With just three years to go until the deadline for the Education for All goals that were set in Dakar, Senegal, it is vitally urgent to ensure that the collective commitments made by 164 countries in 2000 are met. Lessons also need to be drawn to inform the definition of future international education goals and the design of mechanisms to make sure that all partners live up to their promises.

Unfortunately, this year’s EFA Global Monitoring Report shows that progress towards many of the targets is slowing down, and that most EFA goals are unlikely to be met. After remarkable progress in the initial years after Dakar, the global number of children out of school stagnated at 61 million in 2010, the latest year for which data are available. In 28 countries, fewer than 85 out of 100 children were in school in 2010, excluding a number of conflict-affected countries for which data are not available. It is clear that the target of universal primary education will be missed by a considerable margin.

Of particular concern is that the number of out-of-school children in sub-Saharan Africa – the region already furthest from achieving EFA – increased by 1.6 million between 2008 and 2010. Governments and their partners urgently need to increase their support to education in countries with large numbers of out-of-school children, paying particular attention to marginalized groups.

Despite the gloomy outlook overall, progress in some of the world’s poorest countries shows what can be achieved with the commitment of national governments and aid donors, including greater numbers of children attending pre-school, completing primary school and making the transition to secondary education. The goal closest to being achieved is gender parity.

A more detailed assessment of each of the EFA goals helps identify where efforts should be concentrated to make up for lost ground in the short time remaining until 2015:

- **Progress on early childhood care and education has been too slow.** The early years are critical for child development. As this Report shows, pre-primary education is the key to improving learning in subsequent years. Yet in many countries with low pre-primary enrolment, a large proportion of places are at private pre-schools that cost too much for those who need them most. Even in countries with higher enrolment, children in poorer areas are more likely to lack access or to have access only to pre-schools that are less well resourced. Policy-makers must act urgently to improve access to pre-school. Moreover, while progress on child health and nutrition appears to be speeding up, it is coming too late to achieve the Millennium Development Goals on child mortality and malnutrition.

- **Many children do not complete primary school.** To improve universal primary enrolment, governments must renew efforts to prevent dropout. Of 100 children out of school, 47 are never expected to enter school at all. While this is shocking, within a period of six years the share has come down from 61. However, the share of out-of-school children who have dropped out has increased from 9 out of 100 to 26 out of 100. Whether they live in low income or middle income countries, children from marginalized households are more likely to enter late and to drop out early. Despite the abolition of school fees in many countries, costs associated with schooling still prevent many children from attending school.

- **Adult literacy remains an elusive goal.** The world will miss the target of halving adult illiteracy between 1990 and 2015. Over 400 million of the global total of 775 million illiterate adults live in South and West Asia. The number of illiterate adults has risen over the period by 27% in sub-Saharan Africa. And around two-thirds of the world’s illiterate adults are women. Direct measurements of literacy skills reveal large percentages of illiterate adults even among those who have
completed primary education, and show that being literate is not a clear-cut matter of yes or no. In richer countries, this more nuanced picture has revealed that as many as one in five are likely to have very poor literacy skills.

- **Gender disparities take a variety of forms.** Global averages suggesting that gender parity in access to school has almost been attained can be deceptive. Many countries continue to struggle with ensuring that gender is not an obstacle to education. Despite progress in reducing severe disparity in access to primary school, there are still seventeen countries with fewer than nine girls for every ten boys in primary school. In secondary education, a majority of upper middle and high income countries experience disparity at the expense of boys. Regional and international assessments of learning outcomes show that across the world there is a large and increasing gender gap in reading, with boys, especially from poorer backgrounds, falling behind.

- **Global inequality in learning outcomes remains stark.** While inequality in access to school is of great concern, there is a greater gulf in learning between rich and poor. As many as 250 million children could be failing to read or write by the time they should reach grade 4. It is time to focus on improving data availability to have a better look at this estimate, and on ensuring that learning is more central to efforts to improve educational development. Many middle and high income countries have benefited from using the results of learning assessments as a basis to improve outcomes and reduce inequality. The world as a whole needs to do the same.

The Dakar Framework for Action included a commitment that no country should be left behind due to lack of resources. Increased spending on education has been a common ingredient of positive educational outcomes over the past ten years, with expanding education budgets in low income countries contributing to remarkable success. However, there are clouds on the horizon. Many of the countries furthest behind on the EFA goals have benefited from aid. Even if the economic downturn has not yet hit the education budgets of low and middle income countries as much as had been feared, it has hit the aid budgets of richer countries. Some have reacted by reducing the emphasis on education in their aid portfolio.

How will the widening financing gaps be filled? Aid from Brazil, China and India is expected to increase but is unlikely to be a strong complement to what is already available in the short term. Contributions from private foundations and corporations appear too small to make a significant difference and are not focused on the countries that most need support. The role of the Global Partnership for Education, as a coordinating mechanism channelling resources where they are likely to have the biggest impact, needs to be strengthened.

Governments need to continue prioritizing education and improving revenue collection. One option in countries endowed with natural resources is to use this revenue to invest in education as a way to overcome the ‘resource curse’. Not only must resource-rich countries ensure that they are getting a fair share of the profits generated, but they and their partners must also adhere to revenue transparency standards. The EFA community should get involved in national debates on the use of natural resource revenue to make the case for investment in education.
Chapter 1
The six EFA goals

A girl in grade 2 at St John Primary School in Honiara, Solomon Islands. Progress in reducing the number of children who are not enrolled in primary school has stalled since 2008.
It is ten years since the *EFA Global Monitoring Report* began following progress towards the international education goals. Over this time, many more children have had the opportunity to go to school. On current trends, however, the promise made in Dakar will be broken for millions of children, young people and adults unless governments act with greater urgency.

### Part I: Monitoring Progress Towards the EFA Goals

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<td>Universal primary education</td>
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<td>Policy focus: Reducing costs of primary school for the poorest</td>
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<td>Policy focus: Addressing the crisis in early grade teaching</td>
<td>130</td>
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</tbody>
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Goal 1
Early childhood care and education

Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.

Highlights

■ Early childhood care and education (ECCE) is improving, but from a low base in some regions.

■ The child mortality rate fell from 88 per 1,000 live births in 1990 to 60 in 2010, but current rates of decline are insufficient to achieve the target of 29 by 2015. In 2010, there were still 28 countries where the child mortality rate exceeded 100 per 1,000 live births.

■ It is projected that around one in four children globally will suffer from moderate or extreme stunting by 2015. In half of low income countries with data, the stunting rate was 40% or higher in 2010.

■ Despite a 46% increase in the number of children enrolled in pre-school between 1999 and 2010, less than half the world’s children receive pre-primary education. Progress has been slowest in low income countries, where only 15% of children received pre-primary education in 2010.

Table 1.1: Key indicators for goal 1

<table>
<thead>
<tr>
<th>Region</th>
<th>Care</th>
<th>Moderate and severe stunting (children under age 5)</th>
<th>Pre-primary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>74</td>
<td>60</td>
<td>29</td>
</tr>
<tr>
<td>Low income countries</td>
<td>138</td>
<td>111</td>
<td>40</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>87</td>
<td>70</td>
<td>29</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>31</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>High income countries</td>
<td>8</td>
<td>7</td>
<td>...</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>155</td>
<td>123</td>
<td>39</td>
</tr>
<tr>
<td>Arab States</td>
<td>54</td>
<td>41</td>
<td>21</td>
</tr>
<tr>
<td>Central Asia</td>
<td>57</td>
<td>46</td>
<td>19</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>33</td>
<td>25</td>
<td>...</td>
</tr>
<tr>
<td>South and West Asia</td>
<td>88</td>
<td>69</td>
<td>38</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>32</td>
<td>24</td>
<td>...</td>
</tr>
<tr>
<td>North America and Western Europe</td>
<td>7</td>
<td>6</td>
<td>...</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>22</td>
<td>16</td>
<td>...</td>
</tr>
</tbody>
</table>

Sources: Annex, Statistical Tables 3A and 3B (print) and Statistical Table 3A (website); UIS database.
Early childhood is widely recognized as the critical period in which to lay the foundations for success in education and beyond. Thus early childhood care and education should be at the centre of both the Education for All (EFA) and broader development agendas. National and international policy-makers are more convinced than ever that early childhood well-being is not only a right but also a cost-effective investment.

The health of young children continues to improve, a fact demonstrated by substantial progress in the reduction of child mortality. The global number of deaths of children under 5 declined from 12 million in 1990 to 9.6 million in 2000 and 7.6 million in 2010 (IGME, 2011). This translates to a drop in the child mortality rate from 88 deaths per 1,000 live births in 1990 to 73 in 2000 and 60 in 2010.

The annual rate of decline of the child mortality rate accelerated from 1.9% in 1990-2000 to 2.5% in 2000-2010 (UNICEF, 2012). But progress is insufficient to meet the fourth Millennium Development Goal (MDG) of reducing child mortality by two-thirds by 2015. The advance towards reducing child mortality rates has been slowest in South and West Asia and sub-Saharan Africa, the regions with the highest mortality rates. Recent estimates suggest that just over half the decline in child deaths can be attributed to increased education attainment in women of reproductive age (Gakidou et al., 2010).

Of the 28 countries where child mortality rates were above 100 per 1,000 live births in 2010, 25 were in sub-Saharan Africa (the other three being Afghanistan, Djibouti and Mauritania). Chad is the country with the highest child mortality rate, 195 deaths per 1,000 live births. Of the 65 countries with more than 40 child deaths per 1,000 live births, only 11 are expected to reach the MDG target (IGME, 2011). Children marginalized by poverty, rural location and other factors have benefited least from progress (UNICEF, 2010b).

Good nutrition in utero and in early childhood is crucial for children’s health, well-being, growth and survival. It is also required for cognitive development. Progress is being made on nutrition, but not fast enough, especially in the poorest countries and for the most marginalized children. While global rates of moderate and severe stunting were 29% in 2010, they remained high in low income countries and were over 50% in four of the countries with data: Burundi, Ethiopia, the Niger and Timor-Leste.

In many countries, there is large inequality between urban and rural areas. In Peru, for example, the stunting rate in rural areas in 2007/08 was almost triple that in urban areas. When there is a clear political commitment to increasing investment in a country’s youngest citizens, however, meeting young children’s right to adequate nutrition is possible [Panel 1.1].

Health and nutrition are of paramount importance for child development. In addition, equitable access to good quality pre-schools prepares young children for primary education, improves their prospects for learning and builds the foundations for positive social and economic outcomes in adulthood [goal 1, policy focus].

There has been significant progress across the world in extending access to pre-primary education since 1999, with the gross enrolment ratio increasing from 32% in 1999 to 48% in 2010. However, progress was larger in middle income countries than in low income countries, where only 15% of children attend pre-school. Globally more than half of young children remain excluded from pre-primary education.

Gender parity in pre-primary education has been met everywhere but the Arab States region, which has nonetheless made significant progress since 1999. But enrolment rates differ widely by location and wealth. Children in remote, underserved areas and children of poorer households have fewer opportunities to attend even though they are the ones who stand to benefit most from pre-school. In Nigeria, for example, the attendance rate among children of the richest quintile was seven times as high as that for children from the poorest quintile in 2007.

Greater levels of investment and better coordination among stakeholders are required if goal 1 is to be met. This edition of the EFA Global Monitoring Report introduces a new ECCE index that aims to capture the three main dimensions of child well-being encompassed by the early childhood care and education goal [Panel 1.2].
Early childhood nutrition is crucial for children’s health, well-being, growth and survival. Child malnutrition underlies more than half of all deaths among young children (Blössner and de Onis, 2005; Fishman et al., 2004). Insufficient food and poor quality food, with too few micronutrients, weaken children’s immune systems, making them more vulnerable to disease. Malnutrition also hinders cognitive development and the capacity to learn, limiting progress towards the Education for All goals.

According to the World Health Organization, stunting (low height for age) is the most appropriate measure of chronic child malnutrition (de Onis and Blössner, 1997). Globally, 171 million children under 5 were affected by moderate or severe stunting in 2010. On current trends, the number of children suffering from stunting will still be as high as 157 million in 2015, or around one in four children under the age of 5 (de Onis et al., 2012).

Progress in reducing stunting has not been even across the world. Improvements over the past two decades are apparent in all regions except sub-Saharan Africa, where, in the context of slow progress and rapid population growth, the number of stunted children increased from 38 million in 1990 to 55 million in 2010. The share of sub-Saharan Africa in the global population of stunted children therefore increased dramatically in this period, from 15% to 32%, and is projected to reach 42% by 2020 (de Onis et al., 2012). As of 2010, sixteen of the twenty-four countries where the stunting rate is 40% or higher were in sub-Saharan Africa.

Moreover, looking at twenty-two countries with data from around 1990, progress has not been the same even within regions over the course of these two decades (Figure 1.1). For example, in the Arab States, the stunting rate in Mauritania fell from 55% to 23%, while it increased in Djibouti from 28% to 33%. In sub-Saharan Africa, the stunting rate in Nigeria fell from 51% to 41%, while it remained stagnant in Cameroon at 36%.

**Figure 1.1: There has been considerable progress in reducing stunting, but it has been uneven**
Moderate or severe stunting rate, selected countries, from about 1990 to 2005–2010

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>India</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>Mauritania</td>
<td>55%</td>
<td>32%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>51%</td>
<td>36%</td>
</tr>
<tr>
<td>U. R. Tanzania</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>Honduras</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Mexico</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>Haiti</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Peru</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>China</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Oman</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Civilian Rep.</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Jordan</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Brazil</td>
<td>20%</td>
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<tr>
<td>Jamaica</td>
<td>20%</td>
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<tr>
<td>Sierra Leone</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>Cameroon</td>
<td>20%</td>
<td>10%</td>
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<tr>
<td>Egypt</td>
<td>20%</td>
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<tr>
<td>Solomon’s Is.</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Djibouti</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Venezuela R.</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Note: A child is moderately or severely stunted if its height for age is less than two standard deviations from the median of the reference population.*

*Source: WHO (2012).*
Good nutrition is not just about whether a country produces enough food. It is also about whether children are healthy enough to benefit from the food they receive. This status depends on good water and sanitation, access to clinics, and good health and nutrition practices at home. As a result, rural areas have higher stunting rates even though they are food producing.

An analysis of thirty-six countries found that rural areas had lower access to public services and, crucially, lower levels of maternal education, which is correlated with health-seeking and care-giving practices (Smith et al., 2005). In more than two-fifths of the eighty-eight countries with data available for 2005–2010, the difference in stunting rates between rural and urban children was more than ten percentage points (Figure 1.2). In several countries, such as the Democratic People’s Republic of Korea, Honduras and Papua New Guinea, the rural-urban gap in stunting rates exceeds twenty percentage points.

Malnutrition is deeply rooted in poverty and deprivation. The poor cannot purchase food even when it is available in local markets. In most countries, malnutrition differences between the richest and the poorest exceed those between urban and rural inhabitants (Figure 1.3). For example, in Nepal, the stunting rate was 26% among the richest children and 56% among the poorest compared with corresponding rates of 27% in urban and 42% in rural areas.

The poor are also vulnerable to price hikes, whether temporary or permanent, seasonal or unexpected. The substantial increase in staple food prices between 2007 and 2008 was correlated with an 8% increase in undernutrition in sub-Saharan Africa (FAO, 2011). In the Horn of Africa, as of December 2011, it was estimated that about 850,000 children under 5 and 120,000 pregnant and lactating women were suffering from acute malnutrition in Kenya and Somalia alone because of the combined impact of drought-induced crop failure, conflict and displacement.
and the earlier food price rise (OCHA, 2011a, 2011b). The governments of Burkina Faso, Mauritania and the Niger have declared 2012 a crisis year. In the Niger, acute malnutrition affects 12% of children aged 6 to 59 months (IASC, 2012).

Success in tackling child malnutrition varies widely among regions and countries. There are notable differences in progress between three of the five most populous countries, Brazil, India and China, which have all achieved impressive levels of economic growth in the past decade. Stunting rates in India have remained persistently high because of poor maternal nutrition, low birth weight, high levels of poverty and low levels of maternal education (Svedberg, 2009). Many Indians still struggle to meet their most basic needs, including access to sufficient food and health care. The fact that almost half of children under 5 are malnourished is a “national shame”, Prime Minister Manmohan Singh has said. Yet the main policy tool for tackling malnutrition, the network of Anganwadi centres, which cater for children under 6, pregnant women and lactating mothers, is not fulfilling its potential. A survey of more than 74,000 mothers found that only 19% of them reported receiving nutrition counselling (Naandi Foundation, 2011).

By contrast, in Brazil and China, child malnutrition began declining dramatically around the mid-1990s, which led to the elimination of the urban-rural gap in Brazil and its reduction by more than two-thirds in China (Figure 1.4A). In Brazil, the expansion of primary schooling (leading to improved maternal education), maternal and child health services, and — to a lesser extent — the improvement of water supply and sanitation systems are considered the main determinants of...
this impressive outcome, alongside equitable growth (Monteiro et al., 2009; Victora et al., 2011).

Mexico has emulated Brazil’s success. The gap between urban and rural areas halved between 1998/99 and 2006, at least in part because of the Progresa programme and its successor, Oportunidades. As well as a cash transfer, the programmes provided food fortified with micronutrients to children aged 6 months to 23 months, to underweight children aged 2 to 4 and to pregnant and lactating women (Rivera et al., 2009).

In some other Latin American countries, however, rates of malnutrition are higher than expected for their income level, and inequality rates in malnutrition are among the world’s highest. The very limited progress in the last two decades in the Plurinational State of Bolivia, Guatemala and Peru has mainly benefited children in urban areas (Figure 1.4B). In Peru, early evaluations of the national conditional cash transfer programme, Juntos, did not show any effect on malnutrition (Perova and Vakis, 2009). More recently, the government aligned Juntos with Crecer, the national nutrition strategy, by making the cash transfer conditional on regular monitoring of children’s growth (Acosta, 2011).

Fighting childhood malnutrition requires tackling poverty and building equitable access to health care, both of which require a clear political commitment to increase expenditure. Attention should be focused on interventions for pregnant women and children under 3, as it is difficult to reverse stunting after that age (Bhutta et al., 2008).

---

**Figure 1.4: Country experiences in tackling malnutrition in rural areas vary enormously**

Moderate or severe stunting rate by location, selected countries, from about 1990 to 2010

**A. India, China and Brazil**

- India (1992/93, 1998/99, 2005/06)
- China (1990, 2000, 2010)
- Brazil (1998, 1999, 2006/07)

**B. Guatemala, Peru, the Plurinational State of Bolivia and Mexico**


*Note:* In India, the rate is calculated for the 0–4 age group in the 1992/93 survey and the 0–3 age group in the 1998/99 survey. As a result, the stunting rate is underestimated in those years. *Source: WHO (2012).*
Panel 1.2: The ECCE index, a new instrument for monitoring goal 1

Each of the three key dimensions of early childhood development – child health, nutrition and education – is often considered as a separate goal. They are interrelated in many ways, however, so to understand progress towards goal 1 it is vital to pay attention to all of them simultaneously. This panel proposes a simple index that provides benchmarks to enable countries’ performance to be measured.1

The ECCE index summarizes the results of early childhood development policies on:

- health, measured by the percentage of children who will survive beyond their fifth birthday; this ranges, among countries with a full set of data, from a low of 82% in Guinea-Bissau to a high of 99% in Chile;
- nutrition, measured by the percentage of children under 5 who do not suffer from moderate or severe stunting, which ranges from 45% in the Niger to 98% in Chile;
- education, measured by the percentage of children aged 3 to 7 who are enrolled either in pre-primary or in primary school, which ranges from 20% in Ethiopia to 95% in Belarus.2

The value of the ECCE index is the mean of these three indicators.3 Since each indicator is expressed in percentages, the value ranges from 0 to 1. Only 68 out of 205 countries had a full set of information on all these indicators in 2010 (or the most recent year for which data are available). The lack of data on stunting for most high income countries accounts largely for the gaps (Table 1.2). While this prevents a broader assessment of progress, it nevertheless provides useful insights into the global state of early childhood development.

It is clear that most countries are far from assuring the minimum conditions for the youngest children. Of the sixty-eight countries, only Belarus achieved a score over 0.95. The twenty-five countries with an index score between 0.80 and 0.95, viewed as achieving a middle ranking, are mostly middle income countries in Central Asia, Central and Eastern Europe, and Latin America and the Caribbean. Many have good health and nutrition indicators but have made limited progress in early childhood education. Among countries in this group, enrolment ratios are below 60% in Brazil, the Dominican Republic and The former Yugoslav Republic of Macedonia. The remaining forty-two countries, with an index score below 0.80, are mostly low and lower middle income countries, and a majority are in sub-Saharan Africa.

There is also uneven development across the three dimensions, as a comparison of the country rank for each of the three component indicators shows (Figure 1.5). Some countries score almost equally well (such as Belarus and Chile) or equally poorly (such as the Niger) on all three. Others have a very high or very low score

Figure 1.5: Progress towards early childhood goals varies widely across key dimensions

Country rank, ECCE index and its three components, selected countries, 2010

Note: The ECCE index country rank is indicated next to the country name. Source: EFA Global Monitoring Report team calculations (2012).

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1. Among attempts to develop indices of early childhood development, a notable example is the Child Development Index (Save the Children, 2008) and the child component of the Mothers’ Index (Save the Children, 2012). UNESCO is developing a Holistic Early Childhood Development Index, which was proposed at the World Conference on ECCE in September 2010. This process has been informed by the publication of five background papers, which reviewed the relevance and availability of indicators in the fields of care, education and child development; policy and planning; social protection; legal protection; and health and nutrition (UNESCO, 2012a).

2. The age-specific enrolment ratio is used instead of the pre-primary or primary net enrolment ratio to be consistent with the common definition of early childhood as the period from birth until at least the age of primary school entry.

3. Using different weighting for the three indicators does not significantly change the ranking of countries. Additional information on the ECCE index is available on this Report’s website.
for one dimension relative to their overall standing in the index scale, which reveals specific challenges.

For example, Jamaica and the Philippines both have a child mortality rate of 3% but are ranked at opposite ends of the overall ECCE index because of their nutrition and education records. Almost one in three children in the Philippines suffer from moderate or extreme stunting, compared with only one in twenty-seven in Jamaica. Only 38% of children aged 3 to 7 were enrolled in a pre-primary or primary school programme in the Philippines, compared with 89% in Jamaica.

Despite great differences in child health and nutrition indicators between Bosnia and Herzegovina and Cameroon, related to the large difference in living standards, only 45% of 3- to 7-year-olds were enrolled in some form of education in Bosnia and Herzegovina, compared with 60% in Cameroon.

Although the poorest countries are also the ones with the lowest values on the ECCE index, the relationship between income and early childhood development outcomes weakens among middle income countries. For example, Botswana had an annual per capita income of US$13,700 (in purchasing power parity terms) in 2010, yet was ranked just above two countries with less than a fifth of its per capita income — the Lao People’s Democratic Republic (which had a higher enrolment ratio) and Senegal (which had a lower stunting rate).

The ECCE index highlights the need for all countries, regardless of income, to invest in integrated approaches that give equal importance to all aspects of early childhood development.

Table 1.2: The ECCE index and its components, 2010

<table>
<thead>
<tr>
<th>Rank</th>
<th>Countries</th>
<th>ECCE index</th>
<th>Under 5 survival rate</th>
<th>Children under 5 not suffering from moderate or severe stunting</th>
<th>Age-specific enrolment ratio of children aged 3 to 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>High ECCE index (0.95–1.00)</td>
<td></td>
<td></td>
<td></td>
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### Table 1.2: The ECCE index and its components, 2010 (continued)

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<th>Rank</th>
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<th>Under 5 survival rate</th>
<th>Children under 5 not suffering from moderate or severe stunting</th>
<th>Age-specific enrolment ratio of children aged 3 to 7</th>
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Note: The age-specific enrolment ratio of children aged 3 to 7 years measures the proportion of children in the corresponding age group who are enrolled in either pre-primary or primary school.

Sources: EFA Global Monitoring Report team calculations (2012); Annex, Statistical Table 3A; UIS database.
Good quality pre-school programmes are vital to prepare young children for primary school. As the goal of universal primary education moves closer, concern has been rising over whether schoolchildren are actually acquiring the basic knowledge and skills that primary schools are meant to impart. This has focused attention not only on the quality of primary education but also on whether young children are being adequately prepared to benefit from primary school.

This section shows that, as part of a comprehensive package of early childhood care and education interventions, equitable access to good quality pre-school programmes markedly improves young children’s readiness to succeed in school. This can have particular advantages for those who are marginalized due to poverty or other factors.

Yet participation in pre-school remains low in many countries, especially among children who need it most, and quality remains a concern. Action is needed to expand access to good quality pre-school programmes, particularly for the disadvantaged, and to better coordinate pre-school education with early childhood care and with primary school.

Policy focus: Preparing children for school by expanding pre-primary education

Pre-primary education plays a key role in preparing children for school and beyond

Young children are ready to learn, but their early experiences are crucial in facilitating their learning. Attending a good quality pre-school can lay the foundations for learning and help children make a smooth transition to primary school. Extending access to the poorest and most vulnerable children can boost their education and livelihood opportunities later in life.

The more time children spend in pre-school, the better their performance in school. Recent evidence based on the 2009 survey in the Programme for International Student Assessment (PISA) shows that in fifty-eight of sixty-five countries, 15-year-old students who had attended at least a year of pre-primary school outperformed students who had not, even after accounting for socio-economic background. In countries including Australia, Brazil and Germany, the average benefit after controlling for socio-economic background was equivalent to one year of schooling (Figure 1.6).

Overall, PISA results suggest that the school systems that combine high performance and equitable learning opportunities for all students are also those that offer pre-primary education to a larger proportion of pupils, have smaller pupil/teacher ratios in pre-primary school, invest more per child at the pre-primary level and, especially, provide longer periods of pre-primary education (OECD, 2011b).

Long-term studies from high income countries show that pre-school contributes to school readiness and later academic achievement
through the development of non-cognitive skills, such as attention, effort, initiative and behaviour, as well as cognitive skills in reading and mathematics (Duncan et al., 2007; Reynolds et al., 2010; Romano et al., 2010). An evaluation of Head Start, the publicly funded national early childhood programme in the United States that focuses on poor children, has shown that it had significant positive long-term effects. For example, those who had participated in the programme were 9% more likely to have graduated from secondary school and 7% less likely not to be in school and to be reporting zero wages in their early twenties (Deming, 2009).

There is now a growing body of evaluations from developing countries highlighting the benefits of pre-schooling (Box 1.1).

The short- to medium-term effects of pre-school attendance on cognitive and non-cognitive skills and school performance provide the foundation for the basic skills that young people require to do well in schooling. It also leads to higher earnings and better employment outcomes in adulthood. The Early Enrichment Project in Turkey in the 1980s — which included a pre-schooling intervention — targeted children of low-income families whose mothers had little education. Two decades later, participants were found to have better educational attainment and occupational status than those who had not participated (Kagitcibasi et al., 2009).

Higher pre-primary enrolment is expected to increase primary school enrolment in poor countries. A recent simulation of potential

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**Box 1.1: Pre-schooling has striking benefits for school performance**

Studies in developing countries on the benefits of pre-school vary in scope, but paint a similar picture overall, demonstrating positive effects on subsequent school performance. Participation is found to be particularly beneficial for those from poor and disadvantaged backgrounds.

The benefits of pre-school for non-cognitive skills are demonstrated by a study in Argentina. As well as having higher test scores, third graders who had one year of public pre-primary school in an urban area showed improved attention, effort, class participation and discipline. In rural Gansu, Shaanxi and Henan, China, 4- and 5-year-olds who had attended pre-primary education scored 20% higher on a school readiness scale, which included non-cognitive skills such as independence and motor skills, than those who had not.

Studies from many countries, including Chile, India and Madagascar, show the contribution of pre-school to cognitive abilities. In Chile, children entering primary school who had enrolled in public pre-schools or child care centres had higher cognitive skill scores. In rural Maharashtra, India, a project that improved the pre-school component of the Integrated Child Development Services had significant positive effects on the developmental and cognitive outcomes of 4- to 6-year-olds. In Madagascar, primary school children who had attended pre-school showed a 2.7 month benefit in terms of cognitive development and a 1.6 month benefit in terms of language.

Pre-school attendance can be particularly beneficial in addressing disadvantage. In a study in Argentina, the effect of having attended pre-school on third grade test scores was twice as large for students from poor backgrounds as for students from non-poor backgrounds. A rare evaluation in a low income country found that children who had attended pre-school in rural Mozambique scored, on average, 12.1 percentage points above the other students on a cognitive development test in the first grade of primary school, including classifying objects and counting to twenty.

Fourth grade primary school children in Brazil who had attended day care and/or kindergarten scored higher in mathematics. In rural Bangladesh, a project run by local non-governmental organizations (NGOs) set up 1,800 pre-schools and provided them with better materials. Participating children performed better in speaking, reading, writing and mathematics by the second grade of primary school than those who did not attend pre-school.

In rural Guizhou, China, first-grade children who had attended kindergarten had literacy and mathematics scores significantly better than other children.

Attending pre-school also tends to increase the years of education that children eventually attain. In Uruguay, 15-year-olds who had attended a public or private pre-school accumulated 0.8 years more education, were 27% more likely to still be in school and were less likely to repeat a grade than siblings who had not attended. In Mozambique, attending pre-school increased the probability of enrolling in primary school by 24%.

Sources: Aboud and Hossain (2011); Ade et al. (2010); Berlinski et al. (2008); Berlinski et al. (2009); Luo et al. (2011); Martinez et al. (2012); Mingat and Seurat (2011); Rao et al. (2012); Rodrigues et al. (2011); Urzúa and Veramendi (2011).
long-term economic effects in seventy-three low and middle income countries showed potentially high benefits. For example, it was estimated that raising the pre-primary gross enrolment ratio to 25% in countries such as Ethiopia and Yemen would lead to increased school attendance. Those who increase their school attendance can later be expected to increase their income by an amount around six times as high as the per capita cost of providing access to pre-school (Engle et al., 2011).

