

Challenge: Lack of Education

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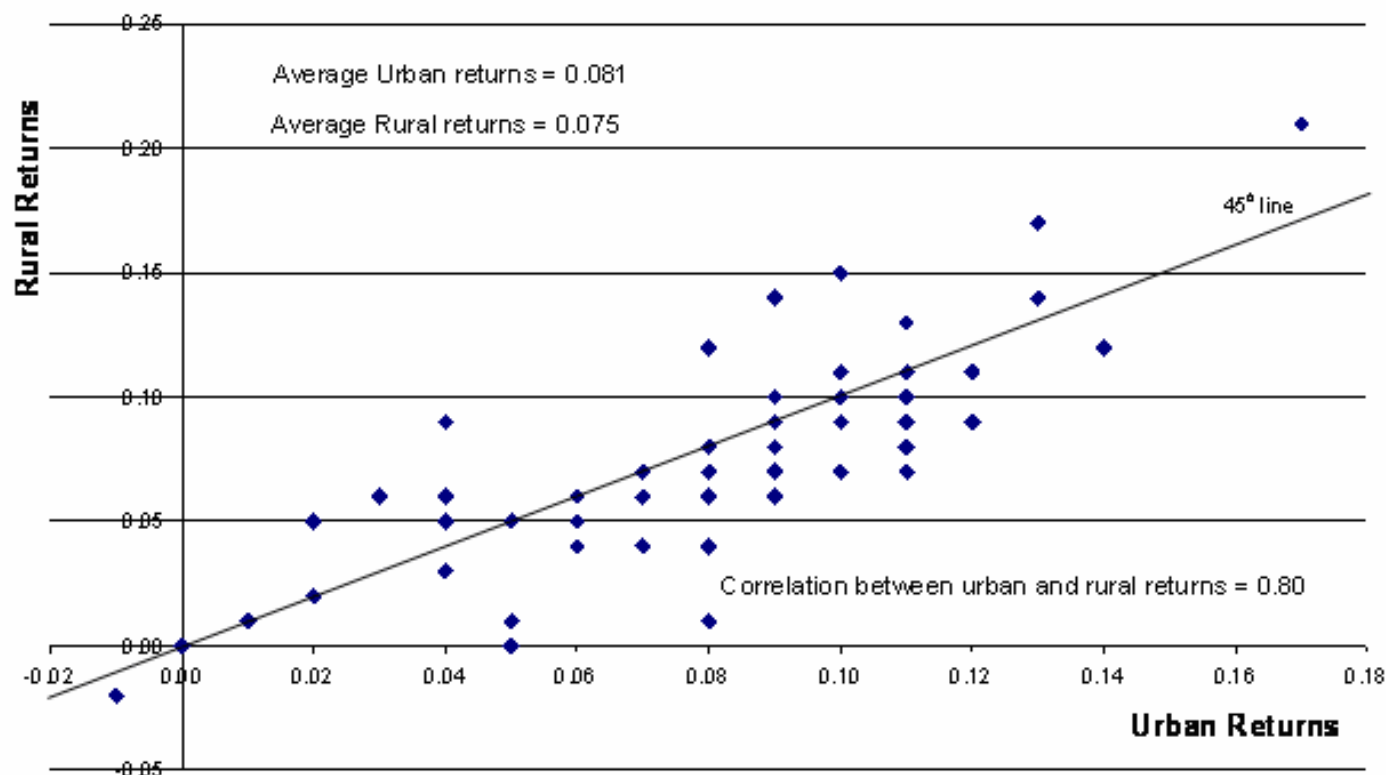
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Challenge: Lack of Education

- Consistent evidence of private and social returns to schooling
- Expanding school supply expensive with uncertain returns
- Public efforts to increase schooling demand are less expensive, better targeted, and have higher returns
 - School based health interventions
 - Reducing private school costs
 - Conditional transfers

