Providing children with a quality education is a priority of policymakers and education experts around the world. Creating a successful education system requires more than good teachers and the right infrastructure. Children must be encouraged to stay in school long enough to benefit from the offerings. Making this happen is a critical step in education reform. A variety of research questions remain unanswered, however. Can scholarships help students extend their education beyond primary school in low income countries? Should payments be made directly to the children or to their parents? Is there an optimal scholarship amount? And do boys and girls need the same encouragement?

The World Bank is committed to assisting developing countries raise their educational standards, part of the United Nations Millennium Development Goals. Our work includes supporting projects that explore how best to support children staying in school. One recent project was in Cambodia, where boys and girls from poor families were offered scholarships if they continued beyond primary school. An evaluation of the project found that scholarships worked as a way of getting children to stay in school. But it also found that children who were offered scholarships did not do measurably better on vocabulary or math tests than peers who were not offered scholarships—despite the fact that the former group had higher enrollments and attendance. Based on the results of the evaluation, the Government of Cambodia expanded the program at a scholarship amount of $45, which had proved as effective as giving students $60. The government also has piloted a primary school scholarship program to reach the poorest students. Researchers hope that future reviews of the students in Cambodia, along with evaluations of similar programs in other developing countries, will help policymakers and education experts better understand the interplay and use of scholarships, schooling and learning.

Cambodia has had numerous scholarship programs funded by the government and outside donors. One project, funded by the Japan Fund for Poverty Reduction, tried to keep girls in school by giving their families annual cash “scholarships”—which could be used for any purpose— during the first three years of secondary school (seventh through ninth grades). The project covered the 2003-2006 school years and raised school attendance rates by 20 to 30 percentage points.

Building on that experience, a government program supported by the World Bank’s Cambodia Education Sector Support Project was launched in such a way as to test the optimal scholarship amount and measure the effect on both boys and girls. The project covered the 2005-2010 school years and included two scholarship levels—$60 a year for the poorest recipients and $45 for the others.
The programs targeted 100 lower secondary (middle) schools that were not participating in other scholarship programs, focusing on those in poor areas and where non-enrollment was high. All 6th grade students in the local feeder elementary schools filled out a scholarship application. Questions focused on the make-up of the household, from number of family members to availability of running water and ownership of household durables. To come up with a drop-out risk score, the answers were analyzed in conjunction with data drawn from Cambodia’s nationwide household survey.

An impact evaluation was built into the design, based on how students were selected for the scholarship. The 6th grade applicants were ranked according to a drop-out-risk score—from those most likely to drop out of school to those least likely to drop out. In each school, a fixed number of scholarships were awarded to children with the highest dropout-risk. Comparing applicants “just below” to “just above” the cutoff effectively compares extremely similar applicants—who differ only in that the former were offered a scholarship.

The grants were offered to 6th grade students as they entered the 7th grade, and were renewable for the 8th and 9th grades. In total, there were 26,537 applications and just over 3,800 scholarships offered. Two-thirds of recipients were girls. The money was given to the families in three tranches over the school year, in public award ceremonies. The grants were made conditional on enrollment, attendance and satisfactory grade progress. During the first year of the program, researchers conducted a household survey of 3225 applicants (about 60 percent of whom had received a scholarship), and four unannounced school visits to check applicants’ attendance. As part of the household survey, children—regardless of whether they were enrolled in school—were given vocabulary and math tests. During one of the school visits, students were given a math test.

Likewise, giving children $45 to stay in school proved as effective as giving them $60.

There was no significant incremental impact on the enrollment rate between children who received the $45 annual grant compared with those who were given $60.

The money could be used on anything and how it was used was not monitored.

However, families that received grants spent more money on school...

The amount of money was not a lot for the families: It represented about two to three percent of the child’s household consumption and the $45 scholarship was about equal to the direct costs of attending lower secondary school. Families that received the grant did spend on average about $10


This bulletin summarizes the results of the Policy Research Working Paper 4998, “School Enrollment, Selection and Test Scores,” by Deon Filmer and Norbert Schady. The work was conducted through the World Bank’s Development Research Group, Human Development and Public Services Team. The full paper can be found at http://www-wds.worldbank.org/
more on on schooling-related expenses, such as books or other educational materials.