Participation in pre-primary education is low and inequitable

The number of children enrolled in pre-school has increased substantially over the past decade. Despite this increase, participation in pre-school remains extremely low in many countries, with children from poor households least likely to attend.

Between 1999 and 2010, the number of children enrolled in pre-school worldwide rose by 46% to a total of 164 million. The pre-primary gross enrolment ratio increased from 32% in 1999 to a still-low 48% in 2010. In low income countries, however, the pre-primary gross enrolment ratio increased from 11% in 1999 to only 15% in 2010.

On average, national education systems allow for 2.9 years of pre-primary education. But in practice, children can expect to attend pre-school for less than half that long. The gap between intentions and outcomes is widest in low income countries, particularly in the Arab States, Central Asia and sub-Saharan Africa (Figure 1.7).

Pre-primary gross enrolment ratios vary widely between and within regions. The lowest levels are in sub-Saharan Africa (17%) and the Arab States (22%). The gap between these regions

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4. Comparisons among countries and over time are hindered by differences in pre-school and primary school start age; differences in the way that pre-school relates to day care and primary school, including whether kindergarten is considered part of primary; and the large numbers of private providers, often under-reported, in many countries.
and the rest of the world widened during the last decade as these two regions also recorded the slowest progress of all regions except North America and Western Europe, where enrolment is already high.

Some countries with low enrolment have made very slow progress or even worsened. In the Niger and the Syrian Arab Republic, enrolment has stagnated at a very low level, below the regional average. Of the 150 countries that reported data for both the beginning of the period (1999–2001) and the end (2008–2011), seventeen countries recorded a lower gross enrolment ratio in the more recent year, including Bangladesh, where enrolment was already very low (Figure 1.8).

All regions except the Arab States have achieved gender parity in pre-primary enrolment, and even this region has made large improvements since 1999. Even so, of the 162 countries with data, 69 had not reached gender parity in 2010. In about 60% of these countries, girls were more likely to be enrolled.

Patterns of disadvantage vary among countries. A child in Bangladesh has very little chance of attending pre-school: whether urban or rural, rich or poor, male or female, only around one in six attend. By contrast, 61% of 3- to 4-year-olds attend pre-school in Thailand, although there is a distinct wealth bias, with 74% of children from rich households enrolled compared with 54% of poor children. In Nigeria, disparities...
Where children live, and their family’s wealth, affect pre-school attendance

Where children live can determine their chances of attending pre-school, as well as the quality of the service. In China, urban children are more likely than rural children to attend two or three years of kindergarten before entering primary school. If rural children have access at all, they are more likely to attend for just one year. Moreover, the pre-school pupil/teacher ratio is 10:1 in cities and 19:1 in towns, but 34:1 in rural areas (World Bank, 2011).

Other factors that lead to disadvantage can also make it less likely that a child enters pre-school, including belonging to a minority ethnic group, speaking a language other than that used in school and having a less educated mother (Nonoyama-Tarumi and Ota, 2010; Woodhead, 2009). Yet such marginalized children may be the ones who would benefit most from early education opportunities, as they are least likely to receive adequate support at home.

One reason children from urban areas and wealthier households are more likely to participate in pre-primary education is that they have greater access to private pre-schools some of which charge fees. In many countries and regions a large proportion of pre-schools are private. Globally, the average share of enrolment in private pre-school is 33% — and this may well be an underestimate, as data from private providers are not collected systematically in many countries. In the Arab States it is 76%.

A large share of pre-school enrolment in many low and lower middle income countries is in private institutions. For example, in Ethiopia, where the gross enrolment ratio was only 5% in 2010, the share of private provision was 95%. In the Syrian Arab Republic, with a gross

Figure 1.9: Participation in pre-primary education varies significantly within countries

Pre-school attendance rate of children aged 36 to 59 months, by wealth, location and gender

Notes: The official age for pre-primary education is 3 to 5 in the three countries. In Nigeria, the poorest 40% are shown for urban areas.
enrolment ratio of 10%, the share of private provision was 72%. This indicates demand that is not met by the public sector.

Given that overall enrolment remains low, with gross enrolment ratios below 20% in thirty-two countries (including twenty-one in sub-Saharan Africa), could expansion occur through the private sector? It seems unlikely. Private pre-schools are often priced out of reach of the poorest households, whose children are those least likely to be enrolled.

In India’s Andhra Pradesh state, for example, pre-school enrolment in rural areas is highest among the richest 20% of households, where almost one-third of children attend private institutions. Almost all children in pre-school from the poorest households attend government providers. There are also marked differences in urban areas, with almost all children from rich households attending private pre-schools, compared with around one-third among the poorest households [Streuli et al., 2011]. Girls are more likely to be enrolled in government pre-schools. Where private provision is of better quality, this could further reinforce inequality between the rich and poor and between boys and girls.

One survey in rural China found that costs of private pre-school were prohibitive for poor households. Only 44% of sampled children aged 4 to 6 were attending pre-school or kindergarten. While primary schools are free, pre-schools and kindergartens are predominantly private and charge fees. The average yearly tuition fee is US$50, and yearly fees for in-school lunches are even higher, around US$55 (Luo et al., 2011). Comparing the total of US$105 with the average per capita income of US$130 for Chinese families at the poverty line, it is clear that poor rural families cannot afford these costs.

**Action is needed to increase equitable access to good quality pre-school**

Increasing equitable access to pre-school programmes of good quality can play a significant role in supporting children’s success in primary school and help them overcome early disadvantage. Reforms are needed to ensure that all children reap the benefits of pre-school, including expanding facilities and making sure they are affordable, coordinating pre-school activities with wider early childhood interventions and identifying appropriate ways to link pre-schools with primary schools.

**Make pre-primary education compulsory**

Legislation that makes pre-school compulsory can increase enrolment if it is complemented with measures that expand supply. Pre-primary education is compulsory in very few countries. The 2007 *EFA Global Monitoring Report* counted thirty countries with some form of compulsory pre-primary education [UNESCO, 2006]. Since then, available evidence suggests that only five more countries have taken this step [UNESCO-IBE, 2011].

Complementing legislation with other reforms to support expansion has had positive results. Compulsory pre-school was introduced in Mexico in 2001 for children aged 3 to 5 (Vegas and Santibáñez, 2010), and the gross enrolment ratio expanded from 73% in 1999 to 101% in 2010. This growth was accomplished by increasing the numbers of classrooms and teachers. Ghana, the first sub-Saharan African country with compulsory pre-primary education, passed legislation in 2007/08 to include two years of kindergarten in compulsory basic education starting from age 4. Capitation grants were extended from primary school to kindergartens and teacher training programmes expanded [UNESCO, 2011c]. The gross enrolment ratio, which was 31% in 1999, had reached 69% by 2009.

Other countries making moves towards compulsory pre-school include the Philippines, where implementation will begin in the 2012/13 school year (Philippines Presidential Communications Operations Office, 2012), and South Africa, which intends to make grade R (reception) for 5-year-olds compulsory by 2014 (Biersteker, 2010). In India, the government is considering whether to extend the Right to Education Act, which currently covers classes one to eight, to include pre-school for children aged 4 to 6. The logistical and financial

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5. The five are Bosnia and Herzegovina, Ecuador, Ghana, Guatemala and Nicaragua [UNESCO-IBE, 2011].
implications are significant, involving hiring 1 million trained pre-school teachers to serve 40 million children (Goswami, 2011).

Legislation making pre-school compulsory, however, is rarely enforced. In the thirteen Latin American countries with compulsory pre-primary education, the average gross enrolment ratio in 2008–10 was 71%; only in Ecuador, Mexico and Uruguay did it surpass 80%. And it was below 50% in Colombia, the Dominican Republic and Honduras.

While making pre-school compulsory gives a strong political signal that it is valued, and can provide the impetus to expand infrastructure and invest in teachers, widely accessible pre-school can emerge without legislation. Few high income countries have compulsory pre-primary education, yet more children from these countries are expected to enrol in pre-school and to stay longer. In France, 99% of 3- to 5-year-olds attended pre-primary school in 2010, even though pre-primary education is not compulsory.

Link pre-primary and primary education

A common way to expand pre-primary education is to attach pre-school classrooms to existing primary schools. The Gambia is attaching early childhood development centres to primary schools in deprived communities (UNESCO, 2010a). In Armenia, primary school classrooms have been converted into pre-school playroom-classrooms in rural areas (Armenia Government, 2008). According to Bangladesh’s national education strategy, one teacher in each government primary school will be recruited to teach a new pre-primary class (Bangladesh Ministry of Education, 2010).

This approach has clear advantages. There is potential for more efficient use of existing facilities, including classrooms, and of administrative support. It can also foster continuity for schoolchildren and make it possible for older siblings to take young children to pre-school.

Where pre-schools and primary schools use the same facilities, however, there is a danger that pre-school children will be taught using primary school approaches for which they are not developmentally ready, in terms of pupil/teacher ratios, classroom organization, curriculum and teaching methods – a phenomenon described as ‘schoolification’ (Kaga et al., 2010).

Private pre-schools in India have been seen largely as a downward extension of the primary education curriculum. This tendency also imposes academic pressure on children from an early age (Streuli et al., 2011). In Kenya, while 70% of public primary schools have a pre-primary class, their teachers are only trained in primary school methods (Biersteker et al., 2008). A more appropriate approach is being adopted in South Africa, where the plan is for most reception classes to be based in primary schools, but financed and staffed differently (Biersteker, 2010).

Pre-school needs to be made affordable for the poor

Pre-schooling accounts for less than 10% of the education budget in most countries, and its share tends to be particularly low in poor countries. Nepal and the Niger spend under 0.1% of gross national product (GNP) on pre-school, and Madagascar and Senegal less than 0.02%. One consequence is that the cost of pre-school is transferred to households, making it less likely that poor children will attend, even though they are the ones who stand to gain the most.

Governments need to ensure that pre-school is affordable for poor families, either by providing more public pre-school places or through conditional cash transfers. Where pre-schools are provided by non-state bodies, governments need to play a strong regulatory role to assure quality.

In Hong Kong, pre-schools are private but access is almost universal. In 2007, the government introduced a voucher programme, which covers about half the tuition costs for half-day kindergarten programmes, with families continuing to pay the balance. The voucher can be spent at the school of the parent’s choice as long as it is non-profit (about 80% of pre-schools in Hong Kong). The programme is designed to enhance access and affordability, while improving quality. Three-quarters of parents have reported that the vouchers have helped reduce their
financial burden. A proportion of the funding is earmarked for upgrading school staff qualifications. Schools have to pass inspections and publish information to help parents choose (Li et al., 2010; Rao and Li, 2009). But principals and teachers have found it difficult to administer the programme. Such difficulties are likely to be even more pronounced in poorer countries, which would need to overcome considerable administrative constraints to ensure that access to pre-school is increased among poor households.

**Short pre-school programmes can help smooth the transition to primary school**

As an interim measure to a full public pre-school service, there have been experiments with shorter programmes. In Cambodia, not attending pre-school has been linked to high repetition rates in grade 1 of primary school. To overcome this problem, a special programme in the first two months of primary school uses a modified curriculum to focus on skills that children need to succeed in school, such as basic language skills; the concepts of number, time and space; and working in groups (Kagan et al., 2010). An evaluation showed that the listening and speaking skills of children who took part in the programme were significantly higher by the end of the school year (Nonoyama-Tarumi and Bredenberg, 2009).

A similar programme is being introduced in Malawi to help children make the transition from home and from community-based child care centres to primary school (Kholowa, 2011). In China and Mongolia, mobile ‘ger kindergartens’ (each housed in a ger, a traditional felt tent) enrol children from pastoralist families for three or four weeks before moving on to the next site (Whitman, 2011).

Another approach is for older schoolchildren to help young children make the transition to primary school. UNICEF has adopted a child-to-child approach within its Getting Ready for School programme, which has been piloted in Bangladesh, China, the Democratic Republic of the Congo, Ethiopia, Tajikistan and Yemen. With far fewer hours of direct support than most formal pre-school programmes, this lower cost intervention had a positive impact on children’s school readiness in all countries and on literacy and mathematics in four of the six countries (UNICEF, 2010a).

**Attention to improving quality is needed**

Pre-school models that effectively prepare children for success in primary school develop literacy and mathematics skills through play, child-generated projects, collaborative activities and everyday experiences. Such characteristics require classes small enough for frequent interaction with teachers, as well as teacher training appropriate to young children’s level of development.

For the seventy-four countries reporting the percentage of trained pre-primary teachers, data from the UNESCO Institute of Statistics (UIS) indicate that more than two in three teachers are trained. The quality of training, and of pre-schools more broadly, however, is often very low. In poor areas of rural China, one teacher is responsible for twenty-nine 4- to 6-year-olds, on average — far higher than the government requirement of seven children per teacher. And only 27% of these teachers had training in early childhood pedagogy (Luo et al., 2011).

In the United Republic of Tanzania, although national educational policy specifies the same standards for pre-primary education regardless of location, there are also considerable differences between urban and rural schools. Rural classes have less space, larger group sizes, fewer instructional resources and less qualified teachers (Mtahabwa and Rao, 2010). In Peru, the two main publicly funded pre-school programmes are highly differentiated, with disadvantaged children attending pre-schools of poorer quality (Box 1.2).

National programmes can help increase the quality of pre-schools. Maldives’ inclusion of a comprehensive early childhood care and development programme in national development and education sector plans has helped strengthen access (Rao and Sun, 2010). Despite challenges associated with the country’s island geography and post-tsunami reconstruction, the pre-primary gross enrolment ratio rose from 56% in 1999 to 114% in 2011. Teachers and parents have noted that teacher training, parent education and play-based, child-friendly teaching have
Increased pre-schoolers' confidence, sociability and engagement in learning (McBride, 2005; UNICEF, n.d.). Innovative programmes have been found to be particularly successful, even at relatively low cost. In Kenya, Uganda and Zanzibar (the United Republic of Tanzania), Madrasa Resource Centre pre-schools, developed by the Aga Khan Foundation, provide training and support that help staff use locally available, low cost materials for children to select, explore and experiment with. Staff are also trained to use appropriate language to stimulate children's curiosity in a sensitive and supportive way. After one year of pre-school, participating children were found to have better school readiness outcomes, with higher verbal, non-verbal and numeric cognitive skills, than those who attended public, community or other NGO-run pre-schools (Malmberg et al., 2011). In addition to the minimum eight years of schooling plus one year of teacher training required for pre-school teachers in each country, the Madrasa Resource Centre teachers received six months of early childhood development training, plus professional development and support after graduation.

While it makes good sense to prepare children for school, primary schools must also be ready for young children. Without trained and motivated teachers employing good quality, developmentally appropriate methods and materials in a safe, non-violent and inclusive environment, the chances of a smooth transition to and success in primary school are radically reduced, particularly for children with few learning opportunities outside school (Arnold et al., 2006).

**Box 1.2: Variations in pre-school in Peru widen inequality**

Pre-schooling has expanded over the past decade in Peru. The gross enrolment ratio reached 79% in 2010, above average for the region, with gender parity achieved. The expansion has benefited children from disadvantaged backgrounds as well as the more privileged, but there are distinct differences in quality depending on where children live. Given the importance of pre-schooling in preparing young children for learning in school, this disparity is likely to lead to a widening of inequality as they get older.

There are two main kinds of publicly funded pre-school in Peru. The Centros de Educación Inicial (CEIs) are formal early education centres for children aged 3 to 5. They tend to serve richer urban communities, have a qualified teacher paid by the Ministry of Education and follow a standard pre-school curriculum. The Programa No Escolarizada de Educación Inicial (PRONEIs) are non-formal, community-based programmes that enable the government to expand coverage and enrolment at lower cost, since the community provides the building and furniture, and the volunteer ‘facilitators’ receive minimal training and earn about one-third as much as CEI teachers. PRONEIs usually serve children in socially and economically marginal areas, including rural areas, informal settlements and shanty towns. Limited funding for PRONEIs has been linked to low attendance and high dropout.

The differences between CEIs and PRONEIs translate into different outcomes for children as they enter school. While attending either programme boosts writing and mathematics achievement, CEIs have a greater impact. For example, 8-year-olds who had attended a CEI for three years were about 11% more likely to attend school at the correct age, 20% more likely to spell correctly and 24% more likely to do a simple calculation than children who had not. Those who had attended a PRONEI for three years were more likely to perform well on the spelling task only, and even then by just 12%.

While community involvement in pre-schooling brings advantages, such outcomes draw attention to the need to ensure that government support is targeted at those who need it most.

Sources: Beltrán and Seinfeld (2010); Diaz (2006); Woodhead et al. (2009)
Goal 1: Early childhood care and education

Developing countries has shown that those that combined care with education boosted cognitive abilities the most (Nores and Barnett, 2010). However, early childhood care (including maternal and child health and nutrition for pregnant women and young children) and pre-school education have traditionally developed as separate systems, with separate policies, programmes and administrative responsibility. Split systems tend to lead to differences in funding, access, regulation and workforce, and a lack of coordination between care and education.

Countries have tackled these challenges either through interministerial mechanisms or by integrating early childhood programmes under a single ministry, such as education or social welfare. Integrating care and education under one organization can be particularly beneficial in promoting a coherent overall policy, administrative and funding framework (Kaga et al., 2010).

In Chile, presidential commitment to early childhood well-being led to the introduction of a programme called Chile Crece Contigo (Chile is Growing with You). The programme has been coordinated by the Ministry of Planning and implemented by lower tier government. A network of professionals supports low income families: health institutions monitor mothers and children to identify risk factors that call for referral to specific services, educational institutions assure access to crèches and nurseries, and municipalities support access to other social services and conditional cash transfers. A public awareness strategy increased the visibility of the system and recognition that everybody has a right to early childhood care and education. Effective integration has been aided by a unified information system that supports marginalized children across social sectors (Delpiano and Vega, 2011). The programme has been supported by the expansion of childcare provision. Between 2005 and 2007 the two main public providers of child care centres more than doubled their enrolment, from 15,000 to 33,000 (Noboa-Hidalgo and Urzúa, 2012).

**Conclusion**

As part of a comprehensive package of early childhood care and education, equitable access to good quality pre-schooling plays a vital role in improving young children’s readiness to succeed in school. Pre-school education that helps smooth the transition to primary school must be affordable and of good quality. Even in poorer countries, political commitment and adequate funding can extend access to greater numbers of children. To reduce inequality, governments need to pay particular attention to children from poor households who already face disadvantages — and who stand to benefit most.
Goal 2
Universal primary education

Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality.

Highlights

- On current trends the target of universal primary education will be missed. The number of out-of-school children of primary school age fell from 108 million in 1999 to 61 million in 2010.
- The rate of decline was rapid between 1999 and 2004, but then started slowing, and progress has stalled since 2008. Sub-Saharan Africa, where the number of children out of school increased by 1.6 million between 2008 and 2010, accounts for half of the world’s total.
- The number of countries with a primary net enrolment ratio of over 97% increased from 37 to 55 out of 124 countries between 1999 and 2010. Just five years before 2015, twenty-nine countries have a net enrolment ratio of less than 85%, and so are very unlikely to achieve the goal by the deadline.
- Children of official school starting age who did not enter school by 2010 will not be able to complete the primary cycle by 2015. In 2010, out of 98 countries with data there were 16 countries with a net intake rate below 50% and 71 countries below 80%.
- Dropout remains a problem in low income countries, where on average 59% of those starting school reached the last grade in 2009. The problem is particularly acute for those children starting late.

Table 1.3: Key indicators for goal 2

<table>
<thead>
<tr>
<th>Total primary enrolment</th>
<th>Primary gross intake rate</th>
<th>Survival rate to last grade of primary education</th>
<th>Primary adjusted net enrolment ratio</th>
<th>Out-of-school children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010 (000)</td>
<td>Change since 1999 (%)</td>
<td>1999 (%)</td>
<td>2010 (%)</td>
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<tr>
<td><strong>World</strong></td>
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<td></td>
<td></td>
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<td></td>
<td>690 665</td>
<td>6</td>
<td>105</td>
<td>110</td>
</tr>
<tr>
<td>Low income countries</td>
<td>122 465</td>
<td>64</td>
<td>100</td>
<td>123</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>293 373</td>
<td>19</td>
<td>111</td>
<td>112</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>202 165</td>
<td>-20</td>
<td>101</td>
<td>103</td>
</tr>
<tr>
<td>High income countries</td>
<td>72 663</td>
<td>-5</td>
<td>103</td>
<td>100</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>132 809</td>
<td>62</td>
<td>92</td>
<td>115</td>
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<tr>
<td>Arab States</td>
<td>41 741</td>
<td>19</td>
<td>89</td>
<td>101</td>
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<tr>
<td>Central Asia</td>
<td>5 461</td>
<td>-20</td>
<td>100</td>
<td>100</td>
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<tr>
<td>East Asia and the Pacific</td>
<td>185 304</td>
<td>-17</td>
<td>101</td>
<td>108</td>
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<tr>
<td>South and West Asia</td>
<td>188 366</td>
<td>21</td>
<td>116</td>
<td>115</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>66 413</td>
<td>-5</td>
<td>120</td>
<td>119</td>
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<tr>
<td>North America and Western Europe</td>
<td>51 140</td>
<td>-3</td>
<td>104</td>
<td>100</td>
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<tr>
<td>Central and Eastern Europe</td>
<td>19 433</td>
<td>-22</td>
<td>97</td>
<td>98</td>
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</table>

Sources: Annex, Statistical Tables 4, 5 and 6 (print) and Statistical Table 5 (website); UIS database.
The push towards universal primary education (UPE) that was kick-started in Dakar is grinding to a halt. Early signs of a slowdown, identified in previous editions of the EFA Global Monitoring Report, have been corroborated by the latest data, which show that the number of out-of-school children of primary school age stagnated at 61 million between 2008 and 2010 (Panel 1.3). Most of the decrease observed since 1999 was achieved in the first five years after Dakar, and the momentum has since been lost. The consequence is that the EFA target, which captured the world’s attention, will be missed.

This is not to deny that major progress has been made in many parts of the world. Total enrolment rose by nearly two-thirds in low income countries. Some countries achieved remarkable increases: in Afghanistan there were fewer than 1 million primary school students in 1999 but more than 5 million in 2010, including over 2 million girls. In the same period, nearly 8.5 million more children were enrolled in primary schools in Ethiopia.

The challenge of achieving UPE consists not only of getting children into school at the correct age, but also ensuring that they progress through the system and complete the education cycle. Entry into school has increased substantially in many countries that were lagging well behind in 1999. Gross intake rates increased rapidly in countries such as Congo, Senegal and Yemen. Many countries in sub-Saharan Africa are absorbing more than twice as many new entrants to the first grade as they were a decade ago. In the Niger, the number of new entrants increased by more than three and a half times between 1999 and 2011.

These positive trends have contributed to an increase in the global primary net enrolment ratio from 84% in 1999 to 91% in 2010, with the greatest increases observed in the Arab States, South and West Asia, and sub-Saharan Africa. Even so, in sub-Saharan Africa, only 77% of children of primary school age were in school in 2010.

Countries that have achieved noticeable improvements include Guatemala (from 84% to 99% in 2010), the Lao People’s Democratic Republic (from 77% to 97% in 2010), Morocco (from 71% to 96% in 2011) and Zambia (from 71% to 91% in 2010).

But effort has been insufficient in other countries. According to the most recent data (2008–2011), there were still 29 countries with fewer than 85 out of 100 children of primary school age in school. These countries are consequently at serious risk of not achieving UPE by 2015. Of these, sixteen were in sub-Saharan Africa. The primary net enrolment ratio in many countries in western sub-Saharan Africa, including Burkina Faso, Côte d’Ivoire and Mali, is below 70%. In Pakistan, despite an increase, the net enrolment ratio is still only 74%.

What is keeping the world from meeting its commitments on UPE? There is no doubt that the challenge becomes harder as the final target approaches. It is the most marginalized who remain out of reach and who face considerable disadvantage in overcoming the two main hurdles to UPE: entering school and progressing through the cycle.

In terms of entry, the issue is not just getting children into school, but also getting them there at the right age. Household surveys have helped draw attention to the problem of late entry, which appears to be pervasive in countries with high UPE challenges. Children who are above the official entry age when they enter school do not benefit from their schooling experience in equal terms and are more likely to drop out than their younger peers (Panel 1.4). This happens because they face greater pressures to work and because the school environment is often not suitable for the needs of older children.

In terms of progression, the global survival rate to the last grade of primary school increased from 87% in 1999 to 91% in 2009. In sub-Saharan Africa, where the rate was 62%, survival to the last grade was as low as 28% in Chad and 32% in Angola.

Among the global population of out-of-school children, the share of those who have been to school but have left before completing the cycle has increased. In other words, the drive towards higher enrolment levels may not be complemented by higher numbers of children reaching the last grade. For example, in Burundi the gross intake rate increased from 70% to 160% between
PART I: MONITORING PROGRESS TOWARDS THE EFA GOALS

CHAPTER 1

1999 and 2010, but the survival rate to the last grade hardly changed (going from 54% to 56%). In Ethiopia, where the gross intake rate increased from 81% to 137% between 1999 and 2010, the survival rate to the last grade fell from 51% to 47%.

There are multiple reasons for low survival and completion rates. Analysis undertaken for this Report shows that in some countries poverty has a greater effect on progression than on entry (Panel 1.5). In Madagascar and Rwanda, for example, children may have an almost equal chance of entering school, regardless of wealth. But children from richer households are about 30% more likely to reach the last grade. In Uganda, the difference is about 60%.

For poor households, costs of schooling have a strong bearing on whether children attend school. Officially sanctioned school fees no longer play a major role in deterring families from sending their children to school thanks to the abolition of fees after 2000 in many countries, but other costs remain a real obstacle to UPE (goal 2, policy focus).

Panel 1.3: Progress in reducing numbers of children out of school has stalled

The potential for achieving UPE depends on the speed with which countries succeed in reducing overall numbers of children out of school. The number of out-of-school children of primary school age fell from 108 million in 1999 to 61 million in 2010, but three-quarters of this reduction was achieved between 1999 and 2004, when the number of out-of-school children fell at an average annual rate of 6.8 million. The rate of decline slowed considerably between 2004 and 2008, to just 3.3 million per year. There are now worrying signs that progress has stalled altogether.

These overall changes mask important differences between regions. South and West Asia and sub-Saharan Africa started from similar positions in 1999, but have subsequently progressed at very different speeds.

Figure 1.10: The number of out-of-school children decreased in the initial years after Dakar, but this has been followed by stagnation

A. Number of out-of-school children of primary school age, 1999–2010

B. Percentage of out-of-school children of primary school age, 1999–2010

Sources: Annex Statistical Table 5; UIS database.
Between 1999 and 2008, the number of out-of-school children in South and West Asia fell by 26 million. India alone is responsible for two-thirds of this decline. The corresponding reduction in sub-Saharan Africa was 13 million. Between 2008 and 2010, the regions went in different directions: the number of out-of-school children in sub-Saharan Africa increased by 1.6 million, but declined by 0.6 million in South and West Asia (Figure 1.10A). Half of those out of school now live in sub-Saharan Africa. In percentage terms, the proportion of primary school age children out of school fell from 16% in 1999 to 9% in 2010, but has levelled off since 2008 (Figure 1.10B).

With the deadline for the EFA goals fast approaching, prospects of achieving UPE by 2015 have now been missed for those children who did not enter school by 2010. While some of those out of school may have dropped out or may enter later, many may never enrol.

Analysis conducted by the UNESCO Institute for Statistics infers the likelihood of children currently out of school entering education, based on past trends (UIS, 2008). Globally, 47% of children out of school in 2010 were likely never to enrol. The proportion is highest in low income countries, where 57% of children are expected never to enrol. A sizeable proportion are also expected never to enrol in lower middle income countries, where the majority of out-of-school children live, suggesting that income alone is insufficient to combat the problem (Figure 1.11).

Compared with 2004, when these estimates were first made, the proportion of out-of-school children expected never to enrol has fallen from 61% to 47% (UNESCO, 2006). In contrast, the proportion of children who were out of school because they dropped out increased during the same period from 9% to 26%. This suggests that while more of the hardest-to-reach children enter school, they find it more difficult to complete the cycle. Within this group of hard-to-reach children, girls are more likely than boys never to enrol, with the difference particularly large in lower middle income countries.

Twelve countries account for 47% of the global out-of-school population (Figure 1.12). Nigeria, which heads the list with 10.5 million out-of-school children, has experienced the highest increase since 1999. It is one of only four among these twelve countries where the number increased in absolute terms. It now accounts for almost one in five out-of-school children in the world.
This ranking may omit some countries that are likely to be among the worst performing but do not appear due to lack of data. They include countries with large populations but lower rates of out-of-school children, such as Bangladesh, Brazil and China. They also include countries that have suffered from conflict, which has denied millions of children the right to education; examples include Afghanistan, the Democratic Republic of the Congo, Iraq, Somalia and the former Sudan.

In the case of the Democratic Republic of the Congo, lack of recent administrative data is compensated for by other sources indicating that it is likely to be among the five countries with the highest out-of-school numbers. Household survey evidence suggests that the proportion of out-of-school children fell from around one-half in 2001 to one-quarter in 2010 (D. R. Congo Ministry of Planning and Reconstruction and UNICEF, 2002; D. R. Congo National Institute of Statistics and UNICEF, 2011). But with a cohort of 11 million primary school age children, the out-of-school population is likely to be still well above 2 million.

The four countries with the largest reported numbers of out-of-school children have experienced different trajectories over the last decade. Between 2001 and 2008, the proportion of children who were out of school in India decreased from 17% to 2%. Ethiopia also achieved spectacular progress, reducing the number of out-of-school children by more than 60% over this period. Pakistan made slower progress, while in Nigeria the number of out-of-school children increased by more than 50%, leaving 3.6 million more out of school in 2010 than in 2000 (Figure 1.13).

