

The Global Challenge of Education for All

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One hundred eighty-nine countries have committed themselves to eight Millennium Development Goals aimed at eradicating extreme poverty and improving the welfare of their people by the year 2015 (box 1.1). The second of the goals is “Achieve universal primary education,” with the specific target of ensuring that, “by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.” It echoes a commitment made by many of the same countries in Jomtien, Thailand in 1990 to achieve universal primary education by the year 2000. The Jomtien commitment was reaffirmed and extended at the World Education Forum in Dakar in 2000 (box 1.2).

As the Dakar forum acknowledged, the Jomtien goal was not met. Many countries clearly remain far from the target. However, until now it has not been possible to assess where individual countries stand in relation to the target with any accuracy, for lack of internationally comparable data on primary completion rates. In the absence of such data, it has been difficult to evaluate the global prospects for reaching the target by 2015 or to estimate the incremental actions and financing that would be required. Given strong international interest in these issues, several previous studies have attempted to analyze the likelihood of the education MDG being met by projecting trends to the goal based on enrollment data rather than completion rates, and by employing a number of different methodologies for estimating the incremental costs. Resulting estimates of the incremental global financing requirements have varied widely, from approximately \$7 billion to \$15 billion annually.

This study seeks answers to three questions:

- *How close is the world to achieving the millennium goal of universal primary completion?*
- *Is it achievable by 2015? and*
- *If so, what would be required to achieve it, in terms of both education policy reform and incremental domestic and international financing?*

The approach here differs from all previous studies in that it is based on direct measurement of primary completion rates, rather than relying on conventionally available gross and net enrollment ratios, which are a poor proxy for schooling completion rates. We draw on the first effort to create an internationally standardized database of primary completion rates in 155 countries and trace the evolution of these rates from 1990 to the most recent year possible. (See chapter 2 for a definition of the completion rate, the methodology used to calculate it, and a discussion of data and technical issues.)

Using these new data, we examine the countries and regions in which the greatest progress has been registered since Jomtien and those in which completion rates have stagnated or declined. We analyze the prospects for reaching the MDG with no change in current trends.

Box 1.1 Millennium Development Goals

GOALS AND TARGETS	INDICATORS
GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER	
TARGET 1. Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day.	<ul style="list-style-type: none"> 1. Proportion of population below \$1 per day 2. Poverty gap ratio (incidence x depth of poverty) 3. Share of poorest quintile in national consumption
TARGET 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger.	<ul style="list-style-type: none"> 4. Prevalence of underweight children (under 5 years of age) 5. Proportion of population below minimum level of dietary energy consumption
GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION	
TARGET 3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.	<ul style="list-style-type: none"> 6. Net enrollment ratio in primary education 7. Proportion of pupils starting grade 1 who reach grade 5 8. Literacy rate of 15- to 24-year-olds
GOAL 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN	
TARGET 4. Eliminate gender disparity in primary and secondary education preferably by 2005 and at all levels of education no later than 2015.	<ul style="list-style-type: none"> 9. Ratio of girls to boys in primary, secondary, and tertiary education 10. Ratio of literate females to males among 15- to 24-year-olds 11. Share of women in wage employment in the nonagricultural sector 12. Proportion of seats held by women in national parliaments
GOAL 4: REDUCE CHILD MORTALITY.	
TARGET 5. Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate.	<ul style="list-style-type: none"> 13. Under-5 mortality rate 14. Infant mortality rate 15. Proportion of 1-year-old children immunized against measles
GOAL 5: IMPROVE MATERNAL HEALTH	
TARGET 6. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.	<ul style="list-style-type: none"> 16. Maternal mortality ratio 17. Proportion of births attended by skilled health personnel
GOAL 6: COMBAT HIV/AIDS, MALARIA, AND OTHER DISEASES	
TARGET 7. Have halted by 2015, and begun to reverse, the spread of HIV/AIDS.	<ul style="list-style-type: none"> 18. HIV prevalence among 15- to 24-year-old pregnant women 19. Contraceptive prevalence rate 20. Number of children orphaned by HIV/AIDS
TARGET 8. Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases.	<ul style="list-style-type: none"> 21. Prevalence and death rates associated with malaria 22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures 23. Prevalence and death rates associated with tuberculosis 24. Proportion of TB cases detected and cured under DOTS (Directly Observed Treatment Short Course)
GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY	
TARGET 9. Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.	<ul style="list-style-type: none"> 25. Proportion of land area covered by forest 26. Land area protected to maintain biological diversity 27. GDP per unit of energy use (as proxy for energy efficiency) 28. Carbon dioxide emissions (per capita) <p><i>(Plus two figures of global atmospheric pollution: ozone depletion and the accumulation of global warming gases)</i></p>
TARGET 10. Halve, by 2015, the proportion of people without sustainable access to safe drinking water.	<ul style="list-style-type: none"> 29. Proportion of population with sustainable access to an improved water source
TARGET 11. By 2020, have achieved a significant improvement in the lives of at least 100 million slum dwellers.	<ul style="list-style-type: none"> 30. Proportion of people with access to improved sanitation 31. Proportion of people with access to secure tenure <p><i>(Urban/rural disaggregation of several of the above indicators may be relevant for monitoring improvement in the lives of slum dwellers)</i></p>
GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT	

