Country Research Team
Pakistan
RISE will conduct a six-year research project in Pakistan to examine how to catalyse improvement in the country’s educational system, and address student learning failures by focusing on different types of system-level frictions – those that affect the private and public sector, household demand, and the interaction between the different actors in the education ecosystem.

As a result of a low-cost private school “revolution” in recent years, Pakistan provides a particularly valuable context to inform global educational public policy through market-oriented experiments and analyses. Forty percent of primary-age students in Pakistan attend private schools, and their exponential growth in rural areas implies that many children now live in villages with significant public* and private school choice. For instance, in rural Punjab, Pakistan’s most populous province, more than half of rural residents live in villages with seven to eight schools. The median monthly fee of a private school in Punjab, Pakistan is about 400 rupees – roughly equivalent to USD 4 or GBP 3 – and increasingly, even parents from the poorest segments of society are choosing to send their children to private schools.

Led by experts who conducted ground-breaking analysis of the schooling environment through the Learning and Education in Pakistan Schools (LEAPS) study in more than 100 Punjab villages, the Country Research Team will conduct studies designed to understand and address market failures in education.

These studies will provide critical inputs on how to solve Pakistan’s education challenge: despite a significant increase in spending by the government, low levels of learning remain the norm, and in recent years enrolment growth has stagnated. The research project aims to use economic tools of market analysis to understand how interventions, such as increasing the flow of information on school quality to families, and supporting meaningful improvements in schools through access to tailored microfinance products and educational support services, may impact learning outcomes.

“The education landscape in Pakistan is changing rapidly. How Pakistan harnesses this tremendous potential for positive change and manages the challenges in the system will determine not only the future of education but, significantly, the future of the country itself,” said Tahir Andrabi, the Country Research Team leader, a professor.
of economics at Pomona College, and a founding board member of the Center for Economic Research in Pakistan (CERP), which promotes evidence-based policymaking to improve the country’s social and economic development.

A multidisciplinary research collaborative led by Pomona College, Evidence for Policy Design at Harvard Kennedy School, the research department at The World Bank, and CERP, will work with a number of other institutions around the globe to conduct the research. The GBP 4.2 million research project will examine a wide variety of inter-related issues that affect public and private schools, including:

- **The market for quality teachers.** How does teacher compensation, job training, and review policy affect teacher supply and quality, and student learning outcomes in the public and private sector?
- **Access to information about school quality.** Do school report cards lead parents to choose high-quality schools and help those schools to thrive? Do the effects on students’ learning continue into adulthood, when men and women enter the labour force, marry, and start families?
- **Financial constraints.** Do grants and loans tailored to the needs of schools lead them to make the kinds of investments that will enhance learning?
- **Educational support services.** Can products targeted toward Pakistan’s low-cost private schools lead them to adopt innovative learning tools and materials?

“For the first time in human history, every child has some exposure to schooling; the challenge now is to ensure that this schooling translates into the skills necessary to prosper in an increasingly globalised world,” said Jishnu Das, a principal investigator of the research project, a lead economist in the Development Research Group (Human Development and Public Services Team) at the World Bank, and a senior visiting fellow at the Centre for Policy Research, New Delhi. “The RISE project in Pakistan will provide fundamental insights – to the country, and globally – on how we can achieve this task.”

The learning differences between students in public and private schools are large, and children studying in private schools report higher test scores in all subjects. Government schools require twice the resources of private schools to educate a child. However, private schools are not universal.

“The RISE Pakistan research takes a comprehensive ‘ecosystem’ approach to education research and reform so that the coming decade can see Pakistan emerge as a global innovator, and unleash all the benefits of education to its populace,” said Asim Khwaja, a principal investigator of the project, a professor of international finance and development at the Harvard Kennedy School, and a recipient of the Tamgha-i-Imtiaz, Pakistan’s fourth-highest civilian award, for his work in education.

The results have the potential to shed light on policies that could benefit other nations as well. Low-cost private schools are also growing rapidly in many countries in different regions of the world, for instance, in both India and Kenya.

“These low-cost, ‘mom-and-pop’ schools in Pakistan can serve as laboratories for us to look at how schools behave when they are unconstrained by the trappings of the public sector,” said Lant Pritchett, RISE research director. “We want to understand how these schools invest resources and improve their performance.”

* In the RISE lexicon a public school refers to one operated by a government at little or no cost to students. This is to distinguish the definition of public schools as used in England and Wales, where the term refers to selective, and expensive, independent secondary schools.

