and to become teachers. However, there are also constraints to ensuring gender parity. For example, education planners are often reticent to post young women to remote areas, where girls' school participation may be lowest. In some situations, security concerns for the teacher may outweigh gender issues.

In 2004, 59% of the world's primary and secondary teachers were women. However, there is considerable variation in the proportion of females at regional and national levels. To some extent, a broad distinction may be drawn between more- and less-developed countries based upon differences in cultural traditions and economic contexts. In more-developed countries, the education sector is traditionally an important source of employment for women looking to combine family and career. Yet the opposite tends to be true in the developing world (Wylie, 2000). **Figure 1.12** shows that in 2004, 84% of primary teachers in North America and Western Europe were women, compared to 45% of teachers in sub-Saharan Africa and 44% in South and West Asia.

The global proportion of female teachers in primary education rose from 56% to 61% between 1991 and 2004. The proportion remained relatively stable in regions with high levels, such as Central and Eastern Europe/Central Asia and Latin America and the Caribbean. This is also the case for the region with one of the lowest proportions, sub-Saharan Africa, where only two in five teachers was female.

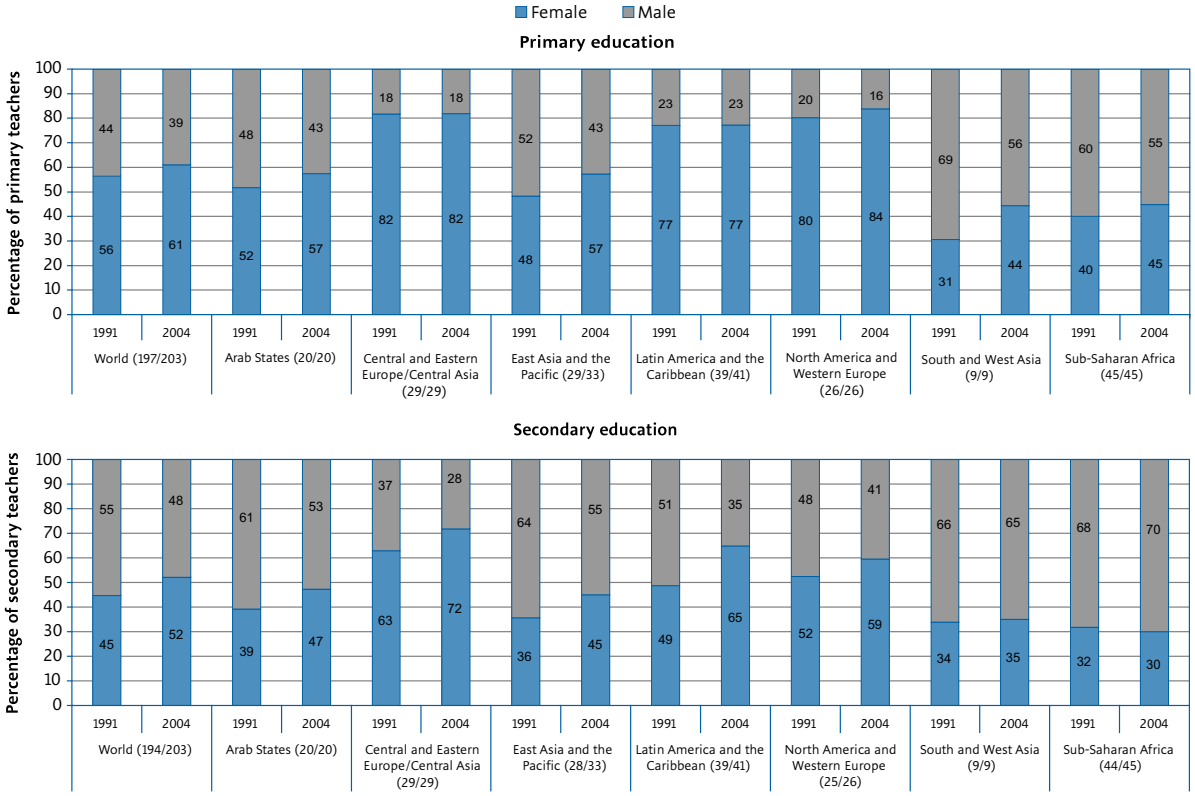
In secondary education, regional proportions of female teachers were generally lower than at the primary level. In 2004, more than three out of five teachers were women in Central and Eastern Europe, but only one out of four in sub-Saharan Africa. In general, the higher the educational level, the lower the proportion of female teachers.

The global proportion of female secondary teachers rose from 45% to 52% between 1991 and 2004. Moreover, this trend was found in all regions, but to a far lesser extent in South and West Asia.

How are proportions of women teachers changing at the country level? **Figure 1.13** shows data for 165 countries between 1991 and 2004. The proportion of female teachers increased during the reference period in countries appearing above the diagonal line and fell for those beneath it. The starting points of these countries must be taken into account when interpreting these changes.

FIGURE 1.12

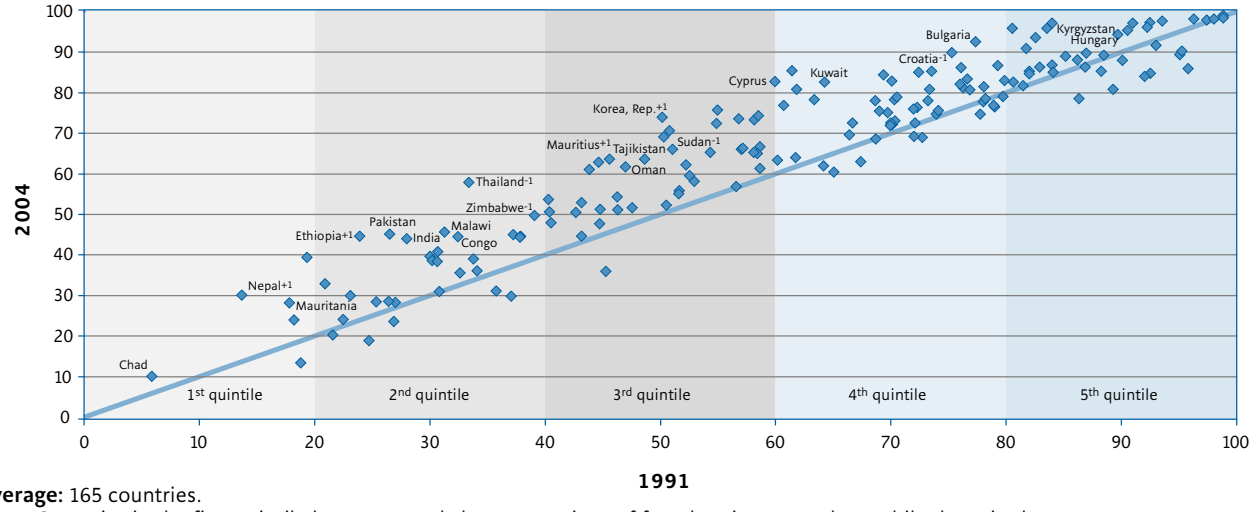
Proportion of teachers by sex, education level and region, 1991 and 2004



Source: UNESCO Institute for Statistics database, 2006.

FIGURE 1.13

Proportion of female primary school teachers by country, 1991 and 2004



Coverage: 165 countries.
Notes: Countries in the first quintile have extremely low proportions of female primary teachers while those in the fifth quintile have extremely low proportions of men teaching at the same education level.
+1 Data refer to 2005; -1 Data refer to 2003; -2 Data refer to 2002; -3 Data refer to 2001.
Source: UNESCO Institute for Statistics, Annex 2, Statistical Table A2.4.

South and West Asia saw the largest increase in the share of female primary teachers, from 31% to 44%. Countries with relatively low ratios experienced the greatest changes. The indicator rose from 14% to 29% in Nepal. The proportion of women teachers also increased in Thailand (34% to 58%) and India (28% to 44%). These changes may be linked to the rising number of primary teachers since 1991.

Afghanistan illustrates the importance of considering gender ratios and distribution. Access to primary education for girls and the availability of female primary teachers are still limited, particularly in more conservative regions. In 2004, women constituted about 22% of national primary teachers (AREU, 2004). Yet this figure masks wide variation across the country. For example, in Kabul 78% of primary teachers are women but less than 10% are in areas outside of the city. Relatively few female teachers live in these areas because of traditional restrictions on their education.

Efforts are needed to ensure that women teachers are not overly concentrated in the cities to the detriment of rural girls, whose access to education may depend upon them.

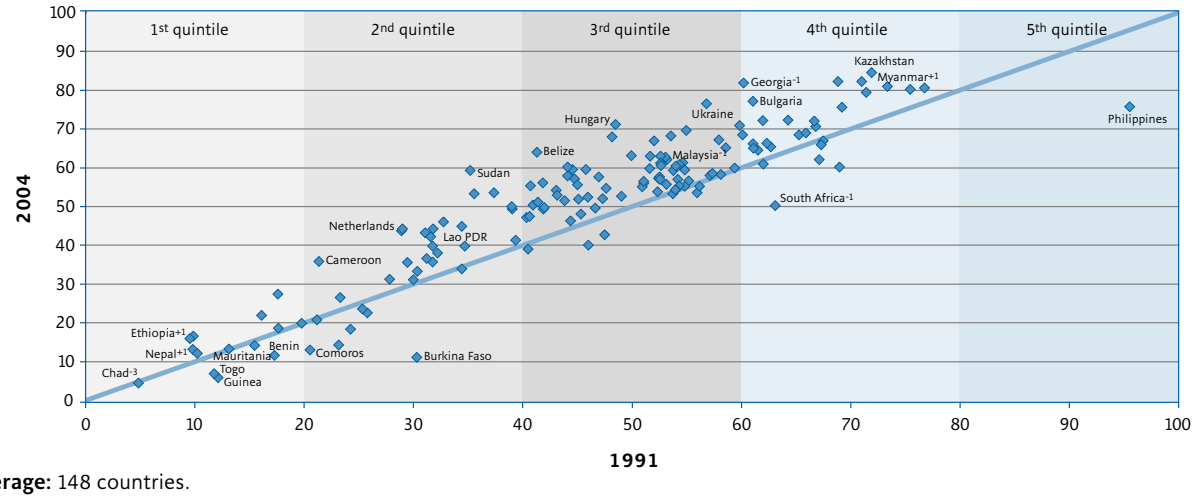
In sub-Saharan Africa, there was a modest rise in the proportion of female primary teachers. However, some countries experienced considerable declines, notably Togo and Benin by 28% and 24%, respectively, between 1991 and 2004.

In secondary education, 148 countries provided data for 1991 and 2004. As shown in **Figure 1.14**, the proportions of female teachers rose the most in countries starting at low levels (below 40%).

The steepest declines were found in sub-Saharan African countries, where women accounted for less than 30% of secondary teachers to begin with. In Burkina Faso, the proportion fell from 31% to 11% between 1991 and 2004, in Comoros from 21% to 13% and in Guinea from 12% to just 6%.

FIGURE 1.14

Proportion of female secondary teachers by country, 1991 and 2004



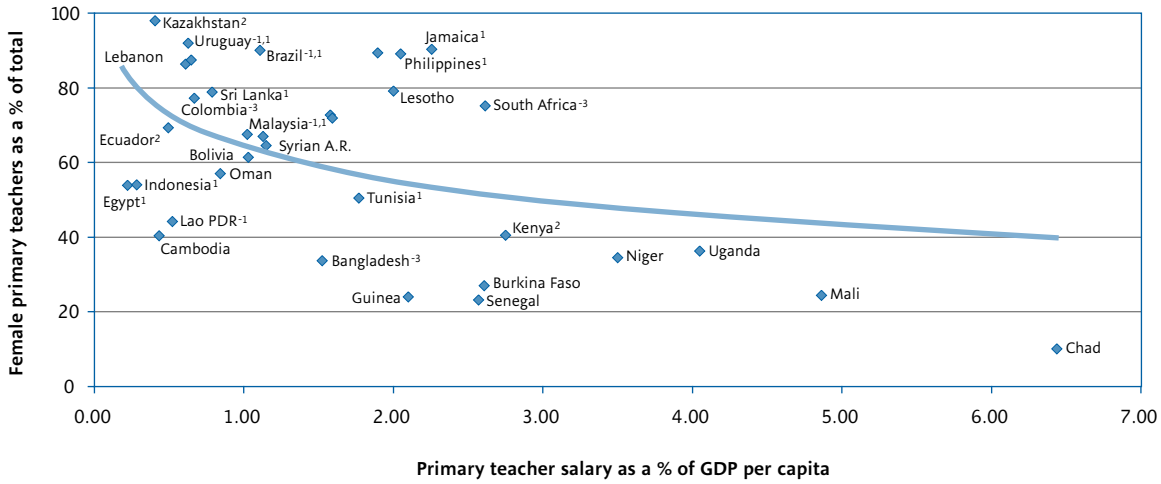
Coverage: 148 countries.
Notes: : +1 Data refer to 2005; -1 Data refer to 2003; -2 Data refer to 2002; -3 Data refer to 2001.
Source: Annex 2, Statistical Table A2.4.

In general, as the prestige of an occupation declines, the proportion of female workers tends to increase, which in turn corresponds to falling wages. **Figure 1.15** compares primary teachers' salaries (as a percentage of GDP per capita) to the proportion of women teachers in 45 countries. As the salary rises, the proportion of female teachers falls.

In the sub-Saharan African countries of Chad, Mali and Uganda, the starting salaries for primary teachers were four times the national GDP per capita. And yet only one in three primary teachers is female. In Botswana, the majority of primary teachers (81%) are women but they receive slightly less than the average GDP per capita. There are exceptions to this pattern, such as South Africa, where salaries are relatively high and a majority of primary teachers are women. Egypt and Indonesia have roughly the same proportion of female and male teachers, although the starting salary is quite low.

FIGURE 1.15

Primary teachers' starting salaries[3] as a percentage of GDP per capita and the proportion of female primary teachers, 2003



Notes: Salaries are represented as a ratio to average GDP per capita and correspond to those paid to teachers with the lowest admissible qualifications at the beginning of their careers.
-1 Data refer to 2002; -3 Data refer to 2000.
1) Public institutions only.
2) GDP for 2005.
3) Starting salary with minimum qualifications.

Source: UNESCO Institute for Statistics database, 2006 and Annex 3, Statistical Table A3.9.

SECTION 3. PROJECTING TEACHER NEEDS TO 2015

This section quantifies the future need for primary level teachers across the world in order to achieve universal primary education by 2015. These projections provide a bird's eye view of expected trends and help to identify countries facing major challenges. However, they do not account for the specific conditions or contexts which may help or hinder a country's efforts to achieve education goals.

The UIS model was also used to project the inflow needed to replace teachers who leave the work force or to fill new posts. There have been other attempts to make such projections, usually aimed at estimating the cost of universal primary education. **Box 1.7** outlines these models and the UIS approach, which is described in greater technical detail in Annex 1.

As shown earlier in the chapter, the global primary school-age population is expected to remain relatively stable which implies a similar forecast for teachers. To meet UPE goals, the global stock of primary teachers could actually decline from 26.1 million in 2004 to 25.8 million in 2015.

But the outlook changes dramatically at the regional level. **Table 1.5** shows that some regions will face teacher deficits, and others, surpluses.

The following regions will not need to raise the stock of teachers because of falling demand from a smaller school-age population: East Asia and the Pacific, Central and Eastern Europe/Central Asia, Latin America and the Caribbean, and North America and Western Europe. Moreover, these regions already have relatively low pupil-teacher ratios, which can provide additional capacity to improve education quality. East Asia and the Pacific can expect the most dramatic drop in teacher stock, from the current 9.4 to 7.4 million in 2015.

In contrast, several regions will need to expand their teacher stocks and to improve the efficiency of their education systems in order to accommodate the growing demand for primary education. According to the UIS model, the Arab States will require an additional 450,000 teachers, an increase of 26% from current levels. Another 325,000 teachers will be needed in South and West Asia, representing an increase of 7%. In terms of absolute numbers, the greatest challenge lies in sub-Saharan Africa, where the stock must increase from 2.4 to 4.0 million teachers, an increase of 68% between 2004 and 2015.

Across all regions there are 76 countries that need to enlarge their teaching forces. These countries are mostly found in sub-Saharan Africa, Arab States and South and West Asia. Together, they will need an additional 2.7 million teachers, with 1.6 million for sub-Saharan Africa alone.

Some of these 76 countries are actually found in regions where teacher stocks are expected to decline. These countries will still need to either hire new recruits or deploy teachers differently. This is the case for Brunei Darussalam, Cambodia and Lao PDR in East Asia and the Pacific; Bahamas, Guatemala and Paraguay in Latin America and the Caribbean; and Ireland, Luxembourg, Spain and the United States in North America and Western Europe.

There are 102 countries which will not need to expand teacher stocks. Some of these countries are found in the three regions which foresee teacher deficits. They include India, Iran and Sri Lanka in South and West Asia; Botswana, Gabon, Lesotho and Mauritius in sub-Saharan Africa; and Algeria, Lebanon, Syrian AR and Tunisia in the Arab States.

TABLE 1.5
Current teacher stock and teacher stock required to reach UPE by 2015

Region	Current teacher stocks - 2004 (in 000s)	Current PTR (2004)	Projected teacher stocks required to meet goal by 2015 (in 000s)	Difference in teacher stocks to meet goal by 2015 (in 000s)	No. of countries	Countries with need to expand (in 000s)	No. of countries	Countries with decrease in teacher stock (in 000s)	No. of countries
Arab States	1,752.3	20.9	2,202.2	449.9	20	479.0	15	-29.2	5
Central and Eastern Europe and Central Asia	1,566.9	18.7	1,369.1	-197.7	29	33.6	2	-231.4	27
East Asia and the Pacific	9,413.7	21.9	7,359.1	-2,054.6	23	32.2	7	-2,086.8	16
Latin America and the Caribbean	2,898.9	24.3	2,538.0	-360.9	30	21.1	4	-382.0	26
North America and Western Europe	3,605.0	14.5	3,506.3	-98.7	23	89.0	5	-187.7	18
South and West Asia	4,421.7	40.1	4,747.1	325.4	9	413.7	6	-88.3	3
Sub-Saharan Africa	2,395.5	41.5	4,028.9	1,633.4	44	1,643.9	37	-10.6	7
WORLD	**26,054.0**	**25.8**	**25,750.7**	**-303.3**	**178**	**2,712.6**	**76**	**-3,015.9**	**102**

Source: UNESCO Institute for Statistics estimates, Annex 2, Statistical Table A2.6.

Box 1.7 Projecting future teacher needs: A comparison

Since the 1990 World Conference on Education for All in Jomtien, Thailand, many simulation models have projected the number of school places and the teacher stock needed to reach universal primary education (UPE) or similar goals. In particular, Colclough and Lewin (1993), Mehrotra and Buckland (1998), Bruns, Mingat and Rakotomalala (2003), UNESCO BREDA (2005) and Brossard and Gacougnolle (2001) have designed simulation models to measure the costs of reaching UPE *(see **Table 1.6**)*.

The first step in projecting future teacher needs lies in estimating the number of school places required to enrol all children of primary school age in 2015. The UIS model, which is more fully described in Annex 1, defined the target value using a primary net enrolment ratio (NER) of 100% plus a minimum value between half of the current percentage of repeaters in primary education and 10%. This was based upon the assumption that an increase in system efficiency is a necessary condition for countries to reach UPE. The calculation concerning repeaters was also used by Bruns, Mingat and Rakotomalala (2003) and UNESCO BREDA (2005). Both of these models use 100% universal primary completion, which is, in practice, the same as the UIS approach, because they both assume universal coverage of the primary school-age population. The UIS projection of pupil numbers is based on expected changes in the size of the population cohort and in the coverage of primary education.

Second, the UIS model also factors in concerns for quality education, notably by setting a benchmark pupil-teacher ratio (PTR) of 40:1. The UIS model uses the minimum value between the current PTR and the benchmark of 40:1. Thus, if a country has a pupil-teacher ratio higher than 40:1, it would be expected to reduce the ratio to this level. If the pupil-teacher ratio was already below 40:1, then this figure is retained. All of the models mentioned above relied upon this benchmark, with the exception of Colclough and Lewin (1993) and Brossard and Gacougnolle (2001), whose models employed respectively 85% and 90% of the current PTR. An important aspect of this approach is that it also allows countries to let the ratio rise to 40:1. Most of the countries with PTRs below the benchmark have far less than 40 pupils per teacher. The UIS model is based on the assumption that it is not credible to suggest that these countries further reduce their ratios nor allow them to expand to the level of 40:1 in the interest of education quality.

The UIS model differs from its predecessors in other key aspects as well. Three of the models made assumptions about the share of pupils enrolled in private education because their final goal was to examine public costs to reach UPE. Others excluded private education altogether. The UIS model does not make this distinction because it focuses on total demand for primary teachers, regardless of governance or financing of the schools in which they are employed.

The UIS projections also estimate the number of additional teachers, or inflow, required to compensate for attrition rates in order to assess potential training needs. Therefore, three scenarios are based on different attrition rates: low (5%), medium (6.5%) and high (8%). This chapter presents figures from the medium scenario. The results of all three scenarios, at the national level, are presented in Annex 2, Statistical Table A2.6.

TABLE 1.6

Comparing underlying assumptions of teacher projection models

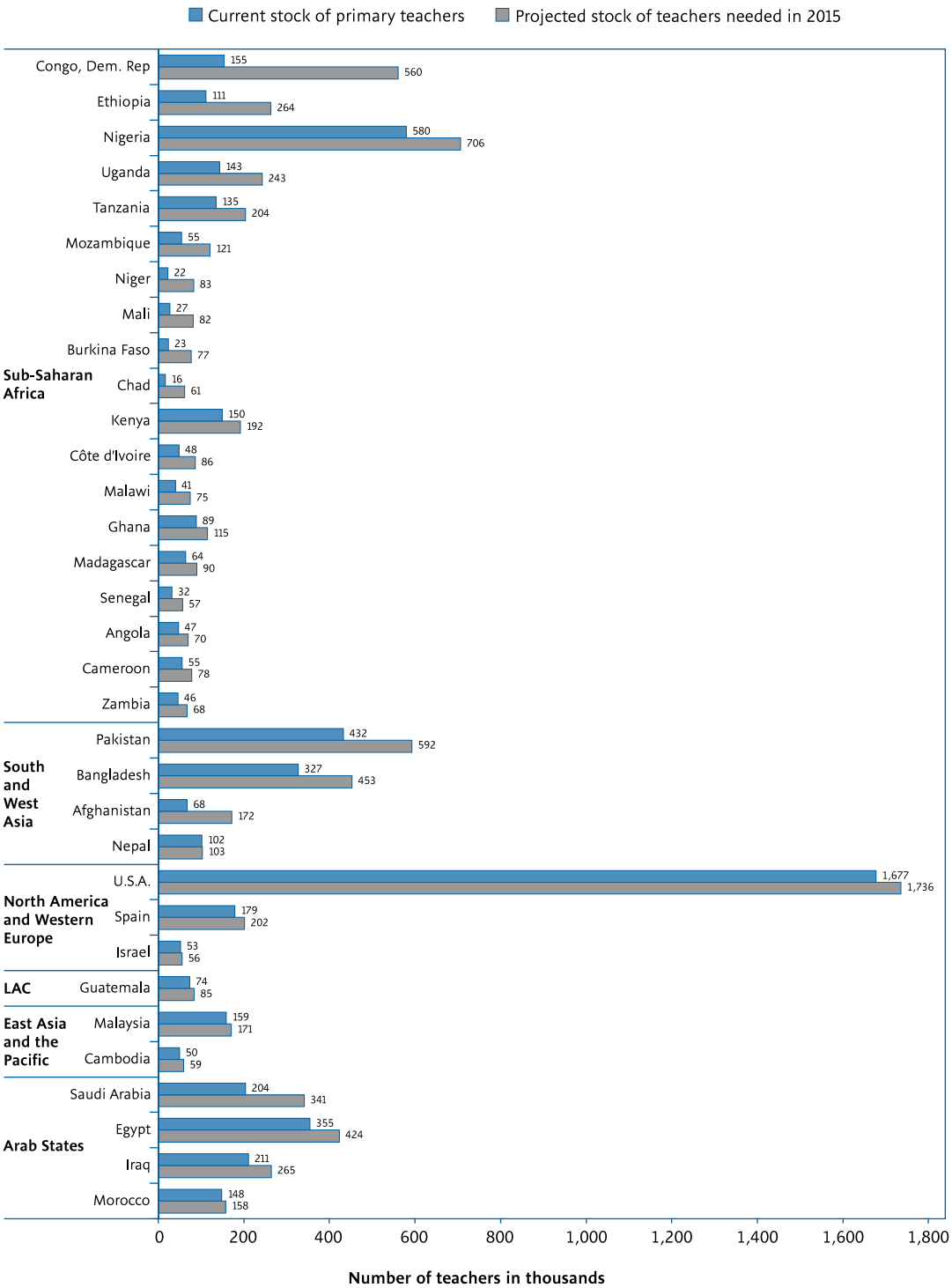
	UNESCO Institute for Statistics, 2006	Colclough and Lewin, 1993	Mehrotra and Buckland, 1998	Brossard and Gacougnolle, 2001	Bruns, Mingat and Rakotomalala, 2003	UNESCO BREDA, 2005
Coverage	Global	97 countries	Global	Global	47 countries	52 countries
Base year	2004	1990	1994	1998	2000	2003
Overall target	NER=100%	GER=100%	NER=100% & GER=100%	NER=100%	Primary completion rate = 100%	Primary completion rate = 100%
Repetition	10% or 0.5 * country specific rate	0.25 * base repetition rate	No assumption made	Implicit assumption based on past trends	Current if <10% otherwise 10%	Current if <10% otherwise 10%
Pupil teacher ratio (PTR)	Current if ≤ 40:1 otherwise 40:1	0.85 * base PTR by year 2000	Current, 40:1 and 30:1	Current, 0.90 * base PTR by year 2015	40:1	Current if <40:1 otherwise 40:1
Private education	Included	Reach 10% by year 2000	Included	Included	10%	Current if =0% or <10% otherwise 10%
Source of population data	UNPD estimates, 2004 revision	World Bank estimates	Does not take into account population growth	UN Population Division, 1998 revision	World Bank estimates	United Nations Population Division, 2002 revision
Attrition	5.0/6.5/8.0	National rate	No assumption made	No assumption made	No assumption made	No assumption made
Deployment	No assumption made	Double-shifting to reach PTR=0.85 * base PTR by year 2000	No assumption made	No assumption made	No assumption made	No assumption made

Figure 1.16 identifies the countries that need to further expand their teaching stocks, which are already quite large. Many will face great difficulties in doing so. For example, Chad will need almost four times as many primary teachers in 2015, from 16,000 to 61,000. Ethiopia will require 264,000 teachers, which is more than double the current stock of 111,000. At the same time, countries like Malaysia and Morocco are close to achieving universal primary education and have large teacher stocks and relatively low pupil-teacher ratios. Consequently, they may be able to redeploy teachers to ensure that every child attends and completes primary education without necessarily creating additional posts.

This section has focused first on projected stocks of teachers – meaning the total numbers of teachers required in different regions and countries. To better evaluate future needs, it is essential to consider flows in and out of the teaching force. There are basically two kinds of inflow: those needed to maintain stocks and those needed to expand stocks to meet rising demand for education.

FIGURE 1.16

Current teacher stock (2004) and expected teacher stock in countries with large teaching forces



Note: Only countries with current or expected teaching forces exceeding 50,000 teachers are presented in the figure. Countries are sorted by the absolute difference between current and projected stock.

Source: UNESCO Institute for Statistics estimates, Annex 2, Statistical Table A2.6.

The inflow of teachers needed to maintain the stock is based on assumptions regarding the rate of outflow or attrition. If the outflow increases (i.e. teachers leaving the profession at a faster rate than entering it), then the inflow will need to increase in order to maintain the same level of stock. Some of the reasons for which teachers leave the work force are presented in **Box 1.8**. For the purposes of the projections presented in this report, three different scenarios were used: a low scenario, with an annual attrition rate of 5%; a medium scenario with a 6.5% rate; and a high scenario of 8%. This range was based on observed rates found across a number of countries, from 5% in Ghana (Lewin, 2004) to 8% in the United States (NCES, 2005) to 12% in Namibia (Kubberud et al., 1999). The medium scenario is used in this chapter. This attrition rate translates into an average career length of about 18 years *(see Annex 3, Statistical Table A3.6 for country results of all three scenarios).*

Figure 1.17 shows the extent to which regions will require the two different inflows of primary teachers. East Asia and the Pacific will need the greatest inflow, almost 4 million, mainly to compensate for attrition rates among existing teachers. However, a large number of existing posts will not be needed any longer. Thus, despite the large inflow projected, the actual stock would fall by 2 million.

Sub-Saharan Africa will need an inflow of 3.8 million teachers – the second largest. This estimate is based on a regional attrition rate of 6.5%. However, the majority of these recruits would fill new posts. Indeed, sub-Saharan Africa will need half of all the new posts projected to attain UPE at the global level.

A considerable share of these new posts will also be required in the Arab States (34%) and South and West Asia (15%). The opposite is true in other regions, where some existing posts may no longer be needed by 2015.

Box 1.8 Teacher turnover and attrition: The case of the United States

In the United States, schools lost about 550,000 teachers (16% of the total teaching force) due to turnover in 1999/2000 (NCES, 2005). About one-half of the teachers transferred to another school and the other half left the profession, mostly for employment in other sectors (ibid).

The 2000/01 Teaching Force Survey asked teachers what factors influenced their decision to leave and assessed their satisfaction with various features of the schools they left. The five most commonly reported sources of dissatisfaction among teachers who transferred to another school were lack of planning time (65%), too heavy a workload (60%), too low a salary (54%), problematic student behavior (53%), and a lack of influence over school policy (52%). Among leavers, the five most commonly reported sources of dissatisfaction were a lack of planning time (60%), too heavy a workload (51%), too many students in the classroom (50%), too low a salary (48%), and problematic student behavior (44%).

Teacher turnover has different implications. From the macro-level, it changes the distribution of teachers which may be a concern if it means qualified teachers are leaving a particular region. At the school level, turnover can amount to attrition with the need to recruit a replacement (unless enrolments are falling).

Source: Based on NCES, 2005.

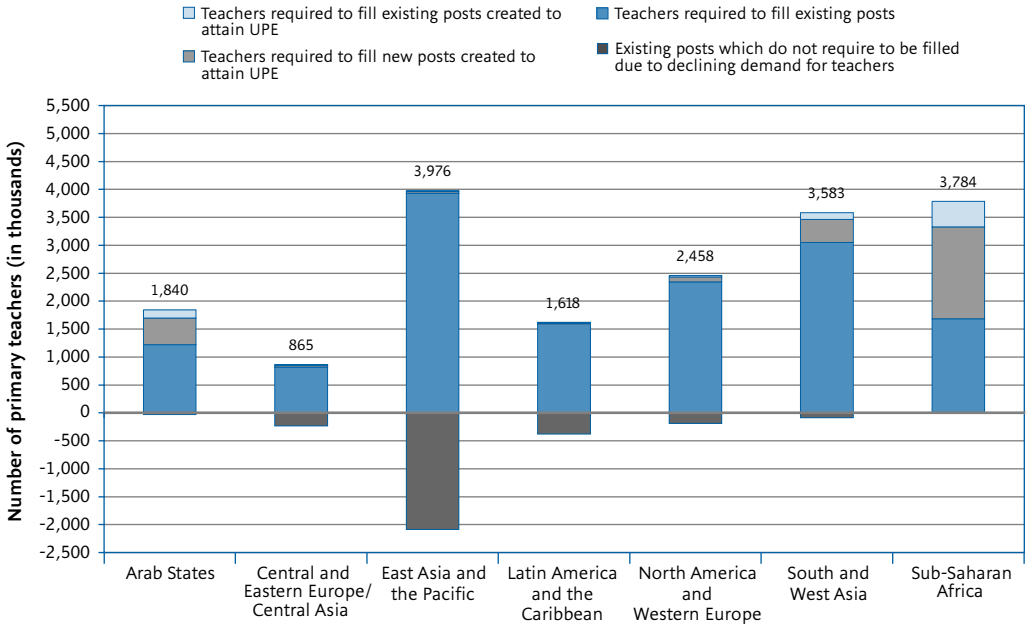
It is difficult to calculate the degree to which HIV/AIDS will affect the attrition rates of teaching forces. **Figure 1.18** illustrates these uncertainties in four sub-Saharan countries with high rates of infection. The bar represents the current primary level teacher stock and the shaded area represents the stock increase needed to reach UPE, which does not take into account attrition rates among existing teachers. Therefore, the shaded areas in the figure reflect two scenarios: the additional numbers of teachers needed to reach UPE based upon a 'medium' attrition rate of 6.5% each year, compared to a higher rate of 10% which may better reflect the impact of HIV/AIDS.

For example, Mozambique will need to recruit an additional 123,800 teachers to achieve UPE in a medium scenario (attrition rate of 6.5%) over the next ten years, which is the equivalent of the current stock. But if attrition reaches 10%, the country will need an inflow of 154,800 teachers to reach UPE by 2015.

Figure 1.19 focuses on countries needing to expand their teaching forces by more than 3% each year to achieve UPE by 2015. This is in addition to existing rates of attrition. The greatest challenges are found in the Central and West African countries of Chad, Congo, Niger, Burkina Faso and Mali. They will need to raise the number of primary teachers by more than 10% every year from 2004 to 2015, which translates into an increase of over 100% during the period. Growth rates are more moderate for countries in other regions, except for Afghanistan, which will need to expand its primary teacher force by almost 9% per year.

FIGURE 1.17

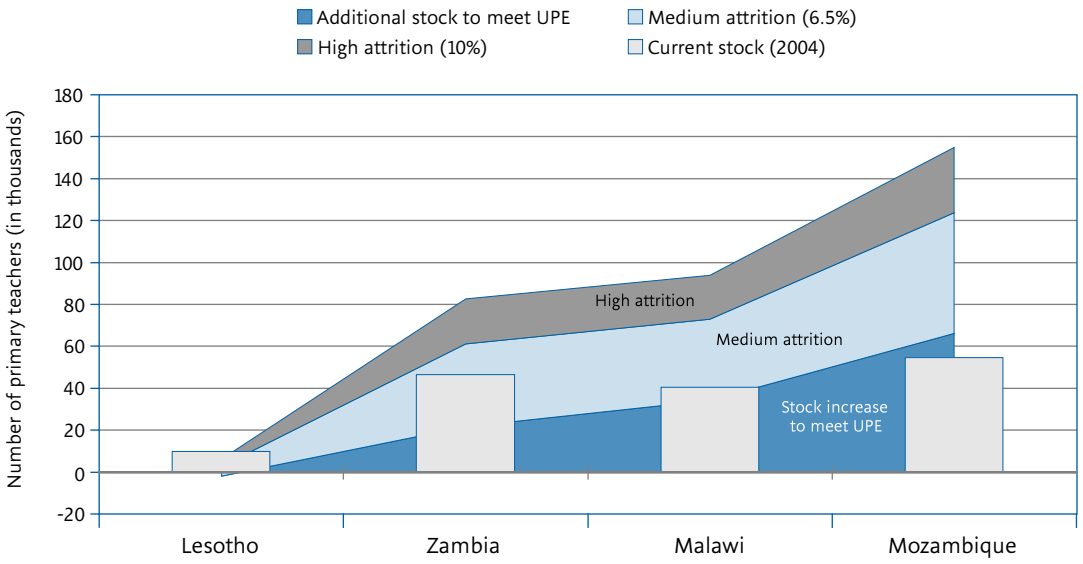
Flows of teachers to maintain stock and to meet UPE goals between 2004 and 2015



Source: UNESCO Institute for Statistics estimates, Annex 2, Statistical Table A2.6.

FIGURE 1.18

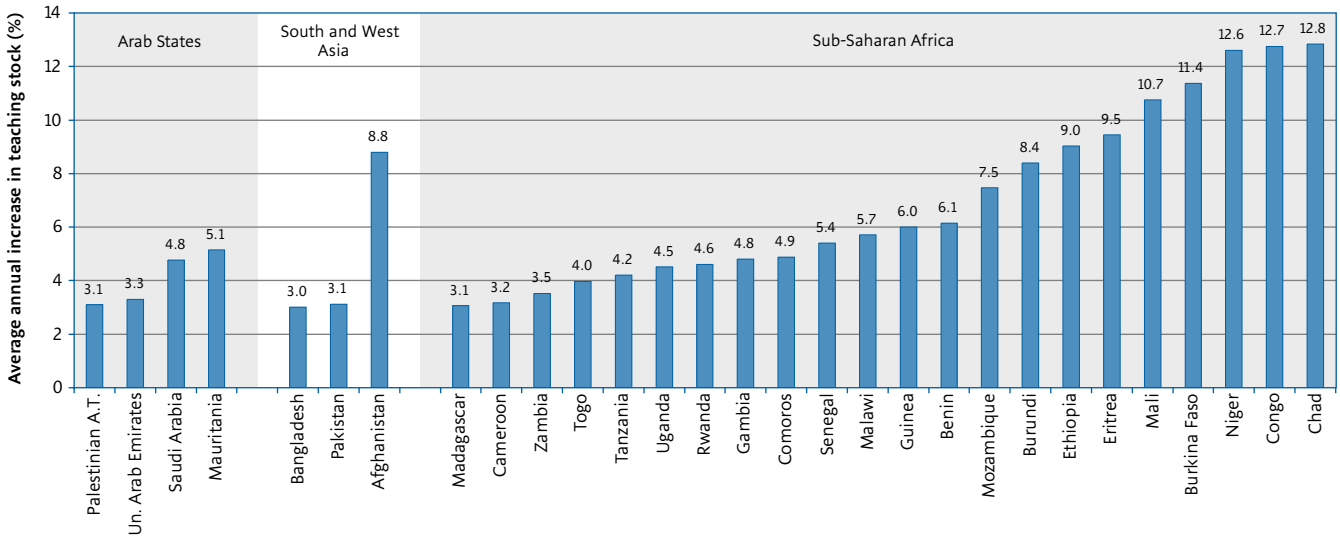
Teacher stocks and required inflows from 2004 to 2015 in four countries with high rates of HIV/AIDS infection



Source: UNESCO Institute for Statistics estimates.

FIGURE 1.19

Annual growth rate required to reach UPE goals between 2004 and 2015 in selected countries



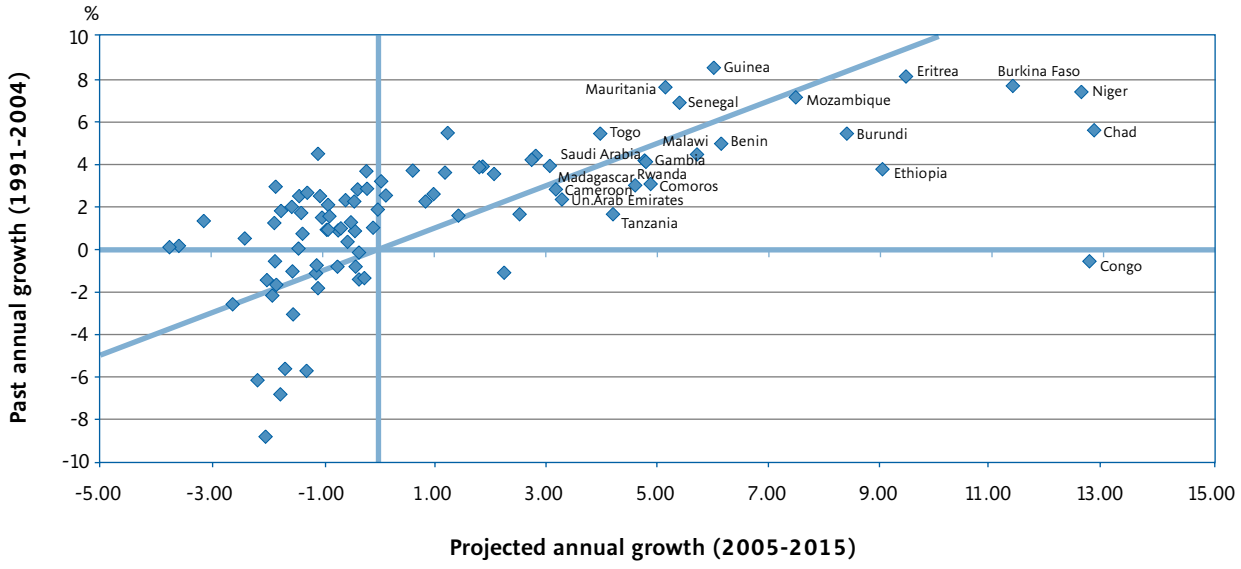
Source: UNESCO Institute for Statistics estimates, Annex 2, Statistical Table A2.6.

Are these projected growth rates feasible in light of past experience? **Figure 1.20** compares growth rates among primary teachers in the 1990s with those needed to attain 2015 targets. In the Congo, for example, the rate of growth of primary teachers has actually declined, on average, over the past decade due to conflict. The other Central and Western African countries facing the greatest difficulties – Burkina Faso, Chad, Ethiopia and Niger – experienced 6% to 8% growth during the previous decade, which is slightly more than one-half to three-quarters of that needed for UPE. Countries like Guinea, Mauritania, Mozambique and Senegal will need to maintain currently high rates, which may not be sustainable. Those that experienced moderate growth in the 1990s – such as Ethiopia, Gambia and Saudi Arabia – will have to double those rates in the future. But there are a number of countries where previous growth rates exceed the projected increase. Thus, in some cases, it may be difficult for countries to continue to sustain high rates of growth of the last decade, such as in Mozambique or Senegal, but in other countries, such as Cambodia or Lao PDR, the projected annual increase to reach UPE is somewhat less than the teacher expansion over the last decade.

The extent to which countries will be able to increase or even sustain these growth rates depends upon a delicate combination of factors. Indeed, it must be stressed that the estimated teacher stocks represent just one component in the process of striving towards any education goal. Sufficient quantities of teachers alone will not lead to UPE. Quality teaching is essential. The UIS projections lay the foundations for wider discussions in the following chapters on the need to ensure that teachers are properly qualified, compensated and motivated to deliver quality education.

FIGURE 1.20

Annual growth rates of primary teachers from 1991 to 2004 and projected growth rates to meet UPE by 2015



Source: UNESCO Institute for Statistics estimates, Annex 2, Statistical Tables A2.4 and A2.6.

2 Teacher training, qualifications and education quality

Introduction

This chapter seeks to assess the current status of the 'quality' of teachers across the world. While the sufficient number of teachers provides the opportunity to reach international goals on education, it is the effectiveness of teachers in the classroom which will deliver the Education for All promise. Quality education produces good learning outcomes – and the initial training and preparation of teachers contribute to this aim. It is also important to assess the distribution of quality from an equity perspective to ensure that well-trained teachers are found across diverse schools and regions.

As previously shown, some countries will face a serious challenge in extending teaching forces to meet the goal of universal primary education (UPE). This chapter examines whether those countries also face a gap in terms of teacher knowledge and skills. It also reviews data from more diverse countries for which the upgrading of teaching forces may be a priority in order to improve education outputs.

Teacher quality encompasses a range of skills, competencies and motivation. As common sense suggests, specific training is required in order to expect quality services from a teacher or any other skilled professional. Data on training levels are one of the few indicators systematically collected about teachers. This highlights the need for better measures of teacher quality that can be used to compare countries.

This chapter is based upon a range of data sources, including the UIS database, the UIS Special Survey on Teachers and several surveys on teachers at various grade levels in different countries. Despite gaps in the data, the indicators reveal the trade-offs involved in national efforts to achieve education goals. In short, many countries face choices in order to expand educational opportunity and improve the quality of educational provision.

Section 1 sets out the currently available international measures of teacher quality related to training, which are also linked to an internationally comparable benchmark of teachers' educational attainment. It examines how regions and countries compare, focusing specifically on those facing the greatest challenges.

The second section looks beyond minimum qualification standards to examine the educational qualifications that teachers actually hold. This opens the discussion in Section 3 concerning direct measures of teachers' knowledge of particular subjects (namely science and mathematics) and academic skills.

Section 4 then examines measures of in-service training or the continuing professional development of teachers based on the results of regional and international assessment studies. After highlighting the limits of existing international data on teacher-related issues, this chapter suggests a way to meet the demand for policy-relevant information through the wider use of existing statutory data and newly developed assessment and survey-based instruments.

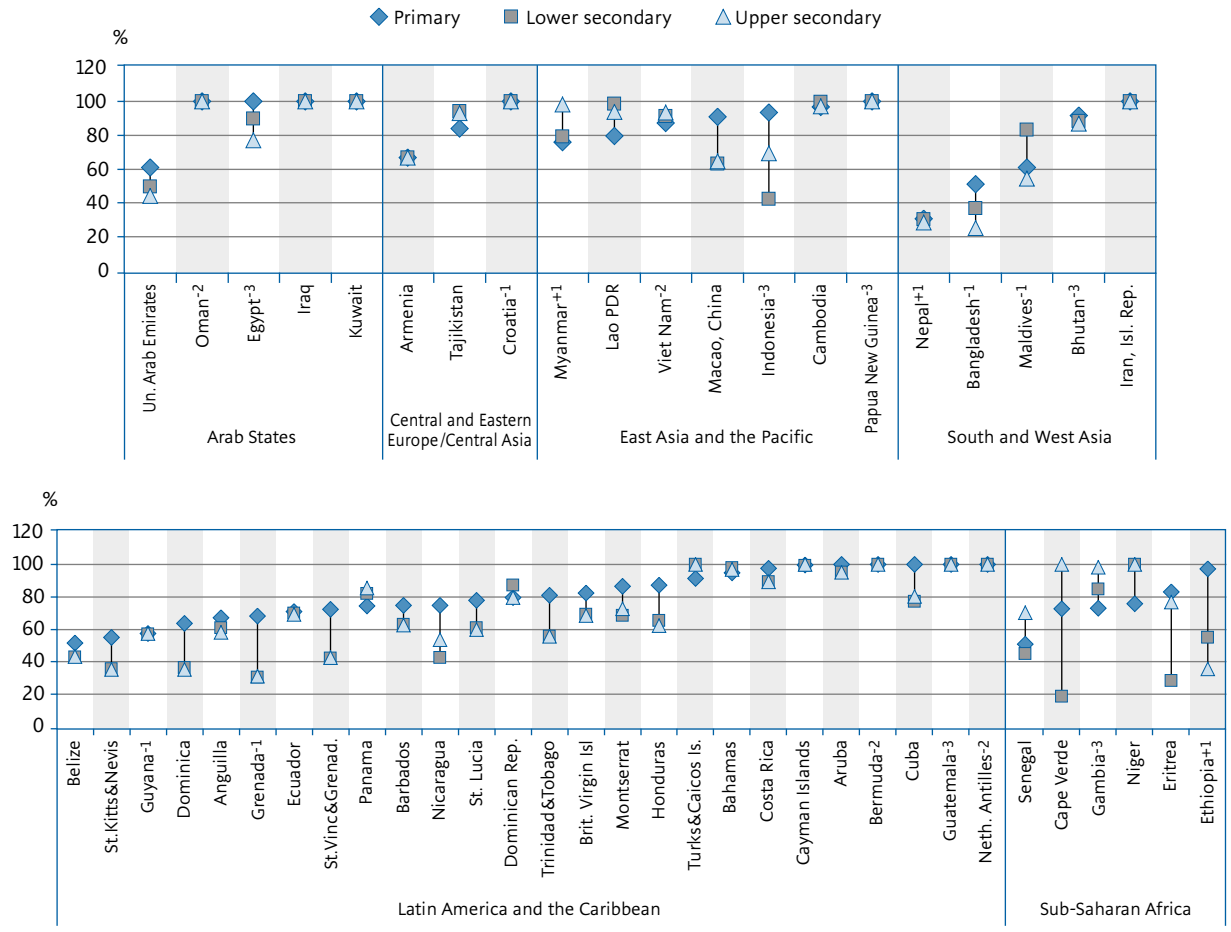
SECTION 1. Teachers and minimum qualification standards

There are two issues that make the development of cross-nationally comparable indicators of teacher quality difficult: availability of data and uncertainty about the measurable characteristics of effective teachers. The types of data on teachers that are most widely collected by Ministries of Education, including teachers' academic credentials and whether or not they are certified to teach, are only weakly linked to student achievement in countries where this relationship has been studied.

The teacher quality indicator most often collected is the proportion of trained teachers, or those who have received the minimum organized teacher-training (pre-service or in-service) required by a given country. **Figure 2.1** provides data on the proportion of 'trained' teachers for countries able to provide the measure at

FIGURE 2.1

Proportion of 'trained' teachers by education level and region, 2004



Notes: +1 Data refer to 2005; -1 Data refer to 2003; -2 Data refer to 2002; -3 Data refer to 2001.
Source: UNESCO Institute for Statistics database, 2006.

primary, lower and upper secondary levels. While useful at the national level, it is limited in terms of cross-national comparisons. The entry standards for teaching vary widely across countries. So this measure points to education systems that fail to meet their own goals or mandates for minimum quality. There are, in fact, a few countries where less than one-half of teachers reach the standard.

It is difficult to use this indicator to measure change over time because countries appearing to have increased their proportion of trained teachers may have simply lowered their standard. Conversely, countries which raise their standard – perhaps to promote the professional profile of teachers – appear as though they have slipped.

Figure 2.2 provides the range of teacher qualification standards from a selection of countries in various regions, as well as the proportion of teachers who meet the minimum standard. It allows one to compare the proportion of teachers that meet a particular standard. For example, in Chad and Namibia 40% of teachers do not meet the national standard. However, the data presented enable readers to distinguish between the high tertiary-level qualification required in Namibia compared to Chad (12 years of basic education). One might expect that countries with lower requirements would have greater proportions of teachers fulfilling them, yet this is not always the case.

Box 2.1 The importance of teacher-preparation programmes

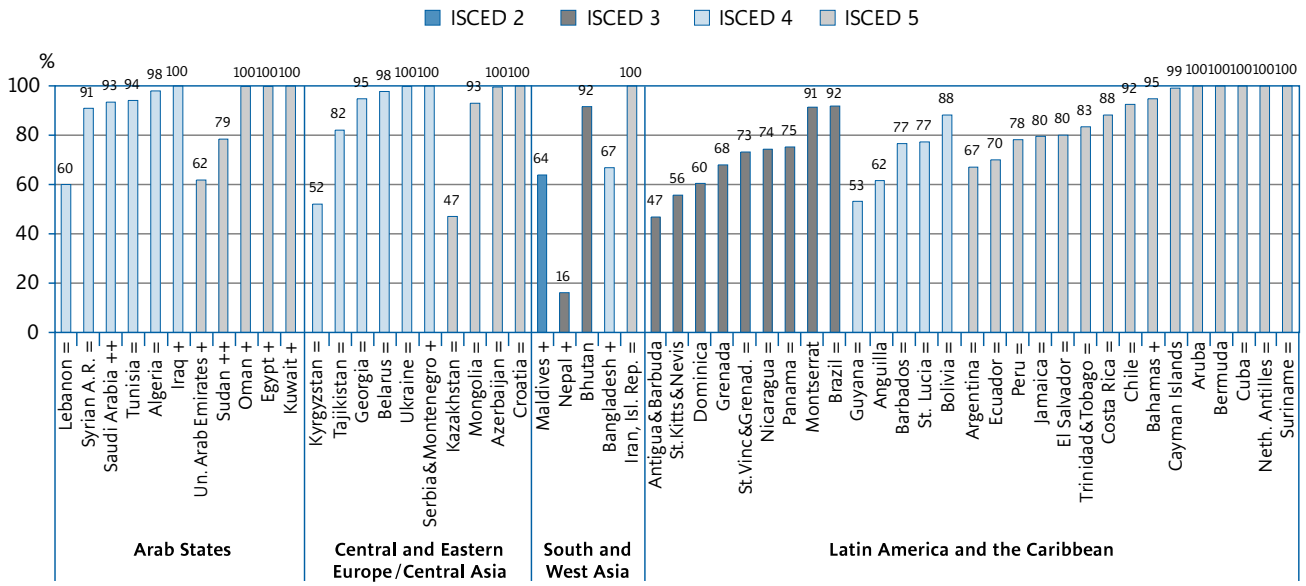
The purpose of a teacher-preparation programme should be to develop students' general education and personal culture; their ability to educate others; an awareness of the principles which underlie good human relations, within and across national boundaries; and a sense of responsibility to contribute, both by teaching and by example, to social, cultural and economic progress.

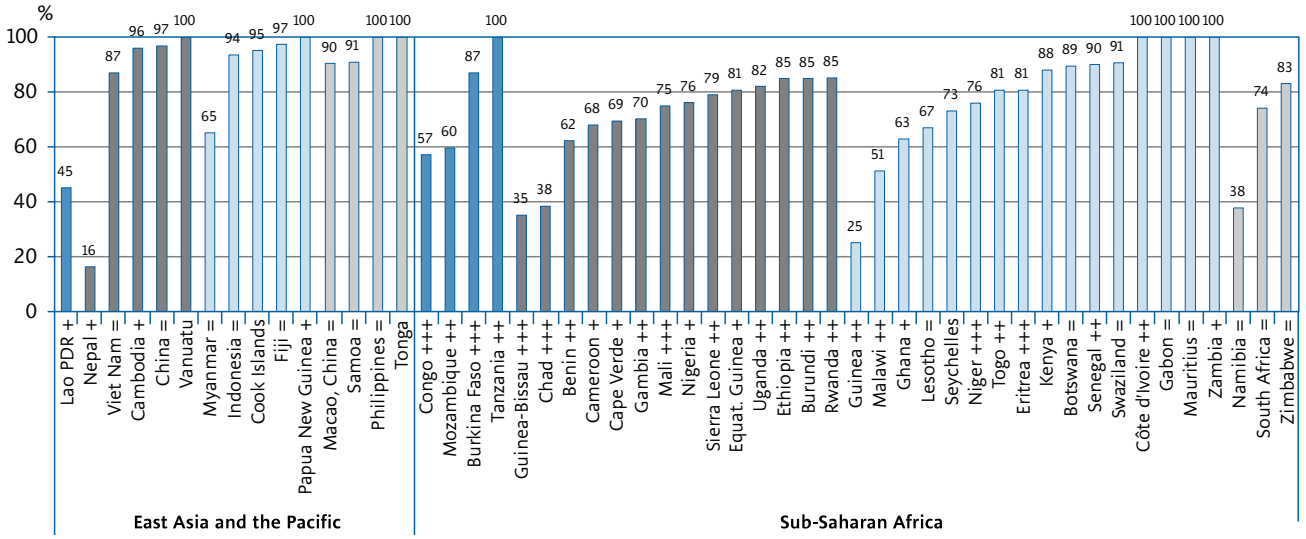
Fundamentally, a teacher-preparation programme should include: general studies; study of the main elements of philosophy, psychology and sociology as applied to education; the theory and history of education, comparative education, experimental pedagogy, school administration and teaching methods of various subjects; studies related to the intended field of teaching; and practice in teaching and conducting extra-curricular activities under the guidance of a fully qualified teacher.

Source: UNESCO/ILO Recommendation concerning the Status of Teachers (1966).

FIGURE 2.2

Minimum standards for teaching at the primary level and proportions of teachers meeting these standards





Needed increase in teacher stocks to reach UPE

Very high need +++	> 150%
High need ++	50.1 – 150%
Low need +	0.1 – 50%
No need =	0%

Note: Countries which require additional stocks to meet universal primary education goals by 2015, as identified in Chapter 1, are highlighted within regions. Reference year for data ranges from 2000 to 2004.

Source: UNESCO Institute for Statistics database, 2006.

Primary education

Based on data for 106 countries in 2002, Figure 2.2 presents the minimum educational level (ISCED level - *see* ***Box 2.2***) required to teach at the primary level and the proportion of teachers who meet or exceed the standard.

In a number of countries, the minimum standard for primary teaching is an upper secondary qualification, typically a specialised programme for training teachers (i.e. ISCED 3C) which is not designed to lead to university studies. For a minority of countries, the standard qualification is equivalent to a lower secondary education (i.e. ISCED 2), which is approximately nine years of basic education. These include Lao PDR in East Asia and the Pacific, the Maldives in South and West Asia and a number of countries in sub-Saharan Africa.

Teacher qualification standards at the primary level are generally lower in sub-Saharan Africa than in other regions. Few

Box 2.2 Comparing teaching qualifications across countries

The minimum training required to become a teacher in different countries is reported in this chapter according to the International Standard Classification of Education (ISCED). The use of ISCED allows for cross-national comparison of education systems across a number of dimensions, including programme duration, entry requirements and theoretical vs. practical/technical orientation. ISCED was not specifically designed to compare the educational qualifications of teachers. Yet by grouping national qualifications along these lines, it affords greater comparability than relying on nationally-specific measures of trained teachers or the cumulative duration of schooling required to become a teacher.

Lower secondary (ISCED 2): Typically about nine years of schooling.

Upper secondary (ISCED 3): Typically between 12 and 13 years of schooling, requiring completion of lower secondary education for entry. ISCED 3A and 3B programmes are designed to prepare students for entry into tertiary programmes at the ISCED 5A and 5B levels, respectively (see below). ISCED 3C programmes generally do not lead to a qualification that would allow entry into tertiary programmes.

Source: Based on UNESCO (1999).

Post-secondary, non-tertiary (ISCED 4): These programmes straddle the boundary between upper secondary and post-secondary education from the perspective of international comparisons, even though they are often considered as upper secondary or post-secondary programmes in a national context. They are often not significantly more advanced than ISCED 3 programmes, but they serve to broaden the knowledge of participants who have already completed such a programme. The students are typically older than those in ISCED 3 programmes. ISCED 4 programmes typically have a full-time equivalent duration of six months to two years.

Tertiary (ISCED 5A): These programmes are largely theoretically-based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes (e.g. to earn a Ph.D.) and professions with high skills requirements (e.g. medicine, law, architecture and engineering). The minimum duration is three years after completion of an ISCED 3 programme.

Tertiary (ISCED 5B): These programmes are generally more practical/technical/occupationally-specific than ISCED 5A programmes. Minimum duration is two years after completion of an ISCED 3 programme.

countries require that teachers earn tertiary-level degrees/diplomas, except in Namibia, South Africa and Zimbabwe. In fact, most countries set a minimum requirement of a post-secondary non-tertiary diploma/certificate (ISCED 4) or at least an upper secondary level programme.

Among the sub-Saharan African countries that require an ISCED 4 qualification, Côte d'Ivoire, Gabon, Mauritius and Zambia report that all of their primary teachers meet this standard; only one-quarter of teachers in Guinea have done so. Upper secondary-level qualifications are also very common, especially in Central and Western Africa. To enter into these programmes, trainees must usually have a lower secondary education. But the actual proportion of qualified teachers varies considerably, from 40% in Chad and Guinea-Bissau to 85% in Rwanda.

Finally, minimum standards for primary teachers in Burkina Faso, Congo, Mozambique, Senegal and Tanzania are equivalent to lower secondary education (ISECD 2). A relatively high proportion of teachers meet this low qualification, such as the case of Burkina Faso (87%) and Tanzania (100%) in 2004. In contrast, only about 57% and 60% of primary teachers in Congo and Mozambique completed the minimum training.

The previous chapter discussed the important role that female primary

Box 2.3 Para-teachers and education quality

While there has been some progress towards meeting the Education for All and the Millennium Development Goal of universal primary education, rising enrolment comes at a cost: increasing educational expenditures, decreasing teachers' salaries, and in most cases, growing pupil-teacher ratios. Research over the past decade suggests that many developing countries have tried to control teacher costs by bringing in large numbers of unqualified or less-qualified teachers or by supplementing school capacity with teacher aides and community volunteers. This has had the effect of lowering the average qualification and experience level of the teaching force (Mehrotra and Buckland, 1998). These kinds of strategies tend to conflict with EFA Goal 6 of improving educational quality. While teacher quality is notoriously difficult to monitor and measure, it is clear that reducing training requirements for new teachers does not signal the kinds of investments that are likely to result in improved educational quality.

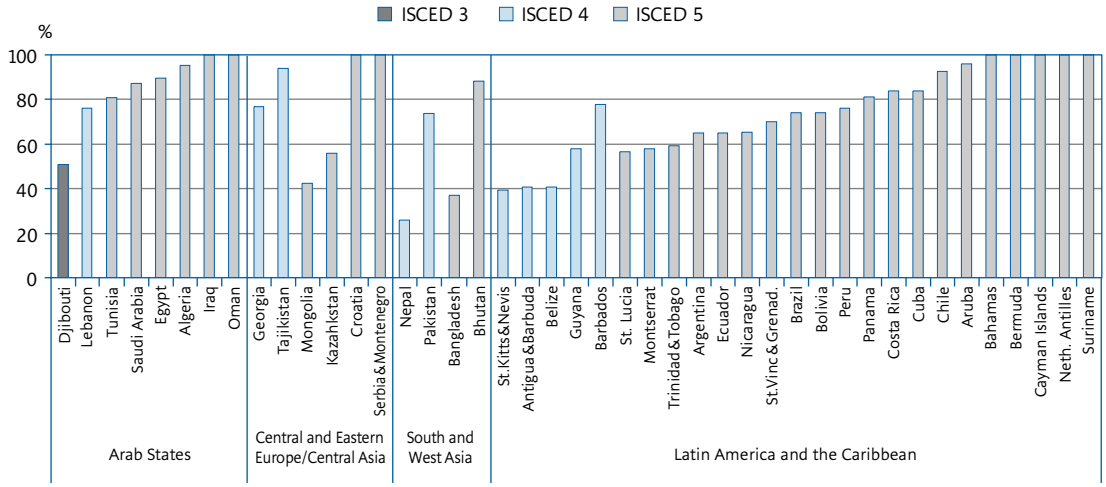
While there are few systematic, cross-nationally comparable data, a number of country-level studies suggest that the impact of hiring para-teachers on student achievement is not clear cut *(see Chapter 3)*. In some studies, there appeared to be a negative impact, while in others, it was positive or neutral. More rigorous evaluation of policies is needed. As Chapter 1 shows, some developing countries will need to hire an enormous number of teachers in order to achieve UPE. Alternative training programmes that quickly provide teaching candidates with content knowledge and a basic pedagogical understanding may be the only feasible solution. Understanding the strengths of these programmes, as well as their impact on the current stock of teachers, will be critical to maintain quality as governments attempt to expand the number of places in primary and secondary schooling.

