



# CREB Research News

---

April 2012

Centre for Research in  
Economics and Business  
Lahore School of Economics



## **CREB Team**

### **Director**

Dr. Naved Hamid

### **Office Manager**

Zenab Naseem

## **Senior Research Fellows**

Dr. Azam Chaudhry

Dr. Masooma Habib

Dr. Nawazish Mirza

Dr. Theresa Chaudhry

Dr. Tayyaba Tamim

Dr. Waqar Ahmed Wadho

## **Research Fellows**

Farah Said

Hamna Ahmad

Mahreen Mahmood

Sahar Amjad

Syed Ahsan Ahmed Shah

Uzma Afzal

## **Visiting Fellows**

Kate Vyborny

Salman Asim

## Contents

INTRODUCTION

RESEARCH

CREB PUBLICATIONS

STAFF RESEARCH

MORE FROM THE CENTRE

## EDITORS NOTE

**The Centre for Research in Economics and Business (CREB)** was established in 2007, as an independent research centre at the Lahore School of Economics, Pakistan. Its primary objective is to conduct policy-oriented research with a rigorous academic perspective on key development issues facing Pakistan and promote public debate on policy issues through conferences, seminars, and publications. CREB organizes the Lahore School's Annual Conference on the Management of the Pakistan Economy, and publishes Working Paper and Policy Paper Series to disseminate the research being done at the Centre.

At CREB, we place great emphasis on building research networks and linkages with researchers within and outside the country, to bring together people with the right set of skills to help achieve these goals. CREB hosts visiting international scholars undertaking research on Pakistan, facilitates and coordinates research by the faculty at the Lahore School, and administers the postgraduate program leading to the MPhil and MS degrees at the Lahore School.

This is the second in a series of research newsletters from CREB, and we hope that it will provide a useful perspective regarding the scope and depth of research being carried out at the Centre. We invite you to visit our website [www.creb.org.pk](http://www.creb.org.pk), and browse through our ongoing and completed research.

## Introduction

In the short period since its inception, the **Centre for Research in Economics and Business (CREB)**, has built an excellent reputation for the quality of its research. Our faculty and researchers have received funding support from regional partners and international agencies such as British Academy, UK, Department for International Development (DIFD), International Growth Centre (IGC), National Science Foundation, USA, Open Society Foundation (OSF) and South Asia Network of Economic Institutes (SANEI).

Our staff is highly skilled in applied research and has been actively involved in projects that help build strong policies. The research interests of our staff include Growth, Political Economy, Economic Policy, Education and Labor Economics- with a special country focus on Pakistan.

## Research

### Ongoing Projects

#### **Understanding and Addressing Rural Poverty in Pakistan: Oxford University-Lahore School Collaboration**

With funding from the *British Academy UK* and partial funding from the *Lahore School of Economics* the Oxford University-Lahore School collaboration will develop a 3-year collaborative program on the research theme of the Economics of Rural Poverty in Punjab.

The team of collaborators will be led by Naved Hamid, Kate Vyborny, Hamna Ahmad and Marcel Fafchamps (Oxford University).

The study will involve joint research on a number of questions, including:

What is the impact of natural disasters on rural households? Despite extensive emergency relief activity that typically follows a natural disaster, surprisingly little is known about the long-term effects of disaster on risk-taking behavior.

How do social networks and local “patrons” affect household wellbeing and access to public services? Patron-client relationships, or vertical social relationships in which individual powerful “patrons” have multifaceted relationships with “clients”, are said to be key features of both markets and politics in many developing country settings, including rural Pakistan.

What are the determinants of women's bargaining power in marriage and how does this affect their wellbeing? The unitary household model, which assumes that households pool resources and act collaboratively towards a single set of objectives, underpins much of welfare economics. However, theoretical literature explores other possible ways in which household members may interact, with important implications for women's welfare in particular.