Box 1.2 Global “Education for All” Goals

DAKAR WORLD EDUCATION FORUM GOALS	MILLENNIUM DEVELOPMENT GOALS
Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.	
Ensure 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.	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
Ensure that the learning needs of young people and adults are met through equitable access to appropriate learning and life skills programs.	
Achieve a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.	
Eliminate gender disparities in primary and secondary education by 2005, and achieve 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.	Eliminate gender disparity in primary and secondary education, preferably by 2005, and at all levels of education no later than 2015.
Improve all aspects of the quality of education and ensure excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills.	

Next, building on and extending the research of others, such as Colclough and Lewin (1993), Oxfam (Watkins 1999), and Delamonica, Mehrotra, and Vandemoortele (2001), we identify a set of key education policy and domestic financing parameters that can explain countries’ differential MDG progress. We find that education systems in the low-income countries that have either achieved 100 percent primary completion or are relatively close have some basic features in common.

Finally, we ask: If those countries currently lagging behind were to reform key features of their education systems to more closely approximate the systems of more successful countries, could universal primary completion be achieved by

2015? And, if so, what would be the incremental domestic and international financing requirements under this scenario?

This study is the first attempt we know of to analyze the challenge of Education for All through both the development of a new monitoring indicator and direct collection of the most recent available educational enrollment and public finance data. Because of time limitations, the analysis concentrates on the 47 low-income countries with populations over 1 million⁴ that have not yet achieved universal primary completion. A full estimate of the global cost of achieving the education MDG would have to include the countries not analyzed here. However, the countries we studied are home to 75 percent of all children out of school globally. These countries are far from the goal, with an average primary completion rate of only 57 percent, and their poverty, fragile domestic resource base, and institutional weakness make them priority claimants on international support. The bulk of the incremental external resources and effort for global achievement of universal primary completion will very clearly be needed here.

A major effort was made for this study to update the global picture of progress to date through the direct collection of data from a large number of developing countries. In cases where recent country data were not available or only partially available, we used published UNESCO data. In all cases, new data were checked for consistency against any available household survey data and UNESCO sources. The exercise pointed to serious issues of accuracy and consistency in education enrollment data for many countries, and in some cases required us to make estimates that diverged from official enrollment statistics when these were inconsistent with population, household survey, or past data, but always using consistency with other data as a guide.

Given the ambitious scope of this work and the relatively short time in which it was carried out, this study is only a small first step in what we hope will be a new analytical direction for EFA. The technical annexes and CD-ROM accompanying this volume include the simulation model and all of the raw data, sources, and assumptions used for the countries analyzed, as well as the country-by-country simulation results. We will have succeeded if this work inspires governments committed to Education for All as well as national and international education researchers to focus on primary completion rates, and to revisit the policy framework, country data, and simulations presented in this report. The road to EFA will for many countries be an enormous challenge. Accumulated country experience and expanded international research can play an important role in easing the way.

... WHY IS UNIVERSAL PRIMARY EDUCATION SO IMPORTANT? ...

Education is one of the most powerful instruments known for reducing poverty and inequality and for laying the basis for sustained economic growth. It is fundamental for the construction of democratic societies and dynamic, globally competitive economies. For individuals and for nations, education is the key to creating, applying, and spreading knowledge.