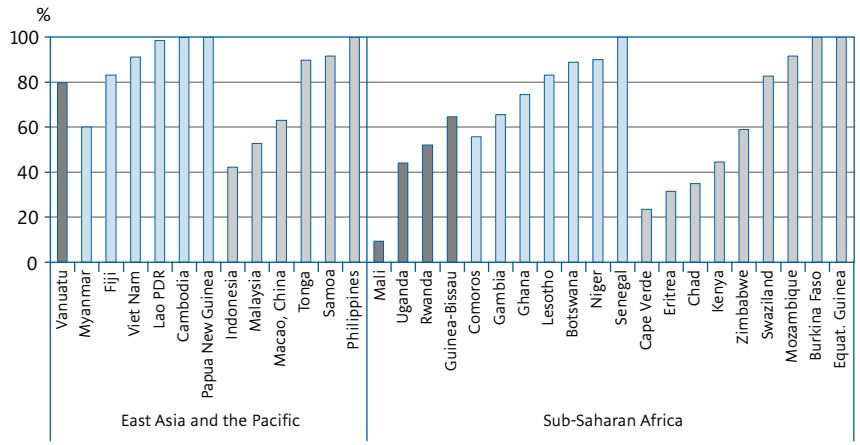
teachers can play in the classroom in developing countries, particularly in terms of girls' participation and overall achievement. However, in many countries female teachers tend to have lower or insufficient qualifications. This can lead to lower earnings according to statutory salary scales and fewer opportunities for promotions to positions of authority and decision-making in the school system.

Gender disparities in terms of access to primary teacher training are found in a number of sub-Saharan African countries providing data. In the Congo, 71% of female teachers meet minimum training standards to be a teacher versus 46% of male teachers; similarly 83% of female teachers in Ghana are fully qualified versus 53% of males. However in Eritrea and Equatorial Guinea, 87% and 89% of male primary teachers have

FIGURE 2.3

Minimum standards for teaching at the lower secondary level and proportion of teachers meeting those standards





Note: Reference year for data ranges from 2000 to 2004.
Source: UNESCO Institute for Statistics database, 2006.

been fully trained versus 68% and 62% of female primary teachers respectively. Access to training is not differentiated by gender in Côte d'Ivoire, Gabon, Mauritius, Tanzania and Zambia. In Namibia, just 38% of primary teachers have been trained but in equal proportions in terms of gender.

Lower secondary education

Data on the teachers in a country meeting the minimum standard are available for 76 countries at the lower secondary level. **Figure 2.3** indicates that the standards tend to be higher than at the primary level. Nevertheless, regional differences are apparent. The vast majority of teacher-training programmes are either post-secondary non-tertiary diplomas/certificates (i.e. ISCED 4) or tertiary level degrees and diplomas (i.e. ISCED 5A and 5B). However, some countries only require upper secondary level teacher training, such as Djibouti in the Arab States; Guinea-Bissau, Mali, Rwanda and Uganda in sub-Saharan Africa; and Vanuatu in the Pacific region.

Most countries reporting data had more than one-half of their teachers meeting the respective minimum standard for teaching, but there were exceptions. In Cape Verde just 23% of lower secondary teachers met the required ISCED 5 qualification, followed by Eritrea (31%) and Bangladesh (37%). Meanwhile, among countries with a minimum standard of ISCED 4, only 39% of lower secondary teachers in Saint Kitts and Nevis met the requirement and 26% in Nepal. Finally, for those countries requiring an upper secondary level qualification (ISCED 3), 44% and 9% of teachers have met this minimum standard in Uganda and Mali.

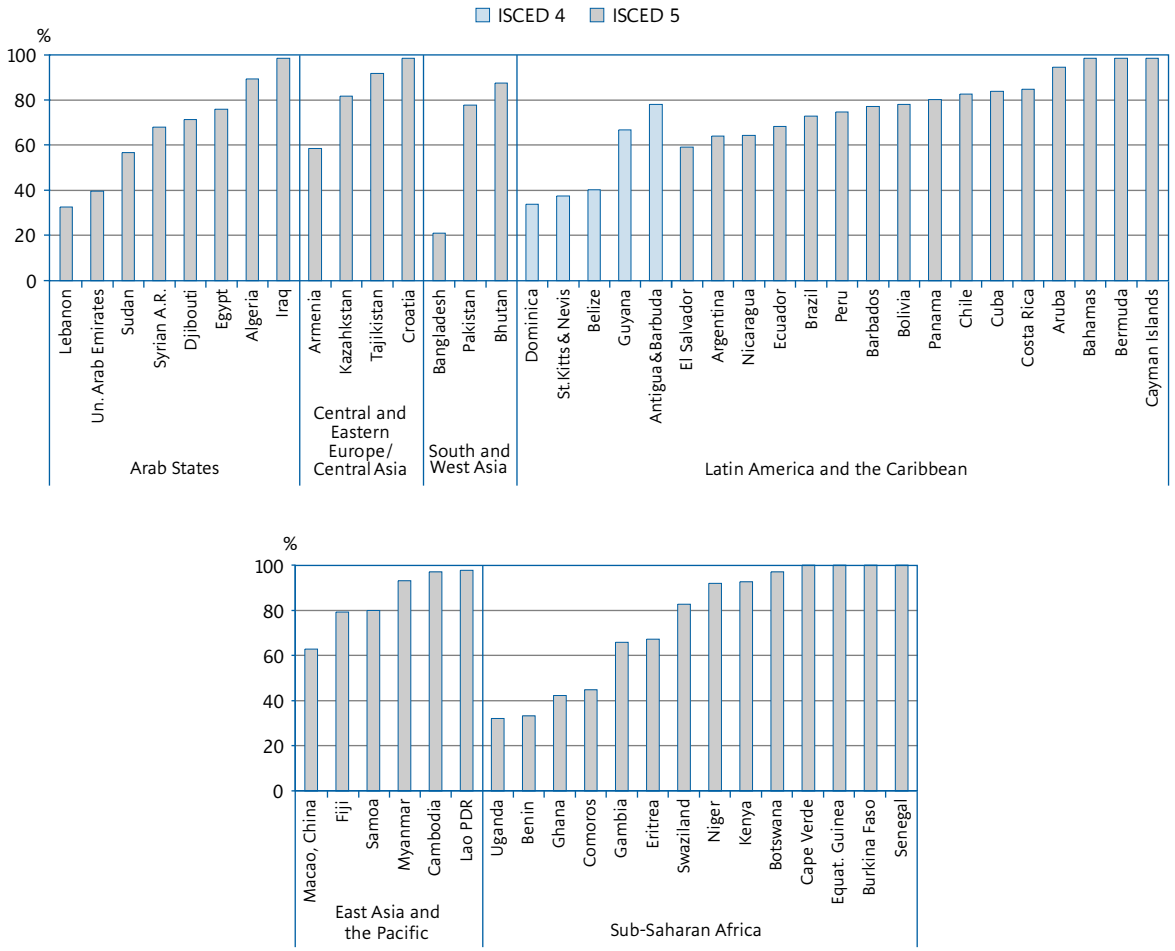
Upper secondary education

Most of the 54 countries providing data require a tertiary level qualification to teach at the upper secondary level *(see **Figure 2.4**)*. In Latin America and the Caribbean, a post-secondary non-tertiary qualification is also required in Antigua and Barbuda, Belize, Dominica, Guyana and Saint Kitts and Nevis.

Most of the countries providing data had more than one-half of all upper secondary teachers meeting the minimum qualifications. However, there are exceptions, including Comoros (45%), Ghana (42%), Belize (41%), Benin (33%), Lebanon (33%), Uganda (32%) and Bangladesh (21%). In some sub-Saharan countries, all upper secondary teachers have reportedly met the minimum qualification standard. However, it is important to note that these countries also demonstrate very low enrolment rates at this level, e.g. only 9% in 2002 in Burkina Faso, where 100% of teachers meet the standard.

FIGURE 2.4

Minimum standards for teaching at the upper secondary level and proportion of teachers meeting those standards



Note: Reference year for data ranges from 2000 to 2004.
Source: UNESCO Institute for Statistics database, 2006.

SECTION 2. Beyond minimum qualifications: Teachers' education levels

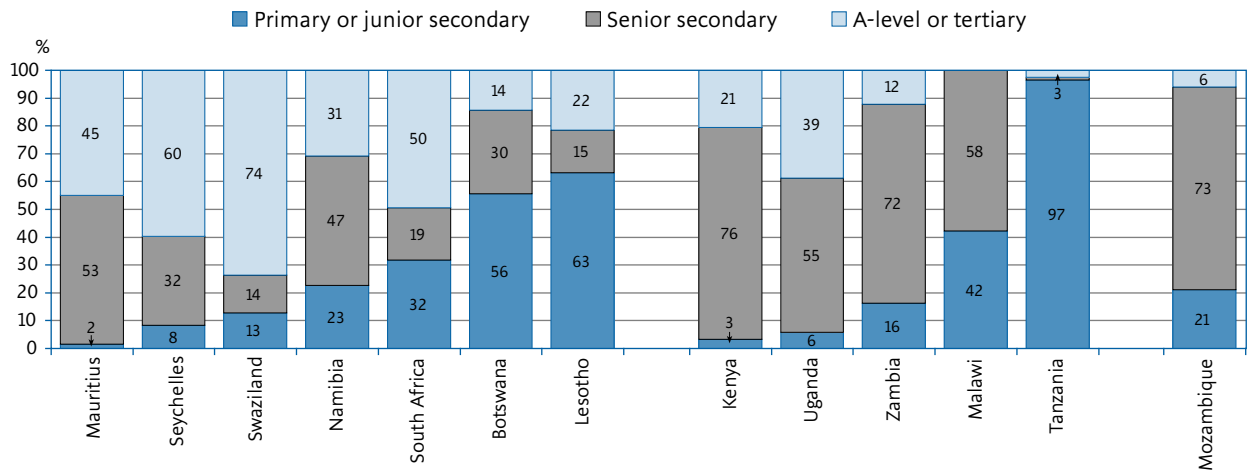
While the proportion of teachers who meet the minimum qualification standards highlight gaps in teaching quality between countries, they do not necessarily reflect the education levels held by teachers. This section draws a link through two different sources. One set of comparisons is based on a sample survey of the reading and mathematics teachers of 6th grade students who participated in the 2000-2002 assessment of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ)[1]. Data for the second set of comparisons were collected from middle-income countries participating in the World Education Indicators (WEI) Programme, coordinated by the UIS and OECD.

Southern and Eastern Africa

The education and training levels of 6th grade teachers vary considerably across the 13 countries that participated in the SACMEQ study between 2000 and 2002 *(see **Figure 2.5**)*. From 40% to 97% of 6th grade students in Botswana, Malawi and Tanzania are taught reading by teachers holding a lower secondary (ISCED 2) qualification or less. Teacher qualifications are low in Lesotho, where more than one-half of 6th grade students are taught reading by teachers with only a primary level education – not much more than the students they teach. At the other end of the spectrum, Mauritius, Seychelles, South Africa and Swaziland have at least 45% of their teachers with A-level (ISCED 3A) or tertiary level qualifications. While relatively few of the 6th grade pupils have reading teachers with

FIGURE 2.5

Percentage of 6th grade students with reading teachers having completed various education levels, 2000-2002



Note: In this figure, as in others based on SACMEQ data, countries are grouped according to need for expansion of primary teacher stock by 2015. The highest expected need for teachers is found in Mozambique.
Source: Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ), 2000-2002.

[1] SACMEQ, a consortium of Ministries of Education located in the sub-region of Southern Africa, has been working in partnership with the UNESCO's International Institute for Educational Planning (IIEP) to undertake educational policy research in order to generate reliable information that can be used by decision-makers.

only a lower secondary qualification or less in Mauritius, Seychelles and Swaziland (1.6%, 8.3% and 12.8% respectively), over 30% of teachers in South Africa have only this level of education.

In order to increase substantially the number of teachers with at least a lower secondary qualification in Lesotho and Tanzania, for example, more students need to complete that level of education. In 2003, less than 20% of children in Tanzania even began lower secondary education. This was the case for less than 50% of secondary school-age children in Lesotho (UIS, 2005). In Malawi, less than one-third of all students who start primary school complete it. These factors limit the pool of potential primary teachers with higher level qualifications. Lesotho faces relatively little pressure to expand teaching forces to meet UPE by 2015 and, therefore, could try to raise qualification levels. But it will be far more difficult to balance these two goals in Tanzania, where educational demand will increase.

Variation by location of school

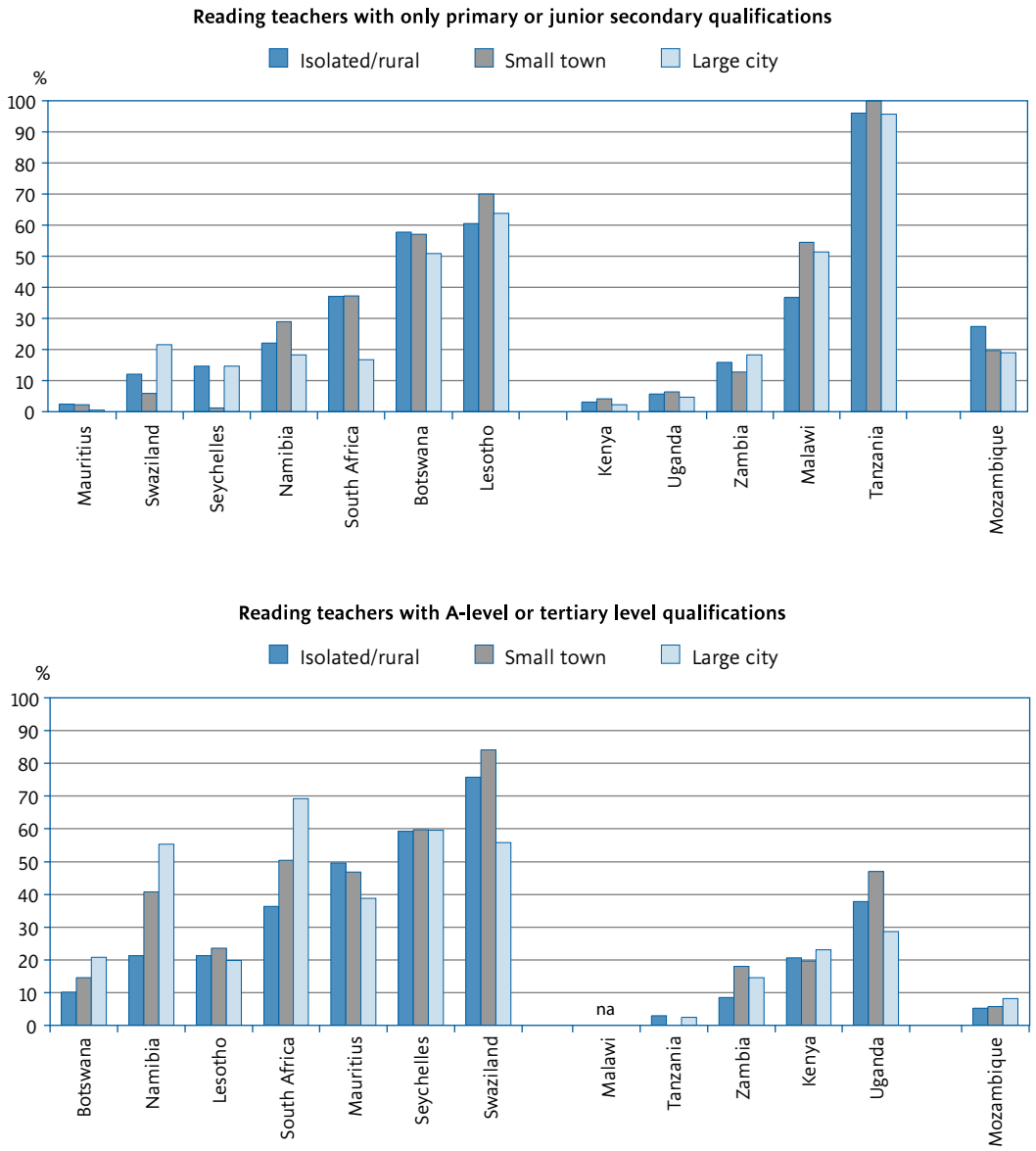
Figure 2.5 shows a wide distribution among 6th grade students in terms of their teachers' educational qualifications in Southern and Eastern Africa. **Figure 2.6** shows this distribution by type of location (rural, small town or large city). According to the data, 6th grade students appear to be just as likely to have a teacher with at least a junior secondary qualification (lower secondary) if they live in a rural community or a large city in nearly all of the countries participating in SACMEQ. However, the opposite is true in some cases. In South Africa, 37% of 6th grade students in rural communities and small towns are likely to be taught reading by teachers with at least a lower secondary qualification compared to 17% in large cities. Access to more highly-trained teachers – in this case reading teachers with at least an A-level qualification – was also equitably distributed among schools in urban and rural locations, with the exceptions of Botswana, Namibia and South Africa. Moreover, the data suggest that 6th graders outside of large cities are more likely to have a teacher with high qualifications in Mauritius, Swaziland and Uganda, which may reflect policies to post newly-qualified teachers to rural areas.

It is important to note that there may be very uneven distributions of qualified teachers within the districts of either a rural or urban zone. For example, in Lesotho two-thirds or more of 6th grade students were taught by teachers with only a primary education in the Mafeteng, Qacha's Nek and Maseru districts. This was the case for less than one-quarter of students in the districts of Quthing and Butha-Buthe (Mothibeli and Maema, 2005).

Teacher experience also varies considerably by school location in SACMEQ countries. Research suggests that students learn more from experienced teachers than they do from those less experienced (NCES, 2000; Rivkin, Hanushek and Kain, 2000; Murnane and Phillips, 1981). But the benefits of experience appear to level off after five years. Studies in the United States suggest that there are no noticeable differences, for example, in the effectiveness of teachers with five versus ten years of experience (Darling-Hammond, 2000). **Figure 2.7** shows that the percentage of 6th grade students whose reading teacher has less than three years of experience, by the location of the school. The gap between rural and urban areas was highest in Malawi, Mozambique and Uganda, which all face pressure to expand the number of primary teachers to reach UPE.

FIGURE 2.6

Percentage of 6th grade students by their teachers' qualifications, 2000-2002



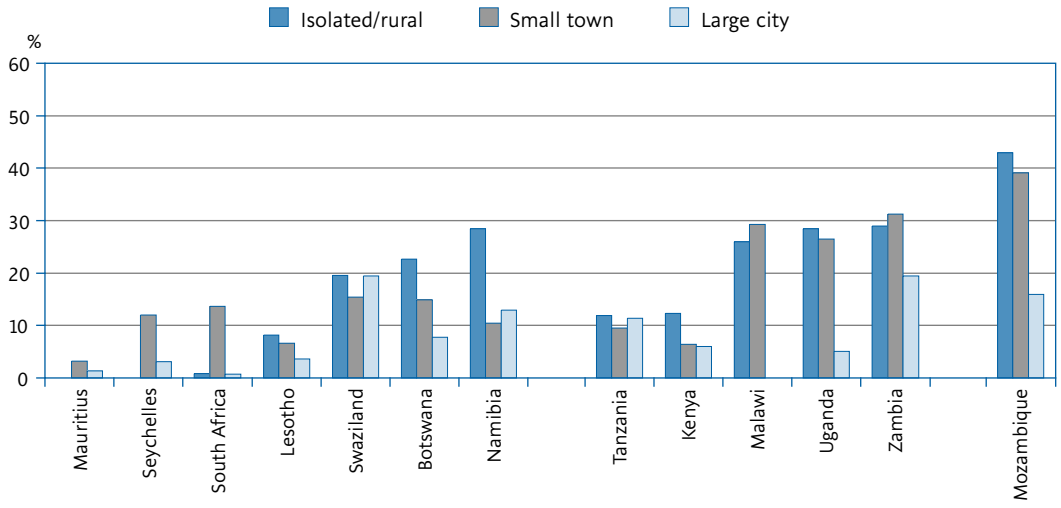
Note: na = not available.
Source: Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ), 2000-2002.

Individual studies conducted in sub-regions or other parts of sub-Saharan Africa, however, suggest larger problems attracting qualified teachers to work in rural areas. For example, Morgan et al. (2005) found critical shortages in science and mathematics teachers in the South African province of KwaZulu-Natal, where more than 300 secondary schools were not even offering these subjects. A recent study in Mali found that 58% of urban teachers have completed the required four-year programme of upper secondary education, but only 31% of rural teachers had done the same (Ouedraogo, 2005). A different pattern emerges in Burkina Faso, where 58% of primary teachers in urban areas hold a primary teacher's college certificate. Yet, as many as four out of ten in this group have also completed a university-level credential. In contrast, 89% of primary teachers in rural regions hold teaching certificates but almost none of them have university credentials (ibid).

Some countries have implemented policies aimed at reducing regional imbalances in teacher quality. For example, Ghana has attempted to attract qualified teachers and head teachers to rural regions using incentive packages, which provided free bicycles to facilitate travel, for example, and free or low-cost housing. At the same time, the government also instituted additional redeployment policies, such as the transfer of excess office staff to rural classrooms and more use of double-shifting. The government also implemented the *National Service Scheme* programme, whereby university graduates had to complete a year of teaching in classrooms before they could be offered employment. This programme was later expanded to new graduates from Polytechnics and other institutions of post-

FIGURE 2.7

Percentage of 6th grade students whose reading teachers have less than three years of experience, 2000-2002



Source: Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ), 2000-2002.

secondary education, and the length of required service was extended to two years. While this innovative programme brought more teachers to classrooms, it did not ensure a minimum level of professional training (Konadu, 1994).

Such teacher allocation policies have proven to minimise variation by socioeconomic status (SES) of pupils. Even though teacher qualifications varied among countries participating in SACMEQ, high and low SES students were equally likely to be assigned to teachers with relatively high or low educational qualifications in most participating countries. For example, students with high and low SES were equally likely to be taught reading by teachers with a lower secondary qualification or less in most countries. Access to more highly-trained teachers was inequitably distributed between high and low SES students in only three countries – Mauritius, Namibia and South Africa – although these gaps were wide. In Mauritius and Namibia, high SES 6th grade students were more than twice as likely to be taught reading by a teacher holding at least an A-level qualification than were low SES students. This was also the case in South Africa but to a lesser extent (SACMEQ, 2002-2004).

Educational qualifications of teachers in middle-income countries

This section uses data from a group of countries participating in the WEI programme to highlight differences in

Box 2.4 Targeting teacher training

While recent literature emphasises the importance of teachers' motivation and pedagogic practices, their educational level remains a relevant and commonly measured indicator of student achievement, especially in developing countries.

In 2001 in Brazil, 6% of 1st to 4th grade teachers had only a primary education or less. This figure fell to 1% in the relatively wealthy southeast region (which includes São Paulo and Rio de Janeiro) but reached 13% in the Amazon Basin to the north. At the state level, no teachers in São Paulo, Espírito Santo and Brasilia's federal district had this low level of education compared to 33% in the state of Acre, near the Peruvian border.

This situation changed radically within a year. In July 2001, the first group of about 1,300 teachers graduated from *Proformação*, a Fundescola-funded two-year training programme which combined in-service training and distance education. It was specifically designed for the poorer regions (north, northeast and central-western).

By 2002, the national proportion of teachers with only a primary education or less dropped to 3%. More specifically, it fell by more than one-half, to 6% in the northern Amazon Basin. But the most spectacular progress was seen at the state level: rates in Acre dropped from 33% to 4%. The north-eastern state of Maranhão reported the highest share of 11%, which still marked a considerable improvement from 18% recorded the previous year.

Yet, in some cases, these improvements occurred with slight drops in the total number of teachers, which affected pupil-teacher ratios. This highlights the complexities in the policy trade-off between teacher quantity and quality.

Source: Based on INEP (2002) and Ministry of Education Brazil, accessed at http://portal.mec.gov.br/seed/.

teacher qualifications among middle-income countries throughout the world. One pattern emerges across the countries: teacher qualifications continue to rise over time. All countries increased the number of teachers with tertiary qualifications between 1995 and 2003, although Brazil, Egypt and Indonesia must make considerable progress before all teachers hold this degree (UIS-UNESCO/OECD, 2005). **Box 2.4** describes a programme in Brazil which aims to raise qualifications by bringing teacher training to disadvantaged communities.

Figure 2.8 shows the proportion of teachers holding different qualifications by level of educational instruction. In Indonesia, for instance, more than 90% of pre-primary teachers hold an upper secondary qualification, while at the primary level approximately 50% of teachers have completed tertiary level training. The majority of pre-primary teachers in Brazil and Malaysia also have either a 'standard' upper secondary education or have completed a pre-university preparation programme. While the former type of programme offers certain educational benefits to future teachers (such as access to university-level programmes), the latter tends to focus more on pedagogical skills and includes a 'practice teaching' component.

The majority of pre-primary and primary teachers in Chile, Jamaica and Thailand held tertiary level qualifications in 2002. In contrast, the majority of teachers at these levels held upper secondary qualifications in Brazil, China and Malaysia.

While almost all primary teachers in Thailand have at least a tertiary qualification (i.e. 5A or 5B), only 27% in Brazil and China have earned similar levels of education. In Malaysia only 4% of primary teachers have achieved tertiary level education, but most of them have completed a vocational programme at the secondary level. In Tunisia, 77% of primary teachers have completed a post-secondary non-tertiary programme (ISCED 4), but none have a tertiary level education. In contrast, the vast majority of primary teachers (92%) in Zimbabwe held tertiary level qualifications.

Lower and upper secondary levels of education are characterised by rising educational qualifications among teachers. For instance, all lower and upper secondary teachers in Indonesia and Thailand have completed a tertiary level diploma or degree, while three-quarters of secondary teachers in Malaysia have achieved the same. Tunisia, on the other hand, recruits many upper secondary and post-secondary (non-tertiary) teachers with qualifications similar to those of their students. This situation raises questions about whether teachers can meet their students' learning needs.

FIGURE 2.8

Percentage of teachers holding different qualifications by educational level in ten countries, 2003

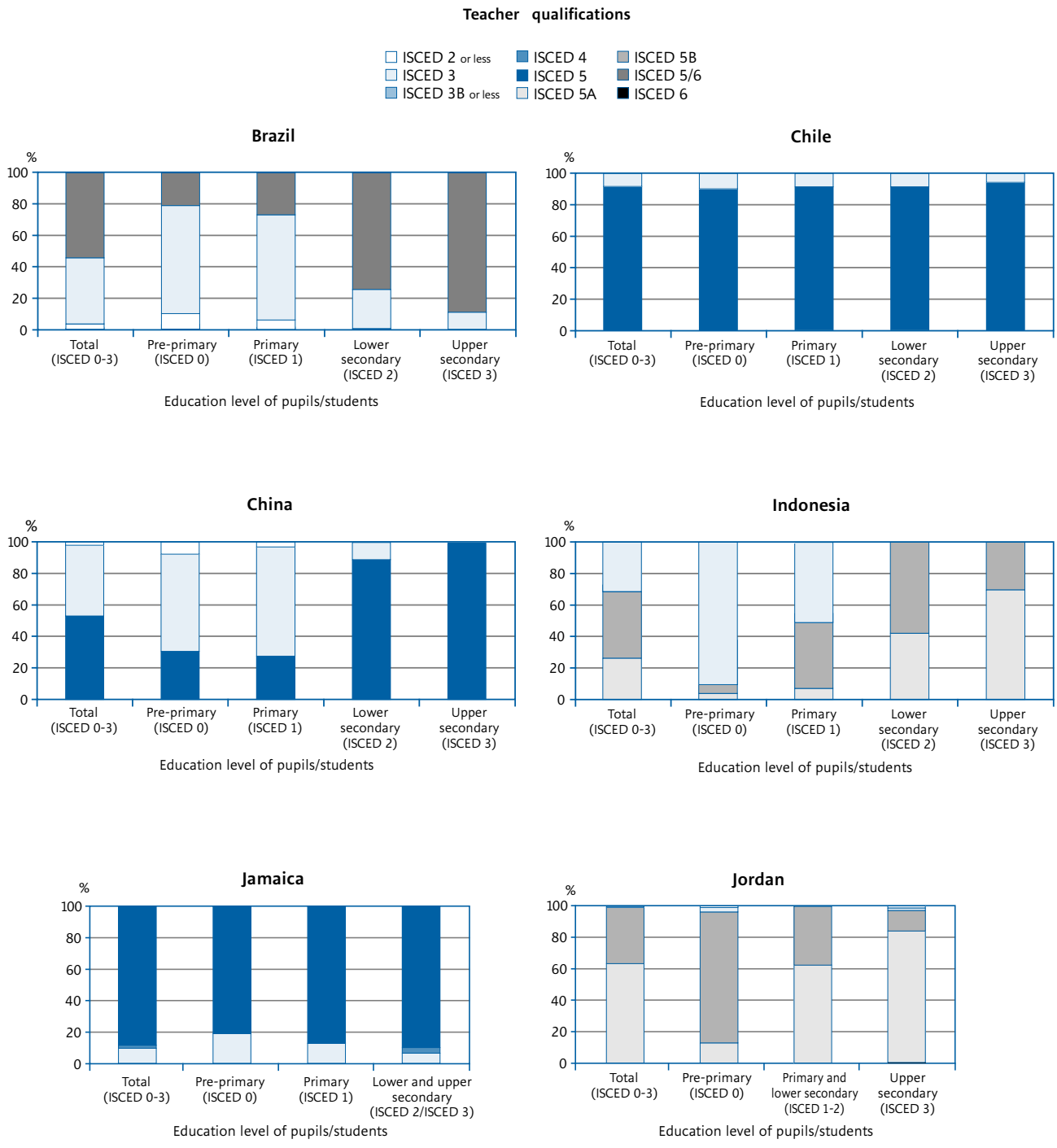
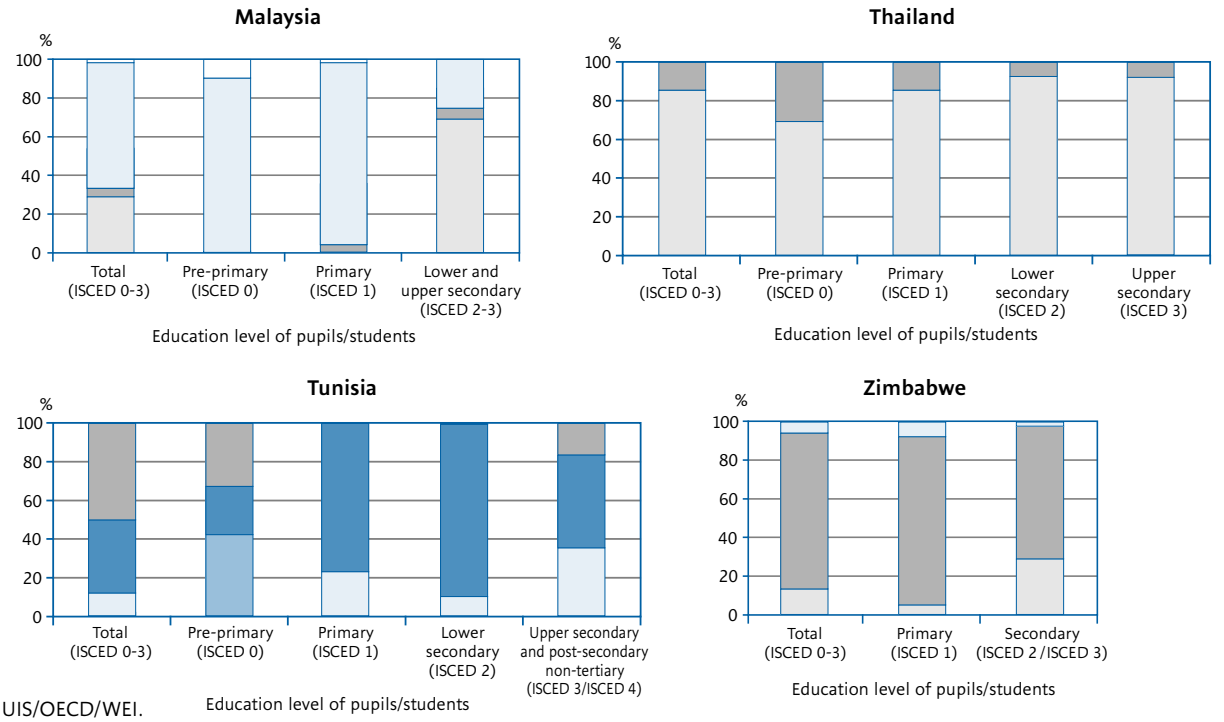


FIGURE 2.8 continued



Source: UIS/OECD/WEI.

Box 2.5 Desperately seeking mathematics teachers

Research shows that assigning teachers to courses that they are not trained to instruct has a negative impact on student achievement (Darling-Hammond, 2000; Goldhaber and Brewer, 1997; Monk and King, 1994). While a number of countries require that lower and upper secondary teachers hold educational degrees in their subjects of instruction, these requirements are at times softened in order to fill needs at the school level (Ingersoll, 1999). While most of these studies on "out-of-field teaching" have been conducted in the United States, data from the 2003 Trends in International Mathematics and Science Study (TIMSS) can be used to compare the percentage of 8th grade students in various countries taught mathematics by a teacher with a degree in math or math education. It shows that all or nearly all 8th grade students in Belgium (Flemish Community), Bulgaria, Cyprus, Egypt, Hungary, Italy, Latvia, Lithuania, Moldova, Romania, the Russian Federation, Saudi Arabia, Serbia and Slovenia were taught math by a teacher with a relevant degree. In contrast, fewer than 40% of students were taught mathematics by "in field" teachers in Norway or Ontario, Canada (Mullis et al., 2004).

Countries were asked about five requirements, including supervised practical experience (practicum), passing an examination, obtaining a university degree, completion of a probationary period and completion of an induction programme. At the 8th grade level, 70% of the TIMSS countries (33 out of 47) required a university degree (or equivalent) and a similar number required some type of practicum for certification as a mathematics teacher. In more than one-half of the countries (28 out of 47), certification required passing an examination. A probationary period was required in 23 countries. Among TIMSS participants, 11 required completion of an induction programme (ibid).

TABLE 2.1
Requirements for 8th grade mathematics teachers, 2003

Country	Pre-practicum and supervised practicum	Passing an examination	University degree or equivalent	Completion of a probationary teaching period	Completion of an induction programme
Armenia			√		
Australia	√		√	√	
Bahrain	√	√	√	√	
Belgium (Flemish)	√	√	√		
Botswana	√	√			
Bulgaria	√	√	√		
Chile			√		
Chinese Taipei	√		√	√	
Cyprus			√	√	
Egypt			√		
England	√	√	√	√	√
Estonia	√		√		
Ghana	√	√			
Hong Kong (China), SAR					
Hungary	√	√	√		
Indonesia	√	√	√		
Iran, Islamic Republic of	√			√	√
Israel	√		√	√	√
Italy		√	√	√	
Japan	√	√	√	√	√
Jordan			√		
Korea, Republic of	√	√	√		
Latvia			√		
Lebanon		√			√
Lithuania	√	√	√		
Macedonia, FYR			√	√	
Malaysia	√	√		√	√
Moldova					
Morocco		√			
Netherlands	√	√		√	
New Zealand	√		√	√	
Norway	√	√		√	
Palestinian A. T.			√		
Philippines	√	√			
Romania	√	√	√	√	√
Russian Federation	√	√	√		
Saudi Arabia	√	√	√	√	√
Scotland	√	√	√	√	√
Serbia and Montenegro	√	√	√	√	√
Singapore	√	√		√	
Slovakia			√		
Slovenia	√		√	√	√
South Africa	√	√		√	
Sweden	√	√	√		
Syrian Arab Republic	√	√	√		
Tunisia	√	√		√	
United States	√		√	√	

Source: Mullis et al. (2004).

SECTION 3. Measuring academic skills of teachers

Research studies have shown positive associations between student achievement and teachers' academic skills, level of content knowledge, years of experience and participation in content-related professional development opportunities (Ballou, 1996; Cohen and Hill, 2000; Darling-Hammond, 2000; Ehrenberg and Brewer, 1994, 1995; Ferguson, 1991; Ferguson and Ladd, 1996; Goldhaber and Brewer, 1997; Monk and King, 1994; Murnane and Phillips, 1981; Rivkin, Hanushek and Kain, 1998; Wenglinsky, 2000, 2002; Wiley and Yoon, 1995). Yet, unfortunately, the administrative databases of education ministries generally do not include or maintain these kinds of measures.

A number of these measures have been administered, to differing degrees, as part of international assessments of students. For example, data on whether students are taught mathematics by teachers who have an academic qualification in the subject were collected as part of the TIMSS and SACMEQ data collections, while data on teachers' participation levels in professional development activities were collected in TIMSS, PIRLS and SACMEQ. SACMEQ is unique by allowing a direct comparison of students' background characteristics and their teachers' academic skills in mathematics and reading.

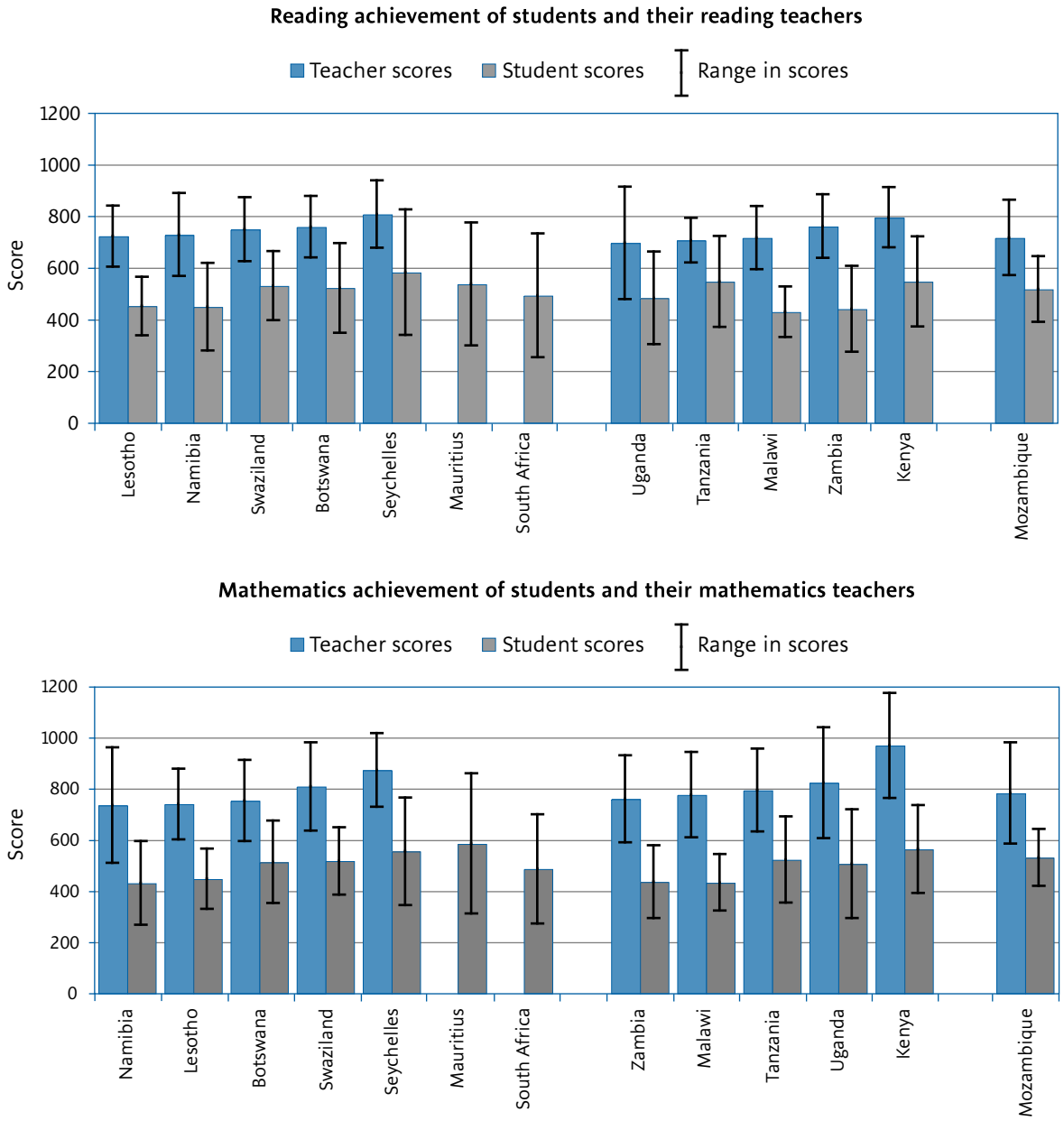
Research shows that students tend to learn more from teachers with strong rather than weak academic skills (Ballou, 1996; Ferguson and Ladd, 1996; Ehrenberg and Brewer, 1994, 1995; Ferguson, 1991). However, some researchers argue that the quality of instruction has more to do with teachers' performance in the classroom than on standardised tests (Darling-Hammond, 1998). Yet, it is very difficult to measure many of the traits associated with effective teaching, such as interpersonal and public-speaking skills, in addition to enthusiasm for working with children. Most studies examining the link between student learning and teacher skills tend to focus exclusively on academic skills (NCES, 2000). Indeed, one of the few sources of comparative data on teachers' skills is the SACMEQ II data, which compare reading and mathematics achievements of primary teachers in Southern and Eastern Africa.

As part of the SACMEQ study, 6th grade reading and mathematics teachers were tested in their respective fields of instruction. Their average scores were then compared to those of their students (by mapping both sets of scores at the same scale, with the student mean equal to 500 and a standard deviation equal to 100). **Figure 2.9** shows the results.

The reading scores of teachers ranged from an average of 695 in Uganda to about 800 or above in Kenya and Seychelles (teachers in South Africa and Mauritius did not take the assessments). Variation within countries were of similar magnitude, with the scores ranging from 120 to 150 points in most countries. Tanzania had the least variation among teachers' scores, with 95% of teachers scoring within a range of 87 points; in Uganda there was a gap of 220 points.

FIGURE 2.9

Average achievement of 6th grade students and their teachers, 2000-2002



The top of the bars represent the average scores of teachers (blue) and students (grey); the lines bisecting the top of the bars show the range within which 95% of students' and their teachers, respectively, in each country scored (+/- 1.96 * SD). Teachers were not assessed in Mauritius or South Africa.

Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

Moreover, a number of countries had a sizeable overlap between the reading scores of 6th grade students and their reading teachers. For example, the highest performing students in Seychelles, Tanzania and Uganda scored similar levels to that of the average teacher in their country.

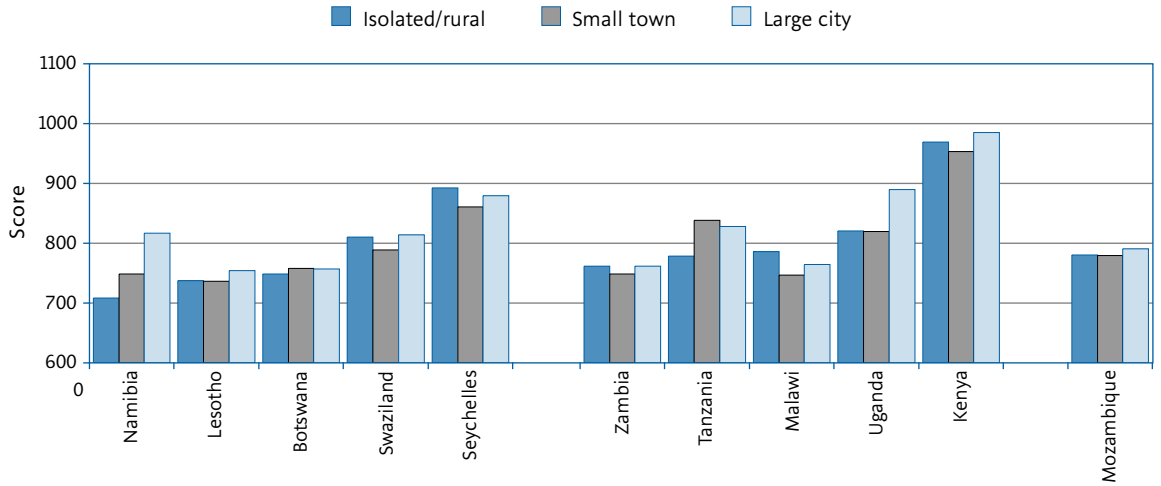
The range in the mathematics scores of teachers was even wider, both within and between countries. Mathematics teachers in Kenya and Seychelles had the highest average scores (as they did in reading) and teachers in Namibia had the lowest. Teachers performed, on average, better in mathematics than in reading.

Reading and math achievement scores of 6th grade teachers were not strongly associated with school location (isolated/rural, small town or large city) in most countries *(see **Figure 2.10**)*. For example, only in Namibia, Tanzania and Uganda did teachers in large cities score significantly higher in mathematics than those in isolated or rural areas. In most other SACMEQ countries, urban and rural teachers had similar mathematics results. But there were two interesting exceptions: in Malawi and the Seychelles, students in isolated/rural areas had teachers with higher math scores than those in large cities.

Using the SACMEQ data, it is possible to explore the relationship between teachers' education levels and their academic skills. As shown in Chapter 3, teachers with higher academic qualifications tend to earn higher salaries. It is therefore important to know whether these additional costs correspond to better academic skills. In most SACMEQ countries, there was a positive relationship between 6th grade teachers' educational levels and their academic skills in reading and math *(see **Figure 2.11**)*. On average, reading teachers with an A-level or tertiary qualification scored about 40 points higher than those with a lower secondary

FIGURE 2.10

Average mathematics scores of 6th grade mathematics teachers by school location, 2000-2002



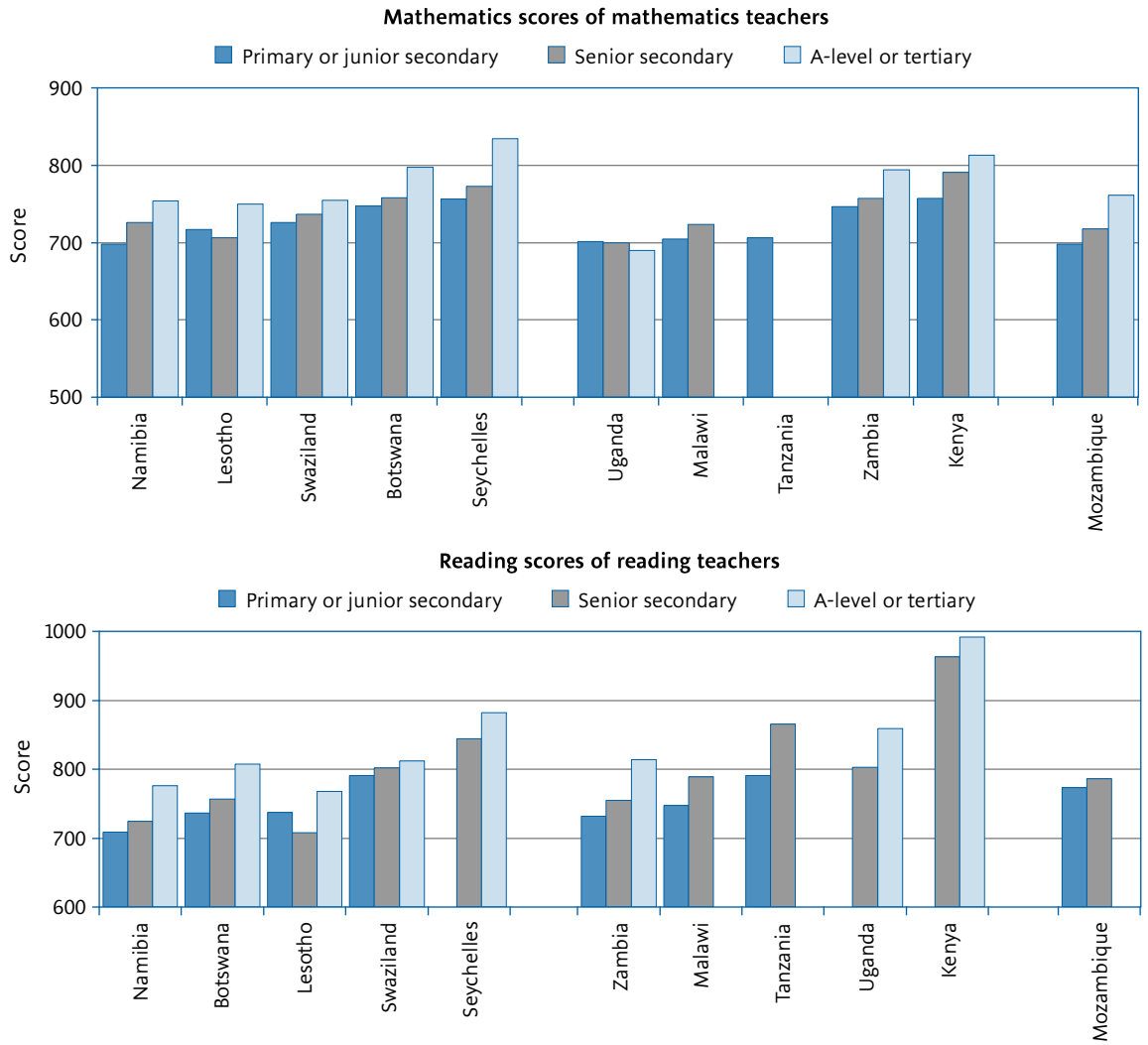
Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

or primary degree. Differences were statistically significant in all countries except Malawi, Tanzania and Uganda. However, test scores among 6th grade math teachers did not vary significantly by education level in Kenya, Mozambique, and Uganda.

While an improvement over administrative data, these measures are inadequate to monitor cross-national trends in teacher quality. The different regional and international studies cover different grades, across different countries, using different measures and sampling frames. They are useful for obtaining a snapshot of teacher quality, as it has been done throughout this chapter. However, measures derived from these sources have not been

FIGURE 2.11

Average scores of 6th grade teachers by teachers' education level, 2000-2002



Note: Scores not reported if less than 75 students (weighted) had a teacher with a qualification in that category.
Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

collected in a sufficiently comparable way over a sufficiently long period of time to clearly identify trends in teacher quality.

Even with stable longitudinal measures of teachers' academic skills, content knowledge and experience, current research suggests that these measures explain a relatively small proportion of the variation in achievement that is associated with the assignment of a student to a particular teacher. For equity reasons, it is important to monitor whether poor and wealthy students, taught in urban and rural schools, living in high-income and low-income countries have equal access to teachers. But even policies to balance these measures will not fully close the gaps in achievement between advantaged and disadvantaged students.

SECTION 4. Continuing professional development of teachers

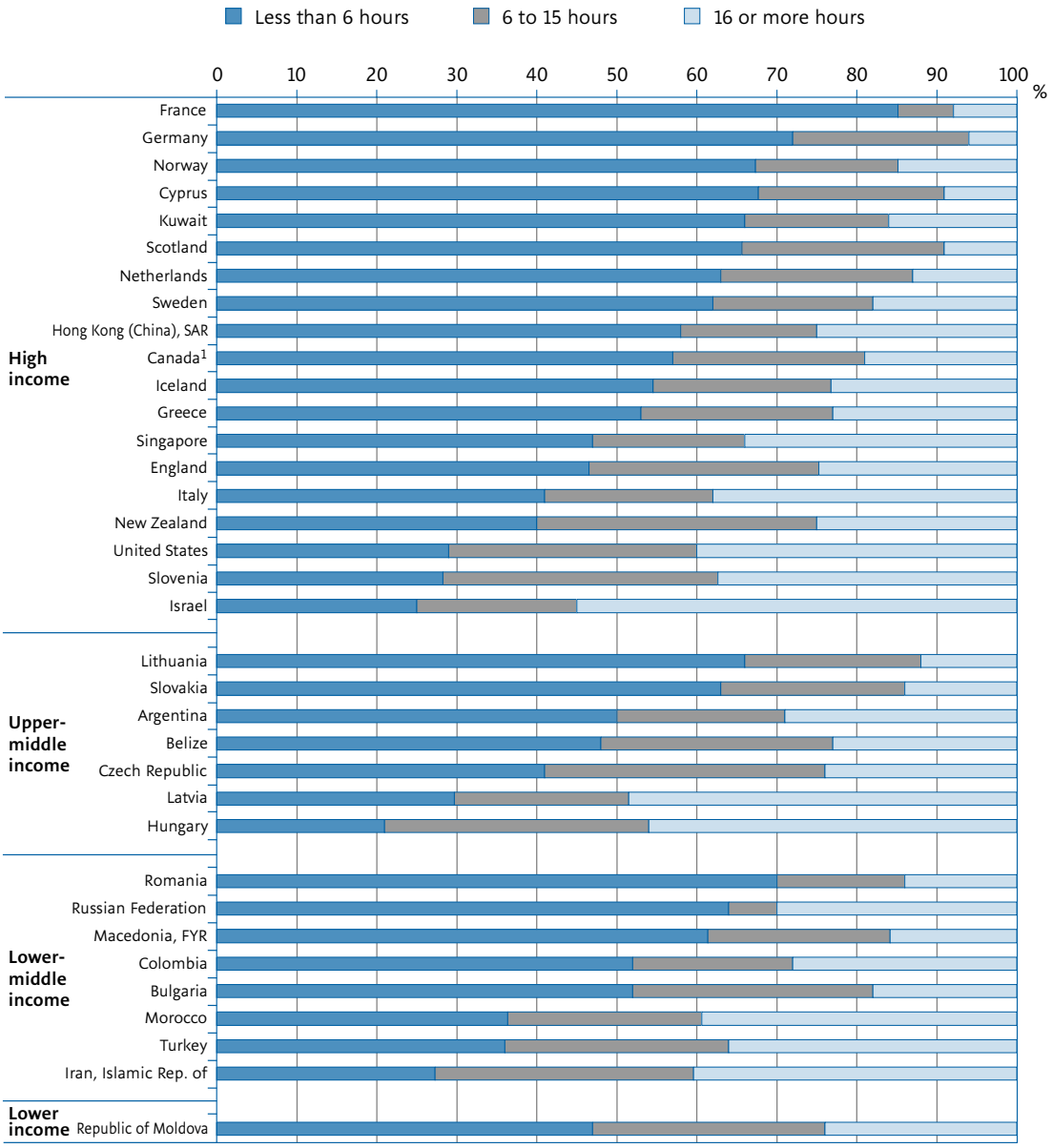
Teachers, like other skilled workers, benefit from on-the-job training, which is commonly referred to as continuing professional development (CPD). Relevant activities can include: improving teachers' general education background, as well as their knowledge and understanding of the subjects they teach; instruction on how children learn different subjects; developing practical skills and competencies; learning new teaching strategies and how to use new technologies; improved professionalism and ethics; in addition to providing knowledge and skills linked to the ever-changing needs of a dynamic society (Perraton et al., 2002).

Participation in professional development activities has been shown to have a significant positive impact on teachers' beliefs and practices, students' learning and on the implementation of educational reforms (Cohen and Hill, 2000; Villegas-Reimers, 2003; Wenglinsky, 2000, 2002; Wiley and Yoon, 1995). Unfortunately, there are very little cross-nationally comparable data on teachers' participation in CPD. However, data from sample surveys of teachers, including SACMEQ and IEA's (International Association for the Evaluation of Educational Achievement) Progress in International Reading Literacy Study (PIRLS), can indicate the degree to which different countries use CPD to maintain and improve the quality of their teaching forces.

According to data presented in **Figure 2.12**, professional development activities are not systematically more common in high-income than middle- or lower-income countries; teacher participation varies within each. Among the lower middle- and lower-income countries that participated in PIRLS, only the Former Yugoslav Republic of Macedonia, Romania and the Russian Federation each had more than 60% of 4th graders whose teachers had less than six hours of CPD during the previous two years, while Iran had only 27%. In contrast, over 35% of teachers in Iran, Morocco and Turkey participated in 16 hours or more of workshops or seminars over this period. Among upper middle- and high-income countries, France had the largest proportion of 4th graders (86%) whose teachers had virtually no CPD over the previous two years, while Israel, Italy, Latvia, Hungary, Singapore, Slovenia and the United States each had 34% or more of their students at this level taught by teachers with over 16 hours of CPD in the previous two years.

FIGURE 2.12

Percentage of 4th grade students whose teachers participated in training workshops or seminars during the previous two years by hours of participation and country income level, 2001



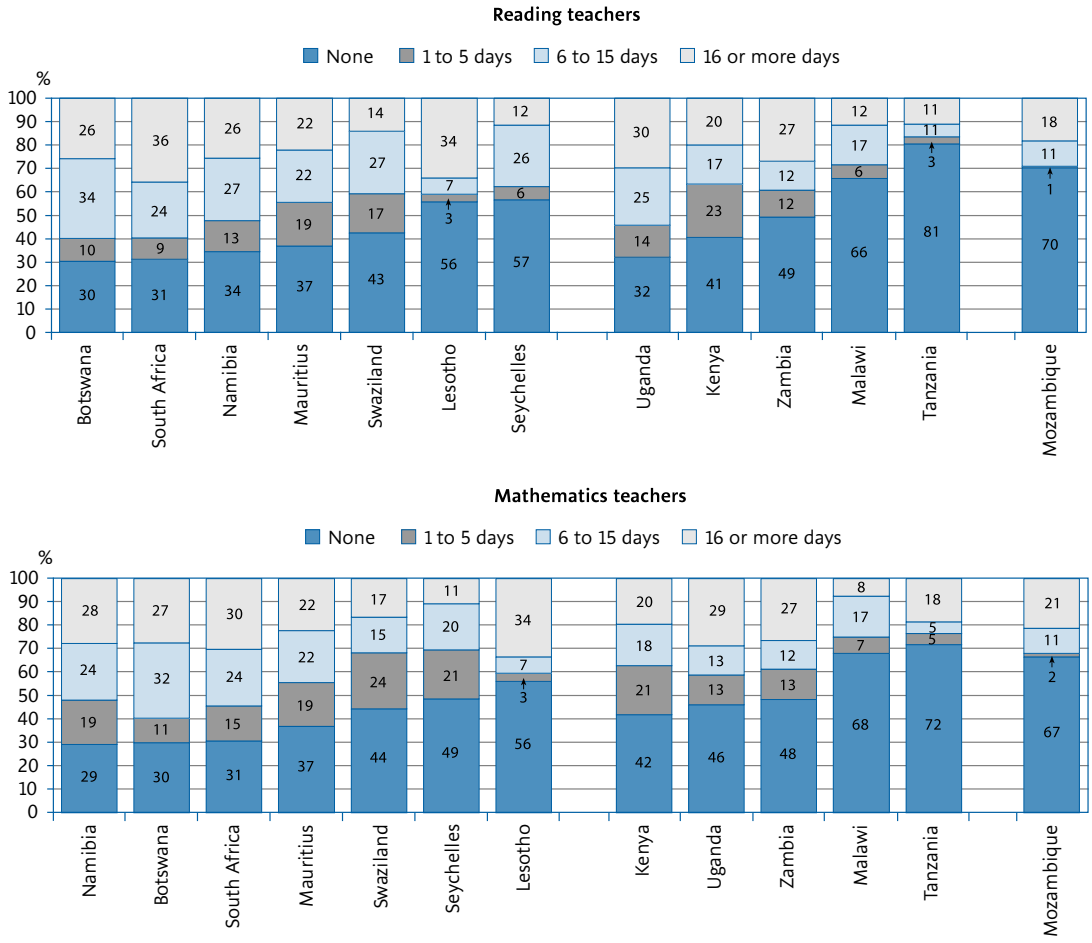
Notes: National income groupings based on World Bank, 2001.
[1] Refers to the provinces of Ontario and Quebec.

Source: Mullis et al., 2003.

While relatively few lower middle- and low-income countries participated in the PIRLS study, data from the SACMEQ study can help fill this gap. Participation rates in CPD varied widely within and between the 13 SACMEQ countries *(see **Figure 2.13**)*. For example, two-thirds or more of 6th grade reading teachers in Malawi, Mozambique and Tanzania reported no CPD participation in the previous three years. But nearly two-thirds or more of these teachers had done so in Botswana, Namibia, South Africa and Uganda. Low participation rates may reflect a lack of CPD offerings or that uncertified teachers are not eligible, as in the case of Zambia (IIEP, UNESCO, 1998).

FIGURE 2.13

Percentage of 6th grade students whose teachers participated in in-service courses in the previous three years by number of days, 2000-2002



Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

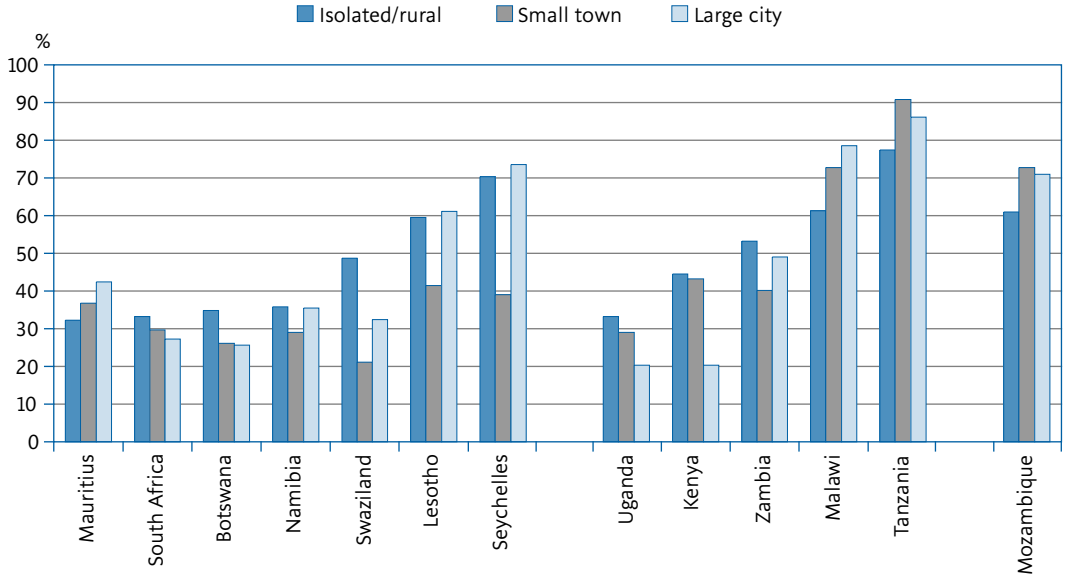
There was also variation among countries with higher rates of participation. While all 13 SACMEQ countries had at least 10% of their students taught by reading teachers with 16 hours or more of in-service training, the figure was over 25% in Botswana, Lesotho, Namibia, South Africa, Uganda and Zambia. Patterns of participation were similar for mathematics teachers *(see Figure 2.13)*.