…and scholarship recipients were less likely to work for pay while attending school.

Students who were offered the grants were about 10 percentage points less likely to engage in paid work, compared with those who did not receive the money.

**Siblings did not have to make up the difference.**

There was no sign that parents of students who received the grants to stay in school pulled their siblings out of school to make up the difference in lost wages or other services.

**But while grants boosted enrollment among high-risk students, this did not translate into measurable better learning outcomes.**

Students who were offered a scholarship did not do any better in math and vocabulary assessment tests than those who were not offered a scholarship despite their higher enrollment and attendance rates. The reason may be that the scholarships not only help economically-poor students stay in school, they also help the academically-weak ones.

"(The program) means I won’t be skipping school regularly like before, because my parents have stopped pushing me to find jobs to earn money to support the family," said one female recipient.

The program found that students who enrolled in 7th grade despite being turned down for a scholarship were more likely to drop out of school before 8th grade if they had low test scores. Scholarship students, in contrast, stayed in school even if they had similarly poor test results in 7th grade. But the scholarships, apparently, were not enough to ensure that low-performing students could do better in school—the money simply helped them stay in school.

The researchers cautioned that follow-up assessments were needed to ensure that this finding is not due to the relatively short-run nature of the study.

**The Cambodian government decided that, for now at least, the jump in school enrollment was important enough to continue the model, incorporating the lessons from the evaluation, and expanding the reach of secondary school scholarships.**

The increase in school enrollment among high-risk students was sufficiently compelling evidence of the value of the program that the Cambodian government sought to expand it. Because of the findings that $45 scholarships were as effective at $60 scholarships, the government increased the number of $45 scholarships instead of raising the amount of each grant when additional money became available. The project now has been folded into the country’s national scholarship program, which also has been adjusted to incorporate the project’s design features.

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*Involvement in economic activity in Cambodia starts very early and rises sharply with age,* inducing late school entry and early school dropout. About 16 percent of children are already economically active at age six years, and over half of all children are economically active by the age of 10 years. By the age of 15, the share of children working in economic activity surpasses that of children attending school. School enrollment, on the other hand, peaks at 91 percent at age 11 years; thereafter, attendance declines as children begin leaving school and working exclusively.

—“Children’s Work in Cambodia: A Challenge for Growth and Poverty Reduction,” Inter-agency research project with the World Bank, Dec. 2006
Development groups and policymakers are turning to conditional—and sometimes unconditional—cash transfers as a way to encourage poor and otherwise disadvantaged groups to take better advantage of education, health and social protection offerings. The Cambodia study shows that scholarships can be an effective tool for encouraging students to stay in school after completing primary school—even in a low income setting. The results also indicated that, in Cambodia, boys and girls can benefit equally and that encouraging greater school attendance does not mean that the students’ siblings will be expected by their families to make up the lost household or outside work time.

The study also showed that attending school is not always enough to ensure a good education. Policymakers intent on making a difference may need to complement such demand-side programs with interventions that focus on school and teacher quality. For example, teachers may need to be trained to better teach low-ability students, or specialized tutors may need to be mobilized. At the same time, policymakers must keep in mind that some of the poorest students may drop out even before completing primary school. Scholarship programs might have to target lower levels of education in order to capture everyone. Cambodia is now exploring this through a pilot scholarship program targeting the last three grades of primary school.

The project’s researchers plan a second round of data gathering to assess whether the students who benefited from the lower secondary school scholarships end up doing better on learning assessments once more time has passed. In addition, longer term impacts—such as on labor market success or on the timing of marriage and childbearing—can be studied.

Success depends on finding the optimal way to support children who might otherwise drop-out, both in terms of encouraging enrollment and ensuring that once in school, they can learn.