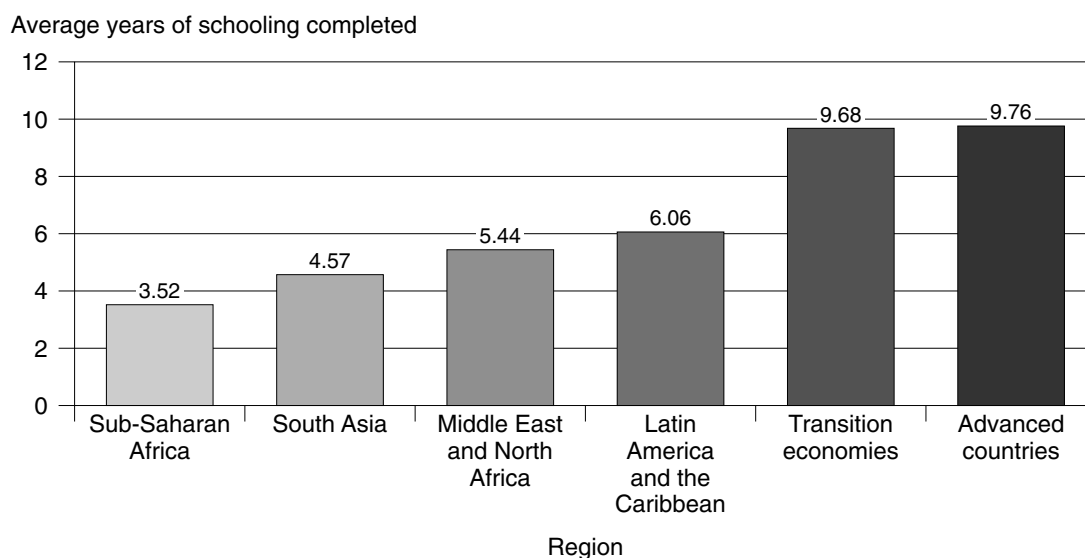
4. Low-income countries were defined as IDA-eligible in 2001 (that is, countries with GNI per capita of \$885 or less in 2000).

Primary education develops the capacity to learn, to read and use math, to acquire information, and to think critically about that information. Primary education is also the gateway to all higher levels of education that train the scientists, teachers, doctors, and other highly skilled professionals that every country, no matter how small or poor, requires. Microeconomic research has established unequivocally that education improves individual incomes; Psacharopoulos and Patrinos (2002) estimate an average global private return on primary education of 27 percent. Research also indicates the contributions of primary education to better natural resource management, including conservation of the tropical rain forest (Godoy and Contreras 2001) and more rapid technological adaptation and innovation. Broad-based education is associated with the faster diffusion of information in the economy, which is crucial for increased productivity among workers and citizens in traditional as well as modern sectors (Porter 1998; Hanushek and Kimko 2000).

When a large share of children do not complete primary education, the productivity of the labor force, the potential for knowledge-driven development, and the reservoir of human potential from which society and the economy can draw are all fundamentally constrained. As figure 1.1 shows, in several developing regions the average level of schooling of the labor force is still less than a complete primary education. At the start of the new millennium, adults average just 0.8 years of formal education in Mali and Niger, 1.1 years in Mozambique and Ethiopia, 2.0 years in Nepal, and 2.5 years in Bangladesh (Barro and Lee 2000).

Research strongly suggests that such low levels of human capital are fundamentally inadequate for sustained economic development, stable democratic institutions, or poverty reduction. Azariadis and Drazen (1990) were the first to postulate that countries may be trapped in a low-returns equilibrium until their

FIGURE 1.1 Average Educational Attainment of Adult Population by Region, 2000



Source: Barro and Lee 2000.

level of human capital accumulation rises above six years of schooling. Once this threshold is passed, countries seem to achieve a higher steady-state macroeconomic growth path. The latest empirical studies on the question of the impact of education on economic growth all report a positive association (Barro 1999b; de la Fuente and Domenech 2000; Hanushek and Kimko 2000). On democratization, Barro (1999a) finds in a study of more than 100 countries between 1960 and 1995 that the propensity for democracy rises both with primary schooling and with a smaller gap between male and female primary attainment.

The role of primary education in reducing poverty and income inequality is even more strongly established than is its contribution to overall economic growth. Illiteracy is one of the strongest predictors of poverty, and unequal access to educational opportunity is one of the strongest correlates of income inequality. A large body of research points to the catalytic role of primary education, “the people’s asset” (O’Connell and Birdsall 2001), for those individuals in society who are most likely to be poor: girls, ethnic minorities, orphans, people with disabilities, and people living in rural areas. Extending adequate-quality primary education to these vulnerable groups is crucial in order to equip them to contribute to and benefit from economic growth.