Teachers in rural regions may find it more difficult to participate in CPD, given the expense and time required to travel. Yet, this does not appear to be a statistically significant factor, according to SACMEQ data. **Figure 2.14** shows the percentage of 6th grade students whose reading teachers reported participating in CPD activities in the previous three years. For example, Kenya had a greater proportion of urban students (45%) taught by teachers with in-service training compared to 20% of rural students. In Tanzania, 6th grade students were considerably more likely to be taught by a reading teacher with recent in-service training if they lived in a rural area or small town than in a large city.

This does not mean that distance from major population centres is not important. An earlier wave of SACMEQ data demonstrate how regional disparities in training opportunities may exist within countries, particularly between urban and rural regions. **Figure 2.15** shows the relationship between population density and the incidence of in-service training among 6th grade teachers for provinces in Kenya, Zambia and Zimbabwe. More specifically, it suggests that teachers in large urban

FIGURE 2.14

Percentage of 6th grade students whose reading teachers have not had any in-service courses in the prior three years by location, 2000-2002



Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

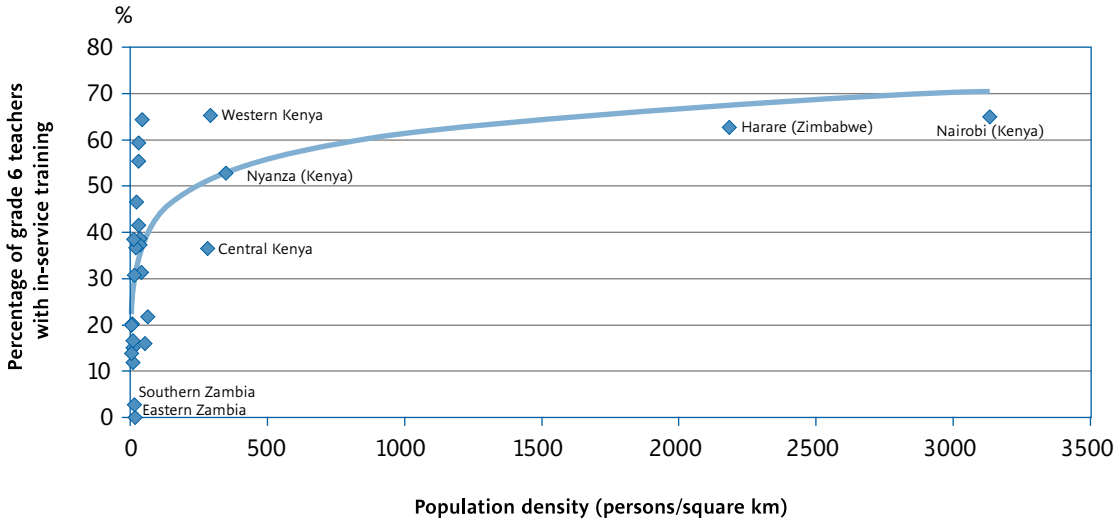
centres or provinces with higher population densities engage more often in CPD than their counterparts in sparsely populated rural regions. For example, 65% and 63% of 6th grade teachers in the densely-populated cities of Nairobi and Harare met the benchmark in terms of in-service training, while only 2.7% or less did so in southern and eastern Zambia, which are rural regions (ibid). The traditional categorisation of urban versus rural may not be subtle enough to capture these kinds of differences in access to resources.

Teachers' participation in CPD does not necessarily translate into improvements in students' learning. Critics contend that if professional development focuses too much on process (e.g. how to teach) and not enough on content (e.g. how children learn), student learning will not necessarily improve (Baker and Smith, 1999; Showers et al., 1987). Individual country studies suggest that in most parts of the world the majority of CPD activities are "too short, too unrelated to the needs of teachers and too ineffective to upgrade teaching knowledge" (Villegas-Reimers, 2003). Little data are available, however, to compare the content of professional development activities.

Figure 2.16 shows how SACMEQ reading teachers rated the effectiveness of short in-service activities. Of the 44% of teachers participating in CPD, just one in four rated the activities as effective or very effective in Seychelles; in South Africa and Uruguay, only one in two. Yet, over 80% of teachers did so in Malawi and Tanzania. These data suggest the need to improve both access to and

FIGURE 2.15

Relationship between prevalence of in-service teacher training and population density in Kenya, Zambia and Zimbabwe, 2000-2002



Note: Population density statistics derive from Kenya's Central Bureau of Statistics, 2003; Central Statistical Office, Zimbabwe, 2002; and Central Statistical Office, Zambia, 2000.
Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

quality of professional development activities in Southern and Eastern Africa – and may be broadly suggestive of the same issue in other less-developed regions.

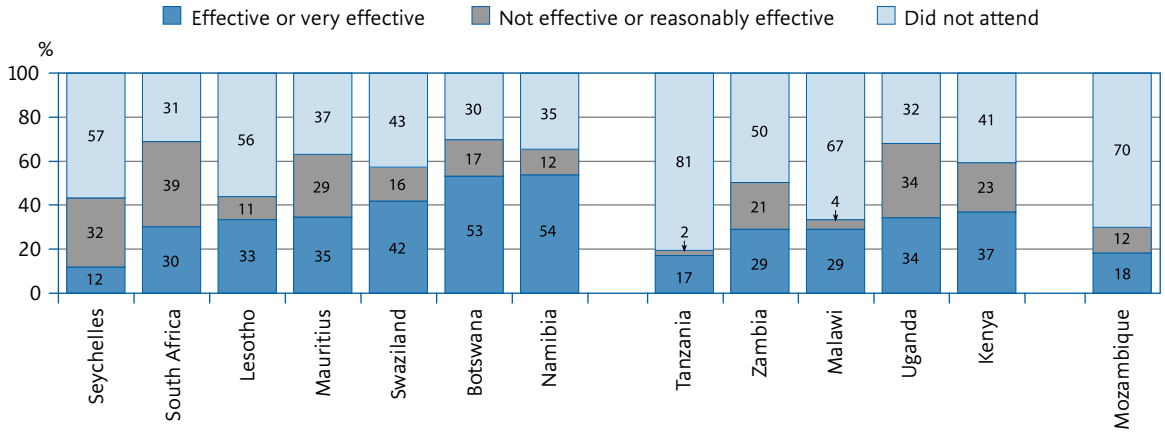
Conclusion

This chapter presents a range of indicators highlighting differences in teacher quality within and among countries. As countries vary widely across most of these measures, a few global comments about the state of teacher quality are possible. For example, teachers from countries in sub-Saharan Africa and South and West Asia have considerably lower proportions of their teachers meeting country-designated minimum training requirements. Further, many of those standards are quite low compared to the requirements in more-developed countries.

As we move beyond the most basic indicators, namely those that can be collected from Ministries of Education, the coverage and frequency of teacher-related data are considerably reduced. Thus most of the data presented here come from ad hoc surveys of the administrative records of education ministries (e.g. the WEI data collection and the UIS special survey on teachers) or from teacher questionnaires administered through international assessments of achievement (e.g. PIRLS, TIMSS and SACMEQ). Research suggests that basic academic skills and in-depth content knowledge are important predictors of student achievement. But current data can, in most cases, only serve as rough proxies (i.e. whether a teacher has a degree in the field of instruction). Furthermore, they

FIGURE 2.16

Percentage of 6th grade students whose reading teachers rated their in-service training as effective, 2000-2002



Source: Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), 2000-2002.

are available for relatively few countries, which limits the ability to make concrete recommendations on how scarce resources should be distributed across countries to improve teacher quality. That said, data collected through cooperative projects, such as SACMEQ, suggest areas that should receive greater focus.

For example, several Southern and Eastern African countries, including Lesotho, Malawi and Tanzania, have large proportions of their 6th grade students taught by teachers who only hold a lower secondary (ISECD 2) qualification or less. Furthermore, the data suggest that teachers with varied credentials and skill levels are more or less equally distributed between urban and rural areas and across students of high and low SES. Although, there are exceptions to this pattern (i.e. in Botswana, Namibia and South Africa urban students are more likely to have reading teachers with at least an A-level qualification), variation in teachers' qualifications and skills across these two domains were less than expected. This is not to say that teacher skills did not vary within and among countries in the reading and mathematics skills of teachers. In fact, some countries had a sizeable overlap between the reading scores of 6th grade students and their reading teachers (Seychelles, Tanzania and Uganda).

Yet, there was less variation than expected in these typical stratification variables, suggesting that the policy mechanisms that distribute teachers within countries (e.g. salary differentials, housing provision or the initial deployment of new teachers to work in rural areas) can reduce inequality. More research and evaluation on which of these mechanisms is most effective are clearly needed.

Participation in continuing professional development is widely regarded as a means of upgrading the skills of the teaching force. Data from PIRLS and SACMEQ highlight the wide variation in use of this training in developed and developing countries. For example, while it is relatively uncommon for primary level teachers in France and Germany to participate in CPD workshops, large proportions do in Hungary, Iran, Israel, Latvia, Slovenia and the United States.

Teachers' perceptions of the quality of professional development also varied widely. For example, fewer than 20% of 6th grade teachers participated in effective or very effective in-service training in Mozambique, Seychelles and Tanzania, while over 50% of teachers in Botswana and Namibia did so. Thus, while country-level wealth does not appear to be a strong barrier to the provision of professional development opportunities, the quality of the activities needs improvement before they can have a strong impact on educational reform.

3 Balancing teacher quantity and quality to improve learning outcomes

Introduction

The management of any education system involves a complex balancing act of diverse priorities, opportunities and constraints. As noted in Chapter 1, countries improve their chances for success by attaining certain thresholds in educational coverage, quality and efficiency. Above all, social and political stability, combined with sufficient resources and a commitment to equity for all children, serve as the foundations to reach the ultimate goal of good learning outcomes.

Yet many countries lack these most basic elements and must cope with multiple disadvantages. Moreover, they often face the greatest challenges in meeting the goal of universal primary education. They do not have enough teachers to meet growing demand, and those in place, work under considerable stress in overburdened school systems.

This does not suggest an easy road ahead even for countries with a more moderate need for primary teachers. There is greater scope for reducing the number of new teachers through improving the efficiency of the education system and other policy trade-offs. However, these countries do need to focus on improving education quality by raising the skills and knowledge of the teaching force. Considerable progress is still required to improve the quality of instruction, which will spur even greater demand for education.

After identifying the current and future gaps in teacher quantity (Chapter 1) and quality (Chapter 2), this final chapter examines several important areas for potential policy trade-offs to bridge the two, with the goal of achieving universal primary education by 2015. It focuses on three key issues: teacher recruitment, deployment and conditions of service. It examines whether there is the potential, at the country level, for policy options to improve the use of existing teacher supply without expanding the stock of teachers.

Section 1 focuses on the recruitment of new teachers and their qualifications to better understand how countries can increase the supply of classroom teachers without sacrificing minimum levels of education quality. In particular, it examines the trade-offs associated with lowering or raising teacher qualification standards.

Section 2 examines the policy options associated with teacher deployment and labour conditions. It examines a specific set of policy variables – namely instructional hours, class size and salary structure – that may be adjusted to accommodate an influx of new primary pupils, although at the potential expense of educational quality.

Section 3 briefly summarises the main findings for reaching UPE by 2015 and the need to globally monitor policies that help to bridge teacher quantity and quality and their links to student performance.

SECTION 1. Balancing the number and quality of teachers

New approaches are needed to resolve existing and imminent gaps in the quantity and quality of teachers. It is clear that qualifications alone do not make an effective teacher. But it is also evident that a teacher possessing only six years or less of formal schooling may not be prepared to teach in a primary school. As demonstrated by the SACMEQ results presented in Chapter 2, there are countries where 6th grade pupils outperform their teachers on mathematics and reading tests. This kind of situation ultimately creates a vicious cycle: poor instruction and learning reduces the demand for education, which, in turn, reduces the pool of qualified teachers.

Figure 3.1 summarises countries' needs in terms of both teacher quantity and quality by highlighting the percentage of current primary teachers meeting national qualification standards, the percentage of current teachers that do not, and the remaining percentage of additional teachers needed to achieve UPE by 2015. The total number of primary teachers required by 2015 is presented as 100%.

The first set of countries (presented in the upper panel) will need to expand their primary teaching forces. Many will need to greatly enlarge their stocks, while others can focus on improving qualification levels. For example, Niger and Mozambique have large proportions of teachers that meet the entry standard. It is true that these standards are low (generally nine years of education), but this may not be the time to raise them given the large numbers of new recruits needed by 2015. By contrast, Lao PDR, which also has the same low national standard, requires far fewer new teachers and, therefore, may be able to focus on improving the skills and qualifications of the existing teaching force.

At the opposite end of the spectrum, there are also countries in this group with very high tertiary qualifications for primary teachers, namely Egypt, Kuwait and Oman. Here the challenge is to steadily hire new recruits and redeploy existing teachers to meet the growing demand for education.

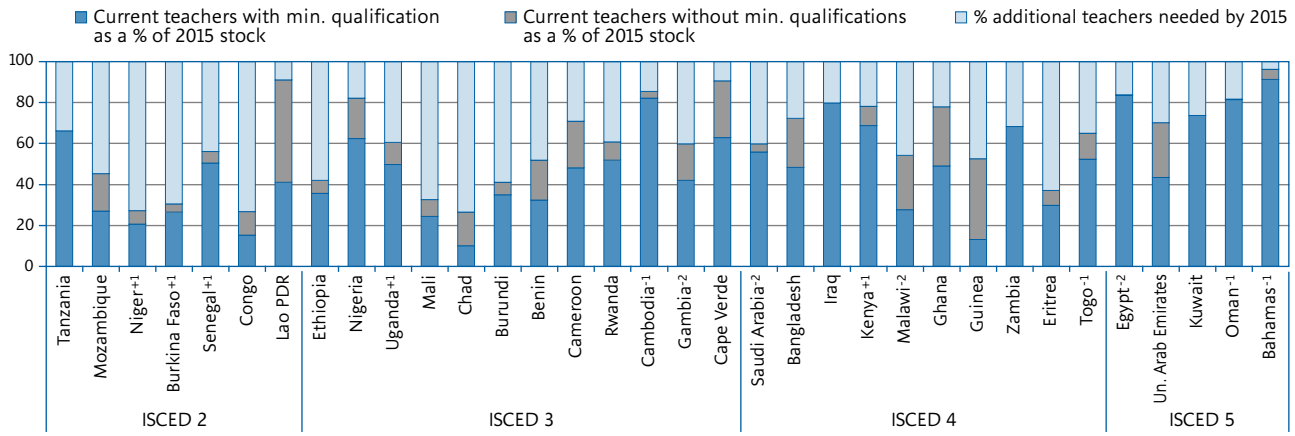
Alternatively, some countries may face difficulties in even maintaining existing standards. For example, at least 80% of teachers in Eritrea hold a post-secondary non-tertiary qualification (ISCED 4). This is commendable but it is also important to consider whether teacher-training institutions will be able to expand the national stock of teachers by 9.5% a year to reach UPE by 2015. This is also the case for Guinea (6.0%) and Malawi (5.7%), which have similar entry standards but far lower proportions of primary teachers who meet the minimum requirements.

Yet is it important to ensure that lower standards do not compromise educational quality. The government in Burkina Faso decided to lower standards to attract more teachers and widen access to primary education. The government adopted an aggressive recruitment policy, which established a one-year teacher-training course upon completion of lower secondary education. At the same time, the primary completion rate (the expected gross intake into the last grade of primary education) has risen steadily, from 28% in 2000 to 49% in 2004. At the same time, pupil-teacher ratios have remained constant at 49:1 (2004), yet the goal of UPE remains distant.

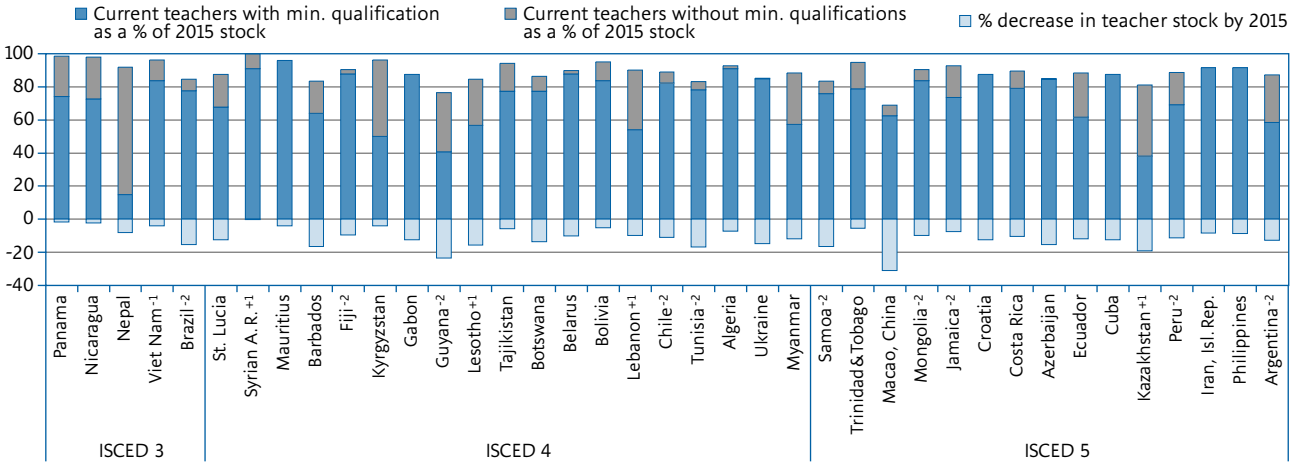
Countries presented in the lower panel of the figure can focus almost exclusively on improving the qualifications of the current teaching force and/or raising the standard for new recruits. In Nepal, only a small proportion of existing teachers meet the relatively low standard of upper secondary education. This is also the case for countries with somewhat higher qualifications, such as Guyana and Lebanon. This could be partly the result of recent upgrades in standards which were meant to improve the professional status of teachers.

FIGURE 3.1

Teaching stock with and without minimum qualifications and the additional teachers needed to reach UPE by 2015 (%)



Level of qualification required to become a primary teacher (2003)



Level of qualification required to become a primary teacher (2003)

Notes: +1 Data refer to 2003; -1 Data refer to 2001; -2 Data refer to 2000.
Source: UNESCO Institute for Statistics, Annex 2, Statistical Tables A2.4 and A2.6.

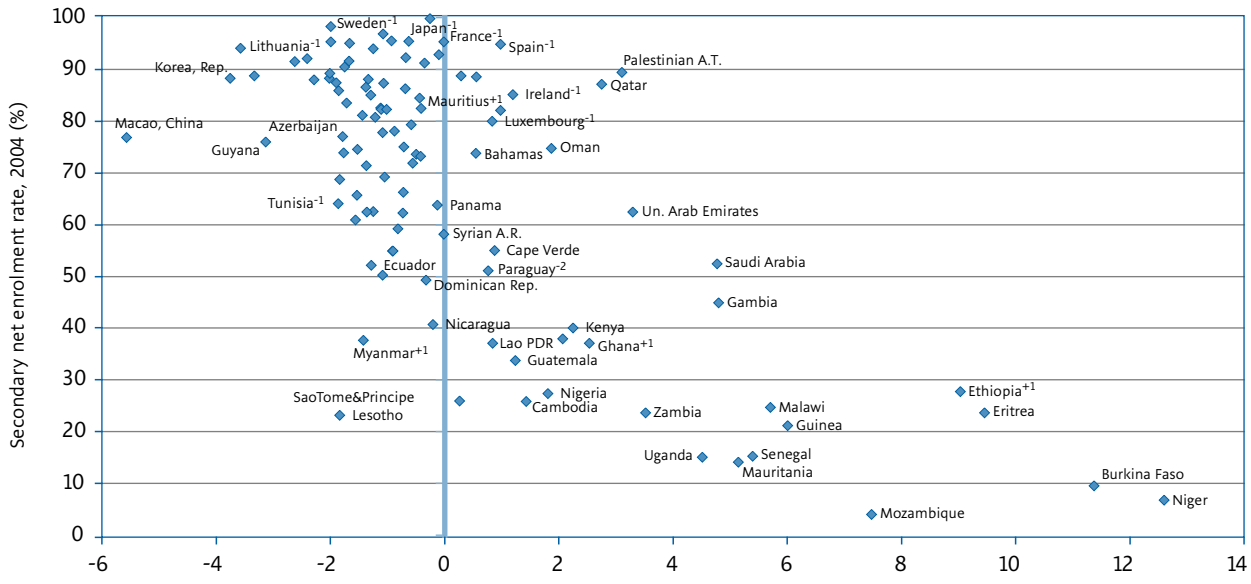
How can the pool of potential teachers be expanded? From a historical perspective, it has been shown that no country has reached UPE without a secondary net enrolment rate of at least 35% (Clemens, 2004), which underlines the importance of secondary education to progressively build a qualified teaching force.

Levels of educational attainment among the adult population reflect shortcomings in the potential labour pool of secondary school graduates. This partly explains why national qualification standards have remained low in some countries. For example, it has been estimated that in order for Mozambique to hire enough primary teachers for UPE, 33% of the adult population should have a secondary education; this figure equals 28% for Mali and Rwanda and 27% for Niger (Wils and O'Connor, 2004). Yet, the current levels of secondary attainment among adults is below 10% in each country.

Figure 3.2 presents secondary net enrolment rates in 2004 beside the required growth in teacher stocks by 2015. Basically, the countries facing the greatest need have the lowest levels of potential human capital. The share of youth enrolled in lower or upper secondary programmes still falls below 35% in 16 countries, 14 of which are found in sub-Saharan Africa (including Lesotho, which has sufficient numbers of teachers but not all have secondary qualifications). The other two countries are Cambodia in East Asia and the Pacific and Guatemala in Latin America and the Caribbean. Six countries have fewer than 20% of the secondary school-age population enrolled, while Burkina Faso, Mozambique and Niger report less than 10%.

FIGURE 3.2

Secondary net enrolment rates (2004) and average annual growth required to meet UPE by 2015



Notes: +1 Data refer to 2005; -1 Data refer to 2003; -2 Data refer to 2002.
Source: UNESCO Institute for Statistics, Annex 2, Statistical Tables A2.2 and A2.6.

To raise the number of teachers with at least a secondary education, countries need a long-term strategy to reinforce institutional capacity and improve the content of teacher training. UNESCO has launched a major new initiative in sub-Saharan Africa to re-assess existing policies and develop new projects in the field *(see **Box 3.1**)*. The Initiative will build upon the growing interest and experience in a diverse array of community-level projects and distance education programmes using traditional and new technologies to reinforce the skills of teachers in their classrooms *(see **Boxes 3.2** and **3.3**)*.

Box 3.1 UNESCO Teacher Training Initiative for sub-Saharan Africa (TTISSA)

The UNESCO Teacher Training Initiative for sub-Saharan Africa (TTISSA) was officially launched in January 2006. This ten-year initiative will assist UNESCO's Member States in the region to restructure their national teacher policies and teacher education programmes to better serve national development priorities in the pursuit of EFA and MDGs.

TTISSA is based on country needs and priorities identified by each government and UNESCO. A full-time national coordinator, proposed by the concerned country and selected by UNESCO, guides the initiative at the national level for a four-year cycle*, while evaluating activities and impact of donors, other UN agencies and regional agencies.

TTISSA will also work within other core initiatives, such as the Literacy Initiative for Empowerment (LIFE) and the Global Initiative on Education and HIV/AIDS (EDUCAIDS).

Through a collaborative approach, TTISSA will devise relevant action strategies with national representatives, coordinators, heads of teacher training institutions and other decision-makers, as well as bilateral and UN agencies. At the national level, assistance is focused on the relevance and quality of teacher education programmes, steps to professionalise teachers, and the review or adjustment of national policies to improve the status of teachers and reverse teacher attrition, especially due to HIV/AIDS.

* The initial cycle will include 17 countries: Angola, Burkina Faso, Burundi, Cape Verde, Central African Republic, Chad, Congo, DR Congo, Ethiopia, Ghana, Guinea, Madagascar, Niger, Nigeria, Sierra Leone, Tanzania and Zambia.

Box 3.2 Distance training from Malawi's Domasi College of Education

Free primary education was declared in Malawi in 1994, unleashing a surge of new pupils. Since then, the country has been trying to fill gaps in teacher supply and infrastructure: for each qualified teacher, there are 118 pupils. Furthermore, many primary classes are still taught under trees, bringing the pupil-permanent classroom ratio to 95:1. There is also a chronic teacher shortage at the secondary level.

With funding from the Canadian International Development Agency (CIDA), the Domasi College of Education launched in 2000 a new version of its diploma course, to upgrade the skills of the large number of teachers with only a primary education. This three-year programme is equivalent to the residential diploma in content but is delivered essentially in distance-mode so that the students can continue to teach.

Source: Mattson, 2004.

The course is delivered through an annual cycle, with two months of courses at the college during school vacations and ten months of distance study, using mainly print materials. Student-teachers are in regular contact with local 'field supervisors', many of whom are retired secondary or head teachers. They provide general counselling and academic support. In addition, students are visited periodically in their schools by college lecturers. With such close support, the quality of this training may actually be better than that offered to conventional students.

The programme's innovation lies in providing students with daily opportunities to test their learning of academic content and pedagogical skills in their own classrooms. Furthermore, the distance methodology enables a significant number of Malawi's teachers to upgrade their skills. However, larger-scale programmes must be designed and funded to begin to meet the numerical and quality needs of the system.

Box 3.3 Afghan teachers tune in

Each week, over 3,500 teachers in Afghanistan tune into 'Knowledge is Light', a teacher-training radio programme produced by Equal Access, a non-profit organization. For most of the listeners, the radio series provides their first training experience and only information conduit after 23 years of war. As a whole, these teachers are responsible for 150,000 students. As soon as funding is available, the Ministry of Education plans to expand this service to reach 12,500 teachers in 500 schools which need training support. Equal Access also hopes to provide receivers and orientation training to 500 teacher trainers and another 7,000 schools.

Source: http://www.equalaccess.org/stories/

Given the duration and expense of traditional teacher-training programmes, many countries – particularly in sub-Saharan Africa and South and West Asia – must also consider shorter-term options to meet rising demand for education. They face serious fiscal constraints, with limited budgets exacerbating already difficult situations. Thus some governments have decided that the most viable option is to lower or soften entry standards and to recruit untrained teachers.

Through diverse arrangements, governments are increasingly relying upon 'para-teachers', who are not hired through the civil servant system. They generally have low qualifications (lower secondary education or less), lower salaries than civil servant teachers, and little career stability, with fixed-term contracts often renewed on an annual basis *(see **Boxes 3.4** and **3.5** for case studies of Bangladesh and India)*.

Mehta (2000) has identified four categories of para-teachers which reflect different policy orientations. The first consists of those appointed in formal schools to reduce high pupil-teacher ratios and to ensure that overall demand is met as enrolments increase. The second type of para-teacher is hired to replace formal school teachers because of chronic absenteeism. In the third category, para-teachers work full-time in community-based schools in the remote settlement where they are from. Finally, there are para-teachers giving part-time courses in their own communities, even though teaching is not their main profession.

Many of the governments facing the greatest challenges are already relying extensively upon contract teachers. Indeed, untrained instructors are now in the classrooms of Burkina Faso, Chad, Congo, Mali and Niger. Moreover, there is also considerable dependence upon parent-volunteers. Two-thirds of the primary teacher stock in Chad and more than one-half in Congo are parents recruited to teach in local

Box 3.4 Bangladesh's community teachers

Despite the ongoing debate over para-teachers, they helped to increase Bangladesh's overall primary net enrolment rate from 76% to 94% between 1990 and 2004. In particular, the non-governmental Bangladesh Rural Advancement Committee (BRAC) illustrates how careful decision-making, combined with reinforced training, can lead to positive outcomes.

BRAC ensures that para-teachers are among the most educated members in the community (with at least nine years of education). Although the initial training takes just 15 days, they regularly upgrade their skills through monthly training courses of three days' duration. This includes two days of in-service training, provided by official BRAC personnel, which focuses on student-centered learning techniques.

Poor teacher salaries are generally associated with high turnover rates. Yet the attrition rate for community para-teachers in Bangladesh is estimated at 8% per year, which is very low compared to other countries. This can be attributed to the fact that most BRAC teachers are married women from the community, who are likely to remain there. This profile facilitates retention in the schools.

Source: Based on Craig, Kraft and du Plessis, 1998.

Box 3.5 Para-teachers and education quality in India

Given the size of India's primary school-age population, its para-teacher policy is closely watched. The recruitment of para-professionals has become the norm in many states, such as Madhya Pradesh and Chhattisgarh, where they accounted for 52% and 41% of primary instructors in 2003. Based primarily in rural areas, para-teachers are not subject to any mandatory training, aside from an induction course which is supposed to run for 20 to 40 days but has been found to last for just one week (Jagannathan, 2000; Mehta, 2000).

Surprisingly, a more recent study (Mehta, 2003) suggests that the qualifications of para-teachers are not very different from those of other teachers and, in some cases, might even be slightly higher: 49% of regular primary level teachers have ISCED 5 level qualifications compared to 55% of para-teachers. This may be due to substantial unemployment among tertiary graduates. Nevertheless, most para-teachers have probably not completed the official two-year teacher-training programme, which provides the pedagogical background needed to be effective in the classroom.

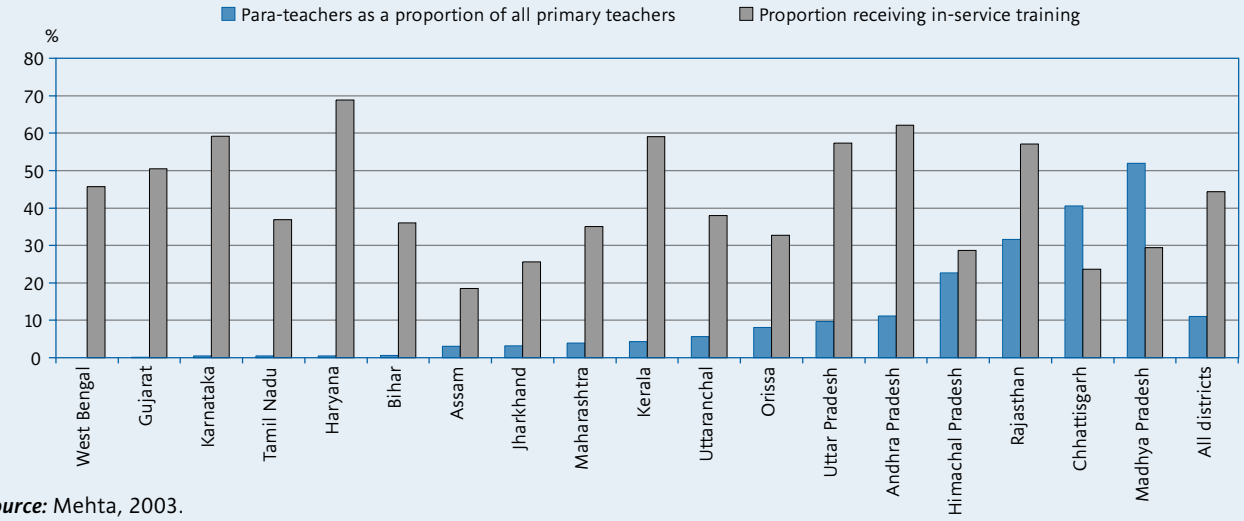
These findings must also be tempered by the fact that many states with high proportions of para-teachers did not state their qualifications in the study. For example, data on qualifications were not available for about one-half of all teachers in the state of Madhya Pradesh.

The study does show that para-teachers receive lower salaries and have less job stability than their counterparts. This is problematic from a quality perspective since many para-teachers will be obliged to take second shifts or other jobs outside of the education sector to earn more income, which can lead to absenteeism, poor performance in the classroom and low morale (Kumar, Priyam and Saxena, 2001).

Part of the solution may be to provide para-teachers with in-service training to reinforce their overall professional development. **Figure 3.4** shows the proportion of teachers receiving in-service training by state in 2003. Some of the states with the highest proportions of para-teachers, namely Chhatisgarh and Madhya Pradesh, have the lowest rates of in-service training, especially compared to Rajasthan.

FIGURE 3.4

Para-teachers as a proportion of all primary teachers and proportions of all primary teachers receiving in-service training in India, 2002-2003



Source: Mehta, 2003.

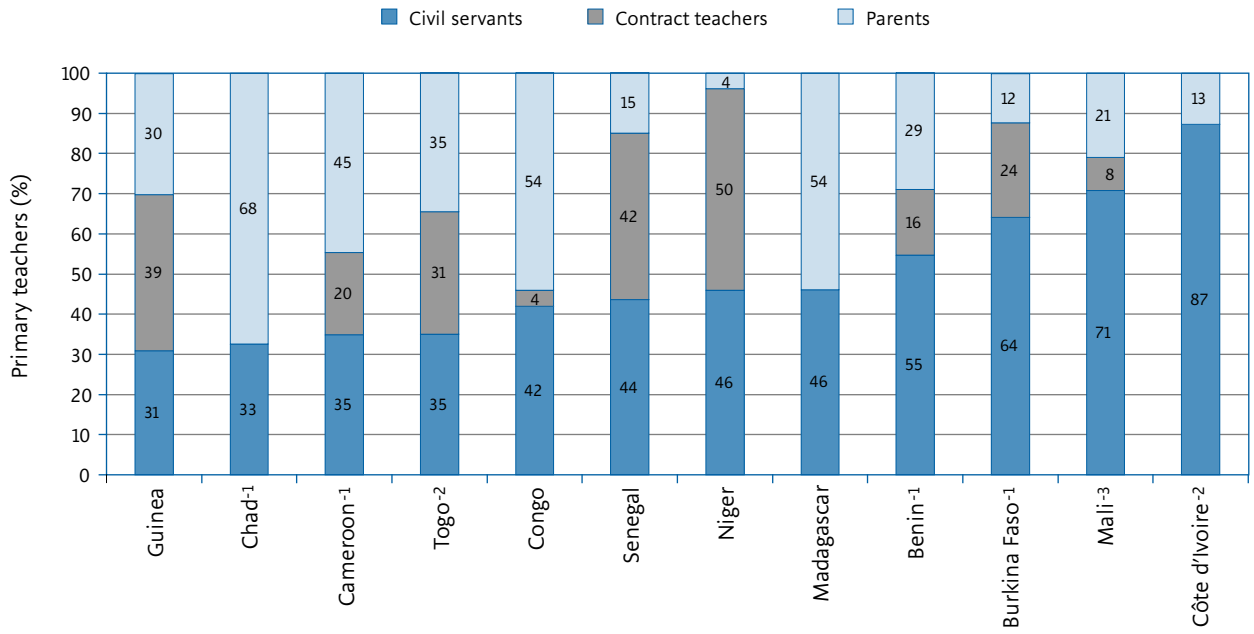
schools *(see **Figure 3.3**)*. Not all of them have completed lower secondary education (which is required for primary teaching in these countries). These parents are supposed to be the best qualified in the community but it is highly unlikely that they receive any type of in-service training or other classroom support.

The main impetus for establishing para-teacher schemes is to reduce costs. In many less-developed countries, personnel costs account for more than 75% of all education expenditures. Para-teachers are far less expensive: many receive just 25-50% of the salary paid to their civil servant counterparts. In addition, most work on a contractual basis and, therefore, are not entitled to pensions and other benefits.

Niger is a case in point: 60% of teachers and professors have been laid off since 1998 due to legislative changes forcing teachers to retire after 30 years of service (World Bank, 2004). As a result, more experienced teachers are being steadily replaced by education volunteers, who are often young people with no formal training or experience. As shown in Figure 3.3, less than one-half of all primary teachers are civil servants at a time when the government has proposed restricting rights to unionise, prompting further outcry (L'Ecuyer, 2001). However, the expanded use of para-teachers in Niger has also been accompanied by growth in the primary completion rate (proportion of age group in the last year of primary), rising from 17% to 25% between 2000 and 2004. This situation underscores the

FIGURE 3.3

Distribution of primary teachers by status in Central and West Africa, 2003



Notes: -1 Data refer to 2002; -2 Data refer to 2001; -3 Data refer to 2000.
*Community teachers receive a state-subsidised salary.
Source: Based on Mingat, 2004.

policy challenge facing many governments: how to support and train 'volunteer' teachers without undermining the working conditions of existing civil servant teachers and the quality of education?

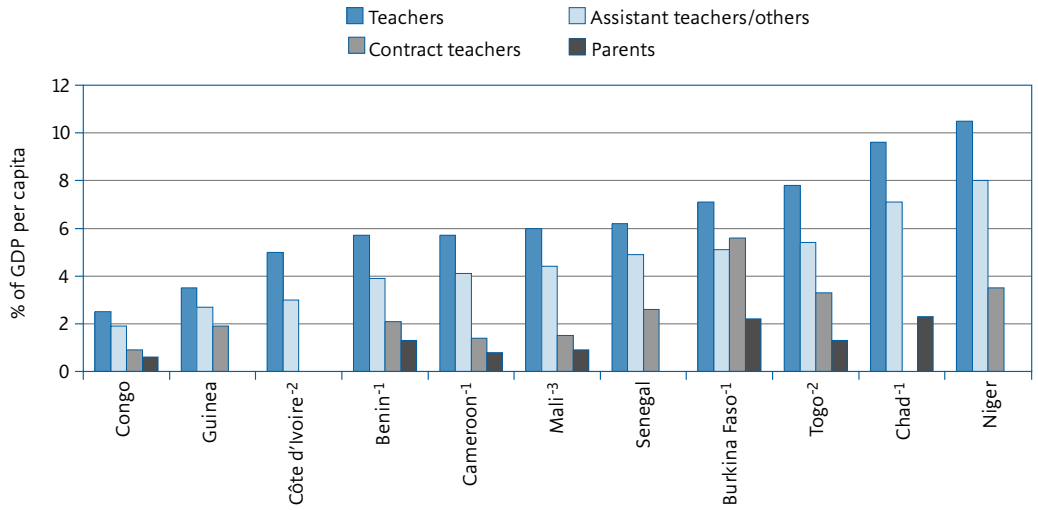
The first step is to clearly recognise that education quality is inextricably bound to teachers' working conditions. For example, there are a number of studies comparing the impact of para-teachers on student achievement. Yet it is difficult to draw firm conclusions: a study in Niger shows little difference between pupils taught by regular or para-teachers (Bourdon, Frolich and Michaelowa, 2005), while in Botswana, less qualified teachers are related to poor student performance in mathematics, science and social studies (Botswana, 2000). Clearly more research is needed to disentangle the effects of different institutional arrangements and the individual profiles of para-teachers. Nevertheless, a common strand runs throughout these studies: dissatisfaction with the status of para-teachers (Michaelowa, 2002).

Vegas and De Laat (2003) showed that students taught by regular teachers consistently out-performed those taught by contract teachers in Togo. Both sets of teachers had similar qualifications. The difference lay in their wages, with para-teachers earning 40% of the civil servant salary. This was found even after the researchers controlled for other factors related to pupils and classroom conditions.

Figure 3.5 shows the differences in salaries paid to civil servant teachers, contract teachers and parent-teachers in Central and West Africa. In Burkina Faso, contract teachers receive nearly the same salary as civil servant teachers, but in other countries they can earn less than one-half. Parents receive largely symbolic payments compared to formal teachers.

FIGURE 3.5

Wages as a percentage of GDP per capita by status, 2003



Notes: -1 Data refer to 2002; -2 Data refer to 2001; -3 Data refer to 2000.
Source: Based on Mingat, 2004.

Wage differentials can seriously impact the quality of education by reducing the prestige of the teaching profession. Low wages will ultimately attract less qualified individuals, and demoralise those teachers seeking a long-term career in education. There is no denying that para-teacher schemes can provide countries with the flexibility to respond to urgent needs. But by institutionalising them as long-term options, governments may seriously damage the general status of the teaching profession (Education International, 2003).

This concern is not new. Thirty years ago, the *ILO/UNESCO Recommendation Concerning the Status of Teachers* clearly warned "that any severe supply problem should be dealt with by measures which are recognised as exceptional, which do not detract from or endanger in any way professional standards already established or to be established and which minimise educational loss to pupils".

It is possible to reconcile the costs and benefits associated with para-teachers. The solution lies in maintaining the status of the teaching profession by 'mainstreaming' para-teachers through adequate training and equitable compensation (Chung, 2005).

SECTION 2. Balancing teacher deployment and conditions of service

Another set of policy options to manage teacher supply and demand relates to their deployment and working conditions. Here, the challenge lies in adjusting the responsibilities and remuneration of teachers in order to meet UPE goals.

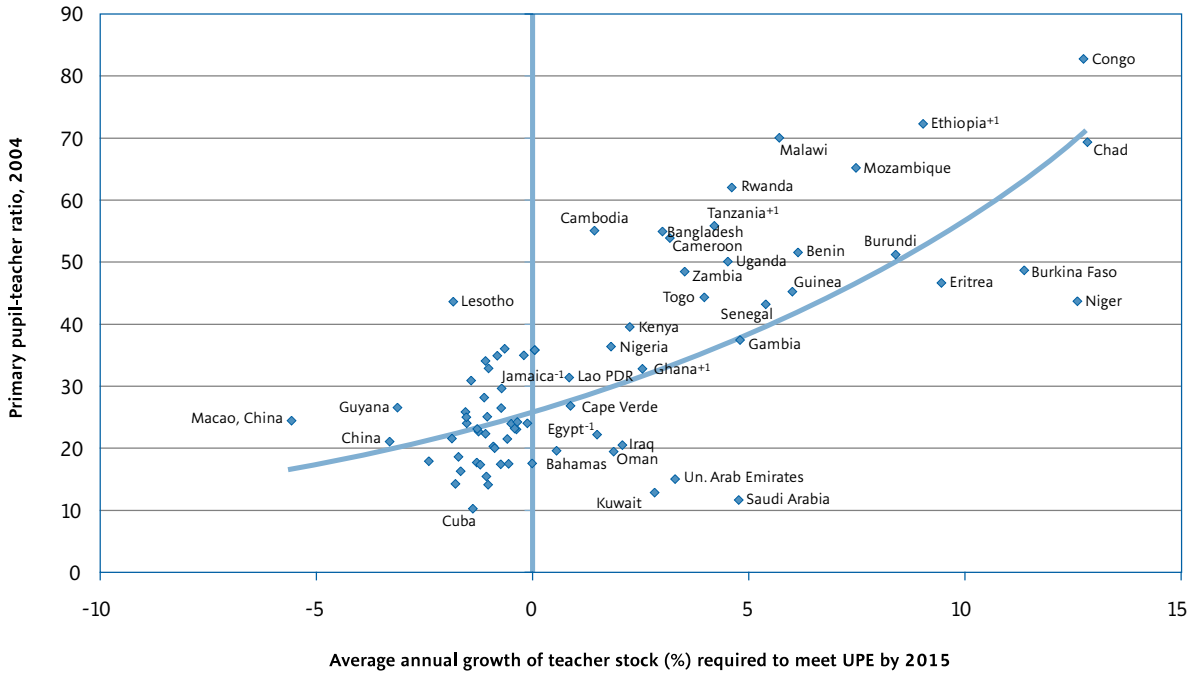
School organization is a key element of teacher deployment policies. For example, through the use of multiple shifts, schools may adjust the number of pupil instructional hours to educate more children with the same number of teachers in existing schools. Although resulting education quality is determined largely by how multiple shifts are designed and implemented (Amelewonou et al.,2005). In some cases, research has shown that pupils in double-shift schools do no worse than those in single-shift schools (Bray, 2000).

Another element of school organisation is represented by the pupil-teacher ratio, a key indicator of teacher deployment. **Figure 3.6** illustrates the link between the annual increase in teaching stock needed to meet UPE by 2015 and primary pupil-teacher ratios. As explained in Chapter 1, pupil-teacher ratios, while a highly aggregated measure, help to indicate the capacity of an education system and to assess whether teachers are potentially overburdened or under-utilised. In the latter case, it may thus be possible to accommodate more students without necessarily hiring additional teachers.

Yet not all countries have this room to manoeuvre. Chad, Congo, Ethiopia and Mozambique are faced with high demand for teachers and primary pupil-teacher ratios above 65:1. Malawi, Rwanda and Tanzania will not need as many new teachers, but they will not be able to raise pupil-teacher ratios either. With pupil-teacher ratios ranging from 40 to 55:1 in Burkina Faso, Burundi, Eritrea and Niger, there is little room to accommodate more students without recruiting new teachers. But turning to the Arab States, it may be possible to adjust the ratios (often less than 20:1) in countries like Kuwait, Saudi Arabia and the United Arab Emirates.

FIGURE 3.6

Primary pupil-teacher ratio (2004) and annual average increase required to reach UPE by 2015



Notes: +1 Data refer to 2005; -1 Data refer to 2003.
Source: UNESCO Institute for Statistics, Annex 2, Statistical Tables A2.4 and A2.6.

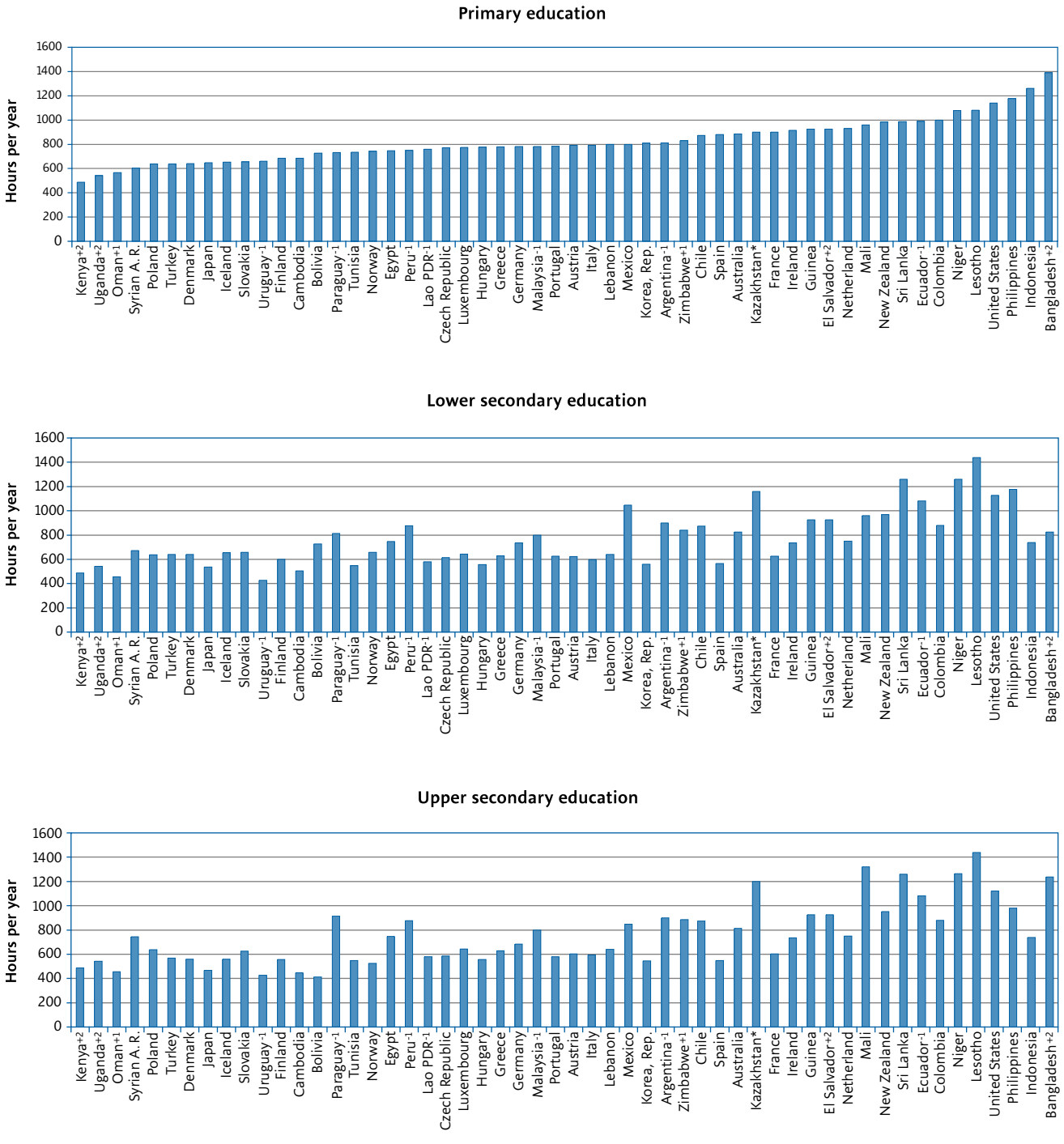
The following discussion relies, to a great extent, on statutory data (presented in Annex 3), which are relatively easy to collect and compare across countries. However, it is important to recognise their limitations. These indicators are based on legislation, norms or other standards set for the governance and conduct of a national education system. They may, for example, relate to teachers' conditions of service, such as the required hours of instruction or civil servant salary scales adjusted for years of service. In short, statutory-based indicators reflect policy goals but not necessarily the reality. A teacher may spend considerably less time in the classroom than proscribed because of high rates of absenteeism, for example, or far more time working in overburdened schools.

An important statutory indicator is the number of teaching hours in a school year which is meant to represent the intended time teachers spend actually instructing in the classroom. Teaching hours are distinct from working hours, which include time spent on tasks outside of the classroom. **Figure 3.7** shows the wide range of policies on teaching hours across countries and by level of education.

In Bangladesh, primary teachers are supposed to provide about 1,391 hours of instruction per year compared to less than 500 teaching hours in Kenya. In the case of Kenya, it may be possible to stretch existing teacher resources by raising the number of proscribed hours. This might also be a policy option for countries facing imminent teacher shortages, such as Uganda, where there is an obligatory 541 teaching hours per year. However, this is probably not the case for Mali and Niger, for example, which are both already at the high end of the scale with 930 and 1080 hours of instruction.

FIGURE 3.7

Statutory teaching hours by level of education, 2003



Notes: -1 Data refer to 2002; +1 Data refer to 2004; +2 Data refer to 2005.
* No reference year available.

Source: UNESCO Institute for Statistics, Annex 3, Statistical Tables A3.5, A3.6 and A3.7.

Teaching hours are generally shorter at the lower secondary level. Once again, Kenya and Uganda have the lowest numbers of 486 and 541 teaching hours required per year. At the other end of the spectrum, Kazakhstan, Lesotho and Sri Lanka require even more from secondary teachers (1,160, 1,440, and 1,260 teaching hours, respectively) than at the primary level. This is also the case for Mali (1,050 hours) and Niger (1,260 hours).

Another layer of analysis concerning teacher workload can be added through the measure of class size. This indicator goes beyond simple headcounts of teachers and pupils by also taking into account the mandated classroom time for teachers and pupils in a school year. However, it is important to recognise that average class sizes, like pupil-teacher ratios, will not reflect the inequalities resulting from a skewed distribution of teachers and pupils across the system *(see **Box 3.6**)*.

Figure 3.8 presents the primary pupil-teacher ratio alongside the adjusted class size (data are provided in Annex 3, Statistical Table A3.14). The figure shows that there may be more policy options than suggested by pupil-teacher ratios alone.

Where the class size is lower than the pupil-teacher ratio, it may be possible to accommodate more students. For example, this appears to be the case in Bangladesh, Lesotho and Zimbabwe: the number of instructional hours required of teachers is actually much higher than the time pupils are expected to spend learning in classrooms each year (hence the low class size). Upon closer examination, it appears that the teachers' workloads are not exceptionally heavy but rather that the required class time for pupils is below average, especially in Bangladesh and Zimbabwe (compared to the selected countries), at 589 and 516 hours, respectively *(see Annex 3, Statistical Table A3.14)*.

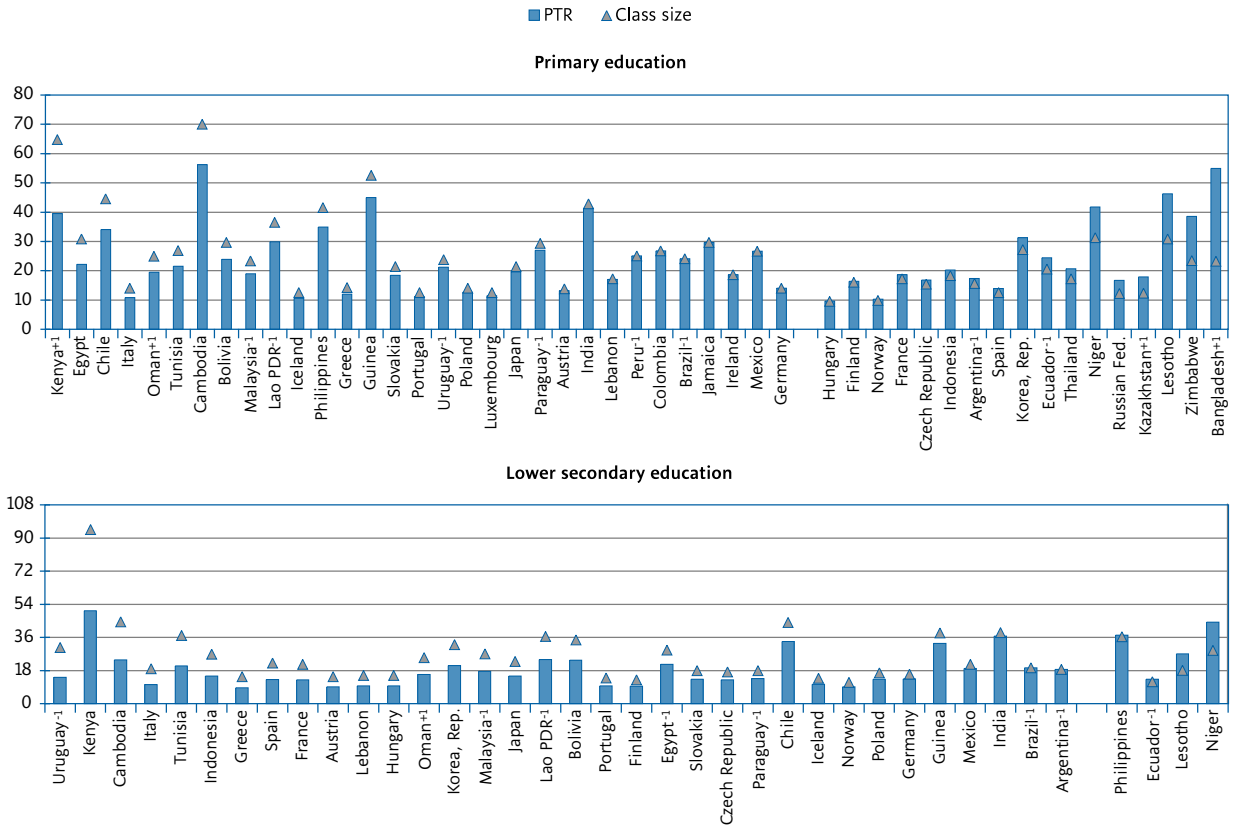
Countries like Bangladesh, Lesotho and Zimbabwe have a policy choice: instead of relying solely upon new recruits to meet growing demand for education, they could also ask existing teachers to work longer hours. However, these governments should be careful not to reduce further the hours that pupils actually spend in classrooms at the risk of seriously compromising learning outcomes.

Figure 3.8 also highlights the opposite situation, where class sizes are extremely high because pupils are expected to attend classes for relatively long hours over the year. In countries like Guinea (with an adjusted primary class size of 53), Kenya (65) and Cambodia (70), there may be even less room to adjust policies for UPE than suggested by pupil-teacher ratios alone. On the positive side, more time spent by pupils in the classroom may boost student learning.

This is not to suggest that demand for additional teachers can be managed simply by asking teachers to provide more or less hours of instruction alone. Changing the number of instructional hours not only has an impact on teacher workload but also can affect student performance. Moreover, the number of instructional hours cannot be considered alone, because it is linked to other aspects of teachers' working conditions, such as class size.

FIGURE 3.8

Primary pupil-teacher ratio and adjusted class size, 2003



Notes: +1 Data refer to 2004; -1 Data refer to 2002.
Sources: UNESCO Institute for Statistics, Annex 2, Statistical Table A2.4 and Annex 3, Statistical Table A3.14.

From the perspective of teacher deployment, **Figure 3.10** shows that the relationship between hours of instruction and class size differs across countries. First, there are a cluster of countries where teachers have relatively low hours of instruction and class sizes. These are typically OECD countries, such as Hungary, Japan or Norway, with declining primary school-age populations, which has meant increasing investments in education systems.

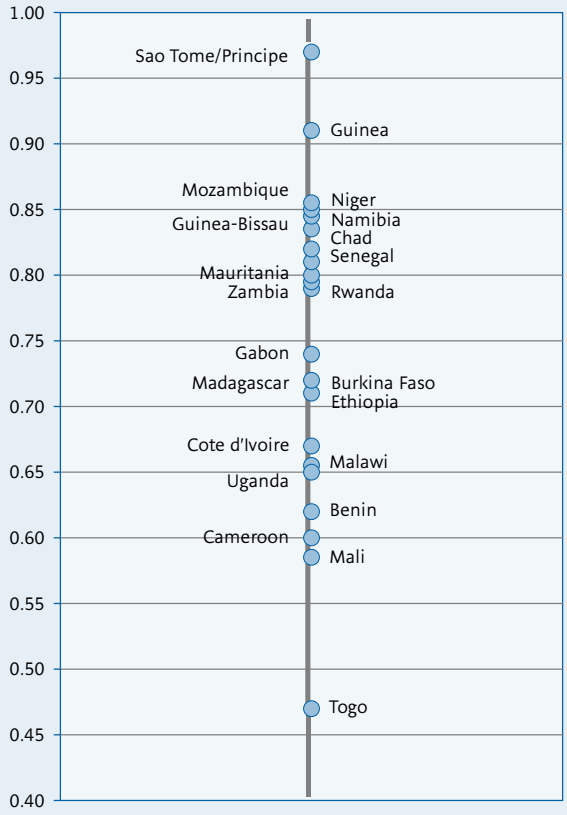
However, other countries will probably have to make trade-offs. For example, primary teachers in Cambodia and Kenya face bigger class sizes (over 60 pupils per teacher) but teach fewer hours in a school year (less than 700 hours). In Bangladesh and Indonesia, primary teachers have smaller classes (23 and 18 pupils per teacher, respectively) but longer hours of instruction (1,391 and 1,260 hours per year, respectively). It is often difficult to find the balance in terms of workload. It may be that teachers in the Philippines, India and Guinea face an even more difficult workload because both their hours and class sizes are moderately high.

Box 3.6 Assessing the coherence of teacher allocation policies

Average pupil-teacher ratios at the national level conceal serious imbalances in the distribution of teachers: a school with 800 pupils may have 20 teachers, while another school of similar size may only have five. It is therefore essential to consider the situation at the school or district level in order to evaluate deployment policies.

FIGURE 3.9

The determination coefficient of teacher allocation, 2000s



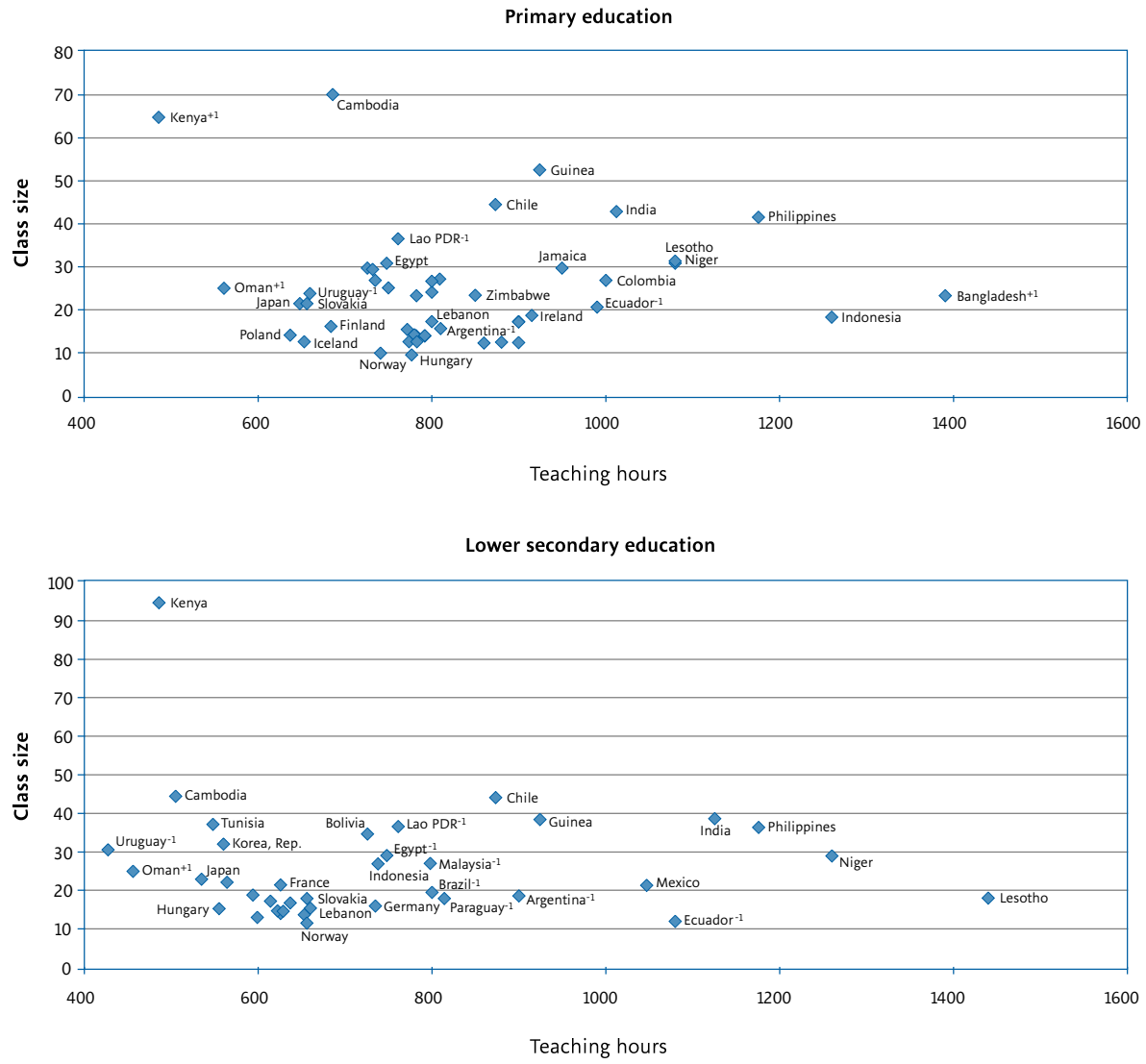
Source: Mingat et al., 2003 and Amelewonou et al., 2005.