Private returns: urban and rural residents

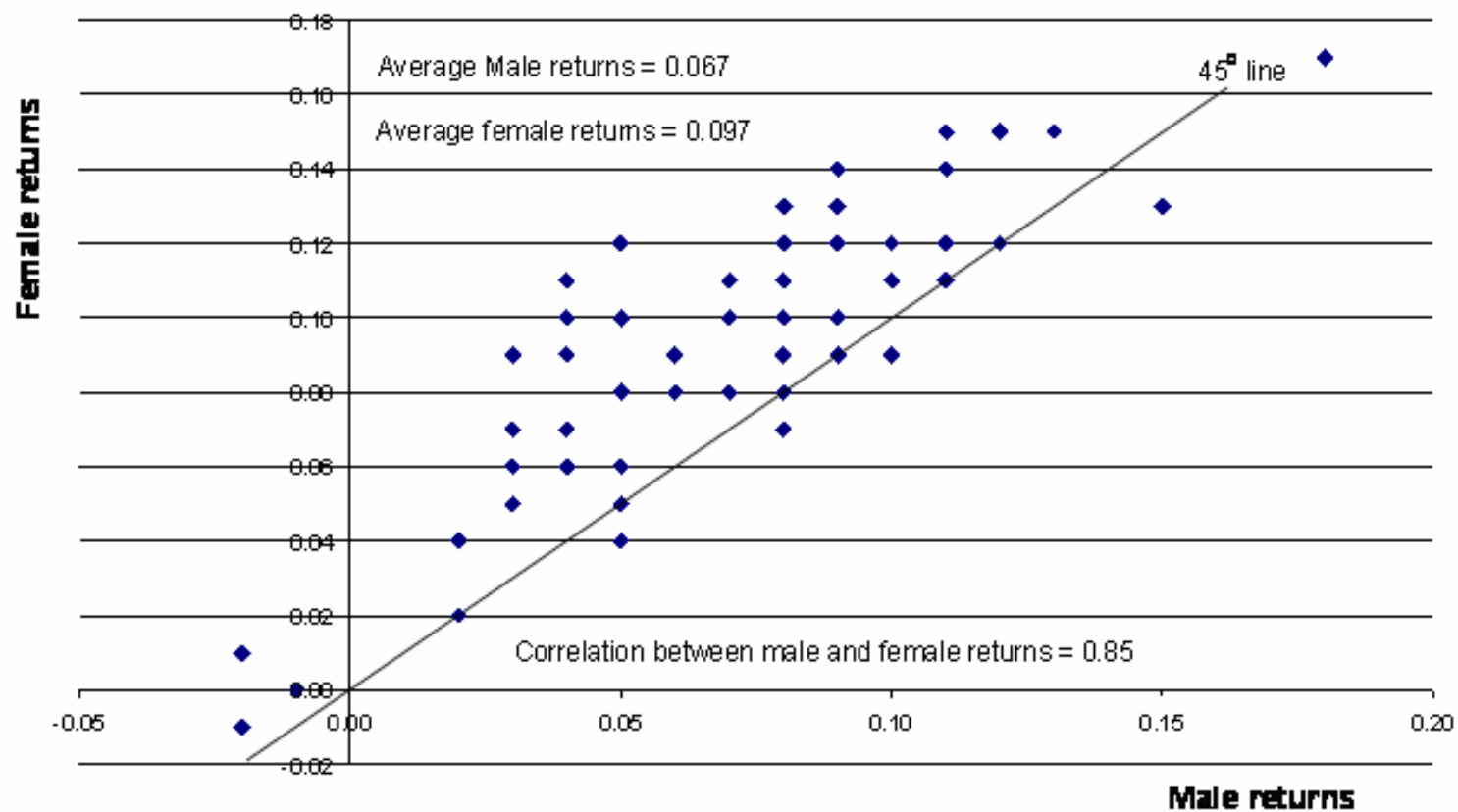
Figure 5: 66 Paired least squares estimates of returns to schooling for urban and rural residents using household data sets from 46 developing countries, various years, 1991-2004



Source: Authors' compilations from results reported in Fares, Montenegro and Orazem (2007)