Data from the International Adult Literacy Survey (OECD and Statistics Canada 2000) indicate a high correlation between country levels of income inequality and inequality in the distribution of literacy, suggesting that more evenly spread levels of human capital are associated with greater income equality. Recent research by Birdsall and Londoño (1998) confirms that these factors are closely linked: more equitable distribution of education promotes faster economic growth as well as reducing inequality. Birdsall and Londoño have shown that the degree of inequality in the distribution of education has a strong and robust negative effect on growth, independent of the average level of education and also independent of factors such as trade openness and varying natural resource endowments. The implication is clear: the expansion of educational opportunity is one of the most powerful tools governments have to simultaneously promote income equality and growth—a “win-win” strategy that in most societies is far easier to implement than the redistribution of other assets such as land or capital.

Ultimately, the case for universal primary education goes beyond economic arguments. Education provides people with what Nobel laureate Amartya Sen (1999) calls “human capabilities”—the essential and individual power to reflect, make better choices, seek a voice in society, and enjoy a better life. Education, and particularly primary education, also promotes achievement of all of the other Millennium Development Goals: poverty reduction, gender equity, child health, maternal health, lower HIV/AIDS and other communicable diseases, and environmental sustainability.

Indeed, a substantial body of research documents that education—and especially education for girls—is one of the strongest drivers of improvement in fertility, health, and nutrition outcomes. Girls’ education has documented impacts on infant and child mortality and enhanced family welfare. A recent study of 63 countries concluded that gains in women’s education made the single largest contribution to declines in malnutrition during 1970–1995, accounting for 43 percent of

the total progress (Smith and Haddad 2000). Another study, using data on 100 countries, found that an additional year of female education reduced total fertility rates on average by 0.23 births, while a three-year increase in the average educational level of women was associated with as much as one child less per woman. It also found that mothers who have completed primary education are 50 percent more likely to ensure that their infant children are immunized than mothers with no education (World Bank 2001).

And very recent research indicates that for girls and boys, education may be the single most effective preventive weapon against HIV/AIDS. New data from high seroprevalence countries show that the better educated have lower rates of infection, especially among younger people (Gregson, Waddell, and Chandiwana 2001; Kelly 2000; Vandemoortele and Delamonica 2000). In sum, progress toward the goal of universal primary education will unquestionably have strong complementary effects on achievement of the other millennium goals.

Universal primary completion is by no means the only challenge facing education systems across the world. It is only the first step toward the ultimate goal of lifelong learning for all citizens, which is as relevant for the poorest countries of the developing world as it is for the countries of the Organisation for Economic Co-operation and Development (OECD). All countries, no matter how far they are today from universal primary completion, must simultaneously invest in and promote the balanced development of all levels of their education systems. In a globally integrated and highly competitive world economy, no country can any longer consider primary schooling a terminal level of education for its labor force.

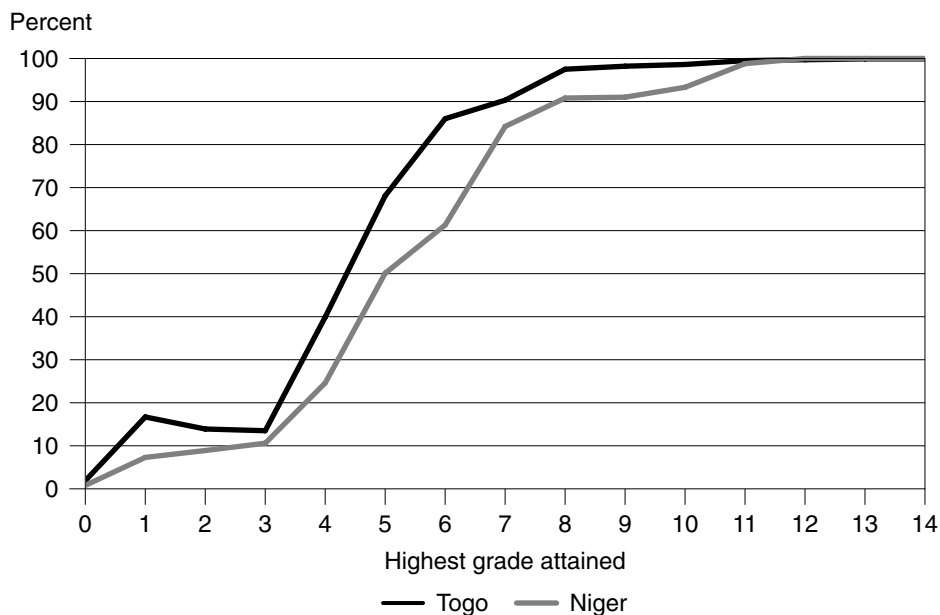
But increasing the share of children who complete primary schooling is the essential first step. In a borderless world, where the gulf between the rich, educated, and empowered and the poor, stagnating, and powerless increasingly poses threats to all, the achievement of universal primary completion is of global interest. This book lays out a strategy for accelerating progress toward that goal by 2015.

