

## Development Research Group

### Knowledge in Development Note 12

#### Education

June 2007

There have been real achievements in education in developing countries in recent years—the primary-school completion rate in developing countries increased from 78 percent in 2000 to an estimated 83 percent in 2005, the pace of annual improvement in completion has accelerated since 2000, with especially strong progress in North Africa, South Asia, and Sub-Saharan Africa, and the number of countries that have achieved universal primary completion increased from 37 in 2000 to 52 in 2005.<sup>1</sup>

But two important issues loom large on the agenda: how to raise education quality, which is now generally very low; and how to bring the “last 10 percent” of children into school.

#### What we know

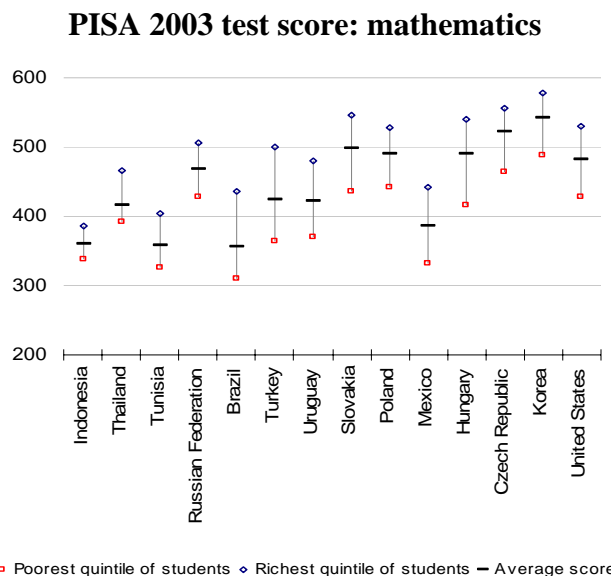
#### *Levels of learning achievement in developing countries remain very low—not just in poor countries, but even in relatively well-performing middle-income countries*

Until now, the international community has focused heavily on getting children to enter and stay in school. This is essential, but it is increasingly clear that greater attention needs to be focused on what they are learning—or not learning. Results from PISA, an internationally comparable test of skills of 16-year-olds, underline just how far children in developing countries lag behind their OECD counterparts. Students from the richest 20 percent of even middle-income countries like Brazil, Thailand, and Indonesia families perform no better than those from the poorest 20 percent in the United States—which itself lags well behind the highest performers, such as Korea. And Mexico has reached the MDG of universal primary completion, but 50 percent of youth are not even minimally competent in math, while 91 percent do not achieve a reasonable global standard of math skills.<sup>2</sup>

For most low-income countries, the learning shortfall is even greater—but harder to measure since few poor countries participate in these international assessments. For example, test scores from a representative random sample of students in rural Pakistan indicate that at the end of third grade, barely half the students have mastered the mathematics curriculum for Grade I. They can add double digit numbers and subtract single-digit numbers but they cannot do much more. Similarly, only 31 percent can correctly form a sentence with the word “school” in Urdu. Students in the Indian state of Uttar Pradesh show similarly poor results.<sup>3</sup>

***The quantity of education matters—but education quality is key to economic growth***

- Almost all studies find that education has high private returns in labor markets. In addition, education brings many social benefits, such as lower fertility rates among more educated women and lower child mortality and better child health among children of better-educated parents.<sup>4</sup>



Source: [World Development Report 2007](#). Countries ordered by per capita GDP.

- There has been controversy about the relationship between education and growth—with studies finding that the average number of years of education in a country's workforce does not predict growth well. The latest research suggests strongly that what matters is education quality, that is, what children learn in school.<sup>5</sup>
- Poor learning outcomes typically reflect the low quality of schooling, which depend in part on an inability to hold teachers and administrators accountable,<sup>6</sup> how many resources are devoted to education, and how effectively those resources are being used to promote learning.<sup>7</sup>
- One indicator of low efficiency in education service delivery is teacher absenteeism. Direct measurement (through surprise school visits) of teacher absenteeism in six countries—Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda—found that on average, 19 percent of teachers were absent from their school on days when they should ordinarily be working.<sup>8</sup> Within India, 25 percent of teachers were absent from school, and the state absence rates varied from 15 percent in Maharashtra to an astonishing 42 percent in Jharkhand.<sup>9</sup>

***Empowering communities with information about schooling can improve accountability in education—but involving communities isn't enough on its own***

- Providing more information about education financing and quality to parents and communities help hold providers accountable. In the late 1990s, the Ugandan government initiated a newspaper campaign so that parents could monitor better local officials' handling of a large school-grant program. The results were striking: leakage of public funds was reduced from 80 percent in 1995 to less than 20 percent in 2001, and careful evaluation shows that the campaign was responsible for the gains.<sup>10</sup>

- Empowering communities is not always easy, however, especially if it runs counter to a history of unresponsive bureaucracies and politicians. In the Indian state of Uttar Pradesh, Village Education Committees—community groups that could in theory hold schools accountable—do very little to improve the quality of schools. Parents often do not know that a VEC exists, even when they are supposed to be members of it.<sup>11</sup>