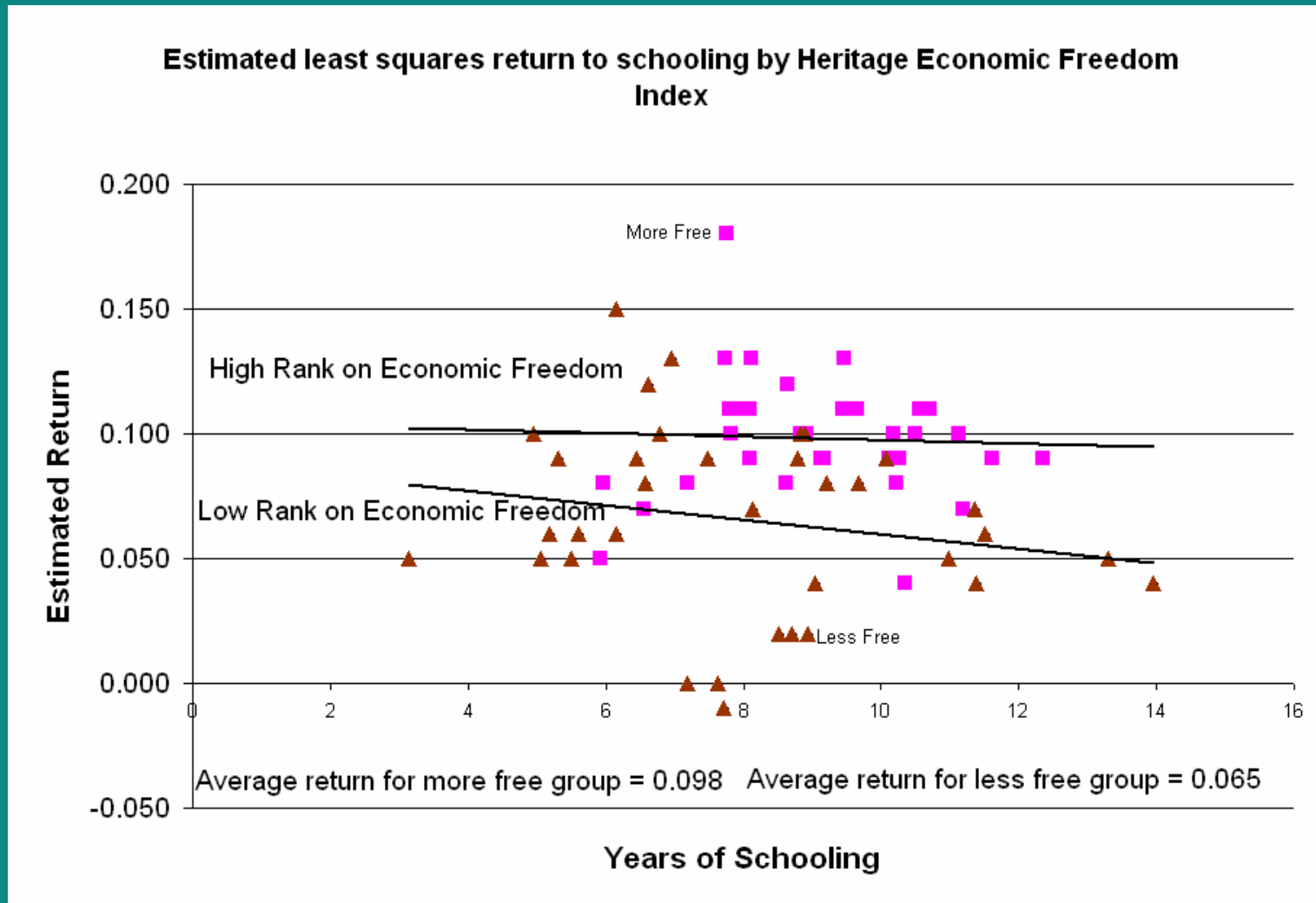
Private returns: men and women

Figure 4: 71 Paired least squares estimates of returns to schooling for males and females using household data sets from 49 developing countries, various years, 1991-2004



Source: Authors compilations from results reported in Fares, Montenegro and Orazem (2007)

Private returns higher when the economy allows mobility to seek highest return...