WHY UNIVERSAL PRIMARY EDUCATION MUST MEAN UNIVERSAL PRIMARY COMPLETION

To date, efforts to achieve Education for All have focused heavily on getting children enrolled in school, rather than on improving either completion rates or student learning outcomes. This is problematic for several reasons.

First, a growing body of research suggests that completion of at least five to six years of schooling is a critical threshold for sustainable mastery of basic competencies, such as literacy and basic numeracy. Literacy surveys conducted in African countries and elsewhere indicate that a high share of the adults who have completed less than five or six years of primary schooling remain functionally illiterate and innumerate for the rest of their lives (figure 1.2). The strong implication is that from a human capital perspective there is a substantial difference between getting all children enrolled in primary school and ensuring that all children complete the five- or six-year primary cycle. Especially striking in the data is the very limited impact on lifelong literacy from as many as three years of schooling. It is plausible that many of the other direct benefits and externalities of education are similarly

FIGURE 1.2 Proportion of Adults Who Can Read and Write Easily by Highest Grade Attained, Togo and Niger



Source: UNICEF Multiple Index Cluster Survey (MICS) data, 2000, and authors' estimates.

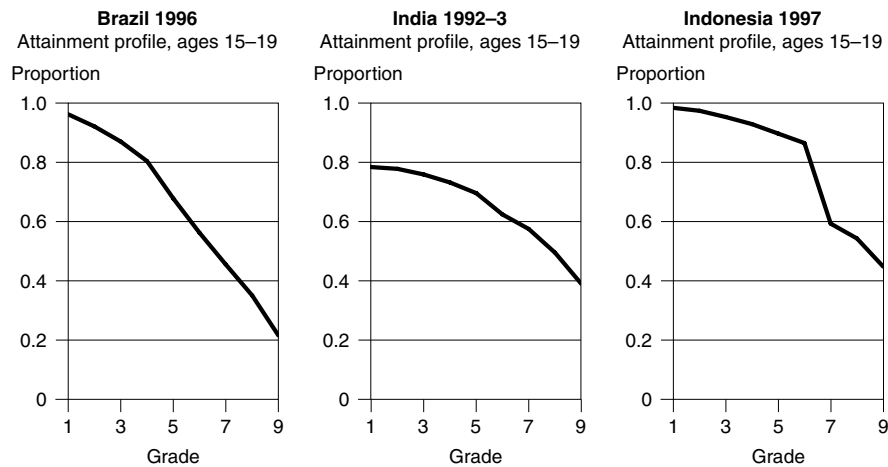
linked to the completion of a relatively high threshold number of five to six years of schooling, which in fact represents the length of the primary cycle in most countries. So, formulating the MDG target in terms of universal primary completion, rather than universal primary enrollment, makes strong sense from the standpoint of human capital formation.

Second, schooling *enrollment ratios*, whether on a gross or net basis, are poorly correlated with the rate of primary school completion. In virtually every developing country, the horizontal line of an average enrollment ratio masks the underlying reality of a curve-shaped schooling profile in which many more children begin school than complete it. Schooling profiles (such as those shown in figure 1.3) constructed from household survey or education enrollment data give a good picture of how access to schooling can differ from retention along the primary cycle for schooling cohorts in the recent past. These data show, for example, that in both Brazil and Indonesia in the late 1980s access to primary schooling was already fairly universal, with close to 100 percent of children starting grade 1. However, the pattern of retention in school was very different, resulting in only about 60 percent of children completing five grades in Brazil, compared to 90 percent in Indonesia.