Contrasting patterns of progress and stagnation can also be identified across four pairs of countries with a smaller yet sizeable out-of-school population in 1999 (Figure 1.14). Morocco and Yemen have both achieved significant reductions in their out-of-school population. But Morocco’s progress has been faster. It has benefited from relative political stability and a lower population growth rate. In addition, Yemen was one of the few countries to reduce education spending since 1999, albeit from a relatively high initial level. Côte d’Ivoire’s progress could not match that of Ghana. The conflict that seriously affected Côte d’Ivoire over the past decade led to internal displacement and insecurity that has harmed school enrolment.

In the Philippines, education spending fell as a share of national income and conflict continued to affect a large part of the country, whereas Indonesia has improved security. Finally, while both Kenya and the United Republic of Tanzania achieved major breakthroughs, it can be argued that the significantly higher expansion of education spending in the latter contributed to achieving almost universal school enrolment.

Even in countries that have made good progress towards UPE, some groups continue to get left behind, and so targeted policies are needed to reach them. In 2011, poor rural girls in Ethiopia were more likely to have never attended school. Rich boys and girls in rural Ethiopia have a chance of attending similar to that of their rich urban counterparts, with only around one in ten not having the opportunity. But 43% of poor rural females aged 7 to 16 have never been to school (Figure 1.15).
Figure 1.14: Countries with large numbers of out-of-school children have followed different trajectories
Number of out-of-school children of primary school age, selected countries, 1999 to 2011

Note: The dotted line means no data are available on out-of-school children for that year.
Source: UIS database.

Figure 1.15: In Ethiopia poor rural females are least likely to go to school
Percentage of 7- to 16-year-olds who have never attended school by location, wealth and gender, Ethiopia, 2011

Note: The terms ‘poorest’ and ‘richest’ refer to the households in the bottom and top 20%, respectively, in terms of a wealth index except for urban ‘poorest’, which refers to the bottom 40%.
Source: UNESCO (2012c).
Late entry into the first grade of primary school is a major barrier to achieving universal primary education, as children who start school late are more likely to drop out before they complete the cycle.

In 2010, in fifty-nine countries that provided information on the distribution of new entrants by age, about 8% of new first grade pupils were at least two years older than the official age. The average was significantly higher in the twenty-three sub-Saharan African countries reporting these data, where 20% of children started at least two years after the official age (UIS database). But administrative data may underestimate the extent of the problem, as school registers in low and middle income countries often do not provide an accurate picture of pupil age (UNESCO, 2010b).

This tendency to underestimate is reflected in a new analysis for this Report of Demographic and Health Survey data from twenty-two countries for the period from 2005 to 2010. On average, 38% of students who entered primary school were two years or more above the official school entry age. Among the sixteen sub-Saharan African countries analysed, the average was 41%, or twice the estimates based on school records (Delprato, 2012). In Liberia, for example, about 87% of new first grade pupils were two years older than the official age and 77% were at least three years older (Figure 1.16). This is in part a legacy of conflict, with many older children now wanting an opportunity to attend school. But late entry is also an issue in countries that have not experienced such problems. In Ghana, 53% were at least two years older than the official age.

Data from household surveys provide further information on the characteristics of pupils entering late, showing that late entry is more common among poor households. In Madagascar, 62% of pupils from the poorest fifth of households entered primary school at least two years later than the official school entrance age in 2008, compared with 32% of pupils from the richest fifth of households. Richer countries show a similar pattern. In Colombia, 42% from the poorest households started two years late, compared with 11% of those from the richest households (Figure 1.17).

Poverty and late school entry are linked in various ways. Poor children are more likely to live further from school, and often cannot afford the costs of transport. Some may not go to school until they are able to walk long distances. Parents are also likely to be concerned about safety on long trips to school, particularly for girls. Poor parents may also be less aware of the importance of enrolling at the right age, particularly if they have not had much experience of schooling themselves. Finally, the nutritional and health status of poor children is worse, which makes them less able to enrol in school on time.

Starting late influences whether children complete the education cycle. Evidence from the countries analysed for this Report shows that those who are the right age for their grade are less likely to drop out than those who are two or more years older, with the difference widening throughout the primary cycle (Delprato, 2012). In Zambia, for example, among children who were of the official age for their grade, about 2% dropped out of grade 1 and grade 3 in 2007. In contrast, of those who were at least two years older than their grade age, 5% dropped out of grade 1 and 8% dropped out of grade 3 (Figure 1.18).
Late entry increases the likelihood of dropout in several ways. First, a wide age range in a particular grade disadvantages older children because the pedagogical approach, curriculum and learning materials are suited to younger children who progress at a slower pace (Lewin, 2007). Second, large differences in age frustrate older children, who may feel that they cannot integrate well socially in the classroom. Third, older children from poor households are more likely to need to work. Fourth, in the case of girls, those who start late reach the average age of marriage before completing the basic education cycle in some countries (Brown, 2012). In Nigeria, about one in six young women aged 20 to 24 were married or in a union before the age of 15. Among girls aged 15 to 19, only 2% of those married were in school, compared with 69% of those unmarried (UNICEF, 2011c).

Among countries for which there were administrative data for both 1999 and 2010, there is some evidence that the percentage of over-age children has declined in recent years. For example, in Ethiopia it fell from 50% to 19%.

Household survey data do not show that the poor are the first to benefit, however. For example, between 2003 and 2008 the decline in the number of over-age new entrants in Ghana and Madagascar was twice as large among the richest quintile compared with the poorest quintile (Delprato, 2012).

Late entry poses major challenges to policy-makers and requires action on two fronts. To prevent late entry, governments need to raise awareness among parents by mounting publicity campaigns, and to build schools closer to homes. To moderate the impact of late entry, teachers need to be trained to take into account the learning needs of older students.
As 2015 approaches, it is critical to monitor trends in progression to the last grade of primary school. Many children who have the opportunity to enter school are still not able to complete the primary cycle. Tracking cohorts of children provides an integrated perspective on the chances of not only entering school, but also staying until the end of the primary cycle.

Household survey data on attendance can offer valuable insights into the characteristics of children who are unable to enter or complete primary education. Starting from a cohort of 100 children, these data track their entry into school and progression through the cycle until completion. For a country to achieve UPE, the expected cohort completion rate would be 100. Many countries are far from this ideal and the poorest are furthest behind.

In Uganda, for example, 97 out of 100 children from the richest households enter school, compared with 90 out of 100 children from the poorest households. By the end of the cycle, the gap has widened further, with 80 of the richest 100 completing, compared with 49 of the poorest 100 (Figure 1.19).

The inequality between the poorest and richest children — in access, progression or both — takes different forms. The Democratic Republic of the Congo, India and Kenya exhibit patterns similar to Uganda’s, where inequality is evident throughout the cycle, from access through to completion. Some West African countries follow a pattern of unequal access, but once in school, children demonstrate similar progression through the cycle.

In Nigeria, most children from rich households start school. In contrast, only 30 out of 100 of those from the poorest households start school. But once in school they are likely to remain until the end of the cycle. In Colombia, Congo, Rwanda and Zambia, most children, whether rich or poor, enter primary school. But those from rich households have a better chance of staying in school. In Rwanda, only 58 out of the initial 100 of the poorest reach the last grade, compared with 76 of the richest.

Other characteristics, such as where a child lives, can also play a role in whether a child starts school and completes. In India, intake and progression vary between states, from high intake and high retention in Tamil Nadu to low intake and low retention in Gujarat (Figure 1.20).

Comparing changes in access and progression over a period of five to six years shows that countries can make large gains in a short time, but also that progress has
been slower than is required to achieve UPE, especially in the countries furthest from the goal (Figure 1.21).

In Nepal, for example, entry into grade 1 improved from 88 out of 100 in 2001 to 98 in 2006. Once in school, children are also more likely to stay: over the five-year period, the survival rate to the last grade of primary school increased from 78 to 91 out of every 100. Zambia also experienced improvements in both entry and survival to the end of the cycle. Ghana made major gains in access, but only four in five children in each cohort were reaching the end of the cycle by 2008 – the same as in 2003.

Zimbabwe experienced a reversal of fortunes. In 1999, most children entered school; by 2005, the numbers entering had fallen to 89 out of 100. There was an even bigger drop in the numbers completing, from 85 in 1999 to 71 in 2005. In Mali, where the UPE challenge is one of entry rather than retention, there was no progress...
between 2001 and 2006, with still only 40 out of 100 entering or completing by 2006.

In the limited time that remains before the EFA deadline in 2015, system-wide interventions that can lower barriers to school entry and progression for disadvantaged children are likely to be the most effective way of getting closer to UPE. In countries where initial entry is the biggest barrier, constraints such as school costs or distance to school need to be tackled. Where the problem is more one of keeping children in school once they have started, strategies also need to address the learning environment, including ensuring that all students have appropriate learning materials.

**Figure 1.20: Different patterns of access and progression can exist in the same country**

Expected cohort net intake rate to first grade and survival rate to last grade of primary school, selected states, India, 2005/06

Source: Delprato (2012), based on Demographic and Health Survey data.

**Figure 1.21: Countries can make progress over a short period, but can also lose ground**

Expected cohort net intake to first grade and survival rate to the last grade of primary school, selected countries, 1999 to 2008

Source: Delprato (2012), based on Demographic and Health Survey data.
Policy focus: Reducing costs of primary schools for the poorest

With progress towards universal primary education stagnating, reaching out to the poorest families has become an urgent priority, as their children are most likely to be denied access to education. Such households have very meagre incomes to draw on for basic needs in food and health as well as education.

This section demonstrates that abolishing school fees is a key approach to increasing access to primary schooling for poor households, but emphasizes that it is not sufficient by itself. Many other costs remain that prove prohibitive for the poorest households. In contrast, rich households can afford supplementary tuition or private schooling.\(^7\)

Financial constraints matter in schooling decisions

Parents and caregivers take into account economic, social and cultural considerations when assessing the costs and benefits of sending their daughter or son to primary school. In addition to direct costs of education, such as school fees, uniforms or transport, families also face indirect opportunity costs. These include costs associated with a loss of income that could have been earned by the child if sent to work.

Analysis of household surveys in eight countries shows that parents regard the financial burden of education as the most important factor when deciding whether to send their children to school (Table 1.4).\(^8\) In Indonesia, for example, 47% of

---

Table 1.4: Financial constraints matter when a household decides not to send a child to school

<table>
<thead>
<tr>
<th>Reason given by parents or guardians for primary school age child being out of school (%)</th>
<th>Never attended primary school</th>
<th>Dropped out of primary school</th>
<th>Number of out-of-school children (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for not attending school</td>
<td>Cost</td>
<td>Work</td>
<td>Distance</td>
</tr>
<tr>
<td>Single response</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh(^7), 2008</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia, 2009</td>
<td>44</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Iraq, 2007</td>
<td>5</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>South Africa, 2007</td>
<td>26</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>U. R. Tanzania, 2007</td>
<td>5</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Uganda, 2007</td>
<td>15</td>
<td>21</td>
<td>13</td>
</tr>
<tr>
<td>Multiple response(^7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egypt(^7), 2005-06</td>
<td>61</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>Nigeria, 2010</td>
<td>27</td>
<td>34</td>
<td>34</td>
</tr>
</tbody>
</table>

Notes: 1. For children who have never attended primary school, cases where parents claimed that their child was too young to go to school have been excluded, assuming that these children will eventually attend school. 2. Results for Bangladesh are for all out-of-school children (never enrolled and dropped out). 3. In multiple response surveys, the responses do not add up to 100%, and the ‘other’ category is not applicable. 4. Results for Egypt refer to dropouts from lower secondary school.


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\(^7\) This section draws in part on Nordstrum (2012b).

\(^8\) There are several challenges in interpreting such responses from household surveys. Response categories are fixed, and in some cases, when parents are asked to identify a single reason, this may not capture situations where more than one factor may be at play. A particular response may mask the real reason. Parents may be embarrassed to admit that certain issues were decisive. Where multiple responses are permitted, it becomes difficult to identify the most important factor. Comparing responses across countries is also challenging, as response categories may not be fully compatible.
Parents whose children had never attended primary school and 57% of parents whose children had dropped out identified either cost or work as the primary cause. In Nigeria, the country with the largest number of children out of school, a third of children who had never attended school stayed away because they were working, while a third of children who had dropped out did so because of direct costs.

Even where the importance of financial factors is not immediately apparent, they are still likely to have an impact. For example, in Iraq 41% of parents whose children were never enrolled and 49% of those whose children dropped out reported that the decision was made because they believed education was not necessary. This view is most likely based on a perception that the costs of education outweigh the benefits, such as expected higher wages in the future.

Another obstacle cited by parents was long distances to school, resulting in transport costs. Such major expenses may be prohibitive to all but the richer households.

Parental identification of cost as a major reason for their children not being in school is supported by analysis from the same surveys which show that children from the poorest households are significantly more likely to be out of school in all eight countries. For example, in Nigeria 62% of children from the poorest quintile did not attend school in 2010, compared with just 2% from the richest quintile (Figure 1.22).

**Household spending on education varies widely**

Even if a poor family is able to send all its children to school, it must make a decision regarding the amount of resources to be dedicated to improving their chances of completing and succeeding in school. This decision is influenced by the immediate availability of money, and the trade-off between spending on education or on other basic needs.

A study of household spending in fifteen sub-Saharan African countries for 2001–2007 showed that households spent on average 4.2% of their

![Figure 1.22: Children from the poorest families are more likely to be out of school](source)

**Percentage of primary school age children who are out of school, by wealth/expenditure quintile and gender, selected countries**

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egypt 2005/06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia 2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iraq 2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nigeria 2010</td>
<td></td>
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<tr>
<td>South Africa 2009</td>
<td></td>
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<tr>
<td>U. R. Tanzania 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda 2005/06</td>
<td></td>
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</tr>
</tbody>
</table>

total expenditure on education, with the richest quintile spending 5.4% and the poorest quintile spending 2.6% (Foko et al., 2012).

Direct costs incurred generally involve obligatory payments to schools, including tuition and other types of fees, some of which may not be legally sanctioned. They also involve necessary spending on other schooling costs whose level may be more or less fixed, such as uniforms and textbooks. Other costs may vary depending on family circumstances (for example, transport) or involve optional expenses to improve the quality of the schooling experience (for example, private supplementary tuition).

Seven of the eight countries reviewed for this Report have in principle abolished primary school fees. Nevertheless, on average across the eight countries, tuition and other fees account for almost 15% of household spending on education among households with children in public primary schools. In South Africa and Uganda, the share of fees is as high as one-third of total household primary education expenditure per child. Among other common direct costs, books and stationery account for about one-quarter, uniforms for another quarter, and private supplementary tuition for about one-eighth, on average for the eight countries (Figure 1.23).

Richer households spend considerably more per child than poorer households. Among households with children in public primary schools, the range varies from about two and a half times in Iraq and the United Republic of Tanzania to almost eight times in South Africa. The range increases significantly if widened to include households whose children attend private schools. In Nigeria, average spending per child by the richest 20% of households is more than three times as much as that by the poorest 20% in public primary schools, and more than ten times as much for those in both

![Figure 1.23: Across eight countries, school fees make up almost 15% of household spending on education](image)

**Figure 1.23:** Across eight countries, school fees make up almost 15% of household spending on education

Distribution of primary education costs per child across types of expenditure among households with children in public primary schools, selected countries

![Figure 1.24: In Nigeria, rich households spend more to improve the quality of schooling for their children](image)

**Figure 1.24:** In Nigeria, rich households spend more to improve the quality of schooling for their children


In Uganda, fees make up one-third of household spending on education

9. South Africa is the only one of the eight countries that has not entirely abolished fees, although it has done so for the poorest 60% of communities
public and private primary schools. About 66% of children from the richest households attend private schools. Spending per pupil from a rich household is US$135 on average but only US$39 in a public school. By comparison, just 6% of children from poorest households attend private school. For the majority of children in these households in public school, spending is less than US$12 per child (Figure 1.24A).

The composition of household primary education expenditure also differs between poorer and richer households, even among those households that send children to public schools only. Richer households either spend more on discretionary items that improve the education experience of their children, such as more and better quality school supplies, or are able to afford to pay for supplementary tuition. Spending on public schooling in Nigeria demonstrates some of these characteristics (Figure 1.24B). The richest households allocate a much higher share of their primary education expenditure to private supplementary tuition (18%) than the poorest households (2%).

The amount spent on schooling per child may also vary within households. Gender discrimination may mean that children in the household do not benefit equally. Such discrimination can operate through different channels. In some countries girls are more likely to be out of school and therefore incur zero education expenditure, especially among poorer households, as shown in the cases of Egypt, Iraq and Nigeria (Figure 1.22). Once girls are in school, less may also be spent on them. In India, for example, while there is little evidence of discrimination in terms of primary school enrolment decisions, there is evidence of a male bias in terms of education expenditure decisions in states such as Andhra Pradesh and Madhya Pradesh [Azam and Kingdon, 2011; Zimmermann, 2012].

South Africa adopted a different approach, staggering the abolition of fees according to income, and targeting poorer households first. However, even when the information necessary for effective targeting is available, some poor children are still excluded. The No Fee Schools policy eliminated tuition fees initially in schools serving the poorest 40% of children in 2007, extending to schools serving the poorest 60% two years later. Schools were generally ranked according to the poverty level of their catchment area, although each province refined this ranking in indirect ways as schools seek to make up for lost funds. Measures are also needed to ensure that the abolition of fees does not reinforce inequalities between those who can pay for better quality education and those who cannot.

Given that fees represent only part of schooling costs with other direct and indirect costs often keeping children out of school, additional strategies are needed to help poor households.

Abolishing school fees
Many countries have eliminated official school fees in line with the Dakar Framework commitment that primary education should be ‘free of tuition and other fees’. Fee abolition had a strong positive impact on enrolment either during the year of abolition or in subsequent years [Figure 1.25]. In Burundi, for example, the gross enrolment ratio was 83% in 2004, the year preceding fee abolition; it increased to 88% in the year that fees were abolished as part of the post-conflict election promise and by 2009 stood at 147%.

Countries generally introduce fee exemptions across the board. For example, the Right to Education Act in India applies to all children aged 6 to 14 (Box 1.3). Fee abolition is akin to transferring resources from the government back to families of children of primary school age. This transfer disproportionately benefits poorer households for two reasons: they are more likely to have been excluded from education due to inability to pay fees, and they tend to have more children of primary school age. In rural Kenya, the poorest quintile of households reaped a larger share of the benefit of fee abolition (from 21% in 2004 to 30% in 2007), as new entrants to school were mainly poorer children [Muyanga et al., 2010].

In Nigeria, 66% of rich children attend private school compared with just 6% of the poor
India has made tremendous progress in reducing the number of out-of-school children, from 20 million in 2000 to 2 million in 2008. An effort to enshrine the right to education for all children in legislation began in 1993 with a Supreme Court decision, which was based on the principle that no one can live with dignity without education, and that education should therefore be a fundamental right. In 2002, the 86th Amendment to the Constitution provided for an Act mandating free and compulsory education. It took the government seven more years before it passed the Right of Children to Free and Compulsory Education Act. The law came into effect in April 2010 and consolidated existing compulsory education acts of individual states.

Implementing the legislation has not been straightforward. There has been disagreement among central, state and local governments over the sharing of financial responsibilities for meeting the education standards stipulated by the law. Monitoring has also proven difficult. The law made it possible to prosecute institutions or individuals who may have violated children’s right to education. The National Commission for Protection of Child Rights, the government body responsible for monitoring the implementation of the law, received 2,850 complaints related, among others, to admission procedures, discrimination, teacher attendance, reserved places in private schools, charging of fees and inadequate infrastructure. However, as of March 2012 the Commission had only resolved about one in four complaints.

The experience of India demonstrates that guaranteeing the right of all children to free compulsory education is a major step forward, but underlines the need to reinforce the right with clear rules and adequate financing for its implementation. Moreover, organizational challenges must be overcome to ensure that possible violations are investigated and brought to justice.

Sources: Economic Times (2010); Gazette of India (2009); Isaac (2012); Little (2010); Mehrotra (2012); Taneja et al. (2012).
based on even more detailed, locally available information (Wildeman, 2008). However, poor children also live in catchment areas of schools that continue to charge fees: according to household survey data, only 65% of children from the bottom quintile benefited from fee exemption in 2009 (Nordstrum, 2012a).

Despite the generally positive experience with fee abolition, many children from poor households are still not able to complete primary school, suggesting that other factors are leading to their exclusion, including other financial costs. In many cases, fee abolition only covers tuition fees. This means that households still have to pay other charges. For example, Nigeria announced a universal basic education initiative in 1999 and passed a corresponding Act in 2004 (Obanya, 2011). Tuition fees were abolished, but 10% of parents reported paying some form of fee in 2010. Around 57% of parents also reported paying a compulsory parent–teacher association fee and a further 40% had to pay exam fees (Nigeria National Population Commission and RTI International, 2011).

Even though fee abolition has helped expand access for poor children, the ability of the rich to pay other costs can perpetuate inequality in the schooling experience. The case of Uganda provides useful insights. The 1997 fee abolition led to a large increase in enrolment, particularly among the poorest children (Deininger, 2003). But this meant that the poorest households whose children were previously out of school had to spend some of their meagre income on non-fee costs of education. Rich households whose children were already in school could reallocate the money saved to cover other costs that maintained, or even further widened, their children’s schooling advantage. Evidence from three rounds of the Uganda National Household Survey shows that richer households with children in public primary schools increased their allocation to education, widening the gap in spending between rich and poor: between 1999 and 2006 expenditure per child increased from US$4 to just US$6 among the poorest households, but from US$46 to US$82 among the richest (Figure 1.26).

Fee abolition needs to be accompanied by capitation grants to compensate schools for loss of income

Where official fees have been abolished schools need to be compensated for their loss of income, otherwise they may charge unofficial fees that can place a similar burden.

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**Figure 1.26: In Uganda the education expenditure gap between poorer and richer households widened after fee abolition**

Education expenditure per child among households with children in public primary schools, Uganda, 1999 to 2006

on households. Alternatively, they may let quality deteriorate — for example, by letting infrastructure go unrepaired or buying fewer textbooks. Capitation grants, which provide funds to schools based on enrolment, are a common way of addressing this need.

In Ghana, tuition fees were abolished in 1995, but households were still expected to pay other fees. A capitation grant programme was rolled out in 2005 to address this problem. The grant was equivalent initially to approximately US$3 per student and was raised to US$4.5 in 2008 (Akyeampong, 2011). Households still have to pay fees related to exams or parent–teacher associations, but these represent only 6% of their total education expenditure (Akaguri and Akyeampong, 2010).

Governments need to demonstrate commitment to ensure that capitation grants are set at an appropriate level, maintain their value and benefit the poor. For example:

- In Mozambique, the Direct Support to Schools (Apoio Directo às Escolas) programme provides primary schools with grants to purchase learning materials, including items for which households would previously have paid, such as books and stationery (UNICEF, 2011a). As of 2005, the grant was equivalent to about US$1 per primary school student and, of that, only 71% was spent on items that would reduce costs for households, such as books, stationery and other learning materials (World Bank and UNICEF, 2009). This suggests that the size of the grant is very small relative to need.

- In the United Republic of Tanzania, a capitation grant was introduced alongside fee abolition in 2001. But between 2002 and 2009, the real value of the capitation grant declined by more than 30% to about US$7 per student, and was not even sufficient to finance a full set of textbooks (Uwazi, 2010). A public expenditure tracking survey further showed that the amount actually budgeted was only equivalent to US$5 and the amount received by schools was US$4.5 (Claussen and Assad, 2010).

- In Indonesia, fees were abolished in 2005 under the Free Basic Education policy. The School Operational Assistance (Bantuan Operasional Sekolah) programme of block grants (equivalent to about US$43 per student) was introduced at this time to guarantee the ability of schools to finance their operational costs without shifting the burden back to households. According to the guidelines, the funds can also be utilized to directly support poor children, notably by paying for transportation costs. However, only one-third of 1,250 schools surveyed had actually done so (Widyanti and Suryahadi, 2008).

Costs of uniforms can be prohibitive for poor households

Some governments have introduced measures to stop the cost of school uniforms inhibiting access to school. Before India abolished fees, subsidies were provided via the District Primary Education Programme to households that could not afford uniforms (Ayyar and Bashir, 2004).

Another option adopted by some countries is to remove the requirement to wear a uniform. However, the success of such interventions has sometimes been limited. Timor-Leste removed uniform requirements during the tuition fee abolition process in 2000 (World Bank, 2003). Yet an analysis by the EFA Global Monitoring Report team, based on the 2007 Survey of Living Standards, shows that even seven years after official abolition, school uniforms accounted for 52% of total household primary education expenditure per child among the poorest 20% of households. In Uganda, which also removed the requirement in 2003 (Avenstrup et al., 2004), analysis by the EFA Global Monitoring Report team shows that school uniforms accounted for 28% of total household primary education expenditure per child among the poorest 20% of households in 2006.

Where wearing a uniform has been compulsory for a long time, abolishing the obligation is not always sufficient to remove the social barrier associated with not wearing one. Stigma attached to not wearing a uniform or wearing one of lower quality can affect girls’ attendance in particular (South Africa Department of Education, 2003).
The potential benefits of removing this burden from households are considerable. In Kenya, as part of an NGO-sponsored project, students were randomly assigned to receive school uniforms, whose cost ranged between US$4 and US$7. An evaluation found that students who received a uniform reduced their absenteeism rate from 15% to 9%. The study also looked at long-term effects, but found no significant effect on the likelihood of completing primary school and on the number of years of education completed (Evans et al., 2011). This could suggest that while relieving poor households of high costs is helpful, achieving positive long-term outcomes also requires measures that focus on quality.

**Supplementary tuition is only affordable to some**

In some countries a parallel education system has emerged, often because the quality of public schools is low. After school hours, children buy the services of tutors to increase their chances of passing exams and progressing through the grades. The costs can be substantial, implying that poorer children are less likely to benefit.

In Bangladesh, about 43% of children from the poorest quintile of households attending public primary school received supplementary tuition, compared with 67% of children from the richest quintile in 2010. In Egypt the corresponding figures were 25% and 47% in 2005/06.

Richer households are not only more likely to receive supplementary tuition, but also to spend more. Higher costs may be the result of richer households recruiting more experienced tutors, selecting individual rather than group-tutoring, and purchasing more hours. In both Bangladesh and Egypt, the richest households spend four times more than poorest households on supplementary tuition (Figure 1.27).

The recourse to supplementary tuition can further reinforce the gap in the quality of the education received by rich and poor children. Teachers may also see an opportunity to increase their incomes. In some countries, including Cambodia and Egypt, it has been reported that teachers withhold curriculum content during the school day, forcing students to attend tutorials where the omitted areas are covered (Dawson, 2011; Hartmann, 2008).

Once such practice becomes widespread it is very difficult to reverse with punitive measures. However, measures can be taken to ease the burden for poor households. Governments can reduce the demand for supplementary tutoring, for example, by avoiding high stakes examinations. Alternatively, they can improve inspection to ensure that teachers cover the curriculum as expected (Bray, 2009).

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**Figure 1.27: Richer households are more likely to spend more on supplementary tuition for their children**

Supplementary tuition among households with children attending public primary schools, Bangladesh 2010 and Egypt 2005/06

<table>
<thead>
<tr>
<th></th>
<th>Bangladesh</th>
<th>Egypt</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Percentage, by wealth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest 20%</td>
<td>43%</td>
<td>25%</td>
</tr>
<tr>
<td>Richest 20%</td>
<td>67%</td>
<td>47%</td>
</tr>
<tr>
<td><strong>B. Mean expenditure per child, by wealth</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest 20%</td>
<td>7 US$</td>
<td>14 US$</td>
</tr>
<tr>
<td>Richest 20%</td>
<td>33 US$</td>
<td>52 US$</td>
</tr>
</tbody>
</table>

Are low fee private schools affordable for the poor?

Low fee private primary schooling has expanded in some countries, especially where a rapid increase in enrolment following fee abolition has led to a perceived decline in the quality of public primary schooling. Advocates maintain that the growth of low fee private schooling helps expand access where there are insufficient public schools, and improves quality (Tooley and Dixon, 2006).

There is some evidence that these schools are reaching some poor households (UNESCO, 2009). But even though their fees are low, their overall costs for households are considerably more than those of government schools. As a result, the poorest families are unable to afford them. Recent survey data for eight countries show per capita household spending on children in private primary school is US$220 compared with US$36 on their public school counterparts (Foko et al., 2012).

The average cost of educating a child in a private school in Makoko slum in Lagos, Nigeria, was estimated to be around US$217 per annum, equivalent to about four 50 kg bags of rice, which would feed the average family of six members for approximately seventy days. Sending three children to a slum school equates to 46% of the Lagos minimum wage (Härmä, 2011a). In rural Uttar Pradesh, India, around 41% of children in one survey were enrolled in private schools. Children in these schools were predominantly from richer households in the villages, with almost all children from the poorest households in government schools. These households could not afford private schools, which were more than eight times as expensive as government schools. These costs were prohibitive for the poorest 40% of households, which would have to pay up to 30% of total household income to send their children to private primary schools (Härmä, 2010).

With the costs of low fee private schools out of reach, vouchers are one approach to extending access to the poorest households. The regular and predictable payment of fees from a voucher could also benefit schools that suffer from irregular payments from poor parents who mostly rely on precarious employment.

Vouchers are not an easy solution, however. Many low fee private schools are not registered. This is the case for three-quarters of the private schools in Lagos, for example (Härmä, 2011b). These unregistered schools would not be able to participate in an official, government-backed voucher programme. A raft of administrative requirements also accompanies effective implementation. Effective and efficient targeting of potential beneficiaries is a major challenge, as is government capacity to implement a programme on a larger scale. Even in countries where such capacity exists, public opposition can make vouchers a politically unpopular choice. In Chile, for example, students protested over the perceived inequitable outcomes of the country’s well-established voucher programme (UNESCO, 2009).