The funding provided from the British Academy would be used for, deepening collaboration with innovative sampling

techniques, field experiments, and additional survey questions providing further opportunities for exchange, curriculum development, and co-authorship between the institutions.

The collaboration will be mutually beneficial: CREB researchers will develop methodological and research skills through collaboration with Oxford researchers, and disseminate their research internationally. Oxford researchers will have the opportunity to collect and analyze a rich household dataset and collaborate with Pakistani researchers who understand local context and cultural factors.

#### **Analysis of Technology in the Sialkot Soccer Ball Industry**

The project has been developed under the firm capabilities programme of the *International Growth Centre (IGC)* and is led by a team of researchers including Azam Chaudhry and Shamyla Chaudry from the Lahore School of Economics, David Atkin (Yale University), Amit K. Khandelwal (Columbia University) and Eric Verhoogen (Columbia University). The objective of the IGC's firm capabilities programme is to examine the existence of and reasons for heterogeneity in productivity between different firms in different countries, to understand the causes of the productivity shortfall of firms in developing countries and to find ways of boosting competitiveness in the manufacturing sector.

The Sialkot soccer ball cluster is made up of a large number of manufactures who export approximately 60 million hand-stitched soccer balls each year, accounting for about 70 percent of global production. But over the last few years, the amount of soccer balls produced in Sialkot has fallen. This project aims to better understand the technologies within the industry and determine the characteristics of the firms that are able to identify and implement new technologies.

The results from this project could provide important lessons for SMEDA as well as provide guidance on industrial policy for the Ministry of Industries.

#### **Incentives and Productivity: Work Groups vs. Production Lines**

With support from the *International Growth Centre (IGC)*, researchers led by Theresa Chaudhry from the Lahore School and Christopher Woodruff (University of Warwick) will test whether short-term financial incentives can be used to decrease absenteeism. A combination of surveys, experimental games, and production data will be used to gain an understanding of the nature of worker responses to these shifts in production.

The fan sector is an important source of employment in the region around Gujrat in the Punjab province of Pakistan. Exporting has developed as an important market for fans produced in Pakistan, with the largest markets being in the Middle East and Bangladesh. However, competition with

Chinese firms is a threat to the Pakistani fan sector, and the largest firms are focused on increasing productivity in order to remain competitive.

The project will focus on the organization of production in the factory and the role of incentives in worker performance. The factory presently uses a batch production method. Producers of a similar size in China use assembly lines rather than batch production. The assembly lines result in lower levels of in-process inventories, less damage to components and less need for re-working.

Two factors constrain the ability of the manufacturer to switch from batch to assembly lines. First, assembly line production is less tolerant of absenteeism. Second, workers resist changes in production techniques.

### **Public vs. Private Schooling Choice at the Household Level**

The study titled “Determinants of School Choice: Evidence from rural Punjab” is funded by the *Open Society Institute (OSI) Privatization in Education Initiative (PERI)* and is led by Masooma Habib, Hamna Ahmad and Sahar Amjad. This study addresses the following overarching question: Why do parents choose low cost private schools when free public schools are available? The main emphasis of the study in answering this question is on the role of parents' perceptions in school choice while controlling for a range of child, household

and school specific characteristics. 1024 rural households in 64 clusters spanning 8 *tehsils* in 7 districts of the Punjab were surveyed.

Wealth comes out as a significant correlate of private schooling. With each successive wealth quintile, the probability of enrolling in a private relative to public school increases by 6 %. Also, since private high school education is more expensive than primary or middle school education, we find that the wealth effect on the choice of private schooling is stronger for high school children compared to primary children across all socio-economic groups.

Our results indicate that school choice for females is elastic to the expenditure incurred on private education relative to public education. A unit increase in expenditure on private schooling relative to public schooling decreased the probability of enrolling a female in private school by 13%, but it was insignificant in explaining school choice for male children.