A crucial issue from the standpoint of EFA monitoring is the fact that a single gross enrollment ratio, or even a single net enrollment ratio, can be consistent with a number of different schooling profiles. As a result, there is no consistent correlation between either gross or net enrollment ratios and the primary completion rate.

FIGURE 1.3 Sample Schooling Profiles

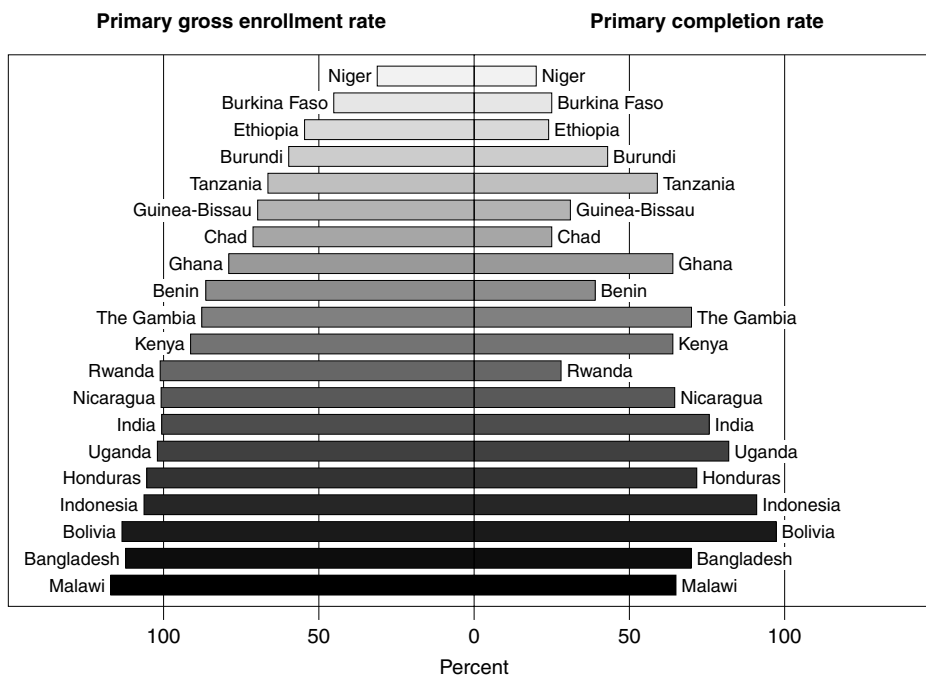
Proportion of 15- to 19-year-olds who have completed each grade



Source: Filmer and Pritchett 1999.

Figure 1.4 shows the substantial disparities between gross enrollment ratios and primary completion rates for a sample of developing countries. What is significant from an analytical standpoint is not so much that a disparity exists, but that there is no constant relationship underlying the gap.

FIGURE 1.4 Primary Gross Enrollment Ratios and Completion Rates, Selected Countries, 1999



Source: Annex table A.2.

Disparities between the primary gross enrollment ratio and the completion rate arise for many reasons: children enter school early (below the official schooling age), or, more commonly in developing countries, they start school late. They may repeat grades. Another common pattern is that children drop out of school before the end of the year, because of their own or other family members' illness or their families' need for their labor, and return to reenroll in the same grade the following year. Finally, schools may be incomplete and not offer all grades locally. All these factors contribute to the fact that gross enrollment ratios are typically 10-60 percent higher than primary completion rates.

Important gender differences become evident in the comparison of GERs against completion rates, as well. In some countries, for example in the Caribbean, girls' GERs may be somewhat lower than those of boys but their completion rates higher. Elsewhere, as in several West African countries, girls' enrollments may show only a slight disparity with boys', but girls' completion rates are very significantly lower. Completion rate data greatly enhance understanding of the gender issues that exist in educational opportunity.

As important as analyzing the overall completion rate is decomposing it for different groups. In every country, completion rates are lowest for children from poor families and children in rural areas. Household survey data, as in figure 1.5, show how the schooling profile for children in the lowest income quintile can lag that of children from higher income groups. Moreover, in some countries, as noted, gender equity is also an issue, and completion rates are sharply lower for girls than for boys. In such countries the combined impact of family income and gender can produce a dramatic disparity between schooling completion rates for girls from the poorest families and boys from the wealthiest families—as in Nepal (figure 1.6).