There is also the question of ensuring that vouchers can be carried out at the scale required to reach the most disadvantaged. In Pakistan, the Punjab Education Foundation has been implementing a programme since 2006 that provides vouchers to children from disadvantaged backgrounds that allow them to choose from among more than 1,000 low fee private schools (Punjab Education Foundation, 2012a). In a country of 5.1 million out-of-school children, the programme is reaching a small number: 267 schools and 80,000 pupils (Punjab Education Foundation, 2012b). Punjab is also the part of Pakistan where enrolment is already highest; consequently, the voucher programme is not helping extend access to the parts of the country where it is most needed.

Governments have a choice between investing their scarce resources to arrest the decline in public school quality or subsidizing households to send children to private schools through voucher programmes. Vouchers may appear to be a quick fix, but investing in public schools is likely to be the best way to reach the poorest.
Strengthening social protection policies to help households send children to primary school

The cost of schooling can be eased by helping households meet specific education expenses, as well as through measures that increase and stabilize their income – freeing resources they can invest in education. The impact on education depends on the size of the intervention, the design of the programme and the targeting of the beneficiaries, as well as whether there is an adequate supply of education providers of appropriate quality.

Scholarships. Some countries implement targeted scholarship programmes to offset education costs. Indonesia first put in place a scholarship programme targeting poor children in the aftermath of the 1997–1998 financial crisis, as part of the Social Safety Net Programme (Jaring Pengaman Sosial). The central government allocated a scholarship budget to districts according to household budget survey estimates of poverty; districts allocated budgets to schools based on their knowledge of community characteristics; and school committees decided on individual recipients. The sizeable amount of the scholarship (equivalent to twice the average household expenditure on education for a primary school child from the bottom wealth quintile) and the reasonable effectiveness of the targeting (seven in ten beneficiaries belonged to the two lowest quintiles) enabled it to prevent enrolment declines at the primary school level (Cameron, 2009; Sparrow, 2007).

One of the most ambitious programmes, the Cash Transfer for Orphans and Vulnerable Children in Kenya, provides ultra-poor beneficiary families with an unconditional monthly transfer worth US$20. Early reviews point to relatively small effects on primary school attendance, age-for-grade and progression, which is not surprising given that initial average levels were already generally high. But the effects are larger for the subset of children who face steeper costs, including those who live more than 2 km from the primary school or those attending schools that informally charge fees (Kenya CT-OVC Evaluation Team, 2012).

A project developed by BRAC in Bangladesh, Challenging the Frontiers of Poverty Reduction — Targeting the Ultra Poor, provides an unconditional package of support to protect the ultra-poor and promote their livelihoods, including asset transfers, stipends and skills training. Between 2007 and 2011, 300,000 households received a full package and 500,000 households a reduced package, helping to increase household income. Although education outcomes are not the main focus, they have been followed closely. A randomized trial based on a survey of about 7,000 households found that there was no impact on primary school attendance and repetition, even though the programme used volunteers and local committees to encourage enrolment (Das and Shams, 2011).

Bangladesh’s experience suggests that unconditional transfers in the form of assets may not increase the income of ultra-poor families immediately and, if the transfer is not large enough, could even increase demand for child labour in the short term. This further suggests that the type and size of the transfer needs to be carefully considered, and that an element of conditionality may be necessary in some contexts if positive education results are to be achieved.

Conditional and unconditional cash transfers. These programmes provide cash grants to poor households that meet criteria such as school attendance or use of a health centre, or unconditionally for certain population groups. Cash transfers are prevalent in Latin American countries; many have been rigorously evaluated, showing a positive impact on education (UNESCO, 2009, 2010b). In contrast, there are few large programmes — and even fewer evaluations — in the three regions with the largest numbers of out-of-school children: East Asia and the Pacific, South and West Asia and sub-Saharan Africa (Fiszbein et al., 2009; Garcia and Moore, 2012).

In Kenya, an unconditional monthly transfer of US$20 has improved school attendance
the Pantawid Pamilyang Pilipino programme in 2008. Beneficiary households receive an average monthly cash transfer of US$19 if they have one school-age child, increasing to US$33 for families with three school-age children, equivalent to about 20% of household income. In 2011 the programme was scaled up to reach 2.3 million poor households and further expansion to 4.8 million households by 2014 is planned. Eligible households must live in targeted poor areas, be classified as poor, have a pregnant woman or at least one child aged up to 14 years as a member, and meet certain conditions, including an 85% attendance record in school (Fernandez and Olfindo, 2011; Velunta, 2012). Results from a pilot phase showed that primary school completion rates increased from 68% to 73% (ADB, 2010). Evidence from administrative data also shows that public primary school enrolment growth was faster in targeted areas than other areas between 2008 and 2010 (Manasan, 2011).

**Conclusion**

Abolishing primary school fees has helped reduce costs, but has not removed the cost barrier to enrolment for the poorest. Non-fee costs, such as school uniforms and supplies, can be substantial, particularly for poor households, and require additional solutions. Strategies are needed to compensate poor families for the direct costs of schooling and the indirect costs of the child being in school rather than working. Formal fee elimination is unlikely to be successful unless it is integrated into a larger educational finance framework that addresses these issues.

The Philippines gives the poorest the equivalent of 20% of their income in cash transfers
Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.

**Highlights**

- Despite a global increase in the number of children enrolling in secondary school, the lower secondary gross enrolment ratio was just 52% in low income countries in 2010, leaving millions of young people to face life without the foundation skills they need to earn a decent living.

- Although the number of out-of-school adolescents of lower secondary school age fell from 101 million in 1999 to 71 million in 2010, it has stagnated since 2007. Three out of four out-of-school adolescents live in South and West Asia and sub-Saharan Africa.

- Twelve years after the EFA goals were established, the international community is only now coming closer to agreeing on a coherent set of internationally comparable indicators of skills development and the means to measure them. But recent developments will not produce sufficient data in time to measure goal 3 adequately before 2015.

### Table 1.5: Key indicators for goal 3

<table>
<thead>
<tr>
<th></th>
<th>Total secondary enrolment</th>
<th>Total secondary gross enrolment ratio</th>
<th>Lower secondary gross enrolment ratio</th>
<th>Upper secondary gross enrolment ratio</th>
<th>Technical and vocational education as a share of secondary enrolment</th>
<th>Out-of-school adolescents of lower secondary school age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010 (000)</td>
<td>Change since 1999 (%)</td>
<td>1999 (%)</td>
<td>2010 (%)</td>
<td>1999 (%)</td>
<td>2010 (%)</td>
</tr>
<tr>
<td>World</td>
<td>542 684</td>
<td>25</td>
<td>59</td>
<td>70</td>
<td>72</td>
<td>82</td>
</tr>
<tr>
<td>Low income countries</td>
<td>46 333</td>
<td>78</td>
<td>29</td>
<td>42</td>
<td>36</td>
<td>52</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>204 348</td>
<td>47</td>
<td>46</td>
<td>61</td>
<td>61</td>
<td>76</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>205 788</td>
<td>12</td>
<td>72</td>
<td>85</td>
<td>89</td>
<td>97</td>
</tr>
<tr>
<td>High income countries</td>
<td>86 221</td>
<td>-1</td>
<td>99</td>
<td>102</td>
<td>102</td>
<td>104</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>43 653</td>
<td>110</td>
<td>25</td>
<td>40</td>
<td>29</td>
<td>47</td>
</tr>
<tr>
<td>Arab States</td>
<td>29 722</td>
<td>33</td>
<td>59</td>
<td>69</td>
<td>75</td>
<td>87</td>
</tr>
<tr>
<td>Central Asia</td>
<td>10 443</td>
<td>13</td>
<td>84</td>
<td>95</td>
<td>85</td>
<td>97</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>163 268</td>
<td>24</td>
<td>63</td>
<td>80</td>
<td>78</td>
<td>90</td>
</tr>
<tr>
<td>South and West Asia</td>
<td>143 351</td>
<td>47</td>
<td>44</td>
<td>59</td>
<td>61</td>
<td>75</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>60 074</td>
<td>14</td>
<td>81</td>
<td>91</td>
<td>95</td>
<td>102</td>
</tr>
<tr>
<td>North America and Western Europe</td>
<td>61 828</td>
<td>2</td>
<td>100</td>
<td>102</td>
<td>102</td>
<td>105</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>30 347</td>
<td>-25</td>
<td>88</td>
<td>88</td>
<td>92</td>
<td>95</td>
</tr>
</tbody>
</table>

*Sources: Annex, Statistical Table 7 (print) and Statistical Table 8 (website); UIS database.*
In recent years, heightened social and economic challenges have placed skills development at the centre of the global education debate. As the thematic part of this Report details, this has introduced urgency to a vital EFA goal that has not been given the attention it deserves because of the ambiguity of the commitments made when the EFA goals were established in 2000.

Formal secondary schooling is the most effective way to develop the skills needed for work and life. The expansion of primary schooling over the past decade is now being reflected in higher enrolments at the next level of education. Total enrolment at secondary level rose by 25% globally between 1999 and 2010, with growth in low income countries by 78% and lower middle income countries by 47%.

Most of the growth has taken place in regions with low initial participation levels. Enrolment more than doubled in sub-Saharan Africa, resulting in the gross enrolment ratio reaching 40%. The gross enrolment ratio increased from 44% to 59% in South and West Asia and from 59% to 69% in the Arab States. In absolute terms, the fastest progress was achieved in East Asia and the Pacific, with an increase of seventeen percentage points to 80%.

Yet not all young people have benefited from the expansion. There are still 71 million adolescents of lower secondary school age who are not in school. Half of the total reduction in their numbers since 1999 is accounted for by progress in East Asia and the Pacific. As with the number of out-of-school children of primary school age, progress was fastest in the first half of the decade after the EFA goals were established, from 2000 to 2005. Worryingly, the number of out-of-school adolescents has stagnated since 2007.

This stagnation is particularly apparent in some regions. The number of out-of-school adolescents has remained at 22 million in sub-Saharan Africa since 1999, in part due to high population growth. In South and West Asia, there was a 18% decline between 2002 and 2005 but there has been no progress since. As a result, the regional distribution of out-of-school adolescents has shifted towards these two regions, which accounted for three out of every four out-of-school adolescents in 2010, up from three out of five in 1999.

Some young people develop skills through technical and vocational education. The proportion of secondary school pupils enrolled in these programmes has remained at 11% since 1999. However, there are regional variations, with the percentage having increased significantly in Central Asia from 6% in 1999 to 19% in 2010 and having decreased in the Arab States from 14% to 8%.

Formal general education and technical and vocational secondary education only capture part of the skills picture, however. Information on enrolment in these types of institutions does not tell us what kinds of skills young people are acquiring. There has been intense debate as to which learning needs should be met – and how to determine whether they have been met. The Dakar Framework of Action considered knowledge, values, attitudes and skills as enabling individuals to succeed across a continuum of life domains, including employment, civic participation, personal relations and lifelong learning (UNESCO, 2000).

The thematic part of this Report is dedicated to understanding how skills development can improve young people’s job opportunities. As a prelude, this section looks at recent developments in measuring skills development. Although there are some promising signs, adequate data will become available too late to enable the goal to be measured before 2015 (Panel 1.6). The section also examines how life skills education can help young people deal with one of the risks identified in the Dakar Framework of Action: HIV and AIDS (goal 3, policy focus).
Twelve years after the EFA goals were established in Dakar, the international community is still a long way from defining what constitutes progress in ‘equitable access to appropriate learning and life skills programmes’ (the core of goal 3), agreeing on a coherent set of internationally comparable indicators and assessing whether progress is being made. There are promising signs that the situation may be changing, but recent developments will not produce sufficient data in time to measure goal 3 adequately before the deadline has passed.10

Monitoring access to appropriate learning and life skills programmes has been difficult for several reasons. First, skills can be gained in many ways, but existing systems do not sufficiently record who is providing which skills to whom. Skills programmes involve numerous agencies and providers apart from the schools and other education and training institutions supported by ministries of education.

Some programmes take place within the workplace, ranging from traditional apprenticeships in the informal sector to more formal on-the-job training programmes. In developing countries, second-chance programmes offering basic literacy and numeracy together with vocational skills are provided by non-governmental organizations, often with limited government oversight. Governments often lack the capacity to collect information across this wide range of providers, and many countries have even struggled to present data on formal technical and vocational education programmes.11

Second, the challenges of a rapidly changing world have led to a major reconsideration of what skills are and how they are acquired. It is now recognized that the set of qualities that individuals need to become ‘active agents in shaping their future’, in the words of the Dakar Framework for Action (UNESCO, 2000, p. 16), is much broader than the occupation-specific skills on which technical and vocational education and training systems have so far tended to focus.

The economic crisis affecting developed countries and widespread high levels of youth unemployment have underlined the urgency of identifying skills needs and measuring skills levels. The Group of 20 (G20) Multi-Year Action Plan on Development, adopted at the Seoul Summit in November 2010, called on the International Labour Organization (ILO), the OECD, UNESCO and the World Bank to create internationally comparable skills indicators by 2012, with particular reference to low-income countries (G20, 2010). The organizations involved have proposed a set of indicators, including on skills acquisition (Table 1.6) (OECD and World Bank, forthcoming). These are largely based on indicators that are readily available, many of which are already monitored in the context of other goals within the EFA framework.

Three distinctive indicators in the set proposed by the G20 partly capture the essence of goal 3. The first is cognitive skills of youth and adults. Some surveys hold promise of gauging this indicator. The OECD has

### Table 1.6: G20 Multi-Year Action Plan on Development proposed indicators on skills acquisition

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stock of human capital</strong></td>
<td></td>
</tr>
<tr>
<td>Educational attainment of adult population</td>
<td>Proxy measure of stock of skills</td>
</tr>
<tr>
<td>Literacy of youth and adult population</td>
<td>Prerequisite for many types of</td>
</tr>
<tr>
<td></td>
<td>further learning</td>
</tr>
<tr>
<td>Cognitive skills (literacy/numeracy) of youth and adults*</td>
<td>Direct measure of competence in key skills</td>
</tr>
<tr>
<td><strong>Skills formation</strong></td>
<td></td>
</tr>
<tr>
<td>Primary school enrolment ratio</td>
<td>Basic skills</td>
</tr>
<tr>
<td>Primary school completion rate</td>
<td>Basic skills</td>
</tr>
<tr>
<td>Secondary school enrolment ratio</td>
<td>Basic skills</td>
</tr>
<tr>
<td>Tertiary level enrolment ratio</td>
<td>Higher-level skills</td>
</tr>
<tr>
<td>Share of tertiary graduates/students in science and technology</td>
<td>Skills which drive economic growth</td>
</tr>
<tr>
<td>Participation of youth in apprenticeships*</td>
<td>Alternative source of skill formation</td>
</tr>
<tr>
<td>Participation of adults in education and training*</td>
<td>Lifelong learning</td>
</tr>
</tbody>
</table>

**Note:** *These indicators are ones that have potential for measuring goal 3. Source: OECD and World Bank (forthcoming).
developed skills measurement surveys for young people and adults. Both surveys are underpinned by a common framework with three key competence categories: the ability to use language, symbols, information and technology interactively; the ability to interact in heterogeneous groups; and the ability to act autonomously and exercise control over one’s living and working conditions (OECD, 2005).

Working in cooperation with the OECD, the World Bank’s Skills Toward Employment and Productivity (STEP) measurement survey is also relevant for measuring progress towards goal 3. The approach takes a lifelong learning perspective in linking skills to productivity and growth. It consists of a household survey and an employer survey.

The STEP household survey assesses the supply of skills among those aged 15 to 64, whether working or not, based on a random sample of households in the urban areas of participating countries. Three types of skills are assessed:

- **Cognitive skills**: The survey administers a subset of the OECD PIAAC assessment of literacy skills, and includes reading components fine-tuned to assess the abilities of adults with very poor skills.

- **Non-cognitive skills**: The survey includes questions to capture traits, behaviours and preferences, and tries to distinguish more stable personality traits from more malleable non-cognitive skills.

- **Technical skills**: Respondents are asked to describe the competences needed to perform their job, such as use of technology and machinery, autonomy and repetitiveness, time management, and physical tasks.

The STEP employer survey assesses demand for skills. Questions include workforce characteristics, hiring practices, training and remuneration.

As of July 2012, fieldwork had been completed in the Plurinational State of Bolivia, the Lao People’s Democratic Republic and Yunnan province in China. It was being rolled out in Colombia, Sri Lanka and Viet Nam, and was expected to begin in Ghana and Ukraine. Armenia, El Salvador, Kenya and Morocco are expected to follow in 2013 (Sanchez Puerta and Valerio, 2012; World Bank, forthcoming).

For the other two indicators in the G20 initiative that are relevant to goal 3 – participation of youth in apprenticeships, and that of adults in education and training – it has been difficult in practice to collect comparative data, particularly in non-OECD countries. With respect to adult participation in education and training, the European Union has developed a systematic approach to measuring skills development. Its reference framework of eight competences combines knowledge, skills and attitudes that all individuals require for employment and other needs (European Parliament and European Council, 2006). Five targets have been set for 2020, of which one is directly related to goal 3: an average of at least 15% of adults should participate in lifelong learning (European Commission, 2011b). This is monitored via the annual Labour Force Survey and two surveys done every five years, the Adult Education Survey and the Continuing Vocational Training Survey (Eurostat, 2011).

Because of the time it has taken to agree on indicators for monitoring goal 3, and complexities in collecting information, useful data are unlikely to be available before the 2015 deadline. Even if a consensus is reached, countries still need to build their capacity so that recent initiatives do not prove to be one-off experiments.

Any post-2015 international goals for skills development need to be more precisely defined and to set out clearly how they can be measured, based on a realistic assessment of information that can be collected, to avoid the problems that have plagued efforts to monitor goal 3. In addition, one body will need to act as the depository for data on skills collected by various agencies. Given the responsibility and expertise of the ILO in this area, it could play such a role.

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12. The OECD’s Programme for the International Assessment of Adult Competencies (PIAAC) is the most comprehensive international survey of adult cognitive skills. It builds on a previous measurement programme, the Adult Literacy and Lifeskills (ALL) survey, by expanding the skills domains assessed from literacy and numeracy to include problem-solving in technology-rich environments (OECD, 2012a). The survey was administered in twenty-five countries in 2011/12 and results will be published in late 2013.

13. Communication in the mother tongue; communication in foreign languages; mathematical competence and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; and cultural awareness and expression.
By 2000, AIDS had become a full-blown development crisis presenting ‘a grim picture with glimmers of hope’ (UNAIDS, 2000). Its social and economic consequences were being felt widely not only in health but also in education and other areas. A decade later, hope appears to have triumphed over despair. The overall growth of the global AIDS pandemic has been stabilized by HIV prevention efforts and the natural course of HIV epidemics, with young people leading the change in adopting safer sexual behaviour.

Despite this success, there is no room for complacency. Many countries still have high rates of HIV prevalence (Box 1.4). Education has a crucial role in maintaining and reinforcing the positive trend, not only by increasing knowledge about HIV transmission and prevention, but also through life skills programmes that help young people use that knowledge to reduce their vulnerability to infection.

Life skills education with a focus on HIV and AIDS encourages young people to adopt attitudes and behaviours that protect their health, for example by empowering them to negotiate sexual relations and condom use. It does this by addressing psychosocial and interpersonal skills such as assertive communication, self-esteem, decision-making and negotiation. Life skills programmes that approach sensitive issues in ways that allow student engagement should be introduced to complement topics in the curriculum such as health education, sexuality education and broader HIV and AIDS education.

While it is difficult to analyse the results of life skills elements of wider HIV programmes, life skills education is likely to have played an important part in cases where HIV education coverage in schools has been high, where implementation has been generally effective and where life skills education has been combined with other prevention measures.

Despite education’s key role in HIV prevention, knowledge remains low. Schooling can reduce the risk of HIV infection in various ways. It can help empower young women to assert their sexual and reproductive rights. Curriculum-based interventions also provide essential knowledge on HIV and AIDS, which is critical for young people before they become sexually active.

HIV prevalence remains high in some parts of the world. Yet HIV-related knowledge remains low. According to recent global estimates based on 119 countries that provided information, only 24% of young women and 36% of young men aged 15 to 24 were able to identify ways of preventing the sexual transmission of HIV and to reject major misconceptions about HIV transmission (UNAIDS, 2011a).

Young people who have stayed in school longer tend to be more aware of HIV and AIDS, and more inclined to take protective measures such as using condoms, seeking counselling and testing, and discussing AIDS with their partners, according to data from Demographic and Health Surveys in five sub-Saharan African countries (de Walque, 2009). Educated women are more...
likely to know that HIV cannot be transmitted by supernatural means and that using condoms can reduce the risk of transmission. They are also more likely to seek HIV testing during pregnancy, to know that HIV can be transmitted to an infant by breastfeeding and to know that this risk can be reduced by taking anti-retroviral drugs during pregnancy (UNESCO, 2011c).

Children need to be informed about the risks of HIV before they become sexually active. In southern and eastern Africa, where prevalence rates remain high, younger students’ knowledge of HIV and AIDS is extremely low. This raises a concern that education is not reducing the risk of infection in societies where such intervention is most needed (Box 1.5).

**Monitoring the availability of life skills programmes**

Even where young people know about HIV and AIDS, this knowledge is not enough to ensure that they adopt behaviour that protects their own health and the health of others. Information about condom use and access to services, such as HIV testing, may not be applied if people are not empowered to say no to sex or negotiate condom use. Life skills education needs to be a key part of HIV- and AIDS-related health and sexuality education to ensure that increased knowledge translates into a change in attitudes and behaviour.

Many countries report that such programmes exist. There is also evidence of some having been successfully implemented. But far more needs to be done if these programmes are to reach the large numbers of young people still at risk of HIV infection.

The Dakar Framework for Action on Education for All included HIV and AIDS as a learning need under goal 3, stating that ‘[y]outh-friendly programmes must be made available to provide the information, skills, counselling and services needed to protect them from the risk of HIV, and that ‘[c]urricula based on life-skills approaches should include all aspects of HIV/AIDS care and prevention’ (UNESCO, 2000, pp. 16, 20).

The importance of life skills education in the context of HIV and AIDS was also recognized in the Declaration of Commitment on HIV and AIDS, agreed at the first United Nations General Assembly Special Session (UNGASS), the annual high-level meeting bringing together all Member States to discuss responses to HIV and AIDS and make political commitments (United Nations, 2001).

The UNGASS Declaration set the ambitious target of ensuring that, by 2010, at least 95% of those aged 15 to 24 would have access to the information, education and services needed to develop the life skills required to reduce their vulnerability to HIV infection. Monitoring progress in this area has proved difficult given the broadness of the definition, which is difficult to translate into a time-bound, quantifiable target.

One of the twenty-five UNGASS core indicators attempts to monitor progress by identifying the percentage of schools that provided life skills-based HIV education for at least thirty hours in the last academic year. Unfortunately, there are no standard guidelines for what constitutes life skills education in response to HIV and AIDS, and the information is self-reported, making it difficult to establish its quality. Many countries do not differentiate between provision in primary and secondary schools. The response rate by ministries of education is also low: only 99 out of 192 countries reported on this indicator in either 2007 or 2009 (UNAIDS, 2011b). This result may be due in part to the fact that many ministries of education still view HIV and AIDS as the responsibility of health ministries.

Despite these problems, available data suggest that many countries are now providing life skills-based HIV education (Clarke and Aggleton, 2012). Twenty-three countries reported that all schools provided such education in the last academic year, including high-prevalence countries such as Kenya, South Africa and Zimbabwe (UNAIDS, 2010).

**Effective life skills education can change attitudes and behaviour**

Monitoring coverage is just a first step towards evaluating programme outcomes. It is not easy to identify whether life skills education programmes have had an impact on reducing HIV incidence. But it is possible to identify whether these programmes have an effect on skills, attitudes and behaviour. A review of twenty-five rigorous evaluations of life skills programmes for HIV prevention among
Despite the widespread gains in HIV prevention, many schoolchildren in southern and eastern Africa do not have adequate knowledge about HIV and AIDS. This is likely to hamper progress in further reducing new infections among youth.

In 2007, about 60,000 grade 6 students (aged around 13, on average) and 8,000 of their teachers in fourteen countries of southern and eastern Africa were assessed on their knowledge of HIV and AIDS. The test focused on the official curriculum frameworks for HIV education adopted by ministries of education in the countries participating. The results are worrying. They indicate that very few students know enough about HIV and AIDS. This is not a sound basis for behaviour that avoids risk of infection. On average, only 36% of students reached the minimum required knowledge levels and just 7% reached the desirable level.

Of particular concern is that groups that are vulnerable to HIV infection are also those with the least knowledge. In twelve of the fifteen countries, students of low socio-economic status or living in isolated rural areas scored significantly lower than those of high socio-economic status or living in urban areas. The magnitude of the difference varied among the countries. In Malawi, Uganda and Zambia, around 30% to 40% reached the minimum level, whether rich or poor. By contrast, inequality was particularly wide in Botswana and South Africa, two of the countries with the highest prevalence rates. In South Africa, more than half of students from rich households reached the minimum level, compared with just one in five of those from poor households (Figure 1.28). While socio-economic status and location are factors affecting levels of knowledge across countries, gender differences are less noticeable.

The results suggest ineffective implementation and possibly poor design of official curriculum frameworks for HIV education. Even in mainland Tanzania, which had the best overall performance, 33% of grade 6 pupils reported that they had never attended HIV education classes during the current school year. Some teachers may not know enough about HIV and AIDS, but this does not appear to be the main constraint. Teachers fared far better in the tests than their students, with 99% at the minimum required knowledge levels and 82% at the desirable level. This result suggests that teachers are failing to pass on their knowledge adequately to their pupils.

Such evidence shows that far more needs to be done to ensure that schools play their part in communicating knowledge in countries that continue to experience high rates of new HIV infections among young people.

Sources: Clarke and Aggleton (2012); Dolata (2011); Dolata and Ross (2010); Ponera et al. (2011).
Life skills education in response to HIV and AIDS is delivered in a range of institutional contexts (including schools and youth drop-in centres), by teachers, facilitators and peer educators, and via the public, private and non-government sectors. The focus is sometimes on particular groups considered at risk. Successful examples bring a life skills approach to HIV and AIDS education, health education and sexuality education.

**School-based programmes reach large numbers of young people**

To reach a critical mass of young people, comprehensive programmes incorporating health, sexuality and HIV and AIDS education using a life skills approach need to be integrated into national curricula and be compulsory. In addition, successful programmes of this type have a planned and sequenced curriculum across primary and secondary school, incrementally adjusted to the age, stage and situation of the learner (Box 1.6) [UNESCO, 2011e].

To be successful, life skills education needs to adopt interactive, responsive and participatory methods that challenge young people to find new ways of relating to one another. In Mexico, a programme developed by a local NGO in collaboration with the Ministry of Public Education incorporated material on HIV in an existing life skills-based sexuality and contraception education programme. Through role-playing activities, students practised assertive communication and negotiation about sexual relations and the use of condoms under peer or partner pressure. Those who took part in the programme displayed positive changes in their attitude, self-efficacy, self-esteem, decision-making, communication and intentions – and these persisted for a year after the programme (Givaudan et al., 2007).

Teaching life skills education is not easy. Teachers need to be trained to adopt participatory approaches. Evaluations of the Health and Family Life Education curriculum framework initiative in five Caribbean countries showed that teachers needed more training in leading participatory activities. They usually focused on lesson content and used teaching methods that led to the life skills component being neglected and little student participation [UNESCO-IBE, 2009; UNICEF, 2009]. Teachers also need to be trained and supported to deliver life skills education on sensitive issues related to sexuality and HIV and AIDS. In Papua New Guinea, a compulsory pre-service teacher training programme on HIV and AIDS, in place since 2007, takes a participatory approach, asking student teachers to reflect on and debate controversial topics, prepare teaching plans for remote rural schools and generally connect what they have been learning with the context in which they live. This helps teachers not shy away from addressing sensitive issues [UNESCO, 2011d].

One reason for reluctance to teach these topics is the perception that doing so encourages promiscuity. It is vital to let everyone involved in such programmes know that the evidence does not support this belief. Rather, well-designed sexuality education programmes tend to delay the onset or frequency of sexual activity and increase condom use. A review of fifty-two evaluations of health education and sexuality education programmes tend to delay the onset or frequency of sexual activity and increase condom use.

**Box 1.6: Botswana curriculum boosts HIV and AIDS awareness**

Botswana has made great strides in reducing the incidence of new adult HIV infections, halving the rate between 2001 and 2009. Yet the country still has the world’s third highest prevalence rate among young men, and fourth highest among young women. Extending knowledge about HIV through education can be a vital way to maintain and accelerate progress.

To intensify HIV prevention efforts, the government introduced a national HIV and AIDS awareness curriculum in 2006, adopting a life skills education approach. The curriculum has been scaled up by the Ministry of Education, in close partnership with the Ministry of Health.

Sets of teacher guides and learner worksheets were designed in collaboration with teachers and other key parties. The materials are interactive, locally based, gender-balanced, culturally sensitive and adapted to learners’ levels and ages. The worksheets present activities that help learners explore situations and practise appropriate responses. Teachers use stories, role-playing, poems and class discussions. Topics include self-awareness, goal-setting, stress management, social responsibility, healthy living, relationships, sexuality, risk reduction, and facts and myths about HIV and AIDS. The materials discuss HIV prevention, abstinence and delaying of sexual debut. For students 15 and older, the programme also discusses and provides referrals for condoms and other prevention methods.

