



## Schools need money, and how you give it to them matters

### Upping the Ante: The Equilibrium Effects of Unconditional Grants to Private Schools

- Schools that received cash grants increase investment in **building infrastructure**, have **higher enrollment and revenues**, and in some cases, report **higher test scores and investment in teachers**
- Giving cash grants to all schools in a village produces **two times** more social impact than offering the grant to just one school per village

### Research Findings

Our results show that in all villages, schools who received unconditional cash grants both make more money and spend more money. However, there are significant differences in how the money was earned, what it was spent on, and the extent of quality improvements between one-financed and all-financed methods.

### Schools DO need financing

School owners immediately invest in the school after receiving a grant. If school owners did not imminently need cash for their school, they delay investing in their school

and use the grant to pay off more expensive loans instead. On the contrary, school owners immediately began upgrading rooms, furniture, and fixtures. In all-financed villages, they additionally upgrade classrooms, libraries, sports facilities, and increase teacher pay—investments that may affect learning quality more directly.

### Effects of Financing

What happens after schools spend the grant money? As a result of their investments, all schools made more money and enrolled more children,

### Low-Cost Private Schools in Pakistan

Low-cost private schools have multiplied 15-fold in Pakistan since 1980, accommodating over one-third of all primary school children. Over the same period, primary school enrollment has doubled, reaching nearly 100% (UNESCO 2015). Despite these huge gains in enrollment, school quality continues to lag behind. One important challenge inhibiting quality among private schools may be lack of cash to make improvements. To test the role of financing on school behavior, we experimentally offer an unconditional grant of \$500 (a large amount equal to roughly 15% of a school's annual revenue) to 342 private schools in 188 villages. To explore whether schools react differently when other schools also receive the grant, we give the grant to only one school in some villages (one-financed) and in other villages, we give grants to all schools (all-financed). Our design allows us to assess whether the context in which financing is offered affects how schools use the grant money.

but tuition and test scores only increase in all-financed villages. To be more specific, in one-financed villages, the schools added 19 more students on average (a 12% increase) but all-financed schools added only 9 additional students (a 5% increase). If enrollment rose twice as much in one-financed villages, how could revenue increase similarly for all schools? Since test scores increased in all-financed schools, schools signaled to parents that their quality had improved and were able to charge 7.9% higher tuition fees the next year. Thus, while enrollment increased more in one-financed schools, quality and tuition fees increased in all-financed schools, resulting in similar overall revenue gains among all schools.

### Responses to Identical Cash Grants

A noteworthy pattern appears: schools respond to identical cash grants in different ways, based on whether their competitors were also offered grants. When a school knows it is the only one financed, it tends to expand capacity to include children who may have otherwise dropped out or never enrolled.<sup>1</sup>

On the other hand, schools that know their competitors have been financed too both expand their capacity to accommodate a few more students and invest in quality improvements, allowing them to charge higher fees and produce higher test scores.

<sup>1</sup>Note that the one-financed school does not poach children from other un-financed schools in the village, which could trigger a price war and result in large profit losses for all schools, but rather seeks unenrolled students.



### How can policymakers effectively use this information?

*Would schools be able to repay the money if offered a loan instead of a grant?*

For one-financed and all-financed schools respectively, the rate of return on the grant ranges from 61-83% and 12-32%, which sufficiently covers the prevailing interest rates in both cases for the vast majority of cases.

*Which allocation strategy (one- or all-financed) offers higher social gains?*

Schools invest in different things depending on who else received financing. Therefore, the method of financing matters just as much as the grant money itself to maximize the welfare impact. We estimate that the all-financed model leads to larger total social returns for the village by boosting education quality for students already enrolled in school (500 students per village on average) relative to the one-financed model that favors the private returns of school owners.

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Treatment effects for main outcomes and channels of impact