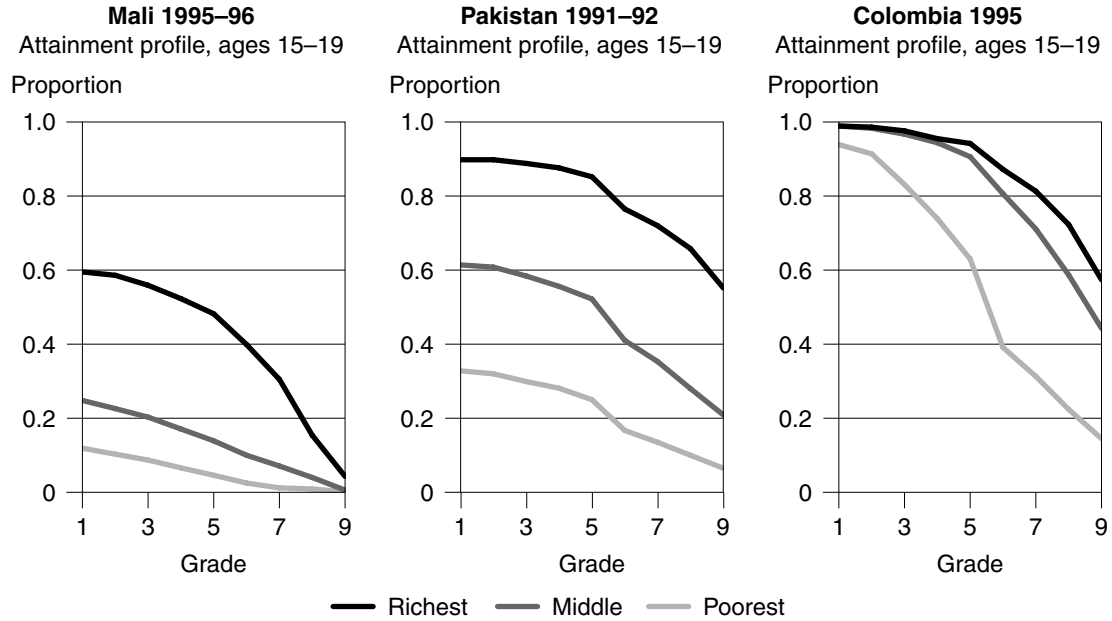
As table 1.1 shows, even in countries where the current GER is close to 100 percent, the proportion of rural children, and especially rural girls, actually completing the primary cycle can be extremely low. It would be a tragedy for these vulnerable groups if countries such as Togo took 115 percent GER to mean that Education for All had been achieved.

Similar issues exist with respect to net enrollment ratios (NERs). Although one might expect net enrollment ratios, which exclude overage students, to be more closely correlated with primary completion rates, this is not the case. Table 1.2 provides an example of the variance in completion rates among countries with an identical 81 percent NER. Therefore, although the net enrollment ratio is useful for monitoring the proportion of the official school-age population that is not currently enrolled—the “out of school population”—it is not a good substitute for direct measure of the primary completion rate as the basic indicator of progress toward the education MDG.

In the search for something more reliable than gross enrollment ratios and in the absence of alternatives, the net enrollment ratio has in fact been proposed as the key indicator for monitoring progress toward the education MDG. But in addition to the fact that it does not capture actual primary completion, the net enrollment ratio presents another disadvantage: the target of 100 percent net enrollment in primary school is an unrealistic goal. It would require that every single child enter primary

FIGURE 1.5 Schooling Profiles Disaggregated by Income

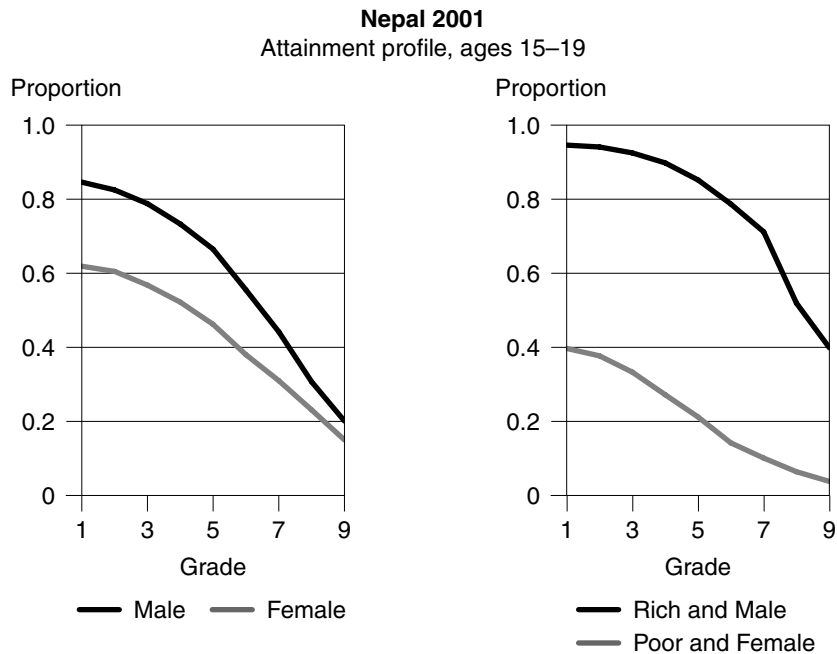
Proportion of 15- to 19-year-olds who have completed each grade