...but generally positive

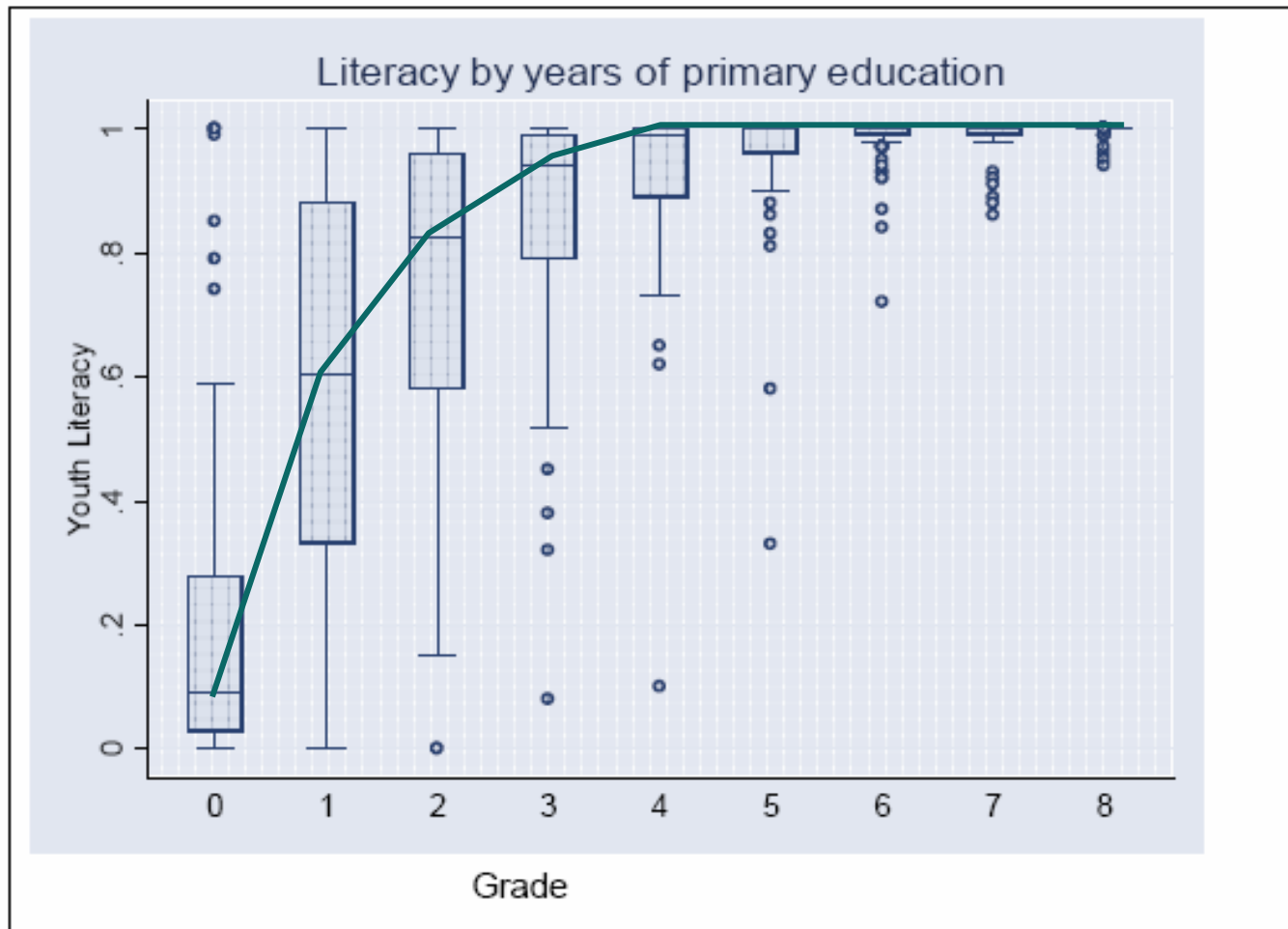
Social returns

- Agricultural transition
- Urban to rural shift and industrialization
- Economic growth
 - Technology adoption
 - Adjustment to shocks
- Education for women
 - Fertility transition
 - Household Health
 - Transfer of human capital across generations

How certain are we of the returns to schooling?