This can be done by comparing local pupil-teacher ratios to the national average through the determination coefficient. If every school in a country has the same ratio as the national average, then the determination coefficient will equal 1. However, it will fall according to the number of schools straying from the average and the degree to which they do so. In short, the lower the determination coefficient, the bigger the problem in terms of teacher deployment.

Figure 3.9 presents the determination coefficient for 22 African countries. It ranges from under 0.5 in Togo to more than 0.9 in Guinea and Sao Tome and Principe. These latter two countries have managed to evenly distribute teachers across their education systems, which is critical to eliminate disparities in terms of education quality. Yet in Togo, teachers seem to be randomly deployed, with little regard to the number of pupils in each school. Consequently, some schools are under-staffed and others have too many teachers. On a positive note, this means that local teacher shortages can be alleviated by adjusting redeployment policies rather than massively hiring new recruits. It is true that local disparities often stem from the inaccessibility of certain areas due to geographic, economic or political factors. But given the trade-offs in the process of training new teachers, governments may consider providing incentives to attract teachers to these areas.

FIGURE 3.10

Teaching hours and adjusted class size, 2003



Notes: +1 Data refer to 2004; -1 Data refer to 2002.
Source: UNESCO Institute for Statistics, Annex 3, Statistical Tables A3.5, A3.6, A3.7 and A3.14.

In assessing policy options, it is important to assess what teachers are asked to do, as well as what they receive in return. Teacher wages are and will continue to be a contentious area of debate. In fact, personnel costs make up the majority of total public expenditure on education, representing up to 90% or more of recurrent costs in extreme cases. It has been argued that UPE is impossible for some countries given current fiscal constraints. Despite evidence that average primary teacher salaries have actually been falling over the last three decades, particularly in sub-Saharan Africa (Lambert, 2004), they are still considered

to be high, especially in the central and western countries of the region.

By benchmarking primary teachers' salaries to national GDP per capita, it is possible to compare country levels by reducing differences due to labour markets and price structures. According to data presented in **Figure 3.11**, entry-level salaries for primary teachers are highest in the countries needing to expand their teaching forces. In fact, some of the highest salaries, relative to GDP per capita, are found in Mali and Niger.

Based on a study of high-performing countries and universal primary education, the World Bank has suggested that the average primary teacher's salary should not exceed 3.5% of national GDP per capita (Bruns et al, 2001). But it should be remembered that in the lowest income countries, relative measures, such as the share of GDP per capita, hide the fact that these salaries in absolute terms are still very small, as is the pool of secondary school graduates who may pursue competing employment options.

Figure 3.11 provides a good indication of the statutory costs involved in hiring new teachers (with minimum qualifications) in countries that need to expand their teaching forces to reach UPE. Detailed data on salary scales at the beginning and mid-career of teachers are presented in Annex 3, Statistical Tables A3.9, A3.10 and A3.11.

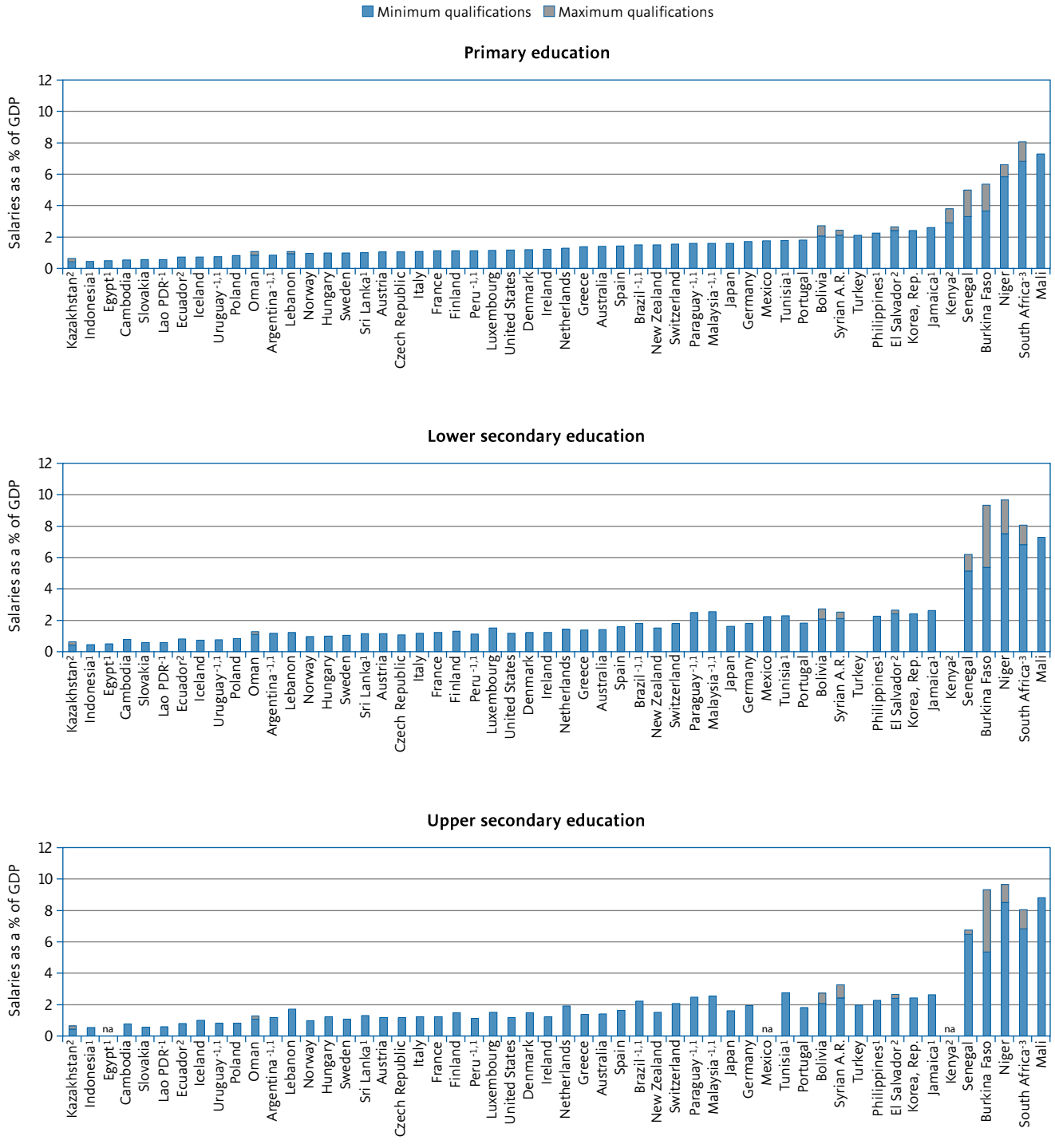
However, it is also important to consider the policy aims and implications of civil servant salary scales. Do systems reward new teachers with good qualifications? Are there provisions to reward teacher experience? These kinds of incentives can have a considerable impact on the quality of instruction. **Figure 3.12** shows the differences in teacher salary scales among two groups of countries: those which need to focus on retaining teachers, especially because of higher attrition rates linked to HIV/AIDS; and those that need to expand the primary teaching force.

Among the first group of countries, South Africa rewards experience more than formal qualifications, which seems to reflect a policy approach aiming to retain teachers. In contrast, Lesotho values relatively high qualifications at the entry level. Although data concerning experience are unavailable, it seems that Lesotho has deliberately raised entry salaries to keep locally-trained teachers in the country rather than migrating to other countries. Kenya seems to apply a strategy that is aimed at reducing overall costs and therefore does not provide incentives to improve qualifications or to accrue experience.

There is less variation among countries needing to expand teacher stocks. The exceptions are found in Mali, which places a higher premium on experience while Niger rewards entry-level qualifications and experience.

FIGURE 3.11

Statutory teacher salaries by level of education, 2003

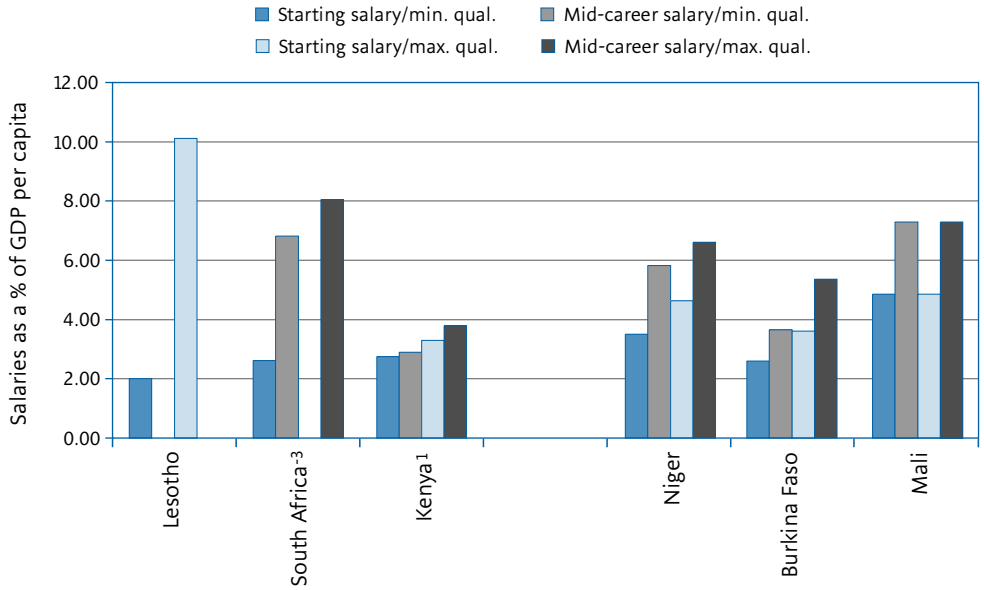


Notes: [1] Public institutions only; [2] GDP for 2005.
[-1] Data refer to 2002; [-3] Data refer to 2000; na: Not available.
Maximum qualification is shown where data are available.

Source: UNESCO Institute for Statistics, Annex 3, Statistical Tables A3.9, A3.10 and A3.11.

FIGURE 3.12

Teacher salary scales by experience and qualifications in six African countries, 2003



Notes: [1] GDP for 2005.
[-3] Data refer to 2000.
Source: UNESCO Institute for Statistics, Annex 3, Statistical Table 3A.9.

The statutory salary scales do not fully reflect the benefits that accrue to teachers. In Indonesia, for example, these benefits can account for up to 60% of a teacher's income (UIS/OECD, 2001). It is very difficult to quantify and therefore compare these benefits, but it is possible to examine their prevalence. **Table 3.1** shows the extent to which certain types of salary adjustments are found across countries. The most commonly used benefits are location allowances and housing which are used to attract new teachers to remote or rural schools. However, they can also be a source of dissatisfaction (**Box 3.7** highlights some policy contradictions in Latin America).

Common benefits also include additional payments for management responsibilities and for high levels of qualifications when entering the profession. However, other incentives are absent, especially those linked to teacher and more so to student performance. But then again, inspection and administrative structures are needed to apply and monitor the provision of these benefits.

TABLE 3.1
Prevalence of non-wage benefits for primary teachers

Region / Country or territory	Location allowances (e.g., isolation pay, housing allowance, or provision of housing)	Having a higher than minimum level of teacher certification or training obtained during professional life (e.g. Masters degree)	Completion of professional development	Management responsibilities	Achieving high scores in the qualification examination	Outstanding performance in teaching	Outstanding performance of students
Arab States							
Lebanon	○	●	○	○	○	○	○
Oman	■	○	○	○	○	○	○
Syrian AR	▲	■	●	▲	○	○	○
Tunisia	■	■	○	■	○	○	...
Central Asia							
Kazakhstan	●	■	▲	○	○	●	○
East Asia and the Pacific							
Cambodia	■	■	▲	■	▲	■	■
Indonesia	●	▲	▲	▲	○	○	...
Lao PDR	▲	■	○	■	▲	■	○
Malaysia	■	○	○	■	○	○	...
Philippines	●	■	○	○	○	■	...
Samoa	■	■	■	■	○	○	○
Thailand	●	■	○	○	■	○	...
Latin America and the Caribbean							
Argentina	■	○	○	○	○	○	...
Bolivia	■	▲	▲	▲	■	▲	▲
Brazil	■	■	■	■	○	○	...
Chile	■	■	■	■	○	■	...
Cuba	■	■	■	■	○	■	○
Ecuador	■	■	■	■	○	●	○
El Salvador	■	○	○	○	○	○	○
Paraguay	▲	■	▲	○	○	■	...
Uruguay	▲	○	○	▲	○	○	...
South and West Asia							
Bangladesh	■	●	■	▲	○	▲	▲
Sri Lanka	○	○	○	○	○	○	...
Sub-Saharan Africa							
Burkina Faso	■	■	○	■	○	○	▲
Chad	○	○	○	○	○	○	○
Guinea	■	●	■	■	■	●	●
Kenya	■	■	○	■	...	●	●
Lesotho	■	●	...	○	○	○	○
Mali	■	○	○	■	○	○	○
Niger	■	○	○	■	○	○	○
Senegal	■	■	○	■	■	○	○
Uganda	...	▲	...	...	...	...	...
Zimbabwe	■	○	○	○	○	○	○

Source: Annex 3, Table A3.8.

Legend:
■ Most of the time
▲ Occasionally
● Rarely
○ Never
... Missing data

Box 3.7 Equity in Latin America: The unintended consequences of teacher policies

Equity is a major concern for social development, especially in Latin America where significant income disparities are often related to ethnicity and location.

Teacher policies, especially those concerning deployment and labour conditions, can seriously impact the ways in which education systems promote social justice. In short, clear mechanisms are needed to ensure that teachers reach the students and schools that need them most. But policies are the result of a complex array of circumstances and negotiations that can have unintended and even contradictory consequences.

For example, several Latin American countries have set up incentive packages to make rural or remote schools more attractive to teachers. In Cuba, El Salvador, Panama, Peru and Venezuela, teachers working in isolated or rural communities receive salary bonuses. They also accrue greater benefits in Bolivia, for example, where every three years of service is counted as four, and in Honduras, where an extra half-year is counted for every year of teaching in these areas. Chile also grants teachers a salary bonus for challenging situations, like working with groups living in extreme poverty. In addition to a bonus, Ecuador grants tenure as a priority to teachers living in isolated areas, while Guatemalan laws oblige them to live near these communities in order to gain tenure.[1]

But are these measures alone sufficient to ensure that qualified teachers reach students most in need? Do they properly compensate for the hardship involved? There is not enough documentation to properly evaluate the efficiency of these measures.

Moreover, these measures are applied in combination with others, which can lead to contradictory results. For example, new teachers in Ecuador and Peru are required to begin their service in rural or 'less-developed' areas. This deployment practice may end up matching the least experienced teachers to the pupils in greatest need. Apparently, negotiations on these rules did not properly weigh the children's best interests. The same applies to the practice of linking teachers' salaries to the size of a school (number of students). In this case, schools serving scattered populations (often attending multi-grade classrooms with one teacher) are in a sense punished because they become even less attractive to teachers (UNESCO OREALC, 2005a).

This complexity underscores the need for a comprehensive approach to teachers' issues to improve services for those most in need (UNESCO OREALC, 2005b).

Based upon an ongoing comparative UNESCO study on "Teachers' career and appraisal in America and Europe". Available at http://www.unesco.cl/revistaprelac/ing/.

SECTION 3. Concluding remarks

This report has sought to identify the gaps in teacher supply to establish the parameters for providing minimum adequate standards of education quality in order to achieve universal primary education by 2015. **Table 3.2** presents a regional breakdown of the numbers of teachers needed to achieve UPE and to compensate for attrition among existing teachers. This section summarises some of the key factors and contexts shaping future needs in three groups of countries: those that need to substantially expand their primary teaching stocks, those needing more modest stock increases, and countries mainly facing attrition and can therefore focus efforts on other interventions to improve education quality.

Both groups of countries that need to expand teaching forces share a common problem: the availability of sufficient resources. While this report highlights some of the different policy adjustments to alleviate teacher shortages, they are all dependent upon financing. Indeed, there are hidden and sometimes substantial costs for every policy shift: from an incentive package to attract teachers to work in rural areas to the ongoing training and support of para-teachers or an increase in pupil instructional hours.

Countries in the greatest need of new teachers

The principle that the quantity and quality of education should not be compromised is an important one. Yet the challenges and hardships faced by countries with the greatest need to expand teaching forces, found in Central, West and East Africa, cannot be underestimated. This report clearly demonstrates that the quantity and quality of education in these countries has already been compromised: this is not the place to start hurdling towards ambitious

TABLE 3.2

Summary of primary teacher needs between 2004 and 2015 by region (in thousands and percentages)

Region	Primary teachers		Annual % increase in primary teachers, 2004-2015		Primary teacher flows, 2004-2015		
	2004	2015 (projected)	Among all countries	Among the 76 countries with need to expand	Additional teachers needed to reach UPE (among 76 countries)	Teachers to fill vacancies due to attrition (6.5%)	Total number of teachers needed
Arab States	1,752	2,202	2.10	2.77	479	1,361	1,840
Central and Eastern Europe/Central Asia	1,567	1,369	-1.22	0.91	34	832	865
East Asia and the Pacific	9,414	7,359	-2.21	0.98	32	3,944	3,976
Latin America and the Caribbean	2,899	2,538	-1.20	0.65	21	1,597	1,618
North America and Western Europe	3,605	3,506	-0.25	0.41	89	2,369	2,458
South and West Asia	4,422	4,747	0.65	3.35	414	3,169	3,583
Sub-Saharan Africa	2,396	4,029	4.84	5.40	1,644	2,140	3,784
WORLD	**26,054**	**25,751**	**-0.11**	**2.93**	**2,713**	**15,411**	**18,124**

Source: UNESCO Institute for Statistics, Annex 2, Statistical Table A2.6.

goals but rather to lay the foundations for progressive improvements. In fact, since 2000 progress is palpable in countries like Burkina Faso and Niger, but sustaining this movement will constitute a significant achievement.

How can policies be adjusted to make the most of effective teachers? The countries facing the greatest challenges should seek to improve traditional training routes through innovative use of communication technologies – from the time-trusted radio to the Internet connection. To meet growing demand, they may also decide, either by plan or circumstance, to lower teaching qualifications and introduce para-teachers. In any case, they should monitor the efficiency and effectiveness of such schemes.

It is not enough to simply introduce para-teachers into the system – not even the most intensive induction course will rectify the resulting imbalances. It is essential to accompany these individuals and 'mainstream' them through regular in-service training, as very successfully done in countries such as Bangladesh. Para-teachers must also have the opportunity to advance their careers. Without this, falling morale will steadily infect the entire school system, sapping motivation to provide quality education which leads to higher attrition rates.

Governments need to keep a careful eye on attrition rates in order to properly evaluate the hidden costs of the loss of teachers (and especially para-teacher programmes, where higher than average attrition rates may not be factored into cost-benefit analyses). By reducing attrition rates by a single percentage point, some countries could secure enough teachers to significantly reinforce the capacity to achieve UPE. In these cases, monetary incentives to keep effective teachers within the profession would cost less than training large waves of new recruits. Additional gains might also be made by an honest and comprehensive assessment of teachers' roles in decision-making at the school level and other factors related to both teacher motivation, as well as school effectiveness.

Countries in moderate need of new teachers

This group is made up primarily of countries in East and South Africa, Arab States, and South Asia. While the projected demand for teachers is not as extreme as that found in the previous group of countries, the challenges for education quality are still considerable. There is slightly more room for policy trade-offs, although the capacity and qualifications among the existing teaching force are a concern.

Improving teacher retention rates are also a priority for countries like Benin, Eritrea, Malawi, Rwanda and Tanzania, where there is a slightly more moderate demand for new teachers by 2015. Here the solutions lie in a combination of measures: a slight reduction of attrition rates along with adjustments in deployment policies and a possible realignment of qualifications required to enter the teaching profession. There is some room for manoeuvre, although the challenges should not be underestimated, especially in light of tight fiscal constraints.

There is still the risk of regression. Some of these countries have recently abolished school fees which have led to large numbers of new pupils entering formal schooling.

As the education systems were not always prepared for the consequences, pupil-teacher ratios soared and education quality suffered. Already, there is evidence of increases in the proportion of children leaving school early in some countries.

For this group of countries, as well as the others, there are questions as to why trained teachers do not necessarily lead to better outcomes. Is the teaching profession attracting less qualified individuals? Is teacher training inadequate? Are teachers poorly supported or monitored at the classroom level? These issues need to be better informed by research, especially at the international level, where the global database of teacher-related indicators is in need of significant improvement. **Box 3.8** shows that international efforts to monitor teacher-related issues still focus mainly on macro-level approaches but increasingly look at the mico-level.

Countries without the need of new teachers

In countries where no increase in teacher stock is projected, there are a number of commonalities. In most of the countries: primary school-age populations have been in decline; many countries have achieved or are near universal primary education; and levels of internal efficiency are fair, although this is still a significant issue in some areas, such as Latin America. There is often a large but mobile pool of potential teachers within active labour markets. Most countries have high qualification standards (tertiary level degrees) and high proportions of teachers who meet them.

Box 3.8 International monitoring of teacher-related indicators

From a monitoring perspective, the international database is very weak on teachers. The Indicators of National Education Systems (INES) project has made great strides in OECD countries, as well in other countries across the world, in the framework of the UIS/OECD World Education Indicators (WEI) programme. Part of this legacy is represented in the indicators used in this report. The UIS seeks to further expand the use of these indicators to inform education policy issues in less-developed countries. The use of statutory data presents a new perspective, but represents only a modest step towards a better understanding of teachers, teaching and education quality. Cross-national surveys of student achievement, such as those cited in this report (e.g. SACMEQ, PASEC, PIRLS, TIMSS) provide additional information on teachers, especially in terms of their attitudes towards different aspects of the profession. In addition, the PISA assessment is planning to incorporate a teacher survey in the next wave of the study. The UIS and OECD, in partnership with participating members of the WEI programme, have implemented a primary school survey across ten countries which examines teacher-related issues from the perspective of school headmasters and 4th grade teachers, which will help to shed more light into the black box of teaching and learning processes in the classroom.

Several countries in the North America and Western Europe region, e.g. Ireland, Spain and the United States, will need more teachers by 2015; however, it appears that these needs could be met by redeploying teachers or reducing of attrition rates. For example, by reducing the attrition rate by less than one-half percent, the United States could find a sufficient number of teachers to meet increase in the number of pupils at the national level.

A small number of Southern African countries are among this group as the number of primary school-age children is expected to decline. However, these countries may face higher rates of attrition primarily due to HIV/AIDS, so demand for education may be higher than it appears. There is an overarching concern to improve the skills and qualifications of the teaching force and improve the efficiency and quality of education provision.

Ultimately, progress in all three groups of countries will depend upon an ongoing commitment to enhance teacher status. This must be the foundation for a comprehensive policy approach which can balance wider education priorities with the actual conditions facing teachers and pupils in the classroom.

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Annex 1. Methodology for simulating teacher demand for 2015

The simulation model

The simulation model presented here is target-oriented. It is therefore very different from projection models that predict a future situation based upon the current situation or pattern. Instead, the simulation presented here defines a fixed target, which is described in terms of indicators, and applies a model to quantify the minimum required to reach the desired goal.

The teacher stock needed to reach UPE

Stock data refer to the total population of teachers for the reference school year.

Target school year

The school year 2015 is defined as the academic year ending in 2015. In countries where the school year crosses two calendar years, this corresponds to the school year 2014/15. For other countries, it is 2015.

School-age population

The school-age population for the academic year 2015 is projected using the population projections estimated by the United Nations Population Division (UNPD), 2004 revision. It is assumed that the typical starting age and duration of primary education will not change.

SP(2015):
The school-age population for 2015 is defined as the population of primary school age, as of 2004, using the population data closest to the start of the school year. If the school year 2015 refers to 2014/15, then the school-age population would enter in the year 2014.

Enrolment

The target is to reach universal primary education (UPE) of good quality by 2015.

Universal primary education implies that every child is enrolled for the full cycle of primary education and completes it. Typically UPE is associated with a net enrolment rate (NER) of 100% or, alternatively, a primary completion rate (PCR) of 100%. Yet, to project teacher numbers, assumptions on the enrolment stock are needed, which cannot be directly derived from PCRs. On the other hand, an NER of 100% can be insufficient to reach a PCR of 100% if repetition occurs.

For this model, the enrolment stock needed to reach UPE is defined as that needed to reach 100% NER plus an additional enrolment needed to allow for repetition. Since the target of quality education precludes high repetition rates, the model assumes that the number of repeaters should not exceed 10%. Future improvements in efficiency are assumed for all countries, including those with already reasonable repetition rates, since the model is designed to calculate the minimum number of teachers and enrolment. The repetition target is set to a maximum of 10% or one-half of the country's current percentage (i.e. for countries exceeding 20%, the model factors in an efficiency gain or reduction by more than one-half; other countries will see a reduction by one-half). Therefore, the enrolment target is the equivalent of the school-age population plus 10% or half of the current rate of repetition.

REP(2004): Observed percentage of repeaters in 2004 (divided by 100) or the newest year available. If repeater percentage is unavailable, the regional average is used.

REP(2015): min(REP(2004)/2 , 0.10)

ENRL(2015): SP(2015) + SP(2015) * REP(2015)

It should be noted that the enrolment assumption does not consider additional enrolment potential due to a backlog of students.

Teachers

The number of teachers needed is provided by the simulated enrolment and the assumed pupil-teacher ratio (PTR) in 2015. A PTR of 40:1 is widely accepted as sufficient to provide quality instruction. Countries with PTRs exceeding this threshold are decreasingly modeled to reach it by 2015. However, the model does not factor in any decline in the ratio for those countries that already have PTRs of 40:1 or below.

PTR (2004): Observed PTR for 2004 or newest year available.
PTR (2015): min(40:1, PTR 2004).
Teacher(2015) ENRL(2015) / PTR (2015)

Flow of teachers in the period 2005 to 2015

Flow data refer to teachers who join the teaching force during the reference period and teachers who leave the teaching force during the reference period. The flow of teachers is determined by changes in the size of the teacher population and the regular turnover due to attrition. Flows shape the demand for teachers to be newly hired. Since the current stock is observed in 2004, the first year considered for flows is 2005 and the last year is the academic school year 2015.

Increase in stock

The total change in stock is defined as the difference between the current year, *Teacher(n)*, and the stock to be reached in 2015, *Teacher(2015)*. In most cases the current year n with the newest data available refers to 2004 directly, yet for some countries earlier years are considered.

The change is expressed in different ways:

C Absolute change in teaching stock: Teacher(2015) - Teacher(n)
PC Percentage change in teaching stock: Teacher(2015) / Teacher(n) *100
AC The average annual change in stock for the period 2004 to 2015 is calculated as geometric growth rate for the period between the year with the newest data available and 2015.
(exp[ln(Teacher(2015) / Teacher(n))/ (2015 - n)] – 1) * 100

Attrition and teacher replacement

The simulation provides three scenarios for attrition rates set at 5%, 6.5% and 8%. A rate of 6.5% indicates that every year 6.5% of the teaching force leaves the profession, either due to retirement, career changes or other reasons.

AR Annual attrition rate, set to 5%, 6.5% and 8%

The model distinguishes between attrition and the rate of teacher replacement. For example, countries with a projected decrease in teaching stocks do not need to replace all vacant posts.

RR(AR) for countries with shrinking stock: AR + AC (Note: AC itself is negative when stocks are declining)
RR(AR) for countries with growing stock: AR

The total number of teachers to be hired to replace those who have left is the sum of teachers hired in the period from 2005 to 2015. Since the stock for 2004 is given, the first increase in stock and hire for replacement (for teachers leaving in 2004) is assumed for 2005.

HR(y) is the number of teachers to be hired for replacement in the year y.
HR(y): Teacher(y-1) * (RR(AR) / 100).
Teacher(y-1) is the stock of teachers in the year y-1: Teacher(2004) * $AC^{((y-1)-2004)}$

THR is the total hire for replacement 2005 to 2015: Sum of HR(2005) to HR(2015)

The projected teacher demand for UPE must take into account the fact that initial increases in the teaching stock will lead to increases in attrition later in the period of 2005 to 2015 (i.e. the newly created posts become vacant and need to be filled again). The model assumes the same average attrition rate for existing and newly created posts.

For countries with growing stock, the increased demand for teachers to replace vacant posts can be calculated separately from the regular attrition that would occur if the stock did not increase.

HR(y) can be expressed as HRr(y) for the regular attrition and HRa(y) for the increased attrition due to growth towards UPE.

HRr(y): Teacher(2004) * (RR(AR) / 100).
HRa(y): (Teacher(y-1) - Teacher(2004)) * (RR(AR) / 100).
The sum of HRa(y) for 2005 to 2015 needs to be considered as additional demand for teachers towards UPE.

Annex 2. Primary and secondary educational indicators

The following symbols are used in the Statistical Tables of Annexes 2 and 3:

...	No data available
*	National estimation
**	UIS estimation
n	Magnitude nil or negligible
a	Not applicable
-	Data not requested (from countries)
x	Data included in another category or column
Value $^{+n}$	Data refer to the school or financial year (or period) n years or periods after the reference year or period
Value $^{-n}$	Data refer to the school or financial year (or period) n years or periods before the reference year or period

TABLE A2.1 PROJECTED SCHOOL-AGE POPULATIONS BY LEVEL OF EDUCATION, 2005-2015

Region	Primary school-age population						Lower secondary school-age population					
	Intended age range	Projected primary school-age population (000s)			Projected average annual growth (%)		Intended age range	Projected lower secondary school-age population (000s)			Projected average annual growth (%)	
Country or territory	2004	2005	2010	2015	2005-2010	2010-2015	2004	2005	2010	2015	2005-2010	2010-2015
Arab States												
Algeria	6-11	3,902	3,634	3,931	-1.4	1.6	12-14	2,259	1,872	1,813	-3.7	-0.6
Bahrain	6-11	80	78	75	-0.4	-1.0	12-14	39	40	39	0.7	-0.3
Djibouti	6-11	126	133	136	1.0	0.5	12-15	75	81	86	1.6	1.1
Egypt	6-10	7,938	8,592	9,196	1.6	1.4	11-13	4,662	4,786	5,248	0.5	1.9
Iraq	6-11	4,499	4,927	5,223	1.8	1.2	12-14	2,025	2,273	2,479	2.3	1.8
Jordan	6-11	840	887	882	1.1	-0.1	12-15	483	566	588	3.2	0.8
Kuwait	6-9	167	189	212	2.5	2.4	10-13	156	173	195	2.1	2.4
Lebanon	6-11	426	402	385	-1.1	-0.9	12-14	207	214	197	0.7	-1.7
Libyan Arab Jamahiriya	6-11	666	724	798	1.7	2.0	12-14	339	333	366	-0.3	1.9
Mauritania	6-11	476	555	632	3.1	2.6	12-15	269	238	278	-2.4	3.2
Morocco	6-11	3,828	3,904	4,085	0.4	0.9	12-14	1,958	1,890	1,956	-0.7	0.7
Oman	6-11	352	356	374	0.3	1.0	12-14	170	177	177	0.8	0.1
Palestinian Autonomous Territories	6-9	437	501	544	2.8	1.7	10-15	529	651	748	4.2	2.8
Qatar	6-11	66	76	85	2.8	2.4	12-14	29	33	39	2.8	2.9
Saudi Arabia	6-11	3,597	3,752	3,903	0.9	0.8	12-14	1,652	1,802	1,867	1.8	0.7
Sudan	6-11	5,424	5,887	6,175	1.7	1.0	12-13	1,654	1,833	1,981	2.1	1.6
Syrian Arab Republic	6-9	2,683	1,970	2,111	-6.0	1.4	10-14	1,306	2,281	2,480	11.8	1.7
Tunisia	6-11	1,082	973	975	-2.1	0.0	12-14	619	527	482	-3.2	-1.8
United Arab Emirates	6-10	316	333	360	1.1	1.5	11-14	255	263	270	0.6	0.5
Yemen	6-11	3,634	4,062	4,617	2.3	2.6	12-14	1,624	1,826	2,038	2.4	2.2
Central and Eastern Europe/Central Asia												
Albania	6-9	231	204	201	-2.5	-0.3	10-13	253	225	200	-2.3	-2.3
Belarus	6-9	374	349	359	-1.4	0.6	10-14	646	450	433	-6.9	-0.8
Bosnia and Herzegovina	6-9	185	159	145	-3.0	-1.8	10-13	188	183	154	-0.5	-3.5
Bulgaria	7-10	284	260	258	-1.7	-0.2	11-14	353	265	262	-5.6	-0.3
Croatia	7-10	200	178	164	-2.3	-1.6	11-14	212	200	173	-1.2	-2.9
Czech Republic	6-10	497	450	456	-2.0	0.3	11-14	499	384	362	-5.1	-1.2
Estonia	7-12	85	73	78	-3.2	1.6	13-15	57	41	36	-6.6	-2.2
Hungary	7-10	441	393	375	-2.3	-0.9	11-14	499	425	390	-3.2	-1.7
Latvia	7-10	92	77	81	-3.4	1.1	11-15	163	109	97	-7.8	-2.3
Lithuania	7-10	166	127	118	-5.2	-1.4	11-16	324	251	189	-5.0	-5.5
Poland	7-12	2,782	2,313	2,163	-3.6	-1.3	13-15	1,654	1,353	1,130	-3.9	-3.5
Republic of Moldova	7-10	224	174	164	-4.9	-1.1	11-15	356	269	211	-5.5	-4.7
Romania	7-10	907	847	821	-1.4	-0.6	11-14	1,061	883	845	-3.6	-0.9
Russian Federation	7-9	4,125	4,098	4,561	-0.1	2.2	10-14	8,829	6,652	7,010	-5.5	1.1
Serbia and Montenegro	7-10	522	490	473	-1.3	-0.7	11-14	573	508	486	-2.4	-0.9
Slovakia	6-9	246	209	202	-3.2	-0.7	10-14	370	301	260	-4.0	-3.0
Slovenia	7-10	74	70	68	-1.2	-0.5	11-14	83	73	70	-2.6	-0.9
The Former Yugoslav Rep.of Macedonia	7-10	113	97	90	-2.8	-1.7	11-14	126	108	95	-3.0	-2.5
Turkey	6-11	8,518	8,654	8,581	0.3	-0.2	12-13	2,722	2,875	2,873	1.1	-0.0
Ukraine	6-9	1,821	1,532	1,529	-3.4	-0.0	10-14	3,091	2,187	1,889	-6.7	-2.9
Armenia	7-9	134	99	100	-5.8	0.1	10-14	286	206	160	-6.3	-5.0
Azerbaijan	6-9	590	481	498	-4.0	0.7	10-14	915	715	596	-4.8	-3.6
Georgia	6-11	360	192	177	-11.9	-1.6	12-14	224	271	236	3.8	-2.7
Kazakhstan	7-10	939	828	826	-2.5	-0.1	11-15	1,414	1,105	1,004	-4.8	-1.9

Upper secondary school-age population						Region
Intended age range	Projected upper secondary school-age population (000s)			Projected average annual growth (%)		
2004	2005	2010	2015	2005-2010	2010-2015	Country or territory
						Arab States
15-17	2,263	2,139	1,771	-1.1	-3.7	Algeria
15-17	34	40	39	3.2	-0.2	Bahrain
16-18	51	57	61	2.2	1.5	Djibouti
14-16	4,818	4,652	4,934	-0.7	1.2	Egypt
15-17	1,893	2,115	2,357	2.3	2.2	Iraq
16-17	234	251	298	1.4	3.5	Jordan
14-17	146	161	179	1.9	2.1	Kuwait
15-17	200	210	210	1.0	0.1	Lebanon
15-17	375	327	344	-2.7	1.0	Libyan Arab Jamahiriya
16-18	183	215	251	3.2	3.2	Mauritania
15-17	1,968	1,923	1,886	-0.5	-0.4	Morocco
15-17	166	173	177	0.8	0.5	Oman
16-17	162	178	226	1.9	4.9	Palestinian Autonomous Territories
15-17	27	30	36	2.6	3.3	Qatar
15-17	1,469	1,706	1,809	3.0	1.2	Saudi Arabia
14-16	2,346	2,605	2,860	2.1	1.9	Sudan
15-17	1,360	1,298	1,387	-0.9	1.3	Syrian Arab Republic
15-18	859	793	673	-1.6	-3.3	Tunisia
15-17	192	216	214	2.4	-0.1	United Arab Emirates
15-17	1,488	1,694	1,899	2.6	2.3	Yemen
						Central and Eastern Europe/Central Asia
14-17	254	243	215	-0.8	-2.4	Albania
15-16	328	228	168	-7.0	-5.9	Belarus
14-17	215	186	178	-2.9	-0.9	Bosnia and Herzegovina
15-17	311	242	189	-4.9	-4.8	Bulgaria
15-18	228	212	195	-1.5	-1.6	Croatia
15-18	519	484	371	-1.4	-5.2	Czech Republic
16-18	67	50	36	-5.6	-6.2	Estonia
15-18	500	492	414	-0.3	-3.4	Hungary
16-18	114	92	58	-4.3	-8.6	Latvia
17-18	114	106	76	-1.4	-6.6	Lithuania
16-18	1,812	1,534	1,242	-3.3	-4.1	Poland
16-17	167	130	97	-4.9	-5.6	Republic of Moldova
15-18	1,390	993	864	-6.5	-2.7	Romania
15-16	4,694	3,129	2,588	-7.8	-3.7	Russian Federation
15-18	622	557	499	-2.2	-2.2	Serbia and Montenegro
15-18	328	292	236	-2.3	-4.2	Slovakia
15-18	99	80	72	-4.0	-2.1	Slovenia
15-18	128	123	104	-0.9	-3.3	The Former Yugoslav Rep.of Macedonia
14-16	4,020	4,183	4,326	0.8	0.7	Turkey
15-16	1,468	1,114	796	-5.4	-6.5	Ukraine
15-16	129	105	74	-4.0	-6.8	Armenia
15-16	377	348	263	-1.6	-5.4	Azerbaijan
15-16	157	132	100	-3.4	-5.5	Georgia
16-17	656	505	404	-5.1	-4.4	Kazakhstan

TABLE A2.1 PROJECTED SCHOOL-AGE POPULATIONS BY LEVEL OF EDUCATION

Region	Primary school-age population						Lower secondary school-age population					
	Intended age range	Projected primary school-age population (000s)			Projected average annual growth (%)		Intended age range	Projected lower secondary school-age population (000s)			Projected average annual growth (%)	
Country or territory	2004	2005	2010	2015	2005-2010	2010-2015	2004	2005	2010	2015	2005-2010	2010-2015
Kyrgyzstan	7-10	444	423	427	-1.0	0.2	11-15	598	544	526	-1.9	-0.7
Mongolia	8-11	218	204	210	-1.3	0.6	12-15	241	209	205	-2.8	-0.4
Tajikistan	7-10	685	655	646	-0.9	-0.3	11-15	867	845	812	-0.5	-0.8
Turkmenistan	7-9	305	283	291	-1.4	0.5	10-14	581	488	473	-3.4	-0.7
Uzbekistan	7-10	2,374	2,203	2,266	-1.5	0.6	11-15	3,276	2,893	2,749	-2.5	-1.0
East Asia and the Pacific												
Australia	5-11	1,863	1,794	1,811	-0.7	0.2	12-15	1,121	1,081	1,037	-0.7	-0.8
Brunei Darussalam	6-11	43	45	46	0.9	0.7	12-14	20	21	22	0.4	1.3
Cambodia	6-11	2,010	2,039	2,229	0.3	1.8	12-14	1,055	986	1,021	-1.3	0.7
China	7-11	99,967	89,552	83,434	-2.2	-1.4	12-14	64,743	59,149	52,050	-1.8	-2.5
Cook Islands	5-10	...	...	...	...	...	11-14	...	...	...	...	...
Democratic People's Republic of Korea	6-9	1,557	1,412	1,261	-1.9	-2.2	10-12	1,204	1,138	1,020	-1.1	-2.2
Fiji	6-11	107	104	99	-0.6	-1.0	12-15	68	69	67	0.4	-0.7
Indonesia	7-12	24,855	25,039	25,569	0.1	0.4	13-15	12,622	12,309	12,540	-0.5	0.4
Japan	6-11	7,227	7,160	6,978	-0.2	-0.5	12-14	3,663	3,636	3,569	-0.1	-0.4
Kiribati	6-11	...	...	...	...	...	12-14	...	...	...	...	...
Lao People's Democratic Republic	6-10	769	827	883	1.5	1.3	11-13	434	461	499	1.2	1.6
Macao, China	6-11	35	24	21	-7.4	-2.9	12-14	23	17	11	-5.7	-7.8
Malaysia	6-11	3,317	3,278	3,230	-0.2	-0.3	12-14	1,618	1,644	1,643	0.3	-0.0
Marshall Islands	6-11	8	...	...	...	...	12-13	3	...	...	...	...
Micronesia (Federated States of)	6-11	16	17	18	1.1	0.5	12-13	5	5	6	-0.0	1.6
Myanmar	5-9	5,113	4,596	4,275	-2.1	-1.4	10-13	4,289	3,900	3,627	-1.9	-1.4
Nauru	6-11	...	...	...	...	...	12-15	...	...	...	...	...
New Zealand	5-10	345	332	325	-0.7	-0.4	11-14	241	232	223	-0.7	-0.8
Niue	5-10	...	...	...	...	...	11-14	...	...	...	...	...
Palau	6-10	2	...	...	...	...	11-13	1	...	...	...	...
Papua New Guinea	7-12	945	965	944	0.4	-0.4	13-16	544	627	640	2.9	0.4
Philippines	6-11	11,634	11,737	11,641	0.2	-0.2	12-14	5,635	5,801	5,859	0.6	0.2
Republic of Korea	6-11	3,937	3,264	2,745	-3.7	-3.4	12-14	2,034	1,969	1,567	-0.6	-4.5
Samoa	5-10	32	30	26	-0.9	-2.9	11-12	9	11	10	2.8	-1.9
Singapore	6-11	373	297	247	-4.5	-3.6	12-13	140	123	96	-2.5	-5.0
Solomon Islands	6-11	75	84	87	2.1	0.8	12-14	33	38	42	3.0	1.8
Thailand	6-11	6,151	6,007	5,903	-0.5	-0.3	12-14	3,207	3,043	3,004	-1.1	-0.3
Timor-Leste	6-11	118	162	263	6.6	10.1	12-14	71	55	85	-4.8	8.9
Tokelau	5-10	...	...	...	...	...	11-13	...	...	...	...	...
Tonga	5-10	15	14	13	-1.7	-1.6	11-14	10	10	9	-0.6	-1.7
Tuvalu	6-11	...	...	...	...	...	12-15	...	...	...	...	...
Vanuatu	6-11	33	35	36	0.8	0.4	12-15	20	21	22	1.2	0.8
Viet Nam	6-10	8,225	7,798	7,917	-1.1	0.3	11-14	7,564	6,370	6,236	-3.4	-0.4
Latin America and the Caribbean												
Anguilla	5-11	2	...	...	...	...	12-14	1	...	...	...	...
Antigua and Barbuda	5-11	...	...	...	...	...	12-14	...	...	...	...	...
Argentina	6-11	4,140	4,029	4,073	-0.5	0.2	12-14	2,077	2,069	1,998	-0.1	-0.7
Aruba	6-11	9	...	...	...	...	12-13	3	...	...	...	...
Bahamas	5-10	37	37	36	-0.1	-0.2	11-13	18	18	18	0.0	-0.0
Barbados	5-10	21	20	19	-1.0	-1.0	11-13	11	10	10	-1.7	-0.8

Upper secondary school-age population						Region
Intended age range	Projected upper secondary school-age population (000s)			Projected average annual growth (%)		
2004	2005	2010	2015	2005-2010	2010-2015	Country or territory
16-17	237	235	209	-0.1	-2.4	Kyrgyzstan
16-17	129	112	100	-2.7	-2.2	Mongolia
16-17	336	343	331	0.4	-0.7	Tajikistan
15-16	229	225	188	-0.4	-3.6	Turkmenistan
16-17	1,246	1,306	1,095	1.0	-3.5	Uzbekistan
						East Asia and the Pacific
16-17	561	566	536	0.2	-1.1	Australia
15-18	26	28	29	2.0	0.3	Brunei Darussalam
15-17	1,054	1,028	978	-0.5	-1.0	Cambodia
15-17	70,617	61,657	56,466	-2.7	-1.7	China
15-18	...	...	...	...	...	Cook Islands
13-15	1,170	1,184	1,092	0.2	-1.6	Democratic People's Republic of Korea
16-18	48	50	50	0.7	0.2	Fiji
16-18	12,710	12,452	12,197	-0.4	-0.4	Indonesia
15-17	3,933	3,603	3,644	-1.7	0.2	Japan
15-17	...	...	...	...	...	Kiribati
14-16	409	441	472	1.5	1.4	Lao People's Democratic Republic
15-17	25	21	15	-3.4	-6.8	Macao, China
15-18	1,836	2,225	2,180	3.9	-0.4	Malaysia
14-17	5	...	...	...	...	Marshall Islands
14-17	11	10	10	-1.6	0.7	Micronesia (Federated States of)
14-15	2,074	2,083	1,889	0.1	-1.9	Myanmar
16-17	...	...	...	...	...	Nauru
15-17	188	179	173	-1.0	-0.7	New Zealand
15-16	...	...	...	...	...	Niue
14-17	1	...	...	...	...	Palau
17-18	238	295	318	4.4	1.6	Papua New Guinea
15-15	1,817	1,918	1,943	1.1	0.3	Philippines
15-17	1,941	2,039	1,848	1.0	-2.0	Republic of Korea
13-17	21	23	25	2.0	1.3	Samoa
14-16	128	208	168	10.2	-4.2	Singapore
15-18	43	45	53	0.9	3.1	Solomon Islands
15-17	3,242	3,150	2,999	-0.6	-1.0	Thailand
15-17	74	68	60	-1.7	-2.3	Timor-Leste
14-15	...	...	...	...	...	Tokelau
15-16	4	5	4	1.5	-1.4	Tonga
16-17	...	...	...	...	...	Tuvalu
16-18	14	15	16	1.1	1.3	Vanuatu
15-17	5,551	5,496	4,597	-0.2	-3.5	Viet Nam
						Latin America and the Caribbean
15-16	.4	...	...	...	...	Anguilla
15-16	...	...	...	...	...	Antigua and Barbuda
15-17	2,040	2,084	2,046	0.4	-0.4	Argentina
14-16	4	...	...	...	...	Aruba
14-16	17	18	18	1.3	-0.1	Bahamas
14-15	8	7	7	-2.1	-1.3	Barbados

TABLE A2.1 PROJECTED SCHOOL-AGE POPULATIONS BY LEVEL OF EDUCATION

Region	Primary school-age population						Lower secondary school-age population					
	Intended age range	Projected primary school-age population (000s)			Projected average annual growth (%)		Intended age range	Projected lower secondary school-age population (000s)			Projected average annual growth (%)	
Country or territory	2004	2005	2010	2015	2005-2010	2010-2015	2004	2005	2010	2015	2005-2010	2010-2015
Belize	5-10	40	40	40	0.2	0.0	11-14	25	26	26	0.7	0.1
Bermuda	5-10	...	...	...	...	...	11-13	...	...	...	...	...
Bolivia	6-11	1,374	1,425	1,452	0.7	0.4	12-13	439	450	474	0.5	1.0
Brazil	7-10	13,613	14,236	14,384	0.9	0.2	11-14	13,237	13,762	14,305	0.8	0.8
British Virgin Islands	5-11	3	...	...	...	...	12-14	1	...	...	...	...
Cayman Islands	5-10	...	...	...	...	...	11-13	...	...	...	...	...
Chile	6-11	1,659	1,507	1,489	-1.9	-0.2	12-13	604	535	494	-2.4	-1.6
Colombia	6-10	4,729	4,698	4,657	-0.1	-0.2	11-14	3,740	3,761	3,742	0.1	-0.1
Costa Rica	6-11	495	479	478	-0.7	-0.0	12-14	260	248	240	-0.9	-0.7
Cuba	6-11	879	820	775	-1.4	-1.1	12-14	484	427	406	-2.5	-1.0
Dominica	5-11	...	...	...	...	...	12-14	...	...	...	...	...
Dominican Republic	6-11	1,144	1,163	1,194	0.3	0.5	12-13	381	376	388	-0.3	0.6
Ecuador	6-11	1,712	1,730	1,709	0.2	-0.2	12-14	826	856	861	0.7	0.1
El Salvador	7-12	924	950	953	0.6	0.1	13-15	430	461	472	1.4	0.5
Grenada	5-11	17	...	...	...	...	12-14	8	...	...	...	...
Guatemala	7-12	2,060	2,264	2,450	1.9	1.6	13-15	913	1,024	1,130	2.3	2.0
Guyana	6-11	89	86	78	-0.6	-2.0	12-14	42	42	41	0.1	-0.8
Haiti	6-11	1,229	1,283	1,343	0.9	0.9	12-14	611	605	634	-0.2	0.9
Honduras	6-11	1,112	1,149	1,178	0.6	0.5	12-14	519	559	570	1.5	0.4
Jamaica	6-11	345	317	294	-1.7	-1.5	12-14	173	171	154	-0.3	-2.0
Mexico	6-11	13,460	12,989	12,285	-0.7	-1.1	12-14	6,737	6,599	6,410	-0.4	-0.6
Montserrat	5-11	...	...	...	...	...	12-14	...	...	...	...	...
Netherlands Antilles	6-11	17	16	15	-1.7	-1.1	12-13	6	5	5	-3.5	-0.4
Nicaragua	7-12	845	861	875	0.4	0.3	13-15	403	421	426	0.9	0.2
Panama	6-11	388	407	413	1.0	0.3	12-14	183	196	205	1.3	0.9
Paraguay	6-11	...	962	1,024	...	1.3	12-14	...	451	483	...	1.4
Peru	6-11	...	3,549	3,559	...	0.1	12-14	...	1,801	1,753	...	-0.5
Saint Kitts and Nevis	5-11	6	...	...	...	...	12-14	3	...	...	...	...
Saint Lucia	5-11	22	20	21	-1.9	0.8	12-14	11	9	8	-3.8	-1.5
Saint Vincent and the Grenadines	5-11	16	16	16	-0.7	0.2	12-14	8	6	6	-3.5	-0.4
Suriname	6-11	55	54	51	-0.2	-1.1	12-15	34	35	34	0.3	-0.4
Trinidad and Tobago	5-11	129	122	126	-1.2	0.7	12-14	69	54	52	-4.8	-0.8
Turks and Caicos Islands	6-11	...	...	...	...	...	12-14	...	...	...	...	...
Uruguay	6-11	337	337	332	-0.0	-0.3	12-14	165	168	168	0.3	-0.0
Venezuela	6-11	...	3,356	3,458	...	0.6	12-14	...	1,642	1,683	...	0.5
North America and Western Europe												
Andorra	6-11	...	...	...	...	...	12-15	...	...	...	...	...
Austria	6-9	342	314	296	-1.7	-1.2	10-13	382	334	311	-2.7	-1.4
Belgium	6-11	711	684	663	-0.8	-0.6	12-13	249	233	229	-1.3	-0.4
Canada	6-11	2,366	2,202	2,141	-1.4	-0.6	12-14	1,300	1,211	1,142	-1.4	-1.2
Cyprus	6-11	70	62	62	-2.5	0.2	12-14	39	35	31	-2.3	-2.5
Denmark	7-12	421	414	394	-0.3	-1.0	13-15	196	213	209	1.6	-0.4
Finland	7-12	384	353	337	-1.7	-0.9	13-15	198	192	177	-0.6	-1.6
France	6-10	3,623	3,725	3,707	0.6	-0.1	11-14	2,910	2,915	3,004	0.0	0.6
Germany	6-9	3,272	2,991	2,791	-1.8	-1.4	10-15	5,298	4,984	4,568	-1.2	-1.7
Greece	6-11	644	632	618	-0.4	-0.5	12-14	337	323	318	-0.8	-0.3

Upper secondary school-age population						Region
Intended age range	Projected upper secondary school-age population (000s)			Projected average annual growth (%)		
2004	2005	2010	2015	2005-2010	2010-2015	Country or territory
15-16	12	13	13	1.7	0.3	Belize
14-17	...	...	...	...	...	Bermuda
14-17	802	883	908	1.9	0.6	Bolivia
15-17	10,306	9,887	10,447	-0.8	1.1	Brazil
15-16	1	...	...	...	...	British Virgin Islands
14-16	...	...	...	...	...	Cayman Islands
14-17	1,192	1,164	1,030	-0.5	-2.4	Chile
15-16	1,765	1,887	1,869	1.4	-0.2	Colombia
15-16	179	170	163	-1.0	-0.8	Costa Rica
15-17	516	457	409	-2.4	-2.2	Cuba
15-16	...	...	...	...	...	Dominica
14-17	761	752	753	-0.2	0.0	Dominican Republic
15-17	812	827	857	0.4	0.7	Ecuador
16-18	405	442	464	1.8	1.0	El Salvador
15-16	5	...	...	...	...	Grenada
16-17	557	645	708	3.0	1.9	Guatemala
15-16	28	27	27	-0.6	0.1	Guyana
15-18	865	787	804	-1.9	0.4	Haiti
15-16	481	364	376	-5.4	0.6	Honduras
15-16	110	115	108	0.9	-1.3	Jamaica
14-16	6,537	6,645	6,417	0.3	-0.7	Mexico
15-16	...	...	...	...	...	Montserrat
14-17	12	12	11	0.4	-3.1	Netherlands Antilles
16-17	258	273	282	1.2	0.7	Nicaragua
15-17	182	187	200	0.5	1.4	Panama
15-17	...	439	461	...	1.0	Paraguay
15-16	...	1,199	1,184	...	-0.2	Peru
15-16	2	...	...	...	...	Saint Kitts and Nevis
15-16	7	7	6	0.5	-4.4	Saint Lucia
15-16	5	5	4	-3.2	-2.6	Saint Vincent and the Grenadines
16-17	18	16	17	-2.9	1.8	Suriname
15-16	51	40	34	-4.7	-3.6	Trinidad and Tobago
15-16	...	...	...	...	...	Turks and Caicos Islands
15-17	161	166	167	0.7	0.1	Uruguay
15-16	...	1,092	1,103	...	0.2	Venezuela
						North America and Western Europe
16-17	...	...	...	...	...	Andorra
14-17	381	377	331	-0.2	-2.6	Austria
14-17	492	491	463	-0.1	-1.1	Belgium
15-17	1,281	1,327	1,208	0.7	-1.9	Canada
15-17	38	39	33	0.1	-3.0	Cyprus
16-18	178	212	215	3.6	0.3	Denmark
16-18	191	203	186	1.2	-1.7	Finland
15-17	2,302	2,167	2,210	-1.2	0.4	France
16-18	2,956	2,687	2,562	-1.9	-0.9	Germany
15-17	364	331	325	-1.9	-0.4	Greece

TABLE A2.1 PROJECTED SCHOOL-AGE POPULATIONS BY LEVEL OF EDUCATION

Region	Primary school-age population						Lower secondary school-age population					
	Intended age range	Projected primary school-age population (000s)			Projected average annual growth (%)		Intended age range	Projected lower secondary school-age population (000s)			Projected average annual growth (%)	
Country or territory	2004	2005	2010	2015	2005-2010	2010-2015	2004	2005	2010	2015	2005-2010	2010-2015
Iceland	6-12	31	30	29	-1.0	-0.4	13-15	13	13	13	-0.0	-1.0
Ireland	4-11	424	466	514	1.9	2.0	12-14	165	156	173	-1.2	2.1
Israel	6-11	719	791	816	1.9	0.6	12-14	331	369	402	2.2	1.7
Italy	6-10	2,712	2,691	2,661	-0.2	-0.2	11-13	1,694	1,625	1,628	-0.8	0.1
Luxembourg	6-11	...	36	37	...	0.4	12-14	...	19	19	...	0.5
Malta	5-10	30	25	25	-3.1	-0.2	11-15	28	25	22	-1.6	-3.3
Monaco	6-10	...	...	...	...	...	11-14	...	...	...	...	...
Netherlands	6-11	1,192	1,193	1,136	0.0	-1.0	12-14	603	599	608	-0.1	0.3
Norway	6-12	438	423	401	-0.7	-1.0	13-15	182	191	183	0.9	-0.8
Portugal	6-11	658	675	665	0.5	-0.3	12-14	330	338	345	0.5	0.4
San Marino	6-10	...	...	...	...	...	11-13	...	...	...	...	...
Spain	6-11	...	2,549	2,772	...	1.7	12-15	...	1,564	1,709	...	1.8
Sweden	7-12	...	587	603	...	0.5	13-15	...	333	299	...	-2.1
Switzerland	7-12	...	471	424	...	-2.1	13-15	...	261	237	...	-2.0
United Kingdom	5-10	4,343	4,118	3,973	-1.1	-0.7	11-13	2,289	2,164	2,059	-1.1	-1.0
United States	6-11	24,694	24,632	25,469	-0.1	0.7	12-14	12,937	12,624	12,703	-0.5	0.1
South and West Asia												
Afghanistan, Islamic Republic of	7-12	4,992	5,891	6,700	3.4	2.6	13-15	2,123	2,581	2,945	4.0	2.7
Bangladesh	6-10	16,526	17,005	17,488	0.6	0.6	11-13	9,888	9,837	10,267	-0.1	0.9
Bhutan	6-12	377	390	419	0.7	1.5	13-14	106	107	112	0.2	0.9
India	6-10	117,416	117,430	117,427	0.0	-0.0	11-13	69,251	70,240	70,099	0.3	-0.0
Iran, Islamic Republic of	6-10	6,600	5,716	6,560	-2.8	2.8	11-13	5,145	3,565	3,434	-7.1	-0.7
Maldives	6-12	62	64	67	0.7	1.0	13-15	25	27	27	1.4	0.5
Nepal	5-9	3,557	3,579	3,654	0.1	0.4	10-12	2,031	2,138	2,142	1.0	0.0
Pakistan	5-9	19,764	20,368	21,663	0.6	1.2	10-14	19,474	19,627	20,256	0.2	0.6
Sri Lanka	5-9	1,634	1,617	1,581	-0.2	-0.4	10-13	1,384	1,296	1,289	-1.3	-0.1
Sub-Saharan Africa												
Angola	6-9	1,846	2,136	2,443	3.0	2.7	10-13	1,692	1,850	2,150	1.8	3.1
Benin	6-11	1,370	1,554	1,767	2.5	2.6	12-15	798	907	1,027	2.6	2.5
Botswana	6-12	312	290	270	-1.4	-1.5	13-15	135	131	119	-0.7	-1.9
Burkina Faso	7-12	2,204	2,500	2,874	2.6	2.8	13-16	1,267	1,451	1,647	2.7	2.6
Burundi	7-12	1,221	1,314	1,603	1.5	4.1	13-16	764	804	852	1.0	1.2
Cameroon	6-11	2,571	2,680	2,771	0.8	0.7	12-15	1,602	1,670	1,748	0.8	0.9
Cape Verde	6-11	77	81	88	1.1	1.6	12-13	26	25	28	-0.6	1.9
Central African Republic	6-11	662	694	722	0.9	0.8	12-15	396	429	448	1.6	0.9
Chad	6-11	1,640	1,876	2,186	2.7	3.1	12-15	922	1,056	1,204	2.8	2.7
Comoros	6-11	125	142	154	2.6	1.7	12-15	72	82	94	2.6	2.7
Congo	6-11	681	801	941	3.3	3.3	12-15	378	447	527	3.4	3.3
Côte d'Ivoire	6-11	2,902	3,036	3,177	0.9	0.9	12-15	1,811	1,901	1,995	1.0	1.0
Democratic Republic of the Congo	6-11	9,568	11,267	13,450	3.3	3.6	12-13	2,803	3,203	3,804	2.7	3.5
Equatorial Guinea	7-11	67	75	86	2.5	2.7	12-15	47	53	60	2.6	2.4
Eritrea	7-11	589	694	784	3.3	2.5	12-13	212	249	288	3.3	2.9
Ethiopia	7-10	8,589	9,345	10,184	1.7	1.7	11-14	7,778	8,590	9,348	2.0	1.7
Gabon	6-11	218	222	224	0.3	0.2	12-15	136	143	146	1.1	0.4
Gambia	7-12	220	250	270	2.5	1.6	13-15	97	111	125	2.6	2.5
Ghana	6-11	3,315	3,483	3,657	1.0	1.0	12-14	1,589	1,635	1,736	0.6	1.2

Upper secondary school-age population						Region
Intended age range	Projected upper secondary school-age population (000s)			Projected average annual growth (%)		
2004	2005	2010	2015	2005-2010	2010-2015	Country or territory
16-19	17	18	18	1.5	-0.8	Iceland
15-16	116	106	107	-1.7	0.2	Ireland
15-17	329	345	387	0.9	2.3	Israel
14-18	2,840	2,821	2,729	-0.1	-0.7	Italy
15-18	...	24	25	...	0.8	Luxembourg
16-17	12	11	10	-1.3	-1.9	Malta
15-17	...	...	...	...	...	Monaco
15-17	586	612	603	0.9	-0.3	Netherlands
16-18	171	190	190	2.1	0.0	Norway
15-17	347	340	350	-0.4	0.6	Portugal
14-18	...	...	...	...	...	San Marino
16-17	...	797	799	...	0.1	Spain
16-18	...	386	304	...	-4.6	Sweden
16-19	...	361	345	...	-0.9	Switzerland
14-17	3,177	3,081	2,910	-0.6	-1.1	United Kingdom
15-17	12,850	13,298	12,880	0.7	-0.6	United States
						South and West Asia
16-18	1,889	2,311	2,715	4.1	3.3	Afghanistan, Islamic Republic of
14-17	12,262	13,155	13,208	1.4	0.1	Bangladesh
15-16	103	107	108	0.8	0.3	Bhutan
14-17	88,922	92,650	93,398	0.8	0.2	India
14-17	7,184	6,195	4,550	-2.9	-6.0	Iran, Islamic Republic of
16-17	16	17	18	1.6	1.2	Maldives
13-16	2,468	2,753	2,838	2.2	0.6	Nepal
15-16	7,497	7,793	7,851	0.8	0.1	Pakistan
14-17	1,408	1,359	1,285	-0.7	-1.1	Sri Lanka
						Sub-Saharan Africa
14-16	1,136	1,285	1,427	2.5	2.1	Angola
16-18	541	621	701	2.8	2.5	Benin
16-17	90	89	84	-0.3	-1.2	Botswana
17-19	837	984	1,118	3.3	2.6	Burkina Faso
17-19	527	591	601	2.3	0.3	Burundi
16-18	1,102	1,215	1,247	2.0	0.5	Cameroon
14-17	50	51	51	0.1	0.2	Cape Verde
16-18	271	302	324	2.1	1.4	Central African Republic
16-18	604	708	804	3.2	2.6	Chad
16-18	51	55	64	1.5	3.0	Comoros
16-18	251	294	350	3.2	3.6	Congo
16-18	1,267	1,360	1,435	1.4	1.1	Côte d'Ivoire
14-17	5,097	5,829	6,758	2.7	3.0	Democratic Republic of the Congo
16-18	31	36	41	2.8	2.5	Equatorial Guinea
14-17	387	458	527	3.4	2.8	Eritrea
15-18	6,751	7,851	8,625	3.1	1.9	Ethiopia
16-18	91	104	107	2.8	0.6	Gabon
16-18	90	102	116	2.3	2.7	Gambia
15-17	1,510	1,605	1,654	1.2	0.6	Ghana