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RISE in Pakistan: Non-technical research overview

The RISE Country Research Team in Pakistan will undertake a wide-ranging research agenda over six years to understand how market forces can be harnessed to improve education. The project will expand global knowledge on the challenges and opportunities that such market forces represent, especially in countries where learning levels are low despite progress in enrolment and increased spending on education by both government and parents.

An explosive growth in low-cost private schools in Pakistan provides a valuable setting with global lessons for how to harness market forces to improve learning. From 1982 to 2005, the number of low-cost private schools grew 14-fold - and just as fast in rural as in urban areas, with children from the nation's richest and poorest income groups attending. Nevertheless, student test scores in Pakistan remain low, with Grade 5 students barely at Grade 2 competency - even as government spending and parental involvement is increasing fast.

The Pakistan team proposes a set of studies and experiments that will innovatively build on the opportunities in this new educational landscape and enhance local capacity to sustain improvements in education over the long run. Examples of key insights from this research include:

- How does competition among public* and private schools affect learning?
- How do private schools’ independence from certain government regulations and bureaucracy allow them to innovate and improve learning?
- How do public sector reforms affect performance?

The research team proposes to test and analyse a variety of interlinked reforms and issues that are intended to work together to improve learning. The projects will focus on improving interactions among children and parents, schools, financiers and educational service providers: the people helping children learn in a sustainable and socially impactful way.

Key questions include:

- What market forces can be catalysed to improve learning outcomes?
- What are the long-term consequences of providing information regarding school quality on schools and children?
- How does alleviating financial constraints in public and private schools impact learning and educational outcomes?
- What factors limit the development and adoption of innovative ideas in the educational space in Pakistan?
- What are the failures in the teacher labour market?
- What lessons can educators in public and private settings learn from the experiences of, and competition from, low-income private schools?
- Can reforms leverage the interests, incentives and interactions between parents, teachers, administrators, governments and entrepreneurs to reward and achieve educational excellence?

The research will involve analysis of long-term data, consultation with partners in private industry and government, and the use of randomised experiments to provide an evidence base for policy making.
The issues that will be addressed include:

• **The market for quality teachers.** How does teacher training, pay for performance, recruitment, and retention affect the supply of teachers in the public and private sector? Researchers will pay close attention to the market dynamics in rural areas where shortages appear to be a factor, and improved education of local girls may pave the way for the next generation of teachers in villages.

• **Financial constraints.** A major constraint for public and private schools in Pakistan is a lack of adequate financial resources. The studies will explore the effects of innovative instruments that help bridge the resource and financing gaps that private and public schools face. Researchers will examine the effects that stem from providing grants, loans, and equity products designed specifically for the needs of low-cost private schools.

• **Information shortages.** Accurate information about school quality empowers parents to make informed decisions, and helps create a system that recognises and rewards learning innovations. Researchers will examine the long term effects of providing school and child report cards to parents, and will seek to understand whether increases in student learning quality translate into other student outcomes, including labour market decisions.

• **A lack of educational support services.** Researchers are working with partners to create and test new products specifically designed for low-income private schools. The aim is to see whether these measures (along with financial support) lead schools to adopt innovative curricula, teacher training, technologies, and other educational support tools. The experiments stem from the observation that while markets for schools’ physical needs, such as desks and chairs, are easy to find, markets for suitable and innovative materials for student learning and teacher training are scarce.

The results from this set of studies will have immediate impact on policies in similar environments, particularly in South Asia, where private schools are a rapidly growing presence. But more broadly, the questions that are addressed in this research agenda respond to the age-old issue of what we ultimately want from our schooling systems, and whether one way to improve schooling is to reduce the frictions in the basic relationship between the parent, the school, and the child.

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Student test scores in Pakistan remain low, with students in Grade 5 barely at Grade 2 competency. This is happening despite increases in government spending, enrolment and parental involvement in education. The Pakistan team proposes a set of studies and activities to shed light on the nature of the frictions within the Pakistani education system, and to help build local capacity for the sustainability of continued monitoring and long-term improvement of the system. The team has strong local networks with established and well-regarded partners in Pakistan that will help the implementation of this ambitious research project.

The team sees the system as a market, and seeks to study different frictions along five key dimensions, depicted in Figure 1: (a) access to information; (b) access to resources and financing; (c) knowledge and innovation markets; (d) labour market incentives; and (e) regulatory and governance structure.

For each of the frictions there is a set of studies proposed to understand how an alleviation of this friction affects student learning and the relationships of accountability between the actors in the system. Crucially, the greatest advantage of conducting this set of studies with RISE support is that it breaks with conventional funding schemes that force projects to be sequential. In this instance, all proposed studies can happen concurrently rather than sequentially, allowing for a study design that exploits synergies between the studies, and gives a more system-level outcome.