Knowledge about HIV appears to be improving in the country. The percentage of young women aged 15 to 24 who correctly identified ways of preventing the sexual transmission of HIV and rejected major misconceptions increased from 28% to 45% between 2003 and 2009. Continued efforts to improve and expand life skills approaches to HIV and AIDS education could further reduce infection rates by helping young people translate their increased knowledge into safe attitudes and behaviour.

**Sources:** Education Development Center (2012); UNAIDS (2010).
studies of sex and HIV education programmes, focusing on children and young people aged 9 to 24 in both developed and developing countries, showed that only one led to significantly earlier onset of sexual activity (Kirby et al., 2007). In South Africa, a life skills education programme in KwaZulu-Natal province increased condom use at first sex by ten to twelve percentage points for 14- to 18-year-olds (Magnani et al., 2005).

Messages need to be adapted to different age groups, including young people who are already sexually active. The power structures that govern personal relationships also need to be recognized. In Kenya, the official curriculum promotes abstinence in order to completely eliminate risky behaviour. A randomized impact evaluation of an intervention with a life skills element demonstrated the strength of a more realistic approach. In the project, grade 8 students were shown a short video that highlighted the risks for adolescent girls of sexual relationships with older men. The screening was followed by a discussion supported by information on risks of infection. In schools that received the programme, the incidence of pregnancies with older partners among teenage girls declined by 61% compared with control schools (pregnancy served as a proxy for the incidence of unprotected sex). Access to information on various types of risky activity enabled girls to resist pressure from older men and reduce their exposure to risk while remaining sexually active (Duflo et al., 2011; Dupas, 2011).

Programmes outside schools are needed to reach some of those most at risk
School-based programmes do not reach some of those most at risk: those no longer in school. Also, where teaching about sexuality and HIV and AIDS in school is highly sensitive or taboo, programmes outside school may be the only means of getting knowledge and life skills education to young people.

Life skills education outside school is likely to be most effective when it complements other services targeting young people. The tailored activities, small group sizes, and voluntary and anonymous participation offered by youth drop-in centres can enhance reach and effectiveness. In Estonia, partnerships have developed between schools, which provide sexuality education, and youth counselling centres. The centres support teachers in handling difficult topics using interactive methods. Once young people become acquainted with the centres and are assured that they are a friendly and safe social space, they are more likely to return for advice. The partnerships, together with increased availability of modern contraception and health system reforms, have contributed to significant improvements in youth sexual health indicators in Estonia (Haldre et al., 2012; Kivela et al., 2011).

Programmes run by youth organizations or using peer educators have proved an effective means of delivering life skills education, as young people are often more comfortable talking to their peers. One example is the Together We Can programme, a partnership between national Red Cross societies and ministries of health in Guyana, Haiti and the United Republic of Tanzania. Young people have been mobilized to deliver HIV-prevention messages, offer life skills training and provide education and support to other youth (American Red Cross, 2010, 2012).

Peer educators have also helped improve knowledge about HIV in the Grassroot Soccer programme, an out-of-school activity for girls and boys aged 12 to 18 in several high-prevalence countries. Over 490,000 young people have participated. The curriculum uses activities and games to provide comprehensive HIV prevention and life skills education. Football stars and Grassroot Soccer graduates act as educators, community advocates and spokespeople. Teachers have become a key part of the programme in some countries, in an attempt to improve its chances of being sustained, replicated and scaled up.

Ten evaluations of the Grassroot Soccer programme in seven countries have shown positive effects on knowledge, attitudes and communication related to HIV. A study in Zimbabwe showed that the proportion of students who knew where to go for help with HIV-related problems increased from 47% to 76%, and the proportion of those who believed condoms were effective increased from 49% to 71% (Botcheva and Huffman, 2004; Grassroot Soccer, 2012; Kaufman et al., 2010).

15. Grassroot Soccer operates flagship sites in South Africa, Zambia and Zimbabwe, and has helped design and launch projects in Botswana, the Dominican Republic, Guatemala, Ethiopia, Kenya, Lesotho, Malawi, Namibia, Sudan and the United Republic of Tanzania.
Whether life skills programmes are offered inside or outside formal education, they need to reflect the fact that boys and girls have different needs and vulnerabilities. Single gender groups, with a teacher or facilitator of the same gender, can foster more open communication on sensitive issues. For example, recognizing the particular vulnerability of women aged 15 to 19, the Sister 2 Sister Initiative in Malawi targets young women with life skills education provided by older young women (‘big sisters’). The training is extracurricular: while it supplements the long-established formal life skills curriculum, it can also be delivered to young women who are out of school. Overall, the programme has led to increased knowledge in the areas of sexuality, HIV, condom use, multiple and concurrent partners, age-disparate relationships, and health-seeking behaviours, with evidence that knowledge is sustained over time (Bakaroudis, 2011).

**Strengthening and mainstreaming life skills education**

Life skills education programmes are often implemented through NGOs. They tend to be extracurricular, voluntary, small-scale initiatives, and are generally not recognized by governments. They can provide useful lessons, however, and can gradually be integrated into a national curriculum, as has occurred in Indonesia, Kenya and Uganda (Leerlooijer et al., 2011; UNESCO, 2011e).

In order to replicate, scale up and incorporate such programmes into public education, it is crucial to explain the need for them to communities and others who will be involved. This is especially true in settings where talking about sex and sexuality is politically or culturally sensitive. To be effective, such advocacy needs to be budgeted and planned from the outset (Box 1.7).

In Indonesia, during the development and implementation of a secondary school-based HIV prevention programme delivered through life skills education, advocacy activities that targeted a range of interested parties – including local government and education authorities, school management and teachers, religious and community leaders, and students and parents – were found to be a key factor in their acceptance of the programme (Pohan et al., 2011).

**Conclusion**

Life skills programmes that focus on young people are a vital component of a comprehensive HIV prevention response. Adequate support and training for teachers and facilitators are crucial. Life skills programmes outside formal education, particularly involving youth as facilitators and mentors, can complement school-based approaches and broaden coverage to reach young people who are most at risk.

### Box 1.7: Scaling up life skills and HIV education in India and Nigeria

Extending life skills education with a focus on HIV and bringing it into the mainstream can be especially challenging in contexts where this is a particularly sensitive issue. Programmes in India and Nigeria show that talking the issues through with those involved can lead to their acceptance.

In India, the Adolescent Education Programme aimed to empower young people to respond to real-life situations by adopting a life skills approach. Development began in 1998 and the programme was launched in six pilot states in 2002. However, it was shelved between 2003 and 2006 because of opposition to the content of the curriculum, which was seen as being too explicit and targeting children who were too young. Moreover, the programme’s development was viewed as a top-down process with limited consultation at the state and district levels.

The programme was reintroduced in the state of Odisha in 2007 as the Adolescent Reproductive and Sexual Health curriculum, after consultation with a range of interested parties, including adolescents themselves. The consultation highlighted the need for close involvement of family and community members, and for training and support for teachers. Implemented by the state government, the compulsory curriculum targeting 13- to 16-year-olds is being scaled up to all districts. A recent evaluation in five states, including Odisha, found that knowledge of HIV and AIDS was higher, and discriminatory attitudes lower, among students and teachers in schools that had been part of the programme.

In Nigeria, the National Sexuality Education Curriculum for Upper Primary, Secondary and Tertiary Institutions was approved in 2001. In response to concerns from parents, politicians and religious leaders that the curriculum was too explicit, discussions on condoms and contraception were removed and the title was changed to Family Life and HIV Education. After being successfully scaled up in Lagos state, the programme is being extended to all primary and junior secondary schools in all states, with funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria. The 2010 Nigeria Education Data Survey found that 59% of parents and guardians with a child in primary or secondary school were aware that the curriculum was being taught.

The exclusion of key topics could be a problem, particularly in a country with a generalized HIV epidemic and with a large and vulnerable population of young people. But because the concerns were taken into account, and individual states were allowed to adapt the curriculum to suit their socio-cultural characteristics, many original objectives of the curriculum continue to be met, and discussions about reintroducing key topics continue.

Sources: McManus and Dhar (2008); Nigeria Federal Ministry of Education (2011); Samuels et al. (forthcoming); TARSHI (2008); UNESCO (2011e); UNFPA (2009, 2011).
CHAPTER 1

Goal 4  Improving levels of adult literacy

Achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.

Highlights

- Most countries will miss goal 4, some by a large margin. There were still 775 million adults who could not read or write in 2010, about two-thirds of whom were women.
- Globally the adult literacy rate has increased over the past two decades, from 76% in 1985–1994 to 84% in 2005–2010 but, partly because the world’s population has grown, the number of illiterate adults has fallen modestly from 881 million to 775 million.
- Of the forty countries that had an adult literacy rate below 90% in 1998–2001, only three are expected to meet the goal of reducing their illiteracy rate by 50%.
- The global youth literacy rate stood at 90% in 2005–2010, equivalent to 122 million young people. This means that the world is not in a position to eradicate illiteracy by 2015 or any time soon thereafter.

Table 1.7: Key indicators for goal 4

<table>
<thead>
<tr>
<th>Illiterate adults</th>
<th>Adult literacy rates</th>
<th>Youth literacy rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total (000)</td>
<td>Change since 1985–94 (%)</td>
</tr>
<tr>
<td>World</td>
<td>774 756</td>
<td>-12</td>
</tr>
<tr>
<td>Low income countries</td>
<td>174 291</td>
<td>17</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>469 462</td>
<td>2</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>122 305</td>
<td>-53</td>
</tr>
<tr>
<td>High income countries</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>169 313</td>
<td>27</td>
</tr>
<tr>
<td>Arab States</td>
<td>50 286</td>
<td>-3</td>
</tr>
<tr>
<td>Central Asia</td>
<td>302</td>
<td>-68</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>99 158</td>
<td>57</td>
</tr>
<tr>
<td>South and West Asia</td>
<td>406 419</td>
<td>1</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>35 805</td>
<td>-15</td>
</tr>
<tr>
<td>North America and Western Europe</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>8 794</td>
<td>-44</td>
</tr>
</tbody>
</table>

Notes: Data are for the most recent year available during the period specified. Adults are those aged 15 and over; youth are those aged 15 to 24. Gender parity is reached when the gender parity index is between 0.97 and 1.03.

Sources: Annex, Statistical Tables 2 and 10; UIS database.
THE SIX EFA GOALS

Goal 4: Improving levels of adult literacy

Literacy is crucial for adults’ social and economic well-being – and for that of their children. Yet progress on this goal has been very limited, largely as a result of government and donor indifference [Panel 1.7].

The global adult illiteracy rate was 16% in 2010, corresponding to about 775 million adults, almost two-thirds of whom are women. Progress in reducing adult illiteracy has slowed in recent years. After a decrease of almost 100 million in the 1990s, the number of illiterate adults fell by less than 8 million between 1995–2004 and 2005–2010. It is projected that by 2015 there will still be 738 million illiterate adults, a reduction of only 16% since the 1985–1994 literacy data reference period.

Over half of all illiterate adults live in South and West Asia, and over one-fifth in sub-Saharan Africa. Literacy rates have been growing too slowly in sub-Saharan Africa to counter the effects of population growth. As a result, the number of illiterate adults in the region has actually grown by 27% over the past twenty years, reaching 169 million in 2010. In South and West Asia the illiteracy rate has fallen at a faster pace, although the number of illiterate adults has increased slightly, by 6 million.

While youth illiteracy rates are lower than rates among adults overall – reflecting improved education in recent generations – about 10% of youth remain illiterate globally. This is equivalent to around 122 million young people. At 28%, sub-Saharan Africa has replaced South and West Asia as the region with the highest youth illiteracy rate. In absolute terms, 45 million illiterate young people live in sub-Saharan Africa and 62 million in South and West Asia.

Global literacy estimates are based on national surveys and censuses, which include questions about whether the respondent or household members have been to school and are literate. This approach can overestimate actual literacy levels, in part because respondents may be reluctant to reveal that they cannot read or write. Direct assessments of literacy skills provide a much better understanding of literacy levels than either self-declarations of the ability to read and write, or the number of years of formal education.

The UNESCO Institute for Statistics Literacy Assessment and Monitoring Programme (LAMP) is an attempt to measure literacy and numeracy skills directly and draws attention to the hitherto neglected role of literacy practices and literate environments in maintaining literacy skills [Panel 1.8]. Analysis of direct literacy tests from household surveys shows that completing primary school does not ensure that such skills are acquired by all [Panel 1.9].

On a global scale, few illiterate adults live in rich countries. Even in high income OECD countries, however, large numbers of adults have very poor literacy skills. There is a strong association between poor literacy skills and marginalization, indicating a need for innovative ways to provide more and better adult literacy programmes [goal 4, policy focus].
The majority of the world’s 775 million illiterate adults are concentrated in a small group of countries. Of the countries with data, ten have more than 10 million illiterate adults each, accounting for 72% of the global population of illiterate adults (Figure 1.29A).

These countries have experienced different rates of progress over the past two decades. India alone contains 37% of the global number of illiterate adults. A large improvement in its adult literacy rate, from 48% in 1991 to 63% in 2006, has been counterbalanced by population growth, so the total number of illiterate adults in the country has remained stagnant over the period. In Nigeria, the number of illiterate adults has risen by over 10 million between 1991 and 2010. In recognition of the problem, the government announced in April 2012 an initiative to revitalize adult and youth literacy programmes, aiming to educate up to 5 million illiterate adults over the next three years.

China, by contrast, has managed to reduce the number of illiterate adults by 66%, from 183 million to 62 million. This has been achieved thanks to a rise in the literacy rate from 78% to 94%, combined with a lower population growth rate. Indonesia has seen similar success, improving its literacy rate from 82% to 93% and reducing the number of illiterate adults by almost 9 million.

Other countries have smaller numbers of illiterate adults, but they make up a large share of the population. Eleven countries have an adult literacy rate below 50%, eight of which are in the western part of sub-Saharan Africa (Figure 1.29B).

Most countries will miss goal 4, some by a large margin. Among seventy-three countries with adult literacy data for both the 1998–2001 and 2008–2011 periods, forty countries had literacy rates below 90% in the earlier period. Of these, only three are expected to meet the goal of halving their illiteracy rate by 2015: the Plurinational State of Bolivia, Equatorial Guinea and Malaysia – each of which started with a literacy rate very close to 90% (Figure 1.30).

But of the thirty-seven countries not expected to meet the goal, some will be close. In particular, fourteen countries will come within less than five percentage points of the target. These include two countries...
Goal 4: Improving levels of adult literacy

The six EFA goals

Goal 4: Improving levels of adult literacy

with weak starting points that have made significant progress. Malawi increased its adult literacy rate from 64% in 1998 to 75% in 2010 and is expected to reach 79% by 2015, while the literacy rate in Timor-Leste improved from 38% in 2001 to 58% in 2010 and is expected to reach 67% by 2015.

Six countries will miss the goal by a particularly wide margin, at least fifteen percentage points. Among them, the Democratic Republic of the Congo and Madagascar will have experienced declines in the adult literacy rate over the period. The Central African Republic and Papua New Guinea recorded only small gains. By contrast, Chad and Mali experienced significant gains from very low starting points. The adult literacy rate in Mali is expected to have doubled between 1998 and 2015.

Within the group of seventy-three countries for which comparisons over time are possible, the number of countries which have achieved gender parity increased from 26 to 34. The eight countries that have made the greatest strides in women’s literacy in the past decade are, in increasing order of improvement, Saudi Arabia, Nepal, Cambodia, Equatorial Guinea, Malawi, the Gambia, Timor-Leste and Chad. All countries that started with gender disparity in literacy in 1998–2001 made progress except for Zambia.

Even so, there were still 81 out of the 146 countries with data for 2005–2010 in which more women than men were illiterate. Of these, twenty-one displayed extreme gender disparity, with a gender parity index (GPI) below 0.70. The Niger’s GPI was the lowest, at 0.35.
Information on literate environments and literacy practices is of crucial importance for understanding the presence of literacy skills (OECD and Statistics Canada, 2000; Statistics Canada and OECD, 2005). The UNESCO Institute for Statistics Literacy Assessment and Monitoring Programme (LAMP) is providing new evidence linking actual reading and numeracy skills with information on the environments in which these skills are acquired and maintained.

Most literacy skills are acquired in schools or literacy centres, but whether adults maintain or lose these skills depends on whether they engage in certain literacy practices, such as reading a newspaper, reading bills or using a computer. They also need to live in environments where these practices are encouraged or, at least, possible. This can be affected, for example, by the availability of stores in the community that sell newspapers.

To understand the processes involved in acquiring literacy skills, LAMP collects background information on a wide range of literate environments and literacy practices. This information is used to develop measures of ‘literate environment density’ at individual or household level and at community level (Guadalupe and Cardoso, 2011).

Adult literacy rates vary widely among countries implementing LAMP, from 29% in the Niger to 97% in Mongolia. The four countries that have already carried out the LAMP main assessment – Jordan, Mongolia, Palestine and Paraguay – have all achieved a relatively high literacy rate. Their literacy practices differ, however. The percentage of adults who reported reading for pleasure ranged from 36% in Palestine to 60% in Mongolia. The use of a computer varied from 35% in Paraguay to 57% in Jordan. Reading bills, invoices or budget tables was twice as frequent in Paraguay as in Mongolia (Figure 1.31).

Panel 1.8: LAMP deepens understanding of literacy contexts

16. The main assessment was conducted in Jordan, Mongolia, Palestine and Paraguay in 2010–11. In addition, field trials have taken place in El Salvador, Morocco, the Niger and Viet Nam. Several other countries are going through the initial stages of the process, including Afghanistan, Jamaica, the Lao People’s Democratic Republic and Namibia.

Source: UIS, preliminary analysis of LAMP data.
Some community characteristics of the literate environment are found to be relevant to all countries, such as the availability of public lighting, street names and dwelling numbers, newsstands, and public libraries. Other characteristics on which information has been collected are relevant only for particular countries, such as cinemas, public billboards and advertisements. Health centres are also included as an indicator of literate environment density. This is because in many developing countries they expose people to printed materials, such as posters, prescriptions and medicine labels.

Initial LAMP data show large differences in community characteristics that can help maintain literacy skills. For example, only 25% of the population in Mongolia has access to a store or kiosk that sells printed materials, compared with 85% in Palestine. While 28% of dwellings are numbered in Palestine, 91% are in Jordan (Figure 1.32).

Figure 1.32: Community characteristics that help maintain literacy differ widely by country
Population living in communities with selected services included in the community literate environment density measure, Jordan, Mongolia, Palestine and Paraguay, 2010/2011

Source: UIS, preliminary analysis of LAMP data.
Curricula around the world expect children to learn to read by the end of the second year of primary school (Abadzi, 2010). In practice, it is more commonly assumed that it takes four or five years of school for all children to become literate (UNESCO, 2005). New analysis of household surveys prepared for this Report reveals that many children in poor countries have not become literate even by the time they have completed primary school.

Recent Demographic and Health Surveys ask respondents who have not attended secondary school to read a short sentence from a card. The interviewer records whether respondents can read all or part of the sentence, and so whether they are literate or semi-literate.

Evidence from surveys in ten low income and lower middle income countries shows that a considerable proportion of young adults are illiterate or semi-literate. One reason is that some still never make it to school or are likely to have dropped out of school early. But that is by no means the only reason. Many young people aged 15 to 29 had not become literate even after completing six years of school. To take one example, in Ghana 51% of the young women in this category and 37% of the young men were illiterate in 2008. In addition, 28% of the young women and 33% of the young men were semi-literate (Figure 1.33).

Children who leave school after completing only six years are likely to have different characteristics from those who stay in school longer. Many of the early leavers probably struggled at school, which is often one reason for children not continuing to secondary school. Nevertheless, their experience carries important lessons. As countries strive to achieve universal primary education, more children from disadvantaged backgrounds enter school but are unlikely to progress beyond the primary level. Schools need to ensure that they are given the necessary support to learn effectively.

Comparing this cohort with an earlier cohort of students can give some insights into changes in the quality of education. For example, in Kenya many of those aged 15 to 29 in 2003 went to primary school in the early 2000s. Of those young women who left school after six years in 2008, 43% had only partial literacy skills or none.

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Figure 1.33: For many young people, six years of school are insufficient to build literacy skills

Literacy status, men and women aged 15 to 29 who completed only six years of school, selected countries, 2005 to 2011 (%)

Source: EFA Global Monitoring Report team analysis (2012) based on Demographic and Health Survey data.

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17. If respondents have attended secondary school, they are assumed to be literate and the question is not asked.
Goal 4: Improving levels of adult literacy

at all, compared with 20% five years earlier. In Nigeria, the percentage of young women still illiterate after six years of school increased from 41% in 2003 to 52% in 2008 (Figure 1.34). This suggests that the perceived deterioration in the quality of education in some African countries is not associated only with the more recent increase in enrolment but, rather, that there is a chronic quality problem.

How many years of school are necessary to guarantee that all children master basic literacy skills? The answer is likely to vary from country to country. In some cases, even reaching lower secondary school may be insufficient. In Ghana, illiteracy rates decline with years in school, but even among those who had completed nine years of school in 2008, 21% were illiterate, and about a quarter were only partially literate in both 2003 and 2008 (Figure 1.35).

This evidence suggests that countries need to monitor the acquisition of literacy skills more closely, and should not assume that increasing the number of years children spend in school will soon eradicate adult illiteracy.
In high income countries, the universal spread of schooling has consigned high levels of illiteracy to the distant past. Yet significant numbers of adults still have very poor literacy skills – unable to use reading, writing and calculation effectively in their day to day lives. Those facing social disadvantage, including the poor, migrants and ethnic minorities, are particularly affected. Policies do not sufficiently address the extent of poor literacy skills among adults in rich countries, leaving millions without the basic skills they need to participate fully in productive employment and improve their quality of life.

Adult literacy skills in rich countries need to be tackled on two fronts: strengthening formal schooling to assure better adult literacy skills in the future, and supporting the literacy learning of adults. This section focuses on the second strategy in high income OECD countries.

Low adult literacy skills in rich countries are a wider problem than is often recognized

Conventional data on illiteracy, measuring those who are unable to read or write at all, vastly underestimate the share of adults who have very poor literacy skills in rich countries, which the most reliable estimates put as high as one in five.

Conventional estimates based on projections for a very few countries suggest that around 8 million adults in developed countries were unable to read or write in 2008, giving an illiteracy rate below 1% for adults and close to zero for those aged 15 to 24 (UNESCO, 2011c, Statistical Table 2). But such figures tell us little about actual literacy and numeracy skills because they are derived by asking people to estimate their own skills, or those of household members, by answering a simple yes/no question. In reality, literacy is a continuum, from complete unfamiliarity with written letters and numbers to the ability to communicate via long and complex written texts quickly and with ease. And it can only be accurately measured by directly testing people’s abilities.

Adult Literacy and Life Skills (ALL) surveys undertaken in nine high income OECD countries assess skill proficiency on a five-level scale (OECD and Statistics Canada, 2011). A person only at level 1 in prose literacy can at most locate a single piece of information in a text that is identical or synonymous to the information in the question. Even if they can read, adults at that level may be unable to apply this skill to simple tasks, such as determining the correct amount of medicine to take from information printed on the package (OECD and Statistics Canada, 2011).

For the nine countries surveyed, the average share of respondents achieving no more than level 1 in prose literacy was about 22%, or 70 million adults; national shares ranged from 8% in Norway to 47% in Italy. The proportion at level 1 for numeracy was even higher – almost 27% on average, or 84 million adults (Figure 1.36).

47% of adults in Italy have poor literacy skills
If it is assumed that literacy rates in the nine countries (which account for 43% of the population aged 15 to 64 in the thirty-one high income OECD countries) are representative of the total population, that means close to 160 million adults in high income OECD countries have poor literacy skills.

While national literacy assessments are not comparable from country to country, because of differences in sampling, methodology and definitions, they confirm that poor literacy skills are a significant problem. For example:

- In Germany, a 2010 assessment estimated that 14.5% of the population aged 18 to 64, or about 7.5 million people, were functionally illiterate. Of these 0.6% could not read, understand or write single words; 3.9% could read, understand and write single words but only letter by letter; and 10% could read single sentences, but not continuous text, such as instructions (Grotlüschen and Riekmann, 2011).

- In France, a 2004/05 survey estimated that 9% of the population aged 18 to 65, or about 3.1 million people, did not possess basic reading, writing and arithmetic skills to write a shopping list, understand their child’s school report or write a cheque (ANLCI, 2008).

- In Scotland (United Kingdom), a 2009 survey estimated that 8% of the population aged 16 to 65 were at level 1 in prose literacy (St. Clair et al., 2010).

**Low educational attainment leads to low adult literacy skills**

Wide differences in educational attainment across countries are partly responsible for observed literacy levels. In Italy, which suffers from particularly low average levels of literacy skills, only 47% of those aged 16 to 65 have at least some upper secondary school, compared with 85% in Norway, where average literacy skills are the highest (OECD and Statistics Canada, 2011).

Literacy and numeracy skills tend to decline with age, partly because the expansion of secondary schooling is a phenomenon of recent decades. In the Netherlands and Norway, while 5% of those aged 16 to 25 have very poor literacy skills, for those aged 46 to 65 the share is 15% (OECD and Statistics Canada, 2011).
Even controlling for education and other individual characteristics, however, older adults are more likely to have very poor literacy skills, both because the quality of education has improved and because people lose skills as they age. Those with less education are more affected by skill loss as they get older. For those with post-secondary education, numeracy skills do not begin to decline before age 40, whereas for people without post-secondary schooling, numeracy skills decline throughout adulthood (Figure 1.37).

Those with less education not only have lower numeracy skills as they enter adulthood, but are also more likely to find employment in low skill occupations that do not require the use and development of numeracy skills. They are also less likely to benefit from lifelong education opportunities such as adult education courses and learning on the job.

But educational attainment is not the only determinant of adult literacy and numeracy skill levels. Even young people still in school at the age of 15 can have very poor literacy skills that may persist into adulthood. In surveys carried out in 2009 by the OECD’s Programme for International Student Assessment, the proportion of young people in school who performed below level 2, the level required to demonstrate reading ability that enables them to participate productively in life, ranged from under 10% in Finland and the Republic of Korea to over 25% in Austria, Israel and Luxembourg (OECD, 2010d).

Poor literacy skills are more likely among the disadvantaged

Average figures provide an overall picture of the scale of poor adult literacy skills. Yet they mask wide disparities within countries. Even in countries with higher overall levels of adult literacy skills, certain groups continue to face disadvantage linked to characteristics such as gender, poverty, ethnicity, language and disability:

- **Gender**: Women scored higher in prose literacy in each of the ALL survey countries except Italy and Switzerland. Men scored higher in numeracy everywhere except Hungary, but the gap was smaller for the youngest adults, especially in Canada, Italy and New Zealand (OECD and Statistics Canada, 2011).

- **Socio-economic status**: Poverty can have a strong effect on literacy even after controlling for education. For example, in the United States 43% of adults with very low literacy skills were poor, compared with only 4% of adults scoring at the highest literacy level (Kirsch et al., 2002). In the United Kingdom, among people born in 1970 who were in the lowest literacy category, 30% had fathers who were working in unskilled or partly skilled manual jobs when they were born compared with only 17% for those in the highest literacy category (Parsons and Bynner, 2007).

- **Language and immigration status**: In the nine ALL surveys, immigrants were more likely to have very poor literacy skills in the assessment language than native-born people. The disadvantage was particularly severe for those whose mother tongue was different from the assessment language: this group was three to six times more likely than the native-born to score at level 1 (OECD and Statistics Canada, 2011). In the Netherlands and the United States almost half the immigrants whose native tongue was not the assessment language scored at level 1.
**Ethnicity:** Ethnic and other minorities may have faced marginalization in education and the labour market, reducing their chances of acquiring literacy skills. Their schooling experiences have often been marred by poor quality and culturally inappropriate education, leading to low achievement and high dropout rates. Notably, throughout much of Europe, conventional illiteracy rates among the Roma have been estimated to be very high; 11% in Poland and 35% in Greece cannot read or write at all (European Union Agency for Fundamental Rights, 2009). In Australia, Canada, New Zealand and the United States, indigenous populations have lower literacy skills (Box 1.8).

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**Box 1.8: Adult literacy among indigenous populations in high income OECD countries**

The legacy of discrimination and stigmatization facing indigenous people in rich countries — such as in Australia, Canada, New Zealand and the United States — has received insufficient attention but is clearly visible in literacy data:

- First Nations, Inuit and Métis adults in Canada are more likely to lack basic literacy skills. In Nunavut, Inuit adults were over ten times as likely as non-Inuit to have very poor literacy skills in English or French (Figure 1.38).

- In New Zealand, where around 14.6% of the population identify with Māori ethnicity, 22% of Māori adults have very poor literacy skills in English, compared with 13% of the non-indigenous population.

- In the United States, 19% of American Indian and Native Alaskan adults scored below the basic level on prose literacy, compared with 7% of white Americans. For quantitative literacy, the gap was even higher: 32% compared with 13%.

The origins of poor literacy skills among indigenous populations vary, but often begin in school. In Australia, the 2009 PISA survey showed that the proportion of 15-year-olds who had not reached the basic level in reading was 38% among indigenous students, compared with 14% among non-indigenous students. For mathematics, the proportions were 40% and 15%. And as of 2008, only 30% of indigenous Australians aged 25 to 34 had completed twelve years of school, compared with 73% of non-indigenous Australians.

Countries are seeking ways to address the challenges indigenous populations face. The Canadian government has been attempting to redress the legacy of residential schooling that separated indigenous children from their families and aimed to assimilate them, including punishing them for speaking their own language. Following the Indian Residential Schools Settlement Agreement in 2007 and a formal apology by the government for the residential schools in 2008, the government has committed to improve the funding, quality and cultural relevance of schools on reserves.