TABLE A2.1 PROJECTED SCHOOL-AGE POPULATIONS BY LEVEL OF EDUCATION, 2005-2015

Region	Primary school-age population						Lower secondary school-age population					
	Intended age range	Projected primary school-age population (000s)			Projected average annual growth (%)		Intended age range	Projected lower secondary school-age population (000s)			Projected average annual growth (%)	
Country or territory	2004	2005	2010	2015	2005-2010	2010-2015	2004	2005	2010	2015	2005-2010	2010-2015
Guinea	7-12	1,483	1,629	1,832	1.9	2.4	13-16	843	955	1,075	2.5	2.4
Guinea-Bissau	7-12	256	300	354	3.3	3.4	13-15	107	127	149	3.4	3.3
Kenya	6-11	6,249	6,233	7,355	-0.1	3.4	12-13	2,516	1,798	2,103	-6.5	3.2
Lesotho	6-12	321	300	293	-1.3	-0.5	13-15	146	133	124	-1.9	-1.4
Liberia	6-11	556	644	762	3.0	3.4	12-14	239	273	322	2.7	3.4
Madagascar	6-10	2,598	2,887	3,117	2.1	1.5	11-14	1,772	2,089	2,301	3.3	1.9
Malawi	6-11	2,345	2,577	2,743	1.9	1.3	12-14	976	1,172	1,269	3.7	1.6
Mali	7-12	2,267	2,632	3,002	3.0	2.7	13-15	963	1,139	1,318	3.4	3.0
Mauritius	5-10	121	118	116	-0.6	-0.3	11-13	66	101	98	8.9	-0.6
Mozambique	6-12	3,834	4,134	4,387	1.5	1.2	13-15	1,442	1,603	1,728	2.1	1.5
Namibia	6-12	407	372	350	-1.8	-1.2	13-15	165	173	155	0.9	-2.1
Niger	7-12	2,280	2,774	3,224	4.0	3.1	13-16	1,246	1,501	1,828	3.8	4.0
Nigeria	6-11	21,645	23,518	25,332	1.7	1.5	12-14	9,748	10,631	11,586	1.7	1.7
Rwanda	7-12	1,446	1,520	1,695	1.0	2.2	13-15	713	700	746	-0.4	1.3
Sao Tome and Principe	7-12	23	25	27	1.9	1.7	13-14	7	8	9	1.1	2.1
Senegal	7-12	1,842	1,986	2,144	1.5	1.5	13-16	1,127	1,209	1,306	1.4	1.6
Seychelles	6-11	...	...	...	...	...	12-14	...	...	...	...	...
Sierra Leone	6-11	833	951	1,074	2.7	2.5	12-14	368	416	473	2.5	2.6
Somalia	6-12	1,464	1,791	2,038	4.1	2.6	13-15	517	628	760	4.0	3.9
South Africa	7-13	7,176	7,066	6,805	-0.3	-0.7	14-15	2,003	2,038	1,990	0.3	-0.5
Swaziland	6-12	...	177	166	...	-1.3	13-15	...	83	72	...	-2.8
Togo	6-11	995	1,112	1,219	2.3	1.9	12-15	587	656	736	2.2	2.3
Uganda	6-12	6,086	7,276	8,961	3.6	4.3	13-16	2,813	3,312	3,989	3.3	3.8
United Republic of Tanzania	7-13	7,113	7,587	7,985	1.3	1.0	14-17	3,689	3,946	4,250	1.4	1.5
Zambia	7-13	2,308	2,451	2,625	1.2	1.4	14-15	600	646	687	1.5	1.3
Zimbabwe	6-12	2,406	2,294	2,297	-1.0	0.0	13-14	704	661	634	-1.3	-0.8

Upper secondary school-age population						Region
Intended age range	Projected upper secondary school-age population (000s)			Projected average annual growth (%)		
2004	2005	2010	2015	2005-2010	2010-2015	Country or territory
17-19	547	649	732	3.5	2.4	Guinea
16-17	65	77	91	3.5	3.4	Guinea-Bissau
14-17	1,705	3,372	3,789	14.6	2.4	Kenya
16-17	98	93	83	-1.1	-2.3	Lesotho
15-17	222	245	289	2.0	3.4	Liberia
15-17	1,187	1,383	1,613	3.1	3.1	Madagascar
15-17	846	1,052	1,218	4.5	3.0	Malawi
16-18	865	1,013	1,202	3.2	3.5	Mali
14-17	79	44	39	-10.9	-2.5	Mauritius
16-17	881	1,018	1,101	2.9	1.6	Mozambique
16-17	98	118	110	3.9	-1.4	Namibia
17-19	833	960	1,187	2.9	4.3	Niger
15-17	8,934	10,006	10,857	2.3	1.6	Nigeria
16-18	716	682	704	-1.0	0.6	Rwanda
15-17	11	11	12	0.1	1.8	Sao Tome and Principe
17-19	776	850	914	1.8	1.5	Senegal
15-16	...	...	...	...	...	Seychelles
15-17	343	380	431	2.1	2.5	Sierra Leone
16-17	335	366	466	1.8	4.9	Somalia
16-18	2,928	3,067	3,020	0.9	-0.3	South Africa
16-17	...	59	51	...	-3.0	Swaziland
16-18	401	454	506	2.5	2.2	Togo
17-18	1,262	1,479	1,764	3.2	3.6	Uganda
18-19	1,715	1,873	2,022	1.8	1.5	United Republic of Tanzania
16-18	845	930	986	1.9	1.2	Zambia
15-18	1,401	1,375	1,281	-0.4	-1.4	Zimbabwe

TABLE A2.2 ENROLMENT BY LEVEL OF EDUCATION

Region	Enrolment in primary education						
	Total (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Arab States							
Algeria	4,189	4,618	4,843	4,508	2.0	1.2	-1.8
Bahrain	67	73	78	83	1.7	1.7	1.6
Djibouti	32	36	38	49	2.7	1.3	6.3
Egypt	6,964	8,185	7,947**	7,928**	3.3	-0.7	-0.1
Iraq	3,328	2,904	3,639	4,335	-2.7	5.8	4.5
Jordan	926	1,075	724	800	3.0	-9.4	2.5
Kuwait	125	142	140	158	2.6	-0.3	3.1
Lebanon	346**	368	385	454	1.2	1.1	4.2
Libyan Arab Jamahiriya	1,175	...	794**	...	...	...	...
Mauritania	167	290	356	434	11.6	5.3	5.1
Morocco	2,484	3,102	3,670	4,070	4.5	4.3	2.6
Oman	263	307	316	306	3.1	0.7	-0.8
Palestinian Autonomous Territories	...	612	388	389	...	-10.8	0.1
Qatar	49	54	61	65	2.0	3.3	1.7
Saudi Arabia	1,877	2,248	2,285	2,386	3.7	0.4	1.1
Sudan	2,043	2,930	2,567	3,208	7.5	-3.3	5.7
Syrian Arab Republic	2,452	2,673	2,775	2,193	1.7	0.9	-5.7
Tunisia	1,406	1,469	1,414	1,228	0.9	-1.0	-3.5
United Arab Emirates	229	261	273	255	2.6	1.2	-1.7
Yemen	2,069**	...	2,464**	3,108	...	...	6.0
Central and Eastern Europe/Central Asia							
Albania	551	558	283	...	0.2	-15.6	...
Belarus	615	632	600	404	0.6	-1.3	-9.4
Bosnia and Herzegovina	...	...	...	...	...	...	...
Bulgaria	961	434	393	314	-14.7	-2.5	-5.4
Croatia	432	208	199	...	-13.6	-1.1	...
Czech Republic	546	542	645	534	-0.2	4.5	-4.6
Estonia	127	126	123	92	-0.3	-0.5	-7.1
Hungary	1,131	507	501	447	-14.8	-0.3	-2.8
Latvia	143	140	135	93	-0.5	-0.9	-9.0
Lithuania	202	224	218	170	2.0	-0.6	-6.0
Poland	5,189	5,113	3,319	2,856	-0.3	-10.2	-3.7
Republic of Moldova	302	320**	252	202	1.2	-5.8	-5.4
Romania	1,254	1,392	1,189	1,006	2.1	-3.9	-4.1
Russian Federation	7,596	...	6,138[-1]	5,330	...	...	-2.8
Serbia and Montenegro	467	449	389	...	-0.8	-3.5	...
Slovakia	...	339	309	255	...	-2.2	-4.7
Slovenia	112	101	87	93	-2.1	-3.6	1.8
The Former Yugoslav Rep.of Macedonia	267	263	127	113	-0.3	-16.7	-2.7
Turkey	6,862	6,428*	7,850**	7,873	-1.3	5.1	0.1
Ukraine	3,991	...	2,079	1,851	...	...	-2.9
Armenia	...	250	167**	145	...	-9.6	-3.5
Azerbaijan	527**	698	700	607	5.8	0.1	-3.5
Georgia	352	289	298	363	-3.9	0.8	5.0
Kazakhstan	1,197	1,373	1,208	1,080	2.8	-3.1	-2.8
Kyrgyzstan	...	473	466	444	...	-0.4	-1.2
Mongolia	166	176	253	236	1.1	9.5	-1.8

Enrolment in secondary education							Region
Total (000s)				Average annual growth (%)			
1991	1996	2000	2004	1991-1996	1996-2000	2000-2004	Country or territory
							Arab States
2,176	2,545	...	3,677	3.2	...	...	Algeria
47	57	61	70	4.0	1.6	3.3	Bahrain
10	12	16	27	4.5	7.5	13.8	Djibouti
5,509	6,656**	8,028**	8,330**	3.9	4.8	0.9	Egypt
1,198**	1,160	1,224	1,706	-0.6	1.3	8.7	Iraq
101	143	584	616	7.2	42.1	1.4	Jordan
141**	207	240	267	8.0	3.8	2.7	Kuwait
...	340**	383	359	...	3.1	-1.6	Lebanon
257	...	...	798**,-1	...	...	...	Libyan Arab Jamahiriya
38	52	66	89	6.6	6.1	7.9	Mauritania
1,194	1,412	1,541	1,880	3.4	2.2	5.1	Morocco
102	195	243	286	13.9	5.6	4.2	Oman
...	51	477	629	...	75.1	7.1	Palestinian Autonomous Territories
30	39	47	54	5.1	5.3	3.3	Qatar
893	1,425	1,862	2,037	9.8	6.9	2.3	Saudi Arabia
732	378	980	1,293	-12.4	26.9	7.2	Sudan
914	935	1,069	2,249	0.5	3.4	20.4	Syrian Arab Republic
565	849	1,104**	1,210	8.5	6.8	2.3	Tunisia
108	165**	210	280	8.9	6.2	7.4	United Arab Emirates
...	...	1,151**	1,446	...	...	5.9	Yemen
							Central and Eastern Europe/Central Asia
206	90	364	396-1	-15.3	41.8	2.9	Albania
968	1,055	1,002	970	1.7	-1.3	-0.8	Belarus
...	...	...	...	...	...	...	Bosnia and Herzegovina
392	757	696	705	14.1	-2.1	0.3	Bulgaria
186	417	410	400-1	17.5	-0.4	-0.9	Croatia
1,268	1,191	958	982	-1.2	-5.3	0.6	Czech Republic
135	112	117	124	-3.5	0.9	1.7	Estonia
514	1,112	1,002	963	16.7	-2.6	-1.0	Hungary
265	240	267	275	-1.9	2.6	0.8	Latvia
396	365	421	431	-1.6	3.6	0.6	Lithuania
1,888	2,506	3,988	3,480	5.8	12.3	-3.3	Poland
460	441	414	400	-0.8	-1.6	-0.9	Republic of Moldova
2,838	2,223	2,226	2,155	-4.8	0.0	-0.8	Romania
13,956	...	...	13,559	...	...	...	Russian Federation
788	832	785	...	1.1	-1.5	...	Serbia and Montenegro
...	684	672	674	...	-0.5	0.1	Slovakia
209	212	218	188	0.3	0.7	-3.7	Slovenia
71	81	222	216	2.7	28.8	-0.7	The Former Yugoslav Rep.of Macedonia
3,808	4,741*	...	5,331	4.5	...	...	Turkey
3,408	...	5,205	4,446	...	...	-3.9	Ukraine
...	327	390**	393	...	4.5	0.2	Armenia
867	805	945	1,086	-1.5	4.1	3.5	Azerbaijan
568	442	441	320	-4.9	-0.0	-7.7	Georgia
2,144	1,859**	2,003	2,090	-2.8	1.9	1.1	Kazakhstan
651	531	660	733	-4.0	5.6	2.7	Kyrgyzstan
301	236	226	333	-4.8	-1.1	10.2	Mongolia

TABLE A2.2 ENROLMENT BY LEVEL OF EDUCATION

Region	Enrolment in primary education						
	Total (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Tajikistan	507	616**	692	690	4.0	2.9	-0.1
Turkmenistan	...	...	...	...	...	...	...
Uzbekistan	1,778	...	...	2,441**	...	...	...
East Asia and the Pacific							
Australia	1,606	1,848	1,906	1,935	2.9	0.8	0.4
Brunei Darussalam	39	43	45	46	2.1	1.0	0.8
Cambodia	1,330	1,811**	2,248	2,763	6.4	5.6	5.3
China	122,414	131,952	...	120,999	1.5	...	...
Cook Islands	...	...	2	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...	...
Fiji	145	...	115	113	...	...	-0.3
Indonesia	29,754	29,448	28,202**	29,142	-0.2	-1.1	0.8
Japan	9,373	8,370	7,529	7,257	-2.2	-2.6	-0.9
Kiribati	16	17	15	16	2.1	-4.2	1.7
Lao People's Democratic Republic	577	758	832	885	5.6	2.4	1.6
Macao, China	35	...	47	40	...	...	-4.2
Malaysia	2,541	2,857	3,026	...	2.4	1.5	...
Marshall Islands	...	...	8**	...	...	...	...
Micronesia (Federated States of)	...	...	...	...	...	...	...
Myanmar	5,385	5,414	4,858	4,948[+1]	0.1	-2.7	0.5
Nauru	...	...	2	...	...	...	...
New Zealand	316	348	360	353	1.9	0.8	-0.5
Niue	4.0	...	...	2.0	...	...	-7.4
Palau	...	...	2	2**	...	...	1.1
Papua New Guinea	422	...	648	...	...	...	...
Philippines	10,427	11,542	12,503[-1]	13,018	2.1	2.7	0.8
Republic of Korea	4,869	3,916	3,946	4,125[+1]	-4.3	0.2	1.1
Samoa	37	35	28	31	-0.9	-5.7	2.7
Singapore	260	270	...	...	0.7	...	...
Solomon Islands	49	...	57	...	...	...	...
Thailand	6,957	5,962	6,101	5,975[+1]	-3.0	0.6	-0.5
Timor-Leste	...	...	...	...	...	...	...
Tokelau	4.0	...		...	...	...	...
Tonga	17	...	17	17	...	...	0.6
Tuvalu	...	...	2	1	...	...	-1.9
Vanuatu	25	...	36	39	...	...	2.2
Viet Nam	8,862	10,229	10,063	8,350	2.9	-0.4	-4.6
Latin America and the Caribbean							
Anguilla	...	...	2	1	...	...	-1.8
Antigua and Barbuda	...	...	13	...	...	...	...
Argentina	5,044	5,250	4,898	...	0.8	-1.7	...
Aruba	...	...	9	10	...	...	2.4
Bahamas	33	34**	34**	34	0.4	0.1	0.3
Barbados	28**	...	24	22	...	...	-2.3
Belize	48**	55**	45	49	2.9	-5.1	2.3
Bermuda	...	6**	...	...	...	...	...
Bolivia	1,334	1,595	1,492	1,546**	3.6	-1.7	0.9
Brazil	29,204	33,131	20,212	...	2.6	-11.6	...

Enrolment in secondary education							Region
Total (000s)				Average annual growth (%)			
1991	1996	2000	2004	1991-1996	1996-2000	2000-2004	Country or territory
830	726*	795	974	-2.6	2.3	5.2	Tajikistan
...	...	...	...	...	...	...	Turkmenistan
3,195	...	...	4,235**	...	...	...	Uzbekistan
							East Asia and the Pacific
1,289	2,280	2,590	2,492	12.1	3.2	-1.0	Australia
26	30	36	42	3.5	4.3	4.0	Brunei Darussalam
264	324**	351	632**	4.1	2.1	15.8	Cambodia
52,386	63,800	81,488	98,763	4.0	6.3	4.9	China
...	...	2	2 -1	...	...	3.5	Cook Islands
...	...	...	...	...	...	...	Democratic People's Republic of Korea
62	...	98	102	...	...	1.1	Fiji
10,965	13,096	14,264**	16,354	3.6	2.2	3.5	Indonesia
11,026	9,643	8,782	7,895	-2.6	-2.3	-2.6	Japan
3	4	12	12	7.6	28.0	-0.1	Kiribati
138*	170	265	380	4.2	11.7	9.4	Lao People's Democratic Republic
18*	...	35	47	...	...	7.1	Macao, China
1,511	1,830**	2,205	2,519 -1	3.9	4.8	4.5	Malaysia
...	...	6 -1	7**,-1	...	...	1.6	Marshall Islands
...	...	...	...	...	...	...	Micronesia (Federated States of)
1,281	...	2,268	2,589 +1	...	...	2.7	Myanmar
...	...	1	1 -1	...	...	-0.9	Nauru
345	431	444	489	4.5	0.8	2.4	New Zealand
3.0	...	3.0**	2.0	...	...	-5.3	Niue
...	...	2	2**	...	...	3.9	Palau
69	...	156	190**,-1	...	...	6.8	Papua New Guinea
4,034	4,810	5,118 -1	6,309	3.6	2.1	4.3	Philippines
4,560	4,707	4,177	3,693 +1	0.6	-2.9	-2.4	Republic of Korea
10	13	22	24	5.2	14.4	2.3	Samoa
215	221**	...	...	0.6	...	...	Singapore
6	...	14	22**,-1	...	...	17.4	Solomon Islands
2,230	3,794	...	4,718 +1	11.2	...	...	Thailand
...	...	...	...	...	...	...	Timor-Leste
1**	...	2.0	2.0	...	...	1.5	Tokelau
15	...	15	14	...	...	-0.9	Tonga
...	...	...	...	...	...	...	Tuvalu
4	...	10	14	...	...	7.3	Vanuatu
3,377**	5,509**	7,926	9,589	10.3	9.5	4.9	Viet Nam
							Latin America and the Caribbean
...	...	1	1	...	...	0.5	Anguilla
5**	7**	5	...	5.6	-6.8	...	Antigua and Barbuda
2,263	2,594	3,832	3,499 -1	2.8	10.2	-3.0	Argentina
...	...	6	7	...	...	3.1	Aruba
...	28*	39**	28	...	8.6	-8.1	Bahamas
...	...	21	21	...	...	0.3	Barbados
8	11**	23	31	6.4	21.2	7.7	Belize
6**	4**	...	...	-5.1	...	...	Bermuda
...	...	877**	1,075**	...	...	5.2	Bolivia
3,770	5,739	26,097	24,593 -1	8.8	46.0	-2.0	Brazil

TABLE A2.2 ENROLMENT BY LEVEL OF EDUCATION

Region	Enrolment in primary education						
	Total (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
British Virgin Islands	2	...	3	3	...	...	0.4
Cayman Islands	...	...	3	3	...	...	-0.5
Chile	2,034	2,242	1,799	1,756	2.0	-5.4	-0.6
Colombia	4,311	4,917**	5,221	5,259	2.7	1.5	0.2
Costa Rica	453	519	551	558	2.7	1.5	0.3
Cuba	888	1,074	1,046	906	3.9	-0.7	-3.5
Dominica	13	...	12	10	...	...	-4.3
Dominican Republic	1,288**	1,370	1,364	1,282	1.2	-0.1	-1.5
Ecuador	1,846	2,019**	1,925	1,990	1.8	-1.2	0.8
El Salvador	1,001	1,131	949	1,046	2.5	-4.3	2.4
Grenada	20	...	16	16	...	...	-0.6
Guatemala	1,249	1,511	1,909	2,281	3.9	6.0	4.5
Guyana	104	100	109	111**	-0.8	2.1	0.4
Haiti	555	1,306	...	...	18.6	...	...
Honduras	908	...	1,095	1,257	...	...	3.5
Jamaica	340**	329**	327	331	-0.6	-0.2	0.3
Mexico	14,402	14,623	14,766	14,781	0.3	0.2	0.0
Montserrat	2	...	...	5.0	...	...	5.1
Netherlands Antilles	...	...	25	...	...	...	...
Nicaragua	674	763	838	942	2.5	2.4	3.0
Panama	350	371	400	430	1.2	1.9	1.8
Paraguay	721	896	966**	946**	4.4	1.9	-0.5
Peru	3,858	4,160	4,338	4,133	1.5	1.1	-1.2
Saint Kitts and Nevis	8**	...	7	6	...	...	-2.0
Saint Lucia	33	32**	25	24	-0.7	-5.5	-1.5
Saint Vincent and the Grenadines	22	...	19	18	...	...	-2.2
Suriname	60	...	...	...	...	...	...
Trinidad and Tobago	194	186	169	137*	-0.8	-2.4	-5.0
Turks and Caicos Islands	...	...	2	2	...	...	1.2
Uruguay	341	346	361	366**	0.3	1.1	0.4
Venezuela	4,053	4,120	3,328	3,453	0.3	-5.2	0.9
North America and Western Europe							
Andorra	...	...	...	4	...	...	...
Austria	370	382	392	373	0.6	0.7	-1.3
Belgium	719	743	774	747	0.6	1.0	-0.9
Canada	2,376	2,448	2,429	...	0.6	-0.2	...
Cyprus	63	65	64	62	0.5	-0.3	-0.9
Denmark	340	337	384	420	-0.2	3.4	2.2
Finland	391	384	388	388	-0.3	0.2	-0.0
France	4,149	4,065	3,885	3,783	-0.4	-1.1	-0.7
Germany	3,431	3,805	3,656	3,305	2.1	-1.0	-2.5
Greece	813	675	645	658	-3.7	-1.1	0.5
Iceland	30	29	31	31**	-0.4	1.7	0.1
Ireland	417	368	450	450	-2.5	5.2	0.0
Israel	725	632	739	775	-2.7	4.0	1.2
Italy	3,056	2,816	2,836	2,768	-1.6	0.2	-0.6
Luxembourg	23	28	32	35	3.5	3.9	1.6
Malta	37	35	34	31	-0.9	-0.7	-2.4

Enrolment in secondary education							Region
Total (000s)				Average annual growth (%)			
1991	1996	2000	2004	1991-1996	1996-2000	2000-2004	Country or territory
1	1**	2**	2	3.4	3.8	2.6	British Virgin Islands
4**	4**	2	3	0.5	-14.1	3.6	Cayman Islands
700	739	1,391	1,595	1.1	17.1	3.5	Chile
2,378	3,252	3,569	4,051	6.5	2.4	3.2	Colombia
139	183	256	297	5.6	8.7	3.8	Costa Rica
1,002	705	790	932	-6.8	2.9	4.2	Cuba
5**	8**	7	8	6.8	-0.1	0.2	Dominica
...	300	654	783	...	21.5	4.6	Dominican Republic
787*	806	917	997	0.5	3.3	2.1	Ecuador
94	144	421	496**	8.8	30.9	4.2	El Salvador
10	11**	11**	14	2.5	-1.1	6.6	Grenada
295	376	504	699	5.0	7.6	8.5	Guatemala
70	63	70**	64**	-1.9	2.4	-2.3	Guyana
190*	312**	...	...	10.5	...	...	Haiti
194	...	...	555	...	...	...	Honduras
238	...	229	246	...	...	1.8	Jamaica
6,704	7,589	9,094	10,404	2.5	4.6	3.4	Mexico
1**	1**	3.0	3.0	9.1	-31.6	0.0	Montserrat
15	...	14	15**,-1	...	...	1.9	Netherlands Antilles
221	279**	333	416	4.7	4.5	5.7	Nicaragua
198	221	234	254	2.2	1.5	2.0	Panama
169	294	459	519**	11.7	11.8	3.1	Paraguay
1,711	1,931	2,374	2,662	2.5	5.3	2.9	Peru
4**	4**	5	5	0.6	1.9	-1.2	Saint Kitts and Nevis
8	11**	13	13	6.7	2.4	0.7	Saint Lucia
11	...	10	10	...	...	1.6	Saint Vincent and the Grenadines
34	...	...	41**,-1	...	...	...	Suriname
98	104*	113**	105*	1.3	2.1	-1.8	Trinidad and Tobago
...	...	1	2	...	...	5.6	Turks and Caicos Islands
277	270	304	348**	-0.5	3.0	3.4	Uruguay
281	329	1,543	1,954	3.2	47.1	6.1	Venezuela
							North America and Western Europe
3**	3**	...	3	1.9	...	...	Andorra
746	792	749	770	1.2	-1.4	0.7	Austria
769	1,059	1,058	806	6.6	-0.0	-6.6	Belgium
2,293	2,505	2,565-1	...	1.8	0.8	...	Canada
45	60	63	65	6.1	1.3	0.6	Cyprus
465	439	426	450	-1.1	-0.7	1.4	Denmark
427	461	491	426	1.5	1.6	-3.5	Finland
5,522	5,981	5,929	5,827	1.6	-0.2	-0.4	France
7,398	8,261	8,307	8,361	2.2	0.1	0.2	Germany
851	835	739	696	-0.4	-3.0	-1.5	Greece
30	31	32	35**	0.7	1.3	2.0	Iceland
346	389	338	321	2.4	-3.5	-1.3	Ireland
309	542	588	607	11.9	2.1	0.8	Israel
5,118	4,708	4,404	4,506	-1.7	-1.7	0.6	Italy
22**	27	33	35	4.1	4.7	1.6	Luxembourg
33	35	36	42	1.5	0.7	3.7	Malta

TABLE A2.2 ENROLMENT BY LEVEL OF EDUCATION

Region	Enrolment in primary education						
	Total (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Monaco	2	2	2	...	1.3	1.5	...
Netherlands	1,082	1,208	1,279	1,283	2.2	1.4	0.1
Norway	309	321	420	432	0.7	7.0	0.7
Portugal	1,020	867	811	759	-3.2	-1.7	-1.7
San Marino	1	1	1	...	-1.3	2.4	...
Spain	2,821	2,800	2,540	2,498	-0.1	-2.4	-0.4
Sweden	578	666	776	691	2.9	3.9	-2.9
Switzerland	404	478	538	532	3.4	3.0	-0.3
United Kingdom	4,533	5,2842.0	4,632	4,686	3.1	-3.2	0.3
United States	22,429	24,046	24,973	24,560	1.4	1.0	-0.4
South and West Asia							
Afghanistan, Islamic Republic of	628	...	749	4,430	...	...	55.9
Bangladesh	...	...	17,668	17,953	...	...	0.4
Bhutan	...	...	85	...	...	...	...
India	99,118	109,734	113,613	136,194**	2.1	0.9	4.6
Iran, Islamic Republic of	9,370	9,492**	8,288	7,307	0.3	-3.3	-3.1
Maldives	...	51	74	63	...	9.5	-3.7
Nepal	2,884	3,448	3,529**	4,030[+1]	3.6	0.6	3.4
Pakistan	...	13,500**	13,987*	16,207	...	0.9	3.8
Sri Lanka	2,113	1,844	...	1,580	-2.7	...	...
Sub-Saharan Africa							
Angola	990	...	1,057**[-1]	...	...	...	...
Benin	490	722	932	1,320	8.1	6.6	9.1
Botswana	299	319**	324	329	1.3	0.4	0.3
Burkina Faso	504	701	852	1,140	6.8	5.0	7.5
Burundi	633	518**	710*	969	-3.9	8.2	8.1
Cameroon	1,964	1,786	2,237	2,979	-1.9	5.8	7.4
Cape Verde	70	...	92	85	...	...	-1.8
Central African Republic	308	...	...	421**	...	...	...
Chad	525	592	914	1,125**	2.4	11.5	5.3
Comoros	73	79	93	104	1.5	4.4	2.7
Congo	494	497	419	584	0.1	-4.2	8.7
Côte d'Ivoire	1,415	1,662	1,944	...	3.3	4.0	...
Democratic Republic of the Congo	4,562	...	4,083	...	...	...	...
Equatorial Guinea	75**	...	75[-1]	...	...	...	...
Eritrea	109	242	296	375	17.2	5.2	6.1
Ethiopia	2,467	3,380	4,874	8,019[+1]	6.5	9.6	13.3
Gabon	215**	251	266**	281**	3.1	1.5	1.4
Gambia	86	125	155	175	7.6	5.6	3.1
Ghana	1,945	2,197	2,561	2,930[+1]	2.5	3.9	3.4
Guinea	347	584	790	1,147	11.0	7.9	9.8
Guinea-Bissau	80**	...	150	...	...	...	...
Kenya	5,456	5,598	5,035	5,926	0.5	-2.6	4.2
Lesotho	361	375	411	427	0.7	2.3	1.0
Liberia	...	...	496	...	...	...	...
Madagascar	1,571	1,638	2,208	3,367	0.8	7.8	11.1
Malawi	1,401	2,887	2,695	2,842	15.6	-1.7	1.3
Mali	395	683	1,017	1,397	11.6	10.4	8.3

Enrolment in secondary education							Region
Total (000s)				Average annual growth (%)			
1991	1996	2000	2004	1991-1996	1996-2000	2000-2004	Country or territory
3	3	3	...	0.9	0.2	...	Monaco
1,402	1,480	1,379	1,397	1.1	-1.7	0.3	Netherlands
371	364	372	400	-0.3	0.5	1.9	Norway
670	948	831	665	7.2	-3.2	-5.4	Portugal
1	1	1	...	0.3	-4.7	...	San Marino
4,755	4,117	3,246	3,048	-2.8	-5.8	-1.6	Spain
589	810	934	712	6.6	3.6	-6.6	Sweden
567	560	549	564	-0.3	-0.5	0.6	Switzerland
4,336**	6,697	8,258	6,399	9.1	5.4	-6.2	United Kingdom
19,270	21,474	22,594	24,217	2.2	1.3	1.8	United States
							South and West Asia
282	528**	...	594	13.4	...	...	Afghanistan, Islamic Republic of
...	...	10,329	11,051 -1	...	...	2.3	Bangladesh
...	...	23	...	...	...	...	Bhutan
54,975**	66,634	71,031	83,858	3.9	1.6	4.2	India
5,085	8,270*	9,955	10,313	10.2	4.7	0.9	Iran, Islamic Republic of
...	27	20	29**	...	-7.0	9.6	Maldives
774	1,121	1,348	2,054 +1	7.7	4.7	8.8	Nepal
4,346	5,588**	...	7,272	5.2	...	...	Pakistan
2,106	...	...	2,286	...	...	...	Sri Lanka
							Sub-Saharan Africa
187	...	355	...	...	...	...	Angola
80**	137**	229	338**	11.3	13.8	10.2	Benin
78	118**	163**	170**	8.6	8.4	1.1	Botswana
99	...	190	246**	...	...	6.7	Burkina Faso
44	...	...	152	...	...	...	Burundi
500	...	700	1,161	...	...	13.5	Cameroon
10*	...	...	50	...	...	...	Cape Verde
51	...	...	...	...	...	...	Central African Republic
64**	93	137	222**	7.9	10.2	12.8	Chad
15*	21**	28**	43	7.0	7.1	11.1	Comoros
183	215	173	235**	3.2	-5.3	8.0	Congo
394**	525**	620**	...	5.9	4.3	...	Côte d'Ivoire
...	...	1,253**	...	...	...	...	Democratic Republic of the Congo
...	...	21**	...	...	...	...	Equatorial Guinea
...	80	135	194	...	14.0	9.5	Eritrea
866	819	2,168	4,506 +1	-1.1	27.5	15.8	Ethiopia
...	81	90**	...	...	2.7	...	Gabon
20	32	53	85**	9.5	13.5	12.5	Gambia
851**	...	1,057	1,350**,+1	...	...	5.0	Ghana
86	133	172**,-1	349	9.1	9.0	15.2	Guinea
...	...	26	...	...	...	...	Guinea-Bissau
644**	...	1,909	2,420**	...	...	6.1	Kenya
49	68	74	90	7.0	2.2	4.7	Lesotho
...	...	136	...	...	...	...	Liberia
340**	321**	347**,-1	...	-1.2	2.7	...	Madagascar
61	142	487	505	18.5	36.1	0.9	Malawi
84	152	243**	398	12.5	12.5	13.1	Mali

TABLE A2.2 ENROLMENT BY LEVEL OF EDUCATION

Region	Enrolment in primary education						
	Total (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Mauritius	135	125	135	124 [+1]	-1.6	2.1	-2.2
Mozambique	1,217	...	2,544	3,570	...	...	8.8
Namibia	342	373	389	...	1.8	1.1	...
Niger	369	441	579	980	3.6	7.1	14.0
Nigeria	13,777	14,079	18,802**	21,111	0.4	7.5	2.9
Rwanda	1,100	...	1,432	1,753	...	...	5.2
Sao Tome and Principe	...	...	24 [-1]	30	...	...	4.6
Senegal	708	876	1,108	1,383	4.3	6.1	5.7
Seychelles	10	10	10	9	-0.5	0.3	-2.1
Sierra Leone	382**	...	443	...	...	...	...
Somalia	...	...	...	...	...	...	...
South Africa	7,210	...	7,445	...	...	...	...
Swaziland	173	202	214	...	3.2	1.4	...
Togo	647	825	915	985	5.0	2.6	1.9
Uganda	2,617**	3,069	6,559	7,152 [+1]	3.2	20.9	2.2
United Republic of Tanzania	3,512	3,943	4,382	7,541 [+1]	2.3	2.7	14.5
Zambia	1,510	...	1,590	2,251	...	...	9.1
Zimbabwe	2,289	2,494	2,461	...	1.7	-0.3	...

Note for the United Kingdom: 2) From 1992/93 until 1996/97, data include pupils educated in infant classes in primary schools, previously considered as pre-primary education, as well as pupils below compulsory school age, in independent and special pre-primary schools.

Enrolment in secondary education							Region
Total (000s)				Average annual growth (%)			
1991	1996	2000	2004	1991-1996	1996-2000	2000-2004	Country or territory
83**	96	105	128**,+1	3.0	2.4	3.9	Mauritius
163	...	124	243	...	...	18.4	Mozambique
73	105	124	141-1	7.3	4.4	4.3	Namibia
77	93	106**	158	3.8	3.5	10.5	Niger
3,123	...	...	6,316	...	...	...	Nigeria
70	...	130	204	...	...	11.9	Rwanda
...	...	...	7	...	...	...	Sao Tome and Principe
181**	209	250	360	2.9	4.6	9.6	Senegal
9	9	8	7	0.2	-4.0	-1.1	Seychelles
103	...	...	...	...	...	...	Sierra Leone
...	...	...	...	...	...	...	Somalia
2,939	...	4,142	4,447-1	...	...	2.4	South Africa
45**	58	60	62-1	5.4	1.1	1.2	Swaziland
126	170	261**	375	6.2	11.4	9.5	Togo
277**	...	547	652**,+1	...	...	3.6	Uganda
183	212	271**,-1	...	2.9	8.6	...	United Republic of Tanzania
214**	...	276	364	...	...	7.1	Zambia
711	751	844	762	1.1	3.0	-2.5	Zimbabwe

TABLE A2.3 PARTICIPATION, PROGRESSION AND SURVIVAL RATES FOR PRIMARY EDUCATION; PARTICIPATION RATES FOR SECONDARY EDUCATION

Region	Net enrolment rate - primary education (%)			Gross enrolment ratio - primary education (%)			Survival rate to last grade of primary education (%)	
Country or territory	2000	2004	GPI 2004	2000	2004	GPI 2004	1999	2003
Arab States								
Algeria	91.5	96.7	0.98	107.7	111.7	0.93	91.4	93.4
Bahrain	95.5**	96.8	1.01	103.7	104.0	1.00	92.4**	100.9
Djibouti	27.7	32.8	0.81	33.4	39.1	0.79	...	...
Egypt	92.9**	95.4**	0.97**	100.5**	100.7**	0.96**	99.1**	98.6**
Iraq	83.3	87.7	0.86	90.9	98.5	0.83	49.4**	...
Jordan	92.7	91.1	1.02	99.9	98.2	1.01	96.9	97.8
Kuwait	82.7**	86.0**	1.03**	95.5	96.5	1.00	94.0	97.2**
Lebanon	95.0**	93.2	0.99	110.9	106.8	0.96	91.3	96.8
Libyan Arab Jamahiriya	...	...	...	114.3**	112.5**,-1	1.00**,-1	...	...
Mauritania	62.7**	74.3	0.99	86.6	94.1	0.98	60.9**	69.4
Morocco	76.7	86.1	0.94	93.2	105.9	0.90	75.0	...
Oman	80.6	77.9	1.02	90.8	87.3	1.00	91.9	97.0
Palestinian Autonomous Territories	95.8	86.3	1.00	109.3	92.9	1.00	100.4	98.5
Qatar	94.6**	89.8	0.99	103.4	101.7	0.98	...	...
Saudi Arabia	58.8	53.1	0.98	69.4	67.3	0.96	93.2	91.8
Sudan	43.2**	...	...	51.3	60.1	0.87	77.1**	87.9
Syrian Arab Republic	93.4**	91.8	0.96	104.6	122.9	0.95	86.9	91.8
Tunisia	94.4	97.4	1.00	113.7	109.9	0.97	87.1	93.3
United Arab Emirates	77.2	71.2	0.97	88.0	83.8	0.97	89.7	94.7
Yemen	59.7**	75.3**	0.73**	76.3**	87.5	0.71	...	67.3**
Central and Eastern Europe/Central Asia								
Albania	99.8	95.6-1	0.99-1	109.1	104.2-1	0.99-1	92.4**	89.8**,-1
Belarus	...	89.9	1.04**	111.3	101.2	1.03	99.2	103.7
Bosnia and Herzegovina	...	...	0.98	...	...	0.98	...	...
Bulgaria	96.8	95.1	0.97	105.2	104.8	0.97	92.9	93.7
Croatia	85.9	87.3-1	...-1	93.1	94.4-1	...-1	100.4	100.5-1
Czech Republic	89.8	85.8	0.99	104.1	101.9	0.98	98.3	98.4
Estonia	96.4	94.1	0.99	103.4	99.9	0.99	98.5	97.7-1
Hungary	87.8	89.1	1.03	101.1	97.9	0.99	...	97.6
Latvia	91.9	84.6	1.00	99.9	92.9	0.97	97.0	98.3
Lithuania	95.7	89.4	0.99	105.3	97.2	1.00	99.5	98.5
Poland	96.6	97.3	0.99	98.6	98.9	0.99	98.3	99.9
Republic of Moldova	78.9	77.5	0.99	85.1	84.9	0.99	95.4	90.0
Romania	93.6	91.9	0.99	102.5	106.5	1.00	95.7	95.2
Russian Federation	...	91.5**	0.99**	99.6-1	122.9	0.97	...	...
Serbia and Montenegro	96.4**	...	1.00	98.9*	...	0.99	...	...
Slovakia	...	83.4	1.01	102.9	99.1	1.02	96.9	97.6
Slovenia	96.3	97.8	1.00	99.9	122.8	0.99	...	108.3
The Former Yugoslav Rep.of Macedonia	92.1	92.0	0.99	99.6	97.7	0.99	97.5	98.2
Turkey	...	89.3**	0.99**	96.2**	93.3	0.98	...	91.6**
Ukraine	...	82.1	1.01*	104.8	94.8	1.00	96.7	...
Armenia	81.3**	93.7	...	91.8**	100.9	...	...	143.4
Azerbaijan	85.6**	83.8	1.01	94.3	96.8	0.99	96.6	98.6
Georgia	93.4**	92.8	1.00	100.1	95.1	0.99	100.2	105.1
Kazakhstan	88.8**	92.6	0.96	98.9	109.2	0.95	...	101.4
Kyrgyzstan	86.6	90.1	1.00	96.8	98.0	1.00	94.5*	95.8

Percentage of repeaters in primary education		Net enrolment rate - secondary education (%)			Gross enrolment ratio - secondary education (%)			Region
2000	2004	2000	2004	GPI 2004	2000	2004	GPI 2004	Country or territory
								Arab States
14.2	11.8	...	66.2**	1.05**	...	80.7	1.07	Algeria
4.3	3.2	87.3**	89.9	1.07	96.6	98.8	1.06	Bahrain
14.1	18.0	...	18.7**	0.70**	14.4	21.5	0.69	Djibouti
5.5**	4.0**	...	79.1**,-2	0.94**,-2	83.4**	87.1**	0.95**	Egypt
12.3	8.0	31.2	37.9	0.71	36.2	44.8	0.66	Iraq
0.6	1.0	79.2**,-1	81.1	1.02	87.3	87.4	1.01	Jordan
3.3	2.5**	83.9**	77.6**,-2	1.05**,-2	93.2	89.9	1.06	Kuwait
8.5	10.6	...	...	...	82.1	88.7	1.09	Lebanon
...	...	...	...	...	...	103.9**,-1	1.06**,-1	Libyan Arab Jamahiriya
15.2**	14.4	...	14.1**	0.82**	18.9	20.2	0.83	Mauritania
12.3	13.2	30.7**	35.1**,-1	0.86**,-1	38.7	47.6	0.84	Morocco
7.3	0.8	67.7	74.7	1.01	78.4	86.4	0.96	Oman
2.1	0.2	77.5	89.4	1.05	81.2	93.6	1.05	Palestinian Autonomous Territories
2.7**,-1	...	76.4**	87.2	0.98	90.4	96.8	0.97	Qatar
5.2	4.2	56.6**	52.4**	0.96**	72.0	67.8	0.88	Saudi Arabia
11.3	2.2	...	...	...	26.3	32.8	0.93	Sudan
7.1	7.5	36.4	58.1	0.93	40.6	63.2	0.93	Syrian Arab Republic
16.2	7.3	68.3**	64.0-1	1.11-1	75.1**	81.3	1.02	Tunisia
3.4	2.2	72.9	62.4	1.06	80.3	66.4	1.06	United Arab Emirates
10.6-1	4.3**	33.7**	...	...	43.4**	47.8	0.48	Yemen
								Central and Eastern Europe /Central Asia
3.9	2.8-1	68.7	73.9-1	0.98-1	72.8	77.8-1	0.97-1	Albania
0.6	0.1	...	87.3	1.03**	84.7	93.5	1.03	Belarus
...	...	...	...	0.98	...	...	0.97	Bosnia and Herzegovina
3.1	2.3	85.1	88.5	1.01	91.4	102.1	1.01	Bulgaria
0.5	0.4-1	82.1	85.0-1	...-1	85.3	88.2-1	...-1	Croatia
1.2	1.1	...	89.9	0.98	87.9	95.7	0.96	Czech Republic
2.3	2.0	83.4	89.7	1.02	91.6	98.1	1.02	Estonia
2.1	2.2	85.3	90.7**	1.02**	96.4	96.5	1.01	Hungary
2.0	2.7	86.2	86.6	1.03	90.9	96.5	1.02	Latvia
0.8	0.6	92.9	92.9	1.00	98.9	98.1	0.99	Lithuania
0.8	0.6	90.2**	90.0	0.99	100.2	96.7	0.99	Poland
1.0	0.4	68.5	68.7	0.99	71.4	73.7	0.98	Republic of Moldova
3.4	2.4	76.3	80.8	...	80.6	85.1	1.01	Romania
1.2-1	0.7	...	75.6**	0.73**	...	92.9	1.00	Russian Federation
1.1**	...	...	...	1.01	90.1*	...	0.99	Serbia and Montenegro
2.4	2.6	...	89.9	1.14	86.6	94.2	1.14	Slovakia
1.0	0.5	92.8	94.7	1.03	102.6	99.8	1.01	Slovenia
0.1	0.2	80.9**	81.1**,-2	1.05**,-2	84.1	84.1	1.04	The former Yugoslav Rep. of Macedonia
...	3.2	...	...	1.03	...	79.2	1.01	Turkey
0.7	0.1	89.3**	83.5	1.07*	97.4	92.9	0.99*	Ukraine
0.1**	0.1	84.7**	88.7	...	86.3**	91.4	...	Armenia
0.4	0.3	72.4**	77.0	1.02	75.4	83.1	1.01	Azerbaijan
0.3	0.3	77.2**	80.7	1.00	78.9	82.3	1.00	Georgia
0.3	0.1	85.3**	92.1	0.85	91.2	98.1	0.84	Kazakhstan
0.3	0.1	...	...	0.97	84.5	88.0	0.98	Kyrgyzstan

TABLE A2.3 PARTICIPATION, PROGRESSION AND SURVIVAL RATES FOR PRIMARY EDUCATION. PARTICIPATION RATES FOR SECONDARY EDUCATION.

Region	Net enrolment rate - primary education (%)			Gross enrolment ratio - primary education (%)			Survival rate to last grade of primary education (%)	
Country or territory	2000	2004	GPI 2004	2000	2004	GPI 2004	1999	2003
Mongolia	90.9	84.2	0.95	100.0	104.4	0.94	87.2	90.9
Tajikistan	89.1 -1	96.7	...	98.2	99.9	...	96.7	99.5
Turkmenistan	...	...	1.00	...	...	1.00	...	...
Uzbekistan	...	...	...	...	99.8**	0.99**	...	96.1**,-1
East Asia and the Pacific								
Australia	92.5	95.8	1.00	98.7	102.8	1.00	...	80.8**
Brunei Darussalam	...	...	...	109.7	109.2	1.00	92.2	118.4**
Cambodia	90.9**	97.6	0.96	106.3	136.6	0.92	48.6**	53.5
China	...	...	...	...	117.6	1.00	97.3	99.9 -1
Cook Islands	77.4**	...	...	87.9*	82.1**,-1	0.98**,-1	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...	...	...
Fiji	97.6**	96.2	0.99	109.1	106.0	0.98	82.1	95.8
Indonesia	93.9**	94.4	0.98	110.9**	117.0	0.98	...	88.5
Japan	100.0	99.9	1.00	101.1	100.4	1.00	...	...
Kiribati	92.2	...	...	109.0	114.9*	1.03*	96.0	81.4
Lao People's Democratic Republic	81.7	84.4	0.94	115.3	116.4	0.88	54.3	62.6
Macao, China	85.5	89.2	0.97	102.9	105.6	0.92	127.5	109.3
Malaysia	96.9	93.2 -1	1.00-1	97.1	93.5 -1	1.00-1	...	97.7 -1
Marshall Islands	...	89.6**,-1	0.99**,-1	100.6**	112.7**,-1	0.94**,-1	...	...
Micronesia (Federated States of)	...	...	...	...	...	...	...	...
Myanmar	81.8	87.6 +1	1.01 +1	89.4	96.8 +1	1.01 +1	...	40.4
Nauru	...	...	...	75.6*	83.7**	0.99**,-1	...	...
New Zealand	98.9	99.3	1.00	102.2	101.7	1.00	...	...
Niue	93.3*	...	...	93.3*	86.8*	1.19*	...	...
Palau	96.4**	...	...	113.3	114.2**	0.92**	91.9**	...
Papua New Guinea	78.9	75.4 -1	0.88 -1	78.9	75.4**,-1	0.88**,-1	57.4	58.2**,-1
Philippines	...	94.0	1.02	113.1 -1	112.4	0.99	...	72.2
Republic of Korea	96.7	99.4 +1	0.99 +1	98.0	104.8 +1	0.99 +1	101.5	99.9
Samoa	90.0	90.4**	1.00**	99.2	99.8	1.00	92.4	...
Singapore	...	...	...	...	...	...	...	...
Solomon Islands	...	79.6	0.99	85.6	119.5	0.97	...	...
Thailand	84.3	85.5 +1	0.97 +1	94.7	97.1 +1	0.96 +1	...	...
Timor-Leste	...	...	...	...	139.7 -2	...	...	...
Tokelau	...	...	...	...	...	...	...	78.9 -1
Tonga	90.8 -1	92.7	0.96	110.6	114.7	0.95	...	...
Tuvalu	...	...	...	108.7	98.5*	1.07*	170.5**	124.9**
Vanuatu	93.0**	93.9	0.98	112.9	118.0	0.97	68.9	...
Viet Nam	95.3	92.9**,-2	...	106.6	98.0	0.93	82.8	86.8**,-1
Latin America and the Caribbean								
Anguilla	...	88.3**	1.02**	111.0**	92.7**	1.03**	94.7**	70.5
Antigua and Barbuda	...	...	...	...	...	...	...	...
Argentina	99.3*,-1	98.8 -1	0.99 -1	117.8	112.2 -1	0.99 -1	88.7	80.9 -1
Aruba	99.3*	96.6*	0.99*	112.9*	114.5*	0.95*	97.1	97.1
Bahamas	87.4**	83.7	1.02	93.3**	92.7	1.00	...	...
Barbados	97.7	97.2	0.99	108.7	107.1	0.99	94.2	97.5
Belize	96.1	95.2	1.01	117.4	124.1	0.98	76.9	107.5
Bermuda	...	...	...	...	...	...	...	...

Percentage of repeaters in primary education		Net enrolment rate - secondary education (%)			Gross enrolment ratio - secondary education (%)			Region
2000	2004	2000	2004	GPI 2004	2000	2004	GPI 2004	Country or territory
0.8	0.6	59.6	82.3	...	62.6	89.5	0.75	Mongolia
0.3	0.2	70.8	79.4	...	73.5	81.8	...	Tajikistan
...	...	...	...	1.00	...	...	0.98	Turkmenistan
...	n**	...	...	...	...	94.6**	0.97**	Uzbekistan
								East Asia and the Pacific
...	n	88.6**	85.5**	1.01**	158.8	148.6	0.96	Australia
a	2.6	...	...	...	87.6	93.6	1.05	Brunei Darussalam
22.2**	10.6	15.4	25.8**	0.73**	17.0	29.4**	0.69**	Cambodia
...	0.3	...	...	...	62.9	72.5	1.00	China
2.6[-1]	...	57.2**	...	...	58.5*	63.9**[,-1]	1.02**[,-1]	Cook Islands
...	...	...	...	...	...	...	...	Democratic People's Republic of Korea
a	2.2	76.6**	82.6**	1.06**	80.8	87.7	1.07	Fiji
5.9**	2.9	48.6**	56.9	0.99	54.9**	64.1	0.99	Indonesia
...	...	99.5**	99.9**	...	102.1	101.6	1.00	Japan
a	a	...	70.4*	1.18*	100.0	90.7*	1.22*	Kiribati
19.8	19.9	28.6	37.1	0.85	35.6	45.9	0.76	Lao People's Democratic Republic
7.5	5.9	65.5	76.8	1.08	78.9	95.9	1.04	Macao, China
a	a[-1]	69.1	75.5-1	1.14-1	69.3	75.8[-1]	1.14[-1]	Malaysia
a**	a**[,-1]	...	74.4**[,-1]	1.06**[,-1]	...	86.6**[,-1]	1.04**[,-1]	Marshall Islands
...	...	...	...	...	...	...	...	Micronesia (Federated States of)
0.5	0.7[+1]	33.6	37.6[+1]	0.98[+1]	37.6	40.7[+1]	0.99+1	Myanmar
n	n[-1]	...	...	...	45.4*	47.8**[,-1]	1.07**[,-1]	Nauru
...	...	...	94.6	1.03	109.8	114.4	1.09	New Zealand
a	a	93.4*[,-1]	...	...	95.9**	97.7*	0.95*	Niue
n	...	...	...	...	86.1	97.8**	1.06**	Palau
n	n**[,-1]	22.8	...	...	22.8	25.8**[,-1]	0.79**[,-1]	Papua New Guinea
1.9[-1]	2.1	50.8[-1]	61.1	1.20	75.8[-1]	85.9	1.11	Philippines
n	0.2	94.5	90.4[+1]	1.00[+1]	97.6	92.9[+1]	1.00[+1]	Republic of Korea
1.0	0.9**	64.1	65.7**	1.14**	77.9	80.3	1.12	Samoa
...	...	...	...	...	...	...	...	Singapore
...	8.7	17.7	26.4**[,-1]	0.86**[,-1]	19.2	29.6**[,-1]	0.81**[,-1]	Solomon Islands
3.5[-1]	9.5[+1]	...	64.2[+1]	1.02[+1]	...	73.2[+1]	1.03[+1]	Thailand
...	...	...	...	...	...	34.2[-2]	...	Timor-Leste
a	a[-1]	...	...	...	...	...	...	Tokelau
6.3**	6.2**[,-2]	72.2**	...	...	101.1	97.8	...	Tonga
a	a	...	...	...	...	...	...	Tuvalu
10.6	10.7	32.5**	39.3**	0.86**	33.8	41.3	0.86	Vanuatu
3.3	2.4**[,-1]	61.0**	64.8**[,-2]	0.92**[,-2]	64.6	73.5	0.95	Viet Nam
								Latin America and the Caribbean
0.5**	21.8	100.0**	92.9**	1.00**	110.0**	100.4**	1.02**	Anguilla
...	...	...	...	...	...	...	...	Antigua and Barbuda
5.9	6.4[-1]	79.1*	79.1[-1]	1.07[-1]	96.7	86.4[-1]	1.07[-1]	Argentina
7.6	8.5	79.9*	74.3*	1.02*	100.4*	98.4*	1.02*	Aruba
a**	a	...	73.8	1.12	116.2**	80.1	1.10	Bahamas
a	a	89.6	95.1	1.05	101.1	110.1	1.01	Barbados
9.5	10.8	58.8**	71.4**	1.05**	68.2	85.3	1.04	Belize
...	[-2]	...	86.1[-2]	...	...	86.1[-2]	...	Bermuda

TABLE A2.3 PARTICIPATION, PROGRESSION AND SURVIVAL RATES FOR PRIMARY EDUCATION. PARTICIPATION RATES FOR SECONDARY EDUCATION.

Region	Net enrolment rate - primary education (%)			Gross enrolment ratio - primary education (%)			Survival rate to last grade of primary education (%)	
Country or territory	2000	2004	GPI 2004	2000	2004	GPI 2004	1999	2003
Bolivia	95.0	95.2**	1.01**	114.8	113.5**	0.99**	79.8	83.4**
Brazil	91.7	92.9[-1]	1.00[-1]	150.7	141.0[-1]	0.94[-1]	...	...
British Virgin Islands	94.9**	94.7**	1.00**	110.3	107.7*	0.96*	99.9**	105.4
Cayman Islands	96.2*	87.2**	0.95**	107.8*	93.2**	0.95**	100.2**	...
Chile	86.8	85.9	0.99	100.3	103.7	0.95	100.8	98.4
Colombia	88.5**	83.2	1.01	112.4	111.3	0.99	66.6	77.5**
Costa Rica	92.1	91.8	1.01	108.0	111.8	0.99	87.7	89.5**
Cuba	97.6	96.2	0.97	105.2	100.4	0.95	92.6	97.4
Dominica	94.6**	87.7*	1.01*	102.6*	95.5*	0.99*	90.4**	84.4
Dominican Republic	86.1	86.0	1.02	117.8	112.0	0.95	70.6	53.9
Ecuador	98.0	97.7**	1.01**	115.2	116.9	1.00	74.6	72.6**
El Salvador	...	92.3**	1.00**	110.3	114.4	0.97	62.8**	69.6**
Grenada	85.8**	83.9*	0.99*	96.4*	91.7*	0.96*	25.5**	82.6[-1]
Guatemala	85.8	93.0	0.95	103.9	113.2	0.92	51.7	75.1**
Guyana	97.1**	95.1	0.99	122.2	125.7**	0.99**	92.7	76.2**[-1]
Haiti	...	81.2	1.02	...	182.8	1.00	...	...
Honduras	87.6	90.6	1.02	106.1	113.0	1.00	...	59.1
Jamaica	90.4	90.6	1.01	94.7	95.3	1.00	...	101.8
Mexico	97.6	97.8	1.00	108.7	109.2	0.98	87.2	90.4
Montserrat	...	94.3*	0.96*	...	107.6*	0.97*	66.2**	57.8**
Netherlands Antilles	...	...	...	132.1	125.8**[-1]	0.98**[-1]	84.4**	90.9**[-1]
Nicaragua	80.5	87.9	0.99	103.2	112.2	0.98	45.9	54.8**
Panama	97.8	98.2	1.00	109.0	112.2	0.97	90.1	81.0**
Paraguay	92.2	88.4[-1]	1.00[-1]	113.2**	105.9**	0.97**	73.3**	76.7[-1]
Peru	97.6	97.1	1.00	121.3	113.9	0.99	83.1	...
Saint Kitts and Nevis	...	94.0*	1.08*	120.2*	101.2*	1.07*	...	91.7
Saint Lucia	94.5**	97.6	0.97	101.8	105.6	0.96	93.1**	93.7
Saint Vincent and the Grenadines	90.5**	93.9**	0.97**	102.4	106.2	0.95	...	108.3
Suriname	...	92.4**[-1]	1.07**[-1]	...	119.9**[-1]	1.02**[-1]	...	...
Trinidad and Tobago	93.2	92.2*	0.99*	104.2	102.3*	0.97*	114.3	96.2*
Turks and Caicos Islands	...	81.5*	1.08*	...	93.6*	1.03*	168.6	252.9
Uruguay	90.4	90.4	1.01	109.4	109.1**	0.98**	...	85.7**
Venezuela	87.8	92.1	1.01	101.6	105.1	0.98	88.1	88.9
North America and Western Europe								
Andorra	...	88.5**	0.97**	...	101.4**	0.98**	...	112.3
Austria	90.8	90.4	1.02	103.2	105.9	1.00	...	...
Belgium	98.7**	98.8	1.00	105.0	103.9	0.99	...	...
Canada	98.4	...	...	98.4	100.2**[-2]	1.00**[-2]	...	...
Cyprus	95.3*	96.1*	1.00*	96.7*	97.7*	1.00*	96.0	102.5
Denmark	97.4	99.9	1.00	101.6	101.0	1.00	101.8	...
Finland	99.6	99.3	1.00	100.5	100.5	0.99	100.4	100.4
France	99.1	98.9	1.00	106.2	104.8	0.99	98.0	...
Germany	83.9	84.0	1.02	105.1	100.2	1.00	99.5	99.3
Greece	93.5	99.4	0.99	95.7	101.6	0.99	...	...
Iceland	99.1	99.0**	0.98**	101.4	100.9**	0.98**	104.9	109.3**
Ireland	93.2	96.4	1.00	103.2	106.5	0.99	...	...
Israel	97.9**	97.6	1.01	113.3	110.2	1.01	...	100.8

Percentage of repeaters in primary education		Net enrolment rate - secondary education (%)			Gross enrolment ratio - secondary education (%)			Region
2000	2004	2000	2004	GPI 2004	2000	2004	GPI 2004	Country or territory
3.2	1.6**	...	73.6**	0.99**	80.0**	88.5**	0.97**	Bolivia
25.0	20.6 -2	68.5	75.7 -1	1.07 -1	104.2	102.0 -1	1.11 -1	Brazil
4.3**	4.1	79.6**	79.5**	1.11**	98.5**	95.7*	1.06*	British Virgin Islands
0.2**	n	88.9*	90.9**	1.10**	95.6*	97.4**	1.10**	Cayman Islands
2.0	2.4	72.1	77.7	1.02	82.7	89.1	1.01	Chile
5.4	4.3	56.5**	54.9**	1.11**	69.8	74.5	1.11	Colombia
8.1	6.9	49.5	50.2	1.07	60.5	67.6	1.05	Costa Rica
1.4	0.7	80.3	86.6	1.02	82.6	92.5	1.01	Cuba
3.0**	4.3	75.6**	90.4**	1.03**	95.0*	106.6*	0.99*	Dominica
5.1	7.3	39.5	49.3**	1.21**	58.4	68.4	1.23	Dominican Republic
2.4	2.0**	47.2	52.2	1.01	57.1	61.1	1.00	Ecuador
6.8**	6.7**	43.7**	48.1**,-1	1.03**,-1	53.1	60.4**	1.01**	El Salvador
6.5**	3.4	55.9**	78.2**	1.10**	80.3**	100.7*	1.09*	Grenada
14.5	13.3	26.9**	33.7**	0.92**	38.0	48.6	0.90	Guatemala
2.3	1.5**	78.6	76.0	1.57	88.1**	89.9**	1.55**	Guyana
...	15.4	...	24.8	1.08	...	43.6	0.99	Haiti
...	8.5	...	33.5 -1	1.06 -1	...	65.5	1.24	Honduras
5.1	2.8	77.2**	79.2	1.03	86.3	88.1	1.02	Jamaica
6.2	4.8	56.1**	63.8	1.03	71.8	79.7	1.07	Mexico
0.8	3.4	...	100.0*	...	...	114.1*	1.10*	Montserrat
12.0**	12.6**,-1	81.6	76.9**,-1	1.10**,-1	88.6	86.6**,-1	1.09**,-1	Netherlands Antilles
5.1	10.5	35.1	40.7	1.13	53.4	63.7	1.15	Nicaragua
6.0	5.5	61.1**	63.7	1.10	67.1	70.2	1.07	Panama
7.7	7.3**	46.8**	52.3**	1.06**	59.9	62.9**	1.01**	Paraguay
10.7	7.6	66.0	68.8	1.00	86.0	91.6	1.01	Peru
a	a	...	98.3*	0.97*	119.0*	109.6*	0.97*	Saint Kitts and Nevis
3.3**	2.3	63.8**	62.6**	1.00**	75.8	73.7	1.00	Saint Lucia
...	6.4	57.9**	62.3	1.02	69.2	77.6	0.97	Saint Vincent and the Grenadines
...	...	...	63.2**,-1	1.38**,-1	...	73.2**,-1	1.34**,-1	Suriname
4.7	5.2*	70.0**	71.9**	1.05**	79.8**	83.8*	1.07*	Trinidad and Tobago
8.4	5.5	...	77.7**	1.00**	...	90.8*	0.99*	Turks and Caicos Islands
8.9	8.3**	69.9**	68.9**	1.10**	98.0	107.9**	1.15**	Uruguay
6.7	7.3	50.4	61.2	1.15	59.3	72.0	1.14	Venezuela
								North America and Western Europe
...	n	...	71.4**	1.01**	...	81.3**	1.03**	Andorra
1.5 -1	...	88.8**	89.8	0.98	99.1	100.9	0.95	Austria
...	...	...	96.9**,-1	1.01**,-1	144.9	108.9	0.97	Belgium
...	...	94.1 -1	...	...	105.4 -1	108.5**,-2	1.00**,-2	Canada
0.3	0.3	88.1*	93.0*	1.03*	92.5*	97.7*	1.03*	Cyprus
a	a	88.3	92.2	1.03	126.6	124.2	1.05	Denmark
0.5	0.4	95.0**	94.0	1.01	124.3	109.4	1.05	Finland
4.2	...	93.4	96.2	1.02	109.7	110.6	1.01	France
1.7	1.5	87.2**	88.1	1.00	98.4	100.1	0.98	Germany
...	...	81.3	86.5	1.04	89.5	96.3	1.01	Greece
n	n**	84.7**	86.3**	1.04**	107.9	114.6**	1.06**	Iceland
1.7	1.0	83.2	86.5	1.06	106.9	111.6	1.08	Ireland
...	1.6	87.5**	89.1	1.00	92.4	92.7	1.00	Israel

TABLE A2.3 PARTICIPATION, PROGRESSION AND SURVIVAL RATES FOR PRIMARY EDUCATION. PARTICIPATION RATES FOR SECONDARY EDUCATION.