Returns to schooling are amazingly consistent

- Across countries
- Within countries
 - Across men and women
 - Across urban and rural areas
- Across economic systems



Source: Authors compilation of summary data from 73 household surveys spanning 57 developing countries provided by Claudio Montenegro of the World Bank

Literacy ranges broadly across years of schooling

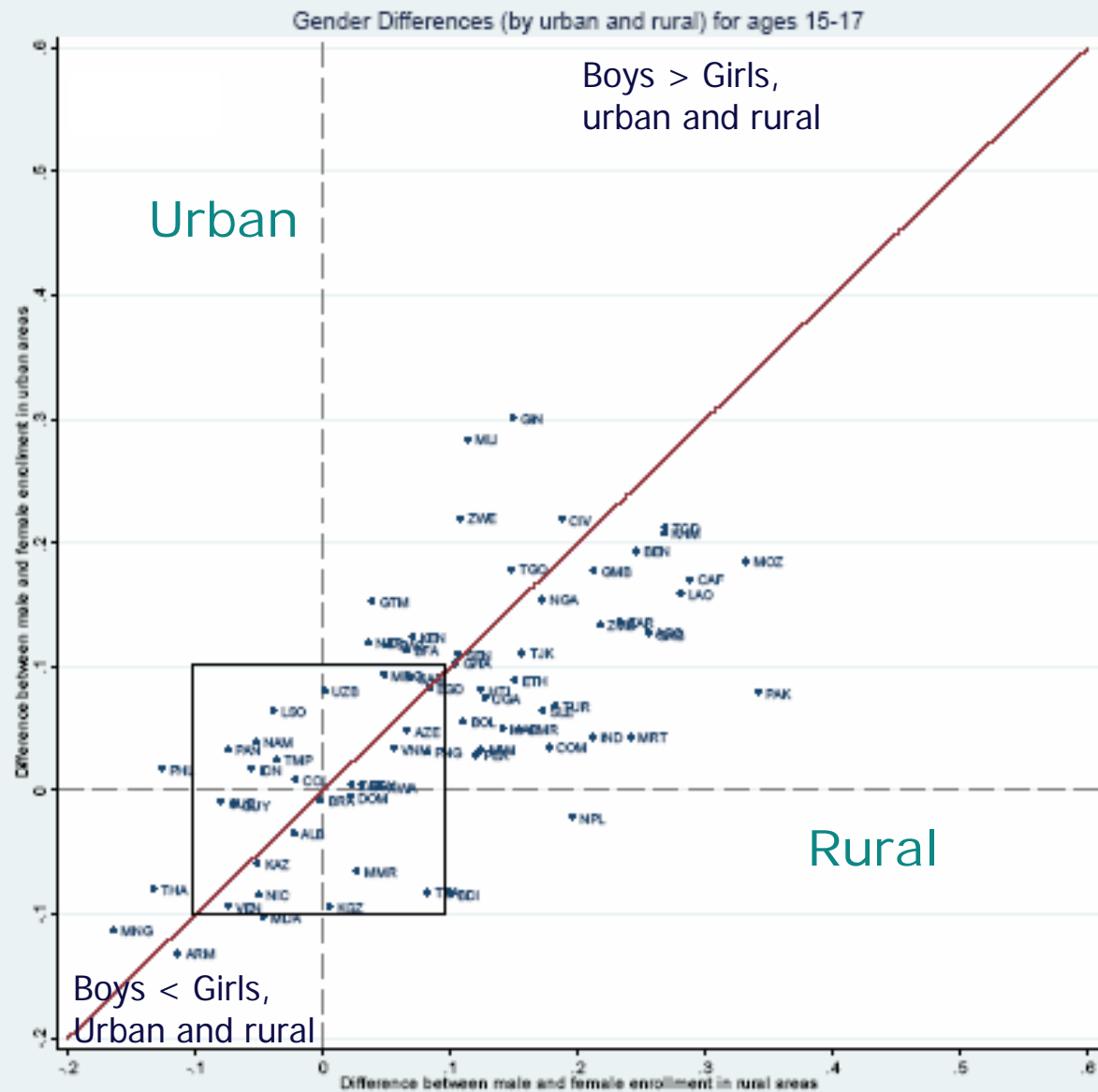
Rising relationship on average

The Problem

- Adult Illiteracy
 - 30% in low income countries (68% in 1960)
 - 15% in middle income countries (38% in 1960)
- Child schooling
 - 35% do not complete primary cycle
 - 22% don't complete grade 1
- Cost of universal primary education
 - \$11-\$28 billion
 - Probable underestimate