Source: Filmer and Pritchett 1999.

FIGURE 1.6 Schooling Profiles Disaggregated by Gender and Income

Proportion of 15- to 19-year-olds who have completed each grade



Source: Filmer 2000 and updates.

Table 1.1

Proportion of Children Completing Primary School: Regional Averages and Selected Countries

Region and Country	Primary Gross Enrollment Ratio (%)	PERCENTAGE OF AGE GROUP COMPLETING PRIMARY CYCLE		
		Total	Rural	Rural Girls
Africa	77	45	—	—
Niger	31	20	12	7
Burkina Faso	45	25	16	10
Guinea	62	34	25	11
Benin	86	39	27	14
Mauritania	88	46	42	38
Mozambique	78	36	21	14
Madagascar	90	26	12	11
Togo	115	68	57	46
South Asia	100	70	—	—
Latin America and the Caribbean	113	85	—	—
Middle East and North Africa	95	74	—	—

— Not available.

Source: Annex table A.2 and authors' estimates from World Bank education country status reports.

school at exactly the official schooling age, proceed through the cycle with zero repetition, and stay in school with no disruptions, resulting in a 100 percent on-time completion rate. If such a perfect cohort flow could be achieved, the net enrollment ratio would in fact be equal to the primary completion rate: both would be 100 percent. However, although virtually all children in OECD countries complete primary school, primary NERs rarely reach 100 percent. Indeed, the

Table 1.2

Comparison of Gross Enrollment Ratio, Net Enrollment Ratio, and Primary Completion Rate for Selected Countries, 2000

Country	Gross Enrollment Ratio	Net Enrollment Ratio	Primary Completion Rate (%)
El Salvador	111	81	80
Mongolia	92	81	66
Togo	115	81	68

Source: Annex table A.2 and UNESCO data.

average net enrollment ratio across the OECD is only 94 percent, and this ratio has been remarkably stable over the past 30 years of educational development in industrial countries (Brossard and Gacougnolle 2001).

What this net enrollment ratio tells us is that even in the most advanced countries, some children start school a little early or late, some may struggle to get through the primary curriculum, and some may be held back a grade at one point or another, but with the right support and, above all, a school system-wide ethos that “every child can learn,” very close to 100 percent of children eventually complete primary schooling. This more flexible concept is a more realistic—and substantively meaningful—goal for developing countries as well. It puts the onus on school systems to prepare teachers with diverse pedagogical strategies to meet children’s different learning needs. It requires school systems to allocate resources so that special support is provided to slower learners, children with physical or emotional disabilities, or children for whom consistent school attendance is jeopardized by poverty or family health crises. It requires school systems to put in place systems of learning assessment to ensure that children’s grade progression actually reflects adequate mastery of the primary curriculum.

These are in fact the substantive goals of EFA. They should be measured by an indicator that captures a country’s progress over time in delivering this kind of quality educational service to its children. That indicator should allow for the uneven path to primary school completion that is a reality for many children in the developing world, given constraints to on-time enrollment (if an overcrowded local school lacks places, for example) and constraints to stable attendance. The methodology proposed in this report for calculating a primary completion rate that provides a direct measure of the share of children who complete primary education (regardless of their age at completion) provides such an indicator. The next chapter analyzes international progress in improving primary completion rates over the decade of the 1990s, while subsequent chapters focus on the policies that underlie this progress. Important aspects of the story in many countries are policy reforms and pedagogical innovations to create primary schools that more flexibly meet the needs of children, both inside the classroom and outside of school.