Sources: ABS and AIHW (2011); George and Murray (2012); Kutner et al. (2007); National Panel on First Nation Elementary and Secondary Education for Students on Reserve (2012); Satherley and Lawes (2009); Statistics New Zealand (2007); Thomson et al. (2011); Truth and Reconciliation Commission of Canada (2012).
Disability: Certain learning, vision and hearing impairments have direct implications for literacy. A lack of appropriate inclusive education opportunities means that adults with disabilities may have faced challenges during their school years with implications for their literacy skills. In the United States, an assessment found that those without basic literacy skills were more than twice as likely as an average adult to have multiple disabilities (Baer et al., 2009).

While all these factors increase the risk of having very poor literacy skills, the problem affects people of all ages and from all walks of life. Many are employed, speak the national language as a mother tongue, and have some form of educational qualification. In Germany, three out of five adults with poor literacy skills are native German speakers (Grotlüschen and Riekmann, 2011). In France, more than half are working and almost three-quarters spoke only French at home as a child (ANLCI, 2008).

Poor literacy skills have important economic and social effects for individuals and households. Lower literacy scores translate into lower employment rates and earnings in most countries – even after taking into account education, parental background, experience, gender and immigrant status. Lower levels of numeracy skills are related to higher unemployment rates in all nine countries participating in the ALL surveys (OECD and Statistics Canada, 2011). Adults with level 1 skills were eight times more likely to be unemployed than adults with level 4 or level 5 skills in the United States, ten times more in the Netherlands and sixteen in Switzerland. Workers with higher prose literacy or numeracy skills earned on average 10% to 20% more than those with low skills, even after controlling for level of education (OECD and Statistics Canada, 2011).

Low literacy hinders full participation in other ways, making it hard to carry out tasks such as helping children with homework and filling in job application forms. It can act as a barrier to further education, social mobility and civic engagement. Among older people in England, lower levels of literacy are associated with poorer self-reported physical and psychological health, and lower self-reported quality of life (Jenkins et al., 2011).

Political commitment and policy vision can strengthen adult literacy

To prevent more people from entering adulthood with poor literacy, countries must continue to improve the quality of primary and secondary schooling and increase retention rates, paying particular attention to students from disadvantaged backgrounds. For those who have left school with poor literacy and numeracy skills, the challenge for policy-makers is greater. High level political commitment and a long-term, coherent policy vision are needed – both of which are often lacking, despite the attention that international literacy assessments have helped put on the low level of literacy skills.

High level commitment puts literacy in the spotlight

Recognizing the extent of literacy challenges is a vital first step towards tackling the problem. While it is too early to assess the effectiveness of several recent high level initiatives, such commitment helps raise awareness of the issues.

In February 2011 the European Commission launched a High-Level Group on Literacy charged with giving visibility to literacy in Europe and evaluating the effectiveness of existing policies (European Commission, 2011a). The results of the OECD’s Programme for the International Assessment of Adult Competencies (PIAAC), due to be released in 2013, should be another opportunity to call rich countries to action.

National policies backed by financing are vital

Some countries have developed literacy plans in recent years. The results of adult literacy surveys have often been a trigger for this commitment.

In New Zealand, there has been increased focus on literacy since the publication of the
THE SIX EFA GOALS

Goal 4: Improving levels of adult literacy

results of the 1996 International Adult Literacy Survey, which showed low levels of literacy skills (New Zealand Ministry of Education, 2008). The 2008–2012 Literacy, Language and Numeracy Action Plan prioritizes raising the literacy and numeracy skills of people at level 1 and level 2 who are in the workforce. The Ministry of Māori Affairs and the Ministry of Pacific Island Affairs are among the participating agencies, and tertiary institutions providing education in a Māori cultural context are also involved. The plan more than doubles the number of training opportunities (to almost 40,000) and the budget (to US$63 million) (New Zealand Tertiary Education Commission, 2008). Targets of participating learners have been on track, and an assessment tool has been developed that will provide initial information on literacy outcomes in 2013 (New Zealand Tertiary Education Commission, 2011).

Similarly, the United Kingdom’s Skills for Life strategy was initiated in 2001 in response to a government-commissioned report recognizing that many adults lacked basic literacy and numeracy skills. About US$8 billion was spent between 2001 and 2007. Some 5.7 million adult learners were reached, and 2.25 million of them gained accredited qualifications (United Kingdom Public Accounts Committee, 2009). Learners were approached through a wide range of programmes, including family and workplace programmes, English for speakers of other languages, and literacy and numeracy embedded in vocational training. Although the target number of adults was reached, there was no progress in outcomes. Between 2003 and 2010, the proportion of adults at the three lowest literacy levels remained unchanged at around 15% (Harding et al., 2011). An emphasis on quantitative targets may have made it less attractive to focus on the hardest to reach (Bathmaker, 2007).

In the Netherlands, the national plan to combat low levels of literacy among adults (Aanvalsplan Laaggeletterdheid) was triggered by the findings of international assessments showing that one in ten adults had very poor literacy skills. Its targets were set within a longer-term goal of reducing the number of adults with very poor literacy skills by 60% to 600,000 by 2015. One aim was to increase the number of participants in literacy training from 5,000 to 12,500 annually by 2010. That target was almost reached in 2008/09, but budgetary pressures meant that there were only 10,000 beneficiaries in 2010 (CINOP, 2011).

New Zealand plans to double the number of training opportunities over five years

Adult literacy programmes can lead to secondary school qualifications

One incentive for adults to attend literacy programmes is that they can lead to formal qualifications which can help them get better jobs. In Italy, there are two providers of basic skills which lead to a lower secondary school certificate: secondary schools that give evening courses, and Provincial Centres for Adult Education. While 130,000 adults attend basic education courses, they are mostly immigrants (Oliva, 2011). In light of the 19 million adults who had very poor literacy skills in Italy in 2003, this is a small effort.

The basic education programme for adults in Spain is larger. There are three levels. The first and second focus on basic literacy skills and were attended by about 95,000 students in 2009-2010. The third level leads to a compulsory secondary education certificate and was followed by almost 210,000 students in 2009-2010. In addition, about 70,000 immigrants attend language courses (Rodríguez Alvariño, 2008; Spain Ministry of Education Culture and Sport, 2012).

Family or intergenerational literacy programmes show good results

Adults often mention an inability to help their child with reading or homework as a reason for entering literacy programmes. Family or intergenerational literacy programmes, where parents and children develop their literacy skills together, take advantage of this drive. For such programmes, teachers need to be trained in both child and adult literacy learning as the methods for each are different (Kruidenier et al., 2010). The programmes have been shown to be...
effective in improving child literacy, the capacity of parents to support their children and parental motivation to engage in learning (Carpentieri et al., 2011).

In the United States, the Family and Child Education programme has served more than 12,500 American Indian families with young children since 1990. According to the programme’s assessment system, there have been improvements in adult literacy levels and more than 1,000 adults have obtained a high school diploma (Yarnell et al., 2010).

Workplace-based programmes help tackle illiteracy
If workplace literacy programmes are appropriately designed, they can be convenient and relevant, reaching adults who otherwise might not have participated. Many employers do not sufficiently recognize that raising workforce skills can improve product quality, workplace communications, and health and safety. To overcome this, publicly funded, enterprise-based basic skills programmes are in place, particularly in many Nordic and anglophone countries (Keogh, 2009; National Adult Literacy Agency, 2011). The New Zealand Workplace Literacy Fund, for example, provides funding to strengthen employee literacy and numeracy skills linked to workplace requirements (New Zealand Tertiary Education Commission, 2012).

In Norway, the Basic Competences in Working Life Programme began in 2006. By 2011, it was supporting 249 projects in more than 400 companies with a budget of about US$16 million, and more than 20,000 adults had benefited. Any enterprise in Norway, private or public, can apply for funding. Preference is given to proposals that combine work and basic skills training (reading, writing, numeracy and digital skills) with other job-relevant learning, and that are related to the competency goals of the Framework for Basic Skills developed by the Norwegian Agency for Lifelong Learning. Special efforts are made to include small and medium-sized enterprises in the programme and to encourage applications from industries that employ people with low formal skills (Hussain, 2010; Vox, 2012).

An evaluation of the workplace literacy component of the Skills for Life programme in the United Kingdom showed that courses needed to be long enough for any gains in productivity to be achieved, and that interventions had to be sensitive to the constraints of small and medium-sized enterprises, which may not easily be able to release workers for literacy training (Wolf, 2008).

Quality and commitment of literacy teachers are key factors
Trainers need to be well prepared to adjust to the needs of the heterogeneous populations they serve. In Greece, the Second Chance School programme targets adults who do not have a lower secondary school leaving certificate. Established in 2001 as part of a European Union initiative, it was serving about 7,000 students by 2009. The schools follow an open, interdisciplinary curriculum with active learning through group work. This flexible approach is markedly different from the formal education system. Yet teachers are seconded from formal primary and secondary schools and are not well prepared to deliver such a curriculum (Koutrouba, 2008; Koutrouba et al., 2011).

This shortcoming highlights the importance of providing appropriate training and professional development opportunities to attract and motivate the best adult educators. In the US state of Massachusetts, a model for a voluntary professional licence for adult education teachers was set up and training was provided in the areas covered by the licence (Comings and Soricone, 2005).
Overcoming stigma is a key challenge

Adults with very poor literacy skills are not always willing to participate in literacy programmes, partly because of the stigma attached to being recognized as illiterate. To help adults overcome this, many successful programmes have often been based on media campaigns and free, confidential advice. In England, for example, Skills for Life has been supported by major campaigns on television and in other media, which have led to high public recognition of adult illiteracy and have encouraged uptake (National Adult Literacy Agency, 2011).

In many countries and regions, governments and private foundations have developed services via telephone that offer help and information about how to take part in literacy programmes. For example, Info-Alpha in Quebec, Canada, is a free, confidential, bilingual service that offers help and information to people with low literacy skills. The service refers callers to literacy resources and providers in each area (Canada Council of Ministers of Education, 2008).

Information technology can also offer ways to overcome reservations about participating in literacy programmes. In Germany, the website www.ich-will-schreiben-lernen.de (I want to learn to write) offers self-study courses in reading, writing, mathematics and English. The anonymous nature of the courses and the fact that learners can take them anywhere, at any time and at any pace means people are more inclined to participate. About 200,000 learners have used the portal since it opened in 2004 (UIL, 2011).

Providing literacy training alongside career counselling, advisory services or skills training can encourage individuals to participate. In Spain, the Acceder programme embedded literacy training in guidance and vocational training delivered through forty-eight Integrated Employment Centres. These have served more than 37,000 people, of whom 70% were Roma (Centre for Strategy and Evaluation Services, 2011).

Conclusion

The challenge of poor adult literacy skills has not been sufficiently addressed in rich countries. Recognizing that poor literacy skills remain a social and economic barrier to millions of adults in these countries, a comprehensive policy focus backed by sufficient resources is required.
Chapter 1

Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls’ full and equal access to and achievement in basic education of good quality.

**Goal 5**

Assessing gender parity and equality in education

Convergence in enrolment between boys and girls has been one of the successes of the EFA movement since 2000, but more needs to be done to ensure that education opportunities and outcomes are equitable.

There are still sixty-eight countries that have not achieved gender parity in primary education, and girls are disadvantaged in sixty of them.

The incidence of severe gender disparity has become less common. Of the 167 countries with data in both 1999 and 2010, the number of countries where fewer than nine girls were in primary school for every ten boys fell from 33 to 17.

At the secondary level, ninety-seven countries have not reached gender parity; in forty-three of them, girls are disadvantaged. In much of the Arab States, South and West Asia, and sub-Saharan Africa gender disparities are at the expense of girls, while in many countries in Latin America and the Caribbean, and in East Asia and the Pacific, disparities are at the expense of boys.

International learning assessments indicate that girls perform better than boys in reading at both primary and secondary school level, and the gap is widening. Boys have an advantage in mathematics in most countries, although there is some evidence that the gap may be narrowing.

### Highlights

- Convergence in enrolment between boys and girls has been one of the successes of the EFA movement since 2000, but more needs to be done to ensure that education opportunities and outcomes are equitable.
- There are still sixty-eight countries that have not achieved gender parity in primary education, and girls are disadvantaged in sixty of them.
- The incidence of severe gender disparity has become less common. Of the 167 countries with data in both 1999 and 2010, the number of countries where fewer than nine girls were in primary school for every ten boys fell from 33 to 17.
- At the secondary level, ninety-seven countries have not reached gender parity; in forty-three of them, girls are disadvantaged. In much of the Arab States, South and West Asia, and sub-Saharan Africa gender disparities are at the expense of girls, while in many countries in Latin America and the Caribbean, and in East Asia and the Pacific, disparities are at the expense of boys.

### Table 1.8: Key indicators for goal 5

<table>
<thead>
<tr>
<th></th>
<th>Primary education</th>
<th></th>
<th>Secondary education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender parity achieved in 2010</td>
<td></td>
<td>Gender parity achieved in 2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total number of countries</td>
<td>Countries with data</td>
<td>Countries where the GPI is lower than 0.90</td>
<td>Gender parity index</td>
</tr>
<tr>
<td>World</td>
<td>108</td>
<td>176</td>
<td>17</td>
<td>0.92</td>
</tr>
<tr>
<td>Low income countries</td>
<td>9</td>
<td>29</td>
<td>10</td>
<td>0.86</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>23</td>
<td>49</td>
<td>6</td>
<td>0.86</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>34</td>
<td>50</td>
<td>1</td>
<td>0.99</td>
</tr>
<tr>
<td>High income countries</td>
<td>42</td>
<td>48</td>
<td>0</td>
<td>1.00</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>16</td>
<td>43</td>
<td>12</td>
<td>0.85</td>
</tr>
<tr>
<td>Arab States</td>
<td>6</td>
<td>15</td>
<td>1</td>
<td>0.87</td>
</tr>
<tr>
<td>Central Asia</td>
<td>7</td>
<td>8</td>
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<td>0.99</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>14</td>
<td>23</td>
<td>1</td>
<td>0.99</td>
</tr>
<tr>
<td>South and West Asia</td>
<td>4</td>
<td>7</td>
<td>2</td>
<td>0.83</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>18</td>
<td>35</td>
<td>1</td>
<td>0.97</td>
</tr>
<tr>
<td>North America and Western Europe</td>
<td>22</td>
<td>24</td>
<td>0</td>
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<tr>
<td>Central and Eastern Europe</td>
<td>21</td>
<td>21</td>
<td>0</td>
<td>0.97</td>
</tr>
</tbody>
</table>

**Note:** Gender parity is reached when the GPI is between 0.97 and 1.03.  
**Source:** Annex, Statistical Tables 5 and 7.
Gender parity and equality in education constitute a basic human right, as well as an important means of improving other social and economic outcomes. Narrowing the gender gap in primary enrolment is one of the biggest EFA successes since 2000. Even so, some countries are still in danger of not achieving gender parity in primary and secondary education by 2015. The goal goes beyond numbers of boys and girls in school. More needs to be done to ensure that all girls and boys have equitable access to educational opportunities and achieve equal educational outcomes.

At pre-primary level, gender parity had already been achieved, on average, in 2000 and has been maintained since, although enrolment levels remain low for both boys and girls in many parts of the world. The Arab States is the only region still falling short, even though major progress has been achieved, with the gender parity index (GPI) rising from 0.77 in 1999 to 0.94 in 2010.

At primary level, the Arab States and sub-Saharan Africa, each with a GPI of 0.93, have yet to achieve parity. These regions have, however, made significant progress since 1999, with the GPI increasing from 0.87 and 0.85, respectively. South and West Asia has made huge progress since 1999, reaching gender parity in primary education by 2010.

A key reason for fewer girls being in school is that they are less likely to start school in the first place. Once in school, their chances of progressing through the system are similar to those of boys (Panel 1.10).

At secondary level, the picture varies by region. Of particular concern is sub-Saharan Africa, whose GPI of 0.82 has not changed since 1999. Girls also remain disadvantaged in the Arab States and in South and West Asia. Latin America and the Caribbean, by contrast, faces a ‘reverse gender gap’, with more girls enrolled than boys (goal 5 policy focus). Yet disadvantage in secondary school – in access as well as learning outcomes – is preventable.

Gender disparities in secondary education enrolment are also narrowing. Of the 137 countries with data in both years, in 1999 there were 28 with fewer than 90 girls enrolled for every 100 boys; 16 were in sub-Saharan Africa. By 2010, this had declined to 22 countries, of which 15 were in sub-Saharan Africa.

At tertiary level, regional disparities are even greater than at secondary level, with as few as six girls for every ten boys in sub-Saharan Africa, while around eight boys for every ten girls are studying at this level in North America and Western Europe.

Reaching gender parity remains a challenge in many countries – but gender equality is about more than making sure equal numbers of boys and girls enter and progress through school. It is also about assuring their equal treatment within school – which means providing a safe, secure and supportive learning environment for all – and equal learning outcomes, which help build equitable access to social, economic and political life in adulthood.

Analysis of international and regional learning assessments shows that there are notable gender differences in learning outcomes by subject, which suggests that more needs to be done to prevent these gaps. Girls perform better than boys in reading, and there is evidence that the gap is increasing. Boys retain an advantage in mathematics in most countries, although there is some evidence that the gap may be narrowing (Panel 1.11).

With the emergence of several new initiatives – including the Global Partnership for Girls’ and Women’s Education and the High Level Panel on Girls’ and Women’s Education for Empowerment and Gender Equality, both launched by UNESCO in May 2011 – there are renewed opportunities to highlight and challenge barriers to gender parity and equality for girls. It will be important for these initiatives to tackle the root causes of gender disadvantage, ensuring that the high level initiatives translate into action leading to an equalizing of opportunities between girls and boys.
Considerable progress has been made in reducing gender disparities in primary education over the past decade, but several countries still have a long way to go. They have not only missed the deadline that was set for 2005, but are in danger of missing an extended deadline of 2015.

The reasons for girls’ disadvantage vary, but new analysis prepared for this Report indicates that the biggest obstacle for girls in the countries furthest from achieving gender parity is entering school in the first place. Once enrolled, their chance of progressing through the cycle is usually similar to that of boys.

The number of countries where girls face extreme disadvantage, or a gender parity index below 0.70, fell from sixteen in 1990 to eleven in 2000, and to just one in 2010 – Afghanistan. Despite its place at the bottom of the rankings, however, Afghanistan has overcome the biggest obstacles to girls’ education any country has witnessed: from an estimated female gross enrolment ratio of less than 4% in 1999, when the ruling Taliban had banned girls’ education, to 79% in 2010, resulting in an increase in the GPI from 0.08 to 0.69. With a long way still to go, the government needs to continue to address constraints on girls’ schooling. Community schools that reduce the distance from home have proved to be a successful approach to address the insecurity that continues in many parts of the country and affects girls’ enrolment in particular (Burde and Linden, 2009).

Severe disadvantage – measured by a GPI below 0.90 – is also lower than ten years ago. Of the 167 countries with data in both 1999 and 2010, 33 had a GPI below 0.90 in 1999, including 21 in sub-Saharan Africa. By 2010, there were only 17 countries in this group, including 12 in sub-Saharan Africa (Table 1.9).

Countries where severe gender disparities remain are more likely to have fewer children in school overall. This is the case in Afghanistan, the Central African Republic, Chad, Côte d’Ivoire, Eritrea, Mali, the Niger, Papua New Guinea and Yemen, which all have gross enrolment ratios below 80% and GPIs below 0.90.

But countries with high enrolment can also experience a wide gender gap, partly because there are more over-age boys in school than girls. This is the case for Angola, Benin, Cameroon, the Dominican Republic and Togo. It cannot be taken for granted, therefore, that increasing enrolment will automatically lead to a narrowing of the gender gap.

Comparing countries with data for 1990, 2000 and 2010, out of thirty-eight countries where the gender parity index was below 0.90 in 1990, twenty-five had passed this threshold by 2010. But of these, only six had achieved gender parity: Burundi, the Gambia, Ghana, India, the Islamic Republic of Iran, and Uganda – and Malawi, Mauritania and Senegal made such progress getting more girls into school that there is now a slight gender disparity at the expense of boys (Figure 1.39). These nine countries show what can be achieved when countries put in place strategies to overcome gender barriers at the same time as increasing primary enrolment overall.

In some countries that have not achieved gender parity, the GPI has nonetheless improved rapidly in the last

<table>
<thead>
<tr>
<th>Sub-Saharan Africa</th>
<th>GER, female</th>
<th>GPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central African Republic</td>
<td>79</td>
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<tr>
<td>Chad</td>
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<tr>
<td>Angola</td>
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</tr>
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<td>Côte d’Ivoire</td>
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<td>Niger</td>
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<td>Guinea</td>
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<td>Democratic Republic of the Congo</td>
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<td>Benin</td>
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<td>Mali</td>
<td>76</td>
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<tr>
<td>Togo</td>
<td>132</td>
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<td>Arab States</td>
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<tr>
<td>Yemen</td>
<td>78</td>
<td>0.817</td>
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<td></td>
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<td>Papua New Guinea</td>
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<tr>
<td>Latin America and the Caribbean</td>
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<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>102</td>
<td>0.882</td>
</tr>
</tbody>
</table>

Note: Data for the Central African Republic, Côte d’Ivoire, Mali and the Niger are from 2011; data for Papua New Guinea are from 2008. Source: Annex, Statistical Table 5.
ten years. In Ethiopia, for example, the index rose from 0.65 in 2000 to 0.91 in 2010. This reflects Ethiopia’s commitment both to expanding access to primary schooling and to tackling gender disparities. Its speed of progress suggests there is hope of achieving gender parity by 2015, although this will require a concerted effort to address entrenched gender disadvantages in some parts of the country, particularly where early marriage remains pervasive.

By contrast, progress has been very slow in some countries. This includes some where enrolment levels were initially relatively high, such as Cameroon and Papua New Guinea, and some where they were relatively low, such as the Central African Republic and Côte d’Ivoire. The speed at which progress has been made elsewhere indicates that these countries could reach gender parity if they showed the same kind of commitment to addressing girls’ disadvantage in coming years.

Notes: Only countries with data for 1990, 2000 and 2010 are plotted. If there was no information for a particular year, information was substituted up to two years before or after. Afghanistan and Oman are excluded because they experienced negative trends.
Source: UIS database.
The move towards gender parity has slowed in some countries after good progress over the 1990s. Some are close to the goal, such as Algeria, Egypt, Morocco and Tunisia: such countries need to tackle the problems facing the most marginalized girls who still cannot attend school. Slower progress over the last decade in Chad and Guinea means they are still some distance from the goal.

Angola and Eritrea are of particular concern because they slipped backwards between 1990 and 2010. Each country recorded a GPI over 0.90 in 1990, but Angola now is at 0.81 and Eritrea at 0.84, and therefore both are unlikely to achieve gender parity in primary schooling by 2015. In Eritrea, not only has the gender gap widened, but the female primary gross enrolment ratio fell from 47% in 1999 to 41% in 2010.

Understanding the reasons for girls’ lower enrolment is necessary to achieve gender parity. Is it because girls have less chance to enter school? Or is it, rather, that boys and girls have the same opportunity of entering school but girls are more likely to drop out? To answer these questions, household survey data from nine of the sixteen countries with the highest disparity were analysed for this Report.

The message that emerges is that girls face larger obstacles to entering primary school (Figure 1.40). In Guinea, for example, 44 out of 100 girls from the poorest households start school, compared with 57 boys. In most cases, once in school, girls and boys have an equal chance of progressing through the cycle. Therefore, the fact that only 40 out of 100 girls from poor households reach the end of primary school in Guinea, compared with 52 boys, is largely because fewer girls started in the first place.

While children from rich households have a better chance of starting school than those from poor households, more rich boys than rich girls enter school. In Mali, for example, 70 out of 100 girls from the richest households start school, compared with 81 boys.

Within this general pattern, there are exceptions. In Yemen, girls not only have less chance of entering school, but, once in school, are also less likely to reach grade 6. Only 49 out of 100 of poor girls enter school, compared with 72 out of 100 poor boys. And only 27 of poor girls reach grade 6, compared with 52 of poor boys.

Policy-makers need to tackle the causes of girls being out of school on multiple fronts: mobilizing communities to send girls to school by enlisting the support of media and local leaders; providing targeted financial support; providing gender-sensitive curriculum and textbooks; ensuring that teacher recruitment, deployment and training are gender-sensitive; and ensuring that school environments are healthy, safe and free of gender-based violence (Clarke, 2011). Countries that have adopted an appropriate mix of interventions have witnessed the most progress in narrowing the gender gap in primary enrolment over the past decade.

Figure 1.40: Poor girls have a lower chance of starting primary school

Expected cohort intake to grade 1 and survival rate to grade 6 by gender and wealth, selected countries with GPI in 2010 below 0.90, 2005 to 2008

THE SIX EFA GOALS

Goal 5: Assessing gender parity and equality in education

Panel 1.11: Gender disparities in learning outcomes persist

Achieving gender parity and gender equality in education requires not only that girls and boys have an equal chance to enter and stay in school, but also that they have equal opportunity in learning.

Regional and international learning assessments at primary and secondary level indicate distinct gender patterns that vary by subject. Girls perform better than boys in reading in all but one country,\(^{20}\) while boys retain an advantage in mathematics in most countries. There is more variation in science, with many countries not showing a significant difference between boys and girls (Figure 1.41). These patterns are broadly similar across education levels, regions and country income groups.

Results from the 2009 PISA show an even stronger pattern in favour of girls in reading than earlier surveys, with girls performing significantly better than boys in all seventy-four countries or economies surveyed. In OECD countries, girls’ advantage in reading was equivalent to one school year, on average. But not all girls performed well in these countries: one in eight girls and one in four boys failed to reach level 2, deemed the level at which students demonstrate reading skills that will enable them to participate effectively and productively in life [OECD, 2010d]. Among non-OECD countries participating, such as Malaysia and Romania, one in three girls and one in two boys failed to reach this level, on average.

In mathematics, the difference in performance tends to favour boys, although there are countries where girls perform as well as or better than boys. Boys performed better than girls in thirty-eight countries and in twenty-eight there was no significant difference. Girls performed better than boys in eight countries.

While the general pattern for mathematics is the opposite of that for reading, the gender gap in favour of boys is narrower. In addition, there is little difference between boys and girls in those failing to reach the minimum level required to use their skills effectively: in OECD countries, around one in five of both boys and girls failed to reach level 2. Among non-OECD countries, around half of both boys and girls did not reach this level.

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20. In the United Republic of Tanzania, boys perform better than girls in reading.

Note: The figure summarizes the results of six regional and international programmes of learning assessment: the Programme of Analysis of Education Systems of the CONFEMEN (PASEC, sub-Saharan Africa); the Progress in International Reading Literacy Study (PIRLS, international); the Programme for International Student Assessment (PISA, international); the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ, sub-Saharan Africa); the Second Regional Student Achievement Test (SERCE, Latin America); and the Trends in International Mathematics and Science Study (TIMSS, international). Sources: Gonzales et al. (2008); Hungi et al. (2010); UNESCO-DREALC (2008); Mullis et al. (2007); Saito (2010); Walker (2011).
Science presents a more mixed picture than either reading or mathematics, indicating that there are circumstances in which either boys or girls can perform better. Boys performed better than girls in thirteen countries, in thirty-four there was no significant difference, and girls performed better than boys in twenty-seven countries.

These average figures are likely to mask differences between subgroups of the population. For example, in Tunisia there was no gender gap in the mean science score. However, boys from the lowest socio-economic quartile were more likely to score above level 2 than girls in this group. By contrast, girls from the highest quartile had a better chance than boys of scoring above this level (Altinok, 2012b).

Overall, girls appear to be making greater progress in reading than boys. Comparing the subset of thirty-eight countries that took part in both the 2000 and 2009 PISA surveys, the gender gap in reading has widened in favour of girls by seven points (Figure 1.42).

The increase was significant in Brazil, France, Hong Kong (China), Indonesia, Israel, Portugal, the Republic of Korea, Romania and Sweden. In France, Romania and Sweden, the main reason behind the wider gender gap was a decline in boys’ performance (OECD, 2010a). While the gender gap in favour of girls has been widening for reading, there is some evidence that improvements in girls’ performance in mathematics have narrowed the gender gap.

There is no inherent difference in the capacities of girls or boys in reading, mathematics or science. Girls and boys can perform equally well in these subjects under the right conditions. To close the gap in reading, parents, teachers and policy-makers need to find creative ways to entice boys to read more, including by harnessing their interest in digital texts. To close the gap in mathematics, progress in gender equality outside the classroom, notably in employment opportunities, could play a major role in reducing disparities (Kane and Mertz, 2012).

![Figure 1.42: The gender gap in reading has widened](image_url)
Policy focus: Challenging disadvantage and disengagement among boys in secondary school

As more children around the world get the chance to enter secondary school, it is vital to ensure that girls and boys benefit equitably from this progress. At primary level, girls remain much more likely to be disadvantaged in many countries, so it is imperative to maintain the international focus on supporting girls (Panel 1.10). At secondary level, however, boys are at a disadvantage in some countries.

This section describes the extent of the problem, examines why it occurs and explores possible solutions. It shows that the causes of boys’ disadvantage in secondary school are different from those of girls, and that different remedies are often required. Boys’ lower enrolment or learning achievement may partly result from disadvantage related to poverty, and partly from disengagement, associated with a disaffection with school and a sense of not belonging to the school community.21

Disparities in secondary education are sometimes at the expense of boys

Boys are less likely than girls to enrol in secondary school and to do as well once in school, particularly in many upper middle and high income countries. The experiences of these countries offer lessons for poorer countries where enrolment is rising.

Unequal participation: more girls are enrolled than boys in some countries

For more than half of the ninety-seven countries that have not achieved gender parity in secondary education participation, the problem is due to fewer boys than girls being enrolled in school.

At the lower secondary level, boys are disadvantaged in thirty-three countries; in six of these, there are fewer than ninety boys for every hundred girls enrolled.

At the upper secondary level, boys are disadvantaged in seventy-five countries; in forty-two of these, fewer than ninety boys are enrolled for every hundred girls.