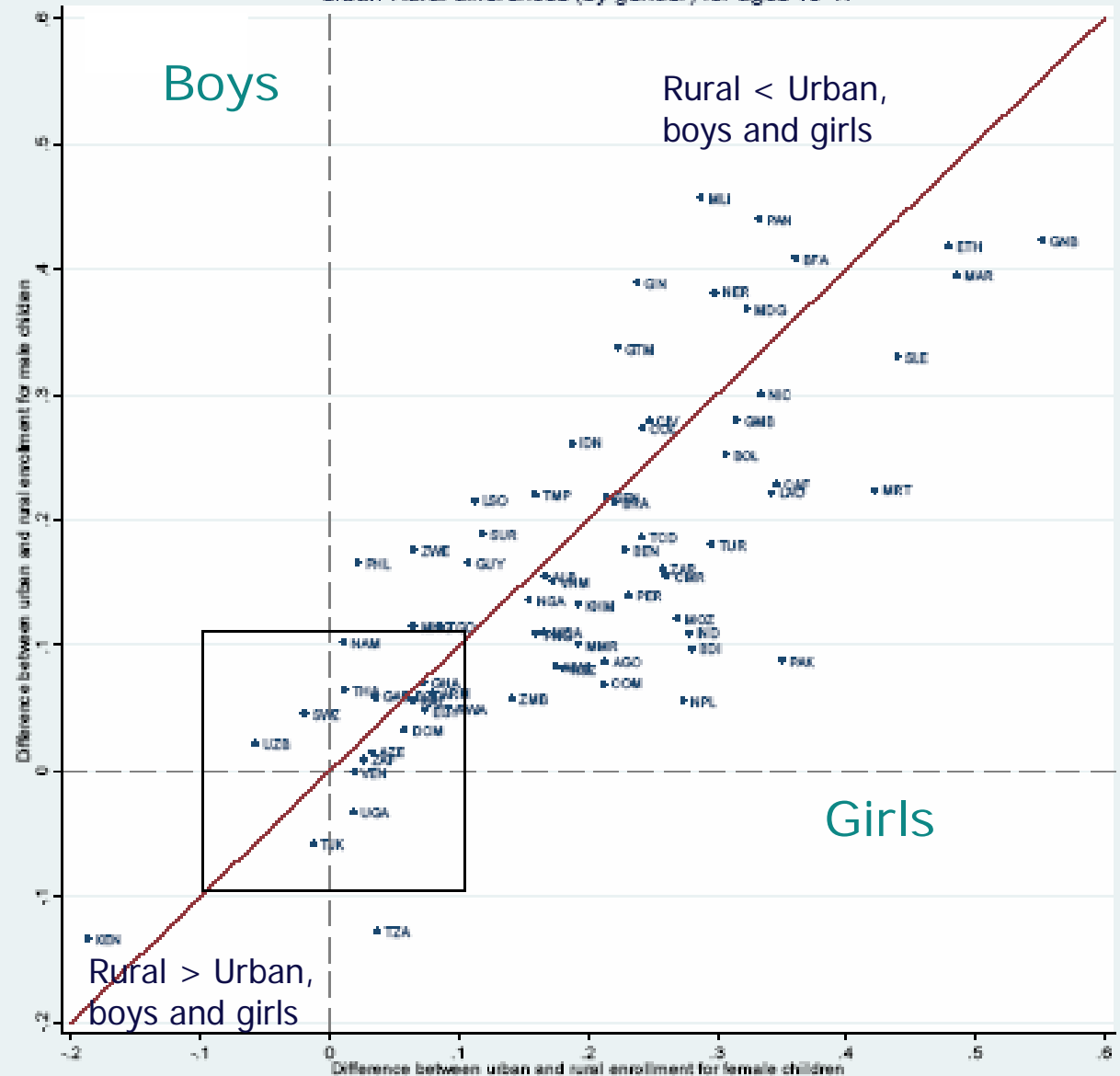
Which groups are falling behind?