Our findings also suggest that parents exhibit greater preference for private education as the accessibility of private relative to public schools increases in a cluster. Distance to school is critical in school choice for girls at the primary and middle level of schooling. However at the high school level, distance did not matter in school choice for male or female students, suggesting that safety issues and means of transport may be less of an issue for older children.

Another important motivation for choosing

private schools is linked to parents' perceptions of employment opportunities for their children. Government and other professions such as teaching (especially for females) were perceived to require a certain level of education and investing in private education would give children a better chance of obtaining these jobs. On the other hand, parents are less likely to choose private schools for their children if they perceive that jobs available for their children require a comparatively low level of education like working on the farm, in a factory, or as a laborer.

Finally, various dimensions of school quality emerge as important determinants of school choice – but bearing a differential impact across the three levels of schooling. At the primary level for instance, teachers' presence matters but perceptions regarding the quality of subject teaching and teachers' skills do not but these perceptions becomes important determinants of school choice at the high school level.

### Completed Projects

#### **Financial Crisis and Migrant Remittances: Effects on Growth and Poverty in Selected South Asian Countries**

With a grant from *South Asia Network for Economic Institutes (SANEI)*, researchers led by Azam Chaudhry, Naved Hamid and Mahreen Mahmud from the Lahore School of Economics empirically investigated the effects of the global financial crisis on

remittance growth and national income in Bangladesh, Sri Lanka and Pakistan. This study was completed in 2011.

#### **A Strategy for Reversing Pakistan's Dismal Export Performance**

With the financial support of the *UK Department for International Development (DFID)*, the team including Naved Hamid, Mahreen Mahmud, Hamna Ahmad and Talal-ur-Rahim examined Pakistan's export performance during the last three decades and found that it has been very poor in comparison with other countries in Asia. The study analyzed the reasons for the poor performance and proposed measures to accelerate export growth. This study was completed in 2010.

For more information please visit: <http://www.creb.org.pk/researchprojects>

### CREB Publications

CREB published papers aim to bring to a wider audience the research being done at the Centre. The studies under the **working paper series** comprise of rigorous analytical and empirical research while the **policy paper series** was started in 2010 with the aim to publish papers more directly targeted towards a policy audience. Papers published since the last Annual Conference are listed below;

- **CREB Working Paper No. 02-12**  
The Determinants of Child Health and

Nutritional Status in Punjab: An Economic Analysis

**Uzma Afzal**

- **CREB Working Paper No. 01-12**  
Investigating the Proposed Changes to Pakistan's Corporate Bankruptcy Code

**Ali Hasanain, Syed Ahsan Ahmad Shah**

- **CREB Working Paper No. 02-11**  
Cross Country Growth Spillovers: Separating the Impact of Cultural Distance from Geographical Distance

**Azam Chaudhry, Rabia Ikram**

- **CREB Working Paper No. 01-11**  
The Determinants of Female Labor Force Participation in Pakistan: An Instrumental Variable Approach

**Mehak Ejaz**

- **CREB Policy Paper No. 01-11**  
Pakistan and Lessons from East Asia: Growth, Equity and Governance

**Khalid Ikram**

To view the complete list of papers in both series please visit:

<http://www.creb.org.pk/Publications>

## Staff Research

In the short period since its establishment, CREB has produced research of international standards, which has been published in national and international journals. A list of latest publications is given below;

Control Rights, Bureaucratic Corruption and the Allocation of Resources, *European*

*Journal of Law and Economics*, 2011

**Waqar Ahmed Wadho**

Size and Value Premium in International Portfolios: Evidence from 15 European Countries, *Czech Journal of Economics and Finance*, 2011

**Nawazish Mirza, Ayesha Afzal**

The Volatility Dynamics in an emerging economy; Case of, Karachi Stock Exchange, *Journal of Economic Research*, 2011

**Mahreen Mahmud, Nawazish Mirza**

Market Discipline in Commercial Banking: Evidence from Market for Bank Equity, *Lahore Journal of Economics*, 2011