In most countries with fewer boys than girls in lower secondary education, the disparity is due to higher dropout rates for boys rather than higher transition rates of girls from primary to secondary school. In Nicaragua, for example, similar proportions of girls and boys enter lower secondary education, but fewer boys graduated in 2010: the gross entry ratio was 88% for boys and girls, while the gross graduation ratio for lower secondary general education was 36% for boys and 50% for girls.

The situation is similar in upper secondary education, although data are available for fewer countries. In Paraguay, a two percentage point difference in favour of girls in the gross entry ratio for upper secondary general education extended to ten percentage points in the gross graduation ratio in 2008 (UIS database).

Lower enrolment for boys is more common in upper middle and high income countries with high levels of enrolment overall. Colombia, Costa Rica and Mexico have all achieved secondary gross enrolment ratios of over 80% but have fewer than 95 boys enrolled for every 100 girls (Table 1.10). But there are also poorer countries where boys are less likely to be enrolled, including fifteen lower middle income countries and three low income countries – Bangladesh, Myanmar and Rwanda (Box 1.9).

Within poor countries where girls’ secondary enrolment is lower than boys’ on average, there may be locations where boys face greater disadvantage. For example, 2005/06 Demographic and Health Survey data indicated the proportion of those aged 15 to 19 attending school across India

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21. This section draws on Jha et al. (2012).
22. As of 2010, there were relevant data for 157 out of 204 countries.
was higher for boys (47%, compared with 36% for girls). However, the proportion was higher for girls in the state of Kerala (67%, compared with 62% for boys) and in Delhi (54% for girls and 49% for boys) (UNESCO, 2012c).

Some regions are more likely to show patterns of boys’ disadvantage. Of countries with data, boys’ enrolment is lower than girls’ in 66% of countries in Latin America and the Caribbean and 57% of countries in East Asia and the Pacific. For most countries experiencing a reverse gender gap, it is not a new phenomenon. For example, in the Dominican Republic, South Africa and the Bolivarian Republic of Venezuela, the pattern has persisted for a decade.

### Table 1.10: Boys’ disadvantage in secondary school participation is more common in richer countries

| Number of boys enrolled for every 100 girls, by total secondary education gross enrolment ratio, 2010 |
|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| <80% Total secondary education GER | 90–95 boys enrolled | 95–96 boys enrolled |
| **Low income countries** | **Bangladesh** | **Myanmar** | **Rwanda** |
| **Lower middle income countries** | **Honduras** | **Nicaragua** | **Viet Nam** | **Bhutan** | **Paraguay** |
| **Upper middle income countries** | **Dominican Republic** | **Malaysia** | **Panama** | **Ecuador** |
| **High income countries** | **Bermuda** |
| 80–100% Total secondary education GER |
| **Lower middle income countries** | **Cape Verde** | **Fiji** | **Guyana** | **Kiribati** | **Mongolia** | **Palestine** | **Philippines** |
| **Upper middle income countries** | **Argentina** | **Botswana** | **Colombia** | **Costa Rica** | **Dominica** | **Jordan** | **Mexico** | **Panama** | **Tunisia** | **Venezuela, B. R.** | **China** | **Jamaica** | **South Africa** |
| **High income countries** | **Cayman Islands** | **Bahrain** | **Bahamas** | **Brunei** | **Canada** | **Chile** | **Colombia** | **Costa Rica** | **Dominica** | **Dominican Republic** | **Ecuador** | **El Salvador** | **Fiji** | **France** | **Germany** | **Ghana** | **Greece** | **Guatemala** | **Guatemala** | **Guyana** | **Haiti** | **Iceland** | **India** | **Indonesia** | **Iran** | **Iraq** | **Ireland** | **Israel** | **Italy** | **Japan** | **Jordan** | **Kenya** | **Korea, R.** | **Kuwait** | **Lao PDR** | **Latvia** | **Lebanon** | **Liberia** | **Libya** | **Liechtenstein** | **Lithuania** | **Luxembourg** | **Madagascar** | **Malaysia** | **Mali** | **Malta** | **Mauritania** | **Mexico** | **Moldova** | **Monaco** | **Mongolia** | **Morocco** | **Mozambique** | **Namibia** | **Nauru** | **Nepal** | **Netherlands** | **New Zealand** | **Nicaragua** | **Niger** | **Nigeria** | **Norfolk Island** | **North Korea** | **North Macedonia** | **Oman** | **Pakistan** | **Panama** | **Papua New Guinea** | **Paraguay** | **Peru** | **Philippines** | **Poland** | **Portugal** | **Qatar** | **Quatar** | **Romania** | **Russia** | **Rwanda** | **Saint Kitts and Nevis** | **Saint Lucia** | **Saint Vincent and the Grenadines** | **Samoa** | **Santa Cruz and the Falkland Islands** | **Saudi Arabia** | **Senegal** | **Serbia** | **Singapore** | **Slovakia** | **Slovenia** | **South Africa** | **Spain** | **Sri Lanka** | **St. Pierre and Miquelon** | **Sudan** | **Suriname** | **Sweden** | **Switzerland** | **Syrian Arab Republic** | **Taiwan** | **Tajikistan** | **Tanzania** | **Thailand** | **Timor-Leste** | **Togo** | **Tunisia** | **Turkey** | **Turkmenistan** | **Tuvalu** | **Uganda** | **Ukraine** | **United Arab Emirates** | **United Kingdom** | **United States** | **Uruguay** | **US Virgin Islands** | **Uzbekistan** | **Vanuatu** | **Venezuela, B. R.** | **Viet Nam** | **Wallis and Futuna** | **Yemen** | **Zambia** | **Zimbabwe** |

**Note:** Countries with total secondary education gross enrolment ratios above 100% are not included. **Source:** Annex, Statistical Table 7.

### Unequal achievement: girls outperform boys in many countries

International learning assessments from middle and high income countries show that girls perform better than boys in reading (Panel 1.11). The 2009 PISA survey, which covered thirty-four OECD countries and forty partner countries and economies, showed that 15-year-old girls achieved significantly higher scores in reading than boys in all countries. The gender gap had widened in some countries since 2000, largely due to a greater improvement in girls’ performance.

Boys continue to outperform girls in mathematics in many countries, but the overall extent of their advantage is smaller than girls’ advantage in reading. Outcomes in science are more equal, although there are more countries in which girls do significantly better than boys than countries where boys perform better.

### Why some boys face disadvantage in secondary school

The common causes of girls’ disadvantage in secondary education, related to discrimination, are generally not as applicable to boys. Outside the school, poverty and the nature of the labour market can affect boys more than girls. Inside the school, the classroom environment can lead to boys’ disengagement.

### Boys’ disadvantage is compounded by poverty

Average indicators mask the fact that disparities at secondary school do not apply to all boys but affect those marginalized by factors such as poverty, social class, ethnicity and location. These boys experience greater economic and social pressure, with disproportionately negative outcomes for their participation and learning (Box 1.10).

In countries where secondary school-aged boys are more likely than girls to work outside the home, this can translate into education disadvantage. In Latin America and the Caribbean, there are strong links between gender and children’s work. In many countries across the region, more young males enter the workforce early and hold a paying job than...
Bangladesh is one of only three low income countries where more girls are in secondary school than boys. The disparity is largely due to measures supporting girls’ enrolment, suggesting a need for similar programmes that take into account the barriers that boys face in obtaining secondary education – especially poverty. The gender gap in enrolment begins as early as the first year of primary school, and continues into grades 6 to 10 of secondary school, with boys’ disadvantage having grown over time (Figure 1.43). In grades 11 and 12, there is disparity in favour of boys but overall enrolment rates are extremely low for both boys and girls.

This unique pattern is mainly due to stipends introduced in the early 1990s, which provide fee-free secondary schooling and a payment to all girls in school except in the largest urban areas. Alongside other policies and projects, the programme has been very successful in raising female secondary enrolment rates, from just 25% in 1992 to 60% in 2005.

The gender gap has not been a result of an absolute decline in the enrolment of boys – at worst, the enrolment rates of poor boys may have stagnated, and it is not clear that this is because of support to girls. As poor boys enter adolescence, they have more opportunities – and more need – to find wage work, which keeps them out of school. In order to enhance the poverty focus of the programme, stipends have been extended to poor boys since 2008 in about a quarter of the country.

Sources: Antoninis and Mia (2011); Asadullah and Chaudhury (2009); World Bank (2008).

Figure 1.43: In Bangladesh, there are increasingly more girls than boys in secondary school

Number of boys enrolled per 100 girls, by grade, 1999 and 2010

<table>
<thead>
<tr>
<th>Grade</th>
<th>1999</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td></td>
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<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In 1999, there were 90 boys enrolled in grade 8 for every 100 girls.
By 2010, there were only 82 boys for every 100 girls.

Source: UIS database.
Boys in Caribbean countries are more likely to be disadvantaged in secondary education than girls. Trinidad and Tobago illustrates this pattern for both attendance and achievement in secondary school (Figure 1.44). Gender gaps in attendance are modest at the lower secondary school level, but widen for the poorest boys at the upper secondary level. While there are only small differences in achievement between urban boys and girls, living in a rural area amplifies boys’ disadvantage. A rich girl living in either an urban or rural area achieves a score above the average for Germany, while a poor male living in a rural area scores close to the average for Tamil Nadu, India. A combination of two factors seems to be at work: the labour market is pulling poor rural boys out of school, and high levels of youth violence increase the chance that boys become disengaged.

Poverty reinforces boys’ disadvantage further. When a poor household’s income suddenly drops, the family may respond by withdrawing a boy from secondary school to earn money. In Brazil, adolescent boys are more likely to drop out of school because of the need to join the labour market. A sudden fall in family income has a 46% larger effect on the probability of dropout for boys in poor households compared to boys in non-poor households (Côrtes Neri et al., 2005; Duryea et al., 2007). Similarly, after Hurricane Mitch devastated rural Honduras in 1998, children

young females (Cunningham et al., 2008). Boys engaged in economic activity are also more likely not to attend school. The differences first appear among children of lower secondary school age but become even stronger among adolescents. For example, in Honduras, one of the countries with the highest gender disparities in secondary school participation, 60% of boys aged 15 to 17 were engaged in economic activity in 2002 compared with 21% of girls. About 82% of the boys engaged in economic activity were not in school, compared with 61% of the girls (Guarcello et al., 2006) (Figure 1.45).
from poor families were more likely to miss out on school – and boys paid a higher price because they were more likely than girls to get a job (Gitter and Barham, 2007).

Household strategies depend on the type of employment opportunities available. If parents perceive that available jobs for young men do not require secondary school completion, then investment in secondary education will seem less valuable than early entry into work. Boys and their families may consider the type or quality of education available to be irrelevant to the types of jobs on offer. In rural Lesotho, looking after livestock tends to keep poor boys out of school, while girls are able to attend for longer – though girls’ enrolment rates at secondary level are also very low. Boys’ herding activities may also play a role in keeping boys out of school in other southern African countries, such as Botswana and Namibia (Jha and Kelleher, 2006).

Poverty can also negatively affect boys’ participation in secondary education in richer countries, but the main consequences are on learning achievement. Low socio-economic status amplifies boys’ disadvantage in reading in many OECD countries (Figure 1.46). For example, almost all rich girls across seven OECD countries reach level 2 in reading (the level which, according to the OECD, will enable students to “participate effectively and productively in life”). Within these countries, most rich boys also perform relatively well, with only between 3% and 13% not reaching level 2. There is, however, a striking gender difference among poor students. In Greece, for example, 24% of female students from the bottom quartile had not reached level 2, compared with 50% of male students in that category.

The school environment may lead to boys’ disengagement
In some countries facing a reverse gender gap in enrolment or achievement, female teachers tend to outnumber male teachers in secondary schools. For example, this is the case in Brazil, Jamaica and the Philippines, where there are around six to seven male teachers for every ten female teachers. This fact has caused some to

Figure 1.45: Boys are more likely than girls to be engaged in economic activity, and those who work are more likely not to attend school
Percentage of those aged 15 to 17 who are engaged in economic activity by school attendance status, selected Latin American countries, 2000 to 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>40-49</td>
<td>30-34</td>
<td>50-54</td>
<td>45-49</td>
<td>60-64</td>
<td>55-59</td>
<td>70-74</td>
<td>65-70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td>35-40</td>
<td>30-35</td>
<td>45-50</td>
<td>40-45</td>
<td>55-60</td>
<td>50-55</td>
<td>65-70</td>
<td>60-65</td>
<td></td>
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</tr>
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<td>Honduras</td>
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<td>60-65</td>
<td>55-60</td>
<td>70-75</td>
<td>65-70</td>
<td>80-85</td>
<td>75-80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td>45-50</td>
<td>40-45</td>
<td>55-60</td>
<td>50-55</td>
<td>65-70</td>
<td>60-65</td>
<td>75-80</td>
<td>70-75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>40-45</td>
<td>35-40</td>
<td>50-55</td>
<td>45-50</td>
<td>60-65</td>
<td>55-60</td>
<td>70-75</td>
<td>65-70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venezuela B. R.</td>
<td>50-55</td>
<td>45-50</td>
<td>60-65</td>
<td>55-60</td>
<td>70-75</td>
<td>65-70</td>
<td>80-85</td>
<td>75-80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In economic activity, out of school
In economic activity, in school

Source: Guarcello et al. (2006).
ask whether children relate better to teachers of the same gender and whether male teachers are more likely to teach in ways best suited to boys.

A lack of male role models in education may disadvantage boys. Boys’ disengagement could be more likely where there are no adult male role models in the family. While there is no solid evidence of such a link between role models and boys’ engagement, teachers and principals often believe one exists, as a survey in Trinidad and Tobago has shown (George et al., 2009).

While wealthier boys in the Caribbean are more likely to see higher education and professional careers as realistic options, a vicious cycle of disengagement from education and involvement in risky behaviour has been observed for poorer boys in Jamaica and Trinidad and Tobago, where school gangs have emerged (UNDP, 2012). Female teachers may be less able to discipline boys in such contexts of high levels of crime and violence.

Teacher expectations about the capacities of male and female students may play a part in performance. One study in Jamaica found that boys were told they were lazy, leading to low self-esteem, streaming into remedial classes, and poor academic achievement and test results (MSI, 2005). Teachers have been noted as having low academic expectations of boys in Malaysia, Samoa, Seychelles, and Trinidad and Tobago (Page and Jha, 2009).

If boys perceive that female teachers discriminate against them, they may use this to justify their negative attitude. A study of more than 200 teachers and 3,000 adolescent students in Finland showed that, while all teachers viewed boys’ temperament and educational competence more negatively than girls’, male teachers perceived the differences between boys and girls to be smaller than female teachers did (Mullola et al., 2012).

The gender of the teacher, however, accounts for only part of the observed differences in achievement and engagement between boys and girls. A more important factor is likely to be teacher attitudes towards boys’ and girls’ learning processes, behaviour and academic success. Some commentators argue that, while there may be differences in learning styles between the genders, they are minor compared with the similarities, and can be shaped through the schooling experience (Eliot, 2011; Hyde, 2005). Teachers need to be aware of differences in learning styles where they exist, and be prepared to adjust their teaching and assessment methods accordingly (Younger et al., 2005).

**Challenging boys’ disadvantage and disengagement**

Gender disparities and inequality in education are not inevitable. In countries where boys are disadvantaged, there are ways that schools and society can help improve their participation, attainment and learning outcomes.

Policy-makers have begun to show greater awareness of problems associated with boys’ disadvantage and disengagement in education. In some contexts, this focus has emerged due to a perceived relationship between adolescent boys’ educational underachievement and rising levels of gang involvement, violence, crime, access to guns and drug-related activity, as in the Caribbean (Figueroa, 2010; Jha et al., 2012). In other situations, a combination of increased media focus on educational league tables and rising levels of youth unemployment has brought
the issue to the fore, as in the United Kingdom (Cassen and Kingdon, 2007).

Increased awareness is not yet being sufficiently translated into effective action, however. A lack of consensus about the causes of boys’ educational disadvantage is one reason; another is the justified focus on the range of challenges girls still face.

Tackling boys’ lower enrolment and performance requires a comprehensive approach that addresses their disadvantage due to labour market demands as well as their disengagement due to classroom practices and gender attitudes. A focus on three areas, each of which can also benefit girls’ education, is required:

- reducing the effects of poverty on educational participation and achievement;
- improving the quality and inclusive nature of schools; and
- offering second chances to those who have dropped out.

**Reducing poverty can boost boys’ enrolment and achievement**

Social protection programmes can support school participation for boys and girls, and in some cases improve learning outcomes (UNESCO, 2010b). Such programmes need to take gender into account. In Jamaica, the Programme of Advancement through Health and Education (PATH) is a government-funded conditional cash transfer programme supporting poor families, which includes waivers for secondary school fees and textbooks. The programme had a significant positive effect on school attendance but the effect on boys aged 13 to 17 was not stronger than that for girls, even though the policy was concerned with the lower attendance rates of teenage boys (Levy and Ohls, 2007). Since 2008, the transfer has been higher for boys than for girls and for secondary school than for primary school students to address the pressure on poor boys to get a job (Fiszbein et al., 2009).

Evaluations of cash transfer programmes show that boys do not always stand to benefit more in countries where they are at a greater disadvantage. In Brazil, the Bolsa Familia programme has sizeable positive effects on school outcomes but girls in lower secondary schools have benefited significantly more, with lower dropout and higher promotion rates (Glewwe and Kassouf, 2012). In Mexico, the grant provided to households by the Progresa programme (later renamed Oportunidades) was larger for girls of secondary school age. It increased school attendance by 7.5% for boys aged 14 to 17, slightly less than for girls (Attanasio et al., 2012; Barrera-Osorio et al., 2011). Such outcomes point to the need to consider the barriers to boys’ participation when designing programmes.

**Cash transfer programmes need to include the most disadvantaged boys**

High quality, inclusive schools can create the right environment

A range of approaches can help raise boys’ engagement and achievement by promoting a school ethos of cooperation, respect for students and action against gender stereotypes. Some countries have encouraged individual schools to come up with their own approaches to improving outcomes for boys.

In England, the Raising Boys’ Achievement Project worked with primary and secondary schools that had succeeded in narrowing the gender gap to identify strategies that improve boys’ learning and engagement with schooling. Some schools emphasized individual strategies to stimulate boys’ interest and engagement, for example through setting realistic targets to bolster their belief in themselves. Other schools responded to the range of learning styles exhibited by both girls and boys by adapting their pedagogy. For example, they emphasized creative approaches to literacy and interactive classroom activities. There were also school-wide organizational approaches. Some schools developed a team ethic so that underachieving students would feel included (Younger et al., 2005).
A similar programme in Australia, Boys’ Education Lighthouse Schools, documented best practice in boys’ education from about 350 schools. A compendium of resources based on the programme was developed for teachers. A follow-up project, Success for Boys, provided grants for up to 1,600 schools to improve boys’ education. The professional learning programme included a focus on effective literacy teaching and on the use of information technology to improve boys’ engagement with active learning (Munns et al., 2006).

This is a rare example where lessons learned have fed into a teacher training programme. Few countries appear to have given sufficient attention to professional development aimed at reducing the gender gap in achievement and male disaffection with school. When it comes to learning outcomes, it is the capacity of teachers to engage and support the learning of both boys and girls that matters. That fact underlines the need for high quality teacher education that includes appropriate training in gender issues.

In some countries, achievement-based streaming is practised in secondary schools with the intention of helping underperforming students. However, findings from a large number of studies in high income countries have failed to demonstrate consistently positive effects of streaming on student performance (Meier and Schütz, 2007; OECD, 2010c). Moreover, where boys are underperforming and perceived as hard to discipline, this practice can result in higher proportions of boys in the lower streams. Streaming students can reinforce negative perceptions of their ability by teachers, peers and themselves.

Single-sex schools are another response to boys’ disengagement from education. If such schools sometimes improve the learning outcomes of girls or boys, however, it may be because they tend to be particularly well funded and well managed, with high achieving students who have supportive parents (ACCES, 2011; Halpern et al., 2011). Trinidad and Tobago converted many schools to single-sex environments on the assumption that this would make it easier for teachers to cater to boys’ learning styles and reduce peer pressure (Jones-Parry and Green, 2010). However, a recent study showed that most students performed no better at single-sex schools in Trinidad and Tobago, the exception being students (particularly girls) who had expressed a strong preference for attending a single-sex school (Jackson, 2011).

Mentoring programmes can help boys – especially the most disadvantaged – become more self-confident, improve their behaviour and prevent them from disengaging from school (DuBois et al., 2002). In the United States, the century-old Big Brothers Big Sisters programme, which requires volunteer mentors to spend three to five hours per week with a child for at least a year, has been credited with improved behaviour. This result led to the introduction of a school-based variant of the programme. For this type of intervention to succeed, mentors need to be trained, interactions monitored and parents closely involved (Smith and Stormont, 2011).

One of the most difficult aspects of tackling boys’ disadvantage in education is how to foster positive gender attitudes, helping boys respect themselves and take pride in responsible, socially acceptable, non-violent behaviour. While this needs to happen in households and communities, schools are a key place where action can be taken. In the Caribbean, a regional contest among non-government projects highlighted the best ways of helping boys at risk, including developing a sense of achievement by valuing each boy’s contributions and creating a non-threatening and non-judgemental environment (Orlando and Lundwall, 2010; World Bank, 2011b).

Offering second chances can help boys make progress

In some countries, boys have been the focus of policies and programmes that bring young
people who had dropped out back into school. Second-chance programmes, often run outside the formal education system, can offer boys an opportunity to complete their secondary schooling and gain social and economic skills:

- In Jamaica, the Male Awareness Now (MAN) project, managed by the NGO Children First, works with out-of-school males aged 14 to 24 and their parents in Spanish Town, a poor and crime-ridden urban area. The project provides vocational and life skills, health forums, guidance, and cultural and sporting activities to help boys and young men move into school, training or employment and away from drugs and guns. The project has improved self-esteem, behaviour and attitudes among most participants, and two-thirds of participants successfully completed and received certification in a specific basic skill (Christian Aid, 2010; World Bank and Commonwealth Secretariat, 2009).

- In Samoa, the government and religious bodies run second-chance schools offering basic, vocational and life skills for early school leavers, primarily boys (Jha et al., 2012; UIS, 2012).

- In Lesotho, an NGO runs night schools where English, Sesotho and mathematics are taught, and a hot meal is provided, for young male herders who are otherwise unable to go to school because of their livestock rearing responsibilities (Sentebale, 2011).

**Conclusion**

Policymakers must not lose sight of the goal of bringing all school-age girls into primary and secondary school. At the same time, it is vital to address the fact that some boys are falling behind in secondary school. Focusing on education quality and inclusiveness, while tackling the effects of poverty and offering second chances, can reduce boys’ disadvantage and disengagement, and so improve participation and outcomes for all children.
Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

### Highlights

- Millions of children who go to school do not learn the basics. Out of around 650 million children of primary school age, as many as 250 million either do not reach grade 4 or, if they do, fail to attain minimum learning standards.
- Pupil/teacher ratios at primary level improved globally between 1999 and 2010, especially in East Asia and Latin America. But they worsened in sub-Saharan Africa and South and West Asia, the regions that already had the highest pupil/teacher ratios.
- A significant proportion of teachers remain untrained at both primary and secondary level. Of 100 countries with data at the primary level, in 33 less than 75% of teachers were trained to the national standard. Even those who have received training are not always well-prepared to teach in early grades.

### Table 1.11: Key indicators for goal 6

<table>
<thead>
<tr>
<th></th>
<th>Pre-primary education</th>
<th></th>
<th>Primary education</th>
<th></th>
<th>Secondary education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teaching staff</td>
<td>Pupil/teacher ratio</td>
<td>Teaching staff</td>
<td>Pupil/teacher ratio</td>
<td>Teaching staff</td>
</tr>
<tr>
<td></td>
<td>2010 (000)</td>
<td>Change since 1999 (%)</td>
<td>2010 (000)</td>
<td>Change since 1999 (%)</td>
<td>2010 (000)</td>
</tr>
<tr>
<td>World</td>
<td>7,787</td>
<td>45</td>
<td>28,483</td>
<td>15</td>
<td>31,951</td>
</tr>
<tr>
<td>Low income countries</td>
<td>384</td>
<td>80</td>
<td>2,830</td>
<td>64</td>
<td>1,787</td>
</tr>
<tr>
<td>Lower middle income countries</td>
<td>...</td>
<td>...</td>
<td>9,576</td>
<td>22</td>
<td>9,680</td>
</tr>
<tr>
<td>Upper middle income countries</td>
<td>3,152</td>
<td>21</td>
<td>10,885</td>
<td>4</td>
<td>13,269</td>
</tr>
<tr>
<td>High income countries</td>
<td>1,899</td>
<td>37</td>
<td>5,193</td>
<td>9</td>
<td>7,215</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>444</td>
<td>126</td>
<td>3,103</td>
<td>59</td>
<td>1,722</td>
</tr>
<tr>
<td>Arab States</td>
<td>193</td>
<td>63</td>
<td>1,954</td>
<td>29</td>
<td>1,982</td>
</tr>
<tr>
<td>Central Asia</td>
<td>152</td>
<td>18</td>
<td>323</td>
<td>-2</td>
<td>920</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>2,096</td>
<td>49</td>
<td>10,376</td>
<td>13</td>
<td>10,459</td>
</tr>
<tr>
<td>South and West Asia</td>
<td>...</td>
<td>...</td>
<td>4,853</td>
<td>12</td>
<td>5,376</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>1,028</td>
<td>26</td>
<td>3,020</td>
<td>11</td>
<td>3,635</td>
</tr>
<tr>
<td>North America and Western Europe</td>
<td>1,545</td>
<td>45</td>
<td>3,741</td>
<td>9</td>
<td>5,204</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>1,086</td>
<td>-3</td>
<td>1,113</td>
<td>-18</td>
<td>2,643</td>
</tr>
</tbody>
</table>

Sources: Annex, Statistical Tables 4 and 8.
Making sure that children learn should be at the heart of any education system. National, regional and international assessments have contributed to a growing realization that, despite international convergence in terms of access to primary school, inequality in learning achievement between countries remains wide. The scale of learning deficits shows that there is far more to be done to ensure not only that more children get into school, but also that they achieve expected learning outcomes. For each child who does not reach grade 4, estimates for this Report suggest, another child who reaches this grade may be failing to learn the basics (Panel 1.12).

To achieve good learning outcomes for all, extreme disadvantage within countries needs to be overcome (Panel 1.13). Some education systems are better prepared than others to narrow the gap between an average child and a child marginalized by poverty, location, ethnicity or other factors.

Teachers are the most important resource for improving learning. A lack of teachers, and especially of trained teachers, presents a major obstacle to achieving the EFA goals.

The latest estimates suggest that 112 countries need to expand their teacher workforce by a total of 5.4 million primary school teachers by 2015 (UIS, 2011). New recruits are needed to cover both the 2 million additional posts required to reach universal primary education and the 3.4 million posts of those leaving the profession. Sub-Saharan African countries alone need to recruit more than 2 million teachers to achieve universal primary education.

The total number of primary school teachers grew by 15% between 1999 and 2010, resulting in a small decline in the global pupil/teacher ratio from 26:1 to 24:1. However, the number of teachers did not keep pace with the increasing number of pupils in the two regions facing the largest challenges. The pupil/teacher ratio increased in South and West Asia from 36:1 to 39:1. In sub-Saharan Africa, despite the recruitment of more than 1.1 million teachers, equivalent to a 59% increase, the pupil/teacher ratio rose slightly, from 42:1 to 43:1 – the highest in the world.

Overall, of 165 countries with data, there were 26 in which the pupil/teacher ratio was above 40:1 in 2010, including 22 in sub-Saharan Africa. Seven countries saw their ratios grow by more than five pupils for every teacher over the decade: the Democratic Republic of the Congo, Guinea-Bissau, Kenya, Pakistan, Samoa, the former Sudan and Yemen. Each experienced a significant rise in the gross enrolment ratio, far outstripping any increase in teacher numbers. This raises serious concerns for the quality of education in these countries.

Yet some countries with growing primary enrolment were able to improve their pupil/teacher ratio significantly. In Senegal, for example, the gross enrolment ratio rose from 68% in 1999 to 87% in 2010, while the pupil/teacher ratio fell from 49:1 to 34:1.

In many countries, the percentage of teachers trained according to national standards is low. Of 100 countries with data, 33 have less than 75% of their primary school teachers trained, and in 12 the share is less than 50%; among them are Benin, Ethiopia, Honduras, Liberia, Mali and Sierra Leone.

In secondary education, the global teaching force has grown by 31% – much more than at the primary level. Growth was particularly strong in South and West Asia, with an 84% rise, and sub-Saharan Africa, where the number more than doubled. The secondary pupil/teacher ratio stayed constant or decreased in every region, markedly so in South and West Asia (from 33:1 to 27:1). Overall, out of 110 countries with data, only 11 had pupil/teacher ratios in lower secondary education above 35:1 in 2010.

Data on the percentage of trained teachers are more sporadic at secondary level, but it is clear that many countries are not training enough secondary school teachers to the minimal level prescribed. Of fifty-nine countries with data, twenty-six have less than 75% of their secondary school teachers trained, and eleven have less than 50% of their teachers trained. The latter include Bangladesh, Burkina Faso, the Democratic Republic of the Congo, and the Niger.

Overcrowded classrooms and poorly trained teachers are resulting in children struggling to learn the basics in many parts of the world, particularly in low income countries. While many factors contribute to poor learning outcomes, lack of teacher preparedness in early grades leaves a legacy that is difficult to overcome later in the education cycle. This is a constraint that policy-makers must rectify (goal 6, policy focus).
Concerning the world’s 650 million children of primary school age, it is time for the emphasis to fall not only on the 120 million who do not reach grade 4 but also on the additional 130 million who are in school but failing to learn the basics.

