Effects of Student Performance Information on Parental Decision-Making in Malawi

Researchers:

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Sector(s): Education

Location: Malawi

Sample: 5,268 parent-child pairs

Initiative(s): Post-Primary Education Initiative (PPE)

Target group: Parents

Outcome of interest: Dropout and graduation Enrollment and attendance Student learning

Intervention type: Information

AEA RCT registration number: AEARCTR-0001808

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Research Papers: Parents' Beliefs About Their Children's Academic Ability: Implications for Educ...

Partner organization(s): Stanford University Department of Economics, Innovations for Poverty Action (IPA), National Science Foundation (NSF), Russell Sage Foundation (RSF), The Stanford Institute for Economic Policy Research

Parents' limited educational attainment can make it difficult for them to judge their children's academic performance, and thus to make decisions about where to allocate scarce resources for education. This study evaluated the impacts of information about children's academic performance on parents' subsequent investments in their children's education. Findings indicate that parents' perceptions of their children's academic needs tend to be inaccurate, and that providing parents with information on students' academic performance, communicated both verbally and in writing, can help them target their educational resources more effectively.

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Parents tend to invest in their children's education based on their children's academic abilities, allocating more educational resources to higher-performing children in the belief that the returns to education are greater for students who are more likely to succeed.

However, parents may not always judge their children's academic performance correctly. As a child learns more advanced skills, it becomes increasingly difficult for parents with limited education to assess their child's ability in that skill. Parents with limited reading abilities may also not be able to understand written report cards, a key tool for communicating students' academic progress.

Inaccurate perceptions of children's academic performance can cause parents to make mistakes in deciding where to allocate their scarce educational resources, especially among multiple siblings, and thus may prevent children from reaching their academic potential. This misallocation of resources could help explain why educational outcomes are both weak and unequal in

contexts in which parents are poorly educated.

One way to address this challenge may be to provide parents with accurate, easy-to-understand information about their children's academic performance, so that they are better equipped to make decisions. This study examines the role of information in parents' decision-making about resources for their children's education.

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In Malawi, nearly 100 percent of children begin primary school, but only 35 percent of children complete it.[1], Primary school is technically free, but still requires families to spend money on uniforms and school supplies. Secondary school is not free, and slots are limited to students who perform well on a national achievement test administered at the end of primary school. Differences in school completion rates between rich and poor are significant.[2]

Information on student performance is disseminated to parents in Malawi through official report cards sent home with students, but there is no standardized format for these reports. They sometimes do not reach parents and, when they do, can be difficult for parents with limited schooling to understand.

According to results of the baseline survey for this study, 65 percent of parents stated that they did not know their child's academic performance from the last report card. The reasons that parents most commonly cited for this were that (a) they were unable to read or understand the report; or (b) they did not receive the report in the first place.



Father hugs son while looking at his report card.

Photo credit: Shutterstock.com

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In this study, the researcher conducted a randomized evaluation in two districts in Malawi to test the impact of providing parents with easy-to-read report cards about their children's academic performance.

Among 3,464 households with at least two children enrolled in grades 2-6 in 39 randomly selected schools, half were selected to participate in the intervention, and the other half formed the comparison group and did not receive report cards. Trained surveyors visited all households to conduct a baseline survey, which included questions about education spending and beliefs about children's test scores.

After the baseline survey, parents in the treatment group received an easy-to-read report card that listed each of their children's test scores, and surveyors verbally explained each number. Most of the information in the intervention report card overlapped with that already provided by school report cards, but because the intervention cards featured a more readable format and their delivery included an in-person explanation, the intervention sought to present the information more clearly.

Immediately following the intervention, in the same visit, surveyors asked parents how they would allocate various educational resources, such as textbooks, among their children to assess whether parents' decisions changed as a result of the report cards. As a follow-up measure of parent and child behavior, the researcher collected administrative data on school attendance one month later and conducted a second survey on student dropouts and educational expenditures among study households one year later.



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Results demonstrated that parents held mistaken beliefs about their children's academic ability, and that these beliefs affected both their immediate and long-term investments in education. Providing more information changed parents' decisions about where to allocate their resources.

Initial beliefs about children's educational ability: The baseline survey before the intervention found an average gap of 20 percentage points between parents' beliefs of their children's overall test scores and actual scores. 31 percent of parents were mistaken about which of their own children was higher-scoring. However, beliefs of better-educated parents were better

correlated with their children's actual scores, indicating that less-educated parents had less accurate beliefs.

The data on different investment behaviors of the treatment group compared to the comparison group suggests that parents try to tailor their educational investments to their children's performance, but due to their inaccurate beliefs, often fail in doing so. Data on behavior of parents in the comparison group also provides suggestive evidence to confirm the idea that parents prefer to invest in higher-performing students because they expect those children to generate higher returns.

Immediate impacts of information: Providing information to parents caused their preferred allocation of investments to become three to five times more closely aligned with their children's actual performance, as measured in surveys immediately after the intervention. This effect was larger for less-educated parents than better-educated parents.

Longer-term impacts of information on enrollment: One year later, high-performing students whose parents participated in the report card intervention were more likely to be enrolled in school, while low-performing students were less likely. Among children whose parents found out that they performed above the median in their class, dropout rates fell by two percentage points to nearly zero percent. For those whose parents found that they performed below the median, the dropout rate roughly doubled, increasing from two percent to four percent. This suggests that information does not necessarily improve educational outcomes for all: Because resources within families are limited, reallocation of resources can cause some children to lose out.

Longer-term impacts of information on educational expenditures and attendance: Information caused less-educated parents to increase their spending on lower-performing children relative to high-performing children by eighteen percent. Better-educated parents did the opposite, increasing spending on their higher-performing children by ten percent. Similarly, for less-educated parents, information increased school attendance for low-performing children, whereas for the better-educated, information decreased attendance for low-performing children. One explanation for this may be that better-educated parents, who may be wealthier, may believe they can afford to send their children to secondary school, and so want to invest in their high achievers to get them over the secondary school admission threshold. Less-educated parents may not see secondary school as an option, and thus want to invest in their low achievers to help them acquire basic literacy and numeracy skills.

Impacts of information on inequality: To provide insight into possible long-term outcomes of the intervention, the researcher used econometric analysis of current dropout rates to estimate future school completion rates. Prior to the intervention, the primary school completion rate in the study population was 96 percent for households of high socioeconomic status (defined as those with parents who had relatively high levels of education) and 76 percent for households of low socioeconomic status (those with parents with relatively low levels of education), yielding a gap of 20 percentage points. Among those who received the information treatment, projected completion rates are 89 percent and 79 percent, respectively, yielding a gap of 10 percentage points. The information treatment thus has the potential to close roughly 50 percent of the primary school completion gap between low and high-socioeconomic status households.

Overall, these results indicate that parents have inaccurate beliefs about their children's academic performance, especially poorly educated parents. Further, parents' investments in education depend on their children's academic abilities. This suggests that policies targeted to improving children's academic abilities could also lead parents to invest more of their own household resources in education. There are still many open policy design questions for future research, including whether information delivery through schools can be improved, and how sustained the information delivery must be to impact test scores and longer-run outcomes.

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1. World Bank. 2010. "The Education System in Malawi." Policy report, xxi and xxix. http://hdl.handle.net/10986/5937.
2. World Bank. 2010. "The Education System in Malawi." Policy report, xxxvii, and 42. http://hdl.handle.net/10986/5937. NB: The completion rate cited here is calibrated to the regional norm of six grades to enable standardized comparisons.