**Ayesha Afzal, Nawazish Mirza**

Mutual Fund Performance Evaluation in an Emerging Economy: Case of Pakistan, *Lahore Journal of Economics*, 2011

**Mahreen Mahmud, Nawazish Mirza**

Financing Constraints; Determinants and Implications for Firm Growth in Pakistan, *Lahore Journal of Economics*, 2011

**Hamna Ahmad, Naved Hamid**

To view the complete list of CREB staff research please visit:

<http://www.creb.org.pk/Staff%20research>

## More from the Centre

**Annual Conference on the Management of the Pakistan Economy**

The Centre organizes the Lahore School's Annual Conference on the Management of



Pakistan's Economy. The proceedings of the Conference are published in a special issue of the Lahore Journal of Economics. This year's conference is titled "**Towards Accelerated Economic Growth: Its Need and Feasibility**". Previous conferences have focused on a range of themes covering topics in growth, trade, and development.

For more information on current and past conferences please visit:

[www.creb.org.pk/conferences](http://www.creb.org.pk/conferences)

#### **CREB at the 27<sup>th</sup> AGM and Conference of the Pakistan Society of Development Economics (PSDE)**

Papers authored by CREB research fellows were selected for presentation at the 27<sup>th</sup> annual meeting of the Pakistan Society of Development Economics (PSDE) held from 13<sup>th</sup> – 15<sup>th</sup> December 2011 at Islamabad. Topics covered included:

#### ***Factor Utilization in Manufacturing: Evidence from Pakistan, by Sahar Amjad***

Authors find that during the past decade, Pakistan has experienced jobless growth with the employment growth in its manufacturing sector lagging behind the growth in its GDP. This is of concern as Pakistan's growing labour force, lacking social safety nets and financial assets, rely on employment as their sole source of income. Thus employment is the main link between economic growth and poverty reduction. This paper aims to investigate the nature of

this job-less growth by using the Levinsohn and Petrin (2003) methodology to estimate the production functions for the industries and calculate the extent of labour underutilisation in the manufacturing sector, with a distinction being made between production and non-production labour. Their hypothesis is that labour underutilisation may be one of the driving factors behind this jobless growth. Finding lower than optimal employment for production and non-production workers across different industries and regions, it further tries to establish the possible links between factor utilisation, productivity and other industrial characteristics. Policy recommendations are made on the basis of this analysis.

#### ***What Determines Innovation in the Manufacturing Sector? Evidence from Pakistan, by Mahreen Mahmud and Hamna Ahmad***

This study analyzes the behavior of a sample of manufacturing firms in Pakistan in order to understand what determines innovative activity employing a panel data set for the years 2002 and 2006-07. Employing probit estimation Mahreen Mahmud and Hamna Ahmad find that size of the firm and human resource quality are important internal factors that increase the likelihood of a firm innovating. Interestingly, whether a firm is exporting or not has no bearing. However, post innovating there is a large increase in number of firms who export. Externally, presence in a geographic cluster is important though further analysis reveals

that the impact varies according to firm size. Size per se does not increase likelihood of innovating for medium sized firm who only have an advantage over small sized firms when present in a cluster. Large firms on the other hand continue to have an advantage and the advantage further increases with presence in a cluster. Finally, analysis by product and process innovators reveals that the characteristics of firms undertaking the two types of innovative activity are similar. The only noteworthy difference being that process innovation does not benefit from presence of a firm in a cluster which might be attributable to the more visible nature of product innovation which benefits from technological spillovers that are a characteristic of presence in a cluster.