Getting more children into school has been one of the successes of the EFA movement since 2000. There were 50 million more children in classrooms in sub-Saharan Africa and 33 million more in South and West Asia in 2010 than in 1999. This inevitably places a strain on the limited resources available for teaching and learning in the regions that have been furthest from the EFA goals. Many of the new students may enter school with disadvantages that make their learning more difficult: they may have poorer health, they are less likely to have had the opportunity to attend pre-school, and their parents are less likely to be educated and so are unable to support their learning.

Should getting more children into primary school really be considered a success if they are not acquiring the necessary skills? Concern about this question has led to a call for steps to tackle the problem, such as improving measurement of learning outcomes (Center for Universal Education, 2011). This urgent call for action is amply justified.

Four recent regional and international surveys provide a basis for comparing learning outcomes at the primary education level across countries. New analysis for this Report attempts to provide a snapshot of the extent to which children are both staying in school until grade 4 and learning the basics. The focus for this purpose is on mathematics.

In some countries, a large proportion do not reach grade 4: either they have not had the chance to enter school, or they have dropped out before reaching that level (Figure 1.47). In Burundi, Congo, Mozambique, Nicaragua and Senegal, at least one in three children do not reach grade 4. For these children who have dropped out before grade 4, it can be assumed that they would be unlikely to achieve minimum learning outcomes.

For those children who make it to grade 4, many do not achieve what the four surveys define as the minimum level in mathematics. According to the benchmarks set by the studies, one in six children in Latin America who took part in SERCE and almost two in three children in southern and eastern Africa who took part in SACMEQ failed to acquire basic numeracy skills.

In Nicaragua, for example, only 61% of children have reached grade 4, of whom 76% achieved the expected minimum learning level in SERCE; in other words, only 46% of the cohort is expected to achieve the minimum learning level. By contrast, almost all children reached grade 4 in Cuba and achieved the minimum learning level in SERCE.

Not only do few children reach grade 4 in southern Africa, but many do not achieve the minimum benchmark set by SACMEQ. The experience of Malawi is of particular concern. Despite great strides in increasing enrolment and narrowing the gender gap in recent years, 34% of children do not reach grade 4. Due to high levels of dropout and poor quality of schooling, only 5% of the cohort achieves the minimum learning level.

There is no inevitable trade-off between quantity and quality of education; increasing enrolment does not necessarily lead to lower learning achievement. Comparing countries participating in a given survey highlights the relative ability of education systems to help children acquire basic skills. Among countries that participated in the third SACMEQ study, almost four in five children make it to grade 4 in Kenya and Zambia, but schools in Kenya are more than twice as effective in ensuring that they learn basic mathematics skills. Among participating countries in TIMSS, both Algeria and Tunisia saw 98 of 100 children make it to grade 4.

23. The surveys are PASEC, SACMEQ, SERCE and TIMSS.
Yet the percentage achieving basic numeracy skills was 50% higher in Algeria than in Tunisia.

The learning assessments do not provide a global picture of achievement at primary level, as each is designed with different objectives and for different contexts. They measure reading and mathematics in different ways and test students in different grades.

A proper comparison would require students from all countries to take the same test in the same grade or at the same age. However, even though they are not strictly comparable, the lack of a full set of rigorously comparable data should not prevent recognition of the full extent of the learning deficit – and the inequalities in learning between countries.
Analysis for this Report places all countries on a rough common scale of learning (Altinok, 2012a) [Figure 1.48]. The comparisons show that, inevitably, children in rich countries, such as Japan and the Netherlands, are not only more likely to stay in school until grade 4 but also to achieve the minimum learning benchmark. At the other end of the spectrum, children in poorer countries – notably in Africa but also some Latin American countries, including Guatemala and Nicaragua – are more likely to drop out and, for those who make it to grade 4, not to achieve the basics.

The scale of the variation provides a stark illustration of the vast difference in opportunity to learn that children face by virtue of where they are born. Just 16 in 100 children in a poor country like Mozambique are able to learn the basics, compared with 79 in Uruguay and 100 in Japan.

What can this information tell us about the global learning deficit? The average rate of achievement of basic learning outcomes for the four assessments was used to estimate the extent of basic learning in countries lacking data. There are additional challenges because China and countries in South and West Asia, which together make up 41% of the population of primary school age children, have not participated in any international or regional assessment at primary level. Using further assumptions for these countries, estimates by the EFA Global Monitoring Report team suggest that around 250 million children either fail to make it to grade 4 or do not reach the minimum level of learning.

24. This is achieved by anchoring the results of all international and regional assessments (carried out over 2004–2008 at upper primary level (grades 4 to 6) using countries that at some point took part in more than one survey such as Colombia and El Salvador in TIMSS and SERCE; Botswana in TIMSS and SACMEQ; and Mauritius in SACMEQ and PASEC).

25. For China, an estimate close to the TIMMS average was used. For South and West Asia, the average used was around ten percentage points lower than SERCE.

26. A similar figure is estimated based on analysis of the same learning assessments using data on reading.
THE SIX EFA GOALS

Goal 6: The quality of education

Panel 1.13: Learning achievement within countries varies with socio-economic status

International and regional learning assessments can show the extent to which factors of disadvantage, such as low socio-economic status, determine individual achievement in each country.

Of the international assessments, the 2009 PISA has the most comprehensive coverage. PISA surveyed seventy-four countries and economies: all the OECD countries and forty other countries and economies. This includes less affluent non-OECD countries, although no sub-Saharan African countries participated and, in South and West Asia, only two states in India were included.

The survey assessed the performance of 15-year-olds, and in addition collected data on parental occupation and education and on selected home characteristics, such as the availability of books. With this information, an index of economic, social and cultural status was constructed. It can be used to identify the relationship between students’ performance in school and the disadvantages they face because of their home background.

In every country, the higher the quartile of the socio-economic index to which a student belongs, the better the performance, with a similar pattern for boys and girls (Figure 1.49). At one end of the spectrum, most 15-year-olds in richer countries such as Canada, Finland, the Republic of Korea and Singapore reach level 2, and the gap between students from households with higher and lower socio-economic status is narrow. At the other end, in less wealthy countries such as Argentina, Chile, Colombia and Jordan, the gap is much wider. The achievement gap can, however, only partially be explained by a country’s overall income level.

Figure 1.49: Learning achievement varies by socio-economic status

Percentage of students at or above level 2 in mathematics, by economic, social and cultural status and gender, 2009 PISA

Notes: Of countries and economies that participated in the 2009 PISA, Azerbaijan, Himachal Pradesh (India) and Liechtenstein are not included. Poor/Rich refers to the bottom/top quartile in the PISA economic, social and cultural status index.
In high income and upper middle income countries, even among countries with the same mean score, some education systems are better in ensuring that disadvantaged students are not left too far behind. For example, although Finland and Switzerland have a similar mean score, the difference in performance between rich and poor is much wider in Switzerland. In particular, there is a very large gap in the proportion of students from the bottom quartile performing below level 2, with 11% in Finland scoring below this level compared to 25% in Switzerland.

The role of socio-economic status and other background characteristics in explaining variation in learning achievement differs from country to country. For example, individual background explains a higher share of variation in reading performance in Austria, France and Hungary (between 28% and 36%) than in Croatia, Greece and Norway (between 18% and 21%) (OECD, 2010b). Where the relationship between background and learning is strong, disadvantaged students are denied one of the key routes to social mobility.

In middle income countries, student performance is very low: on average, at least half scored below level 2 in mathematics. In Brazil, seven out of ten are below this benchmark. In addition, the distribution of student performance is heavily skewed towards richer households: students in the top quartile do much better than those in the three bottom quartiles. In Thailand, for example, the percentage of students from the bottom three quartiles who scored below level 2 ranged between 56% and 65%. By comparison, only 26% of students from the top quartile performed so poorly (Figure 1.50).

Over time, some middle income countries have been able to reduce inequality in learning outcomes. The percentage of low performers in each quartile of socio-economic status in Brazil and Mexico fell between 2003 and 2009. This is particularly impressive given that participation in secondary education increased significantly over the period. Targeted social protection policies since the late 1990s in these countries are a likely source of the gains made by disadvantaged students. By contrast, in Indonesia and Thailand the gap between the top and bottom quartiles widened.

Middle income countries see more children drop out of school before age 15 than do high income countries. Since surveys like PISA only test those in school, they exclude the poorest performing children who have already dropped out of school and tend to be from disadvantaged backgrounds – so the achievement gap could be even wider than the surveys show (Ferreira and Gignoux, 2011). In Indonesia, for example, the proportion of 15-year-olds included in the 2009 survey was 53%, but the OECD average was 88%.

To reduce inequality in learning achievement, middle income countries need to surmount several obstacles. First, they have wider income inequality (reflected in the larger range of the PISA index of economic, social and cultural status). Second, their schools are less diverse –
or more segregated along socio-economic lines – than in OECD countries: students from a low socio-economic background are more likely to be grouped in the same schools (a fact reflected in the lower value of the PISA social inclusion index) (Table 1.12). Such segregation can have adverse consequences for learning, as it means weaker students do not receive stimulation from stronger-performing students. Without redistributive measures, there is also a risk of fewer resources being allocated to schools with weaker students, since they tend to be in poorer areas.

In low income countries, socio-economic status has a very strong effect on both education attainment and learning outcomes. This fact may not be as apparent if these countries are compared on the same scale of learning outcomes as richer countries. The vast majority score below the minimum level, and so differences between wealth groups tend to be smaller. For example, in Kyrgyzstan, the only low income country that took part in the 2009 PISA, 88% of students scored below level 2 in mathematics, with 70% of those from the highest quartile scoring below this level, compared with 98% from the lowest quartile.

The role of socio-economic status becomes clearer in assessments which are able to identify differences at the lower end of the learning outcome distribution. For example, in 2009/10, Uwezo household surveys in three East African countries assessed whether children aged 6 to 16 had mastered the rudimentary literacy and numeracy skills expected of children at the end of grade 2. Among grade 3 students in Kenya, only 28% of students from the poorest fifth of households had attained the expected numeracy skills, compared with 48% of children from the richest fifth of households (Uwezo, 2011).

Analysing these patterns of inequality in learning outcomes, and what is driving them, can help shape policies that enable children from poor backgrounds to beat the odds (OECD, 2011a). Policy-makers can target additional resources for disadvantaged students to prevent low performance or to help low-performing schools bridge gaps. Where individual background accounts for a large share of differences in performance, authorities can offer incentives to good teachers to encourage them to teach in poor neighbourhoods. In middle income countries, where income inequality can thwart the effectiveness of education-specific measures, cash transfers can mitigate the multiple disadvantages that students from poorer backgrounds face.

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Table 1.12: Characteristics of sampled populations in PISA, selected middle income countries relative to the OECD average

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage rate of population of 15-year olds (%)</th>
<th>Range of index of economic, social and cultural status</th>
<th>Social inclusion index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>54, 63</td>
<td>3.94, 65</td>
<td>65</td>
</tr>
<tr>
<td>Indonesia</td>
<td>46, 53</td>
<td>3.55, 61</td>
<td>61</td>
</tr>
<tr>
<td>Mexico</td>
<td>49, 61</td>
<td>4.18, 56</td>
<td>56</td>
</tr>
<tr>
<td>Thailand</td>
<td>69, 73</td>
<td>3.72, 49</td>
<td>49</td>
</tr>
<tr>
<td>OECD average</td>
<td>89, 88</td>
<td>2.92, 75</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: OECD (2010b).
Teachers’ knowledge and abilities are at the heart of children’s learning in school. Yet, all too often, teachers are insufficiently prepared to teach. This is leading to a crisis in learning, with many children completing early grades of primary school unable to read a single word.

The expansion of primary enrolment in many countries has led to chronic shortages of teachers. With an estimated 2 million additional teachers needed by 2015, this is a key concern (UIS, 2011). But it is not the only one. Low levels of education and poor training are leaving teachers without the core subject knowledge and pedagogical skills they need to ensure that children develop strong foundations in basic literacy and numeracy. Nowhere is this more of a concern than in the initial years of primary school. If children are unable to learn the basics early on, their chances of acquiring other skills in later grades are slim. Evidence is increasing that early grade education is failing children, especially in poor countries.

The learning crisis is leading policy-makers to turn their attention to the role of teachers in early grades and the contributions made by pre-service and in-service training. This section identifies challenges in teacher training and explores effective solutions.

Assessments in the early grades highlight a chronic learning problem

Very poor levels of learning at lower grades of primary school are resulting in millions of children leaving education before acquiring basic skills. Children who have not learned to read a text or do basic calculations have little chance of benefiting from higher primary school grades. Moreover, their commitment to education is likely to diminish and they are more likely to drop out (Glick and Sahn, 2010; Liddell and Rae, 2001).

Early grade reading assessments in several countries have shown that many children spend two or three years in school without learning to read a single word. In Mali, for instance, 94% of second graders could not read a single word in French and at least eight out of ten could not read a single word in four national languages, despite the fact that Mali is the most advanced among West African francophone countries in using national languages in education (Gove and Cvečič, 2010; Varly, 2010).

In Bauchi and Sokoto, two states of northern Nigeria, 4,000 grade 3 students were assessed in Hausa, which is the language of instruction and the lingua franca as well as the mother tongue for the vast majority of students. Just 29% of students in Bauchi and 18% in Sokoto could read full words. These students were given a reading comprehension test: less than one-fifth of them achieved a score of 80% – accounting for only 6% of all students in Bauchi and 3% in Sokoto (RTI International, 2011).

The shocking results have turned the spotlight on how teachers are trained, and the support they receive once they are in the classroom.

Well-trained teachers are key to improving children’s early learning

Children cannot benefit fully from school if they live in poverty, are malnourished, suffer from ill health or live in conflict zones. Yet teachers who are effectively trained and have strong subject knowledge can make a huge difference in the educational fortunes of children from disadvantaged backgrounds, especially in the early years of schooling.

Children are more likely to develop reading and writing skills when their families encourage them by providing learning materials such as books at home (Ngorosho, 2011). In poor countries, where many children are first-generation learners, there may be no adults in their families to provide crucial support, for example by reading them stories. Pre-school can help disadvantaged children benefit from primary school, but early childhood services
are underdeveloped in areas where they are needed most [see goal 1 policy focus]. This means that it is even more crucial to prepare early grade teachers well to teach basic skills in poor countries, and to pay particular attention to children from disadvantaged backgrounds.

Teachers themselves may lack the necessary subject knowledge and the ability to turn it into effective approaches to instruction. In a 2010 survey of primary schools in Kenya, teachers and their students in grade 6 were given a mathematics test. The average score for the teachers was 60%. Not surprisingly, students also received low scores, around 47%. Some teachers scored as low as 17% on the standardized mathematics test, which was set from the primary school syllabus. Researchers concluded that no teacher in the sample had complete mastery of the subject (Ngware et al., 2010). In Kano state of northern Nigeria, a test of some 1,200 basic education teachers found that around 78% had ‘limited’ knowledge in English after an assessment in which they were asked to take a reading comprehension test and correct sentences written by a 10-year-old child for form, content and punctuation (ESSPIN, 2011). Teachers’ poor scores reveal their own low levels of educational attainment. Where education systems have expanded rapidly, teachers have sometimes been recruited with few qualifications. Trainees tend to enter teacher training colleges in Kenya, Uganda and the United Republic of Tanzania, for example, having completed only basic education (Akyeampong et al., 2011).

More broadly, there is a need to attract the best people into the teaching profession. Brazil has managed to make teacher recruitment more selective by introducing a national entry exam and competitive recruitment of newly qualified teachers. It also funds places for teachers at universities, especially in subjects where they are most needed, and has created a high-speed career track for top-performing teachers (Bennell, 2011). But attracting teacher candidates with strong subject content backgrounds is difficult in many poor countries because teaching has low status and the pay is poor (Bennell and Akyeampong, 2007). In

Ghana, for example, teachers see primary school teaching as a stepping stone to jobs with higher status or better pay (Akyeampong, 2003).

Ensuring that children achieve the basic foundations in the early grades is a vital way of overcoming early disadvantage, so the best teachers should be deployed to the early grades. Unfortunately, the opposite is often true, with less experienced teachers assigned to lower classes, where the number of students can be extremely large. The pattern holds even more often in areas that are less likely to attract experienced teachers, such as slums or remote rural districts, where working and living conditions are poor (Bennell and Akyeampong, 2007). This translates into low achievement. Data collected in Malawi in 2010 show that the number of words grade 4 students could read correctly in a minute varied from 26 in classes with 75 students to just 13 in classes with 175 students (Trudell et al., 2012).

Effective teacher education needs to combine subject knowledge with pedagogical skills

Most teachers learn to teach reading and basic mathematics during pre-service and in-service training. Where teacher trainees have inadequate subject knowledge in core subjects, teacher training colleges need to emphasize remedial measures, while paying attention to pedagogical training.

Pre-service training often does not prepare teachers adequately for early grades

For pre-service training to be effective, teachers should already have a sufficient knowledge of their subjects so that training can develop their skills in teaching children in the early grades. Too often this is not the case.

Just receiving training is not enough – the content and quality of training are crucial. Children in many East Asian countries have achieved impressive literacy results mainly because their teachers have strong backgrounds in the subjects they teach and have received effective initial training and professional support in schools (Jensen, 2012). This achievement shows what is possible, although lack of
resources and institutional capacity makes it difficult to replicate in poorer countries.

In low income countries, teachers can spend from six months to four years in pre-service training programmes. Whatever the duration, these programmes can be costly. In Ghana, for example, governments pay around forty-five times as much on training a teacher as on teaching a primary school student (Lewin and Stuart, 2003). Given this significant public investment, it is vital to ensure that trainees learn how to teach. In many developing countries, a large part of training is devoted to repeating the secondary school curriculum to improve trainees’ subject knowledge. While this is necessary when trainees have left school without core knowledge, it leaves too little time for developing teaching skills.

The problem is reinforced by the limited experience of some of those who train. In anglophone African countries, instructors in many primary school teacher preparation courses tend to be former secondary school teachers with little knowledge or experience of teaching at primary level: in the Gambia, 77% of instructors had never taught primary school themselves (Mulkeen, 2010).

In some West African countries, contract teachers have been recruited to reduce the strain on education budgets while ensuring that there are sufficient teachers in the classroom (UNESCO, 2010b). In Guinea, for example, only contract teachers have been recruited since 1998. By 2003 they accounted for half the teaching force. The duration of teacher preparation has been reduced to between fifteen and eighteen months, compared with a total of three years previously. This has helped reduce large pupil/teacher ratios. Evaluations suggest that the new teachers are as able as the previous ones to teach basic skills (Pôle de Dakar, 2009).

While this helps to alleviate the immediate pressures, in other contexts there is a risk that shorter training periods offered to contract teachers do not allow trainees to develop sufficient basic teaching skills and to improve their subject knowledge where it is weak. In Mali, for instance, civil servant teachers receive more than a year of training while 73% of contract teachers receive only a three-month course (Pôle de Dakar, 2009).

In addition to the length of training, attention is also needed to ensure teachers receive training that prepares them to teach in the early grades. A study covering Ghana, Kenya, Mali, Senegal, Uganda and the United Republic of Tanzania found that trainees received only a very basic introduction to teaching early grade reading (Akyeampong et al., 2011). The teaching of reading was often not seen as needing special attention but was treated alongside other topics in the language or literature course. In Senegal and the United Republic of Tanzania, for example, teaching reading is not a separate topic. The study also found that initial teacher education did not prepare trainee teachers for the multilingual classroom. In the francophone countries, training was given only in French, and just 8% of new teachers surveyed in Senegal and 2% in Mali expressed any confidence in teaching reading in local languages. In the anglophone countries, there was provision for teaching in local languages but 68% of new teachers in Uganda, 74% in Kenya and 79% in Ghana expressed confidence in teaching reading only in English.

Providing trainees with more practical experience is important. To be effective, this classroom time needs to be accompanied by adequate supervision and support. But time spent in the classroom as part of training programmes is often too short, and separate from what is taught in the training college. It usually offers no opportunity to learn how to teach over many lessons. Thus many new teachers start without any experience of the challenges of teaching children to read or do basic sums. Only in Ghana, Kenya and Senegal were trainees expected to teach the three early grades. In Ghana, trainees were paired and, with the support of experienced mentors, taught for stretches of time in lower grades. The rationale was to give trainees the opportunity to support each other in teaching and discuss with mentors challenges they faced (Akyeampong et al., 2011).

In summary, pre-service teacher training needs to pay attention to the particular challenges of
teaching in early grades, and ensure that all trainees have some experience of teaching at this level before becoming qualified.

**In-service training can help teachers teach in early grades**

Properly designed and adequately supported in-service training can make a significant difference to teachers’ classroom performance and hence to children’s learning.

Many new primary school teachers have not had the opportunity for training, particularly in poor countries that have recruited untrained teachers. This is often because of acute shortages of trained teachers willing to serve in remote and poor rural communities. Some countries are responding by investing in special training programmes.

For example, in Ghana teacher training has not been able to supply enough trained teachers willing to serve in rural areas, a situation that has led to significant growth in numbers of untrained teachers. The government decided to invest in training specifically geared for untrained teachers who are on one-year renewable contracts and serving in some of the poorest districts. A distance learning programme begun in 2007 had trained about 25,000 teachers by 2010. An evaluation revealed striking improvements in the teachers’ performance compared with an untrained control group. The trained teachers engaged pupils more actively in the development of ideas, used teaching and learning aids more effectively to demonstrate concepts and principles, and showed greater flexibility in their teaching approaches in response to pupils’ learning needs (Ghana Education Service, 2010).

Professional development programmes can help teachers develop their skills in teaching reading and mathematics. They have been used to great effect in East Asian school systems (Jensen, 2012). In many low income countries, however, some teachers teach for long periods without receiving any in-service training. In the fifteen national school systems of the Southern and Eastern Africa Consortium for Monitoring Educational Quality in 2007, only 53% of grade 6 students were taught reading by teachers who had received in-service training over the past three years (ranging from 32% in Lesotho to 79% in South Africa). Since 2000, the share had declined in four countries and improved in only seven (Hungi et al., 2011).

Good quality textbooks and other supplementary reading materials are needed to teach and generate interest in learning, but in many developing countries they tend to be in short supply, not relevant to real life situations, pitched at an inappropriate level of difficulty or characterized by poor illustrations and printing. In such situations, teachers have a key role in ensuring that limited resources are used effectively. Room to Read, an NGO that sets up and equips libraries in ten countries and supports local-language publishing industries, recognizing that teacher capacities need to be strengthened, has developed support programmes. These include teacher in-service training focusing on child-centred, interactive teaching methods coupled with one-on-one support provided regularly during the school year by literacy facilitators who help teachers use the new methods (Room to Read, 2012).

The way in-service training is delivered makes a difference. Short-term workshops can be ineffective. Recommended approaches include engaging trainees in researching their own teaching practise, preparing teaching portfolios or using book clubs. In Kenya, two Ministry of Education programmes address some of these issues. The school-based teacher development programme guides teachers to use a more problem-solving approach. It has been found that trainees are more likely to use effective mixed-ability group work, to spend time enabling children to practice reading and to encourage the use of library books. Their lessons tend to move through content more quickly and keep all pupils engaged. Reading to Learn, a pilot project introduced in 2010 in two low income districts of the Coast province with support from the Aga Khan Foundation, focuses training on how to write stories and to use them in teaching (Akyeampong et al., 2011).

Recognizing the particular challenges of teaching early grades, some countries have set up centres to improve teachers’ effectiveness.
Between 2002 and 2009, as part of a USAID project covering the Andean countries, Central America, the Dominican Republic and the English-speaking Caribbean, Centers for Excellence in Teacher Training were introduced to provide professional development to early grade teachers. In the Dominican Republic, a course consisted of three eight-hour sessions of face-to-face teacher preparation on teaching practices, eight three-hour meetings of teachers, forty hours of independent study of teachers’ own practices and a monthly visit to each teacher at school. Teachers were trained to improve their teaching of reading and writing, their ability to develop curriculum and their classroom management. Children had more opportunities to read and write, interact with different types of texts and develop advanced reading skills, beyond memorization. About 3,400 teachers in grades 1 to 4 participated (Montenegro, 2011).

An evaluation of the overall programme in eight countries found that trainees had adopted a wide range of effective teaching behaviours involving grouping and feedback, classroom management and use of physical space. The trainees’ knowledge did not deepen, however. This reflects weaknesses in initial teacher training and illustrates the critical need for continuous professional development (USAID, 2011a).

Experience from in-service teacher training in rich countries shows that it works better when it supports the introduction of broader interventions, including ones targeting children who fall behind or ones aimed at improving the system overall. Under the United Kingdom’s broader National Literacy Strategy, which aimed to raise literacy standards among primary school children aged 5 to 11, a daily ‘literacy hour’ was introduced in 1998. It consisted of sessions of whole-class reading or writing, whole-class work on words and sentences, directed group activities and reviewing the objectives of the lesson. Teachers were trained to implement the programme: an initial day on class management for literacy was followed by a week of training on the activities expected in the literacy hour. An evaluation found that the programme significantly helped improve reading skills and overall achievement in English, especially for boys. At the national level, the share of children meeting targets in reading by the end of primary education rose from 67% to 80% during the first six years of implementation (Machin and McNally, 2008).

NGO interventions provide positive experience, but often do not reach most teachers

Many non-governmental organizations have recently implemented literacy projects, which tend to support teachers in targeting disadvantaged populations. Teacher training is often combined with other measures to improve learning. Governments need to monitor these efforts so that they can learn from, adopt and expand initiatives that provide useful lessons and have the potential to be scaled up. NGOs, for their part, need to consider whether their projects can be replicated and collaborate with governments to strengthen systems and sustain any gains.

In South Africa, a project providing reading materials, together with training to help teachers use them effectively, has improved learning outcomes. Learning for Living, a project initiated by the READ Educational Trust, is aimed at enhancing the learning of English as a second language in primary schools by providing teachers with books and in-service training, combined with visits to monitor results. Training covered the teaching of phonics and spelling, the use of stories for language development, and more advanced use of written material, including non-fiction books, along with reading and writing for real-life situations. The project reached almost 1,000 schools – most of them rural – and more than 13,000 teachers over five years. An evaluation comparing project and non-project schools found significant improvements in teaching practices. There was more use of teacher-made materials and an increase in lesson time spent reading. These results translated into improvements in reading and writing (Hoffman et al., 2004; Schollar, 2008).

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An NGO programme in India also illustrates how in-service teacher training can be combined with other interventions to improve learning outcomes. The NGO, Pratham, has successfully implemented a large programme providing in-service training for government school teachers...
in the teaching of reading. The programme includes training to help teachers articulate clear learning goals and use appropriate teaching–learning activities and materials (Banerjee et al., 2012; Walton and Banerji, 2011). Initial results of a randomized experiment conducted in 2008/09 and 2009/10 in rural areas of Bihar and Uttarakhand states showed that teacher training was effective only when complemented with other interventions. In schools that received teacher training, monitoring and support, combined with supplementary learning materials for children and after-school support by Pratham volunteers for students who were lagging behind, the achievement of all children, as measured by speed of accurate reading and writing in Hindi, improved significantly. But there was no such impact in schools that received teacher training only. The impact was limited by low teacher and child attendance, a curriculum unrelated to children’s initial level, and wide diversity of learning needs in the classroom (Walton and Banerji, 2011).

The biggest challenge is scaling up such innovations so they can be institutionalized as part of regular teacher development, especially in poor countries. Unfortunately, the vast majority of teachers in poor countries have few opportunities for in-service training.

**Conclusion**

Governments should take active steps to strengthen teaching in early grades. Teacher education systems need to be reinvigorated to assure the success of such interventions. Pre-service training programmes appear to be paying insufficient attention to the teaching of reading. Courses need to increase the emphasis on effective classroom techniques. In-service training programmes engaging teachers in an interactive way can ensure that knowledge is converted into better classroom practice. Benefits are likely to be most noticeable where training is combined with other interventions, such as improved instructional materials.
To coincide with the publication of this Report, the EFA Global Monitoring Report Team has developed a new interactive website that shows the scale of education inequality within countries. The World Inequality Database on Education (WIDE) brings together the latest data from Demographic and Health Surveys and Multiple Indicator Cluster Surveys.

**Wealth disparities widen for countries struggling to enrol children in school**

Population aged 17 to 22 with fewer than two years of education, by wealth, (%)

Selecting three of the regions furthest from achieving EFA – the Arab States, sub-Saharan Africa and South and West Asia – The figure shows that disparities in wealth exist in almost every country with data. By clicking on the dots on the website, the percentages affected appear. In the Niger, the country with the widest disparities, 88% of the poorest young people have less than two years of schooling – that is, they suffer from extreme education poverty – compared with 29% of the richest. Jordan, at the other end of the figure, has the narrowest disparities. Whether rich or poor, only 1% of 17 to 22 year olds are affected by extreme education poverty.
Database on Education (WIDE)

Visitors to the website can compare groups within countries according to various education indicators, and according to the factors that are associated with inequality, including wealth, gender, ethnicity, religion and location. Users can create maps, charts and tables from the data, and download, print or share them online. The site was designed by InteractiveThings.

**Wealth disparities are further aggravated by gender disparities**
Population aged 17 to 22 with fewer than two years of education, by wealth and gender, the Niger, Pakistan and Egypt, (%)

On the WIDE site, the user can look in detail at intersecting patterns of disadvantage within selected countries. In the Niger, not only are wealth disparities wide, but they are further aggravated by gender. The poorest young women are the worst affected: 92% are likely to have spent less than two years in school, compared with 22% of richest young men. In Pakistan, a vast gender gap among the poorest leaves eight out of ten young women affected, compared with less than five out of ten young men. While the severity of the problem is not as great in Egypt overall, gender gaps are wide: 36% of poor young women are in extreme education poverty compared with just 2% of the richest young men.

www.education-inequalities.org