A large part of this proposal is also an ambitious data collection project. The new data collected will enable researchers to consider issues raised in this proposal and beyond, including focusing on gender gaps in learning and across socio-economic backgrounds (as there is a focus on both public* and private schools).

The proposed research for each market friction is detailed below, under the relevant heading:

(a) **Access to information**: provide key information that helps parents and schools to recognise and reward the best schools.

Studies show that public information on school quality improves school performance across public and private systems. This study seeks to understand how this happens, and the impact of different types of information.


(b) **Access to resources and financing**: help schools access the tools they need to improve quality and innovate. Schools need resources to implement learning innovations.
This proposal includes three projects to look at this question.

1. **Public School Funding**: examine the direct (short- and long-term) impact of a reform by the Punjab Education Department that started in 2004, which brought about a large increase in locally available funds in public schools (on the order of USD 2-4,000 per school). Preliminary RCT results show positive direct impacts in public schools, as well as positive spillover effects to private schools.

2. **Low Cost Private Schools Grants Study**: village-level RCT of cash grants (USD 500) to low-cost private schools that examines intent-to-treat effects of grants on school revenues, fees, enrolment and child test scores. In addition, we will examine whether the returns to capital differ based on how many schools in a village have access to increased resources. Preliminary results suggest a positive return on the grants and a “crowd-in” effect when grants are offered to all schools in a village.

3. **Education Financing**: sustainable impact in alleviating financial resources faced by schools can only be addressed by having mainstream financial providers offer products that are designed to serve the needs of these schools. The team has created two bespoke financial products in collaboration with Tameer Microfinance Bank, and will evaluate the likely take-up rates of these products and affecting factors, as well as the impact of these products on schools’ revenues, fees, enrolment, child learning and the educational ecosystem as whole through an RCT.

(c) **Alleviating knowledge and innovation failures to increase access to education support services**: provide the knowledge and innovation markets that lead to mature markets for educational support services (ESS).

A resource for growth is access to knowledge and innovations. There are no existing markets for soft investments such as curriculum development, school assessments, and teacher training designed to fit the needs of schools in Pakistan. Thus, even schools committed to improving quality find it difficult to access these ESS. The team proposes one study to look at this question.

1. **Education support services**: Partner with leading ESS providers to create, test and refine a marketplace for ESS to study the impact of alleviating the ESS market failure. To take a system-approach, the team proposes to cross-randomise with the education financing study above. This way they can evaluate the take-up given the current financial constraints and when these constraints are alleviated via credit products.

(d) **Focus on the labour market for teachers**: ensure the labour market incentives link educational returns to investments, and produces well-trained and motivated teachers.

Reforms thus far have not been tested in meaningful ways. The team proposes to partner with local stakeholders responsible for the training and hiring of teachers to carry out three studies.

1. **Labour market returns to education**: use longitudinal datasets from the LEAPS study, including the ethnographic study of the families involved to examine the impact of schooling on early adult labour force outcomes, occupational choice and family formation stratified by gender and access to schooling heterogeneity.

2. **Teacher labour market**: examine the connection between pay and productivity using LEAPS data and teacher value-added modelling. Use a natural experiment involving hiring public sector contract teachers at half the standard wage.

3. **Teacher recruitment, compensation and retention**: evaluate Beachonhouse administrative database and conduct focus groups to produce a descriptive study examining the details of the teacher evaluation process. This will include the performance feedback system, teacher reward structures, teacher recruitment, movements within the school system, and attrition.

(e) **Enabling a conducive political economy environment**: examine governance and political economy dynamics and their effects on the system.

Although the themes explored in the other headings look at a diverse set of system frictions, it is also critical to understand the broader political economy encapsulating the system. Thus, to examine the dynamics of governance and the political economy, the team proposes a two-part study.
1. Historical documentation: use key informant interviews and archival work to document the contrasting educational governance structures for Punjab and Khyber Pakhtunkhwa.

2. Institution case study: Look at the regional examination system and examination boards to understand how they work. Include dialogue with government officials to foster debate around these issues.

The results from this set of studies will have immediate impact on policies in similar environments, particularly in South Asia, where private schools are a rapidly growing presence. But more broadly, the questions that are addressed in this research agenda respond to the age-old issue of what we ultimately want from our schooling systems, and whether one way to improve schooling is to reduce the frictions in the basic relationship between the parent, the school, and the child.

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