***Macro Level Determinants of Poverty: Investigation through Poverty Mapping of Districts of Pakistan, by Farah Said and Mahreen Mahmud***

The study explores the spatial patterns of poverty in Pakistan through two dimensions: asset accumulation and basic needs. For this purpose Farah Said, Mahreen Mahmud and Tareena Mussadiq use the Pakistan Standard of Living Measurement 08-09 to construct an Asset Index and a Basic Needs index, at a district level, through the use of household level indicators. The study finds a clear north south divide, with particular concentration of better off districts in the north east of the country. Additionally, regression analysis is carried out to help identify the macro level factors

contributing towards the observed pattern. Results reveal infrastructural and industrial development to be significant factors behind a district's well being. This indicates that public policy directed towards developing deprived districts should be centered on these factors, specifically expanding road networks, and incentives for industrial development in those districts.

**CREB at the 11th UKFIET International Conference on Education and Development at Oxford University**

Papers authored by CREB research fellows were selected for presentation at the 11th Biennial conference of the UK Forum for International Education and Training (UKFIET) on Global Challenges for Education, held from 13th – 15th September 2011, at the Oxford University, UK. Topics covered included:

***The Impact of Public School Enrollment on Child Labor in Punjab, Pakistan, by Hamna Ahmad***

This paper investigates the causal impact of public school enrollment on child labor. The main hypothesis which this research attempts to test is as follows: is school enrollment a substitute for child labor? Recognizing that both schooling and work choices are jointly determined by parents in a utility maximizing framework, the study employs an instrumental variable solution to the problem of simultaneity. This approach entails using receipt of free textbooks and access to a

public primary facility as instruments for public school enrollment. There is a lack of consensus in the literature on the link between child labor and schooling. On the one hand, it is argued that schooling competes with child labor activities; thereby advocating increasing enrollment rates as an indirect tool for reducing child labor. If, however, engaging in child labor comes from the child's leisure time, enhancing school enrollment may have little or no effect on a child's work activities. Therefore, from a policy point of view it is important to investigate whether school enrollment has the potential to displace child labor. Data is provided by the Multiple Indicator Cluster Survey; 2007-08. The working sample consists of children between 5 to 14 years of age, which make up 25% of the surveyed population. Results suggest that public school enrollment can be used as a substitute for child labor. On average, a 1% point increase in household's enrollment ratio has the potential of reducing hours in paid labor by almost 5% points, *ceteris paribus*. This substitutability is highest amongst urban, poor male children. Moreover, the incidence of child labor is higher in poor families which are larger in size.

***The Politics of Languages in Education: Issues of Access, Social Participation and Inequality in Multilingual Contexts***, by *Tayyaba Tamim*

This paper discusses key findings from a 3-year study in Pakistan funded by RECOUP (Research Consortium on Educational

outcomes and Poverty). The qualitative study used the evaluative framework of capability approach alongside Pierre Bourdieu's social critical theory to analyze the impact of languages in education on individuals' freedom of choice, agency and wellbeing. Interview data of 32 participants (current and former graduates from secondary private and government schools) along with documentary analysis and participant observation revealed the concurrent processes which limited transformative educational outcomes. These processes were located in: a) devaluation of local languages in schools (private specifically), higher education and in government promoted language policies and b) the poor teaching/ learning of languages, particularly dominant languages in government schools. The hegemony of English perpetuated by the current Pakistani language policy and mediated by schools has led to increased stratification and the deepening of social cleavages between rich and poor, engendering low self-esteem and a sense of shame in local languages and cultures, which in turn have increased the vulnerability of the poor. The paper argues for the importance of considering the political economy of languages chosen and taught in formal education as a means of understanding social marginalization. The paper stresses the need for a more inclusive language policy and a consideration of the teaching/ learning of languages as a rights issue and as a means of maximizing the transformative educational potential to reduce poverty.