- Girls
- Rural children
- Poor



Girls receive less schooling than boys in most countries

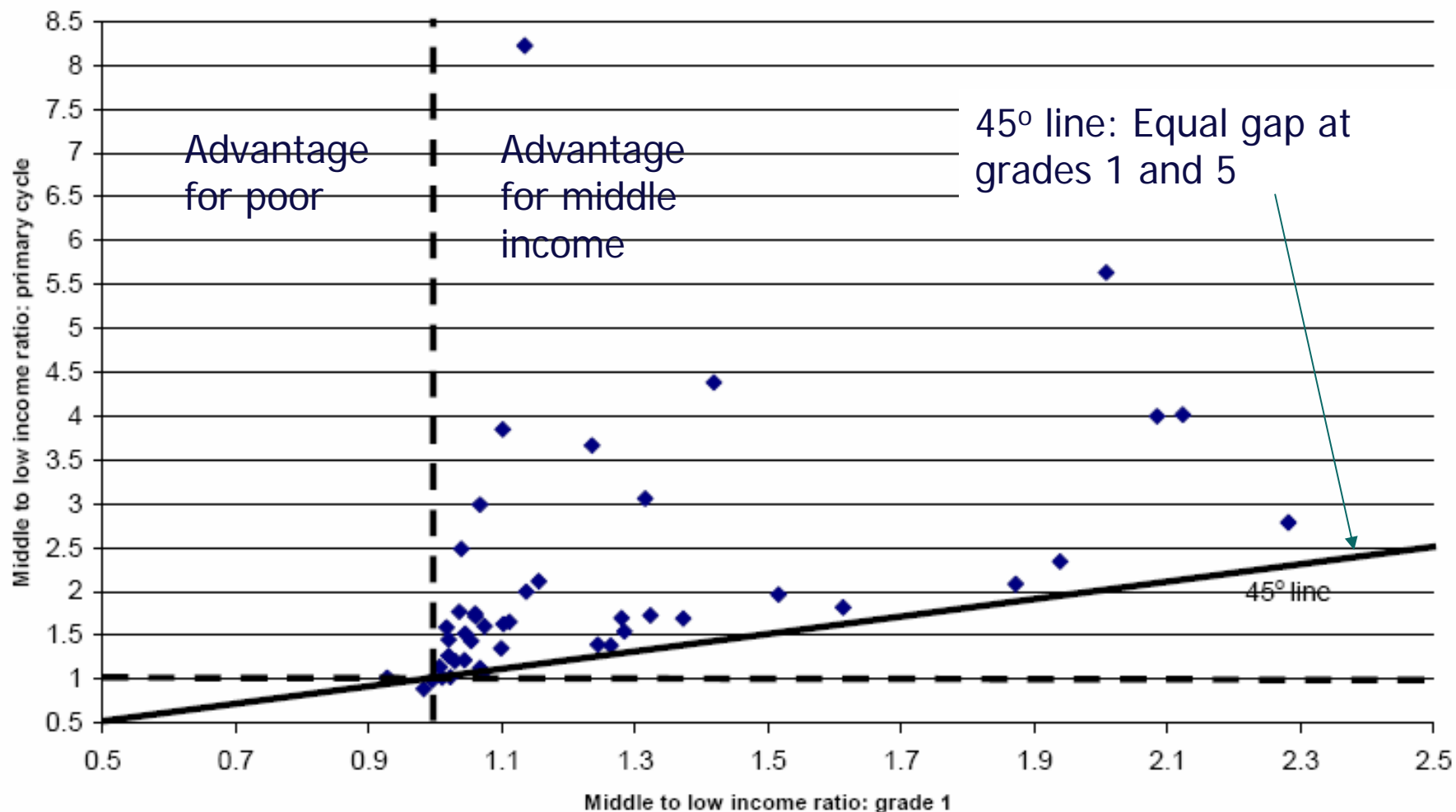
Urban-Rural differences (by gender) for ages 15-17



Rural children receive less schooling than urban children

Children in the Poorest Households are Most Likely to become Illiterate Adults

Figure 7: Ratio of the percent of children in middle income households attaining a given grade relative to the percent of children in lower income households for grade 1 and for primary school completion