Region	Net enrolment rate - primary education (%)			Gross enrolment ratio - primary education (%)			Survival rate to last grade of primary education (%)	
Country or territory	2000	2004	GPI 2004	2000	2004	GPI 2004	1999	2003
Italy	98.4	98.8	1.00	101.5	101.4	1.00	96.6	110.7
Luxembourg	95.7	90.9	1.00	100.1	99.4	1.00	89.0**	86.5
Malta	95.5	94.0	1.00	105.6	102.4	0.99	101.6	99.0[-1]
Monaco	...	...	...	...	...	...	...	...
Netherlands	99.4	98.7	0.99	108.1	107.4	0.97	100.4	98.3**[-1]
Norway	99.7	98.9	1.00	100.3	98.9	1.00	...	101.7
Portugal	...	98.9	0.99	124.7	116.2	0.96	...	...
San Marino	...	...	...	...	...	...	...	...
Spain	99.7	99.4	0.99	107.4	107.7	0.98	...	...
Sweden	99.4	98.6	1.00	109.2	99.1	1.00	...	...
Switzerland	95.8	93.9	1.00	104.5	102.3	0.99	...	105.5
United Kingdom	99.8	98.7	1.00	101.6	106.5	1.00	...	...
United States	94.8	92.4	0.96	100.5	99.0	0.97	...	...
South and West Asia								
Afghanistan, Islamic Republic of	...	...	...	19.2	92.9	0.44	...	...
Bangladesh	89.4*	93.8*	1.03*	108.9	108.9	1.03	64.9	65.1
Bhutan	...	...	...	...	...	...	81.3	...
India	83.3*	91.9	0.94	98.8	116.2**	0.93**	62.0	78.9
Iran, Islamic Republic of	79.7	88.6	0.99	93.6	103.0	1.10	...	90.2
Maldives	96.1	89.7[-2]	1.01[-2]	127.3	103.5	0.97	...	...
Nepal	65.7*	79.2**	0.87**	108.8**	113.9	0.88	58.0	67.1**
Pakistan	...	66.2*	0.73*	71.2*	82.1	0.73	...	...
Sri Lanka	...	95.7	1.06	...	95.7	1.06	...	...
Sub-Saharan Africa								
Angola	...	...	...	64.3**[-1]	...	...	...	...
Benin	51.9**	82.6	0.78	77.5	98.9	0.77	...	63.1
Botswana	79.6	82.1**	1.03**	102.2	104.5	0.99	82.0	85.2**
Burkina Faso	35.8	40.5	0.77	44.3	53.0	0.78	60.9	69.2
Burundi	43.3**	57.0	0.89	60.8*	79.9	0.83	...	54.9
Cameroon	...	...	...	91.8	116.8	0.85	77.7**	89.3
Cape Verde	97.7	91.8	0.99	118.2	110.6	0.95	97.1**	87.8
Central African Republic	...	...	...	...	64.4**	0.69**	...	...
Chad	53.7	56.9**[-1]	0.68**[-1]	66.7	71.0**	0.64**	46.8	36.7**
Comoros	55.1**	...	...	84.2	85.5	0.88	...	55.9
Congo	...	...	...	72.7	88.7	0.93	...	180.2
Côte d'Ivoire	53.0	56.0*[-1]	0.80*[-1]	70.3	71.8*[-1]	0.79*[-1]	61.9	...
Democratic Republic of the Congo	...	...	...	48.4[-1]	...	...	...	...
Equatorial Guinea	84.1**	59.3	0.95	125.5	98.7	0.94	...	...
Eritrea	40.9	47.8	0.85	62.1	66.5	0.80	95.3	80.3
Ethiopia	36.1	56.3**[+1]	0.89**[+1]	63.4	93.4[+1]	0.81[+1]	61.8	59.0
Gabon	...	...	...	128.8**	129.5**	0.99**	...	55.5**[-1]
Gambia	66.7	75.2**	1.06**	79.9	81.4	1.06	...	...
Ghana	60.7	65.0[+1]	1.01[+1]	80.5	88.4[+1]	0.94[+1]	...	106.2
Guinea	47.0	63.8	0.84	60.2	79.1	0.81	77.9	76.6
Guinea-Bissau	45.2	...	...	69.8	...	...	...	...
Kenya	66.8	76.4	1.00	97.7	111.3	0.94	...	72.8*
Lesotho	81.6	85.9	1.06	119.6	131.1	1.00	58.4	56.9

Percentage of repeaters in primary education		Net enrolment rate - secondary education (%)			Gross enrolment ratio - secondary education (%)			Region
2000	2004	2000	2004	GPI 2004	2000	2004	GPI 2004	Country or territory
0.4	0.3	87.6**	92.4	1.02	92.8	99.1	0.99	Italy
5.0**	4.3	81.7	79.2	1.07	94.4	94.9	1.06	Luxembourg
2.0	2.1	...	87.6	1.06	88.4	105.3	0.93	Malta
n	...	...	...	...	...	...	...	Monaco
a	a	91.9**	89.2	1.01	124.0	118.8	0.98	Netherlands
n[-1]	n	95.1**	96.3	1.01	116.5	115.6	1.03	Norway
...	...	84.4**	82.3[-1]	1.10[-1]	108.2	96.7	1.11	Portugal
...	...	...	...	...	...	...	...	San Marino
...	...[-1]	90.2	96.7	1.04	112.0	119.1	1.06	Spain
...	...	95.8	98.4	1.03	152.3	102.6	1.04	Sweden
1.6	1.6	84.6	83.1	0.93	95.6	93.4	0.92	Switzerland
a[-1]	...	94.5	100.0**	...	158.0	117.3	1.03	United Kingdom
...	...	86.8	89.7	1.02	94.0	94.8	1.01	United States
								South and West Asia
...	...	...	...	...	...	15.6	0.21	Afghanistan, Islamic Republic of
6.5	7.0	46.9	48.0[-1]	1.11[-1]	50.3	51.3[-1]	1.11[-1]	Bangladesh
13.2	12.9**[,-2]	...	...	...	...	...	...	Bhutan
4.2	3.2**	...	49.0**	0.80**	47.9	53.5	0.80	India
5.4	2.3	...	78.1	0.94	78.1	81.9	0.94	Iran, Islamic Republic of
8.7**	11.3**	40.0**	51.3**[,-2]	1.15**[,-2]	55.6	72.8**	1.14**	Maldives
24.8	21.7**	...	...	...[+1]	35.3	45.7[+1]	0.86**	Nepal
...	...	...	...	...	...	27.2	0.73	Pakistan
...	...	...	...	...	...	80.9	1.00	Sri Lanka
								Sub-Saharan Africa
22.0**	...	...	...	...	14.7	...	...	Angola
19.9**	23.1	15.8	...	...	19.8	25.9**	0.52**	Benin
3.4	5.2**	58.9**	60.9**	1.10**	72.9**	75.1**	1.05**	Botswana
17.0	13.0	9.1**	9.5**	0.68**	10.9	12.1**	0.68**	Burkina Faso
25.0*	29.1	...	...	...	...	12.1	0.75	Burundi
26.7	25.1	...	...	...	29.0	43.8	0.70*	Cameroon
11.6	13.0	...	55.0	1.12	...	65.7	1.10	Cape Verde
...	...	...	...	...	...	11.6**[,-2]	...	Central African Republic
24.6	24.2**	7.4	10.8**[,-1]	0.33**[,-1]	11.0	15.1**	0.32**	Chad
26.0**	27.1	...	...	...	24.0**	35.1	0.76	Comoros
27.2	24.5	...	...	...	32.4	38.6**	0.84**	Congo
24.2	17.6*[,-1]	18.0**	20.0**[,-2]	0.57**[,-2]	22.0**	24.9**[,-2]	0.55**[,-2]	Côte d'Ivoire
...	...	...	...	...	18.0**	...	...	Democratic Republic of the Congo
11.8[-1]	23.5	...	36.6[-1]	0.71[-1]	30.9**	56.5[-1]	0.67[-1]	Equatorial Guinea
19.4	21.3	21.8	23.6	0.66	27.3	33.8	0.56	Eritrea
13.4	11.2	16.2	27.8**[,+1]	0.65**[,+1]	17.5	31.0[+1]	0.65[+1]	Ethiopia
36.5**	34.4**[,-1]	...	...	...	45.3**	50.1**[,-2]	...	Gabon
12.2[-1]	...	27.2	44.9**	0.83**	33.6	46.8**	0.83**	Gambia
5.0	6.7	31.8**	37.0**[,+1]	0.90**[,+1]	37.4	43.6**[,+1]	0.85**[,+1]	Ghana
23.3	10.5	14.5**	21.2**	0.51**	14.5**[,-1]	25.9	0.48	Guinea
24.0	...	8.7**	...	...	17.8	...	...	Guinea-Bissau
...	5.8*	37.0**	40.1**	1.01**	39.2	48.0**	0.93**	Kenya
18.3	18.2	19.0**	23.1	1.54	30.3	36.4	1.27	Lesotho

TABLE A2.3 PARTICIPATION, PROGRESSION AND SURVIVAL RATES FOR PRIMARY EDUCATION; PARTICIPATION RATES FOR SECONDARY EDUCATION

Region	Net enrolment rate - primary education (%)			Gross enrolment ratio - primary education (%)			Survival rate to last grade of primary education (%)	
Country or territory	2000	2004	GPI 2004	2000	2004	GPI 2004	1999	2003
Liberia	65.7	...	...	99.2	...	...	...	...
Madagascar	65.0	88.8	1.00	99.7	133.5	0.96	51.1	57.0
Malawi	98.3 -1	95.3	1.05	139.0	124.9	1.02	36.6	...
Mali	41.5**,-1	46.5	0.85	52.8	63.8	0.79	65.6**	84.6
Mauritius	92.9	94.5**,+1	1.02**,+1	105.3	102.2 +1	1.00 +1	100.1	...
Mozambique	55.5	71.0	0.90	74.2	94.9	0.83	28.2	...
Namibia	74.1	73.7 -1	1.08 -1	101.9	100.9 -1	1.01 -1	81.7	81.5**,-1
Niger	25.3	39.2	0.71	30.5	44.7	0.72	...	69.2
Nigeria	...	60.1**	0.89**	95.5**	99.2	0.85	...	27.9
Rwanda	...	73.2	1.04	101.8	119.2	1.02	30.2	30.9
Sao Tome and Principe	84.8 -1	98.2	1.00	106.3 -1	132.9	0.98	...	60.3
Senegal	54.4**	66.1	0.95	64.5	76.0	0.95	...	72.2
Seychelles	86.6	96.4*	1.01*	118.1	109.7*	1.00*	99.1	101.9 -1
Sierra Leone	...	...	...	64.9	...	...	...	...
Somalia	...	...	...	...	...	...	...	...
South Africa	90.4	88.8 -1	1.01 -1	106.7	105.0 -1	0.97 -1	57.4	78.7 -1
Swaziland	76.1	76.7 -1	1.01 -1	100.4	100.6 -1	0.95 -1	64.3	61.0 -1
Togo	76.6	78.8	0.85	103.7	101.1	0.84	...	70.3
Uganda	...	...	...	127.3	125.4	0.99	...	...
United Republic of Tanzania	51.4**	91.4 +1	0.98 +1	66.1	106.0 +1	0.96 +1	...	80.0
Zambia	62.6	79.8	1.00	74.7	98.8	0.96	66.3	...
Zimbabwe	82.2	81.9 -1	...	98.1	96.0 -1	0.98 -1	...	62.1**,-1

Percentage of repeaters in primary education		Net enrolment rate - secondary education (%)			Gross enrolment ratio - secondary education (%)			Region
2000	2004	2000	2004	GPI 2004	2000	2004	GPI 2004	Country or territory
...	...	17.1**	...	...	32.2	...	...	Liberia
27.9	30.0	11.3**,-1	...	...	14.1**,-1	...	...	Madagascar
15.4	18.0	31.0	24.7	0.86	31.6	28.9	0.81	Malawi
17.4	19.0	...	...	...	15.0**	22.3	0.61**	Mali
4.2	4.8	69.7**	82.5**,+1	1.01**,+1	77.6	88.4**,+1	0.99**,+1	Mauritius
23.5	20.6	3.2	4.0	0.78	6.1	10.8	0.70	Mozambique
13.2	13.1**,-1	36.0	37.5-1	1.35-1	58.9	58.2-1	1.14-1	Namibia
11.9	5.3	5.3**,-1	6.8	0.68	6.0**	7.9	0.67	Niger
...	3.0	...	27.3**	0.82**	...	34.6	0.81	Nigeria
32.5	18.8	...	...	...	11.0	14.3	0.89	Rwanda
30.7-1	24.6	...	26.0	1.07	...	40.2	1.05	Sao Tome and Principe
13.6	12.9	...	15.3	0.72	15.1	19.4	0.72	Senegal
a	a	98.3	93.1*	1.07*	113.1	102.2*	1.08*	Seychelles
...	...	...	...	...	...	...	...	Sierra Leone
...	...	...	...	...	...	...	...	Somalia
8.8	5.2-1	61.7**	...	...	84.9	90.5-1	1.07-1	South Africa
16.1	...	30.5	29.0-1	1.24-1	43.0	41.9-1	1.01-1	Swaziland
27.0	23.8	22.2**	...	...	30.4**	38.9	0.50	Togo
...	13.7	13.1	13.0**,+1	0.87**,+1	15.9	16.0**,+1	0.79**,+1	Uganda
...	5.3	...	...	...	5.9**,-1	7.0+1	...	United Republic of Tanzania
6.2	6.9	18.3**	23.7**	0.78**	22.0	25.8	0.79	Zambia
a	a-1	39.7**	33.9-1	0.93-1	42.3	36.4-1	0.91-1	Zimbabwe

TABLE A2.4 PRIMARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of primary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Arab States							
Algeria	151.3	169.0	170.6	170.0	2.2	0.2	-0.1
Bahrain	3.5*	...	4.2**	5.0**,-2	...	...	8.0
Djibouti	0.7	1.0	1.2**	1.3**,-2	6.3	4.4	3.9
Egypt	291.4**	340.3**	345.8**	362.7**	3.2	0.4	1.2
Iraq	134.1	145.5	170.1	211.1	1.6	4.0	5.5
Jordan	36.9	51.7	...	39.4**,-1	7.0	...	...
Kuwait	7.0	9.7	10.2	12.3	6.7	1.1	4.9
Lebanon	...	...	27.7**	32.1	...	...	3.8
Libyan Arab Jamahiriya	85.5	...	...	...	...	...	...
Mauritania	3.7	5.7**	7.9	9.8	8.7	8.6	5.4
Morocco	91.7	109.8	127.6	147.7	3.7	3.8	3.7
Oman	9.6	11.9	12.6	15.7**	4.5	1.4	5.7
Palestinian Autonomous Territories	...	14.6	...	14.4	...	...	...
Qatar	4.3	5.9	4.7**	7.3	6.5	-5.6	12.1
Saudi Arabia	119.9	169.3	190.7	204.4	7.1	3.0	1.8
Sudan	60.0	95.2	...	105.1**,-1	9.7	...	...
Syrian Arab Republic	97.8	113.5	112.0	124.7**	3.0	-0.3	2.7
Tunisia	50.6	59.9	60.9	59.6	3.4	0.4	-0.5
United Arab Emirates	12.5	15.8	16.9	17.0	4.7	1.8	0.1
Yemen	...	...	77.2**,-1	...	...	...	...
Central and Eastern Europe/Central Asia							
Albania	28.8	31.4	12.6	11.8-1	1.7	-20.5	-3.2
Belarus	...	...	32.9	26.2	...	...	-5.6
Bosnia and Herzegovina	...	...	...	...	...	...	...
Bulgaria	62.5	25.5	23.3	18.8	-16.4	-2.2	-5.3
Croatia	23.3	10.6	10.6	10.8-1	-14.5	0.0	1.1
Czech Republic	23.6	28.4	38.2	29.9	3.7	7.7	-5.9
Estonia	...	7.3**	8.6	7.7**,-2	...	4.3	-5.5
Hungary	90.5	43.2*	46.8	42.6	-13.8	2.0	-2.3
Latvia	9.5	10.4	8.9	7.1	1.8	-3.6	-5.5
Lithuania	11.3	13.7	13.3	11.6	3.9	-0.8	-3.4
Poland	317.5	323.5	293.2**	226.1**	0.4	-2.4	-6.3
Republic of Moldova	13.0	14.2**	12.1	10.5	1.8	-4.0	-3.5
Romania	57.1	69.5	64.1	57.5	4.0	-2.0	-2.6
Russian Federation	340.0	...	349.0**,-1	320.2**	...	...	-1.7
Serbia and Montenegro	...	...	19.3	...	...	...	...
Slovakia	...	16.3**	17.6	14.4	...	2.0	-4.9
Slovenia	...	7.2	6.7**	6.2	...	-1.9	-1.9
The Former Yugoslav Rep.of Macedonia	13.0	13.5	5.9	5.7	0.7	-18.7	-0.9
Turkey	225.9	...	...	...	...	...	...
Ukraine	182.0**	...	106.1**	99.5	...	...	-1.6
Armenia	...	11.3	...	6.6	...	...	...
Azerbaijan	...	34.2	37.5	42.5	...	2.3	3.2
Georgia	20.5	18.0	17.7	16.5-1	-2.6	-0.3	-3.5
Kazakhstan	56.3	...	64.5**	60.2	...	...	-1.7
Kyrgyzstan	22.1	24.1	19.3	18.3	1.7	-5.4	-1.2
Mongolia	5.9	7.1	7.8	7.2	3.7	2.3	-2.0

% Female		% Trained teachers		Pupil-teacher ratio				Region
1991	2004	2000	2004	1991	1996	2000	2004	Country or territory
								Arab States
39.1	49.8	94.6	98.3	27.7	27.3	28.4	26.5	Algeria
54.3*	75.8**,-2	...	...	19.3*	...	18.3**	16.4**,-2	Bahrain
37.1	29.9**,-2	...	...	42.7	36.0	32.0**	34.4**,-2	Djibouti
51.6**	55.0**	...	...	23.9	24.1	23.0**	21.9**	Egypt
70.1	72.2	100.0	100.0	24.8	20.0	21.4	20.5	Iraq
61.7	64.0**,-1	...	...	25.1	20.8	...	19.9**,-1	Jordan
61.4	85.5	100.0	100.0	17.8	14.6	13.8	12.8	Kuwait
...	84.4	...	13.5	...	...	13.9**	14.1	Lebanon
...	...	...	...	13.7	...	...	...	Libyan Arab Jamahiriya
17.8	28.2	...	100.0	44.7	51.1	45.0	44.5	Mauritania
37.2	45.0	...	...	27.1	28.2	28.8	27.6	Morocco
47.0	61.7**	99.6	...	27.5	25.7	25.1	19.4**	Oman
...	61.1	...	...	...	41.8	...	26.9	Palestinian Autonomous Territories
72.4	85.1	...	...	11.4	9.1	13.1**	8.9	Qatar
47.5	51.7	93.3	...	15.7	13.3	12.0	11.7	Saudi Arabia
51.1	62.4**,-1	...	...	34.0	30.8	...	28.8**,-1	Sudan
64.1	61.9**	...	...	25.1	23.5	24.8	17.6**	Syrian Arab Republic
44.8	51.2	...	...	27.8	24.5	23.2	20.6	Tunisia
64.3	82.6	...	60.9	18.3	16.5	16.1	15.0	United Arab Emirates
...	...	...	...	...	...	29.8**,-1	...	Yemen
								Central and Eastern Europe /Central Asia
55.0	75.7-1	...	...	19.1	17.8	22.6	21.5-1	Albania
...	99.2	...	98.5	...	...	18.2	15.4	Belarus
...	...	...	...	...	...	...	...	Bosnia and Herzegovina
77.3	92.6	...	...	15.4	17.0	16.8	16.7	Bulgaria
75.3	89.9-1	100.0	100.0-1	18.6	19.6	18.8	17.7-1	Croatia
...	84.0	...	...	23.1	19.1	16.9	17.9	Czech Republic
...	86.0**,-2	...	...	...	17.3	14.3	14.1**,-2	Estonia
83.5	95.9	...	...	12.5	11.7*	10.7	10.5	Hungary
...	97.2	...	...	15.1	13.5	15.1	13.0	Latvia
93.6	97.7	...	...	17.9	16.3	16.4	14.7	Lithuania
...	84.7**	...	...	16.3	15.8	11.3**	12.6**	Poland
97.4	98.0	...	...	23.2	22.5	20.9	19.2	Republic of Moldova
84.0	86.9	...	...	21.9	20.0	18.6	17.5	Romania
98.8	98.5**	...	...	22.3	...	17.6**,-1	16.6**	Russian Federation
...	...	100.0	...	...	...	20.1	...	Serbia and Montenegro
...	91.7	...	...	...	20.8	17.6	17.7	Slovakia
...	97.3	...	...	...	14.0	13.0**	15.1	Slovenia
...	69.2	...	...	20.6	19.5	21.5	20.0	The former Yugoslav Rep. of Macedonia
43.3	...	...	...	30.4	...	...	...	Turkey
98.0**	98.3	...	99.7	21.9	...	19.6**	18.6	Ukraine
...	99.1	...	66.7	...	22.0	...	21.8	Armenia
...	84.9	99.9	99.8	...	20.4	18.7	14.3	Azerbaijan
92.3	95.0-1	94.7	97.4-1	17.2	16.1	16.8	22.0	Georgia
96.3	98.2	...	...	21.3	...	18.7**	17.9	Kazakhstan
80.5	96.0	46.3	54.8	...	19.6	24.1	24.2	Kyrgyzstan
89.7	94.4	95.4	...	28.1	24.8	32.6	32.9	Mongolia

TABLE A2.4 PRIMARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of primary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Tajikistan	23.8	26.8**	31.7	32.1	2.4	4.3	0.3
Turkmenistan	...	...	...	...	...	...	...
Uzbekistan	73.8	...	...	...	...	...	...
East Asia and the Pacific							
Australia	96.0**	111.5**	...	...	3.0	...	...
Brunei Darussalam	2.5	3.0*	3.3*	3.5**	3.4	2.4	1.7
Cambodia	40.8	40.2**	44.9	50.2	-0.3	2.8	2.8
China	5,581.8	5,664.1	6,751.9[-1]	5,747.3**	0.3	6.0	-3.2
Cook Islands	...	...	0.1	0.1[-1]	...	...	3.7
Democratic People's Republic of Korea	...	...	...	...	...	...	...
Fiji	4.7	...	4.1	4.0	...	...	-0.3
Indonesia	1,281.4	1,318.0	1,256.4**	1,448.0	0.6	-1.2	3.6
Japan	452.8	461.0**	363.9	379.0	0.4	-5.7	1.0
Kiribati	0.5	0.7	0.5	0.6	6.6	-11.0	8.3
Lao People's Democratic Republic	21.0	24.5	27.6	28.2	3.1	3.1	0.5
Macao, China	...	...	1.6	1.6	...	...	0.8
Malaysia	126.1	147.1	154.7	174.5[-1]	3.1	1.3	6.2
Marshall Islands	...	...	0.6[-1]	0.5**[-1]	...	...	-1.1
Micronesia (Federated States of)	...	...	...	...	...	...	...
Myanmar	111.5	...	148.3	160.1[+1]	...	...	1.9
Nauru	...	...	0.1	0.1[-1]	...	...	-7.7
New Zealand	19.0	18.1	19.5	21.6	-0.9	1.8	2.6
Niue	...	...	.02	.02	0.0	-2.7	-1.5
Palau	...	...	0.1	...	...	...	...
Papua New Guinea	13.4	...	18.1	19.2**[-1]	...	...	2.1
Philippines	317.0	330.7**	360.4[-1]	377.0	0.8	2.9	0.9
Republic of Korea	136.8	123.1	122.4	142.2[+1]	-2.1	-0.1	3.8
Samoa	1.4	1.5	1.2	1.2**	0.7	-5.8	1.6
Singapore	9.8	10.6	...	...	1.5	...	...
Solomon Islands	2.4	...	3.0[-1]	...	...	...	...
Thailand	314.7	...	293.4	298.3**[-1]	...	...	0.6
Timor-Leste	...	...	...	3.6[-2]	...	...	...
Tokelau	...	...	0.03	0.04[-1]	4.4	-5.2	24.9
Tonga	0.7	...	0.8	0.8	...	...	2.8
Tuvalu	...	...	0.1	0.1	...	...	-1.3
Vanuatu	0.9	...	1.6	1.9	...	...	5.3
Viet Nam	252.4	298.9	340.9	362.6	3.4	3.3	1.6
Latin America and the Caribbean							
Anguilla	...	...	0.1	0.1	...	...	6.8
Antigua and Barbuda	...	...	0.7	...	...	...	...
Argentina	...	326.6**	244.4	269.6**[-1]	...	-7.0	3.3
Aruba	...	...	0.5	0.6	...	...	3.2
Bahamas	...	1.5**	2.3**	1.7	...	11.3	-6.8
Barbados	1.6**	...	1.4**	1.4**	...	...	-0.6
Belize	1.8**	2.1**	1.9	2.1**	2.3	-1.6	2.4
Bermuda	...	0.5**	...	0.5[-2]	...	...	...
Bolivia	54.6	60.3	59.5**	64.6**	2.0	-0.3	2.1
Brazil	1,296.0	1,388.2	815.1	860.8[-1]	1.4	-12.5	2.8

% Female		% Trained teachers		Pupil-teacher ratio				Region
1991	2004	2000	2004	1991	1996	2000	2004	Country or territory
48.6	63.6	...	84.1	21.3	23.0	21.8	21.5	Tajikistan
...	...	...	...	...	...	...	...	Turkmenistan
78.7	...	...	...	24.1	...	...	...	Uzbekistan
								East Asia and the Pacific
71.5**	...	...	...	16.7	16.6	...	...	Australia
56.8	73.6**	...	...	15.3	14.4*	13.6*	13.1**	Brunei Darussalam
30.7	40.9	...	96.5	32.6	45.1	50.1	55.1	Cambodia
43.2	52.9**	...	...	21.9	23.3	...	21.1**	China
...	86.1 -1	...	...	...	...	17.8	15.7 -1	Cook Islands
...	...	...	...	...	...	...	...	Democratic People's Republic of Korea
56.6	56.9	...	...	31.1	...	28.1	28.2	Fiji
50.5	52.3	...	...	23.2	22.3	22.4**	20.1	Indonesia
58.4	65.0	...	...	20.7	18.2	20.7	19.2	Japan
58.2	73.3	...	...	29.2	23.6	31.7	24.7	Kiribati
37.8	44.7	76.7	79.4	27.4	31.0	30.1	31.4	Lao People's Democratic Republic
...	89.1	83.5	90.9	...	...	30.0	24.4	Macao, China
57.2	66.3 -1	...	...	20.1	19.4	19.6	17.5 -1	Malaysia
...	34.2**,-1	...	...	...	...	14.9 -1	16.9**,-1	Marshall Islands
...	...	...	...	...	...	...	...	Micronesia (Federated States of)
61.8	80.9 +1	62.7	76.0 +1	48.3	...	32.8	30.9 +1	Myanmar
...	95.2 -1	...	...	...	...	21.5	21.8 -1	Nauru
79.9	83.0	...	...	16.7	19.2	18.4	16.4	New Zealand
...	100.0	...	...	19.5	...	14.7	11.5	Niue
...	...	...	...	...	...	15.7	...	Palau
33.8	39.0**,-1	100.0	...	31.5	...	35.9	35.5**,-1	Papua New Guinea
...	89.4	100.0**,-1	...	32.9	34.9	34.7 -1	34.5	Philippines
50.1	74.0 +1	...	...	35.6	31.8	32.2	29.0 +1	Republic of Korea
72.1	72.6**	...	...	26.0	23.9	24.0	25.0**	Samoa
...	...	...	...	26.4	25.4	...	...	Singapore
...	...	...	...	20.5	...	19.2 -1	...	Solomon Islands
...	58.4**,-1	...	...	22.1	...	20.8	20.7**,-1	Thailand
...	30.0 -2	...	...	...	...	...	50.8 -2	Timor-Leste
...	69.2 -1	...	...	...	...	9.9	5.8 -1	Tokelau
67.4	63.0	...	...	23.4	...	22.1	20.3	Tonga
...	80.8	...	...	...	...	19.7	19.2	Tuvalu
40.3	53.7	...	...	28.7	...	22.5	20.0	Vanuatu
...	78.3	80.1	...	35.1	34.2	29.5	23.0	Viet Nam
								Latin America and the Caribbean
...	90.0	77.9	67.0	...	...	20.0	14.3	Anguilla
...	...	46.9	...	...	...	18.7	...	Antigua and Barbuda
...	86.4**,-1	...	...	...	16.1	20.0	17.3**,-1	Argentina
...	80.8	100.0	100.0	...	...	19.1	18.5	Aruba
...	97.2	65.2**	94.8	...	22.3	14.6**	19.6	Bahamas
72.0**	76.0**	82.5**	74.6**	17.6	...	17.4**	16.3**	Barbados
69.9**	72.0**	54.1	51.4**	26.1	26.9	23.3	23.2**	Belize
...	88.0 -2	...	100.0 -2	...	12.8	...	9.0 -2	Bermuda
58.6	61.4**	90.6	...	24.4	26.4	25.1**	23.9**	Bolivia
...	89.7 -1	...	...	22.5	23.9	24.8	22.0 -1	Brazil

TABLE A2.4 PRIMARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of primary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
British Virgin Islands	0.1	...	0.2	0.2	...	...	5.5
Cayman Islands	...	...	0.2	0.3	...	...	1.4
Chile	81.7	74.0	55.8	64.3	-2.0	-6.8	3.6
Colombia	143.2	193.9**	197.4	188.1	6.3	0.4	-1.2
Costa Rica	14.1	17.6	22.1	25.0	4.5	5.9	3.1
Cuba	71.0	90.6	90.9	88.5	5.0	0.1	-0.7
Dominica	0.4	...	0.6	0.5	...	...	-3.6
Dominican Republic	...	...	43.9	60.1	...	...	8.1
Ecuador	61.0	70.2	82.8	86.0	2.8	4.2	1.0
El Salvador	...	34.5	...	...	...	...	...
Grenada	...	...	0.8	0.9	...	...	3.0
Guatemala	36.8	43.4	58.6	73.8	3.4	7.8	5.9
Guyana	3.5	3.3	4.2	4.2**	-1.0	5.6	0.1
Haiti	24.1	38.7	...	...	10.0	...	...
Honduras	23.9	...	32.1	38.2	...	...	4.4
Jamaica	10.0**	10.0**	9.7**	12.0	0.0	-0.7	5.5
Mexico	471.6	516.1	543.7	519.2	1.8	1.3	-1.1
Montserrat	...	...	0.02	0.02	...	...	2.4
Netherlands Antilles	...	...	1.4	1.1**[-1]	...	...	-6.9
Nicaragua	18.6	21.0	23.5	26.9	2.4	2.8	3.4
Panama	...	...	16.2	17.9	...	...	2.5
Paraguay	29.2	41.7	...	34.0**	7.4	...	...
Peru	134.7	151.7	149.5	185.8	2.4	-0.4	5.6
Saint Kitts and Nevis	0.3**	...	0.4	0.4	...	...	0.8
Saint Lucia	1.1**	1.2	1.1	1.1	0.7	-1.9	-1.0
Saint Vincent and the Grenadines	1.1	...	1.0**	1.0**	...	...	-0.7
Suriname	2.7	...	...	3.3**[-1]	...	...	...
Trinidad and Tobago	7.5	7.3	8.1	7.8*	-0.5	2.7	-0.9
Turks and Caicos Islands	...	...	0.1**	0.2	...	...	12.6
Uruguay	15.7	16.9	17.4	17.6**	1.4	0.8	0.3
Venezuela	177.0	198.2	...	...	2.3	...	...
North America and Western Europe							
Andorra	...	...	...	0.3	...	...	...
Austria	34.2	30.7	29.2**	28.4	-2.2	-1.3	-0.7
Belgium	...	...	64.6**	64.6	...	...	-0.0
Canada	154.7	148.6	140.7	...	-0.8	-1.3	...
Cyprus	3.1	3.5	3.6	3.5	2.4	1.1	-0.7
Denmark	...	...	38.0	...	...	...	...
Finland	...	23.3	23.3	24.3	...	-0.0	1.1
France	...	216.9	207.6**	203.0	...	-1.1	-0.6
Germany	...	223.2	239.2	232.9	...	1.7	-0.7
Greece	43.6	45.1	48.1**	58.4	0.7	1.6	5.0
Iceland	...	...	2.9**	3.0**	...	...	1.1
Ireland	15.6	16.3	20.9**	24.8	0.9	6.3	4.4
Israel	47.5**	...	53.9[-1]	62.4	...	...	3.0
Italy	265.6	251.8	258.8	260.8	-1.1	0.7	0.2
Luxembourg	1.8	...	...	3.0	...	...	...
Malta	1.8	1.9	1.8	1.7	0.9	-1.0	-2.0

% Female		% Trained teachers		Pupil-teacher ratio				Region
1991	2004	2000	2004	1991	1996	2000	2004	Country or territory
...	93.6	...	82.3**	18.6	...	17.0	13.9	British Virgin Islands
...	80.9	97.9	99.6	...	...	14.5	13.4	Cayman Islands
73.2	78.1	...	...	24.9	30.3	32.2	27.3	Chile
...	76.5	...	...	30.1	25.4	26.5	28.0	Colombia
79.7	79.1	...	97.4	32.2	29.5	24.9	22.3	Costa Rica
78.9	76.9	100.0	100.0	12.5	11.9	11.5	10.2	Cuba
80.6	82.7	64.6	63.6	29.2	...	19.6	19.0	Dominica
...	75.2	78.8	79.4	...	...	31.0	21.3	Dominican Republic
...	69.7	87.0	70.9	30.2	28.8	23.3	23.1	Ecuador
...	...	...	...	...	32.8	...	...	El Salvador
...	76.4	67.2	...	...	...	20.3	17.7	Grenada
...	57.6	...	...	34.0	34.8	32.6	30.9	Guatemala
76.1	86.2**	51.4	...	29.7	30.0	26.2	26.6**	Guyana
44.7	...	...	...	23.1	33.7	...	36.3	Haiti
73.9	74.7	...	87.2	38.1	...	34.1	32.9	Honduras
...	89.3	...	...	34.0	32.9	33.6**	27.5	Jamaica
...	66.0	...	...	30.5	28.3	27.2	28.5	Mexico
...	100.0	100.0	86.4	...	...	19.1	21.3	Montserrat
...	86.4**,-1	100.0	...	...	...	17.6	19.8**,-1	Netherlands Antilles
86.3	78.5	72.9	74.6	36.1	36.3	35.7	35.0	Nicaragua
...	75.6	74.9	74.3	...	...	24.7	24.0	Panama
...	72.4**	...	...	24.7	21.5	...	27.8**	Paraguay
...	63.3	...	...	28.6	27.4	29.0	22.2	Peru
73.5**	85.3	61.2	55.0	22.1	...	19.4	17.4	Saint Kitts and Nevis
82.9**	86.4	...	77.8	29.0	26.9	23.2	22.7	Saint Lucia
66.7	72.6**	...	72.1**	19.7	...	18.6**	17.4**	Saint Vincent and the Grenadines
84.1	85.1**,-1	...	...	22.4	...	...	19.5**,-1	Suriname
70.3	73.1*	76.1	81.0*	26.0	25.5	20.8	17.5*	Trinidad and Tobago
...	90.3	75.7**	91.4**	...	...	17.5**	11.4	Turks and Caicos Islands
...	92.0**	...	...	21.6	20.5	20.8	20.8**	Uruguay
74.5	...	...	...	22.9	20.8	...	...	Venezuela
								North America and Western Europe
...	76.9	...	...	...	...	...	12.7	Andorra
81.7	90.9	...	...	10.8	12.5	13.5**	13.1	Austria
...	78.1	...	...	...	...	12.0**	11.6	Belgium
68.7	...	...	...	15.4	16.5	17.3	...	Canada
60.0	82.8	...	...	20.5	18.7	17.7	17.6	Cyprus
...	...	...	...	...	...	10.1	...	Denmark
...	75.5	...	...	...	16.5	16.7	16.0	Finland
...	81.2	...	...	...	18.7	18.7**	18.6	France
...	82.9	...	...	...	17.0	15.3	14.2	Germany
52.2	62.2	...	...	18.7	15.0	13.4**	11.3	Greece
...	78.4**	...	...	...	...	10.9**	10.5**	Iceland
76.6	83.4	...	...	26.7	22.5	21.5**	18.2	Ireland
82.0**	85.3	...	...	15.3	...	13.4-1	12.4	Israel
90.6	95.4	...	...	11.5	11.2	11.0	10.6	Italy
50.8	70.6	...	...	13.3	...	...	11.5	Luxembourg
79.3	86.8	...	...	20.7	18.9	19.1	18.8	Malta

TABLE A2.4 PRIMARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of primary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Monaco	...	0.1	...	...	...	...	...
Netherlands	63.0	77.0**	...	...	4.1	...	...
Norway	...	...	...	41.2**	...	...	...
Portugal	72.1	...	61.3	65.5	...	...	1.7
San Marino	0.2	0.2	0.2	...	0.9	1.8	...
Spain	128.0	162.1**	174.6	179.3	4.8	1.9	0.7
Sweden	60.5**	59.4	65.5	68.3	-0.4	2.5	1.1
Switzerland	...	...	41.5**	41.3	...	...	-0.1
United Kingdom	229.1	283.9	248.1	259.0	4.4	-3.3	1.1
United States	...	1,499.7	1,664.0	1,652.0	...	2.6	-0.2
South and West Asia							
Afghanistan, Islamic Republic of	...	...	11.7	68.0	...	...	55.2
Bangladesh	...	...	309.3	326.9	...	...	1.4
Bhutan	...	...	2.1	2.4**[-2]	...	...	8.0
India	2,108.7**	2,351.8**	2,840.3*	3,387.9**	2.2	4.8	4.5
Iran, Islamic Republic of	298.8	302.1*	316.9	365.2	0.2	1.2	3.6
Maldives	...	...	3.2	3.6[-1]	...	...	6.0
Nepal	74.5	89.4	88.7**	101.5[+1]	3.7	-0.2	3.4
Pakistan	232.0**	315.0**	423.9**	432.2	6.3	7.7	0.5
Sri Lanka	68.1**	66.3	...	70.2	-0.5	...	...
Sub-Saharan Africa							
Angola	31.1	...	...	...	...	...	...
Benin	13.6	13.9	17.7	25.6	0.5	6.3	9.6
Botswana	9.8	12.8**	12.1	12.7	5.4	-1.3	1.2
Burkina Faso	8.9	14.0	17.4	23.4	9.5	5.6	7.6
Burundi	9.5	10.3**	12.5*	18.9	1.7	4.9	10.9
Cameroon	38.4	40.1*	43.1**	55.3	0.9	1.8	6.4
Cape Verde	...	...	3.2	3.2	...	...	-0.2
Central African Republic	4.0	...	...	...	...	...	...
Chad	8.0	9.4	13.3	16.2**	3.3	9.1	5.1
Comoros	2.0	1.9**	2.5	3.0	-1.3	7.9	4.0
Congo	7.6	7.1**	6.9	7.1	-1.4	-0.5	0.5
Côte d'Ivoire	38.7**	40.5	43.2	48.3*[-1]	0.9	1.6	3.8
Democratic Republic of the Congo	114.0**	...	154.6[-1]	...	...	...	...
Equatorial Guinea	...	...	1.7	...	...	...	...
Eritrea	2.9	5.8	6.2	8.0	15.0	1.7	6.6
Ethiopia	68.4	89.2	76.6	110.9[+1]	5.5	-3.7	9.7
Gabon	...	4.9	5.7**	7.8**	...	3.7	8.1
Gambia	2.8	4.1	4.2	4.7	8.4	0.4	2.7
Ghana	66.9	67.0	75.8	89.3[+1]	0.0	3.1	4.2
Guinea	8.7	11.9	17.3	25.4	6.4	9.9	10.0
Guinea-Bissau	...	...	3.4	...	...	...	...
Kenya	173.1	...	146.2	149.9	...	...	0.6
Lesotho	6.7	7.9	8.6	9.8	3.4	2.1	3.4
Liberia	...	...	13.0	...	...	...	...
Madagascar	38.9	44.1	46.1	64.3	2.5	1.1	8.7
Malawi	22.9	49.1	38.5**	40.6**	16.5	-5.9	1.3
Mali	8.3**	9.8**	15.6	26.7	3.3	12.2	14.5

% Female		% Trained teachers		Pupil-teacher ratio				Region
1991	2004	2000	2004	1991	1996	2000	2004	Country or territory
...	...	...	...	...	18.6	...	...	Monaco
53.0	...	...	...	17.2	15.7	...	...	Netherlands
...	72.6**	...	...	...	...	...	10.5**	Norway
81.5	81.8	...	...	14.1	...	13.2	11.6	Portugal
89.4	...	...	...	5.8	5.2	5.4	...	San Marino
72.7	69.0	...	...	22.0	17.3	14.5	13.9	Spain
76.9**	80.8	...	...	9.6	11.2	11.8	10.1	Sweden
...	77.8	...	...	...	...	13.0**	12.9	Switzerland
78.0	81.5	...	...	19.8	18.6	18.7	18.1	United Kingdom
...	88.1	...	...	...	16.0	15.0	14.9	United States
								South and West Asia
...	22.0	...	...	...	...	64.0	65.2	Afghanistan, Islamic Republic of
...	39.5	65.0	...	...	...	57.1	54.9	Bangladesh
...	36.1**,-2	94.8	...	...	...	41.1	37.9**,-2	Bhutan
28.0**	44.0**	...	...	47.0	46.7	40.0*	40.2**	India
52.9	58.1	...	100.0	31.4	31.4	26.1	20.0	Iran, Islamic Republic of
...	63.6-1	66.5	60.8-1	...	...	22.7	18.2-1	Maldives
13.7	30.1+1	49.9	30.5+1	38.7	38.6	39.8**	39.7+1	Nepal
26.5**	45.2	...	...	...	42.9	33.0**	37.5	Pakistan
...	78.9	...	...	31.0	27.8	...	22.5	Sri Lanka
								Sub-Saharan Africa
...	...	...	...	31.9	...	22.4-1	...	Angola
24.7	18.9	65.0	72.2	36.2	52.0	52.6	51.6	Benin
78.2	78.6	89.2	...	30.4	24.9	26.7	25.8	Botswana
27.0	28.3	...	89.5	56.7	49.9	48.9	48.7	Burkina Faso
46.2	54.4	...	...	66.9	50.2	56.8*	51.2	Burundi
30.0	39.7	...	68.5	51.1	44.5*	51.9**	53.9	Cameroon
...	66.7	...	72.7	...	...	28.7	26.9	Cape Verde
24.9	...	...	...	77.0	...	...	...	Central African Republic
5.9	10.0**	...	...	65.8	63.0	68.6	69.3**	Chad
...	32.9	...	...	36.5	42.0	36.8	35.0	Comoros
32.4	44.5	64.6	62.2	65.2	70.4	60.5	82.8	Congo
18.2**	24.0*-1	99.4	100.0*-1	36.5	41.0	45.0	42.4*-1	Côte d'Ivoire
24.0	...	...	...	40.0	...	26.0-1	...	Democratic Republic of the Congo
...	...	...	...	...	...	43.4	30.4	Equatorial Guinea
45.3	35.9	72.0	83.1	37.7	41.5	47.5	46.7	Eritrea
23.9	44.6+1	...	97.1+1	36.1	37.9	63.6	72.3+1	Ethiopia
...	44.7**	...	...	...	50.7	46.6**	36.0**	Gabon
30.8**	30.9	62.9	...	31.3	30.2	36.9	37.5	Gambia
35.8	31.1+1	69.1	57.9+1	29.1	32.8	33.8	32.8+1	Ghana
22.5	24.1	...	...	39.9	49.2	45.6	45.2	Guinea
...	...	35.1	...	...	...	44.1	...	Guinea-Bissau
37.8	44.4	...	98.8	31.5	...	34.4	39.5	Kenya
80.2	...	74.2	66.8	54.0	47.4	47.9	43.6	Lesotho
...	...	...	...	...	...	38.3	...	Liberia
...	59.6	...	...	40.3	37.1	48.0	52.4	Madagascar
31.3	45.7**	...	...	61.1	58.8	70.0**	70.0**	Malawi
25.3**	28.4	...	...	47.4	69.7	65.3	52.2	Mali

TABLE A2.4 PRIMARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of primary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Mauritius	6.4	5.2	5.2	5.3 [+1]	-3.9	-0.2	0.7
Mozambique	22.2	...	39.8	54.7	...	...	8.3
Namibia	...	...	12.3	14.4** [-1]	...	...	5.4
Niger	8.8	11.3	14.2	22.4	5.0	6.0	12.0
Nigeria	353.6	416.7	458.0**	579.8	3.3	2.4	6.1
Rwanda	19.2	...	26.5	28.3	...	...	1.6
Sao Tome and Principe	...	...	0.7 [-1]	0.9	...	...	7.1
Senegal	13.4	15.0	21.8	32.0	2.4	9.7	10.1
Seychelles	...	0.6	0.7	0.7**	...	4.3	-1.1
Sierra Leone	10.9	...	...	...	...	...	...
Somalia	...	...	...	...	...	...	...
South Africa	270.4	...	222.5	221.0 [-1]	...	...	-0.3
Swaziland	5.3	6.0	6.8	6.7 [-1]	2.2	3.4	-1.2
Togo	11.1	16.2	24.4	22.2	7.9	10.8	-2.3
Uganda	79.5**	87.0**	124.4**	143.2 [+1]	1.8	9.4	3.6
United Republic of Tanzania	98.2	108.9	106.0**	135.0 [+1]	2.1	-0.7	6.2
Zambia	...	...	35.3	46.4**	...	...	7.1
Zimbabwe	58.4	63.7	66.4	61.3 [-1]	1.7	1.1	-4.0

% Female		% Trained teachers		Pupil-teacher ratio				Region
1991	2004	2000	2004	1991	1996	2000	2004	Country or territory
44.6	62.9[+1]	100.0	...	21.2	23.9	26.1	23.2[+1]	Mauritius
23.1	29.9	...	...	54.7	...	64.0	65.2	Mozambique
...	60.6**[,-1]	36.0	...	...	...	31.6	28.3**[,-1]	Namibia
32.6	35.6	97.4	75.8	41.7	39.0	40.7	43.7	Niger
42.7	50.5	...	50.7	39.0	33.8	41.1**	36.4	Nigeria
46.3	51.2	52.6	81.7	57.4	...	54.0	62.0	Rwanda
...	55.9	...	...	...	...	36.0[-1]	32.1	Sao Tome and Principe
26.9**	23.6	...	50.9	52.9	58.2	50.9	43.2	Senegal
...	85.3**	81.1	...	...	17.1	14.7	14.0**	Seychelles
...	...	...	...	35.2	...	...	...	Sierra Leone
...	...	...	...	...	...	...	...	Somalia
58.5	74.4[-1]	67.9	78.7[-1]	26.7	...	33.5	33.8[-1]	South Africa
77.7	74.8[-1]	90.4	90.6[-1]	32.3	33.9	31.3	31.2[-1]	Swaziland
18.8	13.5	...	45.0	58.3	50.8	37.5	44.3	Togo
...	38.6[+1]	...	...	32.9	35.3	52.7**	49.9[+1]	Uganda
40.5	47.9[+1]	...	100.0[+1]	35.8	36.2	41.4**	55.9[+1]	United Republic of Tanzania
...	47.7**	...	...	...	...	45.0	48.5**	Zambia
40.4	50.6[-1]	...	...	39.2	39.1	37.0	38.6[-1]	Zimbabwe

TABLE A2.5 SECONDARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of secondary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Arab States							
Algeria	127.0	150.4	...	176.4**	3.4	...	...
Bahrain	3.3**	4.4**	4.4**	5.2**,-2	6.0	-0.5	9.3
Djibouti	0.5**	0.6	0.7-1	0.7**,-2	6.0	2.7	2.7
Egypt	304.6**	398.5**	473.7**	487.7**	5.5	4.4	0.7
Iraq	55.7**	62.3	62.0	90.8	2.3	-0.1	10.0
Jordan	6.9	8.6	...	34.3**,-1	4.4	...	...
Kuwait	14.0**	19.1	22.2**	25.3	6.3	3.9	3.3
Lebanon	...	...	42.1**,-1	43.5	...	...	0.7
Libyan Arab Jamahiriya	17.6**	...	...	...	...	...	...
Mauritania	2.3*	2.1	2.5	3.1	-1.7	4.8	5.8
Morocco	81.5**	87.3**	90.8**	100.4**	1.4	1.0	2.5
Oman	6.9	11.4	13.5	18.2**	10.5	4.3	7.7
Palestinian Autonomous Territories	...	6.9	...	23.1	...	...	...
Qatar	3.5	4.1**	4.7**	5.4	2.8	3.6	3.4
Saudi Arabia	71.1	109.5	146.3	181.3	9.0	7.5	5.5
Sudan	33.6	11.6**	...	52.7**	-19.1	...	...
Syrian Arab Republic	54.1	62.9	70.2**,-1	...	3.1	3.7	...
Tunisia	33.1	46.1**	58.1**	68.8	6.9	5.9	4.3
United Arab Emirates	8.6	13.0**	16.4	20.8	8.7	5.9	6.1
Yemen	...	...	73.8**,-1	...	...	...	...
Central and Eastern Europe/Central Asia							
Albania	10.6	6.3	22.3	22.4-1	-9.8	37.0	0.3
Belarus	...	...	105.7	105.0	...	...	-0.2
Bosnia and Herzegovina	...	...	...	...	...	...	...
Bulgaria	27.3	66.8	58.7	57.6	19.6	-3.2	-0.5
Croatia	13.9	29.7	34.7	36.8-1	16.5	3.9	2.0
Czech Republic	98.0	114.4	70.8	75.8	3.1	-11.3	1.7
Estonia	...	11.1	11.9	12.3**,-2	...	1.8	1.3
Hungary	37.7**	107.0*	100.2-1	98.1**	23.2	-2.2	-0.4
Latvia	28.8	28.5	24.8	25.0	-0.2	-3.4	0.2
Lithuania	33.1**	36.2	37.7	42.0	1.8	1.0	2.8
Poland	103.8	119.6	...	242.1**	2.9	...	...
Republic of Moldova	36.3	33.8	31.2	31.3	-1.4	-1.9	0.1
Romania	157.5	172.9	173.4	157.7	1.9	0.1	-2.3
Russian Federation	1,034.1**	...	...	1,321.9**	...	...	...
Serbia and Montenegro	...	...	56.3	...	...	...	...
Slovakia	...	51.1**	54.9	52.2	...	1.8	-1.3
Slovenia	...	14.9	16.9	16.5	...	3.1	-0.6
The Former Yugoslav Rep.of Macedonia	4.2	4.8	13.8	14.3	2.7	30.2	0.8
Turkey	159.4	210.8*	...	...	5.7	...	...
Ukraine	316.1**	...	389.4**	360.8	...	...	-1.9
Armenia	32.8**	32.6**	...	39.9	-0.1	...	...
Azerbaijan	...	85.8**	121.0	127.1	...	9.0	1.2
Georgia	82.9	69.0	59.2	49.0-1	-3.6	-3.8	-6.1
Kazakhstan	167.0**	...	177.2**	184.6	...	...	1.0
Kyrgyzstan	48.2**	42.3	49.5	53.3	-2.6	4.0	1.9
Mongolia	16.5	12.8	11.3	14.7	-5.0	-3.0	6.6

% Female		% Trained teachers		Pupil-teacher ratio		Region
1991	2004	2000	2004	2000	2004	Country or territory
						Arab States
39.0	49.3**	...	...	...	20.8**	Algeria
54.0**	69.6**,-2	...	...	14.0**	...	Bahrain
25.8**	31.3**,-2	...	...	22.8-1	...	Djibouti
39.3**	41.3**	...	...	16.9**	17.1**	Egypt
58.1**	58.3	100	100	19.7	18.8	Iraq
46.9	54.0**,-1	...	...	...	17.9**,-1	Jordan
52.3**	53.8	100**,	100	10.8**	10.6	Kuwait
...	51.7	...	...	8.9**,-1	8.3	Lebanon
...	...	...	...	...	...	Libyan Arab Jamahiriya
10.2**	12.1	...	100	26.3	28.4	Mauritania
30.4**	33.3**	...	...	17.0**	18.7**	Morocco
37.4	53.6**	100	...	17.9	15.8**	Oman
...	49.7	...	...	...	27.2	Palestinian Autonomous Territories
56.2	55.2	...	...	10.1**	10.1	Qatar
40.9	50.4	86	...	12.7	11.2	Saudi Arabia
35.2**	59.4**	...	...	...	24.5**	Sudan
41.4	...	...	...	14.7**,-1	...	Syrian Arab Republic
31.8	44.3	...	...	19.0**	17.6	Tunisia
54.8	55.3	50	47	12.8	13.5	United Arab Emirates
...	...	...	...	14.1**,-1	...	Yemen
						Central and Eastern Europe /Central Asia
41.8	55.9-1	...	...	16.3	17.7-1	Albania
...	79.5	...	...	9.5	9.2	Belarus
...	...	...	...	...	...	Bosnia and Herzegovina
61.1	77.2	...	...	11.9	12.2	Bulgaria
52.0**	67.0-1	100	100-1	11.8	10.9-1	Croatia
60.1**	68.5	...	...	13.5	13.0	Czech Republic
...	82.6**,-2	...	...	9.8	...	Estonia
48.5**	71.1**	...	...	10.0-1	9.8**	Hungary
68.8**	82.2	...	...	10.7	11.0	Latvia
76.7**	80.6	...	...	11.2	10.3	Lithuania
55.0*	69.6**	...	...	...	14.4**	Poland
69.2	75.6	...	...	13.2	12.8	Republic of Moldova
61.1	66.2	...	...	12.8	13.7	Romania
75.4**	80.4**	...	...	...	10.3**	Russian Federation
...	...	100	...	13.9	...	Serbia and Montenegro
...	76.6	...	...	12.2	12.9	Slovakia
...	70.6	...	...	12.9	11.4	Slovenia
47.3**	52.0	...	...	16.0	15.1	The former Yugoslav Rep. of Macedonia
38.7	...	...	...	...	...	Turkey
54.0**	78.8	...	...	13.4**	12.3	Ukraine
73.4**	81.0	...	67	...	9.8	Armenia
...	64.6	100	...	7.8	8.5	Azerbaijan
60.2	83.3-1	82	...	7.5	6.4	Georgia
71.9**	84.6	...	...	11.3**	11.3	Kazakhstan
64.3**	72.4	...	73	13.3	13.7	Kyrgyzstan
61.9	72.2	...	...	19.9	22.7	Mongolia

TABLE A2.5 SECONDARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of secondary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Tajikistan	...	88.9*	48.5	61.8	...	-14.1	6.3
Turkmenistan	...	...	...	...	...	...	...
Uzbekistan	302.4	...	...	...	...	...	...
East Asia and the Pacific							
Australia	111.0**	180.0**	...	...	10.2	...	...
Brunei Darussalam	2.2	3.0	3.3	4.1	6.4	2.5	6.1
Cambodia	17.7**	18.5**	19.0	25.2**	0.8	0.7	7.2
China	3,631.5	4,099.3	4,763.0	5,314.4**	2.5	3.8	2.8
Cook Islands	...	...	0.1	0.1[-1]	...	...	0.8
Democratic People's Republic of Korea	...	...	...	...	...	...	...
Fiji	...	...	...	4.6**	...	...	...
Indonesia	841.1**	917.7	903.7**	1,151.6	1.8	-0.4	6.2
Japan	658.6	...	628.4	612.6	...	...	-0.6
Kiribati	0.2	0.3	0.7	0.6	2.0	26.3	-1.5
Lao People's Democratic Republic	12.1*	11.3	12.4	14.3	-1.4	2.4	3.5
Macao, China	...	...	1.5	2.0	...	...	7.8
Malaysia	80.6	96.1**	120.0**	141.9**[-1]	3.6	5.7	5.7
Marshall Islands	...	...	0.3	0.4**[-1]	...	...	11.9
Micronesia (Federated States of)	...	...	...	...	...	...	...
Myanmar	100.0	...	71.2	78.1[+1]	...	...	2.4
Nauru	...	...	0.04	0.03[-1]	...	...	-3.6
New Zealand	23.3**	27.5	28.5	38.2	3.4	1.0	7.5
Niue	0.03	...	0.02	0.03	...	...	3.2
Palau	...	...	.1	...	...	...	...
Papua New Guinea	3.1	...	7.6	8.4**[-1]	...	...	3.7
Philippines	121.9	139.0**	150.2[-1]	168.1	2.7	2.6	2.3
Republic of Korea	180.7	190.7	188.8	207.9[+1]	1.1	-0.3	2.4
Samoa	0.5	0.7	1.0	1.1**	4.2	11.4	2.7
Singapore	12.0**	11.6**	...	...	-0.7	...	...
Solomon Islands	0.4	...	1.3**	...	...	...	...
Thailand	133.9	...	242.9	215.8**[-1]	...	...	-3.9
Timor-Leste	...	...	...	1.6[-2]	...	...	...
Tokelau	...	...	.01	.02[-2]	...	...	16.8
Tonga	0.9	...	1.0	1.0[-2]	...	...	1.0
Tuvalu	...	...	...	...	...	...	...
Vanuatu	0.3**	...	0.4	0.9**[-2]	...	...	44.5
Viet Nam	190.8**	204.1**	283.6	390.8	1.4	8.6	8.3
Latin America and the Caribbean							
Anguilla	...	...	0.1**	0.1	...	...	0.7
Antigua and Barbuda	0.4**	0.5**	0.4	...	6.7	-5.1	...
Argentina	...	270.8**	311.3	202.3**[-1]	...	3.5	-13.4
Aruba	...	...	0.4**	0.5	...	...	4.8
Bahamas	...	1.8*	1.7**	1.7	...	-0.7	0.0
Barbados	...	...	1.2**	1.3**	...	...	1.0
Belize	0.6	0.7**	1.0	1.6**	4.7	8.8	13.3
Bermuda	0.6**	0.5**	...	0.7[-2]	-4.1	...	...
Bolivia	...	...	39.9**	45.5**	...	...	3.3
Brazil	259.4	326.8	1,179.7	1,467.8[-1]	4.7	37.8	7.6

% Female		% Trained teachers		Pupil-teacher ratio		Region
1991	2004	2000	2004	2000	2004	Country or territory
...	44.9	...	92	16.4	15.8	Tajikistan
...	...	...	...	...	...	Turkmenistan
47.7**	...	...	...	...	...	Uzbekistan
						East Asia and the Pacific
50.0**	...	...	...	...	...	Australia
44.8	57.1	...	...	11.1	10.2	Brunei Darussalam
27.8**	31.3**	...	...	18.5	25.1**	Cambodia
31.1	43.2**	...	...	17.1	18.6**	China
...	51.6 -1	...	...	13.9	15.0 -1	Cook Islands
...	...	...	...	...	...	Democratic People's Republic of Korea
...	49.6**	...	...	...	22.4**	Fiji
34.7**	39.9	...	...	15.8**	14.2	Indonesia
30.0	31.1	...	...	14.0	12.9	Japan
39.0	50.0	...	...	17.6	18.6	Kiribati
31.6*	42.2	98	97	21.3	26.6	Lao People's Democratic Republic
...	57.1	60	64	23.9	23.2	Macao, China
52.6	64.6**,-1	53**,	...	18.4**	17.7**,-1	Malaysia
...	39.3**,-1	...	...	21.6 -1	16.7**,-1	Marshall Islands
...	...	...	...	...	...	Micronesia (Federated States of)
71.0	77.3 +1	70	84 +1	31.9	33.1 +1	Myanmar
...	52.9 -1	...	...	17.4	19.0 -1	Nauru
51.6**	59.8	...	...	15.5	12.8	New Zealand
...	68.0	...	...	11.8**	8.4	Niue
...	...	...	...	15.1	...	Palau
31.2	37.7**,-1	100	...	20.7	22.6**,-1	Papua New Guinea
95.5**	75.7	100 -1	...	34.1 -1	37.5	Philippines
34.2	48.7 +1	...	...	22.1	17.8 +1	Republic of Korea
44.5	59.5**	...	...	21.2	20.8**	Samoa
54.2**	...	...	...	...	...	Singapore
...	...	...	...	10.1**	...	Solomon Islands
...	51.5**,-1	...	...	...	24.9**,-1	Thailand
...	31.0 -2	...	...	...	...	Timor-Leste
...	...	...	...	16.4	6.8 -1	Tokelau
45.1	70.3 -2	...	...	14.6	...	Tonga
...	...	...	...	...	...	Tuvalu
29.4**	42.8**,-2	...	...	24.7	...	Vanuatu
61.1**	65.0	88	...	28.0	24.5	Viet Nam
						Latin America and the Caribbean
...	70.8	59**,	60	16.1**	16.0	Anguilla
86.9**	...	47	...	13.4	...	Antigua and Barbuda
...	66.5**,-1	...	...	12.3	17.3**,-1	Argentina
...	50.7	100**,	95	15.6**	14.6	Aruba
...	72.1	98**,	97	23.1**	16.5	Bahamas
...	56.6**	67**,	63**,	17.3**	16.9**	Barbados
41.3	64.0**	54	43**,	23.3	19.0**	Belize
57.9**	67.3 -2	...	100 -2	...	...	Bermuda
...	52.7**	55**,	...	22.0**	23.6**	Bolivia
...	80.7 -1	...	...	22.1	16.8 -1	Brazil