***Private schools have a role to play in basic education too—as a means of compensating for those shortcomings***

- Private schools are becoming a means for families to escape low-performing public schools in many settings. For example, even youth from rural areas and from middle-class and poorer families are increasingly enrolling in private schools in Pakistan, a country with serious access and quality problems in public schools. Math test scores suggest why: the gap between public and private schools in math scores is eight times that between children with literate fathers and children with illiterate fathers.<sup>12</sup>
- Private schools are viable even in poor and rural communities because they can deliver better performance at low cost. Teachers outside the civil service can be quite inexpensive. In India, for example, they receive only about one-fifth the wages of public school counterparts, and accountability for performance may, in fact, be greater: teacher absence is one-third lower in private than public schools.<sup>13</sup>

***The youth who remain out of school are disproportionately from poor or marginalized groups***

- The 17 percent of children who do not complete primary education come disproportionately from certain hard-to-reach groups: *Children from poor families* on average face the largest enrollment gaps. In Mali, for example, only 5 percent of children from the poorest 50 percent complete grade 5, compared with 31 percent from the richest 50 percent.<sup>14</sup> *Girls* remain significantly less likely than boys to attend school throughout Central and Western Africa, South Asia, and North Africa—on average, boys' enrollment rates exceed girls' by 25 percent or more.<sup>15</sup> *Indigenous or minority children* typically lag well behind other students. For example, education in Laos has increased steadily over the past 40 years, with especially large gains among females, but rural minority non-Lao-Tai women are far behind urban majority Lao-Tai women.<sup>16</sup> *Children with disabilities* are enrolled at rates that are roughly 20 to 70 percentage points below their peers'.<sup>17</sup>

***Demand-side incentives—that is, payments to families—are often an effective way to bring the poor and marginalized into school***

- One approach to improving enrollment and attainment for underserved groups is *demand-side interventions*—providing grants to encourage school participation. Inspired by the successes of the well-known *PROGRESA/Oportunidades* program in Mexico and the secondary-school girls' stipend program in Bangladesh,<sup>18</sup> a number of countries have been implementing such policies.
- In *Cambodia*, for example, rigorous evaluation shows that a scholarship program has boosted the secondary-school enrollment of girls by 20 to 40 percentage points

(depending on the type of school). Moreover, the effect was largest in the case of girls from the poorest families.<sup>19</sup> In *Ecuador*, evaluation of the *Bono de Desarrollo Humano* (BDH), a cash transfer program, concludes that it has increased school enrollment by about 10 percentage points and reduced child labor by about 17 percentage points.<sup>20</sup>

***Closing schooling gaps for disadvantaged children also requires making sure they are well prepared for primary school***

- Shortfalls in learning and attainment often have their roots in deprivation very early in life.<sup>21</sup> By the time children from poor families arrive at primary school, they have already fallen far behind their peers from better-off families, suggesting that nutritional and educational interventions need to come in the pre-school years.
- These early investments in cognitive development pay high dividends. Among pre-school children in Ecuador, better nutrition improves children's test scores, and this effect is larger for older children (ages 4½ and older) than for younger children (ages 3 to 4½). The result suggests that the association between nutrition and cognitive development becomes stronger as the child matures.<sup>22</sup>

**Newer research areas**

***Improving quality and making schooling universal will depend on learning much more about what works via rigorous impact evaluation research***

- A 2002 review of research on education in developing countries concluded that little was known with confidence about what policies and interventions are most effective in improving learning outcomes.<sup>23</sup> Since then, the field of impact evaluation has exploded, both inside and outside the World Bank, as reflected in a recent review.<sup>24</sup>
- Impact evaluations often focus on one or two interventions in a very specific setting. What is critical is to learn about what interventions work and under what conditions. A “meta analysis” which compares and contrasts findings from a variety of interventions in a variety of settings is necessary. Two such studies are currently underway at the Bank: the first focuses on demand-side programs such as subsidies for education; the second is about approaches to enhance accountability—school-based management, the dissemination of information to promote transparency and stimulate demand for change, and the provision of performance-based incentives.

***Success at expanding primary education has raised the demand for secondary and tertiary education—and also for good research aimed at post-primary levels***

- Advances in technology globally have increased the stakes of getting post-primary education right. Both low- and middle-income countries are finding that industrial development and export competitiveness are becoming more closely keyed to the level and quality of technical skills. Production techniques are becoming increasingly skill-intensive, and technology transfer from abroad and its adaptation to local circumstances require a minimum level of R&D capability. In this milieu, universities have a critical role in training workers and are emerging as important centers of basic

research, of upstream technology development and of consulting and extension services. Some universities, notably in China, are engaging directly in the commercialization of technology by incubating and spinning out high-tech firms.<sup>25</sup>

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## Endnotes

Most Bank documents cited in this summary are available through the documents and reports portal of the World Bank <http://www-wds.worldbank.org/>. The word “processed” describes informally reproduced works that may not be commonly available through library systems.

<sup>1</sup> World Bank. 2007. *Global Monitoring Report 2007*. Washington, DC: World Bank.

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<sup>3</sup> J. Das, P. Pandey, and T. Zajonc. 2006. “[Learning Levels and Gaps in Pakistan](#).” Policy Research Working Paper 4067, World Bank, Washington, DC.

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<sup>6</sup> World Bank. 2003. *World Development Report 2004: Making Services Work for Poor People*. Washington, DC: Oxford University Press for the World Bank.

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- <sup>14</sup> Filmer, Deon. 2005a. "Gender and wealth disparities in schooling: Evidence from 44 countries." *International Journal of Educational Research* 43(6): 351-69.
- <sup>15</sup> Filmer *ibid*.
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