## Recently Completed Student Research

### MPhil Theses

Topics covered by the current MPhil students include;

#### ***Determinants of Female Labor Force Participation in Pakistan: An Instrumental Variable Approach, Mehak Ejaz (Supervisor Theresa Chaudhry)***

The study analyzes the determinants of female labor force participation across the rural and urban areas of Pakistan. Women's own characteristics, household characteristics and women's empowerment are the potential explanatory variables in the process of determination of female labor force participation (FLFP). However, women's empowerment is subject to measurement constraints, therefore, gender wage gap and current assets has been utilized as proxy variables for women's empowerment. The study will provide cross sectional evidence on various aspects of women's labor supply between the age (15-50), using the household data from Pakistan Social and Living Standard Measurement Survey (PSLM 2006-07).

#### ***Modeling Economic Growth through Geographical and Genetic Distance, Rabia Ikram (Supervisor Azam Chaudhry)***

The study determines the reasons for different rates of economic growth across

countries. Earlier models of economic growth that included the neoclassical and endogenous growth model explained per capita growth rates across countries by focusing on the stock of human and physical capital along with distance from steady state as implied by the standard production function. These growth comparisons failed to incorporate the spatial growth factors that result from the spillover effects and linkages between different nations. The reason that these spatial growth factors are important is because of the interdependence of nations as well as the recent phenomenon of globalization linking different countries. The effect of the spillovers can vary with geographic distances between the economies, as geographically closer economies are likely to be more integrated in terms of trade and production. It can also vary with genetic or cultural distances. Using a cross-country empirical framework, this research will estimate the relative importance of geographic and genetic (or cultural) distances between economies on growth spillovers.

#### ***Effects of Migration and Remittances on School Enrolment in Punjab, Rabia Arif (Supervisor Azam Chaudhry)***

The study investigates how education plays a significant role in enhancing human capital and boosts economic growth through increased knowledge, skills and innovations. United Nation's Statistics reveal that hardly 63% of Pakistani children finish primary school education. Only 68% of Pakistani

boys and 72% of Pakistani girls reach grade 5. Pakistan intends to increase this figure by 10% by 2015 and subsequently by 15% more by 2020. One of the major reasons why developing countries suffer from such a low level of these private investments is due to liquidity constraints which can be the result of incomplete or missing credit markets. Therefore, remittances from migrant household members can play a crucial role in loosening constraints if not eliminating them completely. The aim of this MPHIL thesis is to examine the relationship between the migration and schooling enrollment in Pakistan.

***The Determinants of Child Health and Nutritional Status in Punjab: An Economic Analysis, Uzma Afzal (Supervisor Theresa Chaudhry)***

The study explains how child health is considered a key indicator of economic development and the quality of life in developing countries. It is also closely related to other development indicators such as adult health, educational attainment, income, and occupational productivity. In the past few years, despite having clear health targets in the form of the Millennium Development Goals, Pakistan has been unable to attain significant progress in improving child and maternal health. This study focuses on the health and nutritional status of children in Punjab. It attempts to identify the socioeconomic factors that affect child health at the household level,

and presents policy recommendations based on its findings. The study's theoretical framework is based on the household production model and the instrumental variable technique has been implemented for estimation. The Multiple Indicator Cluster Survey (MICS) for 2007/08 which is a household level dataset gathered by the Punjab Bureau of Statistics has been used for this study. The study's results imply that maternal education and health knowledge are important determinants of child health, among other significant indicators.

## **MS Thesis**

**The Impact of Migration on Rural Asset Accumulation in Punjab, Pakistan - A Panel Analysis, Asha Gul**

**Analysis of Gender Gap at Primary School Level in Punjab, Pakistan, Saher Yousaf**

**Gender Patterns in Household Health Expenditure Allocation: A study of Pakistan, Sarah Ahmed**

**Determinants of Child Labor in Punjab, Pakistan, Sarah Badar**

**Centre for Research in Economics and Business, Lahore School of Economics**

Address: Intersection Main Boulevard, Phase VI, DHA and Burki Road, Burki  
Postal/City: 53300, Lahore, Pakistan  
Email: [creb@lahoreschool.edu.pk](mailto:creb@lahoreschool.edu.pk)