TABLE A2.5 SECONDARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of secondary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
British Virgin Islands	0.1**	0.1**	0.1**	0.2	4.8	5.4	5.6
Cayman Islands	0.4**	0.4**	0.3	0.2**	0.5	-12.5	-1.3
Chile	49.1	...	47.4	63.3	...	...	7.5
Colombia	119.7	169.8	185.6**	164.3	7.2	2.2	-3.0
Costa Rica	7.2	10.2	13.6**	16.7	7.0	7.5	5.4
Cuba	100.1	74.1	66.1	84.5	-5.8	-2.8	6.3
Dominica	0.4**	0.6**	0.3	0.4	7.2	-11.7	6.5
Dominican Republic	...	12.3*	...	25.8	...	...	...
Ecuador	60.2*	67.4	67.5**	74.7*	2.3	0.0	2.5
El Salvador	...	9.3	...	...	...	...	...
Grenada	0.4**	0.4**	0.5**	0.7[-1]	2.5	4.1	15.4
Guatemala	20.7	22.6	35.9	45.4	1.8	12.2	6.0
Guyana	1.6	2.2	3.7**	4.1**	6.1	14.5	2.6
Haiti	10.0**	...	...	...	...	...	...
Honduras	8.5	...	...	16.7	...	...	...
Jamaica	10.6**	...	12.1**	12.8	...	...	1.5
Mexico	402.5	467.7	537.4	579.7	3.0	3.5	1.9
Montserrat	0.1**	0.1**	0.03	0.03	13.8	-32.1	3.6
Netherlands Antilles	...	...	1.1	1.2**[-1]	...	...	2.1
Nicaragua	6.3**	8.4**	10.4*	12.8	5.8	5.6	5.4
Panama	10.0	12.2	14.4	16.1	4.1	4.2	2.8
Paraguay	12.2	...	...	43.8**	...	...	...
Peru	86.9	103.0	...	160.8	3.4	...	...
Saint Kitts and Nevis	0.3**	0.3**	0.3**	0.4	1.8	0.8	6.3
Saint Lucia	0.4**	0.6**	0.7	0.8**	6.9	3.7	3.7
Saint Vincent and the Grenadines	0.4	...	0.4	0.5**	...	...	6.1
Suriname	2.5	...	...	2.7**[-1]	...	...	...
Trinidad and Tobago	4.9*	5.0*	5.5**	5.4**	0.3	2.3	-0.3
Turks and Caicos Islands	...	...	0.1**	0.2**	...	...	1.2
Uruguay	...	...	20.8	23.7**	...	...	3.3
Venezuela	30.8	...	...	...	...	...	...
North America and Western Europe							
Andorra	...	...	...	0.5	...	...	...
Austria	76.3	80.2	72.7**	72.0	1.0	-2.4	-0.3
Belgium	106.4	...	...	119.9	...	...	...
Canada	164.1	133.3	138.7	...	-4.1	1.0	...
Cyprus	3.7	5.3	...	5.7	7.2	...	...
Denmark	...	...	44.6	...	...	...	...
Finland	...	32.4**	...	...	...	...	...
France	441.5	478.6	502.5	511.3	1.6	1.2	0.4
Germany	...	540.3	578.4	597.7	...	1.7	0.8
Greece	60.3	85.5	75.7**	83.8	7.2	-3.0	2.6
Iceland	...	...	2.6**	2.8**	...	...	2.1
Ireland	21.6**	26.5	...	...	4.2	...	...
Israel	39.6**	...	54.9[-1]	61.1	...	...	2.2
Italy	589.7	461.8	412.4**	417.0	-4.8	-2.8	0.3
Luxembourg	...	...	...	3.4	...	...	...
Malta	2.7	...	3.6	3.7	...	...	0.6

% Female		% Trained teachers		Pupil-teacher ratio		Region
1991	2004	2000	2004	2000	2004	Country or territory
65.3**	68.5	...**	69	10.4**	9.3	British Virgin Islands
56.0**	53.6**	100	100**,	9.3	11.3**	Cayman Islands
53.1	62.8	...	...	29.4	25.2	Chile
...	51.6	...	...	19.2**	24.6	Colombia
...	53.3	...	89	18.8**	17.8	Costa Rica
51.1	56.0	87	79	11.9	11.0	Cuba
58.6**	65.2	31	36	21.5	16.8	Dominica
...	59.4	...	82	...	30.3	Dominican Republic
...	49.3*	84**,	69*,	13.6**	13.3*	Ecuador
...	...	...	...	...	...	El Salvador
51.7**	63.0-1	...	31-1	22.0**	20.1-1	Grenada
...	50.3	...	...	14.0	15.4	Guatemala
54.6	61.4**	64**,	...	18.8**	15.5**	Guyana
...	...	...	...	...	...	Haiti
...	54.7	...	64	...	33.3	Honduras
...	66.9	...	...	18.9**	19.1	Jamaica
...	46.0	...	...	16.9	17.9	Mexico
59.4**	60.0	...	70	10.9	9.5	Montserrat
...	54.7**,-1	100	...	13.0	12.9**	Netherlands Antilles
54.3**	55.4	45*,	46	32.0*	32.4	Nicaragua
...	57.0	82	83	16.3	15.8	Panama
67.1	62.2**	...	...	...	11.8**	Paraguay
47.5	42.7	...	...	...	16.6	Peru
54.8**	59.4	...	35	14.4**	10.8	Saint Kitts and Nevis
62.7**	65.5**	...	60**,	17.8	15.8**	Saint Lucia
52.4	57.3**	50	42**,	24.0	20.2**	Saint Vincent and the Grenadines
62.0	60.9**,-1	...	...	...	15.1**,-1	Suriname
53.2*	62.1**	56**,	56**,	20.6**	19.4**	Trinidad and Tobago
...	60.3**	100**,	100**,	8.5**	10.0**	Turks and Caicos Islands
...	72.5**	...	...	14.6	14.7**	Uruguay
51.4	...	...	...	...	...	Venezuela
						North America and Western Europe
...	58.0	...	...	...	7.1	Andorra
54.3	60.8	...	...	10.3**	10.7	Austria
52.5	57.7	...	...	...	6.7	Belgium
53.5	...	...	...	18.8-1	...	Canada
45.8	59.6	...	...	...	11.3	Cyprus
...	...	...	...	9.6	...	Denmark
...	...	...	...	...	...	Finland
57.3	58.6	...	...	11.8	11.4	France
...	55.6	...	...	14.4	14.0	Germany
53.2	55.7	...	...	9.8**	8.3	Greece
...	62.5**	...	...	12.3**	12.3**	Iceland
50.9**	...	...	...	...	...	Ireland
59.8**	70.9	...	...	10.4-1	9.9	Israel
62.3	66.3	...	...	10.7**	10.8	Italy
...	43.7	...	...	...	10.5	Luxembourg
35.6	53.3	...	...	9.9	11.2	Malta

TABLE A2.5 SECONDARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of secondary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Monaco	0.4**	0.3	...	...	-6.2	...	...
Netherlands	89.4	86.8**	...	109.7	-0.6	...	...
Norway	52.4**	50.1**	...	45.5**	-0.9	...	...
Portugal	64.5	...	84.9	85.9	...	...	0.3
San Marino	...	...	...	...	...	...	...
Spain	285.6	270.9	...	276.9	-1.1	...	...
Sweden	...	80.1*	65.1	75.2	...	-5.1	3.7
Switzerland	...	...	55.0**	...	...	...	...
United Kingdom	390.9**	476.3	460.3	493.2	4.0	-0.9	1.7
United States	...	1,394.1	1,546.9	1,624.7	...	2.6	1.2
South and West Asia							
Afghanistan, Islamic Republic of	11.3**	18.9**	...	...	10.9	...	...
Bangladesh	...	...	268.8	355.6[-1]	...	...	9.8
Bhutan	...	...	0.7	...	...	...	...
India	1,906.8**	2,090.1**	2,112.5	2,586.2	1.9	0.3	5.2
Iran, Islamic Republic of	216.3	264.0*	336.1	525.9	4.1	6.2	11.8
Maldives	...	...	1.3	2.1[-1]	...	...	16.8
Nepal	24.6	36.1	44.6	47.9**[,+1]	8.0	5.4	1.8
Pakistan	...	282.5**	...	197.1*	...	...	...
Sri Lanka	105.7	...	...	117.1	...	...	...
Sub-Saharan Africa							
Angola	...	...	16.4**[,-1]	...	...	...	...
Benin	3.3**	4.7**	9.8	12.2**	7.7	20.0	5.6
Botswana	4.3	7.1**	9.4	11.8**	10.6	7.2	5.9
Burkina Faso	3.6**	...	6.2**[,-1]	7.8**	...	...	4.8
Burundi	2.0	...	...	8.0**	...	...	...
Cameroon	19.8	...	26.4**[,-1]	35.5*	...	...	6.2
Cape Verde	...	...	...	2.2	...	...	...
Central African Republic	...	...	...	...	...	...	...
Chad	1.6**	2.7	4.3	...	10.7	12.1	...
Comoros	0.6**	0.9**	...	3.1	7.1	...	...
Congo	6.9	7.2	...	6.9**	0.9	...	...
Côte d'Ivoire	21.4**	19.6**	20.1**[,-1]	...	-1.7	0.8	...
Democratic Republic of the Congo	...	...	90.8**	...	...	...	...
Equatorial Guinea	...	...	.9**	...	...	...	...
Eritrea	...	2.2	2.5	4.1	...	3.3	12.9
Ethiopia	23.3	26.0	54.3	82.7[+1]	2.2	20.2	11.1
Gabon	...	3.1	3.1**[,-1]	...	...	-0.2	...
Gambia	0.8	1.5	1.9**	2.0	15.4	5.0	2.0
Ghana	45.5**	...	55.2	71.8**[,+1]	...	...	6.8
Guinea	6.0	5.3**	5.8**[,-1]	10.5**	-2.5	3.0	12.7
Guinea-Bissau	...	...	1.8**	...	...	...	...
Kenya	37.5**	...	...	76.7**	...	...	...
Lesotho	2.6**	2.9	3.4	3.5	2.3	4.0	0.6
Liberia	...	...	5.1	...	...	...	...
Madagascar	16.3**	18.4**	20.4**[,-1]	...	2.4	3.5	...
Malawi	2.2**	6.5	...	11.4[-2]	24.5	...	...
Mali	5.7	6.2**	8.3**	...	1.7	7.3	...

% Female		% Trained teachers		Pupil-teacher ratio		Region
1991	2004	2000	2004	2000	2004	Country or territory
52.7**	...	...	...	...	...	Monaco
29.0	44.3	...	...	...	12.7	Netherlands
44.1**	57.9**	...	...	...	8.8**	Norway
65.9	69.1	...	...	9.8	7.7	Portugal
...	...	...	...	...	...	San Marino
50.9	55.1	...	...	...	11.0	Spain
...	57.1	...	...	14.3	9.5	Sweden
...	...	...	...	10.0**	...	Switzerland
44.1**	60.2	...	...	17.9	13.0	United Kingdom
...	60.5	...	...	14.6	14.9	United States
						South and West Asia
47.1**	...	...	...	...	...	Afghanistan, Islamic Republic of
...	16.2 -1	30	31 -1	38.4	31.1 -1	Bangladesh
...	...	95	...	32.5	...	Bhutan
34.4**	33.9	...	...	33.6	32.4	India
40.6	47.4	...	100	29.6	19.6	Iran, Islamic Republic of
...	35.3 -1	...	...	15.3	13.7 -1	Maldives
9.8	15.5**,+1	...	...	30.2	42.9**,+1	Nepal
...	50.9*	...	...	...	36.9*	Pakistan
...	63.2	...	...	...	19.5	Sri Lanka
						Sub-Saharan Africa
...	...	...	...	18.3**,-1	...	Angola
17.3**	11.7**	37	...	23.4	27.7**	Benin
40.4	47.2**	87	...	17.3**	14.3**	Botswana
30.3**	11.1**	...	...	27.9**,-1	31.3**	Burkina Faso
21.2	20.7**	...	...	...	18.9**	Burundi
21.3**	35.9*	...	...	23.8**,-1	32.7*	Cameroon
...	39.1	...	61	...	22.7	Cape Verde
...	...	...	...	...	...	Central African Republic
4.8**	...	...	...	32.2	...	Chad
20.6**	13.0	...	...	...	13.8	Comoros
13.1**	13.3**	...	...	...	34.3**	Congo
31.9**	...	...	...	29.4**,-1	...	Côte d'Ivoire
...	...	...	...	13.8**	...	Democratic Republic of the Congo
...	...	...	...	23.1**	29.9 -1	Equatorial Guinea
...	11.1	61	50	54.1	47.8	Eritrea
9.8	12.9 +1	...	...	39.9	54.5 +1	Ethiopia
...	...	...	...	28.1**,-1	...	Gabon
...	14.3	77**	...	28.3**	41.9**	Gambia
24.2**	22.9**,+1	73	...	19.1	18.8**,+1	Ghana
12.1	5.8**	...	...	29.9**,-1	33.3**	Guinea
...	...	...	...	14.4**	...	Guinea-Bissau
32.2**	38.0**	...	...	...	31.5**	Kenya
51.1**	56.5	87	85	22.1	25.9	Lesotho
...	...	...	...	26.4	...	Liberia
...	...	...	...	17.0**,-1	...	Madagascar
...	23.7 -2	...	...	...	...	Malawi
14.0**	...	...	...	29.3**	...	Mali

TABLE A2.5 SECONDARY TEACHERS AND PUPIL-TEACHER RATIOS

Region	Number of secondary teachers (000s)				Average annual growth (%)		
Country or territory	1991	1996	2000	2004	1991-1996	1996-2000	2000-2004
Mauritius	4.1**	4.7	5.4	7.4[+1]	2.8	3.5	8.1
Mozambique	5.0	...	...	...	...	...	...
Namibia	...	...	5.2	6.0**[,-1]	...	...	5.1
Niger	2.8	3.5	4.5**	5.1	5.0	6.3	3.1
Nigeria	141.5	...	...	148.3	...	...	...
Rwanda	5.1**	...	...	7.8	...	...	...
Sao Tome and Principe	...	...	...	...	...	...	...
Senegal	8.0*	8.7**	9.1	13.7	1.6	1.1	10.6
Seychelles	...	0.7	0.5	0.5**	...	-6.1	0.3
Sierra Leone	6.0	...	...	...	...	...	...
Somalia	...	...	...	...	...	...	...
South Africa	113.2	...	147.6	149.0[-1]	...	...	0.3
Swaziland	2.5**	3.0**	3.5	3.7[-1]	4.0	4.1	1.8
Togo	4.5	5.4	8.4**	11.0	3.7	11.6	7.2
Uganda	16.9**	...	31.0	34.0**[,+1]	...	...	2.4
United Republic of Tanzania	9.9	12.8	...	...	5.2	...	...
Zambia	...	...	10.1**[,-1]	10.7**	...	...	1.1
Zimbabwe	25.2	28.3	34.2	34.0[-1]	2.3	4.9	-0.2

% Female		% Trained teachers		Pupil-teacher ratio		Region
1991	2004	2000	2004	2000	2004	Country or territory
40.7**	50.5[+1]	...	...	19.4	17.2**[,+1]	Mauritius
16.2**	...	...	...	...	...	Mozambique
...	54.7**[,-1]	70	...	24.1	23.5**[,-1]	Namibia
17.7	18.6	...	100	23.4**	30.9	Niger
31.8	35.7	...	76	...	42.6	Nigeria
19.8**	19.9	...	...	...	26.3	Rwanda
...	...	...	...	...	...	Sao Tome and Principe
15.5*	14.1	100	51	27.3	26.4	Senegal
...	54.2**	92	...	14.5	13.7**	Seychelles
17.6	...	...	...	...	...	Sierra Leone
...	...	...	...	...	...	Somalia
63.1	50.2[-1]	91	...	28.1	29.8[-1]	South Africa
44.4**	46.8[-1]	...	92[-1]	17.3	16.9[-1]	Swaziland
11.8	6.9	...	47	31.2**	34.0	Togo
...	25.6**[,+1]	45	...	17.7	19.2**[,+1]	Uganda
22.8	...	...	...	...	...	United Republic of Tanzania
...	26.5**	87**[,-1]	...	23.4**[,-1]	33.9**	Zambia
31.8	40.0[-1]	...	...	24.7	22.3[-1]	Zimbabwe

TABLE A2.6 PRIMARY TEACHER STOCKS, FLOWS AND ADDITIONAL TEACHERS NEEDED TO REACH UPE BY 2015

Region	Primary teacher stock (000s)	Projected teacher stocks required to meet goal by 2015 (000s)	Difference in teacher stocks (000s)	Total percent increase needed to meet goal by 2015 (%)	Annual percent growth needed to meet goal by 2015 (%)	Number of teachers needed between 2004 and 2015 due to attrition – three scenarios (000s)		
Country or territory	2004					Low (5%)	Medium (6.5%)	High (8%)
Arab States								
Algeria	170.0	157.0	-13.0	-7.7	-0.7	77.2	104.2	131.3
Bahrain	...	...	...	...	...	...	...	...
Djibouti	...	...	...	...	...	...	...	...
Egypt	354.9**,-1	423.8	68.9	19.4	1.5	213.5	277.6	341.7
Iraq	211.1	264.6	53.4	25.3	2.1	128.9	167.6	206.3
Jordan	39.4**,-1	44.3	4.9	12.4	1.0	23.0	29.9	36.8
Kuwait	12.3	16.7	4.4	35.8	2.8	7.8	10.2	12.5
Lebanon	32.1	28.6	-3.4	-10.8	-1.0	13.3	18.3	23.4
Libyan Arab Jamahiriya	...	...	...	...	...	...	...	...
Mauritania	9.8	16.9	7.2	73.6	5.1	7.0	9.1	11.2
Morocco	147.7	158.1	10.4	7.0	0.6	83.8	109.0	134.1
Oman	15.7**	19.3	3.6	22.6	1.9	9.5	12.4	15.2
Palestinian Autonomous Territories	14.4	20.2	5.8	40.0	3.1	9.3	12.1	14.9
Qatar	7.3	9.9	2.6	34.8	2.8	4.6	6.0	7.4
Saudi Arabia	204.4	341.4	137.0	67.0	4.8	143.5	186.6	229.6
Sudan	...	...	...	...	...	...	...	...
Syrian Arab Republic	124.7**	124.5	-.1	-0.1	0.0	68.4	88.9	109.5
Tunisia	59.3-1	47.3	-12.0	-20.2	-1.9	18.3	27.1	35.8
United Arab Emirates	17.0	24.2	7.3	42.8	3.3	11.0	14.3	17.7
Yemen	...	...	...	...	...	...	...	...
Central and Eastern Europe/Central Asia								
Albania	11.8-1	9.5	-2.3	-19.2	-1.8	3.8	5.5	7.3
Belarus	26.2	23.2	-2.9	-11.2	-1.1	10.7	14.8	18.9
Bosnia and Herzegovina	...	...	...	...	...	...	...	...
Bulgaria	19.4-1	15.2	-4.2	-21.7	-2.0	5.7	8.5	11.3
Croatia	10.8-1	9.3	-1.6	-14.5	-1.3	4.1	5.7	7.4
Czech Republic	33.7-1	27.3	-6.4	-19.1	-1.8	10.9	15.9	20.9
Estonia	...	...	...	...	...	...	...	...
Hungary	48.4-1	39.5	-8.9	-18.3	-1.7	16.0	23.3	30.5
Latvia	7.5-1	6.0	-1.6	-20.6	-1.9	2.3	3.4	4.5
Lithuania	11.8-1	7.6	-4.2	-35.4	-3.6	1.5	3.1	4.6
Poland	235.8-1	171.4	-64.3	-27.3	-2.6	52.8	86.1	119.4
Republic of Moldova	10.5	8.6	-1.9	-18.5	-1.8	3.3	4.9	6.5
Romania	56.6-1	47.6	-9.0	-16.0	-1.4	20.4	28.9	37.5
Russian Federation	324.8**,-1	274.5	-50.3	-15.5	-1.4	118.6	167.9	217.2
Serbia and Montenegro	...	...	...	...	...	...	...	...
Slovakia	14.7-1	11.1	-3.6	-24.3	-2.3	3.8	5.9	8.0
Slovenia	6.9-1	5.4	-1.5	-21.4	-2.0	2.0	3.0	4.0
The Former Yugoslav Rep.of Macedonia	5.8-1	4.4	-1.3	-23.1	-2.2	1.6	2.4	3.3
Turkey	...	...	...	...	...	...	...	...
Ukraine	99.5	82.3	-17.2	-17.3	-1.7	33.0	48.1	63.2
Armenia	6.6	4.6	-2.1	-31.1	-3.3	1.0	2.0	2.9
Azerbaijan	42.5	34.9	-7.6	-17.9	-1.8	13.8	20.2	26.6
Georgia	...	...	...	...	...	...	...	...

Total number of teachers needed between 2004 and 2015 to meet attrition and UPE goals – three scenarios (000s)			Teachers needed as a % of the population aged 20 (medium scenario)			Region
Low (5%)	Medium (6.5%)	High (8%)	2005	2010	2015	Country or territory
						Arab States
77.2	104.2	131.3	1.3	1.3	1.4	Algeria
...	...	...	...	...	...	Bahrain
...	...	...	...	...	...	Djibouti
282.5	346.5	410.6	1.9	2.0	2.2	Egypt
182.4	221.1	259.7	3.3	3.1	3.1	Iraq
27.9	34.8	41.7	2.7	2.6	2.5	Jordan
12.2	14.6	16.9	2.9	3.1	3.4	Kuwait
13.3	18.3	23.4	2.7	2.5	2.3	Lebanon
...	...	...	...	...	...	Libyan Arab Jamahiriya
14.2	16.3	18.3	2.0	2.3	2.6	Mauritania
94.2	119.3	144.4	1.6	1.7	1.8	Morocco
13.1	15.9	18.8	2.5	2.6	2.7	Oman
15.1	17.9	20.7	2.1	2.0	2.0	Palestinian Autonomous Territories
7.2	8.6	10.0	6.5	7.3	7.5	Qatar
280.5	323.6	366.6	5.4	5.7	6.3	Saudi Arabia
...	...	...	...	...	...	Sudan
68.4	88.9	109.5	1.9	1.8	1.9	Syrian Arab Republic
18.3	27.1	35.8	1.3	1.2	1.2	Tunisia
18.3	21.6	24.9	2.3	2.4	2.7	United Arab Emirates
...	...	...	...	...	...	Yemen
						Central and Eastern Europe/Central Asia
3.8	5.5	7.3	1.0	0.8	0.8	Albania
10.7	14.8	18.9	0.8	0.9	1.2	Belarus
...	...	...	...	...	...	Bosnia and Herzegovina
5.7	8.5	11.3	0.8	0.8	0.9	Bulgaria
4.1	5.7	7.4	0.9	0.9	0.9	Croatia
10.9	15.9	20.9	1.2	1.1	1.2	Czech Republic
...	...	...	...	...	...	Estonia
16.0	23.3	30.5	1.8	1.7	1.7	Hungary
2.3	3.4	4.5	0.9	0.9	1.1	Latvia
1.5	3.1	4.6	0.6	0.5	0.5	Lithuania
52.8	86.1	119.4	1.4	1.4	1.5	Poland
3.3	4.9	6.5	0.6	0.6	0.7	Republic of Moldova
20.4	28.9	37.5	0.8	0.8	1.0	Romania
118.6	167.9	217.2	0.6	0.7	0.9	Russian Federation
...	...	...	...	...	...	Serbia and Montenegro
3.8	5.9	8.0	0.7	0.7	0.7	Slovakia
2.0	3.0	4.0	1.1	1.2	1.3	Slovenia
1.6	2.4	3.3	0.7	0.7	0.7	The Former Yugoslav Rep.of Macedonia
...	...	...	...	...	...	Turkey
33.0	48.1	63.2	0.6	0.6	0.8	Ukraine
1.0	2.0	2.9	0.4	0.3	0.3	Armenia
13.8	20.2	26.6	1.2	1.0	1.0	Azerbaijan
...	...	...	...	...	...	Georgia

TABLE A2.6 PRIMARY TEACHER STOCKS, FLOWS AND ADDITIONAL TEACHERS NEEDED TO REACH UPE BY 2015

Region	Primary teacher stock (000s)	Projected teacher stocks required to meet goal by 2015 (000s)	Difference in teacher stocks (000s)	Total percent increase needed to meet goal by 2015 (%)	Annual percent growth needed to meet goal by 2015 (%)	Number of teachers needed between 2004 and 2015 due to attrition – three scenarios (000s)		
Country or territory	2004					Low (5%)	Medium (6.5%)	High (8%)
Kazakhstan	60.2	46.1	-14.1	-23.5	-2.4	15.3	24.1	32.9
Kyrgyzstan	18.3	17.6	-0.7	-3.8	-0.4	9.2	12.2	15.2
Mongolia	7.2	6.4	-0.8	-10.6	-1.0	3.0	4.1	5.2
Tajikistan	32.1	30.1	-2.0	-6.3	-0.6	15.1	20.3	25.4
Turkmenistan	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...
East Asia and the Pacific								
Australia	...	...	...	...	...	...	...	...
Brunei Darussalam	3.5**	3.6	0.0	1.4	0.1	2.0	2.5	3.1
Cambodia	50.2	58.7	8.5	16.9	1.4	29.7	38.6	47.5
China	5,747.3**	3,969.0	-1,778.3	-30.9	-3.3	908.3	1,714.3	2,520.3
Cook Islands	...	...	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...	...	...
Fiji	4.0	3.6	-0.5	-11.7	-1.1	1.6	2.3	2.9
Indonesia	1,431.5[-1]	1,283.7	-147.8	-10.3	-0.9	611.0	834.8	1,058.5
Japan	371.7[-1]	360.4	-11.3	-3.0	-0.3	191.0	251.3	311.7
Kiribati	...	...	...	...	...	...	...	...
Lao People's Democratic Republic	28.2	30.9	2.7	9.7	0.8	16.2	21.0	25.8
Macao, China	1.6	0.9	-0.8	-46.8	-5.6	0.0	0.1	0.3
Malaysia	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...
Micronesia (Federated States of)	...	...	...	...	...	...	...	...
Myanmar	160.1[+1]	138.8	-21.3	-13.3	-1.4	59.7	84.6	109.6
Nauru	...	...	...	...	...	...	...	...
New Zealand	20.1[-1]	18.5	-1.6	-7.8	-0.7	9.2	12.3	15.5
Niue	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Philippines	371.4[-1]	336.7	-34.6	-9.3	-0.8	162.9	221.3	279.7
Republic of Korea	139.1	91.3	-47.7	-34.3	-3.8	15.9	35.0	54.1
Samoa	1.2**	1.0	-0.2	-15.7	-1.5	0.4	0.6	0.8
Singapore	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...
Thailand	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...
Tokelau	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...
Viet Nam	362.6	347.9	-14.7	-4.1	-0.4	181.1	239.8	298.5
Latin America and the Caribbean								
Anguilla	...	...	...	...	...	...	...	...
Antigua and Barbuda	...	...	...	...	...	...	...	...
Argentina	283.4[-2]	241.8	-41.6	-14.7	-1.2	108.5	151.4	194.4
Aruba	...	...	...	...	...	...	...	...

Total number of teachers needed between 2004 and 2015 to meet attrition and UPE goals – three scenarios (000s)			Teachers needed as a % of the population aged 20 (medium scenario)			Region
Low (5%)	Medium (6.5%)	High (8%)	2005	2010	2015	Country or territory
15.3	24.1	32.9	0.9	0.7	0.8	Kazakhstan
9.2	12.2	15.2	1.1	0.9	1.0	Kyrgyzstan
3.0	4.1	5.2	0.7	0.6	0.7	Mongolia
15.1	20.3	25.4	1.4	1.1	1.1	Tajikistan
...	...	...	...	...	...	Turkmenistan
...	...	...	...	...	...	Uzbekistan
					...	**East Asia and the Pacific**
...	...	...	...	...	...	Australia
2.0	2.6	3.2	3.5	3.2	3.0	Brunei Darussalam
38.1	47.0	55.9	1.2	1.2	1.4	Cambodia
908.3	1,714.3	2,520.3	0.9	0.7	0.6	China
...	...	...	...	...	...	Cook Islands
...	...	...	...	...	...	Democratic People's Republic of Korea
1.6	2.3	2.9	1.3	1.3	1.2	Fiji
611.0	834.8	1,058.5	1.9	1.8	1.8	Indonesia
191.0	251.3	311.7	1.6	1.8	1.9	Japan
...	...	...	...	...	...	Kiribati
18.9	23.7	28.6	1.8	1.6	1.6	Lao People's Democratic Republic
0.0	0.1	0.3	0.2	0.1	0.1	Macao, China
...	...	...	...	...	...	Malaysia
...	...	...	...	...	...	Marshall Islands
...	...	...	...	...	...	Micronesia (Federated States of)
59.7	84.6	109.6	0.8	0.7	0.7	Myanmar
...	...	...	...	...	...	Nauru
9.2	12.3	15.5	2.0	1.8	1.8	New Zealand
...	...	...	...	...	...	Niue
...	...	...	...	...	...	Palau
...	...	...	...	...	...	Papua New Guinea
162.9	221.3	279.7	1.3	1.1	1.0	Philippines
15.9	35.0	54.1	0.5	0.5	0.4	Republic of Korea
0.4	0.6	0.8	1.9	1.6	1.3	Samoa
...	...	...	...	...	...	Singapore
...	...	...	...	...	...	Solomon Islands
...	...	...	...	...	...	Thailand
...	...	...	...	...	...	Timor-Leste
...	...	...	...	...	...	Tokelau
...	...	...	...	...	...	Tonga
...	...	...	...	...	...	Tuvalu
...	...	...	...	...	...	Vanuatu
181.1	239.8	298.5	1.3	1.2	1.2	Viet Nam
					...	**Latin America and the Caribbean**
...	...	...	...	...	...	Anguilla
...	...	...	...	...	...	Antigua and Barbuda
108.5	151.4	194.4	2.2	2.0	1.9	Argentina
...	...	...	...	...	...	Aruba

TABLE A2.6 PRIMARY TEACHER STOCKS, FLOWS AND ADDITIONAL TEACHERS NEEDED TO REACH UPE BY 2015

Region	Primary teacher stock (000s)	Projected teacher stocks required to meet goal by 2015 (000s)	Difference in teacher stocks (000s)	Total percent increase needed to meet goal by 2015 (%)	Annual percent growth needed to meet goal by 2015 (%)	Number of teachers needed between 2004 and 2015 due to attrition – three scenarios (000s)		
Country or territory	2004					Low (5%)	Medium (6.5%)	High (8%)
Bahamas	1.7	1.8	0.1	6.2	0.6	1.0	1.3	1.6
Barbados	1.4**	1.1	-0.2	-16.8	-1.7	0.5	0.7	0.9
Belize	2.1**	1.8	-0.3	-14.1	-1.4	0.8	1.1	1.4
Bermuda	...	...	...	...	...	...	...	...
Bolivia	64.6**	61.2	-3.4	-5.3	-0.5	31.2	41.6	52.0
Brazil	805.8**,-2	659.7	-146.1	-18.1	-1.5	276.8	396.3	515.8
British Virgin Islands	...	...	...	...	...	...	...	...
Cayman Islands	...	...	...	...	...	...	...	...
Chile	50.3-1	44.1	-6.2	-12.3	-1.1	20.3	28.1	35.8
Colombia	188.1	170.2	-17.9	-9.5	-0.9	81.0	110.6	140.3
Costa Rica	25.0	22.1	-2.8	-11.3	-1.1	10.2	14.1	18.0
Cuba	88.5	75.9	-12.6	-14.2	-1.4	32.9	46.5	60.2
Dominica	...	...	...	...	...	...	...	...
Dominican Republic	60.1	58.0	-2.1	-3.5	-0.3	30.4	40.2	49.9
Ecuador	86.0	74.6	-11.4	-13.2	-1.3	33.0	46.3	59.7
El Salvador	...	...	...	...	...	...	...	...
Grenada	...	...	...	...	...	...	...	...
Guatemala	73.8	84.6	10.7	14.5	1.2	43.2	56.2	69.2
Guyana	4.2**	2.9	-1.2	-29.5	-3.1	0.7	1.3	1.9
Haiti	...	...	...	...	...	...	...	...
Honduras	38.2	37.3	-0.9	-2.4	-0.2	19.9	26.1	32.4
Jamaica	11.0-1	10.1	-0.9	-8.2	-0.7	5.0	6.7	8.4
Mexico	557.3-1	472.6	-84.7	-15.2	-1.4	205.4	290.2	374.9
Montserrat	...	...	...	...	...	...	...	...
Netherlands Antilles	...	...	...	...	...	...	...	...
Nicaragua	26.9	26.3	-.6	-2.2	-0.2	14.0	18.4	22.8
Panama	17.9	17.6	-0.2	-1.3	-0.1	9.5	12.5	15.4
Paraguay	35.7-2	39.4	3.7	10.4	0.8	20.7	26.9	33.1
Peru	170.7-2	148.9	-21.8	-12.8	-1.0	69.0	95.2	121.4
Saint Kitts and Nevis	...	...	...	...	...	...	...	...
Saint Lucia	1.1	0.9	-0.1	-12.9	-1.2	0.4	0.6	0.7
Saint Vincent and the Grenadines	1.0**	0.9	-0.1	-7.8	-0.7	0.5	0.6	0.8
Suriname	...	...	...	...	...	...	...	...
Trinidad and Tobago	7.8*	7.4	-0.5	-5.9	-0.6	3.7	5.0	6.2
Turks and Caicos Islands	...	...	...	...	...	...	...	...
Uruguay	17.2-2	16.3	-0.9	-5.3	-0.4	8.4	11.2	14.0
Venezuela	...	...	...	...	...	...	...	...
North America and Western Europe								
Andorra	...	...	...	...	...	...	...	...
Austria	28.8-1	22.6	-6.2	-21.6	-2.0	8.4	12.6	16.9
Belgium	64.1-1	56.3	-7.8	-12.2	-1.1	26.0	35.9	45.8
Canada	...	...	...	...	...	...	...	...
Cyprus	3.3-1	3.3	0.0	-1.2	-0.1	1.8	2.3	2.9
Denmark	...	...	...	...	...	...	...	...
Finland	24.0-1	20.7	-3.4	-14.0	-1.2	9.2	12.9	16.6

Total number of teachers needed between 2004 and 2015 to meet attrition and UPE goals – three scenarios (000s)			Teachers needed as a % of the population aged 20 (medium scenario)			Region
Low (5%)	Medium (6.5%)	High (8%)	2005	2010	2015	Country or territory
1.1	1.4	1.7	2.1	2.2	2.1	Bahamas
0.5	0.7	0.9	1.6	1.6	1.6	Barbados
0.8	1.1	1.4	2.0	1.7	1.5	Belize
...	...	...	...	...	...	Bermuda
31.2	41.6	52.0	2.2	1.9	1.7	Bolivia
276.8	396.3	515.8	1.1	1.1	1.0	Brazil
...	...	...	...	...	...	British Virgin Islands
...	...	...	...	...	...	Cayman Islands
20.3	28.1	35.8	1.0	0.9	0.8	Chile
81.0	110.6	140.3	1.3	1.1	1.0	Colombia
10.2	14.1	18.0	1.6	1.4	1.4	Costa Rica
32.9	46.5	60.2	3.0	2.5	2.7	Cuba
...	...	...	...	...	...	Dominica
30.4	40.2	49.9	2.0	1.9	1.9	Dominican Republic
33.0	46.3	59.7	1.8	1.6	1.4	Ecuador
...	...	...	...	...	...	El Salvador
...	...	...	...	...	...	Grenada
54.0	66.9	79.9	2.3	2.1	2.0	Guatemala
0.7	1.3	1.9	0.9	0.9	0.8	Guyana
...	...	...	...	...	...	Haiti
19.9	26.1	32.4	1.6	1.4	1.3	Honduras
5.0	6.7	8.4	1.3	1.1	1.1	Jamaica
205.4	290.2	374.9	1.4	1.3	1.2	Mexico
...	...	...	...	...	...	Montserrat
...	...	...	...	...	...	Netherlands Antilles
14.0	18.4	22.8	1.4	1.3	1.2	Nicaragua
9.5	12.5	15.4	2.0	1.9	1.8	Panama
24.4	30.6	36.8	2.1	2.0	1.9	Paraguay
69.0	95.2	121.4	1.7	1.5	1.4	Peru
...	...	...	...	...	...	Saint Kitts and Nevis
0.4	0.6	0.7	1.7	1.5	1.5	Saint Lucia
0.5	0.6	0.8	2.2	2.3	2.6	Saint Vincent and the Grenadines
...	...	...	...	...	...	Suriname
3.7	5.0	6.2	1.6	1.8	2.3	Trinidad and Tobago
...	...	...	...	...	...	Turks and Caicos Islands
8.4	11.2	14.0	2.0	1.9	1.8	Uruguay
...	...	...	...	...	...	Venezuela
					...	**North America and Western Europe**
...	...	...	...	...	...	Andorra
8.4	12.6	16.9	1.3	1.2	1.1	Austria
26.0	35.9	45.8	2.8	2.6	2.5	Belgium
...	...	...	...	...	...	Canada
1.8	2.3	2.9	1.6	1.6	1.6	Cyprus
...	...	...	...	...	...	Denmark
9.2	12.9	16.6	1.9	1.8	1.7	Finland

TABLE A2.6 PRIMARY TEACHER STOCKS, FLOWS AND ADDITIONAL TEACHERS NEEDED TO REACH UPE BY 2015

Region	Primary teacher stock (000s)	Projected teacher stocks required to meet goal by 2015 (000s)	Difference in teacher stocks (000s)	Total percent increase needed to meet goal by 2015 (%)	Annual percent growth needed to meet goal by 2015 (%)	Number of teachers needed between 2004 and 2015 due to attrition – three scenarios (000s)		
Country or territory	2004					Low (5%)	Medium (6.5%)	High (8%)
France	203.4 -1	203.0	-0.4	-0.2	0.0	111.4	144.9	178.5
Germany	235.2 -1	200.2	-34.9	-14.9	-1.3	87.7	123.5	159.3
Greece	54.6 -1	51.8	-2.8	-5.1	-0.4	26.7	35.5	44.3
Iceland	3.0**,-1	2.7	-0.2	-8.0	-0.7	1.4	1.8	2.3
Ireland	24.0 -1	27.7	3.7	15.3	1.2	14.2	18.4	22.7
Israel	52.5 -1	56.1	3.6	6.9	0.6	29.8	38.8	47.7
Italy	256.7 -1	246.1	-10.6	-4.1	-0.3	128.6	170.0	211.5
Luxembourg	3.0 -1	3.3	0.3	10.5	0.8	1.7	2.2	2.7
Malta	1.7 -1	1.4	-0.4	-20.1	-1.9	0.5	0.8	1.1
Monaco	...	...	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...	...	...
Norway	42.2**,-1	39.1	-3.1	-7.3	-0.6	19.5	26.2	32.9
Portugal	69.1 -1	60.4	-8.7	-12.5	-1.1	27.7	38.3	49.0
San Marino	...	...	...	...	...	...	...	...
Spain	179.3 -1	201.7	22.3	12.5	1.0	104.6	136.0	167.4
Sweden	69.3 -1	54.4	-14.8	-21.4	-2.0	20.4	30.5	40.7
Switzerland	...	...	...	...	...	...	...	...
United Kingdom	262.4 -1	234.6	-27.8	-10.6	-0.9	111.2	152.1	193.1
United States	1,677.4 -1	1,736.5	59.1	3.5	0.3	938.7	1,220.3	1,502.0
South and West Asia								
Afghanistan, Islamic Republic of	68.0	171.8	103.8	152.7	8.8	59.0	76.7	94.4
Bangladesh	326.9	452.6	125.7	38.4	3.0	209.4	272.2	335.0
Bhutan	...	...	...	...	...	...	...	...
India	3,038.2 -1	2,988.4	-49.8	-1.6	-0.1	1,611.7	2,108.8	2,606.0
Iran, Islamic Republic of	365.2	331.6	-33.6	-9.2	-0.9	158.7	216.4	274.1
Maldives	...	...	...	...	...	...	...	...
Nepal	112.4	113.0	0.7	0.6	0.1	62.0	80.6	99.1
Pakistan	432.2	606.4	174.2	40.3	3.1	278.6	362.2	445.7
Sri Lanka	72.7**,-1	67.8	-4.9	-6.7	-0.6	34.1	45.7	57.3
Sub-Saharan Africa								
Angola	...	...	...	...	...	...	...	...
Benin	25.6	49.3	23.7	92.6	6.1	19.3	25.1	30.9
Botswana	12.7	10.7	-2.0	-15.8	-1.6	4.5	6.4	8.3
Burkina Faso	23.4	76.5	53.1	227.0	11.4	23.4	30.4	37.4
Burundi	18.9	45.9	27.0	142.8	8.4	16.1	20.9	25.7
Cameroon	55.3	78.0	22.7	41.1	3.2	35.7	46.4	57.1
Cape Verde	3.2	3.5	0.3	10.1	0.9	1.8	2.4	2.9
Central African Republic	...	...	...	...	...	...	...	...
Chad	16.2**	61.2	45.0	277.4	12.8	17.5	22.8	28.1
Comoros	3.0	5.0	2.0	68.8	4.9	2.1	2.7	3.4
Congo	7.1	26.4	19.3	274.1	12.7	7.6	9.9	12.1
Côte d'Ivoire	...	...	...	...	...	...	...	...
Democratic Republic of the Congo	...	...	...	...	...	...	...	...
Equatorial Guinea	...	...	...	...	...	...	...	...
Eritrea	8.0	21.7	13.7	170.1	9.5	7.2	9.4	11.6

Total number of teachers needed between 2004 and 2015 to meet attrition and UPE goals – three scenarios (000s)			Teachers needed as a % of the population aged 20 (medium scenario)			Region
Low (5%)	Medium (6.5%)	High (8%)	2005	2010	2015	Country or territory
111.4	144.9	178.5	1.7	1.7	1.8	France
87.7	123.5	159.3	1.2	1.1	1.2	Germany
26.7	35.5	44.3	2.3	2.6	2.8	Greece
1.4	1.8	2.3	4.0	3.7	3.5	Iceland
17.8	22.1	26.4	2.9	3.5	4.0	Ireland
33.5	42.4	51.4	3.5	3.4	3.3	Israel
128.6	170.0	211.5	2.6	2.7	2.7	Italy
2.0	2.5	3.1	4.5	4.3	4.0	Luxembourg
0.5	0.8	1.1	1.3	1.3	1.2	Malta
...	...	...	...	...	...	Monaco
...	...	...	...	...	...	Netherlands
19.5	26.2	32.9	4.5	3.9	3.6	Norway
27.7	38.3	49.0	2.7	3.0	2.8	Portugal
...	...	...	...	...	...	San Marino
127.0	158.4	189.8	2.5	3.2	3.8	Spain
20.4	30.5	40.7	2.9	2.2	2.1	Sweden
...	...	...	...	...	...	Switzerland
111.2	152.1	193.1	1.9	1.7	1.7	United Kingdom
997.8	1,279.4	1,561.0	2.7	2.6	2.6	United States
					...	**South and West Asia**
162.8	180.5	198.2	1.9	2.3	3.0	Afghanistan, Islamic Republic of
335.0	397.9	460.7	1.1	1.2	1.3	Bangladesh
...	...	...	...	...	...	Bhutan
1,611.7	2,108.8	2,606.0	0.9	0.9	0.8	India
158.7	216.4	274.1	1.2	1.1	1.3	Iran, Islamic Republic of
...	...	...	...	...	...	Maldives
62.6	81.2	99.8	1.4	1.2	1.1	Nepal
452.8	536.4	619.9	1.3	1.3	1.5	Pakistan
34.1	45.7	57.3	1.1	1.2	1.2	Sri Lanka
					...	**Sub-Saharan Africa**
...	...	...	...	...	...	Angola
43.0	48.8	54.6	1.9	2.3	2.7	Benin
4.5	6.4	8.3	1.4	1.3	1.2	Botswana
76.5	83.5	90.5	1.6	2.3	3.5	Burkina Faso
43.1	47.9	52.7	1.7	2.2	3.2	Burundi
58.4	69.1	79.9	1.6	1.7	1.8	Cameroon
2.1	2.7	3.2	2.1	2.0	2.1	Cape Verde
...	...	...	...	...	...	Central African Republic
62.6	67.8	73.1	1.7	2.7	4.3	Chad
4.1	4.8	5.4	2.1	2.5	2.8	Comoros
26.9	29.2	31.5	1.8	2.8	4.3	Congo
...	...	...	...	...	...	Côte d'Ivoire
...	...	...	...	...	...	Democratic Republic of the Congo
...	...	...	...	...	...	Equatorial Guinea
20.9	23.1	25.2	1.5	2.0	2.7	Eritrea

TABLE A2.6 PRIMARY TEACHER STOCKS, FLOWS AND ADDITIONAL TEACHERS NEEDED TO REACH UPE BY 2015

Region	Primary teacher stock (000s)	Projected teacher stocks required to meet goal by 2015 (000s)	Difference in teacher stocks (000s)	Total percent increase needed to meet goal by 2015 (%)	Annual percent growth needed to meet goal by 2015 (%)	Number of teachers needed between 2004 and 2015 due to attrition – three scenarios (000s)		
Country or territory	2004					Low (5%)	Medium (6.5%)	High (8%)
Ethiopia	110.9[+1]	263.5	152.5	137.5	9.0	89.5	116.4	143.2
Gabon	7.8**	7.3	0-.5	-6.9	-0.6	3.6	4.9	6.1
Gambia	4.7	7.8	3.1	67.5	4.8	3.3	4.3	5.2
Ghana	89.3[+1]	114.7	25.4	28.5	2.5	54.4	70.8	87.1
Guinea	25.4	48.2	22.8	90.0	6.0	19.0	24.7	30.4
Guinea-Bissau	...	...	...	...	...	...	...	...
Kenya	149.9	191.5	41.6	27.7	2.3	92.4	120.1	147.8
Lesotho	9.8	8.0	-1.8	-18.5	-1.8	3.1	4.6	6.1
Liberia	...	...	...	...	...	...	...	...
Madagascar	64.3	89.6	25.3	39.4	3.1	41.3	53.7	66.1
Malawi	40.6**	74.7	34.1	84.1	5.7	29.9	38.9	47.9
Mali	26.7	82.2	55.4	207.3	10.7	25.8	33.5	41.3
Mauritius	5.3[+1]	5.1	-0.2	-4.0	-0.4	2.6	3.5	4.4
Mozambique	54.7	121.0	66.2	121.0	7.5	44.3	57.6	70.9
Namibia	...	...	...	...	...	...	...	...
Niger	22.4	82.7	60.3	268.8	12.6	23.9	31.1	38.3
Nigeria	579.8	706.3	126.5	21.8	1.8	349.4	454.2	559.0
Rwanda	28.3	46.4	18.1	64.1	4.6	19.7	25.6	31.5
Sao Tome and Principe	0.9	1.0	0.0	2.9	0.3	0.5	0.7	0.8
Senegal	32.0	57.1	25.1	78.3	5.4	23.2	30.2	37.1
Seychelles	...	...	...	...	...	...	...	...
Sierra Leone	...	...	...	...	...	...	...	...
Somalia	...	...	...	...	...	...	...	...
South Africa	...	...	...	...	...	...	...	...
Swaziland	...	...	...	...	...	...	...	...
Togo	22.2	34.1	11.9	53.5	4.0	15.0	19.4	23.9
Uganda	147.3	239.4	92.1	62.5	4.5	102.0	132.6	163.2
United Republic of Tanzania	135.0[+1]	203.9	68.9	51.0	4.2	88.3	114.8	141.3
Zambia	46.4**	67.9	21.5	46.3	3.5	30.5	39.7	48.8
Zimbabwe	...	...	...	...	...	...	...	...

Total number of teachers needed between 2004 and 2015 to meet attrition and UPE goals – three scenarios (000s)			Teachers needed as a % of the population aged 20 (medium scenario)			Region
Low (5%)	Medium (6.5%)	High (8%)	2005	2010	2015	Country or territory
242.1	268.9	295.8	1.1	1.4	1.9	Ethiopia
3.6	4.9	6.1	1.7	1.4	1.2	Gabon
6.4	7.4	8.4	1.9	2.1	2.4	Gambia
79.9	96.2	112.5	1.7	1.8	1.9	Ghana
41.8	47.5	53.2	1.9	2.1	2.4	Guinea
...	...	...	...	...	...	Guinea-Bissau
134.0	161.7	189.4	1.7	1.8	2.0	Kenya
3.1	4.6	6.1	1.0	0.9	0.9	Lesotho
...	...	...	...	...	...	Liberia
66.6	79.0	91.4	1.8	1.8	1.8	Madagascar
64.1	73.0	82.0	2.0	2.2	2.4	Malawi
81.2	89.0	96.7	1.8	2.6	3.6	Mali
2.6	3.5	4.4	1.7	1.6	1.5	Mauritius
110.5	123.8	137.1	1.9	2.4	3.1	Mozambique
...	...	...	...	...	...	Namibia
84.2	91.4	98.6	1.7	2.6	3.9	Niger
475.9	580.7	685.5	1.8	1.8	1.7	Nigeria
37.8	43.7	49.6	1.5	1.7	2.2	Rwanda
0.5	0.7	0.9	1.7	1.8	1.8	Sao Tome and Principe
48.3	55.2	62.2	1.6	1.8	2.2	Senegal
...	...	...	...	...	...	Seychelles
...	...	...	...	...	...	Sierra Leone
...	...	...	...	...	...	Somalia
...	...	...	...	...	...	South Africa
...	...	...	...	...	...	Swaziland
26.8	31.3	35.8	1.9	2.0	2.2	Togo
194.1	224.7	255.3	2.8	3.0	3.2	Uganda
157.2	183.7	210.2	1.7	1.9	2.1	United Republic of Tanzania
52.0	61.2	70.3	1.8	1.9	2.1	Zambia
...	...	...	...	...	...	Zimbabwe

Annex 3. Teacher ages, qualifications, workloads and salaries

TABLE A3.1 PRIMARY TEACHERS BY AGE GROUP

Region / Country or territory	Reference year	Age in years					
		Less than 30	30-39	40-49	50-59	60 and over	Age unknown
Arab States							
Jordan[5]	2003	58	31	10	2	x	n
Lebanon	2003	32	30	24	12	2	0
Oman	2004	43	47	8	1	0	0
Syrian AR[1,5]	2003	43	28	17	11	0	0
Central and Eastern Europe/Central Asia							
Hungary	2002	16	33	36	13	2	0
Slovakia	2002	22	25	25	23	6	0
East Asia and the Pacific							
Cambodia[1]	2003	40	32	15	13	1	n
China	2003	34	25	26	14	0	0
Indonesia	2003	52	35	10	4	0	n
Japan	2002	9	30	44	17	0	n
Korea, Rep.	2003	27	30	25	17	1	0
Malaysia	2002	27	47	22	5	0	n
New Zealand	2002	16	20	30	24	5	5
Philippines	2003	8	24	25	28	16	n
Samoa[1,5]	2005	15	36	32	16	a	n
Latin America and the Caribbean							
Argentina	2002	30	31	27	10	1	n
Bolivia[5]	2003	23	31	30	14	1	1
Brazil	2002	31	35	25	10	1	n
Chile	2003	5	19	29	34	12	n
Cuba[1]	2003	25	29	32	12	1	n
El Salvador[5]	2003	22	42	27	7	2	0
Jamaica	2003	29	18	31	16	0	6
Paraguay	2002	38	44	12	4	1	0
North America and Western Europe							
Austria	2002	14	28	38	19	1	n
Denmark[5]	2002	8	21	26	37	8	0
Finland	2002	14	33	30	23	1	n
France	2002	14	28	34	24	0	0
Germany	2002	7	16	30	40	7	0
Iceland[5]	2002	15	29	30	20	6	n
Ireland	2002	21	24	33	18	5	n
Israel	2002	20	29	31	13	1	5
Italy[4]	2002	3	23	33	27	4	10
Luxembourg	2002	27	23	25	24	1	0
Netherlands	2002	18	20	36	23	2	0
Norway	2003	13	26	25	29	7	n
Portugal	2002	15	25	39	19	3	n
Sweden	2002	12	18	26	36	7	0
United Kingdom	2002	22	22	28	27	1	0
United States	2002	18	22	30	26	4	n
South and West Asia							
Sri Lanka	2003	9	40	33	18	0	n

Region	Reference year	Age in years					
Country or territory		Less than 30	30-39	40-49	50-59	60 and over	Age unknown
Sub-Saharan Africa							
Burkina Faso[3]	2002	65	19	13	3	0	0
Guinea	2003	22	37	22	14	2	3
Kenya[1]	...	0	4	45	51	n	0
Lesotho[2]	2003	21	33	30	16	0	0
Mali[5]	2003	29	31	25	13	2	0
Niger	2003	44	38	12	1	0	5
Senegal[1]	2003	25	46	18	9	0	2
Uganda[3]	2004	35	38	17	5	1	4

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI.

Notes:
1) Public institutions only.
2) Independent private institutions are excluded.
3) Coverage not available.
4) Interpreting the age distribution is limited due to the high proportion of teachers with age unknown.
5) Includes lower secondary teachers.

TABLE A3.2 LOWER SECONDARY TEACHERS BY AGE GROUP

Region	Reference year	Age in years					
Country or territory		Less than 30	30-39	40-49	50-59	60 and over	Age unknown
Arab States							
Lebanon	2003	27	28	24	18	3	0
Oman	2004	66	24	9	1	0	0
Tunisia	2003	27	43	23	7	0	1
Central and Eastern Europe/Central Asia							
Hungary	2002	14	27	36	21	2	0
Slovakia	2002	22	25	25	23	6	0
East Asia and the Pacific							
Cambodia[1,5]	2003	29	55	8	8	0	n
China	2003	46	33	13	8	0	0
Indonesia	2003	14	50	22	13	1	n
Japan	2002	12	36	39	13	1	n
Malasia[5]	2002	15	47	30	8	0	n
New Zealand	2002	14	19	30	25	6	7
Philippines	2003	14	36	28	19	4	n
Latin America and the Caribbean							
Argentina	2002	24	35	27	12	2	n
Brazil	2002	24	37	28	12	1	n
Chile	2003	5	19	29	34	12	n
Cuba[1]	2003	47	22	21	10	1	n
Jamaica[5]	2003	37	26	26	10	0	3
Paraguay	2002	35	39	20	6	1	0
North America and Western Europe							
Austria	2002	9	27	45	18	1	n
Finland	2002	10	28	28	32	2	n
France	2002	15	26	23	34	0	0
Germany	2002	4	11	31	46	8	0
Ireland[5]	2002	11	26	30	27	6	n
Israel[4]	2002	13	27	31	17	2	11
Italy[4]	2002	0	8	32	44	4	12
Luxembourg[5]	2002	14	27	29	29	2	0
Netherlands[5]	2002	9	17	36	35	3	0
Norway	2003	13	26	25	29	7	n
Portugal	2002	22	37	27	12	2	n
Sweden	2002	16	23	23	30	8	0
United Kingdom	2002	18	23	31	27	1	0
United States	2002	18	23	32	24	3	n
South and West Asia							
Sri Lanka	2003	7	38	35	20	0	n

Region / Country or territory	Reference year	Age in years					
		Less than 30	30-39	40-49	50-59	60 and over	Age unknown
Sub-Saharan Africa							
Burkina Faso[3,5]	2002	24	55	17	3	n	2
Guinea[4]	2003	8	31	22	18	2	19
Kenya[1,5]	...	0	7	65	28	n	0
Lesotho[2,5]	2003	28	36	21	11	3	0
Niger[5]	2003	15	60	23	1	0	n
Senegal[1]	2003	18	35	25	13	0	9
Uganda[3,4,5]	2004	32	39	13	4	1	11

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI.

Notes:
1) Public institutions only.
2) Independent private institutions are excluded.
3) Coverage not available.
4) Interpreting the age distribution is limited due to the high proportion of teachers with age unknown.
5) Includes upper secondary teachers.

TABLE A3.3 UPPER SECONDARY TEACHERS BY AGE GROUP

Region	Reference year	Age in years					
Country or territory		Less than 30	30-39	40-49	50-59	60 and over	Age unknown
Arab States							
Jordan	2003	53	34	10	3	x	n
Lebanon	2003	20	27	22	26	5	0
Oman	2004	51	33	13	3	0	0
Syrian AR[1]	2003	43	28	17	11	0	0
Central and Eastern Europe/Central Asia							
Hungary	2002	17	24	30	24	5	0
Slovakia	2002	15	23	34	22	6	0
East Asia and the Pacific							
China	2003	38	41	12	9	1	1
Indonesia	2003	16	48	25	9	1	n
Japan	2002	10	29	34	24	3	n
New Zealand[3]	2002	7	11	18	17	4	43
Philippines	2003	14	36	28	19	4	n
Samoa[2]	2005	43	36	14	7	0	n
Latin America and the Caribbean							
Argentina	2002	24	35	27	12	2	n
Bolivia	2003	17	33	32	17	1	1
Brazil	2002	19	32	35	15	3	n
Chile	2003	5	25	34	26	9	n
Cuba[1]	2003	24	30	28	16	1	n
El Salvador	2003	24	40	25	9	3	0
Paraguay	2002	31	41	21	5	1	0
North America and Western Europe							
Austria	2002	11	33	39	17	1	n
Finland	2002	6	24	32	33	6	n
France	2002	11	28	27	33	1	0
Germany	2002	3	22	37	32	6	0
Iceland	2002	7	21	32	28	12	n
Israel	2002	10	26	31	22	4	7
Norway	2002	4	19	28	39	11	n
Portugal	2002	23	37	26	11	2	n
Sweden	2002	7	18	25	39	10	0
United Kingdom	2002	12	22	34	31	1	0
United States	2002	16	21	31	29	4	n
South and West Asia							
Sri Lanka	2003	6	37	38	19	0	n
Sub-Saharan Africa							
Guinea[3]	2003	7	34	27	15	2	14
Senegal[1]	2003	6	35	39	11	0	8

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI.

Notes:
1) Public institutions only.
2) Independent private institutions only.
3) Interpreting the age distribution is limited due to the high proportion of teachers with age unknown.

TABLE A3.4 TEACHER QUALIFICATION STANDARDS BY EDUCATION LEVEL

Country	Reference year	Primary			Lower secondary			Upper secondary		
		Qualification standard (ISCED)	Years of schooling required	Proportion meeting the standard (%)	Qualification standard (ISCED)	Years of schooling required	Proportion meeting the standard (%)	Qualification standard (ISCED)	Years of schooling required	Proportion meeting the standard (%)
Burkina Faso	2002	2	10	98	5	16	100	5	16	100
Lao PDR	2002	2	9	45	4	13	46	5	16	x
Cambodia	2003	3	12	97	4	15	98	5	16	97
Chad	2003	3	13	38	5	15	35	5	15	47
Mali	2003	3	12	75	3	12	x	5	16	...
Uganda	2004	3	13	82	3	13	44	5	15	32
Bangladesh	...	4	13	67	5	17	37	5	17	21
Bolivia	2003	4	13	74	4	13	74	5	15	79
Guinea	2003	4	14	25	5	16	...	5	16	...
Kenya	...	4	14	88	5	14	4	5	14	x
Lebanon	2003	4	14	60	4	14	76	5	17	33
Lesotho	2003	4	14	67	4	14	83	5	16	x
Niger	2003	4	14	76	4	15	90	5	16	92
Senegal	2003	4	14	95	4	15	100	5	15	100
Syrian AR	2003	4	13	91	4	13	x	5	16	69
Cuba	2003	5	17	100	5	17	84	5	17	85
Ecuador	2000	5	16	87	5	16	65	5	16	x
El Salvador	2003	5	15	80	5	15	x	5	15	60
Kazakhstan	2004	5	14	47	5	14	56	5	14	83
Oman	2004	5	16	100	5	16	100	5	16	...
Samoa	2005	5	16	91	5	16	92	5	16	80
South Africa	2003	5	17	81	5	17	...	5	17	...
Zimbabwe	2004	5	16	83	5	16	59	5	16	x

Source: UNESCO Institute for Statistics database

Notes: Where x appears, value is aggregated with the total of the lower ISCED level.
Countries are ranked according to the Qualification Standard (ISCED) at the primary level.
Lower secondary data are included in primary education for Mali, the Syrian AR and El Salvador.
Upper secondary data are included in lower secondary education for Lao PDR, Kenya, Lesotho, Ecuador and Zimbabwe.

TABLE A3.5 PRIMARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region / Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
Arab States					
Egypt	2003	-	-	-	-
Jordan	2003	-	-	-	-
Lebanon	2003	195	5.0	24.0	975
Oman	2004	190	4.8	24.2	918
Syrian AR	2003	164	6.6	32.8	1,074
Tunisia	2003	-	-	-	-
Central and Eastern Europe/Central Asia					
Czech Republic	2003	-	-	-	1,696
Hungary	2003	-	-	-	1,864
Kazakhstan	...	200	7.0	42.0	1,400
Poland	2003	-	-	-	1,416
Russian Fed.	2003	-	-	-	-
Slovakia	2003	-	-	-	1,316
Turkey	2003	-	-	-	1,840
East Asia and the Pacific					
Australia	2003	-	-	-	...
Cambodia	2003	216	8.0	48.0	1,728
Indonesia	2003	-	-	-	-
Japan	2003	-	-	-	1,960
Lao PDR	2002	171	6.3	31.5	1,077
Malaysia	2002	-	-	-	-
New Zealand	2003	-	-	-	...
Philippines	2003	-	-	-	-
Republic of Korea	2003	-	-	-	1,613
Thailand	2003	-	-	-	-
Latin America and the Caribbean					
Argentina	2002	-	-	-	-
Bolivia	2003	200	3.6	18.1	726
Brazil	2002	-	-	-	-
Chile	2003	-	-	-	-
Colombia	2003	225	8.0	40.0	1,800
Cuba	...	227	8.0	44.0	1,816
Ecuador	2002	200	6.0	30.0	1,200
El Salvador	2005	207	5.0	25.0	1,037
Jamaica	2003	-	-	-	-
Mexico	2003	-	-	-	...
Paraguay	2002	-	-	-	-
Peru	2002	-	-	-	-
Uruguay	2002	-	-	-	-

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region Country or territory
				Arab States
187	4.0	24.0	748	Egypt
162	...	...	810	Jordan
160	5.0	24.0	800	Lebanon
170	3.3	16.7	561	Oman
149	4.1	20.2	604	Syrian AR
147	5.0	25.0	735	Tunisia
				Central and Eastern Europe/Central Asia
186	-	-	772	Czech Republic
185	-	-	777	Hungary
200	4.5	26.8	900	Kazakhstan
177	-	-	637	Poland
215	...	...	860	Russian Fed.
190	-	-	656	Slovakia
180	-	-	639	Turkey
				East Asia and the Pacific
197	-	-	885	Australia
206	3.3	16.6	686	Cambodia
252	5.0	30.0	1,260	Indonesia
...	-	-	648	Japan
145	5.3	26.2	761	Lao PDR
198	4.0	19.8	782	Malaysia
197	-	-	985	New Zealand
196	6.0	30.0	1,176	Philippines
220	-	-	809	Republic of Korea
187	...	...	900	Thailand
				Latin America and the Caribbean
180	4.5	22.5	810	Argentina
200	3.6	18.1	726	Bolivia
200	...	...	800	Brazil
194	4.5	22.5	873	Chile
200	5.0	25.0	1,000	Colombia
...	...	...	...	Cuba
180	5.5	27.5	990	Ecuador
185	5.0	25.0	925	El Salvador
190	...	...	950	Jamaica
200	-	-	800	Mexico
183	4.0	20.0	732	Paraguay
173	4.3	21.7	750	Peru
165	4.0	20.0	660	Uruguay

TABLE A3.5 PRIMARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
North America and Western Europe					
Austria	2003	-	-	-	1,776
Denmark	2003	-	-	-	1,680
Finland	2003	-	-	-	...
France	2003	-	-	-	...
Germany	2003	-	-	-	1,708
Greece	2003	-	-	-	1,762
Iceland	2003	-	-	-	1,800
Ireland	2003	-	-	-	...
Italy	2003	-	-	-	...
Luxembourg	2003	-	-	-	...
Netherlands	2003	-	-	-	1,659
Norway	2003	-	-	-	1,680
Portugal	2003	-	-	-	1,526
Spain	2003	-	-	-	1,425
Sweden	2003	-	-	-	1,767
United States	2003	-	-	-	...
South and West Asia					
Bangladesh	2005	131	7.8	46.5	1,015
India	2003	-	-	-	-
Sri Lanka	2003	-	-	-	-
Sub-Saharan Africa					
Burkina Faso	2003	143	6.5	30.0	930
Chad	...	170	5.0	27.0	850
Guinea	2003	175	6.0	36.0	1,050
Kenya	2005	174	8.0	40.0	1,392
Lesotho	2003	180	6.0	30.0	1,080
Mali	2003	150	6.0	30.0	900
Niger	2003	180	6.0	27.5	1,080
Senegal	2003	176	6.0	28.0	1,056
South Africa	2005	...	7.0	35.0	1,800
Uganda	2005	169	8.0	40.0	1,352
Zimbabwe	2004	...	8.0	40.0	...

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region / Country or territory
				North America and Western Europe
184	-	-	792	Austria
200	-	-	640	Denmark
190	-	-	684	Finland
...	-	-	900	France
189	-	-	782	Germany
195	-	-	780	Greece
175	-	-	653	Iceland
183	-	-	915	Ireland
...	-	-	792	Italy
176	-	-	774	Luxembourg
195	-	-	930	Netherlands
190	-	-	741	Norway
174	-	-	783	Portugal
176	-	-	880	Spain
...	-	-	...	Sweden
180	-	-	1,139	United States
				South and West Asia
206	6.8	40.5	1,391	Bangladesh
225	...	...	1,013	India
210	4.7	23.5	987	Sri Lanka
				Sub-Saharan Africa
...	...	...	...	Burkina Faso
...	5.0	27.0	...	Chad
154	6.0	36.0	924	Guinea
81	6.0	18.0	486	Kenya
180	6.0	30.0	1,080	Lesotho
155	6.0	30.0	930	Mali
180	6.0	30.0	1,080	Niger
...	...	...	...	Senegal
...	...	...	...	South Africa
169	3.2	16.0	541	Uganda
170	5.0	27.0	850	Zimbabwe

TABLE A3.6 LOWER SECONDARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region / Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
Arab States					
Egypt	2003	-	-	-	-
Jordan	2003	-	-	-	-
Lebanon	2003	195	4.0	22.0	780
Oman	2004	190	4.8	24.2	912
Syrian AR	2003	164	7.0	35.0	1,148
Tunisia	2003	-	-	-	-
Central and Eastern Europe/Central Asia					
Czech Republic	2003	-	-	-	1,696
Hungary	2003	-	-	-	1,864
Kazakhstan	...	200	7.0	42.0	1,400
Poland	2003	-	-	-	1,416
Russian Fed.	2003	-	-	-	-
Slovakia	2003	-	-	-	1,316
Turkey	2003	-	-	-	1,840
East Asia and the Pacific					
Australia	2003	-	-	-	...
Cambodia	2003	195	6.9	38.0	1,346
Indonesia	2003	-	-	-	-
Japan	2003	-	-	-	1,960
Lao PDR	2002	171	6.3	31.5	1,077
Malaysia	2002	-	-	-	-
New Zealand	2003	-	-	-	...
Philippines	2003	-	-	-	-
Republic of Korea	2003	-	-	-	1,613
Thailand	2003	-	-	-	-
Latin America and the Caribbean					
Argentina	2002	-	-	-	-
Bolivia	2003	200	3.6	18.1	726
Brazil	2002	-	-	-	-
Chile	2003	-	-	-	-
Colombia	2003	225	8.0	40.0	1,800
Cuba	...	227	8.0	44.0	1,816
Ecuador	2002	173	7.0	35.0	1,211
El Salvador	2005	207	5.0	25.0	1,037
Jamaica	2003	-	-	-	-
Mexico	2003	-	-	-	...
Paraguay	2002	-	-	-	-
Peru	2002	-	-	-	-
Uruguay	2002	-	-	-	-

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region / Country or territory
				Arab States
187	4.0	24.0	748	Egypt
162	...	...	810	Jordan
150	4.4	22.0	660	Lebanon
152	3.0	15.0	456	Oman
149	4.5	22.5	671	Syrian AR
137	4.0	20.0	548	Tunisia
				Central and Eastern Europe/Central Asia
186	-	-	614	Czech Republic
185	-	-	555	Hungary
200	5.8	34.8	1,160	Kazakhstan
177	-	-	637	Poland
215	...	...	774	Russian Fed.
190	-	-	656	Slovakia
180	-	-	639	Turkey
				East Asia and the Pacific
197	-	-	825	Australia
185	a	15.0	505	Cambodia
164	4.5	18.0	738	Indonesia
...	-	-	535	Japan
145	5.3	26.2	761	Lao PDR
198	4.0	20.1	798	Malaysia
194	-	-	968	New Zealand
196	6.0	30.0	1,176	Philippines
220	-	-	560	Republic of Korea
187	...	...	1,100	Thailand
				Latin America and the Caribbean
180	5.0	25.0	900	Argentina
200	3.6	18.1	726	Bolivia
200	...	...	800	Brazil
194	4.5	22.5	873	Chile
200	4.4	22.0	880	Colombia
...	...	...	...	Cuba
180	6.0	30.0	1,080	Ecuador
185	5.0	25.0	925	El Salvador
190	...	...	950	Jamaica
200	-	-	1,047	Mexico
183	4.5	22.2	814	Paraguay
173	5.1	25.4	877	Peru
160	2.7	13.4	427	Uruguay

TABLE A3.6 LOWER SECONDARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region / Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
North America and Western Europe					
Austria	2003	-	-	-	1,776
Denmark	2003	-	-	-	1,680
Finland	2003	-	-	-	...
France	2003	-	-	-	...
Germany	2003	-	-	-	1,708
Greece	2003	-	-	-	1,762
Iceland	2003	-	-	-	1,800
Ireland	2003	-	-	-	...
Italy	2003	-	-	-	...
Luxembourg	2003	-	-	-	...
Netherlands	2003	-	-	-	1,659
Norway	2003	-	-	-	1,680
Portugal	2003	-	-	-	1,526
Spain	2003	-	-	-	1,425
Sweden	2003	-	-	-	1,767
United States	2003	-	-	-	...
South and West Asia					
Bangladesh	2005	131	8.0	48.0	1,048
India	2003	-	-	-	-
Sri Lanka	2003	-	-	-	-
Sub-Saharan Africa					
Burkina Faso	2003	180	7.0	38.0	1,260
Chad	...	152	5.0	30.0	760
Guinea	2003	175	6.0	36.0	1,050
Kenya	2005	174	8.0	40.0	1,392
Lesotho	2003	180	8.0	40.0	1,440
Mali	2003	175	6.0	30.0	1,050
Niger	2003	180	7.0	21.0	1,260
Senegal	2003	198	7.0	35.0	1,386
South Africa	2005	...	7.0	35.0	1,800
Uganda	2005	169	8.0	40.0	1,352
Zimbabwe	2004	...	8.0	40.0	...

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region / Country or territory
				North America and Western Europe
184	-	-	622	Austria
200	-	-	640	Denmark
190	-	-	599	Finland
...	-	-	626	France
189	-	-	735	Germany
185	-	-	629	Greece
175	-	-	653	Iceland
167	-	-	735	Ireland
...	-	-	594	Italy
176	-	-	642	Luxembourg
180	-	-	750	Netherlands
190	-	-	656	Norway
174	-	-	626	Portugal
171	-	-	564	Spain
...	-	-	...	Sweden
180	-	-	1,127	United States
				South and West Asia
206	4.0	24.0	824	Bangladesh
225	...	...	1,125	India
210	6.0	30.0	1,260	Sri Lanka
				Sub-Saharan Africa
...	...	...	...	Burkina Faso
...	5.0	30.0	...	Chad
154	6.0	36.0	924	Guinea
81	6.0	18.0	486	Kenya
180	8.0	40.0	1,440	Lesotho
175	6.0	30.0	1,050	Mali
180	7.0	21.0	1,260	Niger
...	...	...	...	Senegal
...	...	...	...	South Africa
169	3.2	16.0	541	Uganda
170	5.0	21.0	850	Zimbabwe

TABLE A3.7 UPPER SECONDARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region / Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
Arab States					
Egypt	2003	-	-	-	-
Jordan	2003	-	-	-	-
Lebanon	2003	195	4.0	19.0	780
Oman	2004	190	5.6	28.0	1,061
Syrian AR	2003	164	7.5	37.5	1,230
Tunisia	2003	-	-	-	-
Central and Eastern Europe/Central Asia					
Czech Republic	2003	-	-	-	1,696
Hungary	2003	-	-	-	1,864
Kazakhstan	...	200	7.0	42.0	1,400
Poland	2003	-	-	-	1,416
Russian Fed.	2003	-	-	-	-
Slovakia	2003	-	-	-	1,316
Turkey	2003	-	-	-	1,840
East Asia and the Pacific					
Australia	2003	-	-	-	...
Cambodia	2003	195	6.2	34.0	1,205
Indonesia	2003	-	-	-	-
Japan	2003	-	-	-	1,960
Lao PDR	2002	171	6.3	31.5	1,077
Malaysia	2002	-	-	-	-
New Zealand	2003	-	-	-	...
Philippines	2003	-	-	-	-
Republic of Korea	2003	-	-	-	1,613
Thailand	2003	-	-	-	-
Latin America and the Caribbean					
Argentina	2002	-	-	-	-
Bolivia	2003	200	2.1	10.3	411
Brazil	2002	-	-	-	-
Chile	2003	-	-	-	-
Colombia	2003	225	8.0	40.0	1,800
Cuba	...	227	8.0	44.0	1,816
Ecuador	2002	200	7.0	35.0	1,400
El Salvador	2005	207	5.0	25.0	1,037
Jamaica	2003	-	-	-	-
Mexico	2003	-	-	-	...
Paraguay	2002	-	-	-	-
Peru	2002	-	-	-	-
Uruguay	2002	-	-	-	-

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region / Country or territory
				Arab States
187	4.0	24.0	748	Egypt
162	...	...	810	Jordan
150	3.9	19.2	578	Lebanon
152	3.0	15.0	456	Oman
149	5.0	25.0	745	Syrian AR
137	4.0	20.0	548	Tunisia
				Central and Eastern Europe/Central Asia
186	-	-	586	Czech Republic
185	-	-	555	Hungary
200	6.0	36.0	1,200	Kazakhstan
177	-	-	637	Poland
215	...	...	774	Russian Fed.
190	-	-	627	Slovakia
180	-	-	567	Turkey
				East Asia and the Pacific
197	-	-	813	Australia
185	a	13.3	448	Cambodia
164	4.5	18.0	738	Indonesia
...	-	-	467	Japan
145	5.3	26.2	761	Lao PDR
198	4.0	20.1	798	Malaysia
190	-	-	950	New Zealand
196	5.0	25.0	980	Philippines
220	-	-	544	Republic of Korea
187	...	...	1,200	Thailand
				Latin America and the Caribbean
180	5.0	25.0	900	Argentina
200	2.1	10.3	411	Bolivia
200	...	...	800	Brazil
194	4.5	22.5	873	Chile
200	4.4	22.0	880	Colombia
...	...	...	...	Cuba
180	6.0	30.0	1,080	Ecuador
185	5.0	25.0	925	El Salvador
190	...	...	950	Jamaica
173	-	-	848	Mexico
183	5.0	25.0	915	Paraguay
173	5.1	25.4	877	Peru
160	2.7	13.4	427	Uruguay

TABLE A3.7 UPPER SECONDARY TEACHER STATUTORY WORKING AND TEACHING HOURS

Region / Country or territory	Reference year	Number of statutory working days per school year	Total working hours per day	Total working hours per week	Total working hours per year
North America and Western Europe					
Austria	2003	-	-	-	1,776
Denmark	2003	-	-	-	1,680
Finland	2003	-	-	-	...
France	2003	-	-	-	...
Germany	2003	-	-	-	1,708
Greece	2003	-	-	-	1,762
Iceland	2003	-	-	-	1,800
Ireland	2003	-	-	-	...
Italy	2003	-	-	-	...
Luxembourg	2003	-	-	-	...
Netherlands	2003	-	-	-	1,659
Norway	2003	-	-	-	1,680
Portugal	2003	-	-	-	1,526
Spain	2003	-	-	-	1,425
Sweden	2003	-	-	-	1,767
United States	2003	-	-	-	...
South and West Asia					
Bangladesh	2005	232	8.0	48.0	1,856
India	2003	-	-	-	-
Sri Lanka	2003	-	-	-	-
Sub-Saharan Africa					
Burkina Faso	2003	180	7.0	38.0	1,260
Chad	...	152	5.0	30.0	760
Guinea	2003	175	6.0	36.0	1,050
Kenya	2005	174	8.0	40.0	1,392
Lesotho	2003	180	8.0	40.0	1,440
Mali	2003	216	8.0	48.0	1,728
Niger	2003	180	7.0	18.0	1,260
Senegal	2003	198	7.0	35.0	1,386
South Africa	2005	...	7.0	35.0	1,800
Uganda	2005	169	8.0	40.0	1,352
Zimbabwe	2004	...	8.0	40.0	...

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Number of statutory teaching days per school year	Total teaching hours per day	Total teaching hours per week	Total teaching hours per year	Region Country or territory
				North America and Western Europe
184	-	-	602	Austria
200	-	-	560	Denmark
190	-	-	556	Finland
...	-	-	602	France
189	-	-	684	Germany
185	-	-	629	Greece
175	-	-	560	Iceland
167	-	-	735	Ireland
...	-	-	594	Italy
176	-	-	642	Luxembourg
180	-	-	750	Netherlands
187	-	-	524	Norway
174	-	-	580	Portugal
166	-	-	548	Spain
...	-	-	...	Sweden
180	-	-	1,121	United States
				South and West Asia
206	6.0	36.0	1,236	Bangladesh
225	...	...	1,125	India
210	6.0	30.0	1,260	Sri Lanka
				Sub-Saharan Africa
...	...	...	...	Burkina Faso
...	5.0	30.0	...	Chad
154	6.0	36.0	924	Guinea
81	6.0	18.0	486	Kenya
180	8.0	40.0	1,440	Lesotho
216	8.0	40.0	1,320	Mali
180	7.0	18.0	1,260	Niger
...	...	...	...	Senegal
...	...	...	...	South Africa
169	3.2	16.0	541	Uganda
170	5.0	21.0	850	Zimbabwe

TABLE A3.8 FREQUENCY OF ADDITIONAL BONUSES AND BENEFITS PAID TO PRIMARY TEACHERS

Region / Country or territory	Management responsibilities	Teaching more classes or hours than required by a full-time contract	Location allowances (e.g. isolation pay, housing allowance, or provision of housing)	Age (independent of years of teaching experience)	Outstanding performance in teaching	Outstanding performance of students
Arab States						
Lebanon	○	■	○	○	○	○
Oman	○	○	■	○	○	○
Syrian AR	▲	●	▲	○	○	○
Tunisia	■	■	■	○	○	...
Central Asia						
Kazakhstan	○	○	●	○	●	○
East Asia and the Pacific						
Cambodia	■	■	■	○	■	■
Indonesia	▲	▲	●	■	○	...
Lao PDR	■	■	▲	■	■	○
Malaysia	■	○	■	○	○	...
Philippines	○	○	●	○	■	...
Samoa	■	○	■	○	●	○
Thailand	○	■	●	○	○	...
Latin America and the Caribbean						
Argentina	○	○	■	○	○	...
Bolivia	▲	●	■	○	▲	▲
Brazil	■	○	■	○	○	...
Chile	■	○	■	○	■	...
Cuba	■	○	■	○	■	○
Ecuador	■	○	■	○	●	○
El Salvador	○	■	■	○	○	○
Paraguay	○	○	▲	○	■	...
Uruguay	▲	▲	▲	○	○	...
South and West Asia						
Bangladesh	▲	▲	■	...	▲	▲
Sri Lanka	○	■	○	...	○	...
Sub-Saharan Africa						
Burkina Faso	■	○	■	○	○	▲
Chad	○	○	○	○	○	○
Guinea	■	○	■	○	●	●
Kenya	■	○	■	●	●	●
Lesotho	○	○	■	○	○	○
Mali	■	○	■	○	○	○
Niger	■	○	■	○	○	○
Senegal	■	■	■	○	○	○
Uganda	...	...	...	...	...	...
Zimbabwe	○	○	■	○	○	○

Source: UNESCO Institute for Statistics database and UNESCO/OECD/WEI

Completion of professional development	Have an educational qualification higher than required to enter the profession	Achieve high scores in the qualification examination	Have an educational qualification in multiple subjects (e.g. history and mathematics)	Have a higher level of teacher certification or additional training (e.g. Master's degree)	Teaching courses in a particular field (e.g. mathematics or science)	Region Country or territory
						Arab States
○	■	○	○	●	○	Lebanon
○	○	○	▲	○	○	Oman
●	■	○	○	■	○	Syrian AR
○	○	○	○	■	○	Tunisia
						Central Asia
▲	○	○	○	■	●	Kazakhstan
						East Asia and the Pacific
▲	■	▲	●	■	▲	Cambodia
▲	■	○	○	▲	▲	Indonesia
○	■	▲	▲	■	●	Lao PDR
○	○	○	○	○	○	Malaysia
○	○	○	○	■	○	Philippines
■	○	○	○	■	...	Samoa
○	■	■	○	■	○	Thailand
						Latin America and the Caribbean
○	○	○	○	○	○	Argentina
▲	■	■	●	▲	○	Bolivia
■	■	○	○	■	○	Brazil
■	○	○	○	■	○	Chile
■	■	○	○	■	○	Cuba
■	▲	○	○	■	○	Ecuador
○	○	○	○	○	○	El Salvador
▲	○	○	○	■	...	Paraguay
○	○	○	○	○	○	Uruguay
						South and West Asia
■	▲	●	▲	●	●	Bangladesh
○	○	○	■	○	○	Sri Lanka
						Sub-Saharan Africa
○	○	○	○	■	○	Burkina Faso
○	○	○	○	○	○	Chad
■	▲	■	○	●	○	Guinea
○	■	...	...	■	■	Kenya
...	●	○	○	●	○	Lesotho
○	○	○	○	○	○	Mali
○	○	○	○	○	○	Niger
○	■	■	○	■	○	Senegal
...	▲	...	...	▲	...	Uganda
○	○	○	○	○	■	Zimbabwe

Legend:
■ Most of the time
▲ Occasionally
● Rarely
○ Never
... Missing data

TABLE A3.9 PRIMARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
Arab States							
Egypt[1]	2003	0.22	-	0.49	-	...	0.25
Lebanon	2003	0.65	0.77	0.93	1.07	0.14	1.92
Oman	2003	0.84	1.08	0.84	1.08	1.14	1.37
Syrian AR	2003	1.15	1.33	2.10	2.43	3.64	4.85
Tunisia[1]	2003	1.77	-	1.79	-	2.03	2.86
Central and Eastern Europe/Central Asia							
Czech Republic	2003	-	-	1.06	-	-	-
Hungary	2003	-	-	0.98	-	-	-
Kazakhstan[2]	2003	0.40	0.54	0.42	0.63	0.40	0.54
Poland	2003	-	-	0.82	-	-	-
Slovakia	2003	-	-	0.56	-	-	-
Turkey	2003	-	-	2.10	-	-	-
East Asia and the Pacific							
Australia	2003	-	-	1.40	-	-	-
Cambodia	2003	0.43	a	0.53	a	0.58	a
Indonesia[1]	2003	0.28	-	0.45	-	0.85	0.92
Japan	2003	-	-	1.60	-	-	-
Lao PDR	2002	0.52	a	0.56	a	...	...
Malaysia[1]	2002	1.02	-	1.60	-	1.93	1.93
New Zealand	2003	-	-	1.51	-	-	-
Philippines[1]	2003	2.05	-	2.26	-	2.43	3.66
Republic of Korea	2003	-	-	2.42	-	-	-
Samoa[2]	2003	1.58	2.87	...	...	3.48	3.90
Latin America and the Caribbean							
Argentina[1]	2002	0.61	-	0.85	-	1.02	1.02
Bolivia	2003	1.03	1.36	2.06	2.72	2.58	3.40
Brazil[1]	2002	1.11	-	1.50	-	1.66	...
Colombia	2000	0.67	1.22	...	...	1.17	2.96
Ecuador[2]	2003	0.49	0.49	0.72	0.72	1.41	1.41
El Salvador[2]	2003	1.90	2.07	2.40	2.64	2.69	2.95
Jamaica[1]	2003	2.26	-	2.61	-	2.61	3.40
Mexico	2003	-	-	1.75	-	-	-
Paraguay[1]	2002	1.59	-	1.59	-	1.59	1.59
Peru[1]	2002	1.13	-	1.13	-	1.13	1.46
Uruguay[1]	2002	0.63	-	0.75	-	0.91	a

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						Arab States
919	-	2,052	-	...	1,055	Egypt[1]
4,207	4,995	6,047	6,979	924	12,524	Lebanon
...	...	...	...	...	...	Oman
3,937	4,561	7,197	8,337	12,467	16,622	Syrian AR
13,071	-	13,212	-	15,010	21,173	Tunisia[1]
						Central and Eastern Europe/Central Asia
13,808	-	18,265	-	23,435	-	Czech Republic
11,701	-	14,923	-	19,886	-	Hungary
2,703	3,586	2,827	4,205	2,703	3,586	Kazakhstan[2]
6,257	-	9,462	-	10,354	-	Poland
5,771	-	7,309	-	9,570	-	Slovakia
12,903	-	14,581	-	16,851	-	Turkey
						East Asia and the Pacific
28,642	-	42,057	-	42,057	-	Australia
893	a	1,095	a	1,202	a	Cambodia
988	-	1,563	-	2,978	3,221	Indonesia[1]
24,514	-	45,515	-	57,327	-	Japan
1,072	a	1,156	a	...	...	Lao PDR
9,262	-	14,541	-	17,531	17,531	Malaysia[1]
18,132	-	35,078	-	35,078	-	New Zealand
9,418	-	10,396	-	11,195	16,833	Philippines[1]
27,214	-	46,640	-	74,965	-	Republic of Korea
9,014	16,401	...	...	19,906	22,261	Samoa[2]
						Latin America and the Caribbean
6,786	-	9,508	-	11,418	11,418	Argentina[1]
2,657	3,512	5,318	7,025	6,646	8,781	Bolivia
8,780	-	11,860	-	13,131	...	Brazil[1]
5,305	9,698	...	...	9,302	23,489	Colombia
1,822	1,823	2,669	2,669	5,201	5,201	Ecuador[2]
8,913	9,754	11,304	12,403	12,649	13,889	El Salvador[2]
10,308	-	11,937	-	11,937	15,521	Jamaica[1]
12,689	-	16,720	-	27,696	-	Mexico
7,825	-	7,825	-	7,825	7,825	Paraguay[1]
5,661	-	5,661	-	5,661	7,318	Peru[1]
4,829	-	5,787	-	6,986	a	Uruguay[1]

TABLE A3.9 PRIMARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
North America and Western Europe							
Austria	2003	-	-	1.06	-	-	-
Denmark	2003	-	-	1.21	-	-	-
Finland	2003	-	-	1.12	-	-	-
France	2003	-	-	1.12	-	-	-
Germany	2003	-	-	1.71	-	-	-
Greece	2003	-	-	1.38	-	-	-
Iceland	2003	-	-	0.73	-	-	-
Ireland	2003	-	-	1.22	-	-	-
Italy	2003	-	-	1.08	-	-	-
Luxembourg	2003	-	-	1.14	-	-	-
Netherlands	2003	-	-	1.29	-	-	-
Norway	2003	-	-	0.96	-	-	-
Portugal	2003	-	-	1.81	-	-	-
Spain	2003	-	-	1.42	-	-	-
Sweden	2003	-	-	1.00	-	-	-
Switzerland	2003	-	-	1.54	-	-	-
United States	2003	-	-	1.17	-	-	-
South and West Asia							
Bangladesh	2000	1.52	2.28	...	...	2.13	3.12
Sri Lanka[1]	2003	0.79	-	1.00	-	1.00	1.43
Sub-Saharan Africa							
Burkina Faso	2003	2.61	3.61	3.66	5.36	6.91	7.73
Chad	2003	6.44	...	...	...	...	14.02
Guinea	2003	2.01	...	...	...	2.08	4.64
Kenya[2]	2003	2.75	3.29	2.90	3.79	3.46	5.03
Lesotho	2003	2.00	10.11	a	a	2.12	10.99
Mali	2003	4.86	4.86	7.29	7.29	9.12	9.12
Niger	2003	3.50	4.63	5.82	6.61	7.99	9.94
Senegal	2003	2.57	3.00	3.30	4.99	3.62	5.71
South Africa	2000	2.61	a	6.82	8.05	6.82	8.05
Uganda	2003	4.05	5.69	...	...	7.38	23.52

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
1) Public institutions only.
2) GDP in local currency for 2005.

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						North America and Western Europe
24,475	-	32,385	-	48,977	-	Austria
32,939	-	37,076	-	37,076	-	Denmark
27,023	-	31,785	-	31,785	-	Finland
23,106	-	31,082	-	45,861	-	France
38,216	-	46,223	-	49,586	-	Germany
22,990	-	28,006	-	33,859	-	Greece
18,742	-	21,692	-	24,164	-	Iceland
24,458	-	40,514	-	45,910	-	Ireland
23,751	-	28,731	-	34,870	-	Italy
44,712	-	61,574	-	91,131	-	Luxembourg
30,071	-	39,108	-	43,713	-	Netherlands
29,719	-	35,541	-	36,806	-	Norway
20,150	-	33,815	-	53,085	-	Portugal
29,973	-	34,890	-	43,816	-	Spain
24,488	-	28,743	-	32,956	-	Sweden
37,544	-	49,932	-	59,667	-	Switzerland
30,339	-	43,999	-	53,563	-	United States
						South and West Asia
2,399	3,598	...	...	3,358	4,917	Bangladesh
2,997	-	3,814	-	3,814	5,448	Sri Lanka[1]
						Sub-Saharan Africa
2,983	4,131	4,188	6,139	7,917	8,852	Burkina Faso
7,414	...	...	...	...	16,146	Chad
3,864	3,836	...	...	3,836	8,556	Guinea
2,452	2,936	2,585	3,382	3,085	4,483	Kenya[2]
5,102	25,784	a	a	5,415	28,034	Lesotho
4,423	4,423	6,634	6,634	8,292	8,292	Mali
2,632	3,481	4,381	4,970	6,009	7,481	Niger
3,901	4,551	5,011	7,576	5,500	8,666	Senegal
23,795	a	62,064	73,282	62,064	73,282	South Africa
5,549	7,802	...	...	10,111	32,233	Uganda

TABLE A3.10 LOWER SECONDARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
Arab States							
Egypt[1]	2003	0.22	-	0.49	-	...	0.25
Lebanon	2003	0.89	0.89	1.21	1.21	0.18	2.19
Oman	2003	1.08	1.26	1.08	1.26	1.37	1.69
Syrian AR	2003	1.15	1.38	2.01	2.52	3.64	4.85
Tunisia[1]	2003	2.25	-	2.27	-	2.57	3.27
Central and Eastern Europe/Central Asia							
Czech Republic	2003	-	-	1.06	-	-	-
Hungary	2003	-	-	0.98	-	-	-
Kazakhstan[2]	2003	0.40	0.54	0.42	0.63	0.40	0.54
Poland	2003	-	-	0.82	-	-	-
Slovakia	2003	-	-	0.56	-	-	-
East Asia and the Pacific							
Australia	2003	-	-	1.40	-	-	-
Cambodia	2003	0.64	a	0.77	a	0.86	a
Indonesia[1]	2003	0.28	-	0.45	-	0.85	1.04
Japan	2003	-	-	1.60	-	-	-
Lao PDR	2002	0.53	a	0.58	a	...	...
Malaysia[1]	2002	1.49	-	2.55	-	3.22	3.22
New Zealand	2003	-	-	1.51	-	-	-
Philippines[1]	2003	2.05	-	2.26	-	2.43	3.66
Republic of Korea	2003	-	-	2.42	-	-	-
Samoa[2]	2003	1.58	2.87	...	...	3.48	3.90
Latin America and the Caribbean							
Argentina[1]	2002	0.83	-	1.17	-	1.40	1.40
Bolivia	2003	1.03	1.36	2.06	2.72	2.58	3.40
Brazil[1]	2002	1.51	-	1.79	-	2.18	...
Colombia	2000	0.67	1.22	...	...	1.17	2.96
Ecuador[2]	2003	0.55	0.55	0.80	0.80	1.41	1.41
El Salvador[2]	2003	1.90	2.07	2.40	2.64	2.69	2.95
Jamaica[1]	2003	2.26	-	2.61	-	2.61	3.40
Mexico	2003	-	-	2.23	-	-	-
Paraguay[1]	2002	2.48	-	2.48	-	2.48	2.48
Peru[1]	2002	1.12	-	1.12	-	1.12	1.37
Uruguay[1]	2002	0.63	-	0.75	-	0.91	a

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						Arab States
919	-	2,052	-	...	1,055	Egypt[1]
5,784	5,784	7,911	7,911	1,187	14,245	Lebanon
...	...	...	...	...	...	Oman
3,937	4,727	7,197	8,641	12,467	16,622	Syrian AR
16,630	-	16,790	-	18,995	24,202	Tunisia[1]
						Central and Eastern Europe/Central Asia
13,808	-	18,265	-	23,435	-	Czech Republic
11,701	-	14,923	-	19,886	-	Hungary
2,703	3,586	2,827	4,205	2,703	3,586	Kazakhstan[2]
6,257	-	9,462	-	10,354	-	Poland
5,771	-	7,309	-	9,570	-	Slovakia
						East Asia and the Pacifc
28,865	-	42,078	-	42,078	-	Australia
1,310	a	1,583	a	1,768	a	Cambodia
988	-	1,563	-	2,978	3,624	Indonesia[1]
24,514	-	45,515	-	57,327	-	Japan
1,086	a	1,198	a	...	...	Lao PDR
13,527	-	23,110	-	29,254	29,254	Malaysia[1]
18,132	-	35,078	-	35,078	-	New Zealand
9,418	-	10,396	-	11,195	16,833	Philippines[1]
27,092	-	46,518	-	74,843	-	Republic of Korea
9,014	16,401	...	...	19,906	22,261	Samoa[2]
						Latin America and the Caribbean
9,301	-	13,043	-	15,663	15,663	Argentina[1]
2,657	3,512	5,318	7,025	6,646	8,781	Bolivia
11,991	-	14,206	-	17,233	...	Brazil[1]
5,305	9,698	...	...	9,302	23,489	Colombia
2,015	2,015	2,943	2,943	5,206	5,206	Ecuador[2]
8,913	9,754	11,304	12,403	12,649	13,889	El Salvador[2]
10,308	-	11,937	-	11,937	15,521	Jamaica[1]
16,268	-	21,243	-	35,056	-	Mexico
12,207	-	12,207	-	12,207	12,207	Paraguay[1]
5,599	-	5,599	-	5,599	6,875	Peru[1]
4,829	-	5,787	-	6,986	a	Uruguay[1]

TABLE A3.10 LOWER SECONDARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
North America and Western Europe							
Austria	2003	-	-	1.13	-	-	-
Denmark	2003	-	-	1.21	-	-	-
Finland	2003	-	-	1.29	-	-	-
France	2003	-	-	1.21	-	-	-
Germany	2003	-	-	1.80	-	-	-
Greece	2003	-	-	1.38	-	-	-
Iceland	2003	-	-	0.73	-	-	-
Ireland	2003	-	-	1.22	-	-	-
Italy	2003	-	-	1.18	-	-	-
Luxembourg	2003	-	-	1.50	-	-	-
Netherlands	2003	-	-	1.42	-	-	-
Norway	2003	-	-	0.96	-	-	-
Portugal	2003	-	-	1.81	-	-	-
Spain	2003	-	-	1.59	-	-	-
Sweden	2003	-	-	1.03	-	-	-
Switzerland	2003	-	-	1.80	-	-	-
United States	2003	-	-	1.17	-	-	-
South and West Asia							
Bangladesh	2000	2.47	3.05	...	...	2.85	5.37
Sri Lanka[1]	2003	0.79	-	1.14	-	1.14	1.43
Sub-Saharan Africa							
Burkina Faso	2003	3.61	5.36	5.36	9.32	9.57	17.24
Chad	2003	8.58	...	...	...	...	16.24
Guinea	2003	2.55	3.10	...	...	3.10	6.71
Kenya[2]	2003	5.12	5.12	0.00	0.00	6.55	6.55
Lesotho	2003	4.69	16.71	a	a	5.57	17.56
Mali	2003	4.86	4.86	7.29	7.29	9.12	9.12
Niger	2003	5.32	7.04	7.50	9.67	11.01	13.81
Senegal	2003	3.44	4.96	5.13	6.19	6.76	7.68
South Africa	2000	2.61	a	6.82	8.05	6.82	8.05
Uganda	2003	8.68	11.02	...	...	23.91	34.45
Zimbabwe[1]	2003	92.65	101.91	139.01	157.38	139.01	157.38

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
1) Public institutions only.
2) GDP in local currency for 2005.

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						North America and Western Europe
25,439	-	34,666	-	51,270	-	Austria
32,939	-	37,076	-	37,076	-	Denmark
30,336	-	36,444	-	36,444	-	Finland
25,564	-	33,540	-	48,440	-	France
39,650	-	48,804	-	50,949	-	Germany
22,990	-	28,006	-	33,859	-	Greece
18,742	-	21,692	-	24,164	-	Iceland
25,295	-	40,514	-	45,910	-	Ireland
25,602	-	31,304	-	38,306	-	Italy
64,416	-	80,520	-	111,910	-	Luxembourg
31,188	-	43,054	-	47,977	-	Netherlands
29,719	-	35,541	-	36,806	-	Norway
20,150	-	33,815	-	53,085	-	Portugal
33,702	-	39,019	-	48,352	-	Spain
25,278	-	29,617	-	33,567	-	Sweden
44,563	-	58,520	-	69,645	-	Switzerland
30,352	-	43,999	-	52,603	-	United States
						South and West Asia
3,898	4,797	...	...	4,497	8,455	Bangladesh
2,997	-	4,359	-	4,359	5,448	Sri Lanka[1]
						Sub-Saharan Africa
4,131	6,139	6,139	10,671	10,958	19,736	Burkina Faso
9,885	...	...	...	...	18,699	Chad
4,692	5,713	...	...	5,713	12,364	Guinea
4,563	4,563	0	0	5,843	5,843	Kenya[2]
11,975	42,630	a	a	14,219	44,791	Lesotho
4,423	4,423	6,634	6,634	8,292	8,292	Mali
4,000	5,299	5,645	7,273	8,346	10,390	Niger
5,214	7,528	7,780	9,395	10,260	11,653	Senegal
23,795	a	62,064	73,282	62,064	73,282	South Africa
11,900	15,109	...	...	32,769	47,215	Uganda
...	...	...	...	...	...	Zimbabwe[1]

TABLE A3.11 UPPER SECONDARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
Arab States							
Lebanon	2003	1.26	1.26	1.70	1.70	0.24	2.92
Oman	2003	1.08	1.26	1.08	1.26	1.37	1.69
Syrian AR	2003	1.33	1.78	2.43	3.26	4.85	4.85
Tunisia[1]	2003	2.74	-	2.76	-	3.09	3.91
Central and Eastern Europe/Central Asia							
Czech Republic	2003	-	-	1.18	-	-	-
Hungary	2003	-	-	1.22	-	-	-
Kazakhstan[2]	2003	0.40	0.54	0.42	0.63	0.40	0.54
Poland	2003	-	-	0.82	-	-	-
Slovakia	2003	-	-	0.56	-	-	-
Turkey	2003	-	-	1.96	-	-	-
East Asia and the Pacific							
Australia	2003	-	-	1.40	-	-	-
Cambodia	2003	0.91	a	0.77	a	1.23	a
Indonesia[1]	2003	0.29	-	0.54	-	0.85	1.04
Japan	2003	-	-	1.60	-	-	-
Lao PDR	2002	0.54	a	0.59	a	...	...
Malaysia[1]	2002	1.49	-	2.55	-	3.22	3.22
New Zealand	2003	-	-	1.51	-	-	-
Philippines[1]	2003	2.05	-	2.26	-	2.43	3.66
Republic of Korea	2003	-	-	2.42	-	-	-
Samoa[2]	2003	1.58	3.69	...	...	3.48	3.90
Latin America and the Caribbean							
Argentina[1]	2002	0.83	-	1.17	-	1.40	1.40
Bolivia	2003	1.03	1.36	2.06	2.72	2.58	3.40
Brazil[1]	2002	1.93	-	2.21	-	2.23	...
Colombia	2000	0.67	1.22	...	...	1.17	2.96
Ecuador[2]	2003	0.55	0.55	0.80	0.80	1.41	1.41
El Salvador[2]	2003	1.90	2.07	2.40	2.64	2.69	2.95
Jamaica[1]	2003	2.26	-	2.61	-	2.61	3.40
Paraguay[1]	2002	2.48	-	2.48	-	2.48	2.48
Peru[1]	2002	1.12	-	1.12	-	1.12	1.37
Uruguay[1]	2002	0.68	-	0.81	-	0.96	a

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						Arab States
8,222	8,222	11,090	11,090	1,585	19,025	Lebanon
...	...	...	...	...	...	Oman
4,561	6,112	8,337	11,173	16,622	16,622	Syrian AR
20,243	-	20,434	-	22,873	28,877	Tunisia[1]
						Central and Eastern Europe/Central Asia
16,817	-	20,259	-	25,988	-	Czech Republic
13,286	-	18,463	-	24,185	-	Hungary
2,703	3,586	2,827	4,205	2,703	3,586	Kazakhstan[2]
6,257	-	9,462	-	10,354	-	Poland
5,771	-	7,309	-	9,570	-	Slovakia
11,952	-	13,630	-	15,900	-	Turkey
						East Asia and the Pacific
28,865	-	42,078	-	42,078	-	Australia
1,875	a	1,583	a	2,530	a	Cambodia
1,027	-	1,882	-	2,978	3,624	Indonesia[1]
24,514	-	45,543	-	59,055	-	Japan
1,100	a	1,219	a	...	...	Lao PDR
13,527	-	23,110	-	29,254	29,254	Malaysia[1]
18,132	-	35,078	-	35,078	-	New Zealand
9,418	-	10,396	-	11,195	16,833	Philippines[1]
27,092	-	46,518	-	74,843	-	Republic of Korea
9,014	21,082	...	...	19,906	22,261	Samoa[2]
						Latin America and the Caribbean
9,301	-	13,043	-	15,663	15,663	Argentina[1]
2,657	3,512	5,318	7,025	6,646	8,781	Bolivia
15,307	-	17,456	-	17,692	...	Brazil[1]
5,305	9,698	...	...	9,302	23,489	Colombia
2,015	2,015	2,943	2,943	5,206	5,206	Ecuador[2]
8,913	9,754	11,304	12,403	12,649	13,889	El Salvador[2]
10,308	-	11,937	-	11,937	15,521	Jamaica[1]
12,207	-	12,207	-	12,207	12,207	Paraguay[1]
5,599	-	5,599	-	5,599	6,875	Peru[1]
5,255	-	6,214	-	7,412	a	Uruguay[1]

TABLE A3.11 UPPER SECONDARY TEACHERS' SALARIES RELATIVE TO GDP PER CAPITA IN LOCAL CURRENCY AND IN INTERNATIONAL (PPP) DOLLARS

Region / Country or territory	Reference year	Relative to GDP per capita					
		Starting salary		Salary after 15 years of teaching		Ending salary	
		Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications
North America and Western Europe							
Austria	2003	-	-	1.16	-	-	-
Denmark	2003	-	-	1.48	-	-	-
Finland	2003	-	-	1.49	-	-	-
France	2003	-	-	1.22	-	-	-
Germany	2003	-	-	1.94	-	-	-
Greece	2003	-	-	1.38	-	-	-
Iceland	2003	-	-	1.00	-	-	-
Ireland	2003	-	-	1.22	-	-	-
Italy	2003	-	-	1.21	-	-	-
Luxembourg	2003	-	-	1.50	-	-	-
Netherlands	2003	-	-	1.90	-	-	-
Norway	2003	-	-	0.96	-	-	-
Portugal	2003	-	-	1.81	-	-	-
Spain	2003	-	-	1.64	-	-	-
Sweden	2003	-	-	1.07	-	-	-
Switzerland	2003	-	-	2.07	-	-	-
United States	2003	-	-	1.17	-	-	-
South and West Asia							
Bangladesh	2000	2.47	3.05	...	...	2.85	5.37
Sri Lanka[1]	2003	1.00	-	1.29	-	1.29	1.43
Sub-Saharan Africa							
Burkina Faso	2003	3.61	5.36	5.36	9.32	9.57	17.24
Chad	2003	11.09	...	...	...	...	22.39
Guinea	2003	2.55	3.10	...	...	3.10	6.71
Kenya[2]	2003	5.12	5.12	0.00	0.00	6.55	6.55
Lesotho	2003	4.69	16.71	a	a	5.57	17.56
Mali	2003	6.08	6.08	8.81	8.81	12.16	12.16
Niger	2003	6.12	7.04	8.52	9.67	12.39	13.81
Senegal	2003	5.57	7.68	6.48	6.76	8.33	8.88
South Africa	2000	2.61	a	6.82	8.05	6.82	8.05
Uganda	2003	11.29	19.59	14.99	19.59	23.91	34.45
Zimbabwe[1]	2003	92.65	101.91	139.01	157.38	139.01	157.38

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
1) Public institutions only.
2) GDP in local currency for 2005.

Base salary in PPP$						Region
Starting salary		Salary after 15 years of teaching		Ending salary		
Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Minimum qualifications	Maximum qualifications	Country or territory
						North America and Western Europe
25,776	-	35,670	-	54,139	-	Austria
32,331	-	45,425	-	45,425	-	Denmark
34,374	-	42,139	-	42,139	-	Finland
26,035	-	34,010	-	48,957	-	France
42,881	-	52,570	-	54,929	-	Germany
22,990	-	28,006	-	33,859	-	Greece
24,160	-	29,642	-	31,433	-	Iceland
25,295	-	40,514	-	45,910	-	Ireland
25,602	-	32,186	-	40,058	-	Italy
64,416	-	80,520	-	111,910	-	Luxembourg
31,492	-	57,647	-	63,586	-	Netherlands
29,719	-	35,541	-	36,806	-	Norway
20,150	-	33,815	-	53,085	-	Portugal
34,614	-	40,231	-	49,713	-	Spain
26,278	-	30,934	-	35,610	-	Sweden
52,572	-	67,356	-	80,706	-	Switzerland
30,471	-	44,120	-	52,745	-	United States
						South and West Asia
3,898	4,797	...	...	4,497	8,455	Bangladesh
3,814	-	4,903	-	4,903	5,448	Sri Lanka[1]
						Sub-Saharan Africa
4,131	6,139	6,139	10,671	10,958	19,736	Burkina Faso
12,768	...	...	...	...	25,783	Chad
4,692	5,713	...	...	5,713	12,364	Guinea
4,563	4,563	0	0	5,843	5,843	Kenya[2]
11,975	42,630	a	a	14,219	44,791	Lesotho
5,528	5,528	8,016	8,016	11,056	11,056	Mali
4,606	5,299	6,407	7,273	9,316	10,390	Niger
8,451	11,653	9,839	10,260	12,647	13,479	Senegal
23,795	a	62,064	73,282	62,064	73,282	South Africa
15,474	26,852	20,549	26,852	32,769	47,215	Uganda
...	...	...	...	...	...	Zimbabwe[1]

TABLE A3.12 TEACHERS' SALARIES RELATIVE TO PRIMARY LEVEL

Region / Country or territory	Reference year	Base salary in PPP$					
		Starting salary			Salary after 15 years of teaching		
		Minimum qualifications			Minimum qualifications		
		Primary education	Lower secondary education	Upper secondary education	Primary education	Lower secondary education	Upper secondary education
Arab States							
Egypt[1]	2003	100	100	...	100	100	...
Lebanon	2003	100	138	196	100	131	183
Syrian AR	2003	100	100	116	100	100	116
Tunisia[1]	2003	100	127	155	100	127	155
Central and Eastern Europe/Central Asia							
Czech Republic	2003	100	100	122	100	100	111
Hungary	2003	100	100	114	100	100	124
Kazakhstan[2]	2003	100	100	100	100	100	100
Poland	2003	100	100	100	100	100	100
Slovakia	2003	100	100	100	100	100	100
Turkey	2003	100	...	93	100	...	94
East Asia and the Pacific							
Australia	2003	100	101	101	100	100	100
Cambodia	2003	100	147	210	100	145	145
Indonesia[1]	2003	100	100	104	100	100	120
Japan	2003	100	100	100	100	100	100
Lao PDR	2002	100	101	103	100	104	105
Malaysia[1]	2002	100	146	146	100	159	159
New Zealand	2003	100	100	100	100	100	100
Philippines[1]	2003	100	100	100	100	100	100
Republic of Korea	2003	100	100	100	100	100	100
Samoa[2]	2003	100	100	100	100	...	...
Latin America and the Caribbean							
Argentina[1]	2002	100	137	137	100	137	137
Bolivia	2003	100	100	100	100	100	100
Brazil[1]	2002	100	137	174	100	120	147
Colombia	2000	100	100	100	100	...	...
Ecuador[2]	2003	100	111	111	100	110	110
El Salvador[2]	2003	100	100	100	100	100	100
Jamaica[1]	2003	100	100	100	100	100	100
Mexico	2003	100	128	...	100	127	...
Paraguay[1]	2002	100	156	156	100	156	156
Peru[1]	2002	100	99	99	100	99	99
Uruguay[1]	2002	100	100	109	100	100	107

Base salary in PPP$			Region
Ending salary			
Minimum qualifications			
Primary education	Lower secondary education	Upper secondary education	Country or territory
			Arab States
100	...	...	Egypt[1]
100	128	172	Lebanon
100	100	133	Syrian AR
100	127	152	Tunisia[1]
			Central and Eastern Europe/Central Asia
100	100	111	Czech Republic
100	100	122	Hungary
100	100	100	Kazakhstan[2]
100	100	100	Poland
100	100	100	Slovakia
100	...	94	Turkey
			East Asia and the Pacific
100	100	100	Australia
100	147	210	Cambodia
100	100	100	Indonesia[1]
100	100	103	Japan
100	...	...	Lao PDR
100	167	167	Malaysia[1]
100	100	100	New Zealand
100	100	100	Philippines[1]
100	100	100	Republic of Korea
100	100	100	Samoa[2]
			Latin America and the Caribbean
100	137	137	Argentina[1]
100	100	100	Bolivia
100	131	135	Brazil[1]
100	100	100	Colombia
100	100	100	Ecuador[2]
100	100	100	El Salvador[2]
100	100	100	Jamaica[1]
100	127	...	Mexico
100	156	156	Paraguay[1]
100	99	99	Peru[1]
100	100	106	Uruguay[1]

TABLE A3.12 TEACHERS' SALARIES RELATIVE TO PRIMARY LEVEL

Region / Country or territory	Reference year	Base salary in PPP$					
		Starting salary			Salary after 15 years of teaching		
		Minimum qualifications			Minimum qualifications		
		Primary education	Lower secondary education	Upper secondary education	Primary education	Lower secondary education	Upper secondary education
North America and Western Europe							
Austria	2003	100	104	105	100	107	110
Denmark	2003	100	100	98	100	100	123
Finland	2003	100	112	127	100	115	133
France	2003	100	111	113	100	108	109
Germany	2003	100	104	112	100	106	114
Greece	2003	100	100	100	100	100	100
Iceland	2003	100	100	129	100	100	137
Ireland	2003	100	103	103	100	100	100
Italy	2003	100	108	108	100	109	112
Luxembourg	2003	100	144	144	100	131	131
Netherlands	2003	100	104	105	100	110	147
Norway	2003	100	100	100	100	100	100
Portugal	2003	100	100	100	100	100	100
Spain	2003	100	112	116	100	112	115
Sweden	2003	100	103	107	100	103	108
Switzerland	2003	100	119	140	100	117	135
United States	2003	100	100	100	100	100	100
South and West Asia							
Bangladesh	2000	100	163	163	100	...	...
Sri Lanka[1]	2003	100	100	127	100	114	129
Sub-Saharan Africa							
Burkina Faso	2003	100	139	139	100	147	147
Chad	2003	100	133	172	100	...	...
Guinea	2003	100	121	121	100	...	...
Kenya[2]	2003	100	186	186	100	0	0
Lesotho	2003	100	235	235	100	a	a
Mali	2003	100	100	125	100	100	121
Niger	2003	100	152	175	100	129	146
Senegal	2003	100	134	217	100	155	196
South Africa	2000	100	100	100	100	100	100
Uganda	2003	100	215	279	100	...	...

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
1) Public institutions only.
2) GDP in local currency for 2005.

Base salary in PPP$			Region
Ending salary			
Minimum qualifications			
Primary education	Lower secondary education	Upper secondary education	Country or territory
			North America and Western Europe
100	105	111	Austria
100	100	123	Denmark
100	115	133	Finland
100	106	107	France
100	103	111	Germany
100	100	100	Greece
100	100	130	Iceland
100	100	100	Ireland
100	110	115	Italy
100	123	123	Luxembourg
100	110	146	Netherlands
100	100	100	Norway
100	100	100	Portugal
100	110	114	Spain
100	102	108	Sweden
100	117	135	Switzerland
100	98	99	United States
			South and West Asia
100	134	134	Bangladesh
100	114	129	Sri Lanka[1]
			Sub-Saharan Africa
100	138	138	Burkina Faso
100	...	...	Chad
100	149	149	Guinea
100	189	189	Kenya[2]
100	263	263	Lesotho
100	100	133	Mali
100	139	155	Niger
100	187	230	Senegal
100	100	100	South Africa
100	324	324	Uganda

TABLE A3.13 NUMBER OF YEARS TO GROW FROM MINIMUM TO MAXIMUM SALARY

Region / Country or territory	Reference year	Primary	Lower secondary	Upper secondary
Arab States				
Jordan[1]	2003	40	40	40
Lebanon	2003	44	44	41
Oman	2003	6	6	6
Syrian AR	2003	28	28	30
Tunisia[1]	2003	35	30	30
Central and Eastern Europe/Central Asia				
Czech Republic	2003	-	32	-
Hungary	2003	-	40	-
Kazakhstan	2003	5	5	5
Poland	2003	-	10	-
Slovakia	2003	-	32	-
Turkey	2003	-	a	-
East Asia and the Pacific				
Australia	2003	-	9	-
Cambodia	2003	28	28	28
Indonesia[1]	2003	33	32	32
Japan	2003	-	31	-
Malaysia[1]	2002	22	22	22
New Zealand	2003	-	8	-
Philippines[1]	2003	22	22	22
Republic of Korea	2003	-	37	-
Thailand[1]	2004	37	37	37
Latin America and the Caribbean				
Argentina[1]	2002	20-28	20-28	20-28
Brazil[1]	2002	25	25	25
Chile[1]	2003	30	30	30
Ecuador	2003	40	40	40
El Salvador	2003	30	30	30
Jamaica[1]	2003	11	11	11
Mexico	2003	-	14	-
Uruguay[1]	2002	24	24	24

Region / Country or territory	Reference year	Primary	Lower secondary	Upper secondary
North America and Western Europe				
Austria	2003	-	34	-
Belgium	2003	-	27	-
Denmark	2003	-	8	-
Finland	2003	-	20	-
France	2003	-	34	-
Germany	2003	-	28	-
Greece	2003	-	33	-
Iceland	2003	-	18	-
Ireland	2003	-	22	-
Italy	2003	-	35	-
Luxembourg	2003	-	a	-
Netherlands	2003	-	18	-
Norway	2003	-	20	-
Portugal	2003	-	26	-
Spain	2003	-	39	-
Sweden[2]	2003	-	a	-
Switzerland	2003	-	26	-
South and West Asia				
Bangladesh	2000	20	20	a
India[1]	2003	20	20	20
Sri Lanka[1]	2003	14	14	14
Sub-Saharan Africa				
Chad	2003	21	21	21
Guinea	2003	30	30	30
Kenya	2003	18	3	3
Mali	2003	30	35	...
Niger	2003	26	26	26
Senegal	2003	22	20	18
South Africa	2000	16	16	16
Uganda	2003	10	11	11

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
1) Public institutions only.
2) Ratio of salary at the top of the scale to starting salary has not been calculated for Sweden because the underlying salaries are estimates derived from actual rather than statutory salaries.

TABLE A3.14 INSTRUCTIONAL HOURS AND CLASS SIZE IN PRIMARY AND LOWER SECONDARY EDUCATION

Region	Reference year	Primary education		Lower secondary education	
Country or territory		Instructional hours	Class size	Instructional hours	Class size
Arab States					
Egypt[1]	2003	1040	31	1040	29
Lebanon[2]	2003	810	17	1050	15
Oman[2]	2004	720	25	720	25
Syrian AR[2]	2003	768	...	871	...
Tunisia[1]	2003	917	27	992	37
Central and Eastern Europe/Central Asia					
Czech Republic[1]	2003	707	15	818	17
Hungary[1]	2003	772	10	879	15
Kazakhstan[2]	...	619	12	747	...
Poland[1]	2003	708	14	802	17
Russian Federation[1]	2003	630	12	956	20
Slovakia[1]	2003	763	21	883	18
Turkey[1]	2003	864	27	a	a
East Asia and the Pacific					
Australia[1]	2003	992	24	1018	25
Cambodia[2]	2003	855	70	941	45
Indonesia[1]	2003	1134	18	1323	27
Japan[1]	2003	709	21	817	23
Lao PDR[2]	2002	931	37	867	37
Malaysia[1]	2002	964	23	1161	27
Philippines[1]	2003	1400	42	1230	36
Republic of Korea[1]	2003	703	27	1148	32
Thailand[1]	2003	750	17	917	41
Latin America and the Caribbean					
Argentina[1]	2002	729	16	896	19
Bolivia[2]	2003	900	30	1065	35
Brazil[1]	2003	800	24	800	20
Chile[1]	2003	1140	45	1140	44
Colombia[2]	2003	1000	...	1200	29
Ecuador[2]	2002	833	21	971	12
El Salvador[2]	2005	750	...	1200	...
Jamaica[1]	2003	950	30	950	...
Mexico[1]	2003	800	27	1167	21
Paraguay[1]	2002	798	29	1064	18
Peru[1]	2002	750	25	679	...
Uruguay[1]	2002	740	24	912	31

Region	Reference year	Primary education		Lower secondary education	
Country or territory		Instructional hours	Class size	Instructional hours	Class size
North America and Western Europe					
Austria[1]	2003	833	14	997	15
Denmark[1]	2003	750	19	800	19
Finland[1]	2003	673	16	815	13
France[1]	2003	830	17	1032	21
Germany[1]	2003	780	14	870	16
Greece[1]	2003	928	14	1064	15
Iceland[1]	2003	778	13	848	14
Ireland[1]	2003	915	19	899	...
Italy[1]	2003	1023	14	1089	19
Luxembourg[1]	2003	847	13	782	...
Netherlands[1]	2003	1000	a	1067	...
Norway[1]	2003	713	10	827	12
Portugal[1]	2003	882	13	913	14
Spain[1]	2003	792	13	953	22
South and West Asia					
Bangladesh[2]	2005	589	23	...	...
India[1]	2003	1051	43	1184	39
Sub-Saharan Africa					
Guinea[2]	2003	1080	53	1080	38
Kenya[2]	2005	796	65	910	95
Lesotho[2]	2003	720	31	960	18
Niger[2]	2003	810	31	824	29
Zimbabwe[2]	2004	516	23	992	...

Source: UNESCO Institute for Statistics database, UNESCO/OECD/WEI and OECD, 2005

Notes:
Class size = Pupil-teacher ratio * Instructional hours / Teaching hours. Pupil-teacher ratios are based on unadjusted headcounts.

1) Public institutions only.
2) Instructional hours were calculated based on the IBE education database (www.ibe.unesco.org).

Annex 4. Regions

Arab States
(20 countries or territories)

Algeria; Bahrain; Djibouti; Egypt; Iraq; Jordan; Kuwait; Lebanon; Libyan Arab Jamahiriya; Mauritania; Morocco; Oman; Palestinian Autonomous Territories; Qatar; Saudi Arabia; Sudan; Syrian Arab Republic; Tunisia; United Arab Emirates; Yemen.

Central and Eastern Europe/Central Asia
(29 countries or territories)

Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Bulgaria; Croatia; Czech Republic; Estonia; Georgia; Hungary; Kazakhstan; Kyrgyzstan; Latvia; Lithuania; Mongolia; Poland; Republic of Moldova; Romania; Russian Federation; Serbia and Montenegro; Slovakia; Slovenia; Tajikistan; The Former Yugoslav Republic of Macedonia; Turkey; Turkmenistan; Ukraine; Uzbekistan.

East Asia and the Paciflc
(33 countries or territories)

Australia; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People's Republic of Korea; Fiji; Indonesia; Japan; Kiribati; Lao People's Democratic Republic; Macao (China); Malaysia; Marshall Islands; Micronesia (Federated States of); Myanmar; Nauru; New Zealand; Niue; Palau; Papua New Guinea; Philippines; Republic of Korea; Samoa; Singapore; Solomon Islands; Thailand; Timor-Leste; Tokelau; Tonga; Tuvalu; Vanuatu; Viet Nam.

Latin America and the Caribbean
(41 countries or territories)

Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bermuda; Bolivia; Brazil; British Virgin Islands; Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Montserrat; Netherlands Antilles; Nicaragua; Panama; Paraguay; Peru; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Uruguay; Venezuela.

North America and Western Europe
(26 countries or territories)

Andorra; Austria; Belgium; Canada; Cyprus; Denmark; Finland; France; Germany; Greece; Iceland; Ireland; Israel; Italy; Luxembourg; Malta; Monaco; Netherlands; Norway; Portugal; San Marino; Spain; Sweden; Switzerland; United Kingdom; United States.

South and West Asia
(9 countries or territories)

Afghanistan; Bangladesh; Bhutan; India; Iran, Islamic Republic of; Maldives; Nepal; Pakistan; Sri Lanka.

Sub-Saharan Africa
(45 countries or territories)

Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo; Côte d'Ivoire; Democratic Republic of the Congo; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Swaziland; Togo; Uganda; United Republic of Tanzania; Zambia; Zimbabwe.

Looming teacher shortages in developing countries have sparked debate on the resources required to achieve international education goals by 2015. This report evaluates the status of teachers and teacher quality worldwide in order to better inform this debate. It also examines how the international goals can be attained by forecasting the teacher supply required to reach universal primary education while recognising some of the specific constraints facing countries.

But the quantity of pupils and teachers depend, to a large degree, on the quality of education. Indeed poor education quality partly explains why in some less-developed countries nine out of ten children may enter school, but only three children complete their primary education. In response, the report examines teacher quality through cross-national data on teacher qualifications, knowledge of subject matter and continuous professional development.

By highlighting trends in teacher quantity and quality, this report explores the policy implications of bridging gaps between the two. It also compares the strengths, shortcomings and imbalances of recruitment and deployment policies around the world.

Data on less-developed countries, in particular, are presented from a wide range of sources, including administrative data, student assessment studies and a special data collection on primary and secondary teachers in 25 countries. The report aims to inform policymaking and uses international benchmarks to monitor change.

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