Reasons for not attaining Universal Primary Education

	Grade 1	Grade 5
Western and Central Africa	48.8%	63.1%
Central America and Caribbean	14.1%	43.1%
South Asia	32.8%	41.6%
Eastern and Southern Africa	12.8%	34.1%
MENA	15.5%	23.5%
South America	3.2%	19.8%
East Asia and Pacific	2.0%	11.9%

Author's compilations based on data in Deon Filmer and Lant Pritchett (1999) *Population and Development Review* 25 (1):85–120

39% of children failing to complete
grade 5 are dropouts

Dropouts are cost-effective target

Option: New School Construction

Requires up front expense without guarantee of return

Response of school enrollment to distance is weak

In most countries, never enrolled children live in reasonable proximity to a school

Option: School Quality

Considered important, but...

No consensus on what factors are critical to school quality

Teachers Example

Requires up front expense without guarantee of return

Not clear that inadequate school supply is an important cause for illiteracy

	Sub-Saharan Africa		North Africa Middle East		South & East Asia		Latin America & Caribbean	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Work	8.6	9.7	6.3	10.6	19.4	24.1	30	27.9
School supply	1.8	3.2	2	6.2	1.7	2.7	2.6	10.8
Poverty	24.1	23.9	4.6	3.4	24.2	26.3	11.9	11.3
Health reasons	7.9	7.6	1.2	0.5	1.5	0.9	9.4	4.2
Other	57.6	55.6	85.9	79.3	53.2	46	46.1	45.8

Source- Demographic and Health Surveys, various year

Option: Demand-side interventions

Less expensive

1. Can make cost conditional on use
2. Can target intervention to likely constraints on demand
3. Can take advantage of existing excess capacity

Option: School based nutrition and health interventions

- Some dramatic successes
- Low costs
- Collateral benefits
- May only apply in certain areas, not general

Sample Benefit Cost Ratios

Increased schooling attributed to in school nutrition or health treatments

Health and Nutrition Programs	Low Discount (3%)	High Discount (5%)
Bolivia PIDI: preschool and nutrition	3.66	2.48
Kenya: deworming	850	625
Kenya: preschool and nutrition	102	76.5
Iron supplements to secondary schoolers	45.2	32.1

School-based health and nutrition programs can be effective in some but not all areas

	Sub-Saharan Africa		North Africa Middle East		South & East Asia		Latin America & Caribbean	
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<i>Source-</i> Demographic and Health Surveys, various year								

Option: Lowering the cost of schooling

Vouchers: Colombia

Eliminating school fees: Uganda

- Benefits of vouchers greatest in urban areas with excess capacity
- Benefits of fee reductions greatest if there is preexisting capacity

Sample Benefit Cost Ratios

Increased schooling attributed to decreases in costs or vouchers

Scholarship/Voucher Programs	Low Discount (3%)	High Discount (5%)
Colombia: PACES secondary school urban voucher	4.41	3.31
Pakistan urban girls' scholarship	15.5 to 31	10.9 to 21.8
Pakistan rural girls' scholarship	7.7 to 23	5.4 to 16
India <i>balsakhis</i> tutorial program	830	616
Uganda tuition waiver	26.3	19.3

Cost reduction will be most effective where poverty is a cause for dropouts

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<i>Source-</i> Demographic and Health Surveys, various year								

Conditional Transfers

- Mexico: PROGRESA
- Nicaragua: Red de Protección Social
- Honduras: Programa de Asignación Familiar

- Benefits greatest when program targets those not already in school
- Collateral benefits

Sample Benefit Cost Ratios

Ratios lower than others –weaker targeting and higher cost per beneficiary

Conditional Cash Transfers	Low Discount (3%)	High Discount (5%)
Mexico PROGRESA	6.2	4.4
Nicaragua: RED	3.8 to 11.8	2.8 to 8.67

Cost reduction will be most effective where poverty and opportunity costs are causes for dropouts

	Sub-Saharan Africa		North Africa Middle East		South & East Asia		Latin America & Caribbean	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Work	8.6	9.7	6.3	10.6	19.4	24.1	30	27.9
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Source- Demographic and Health Surveys, various year

Summary: Demand-side interventions have promise

Selective application to appropriate areas

- Poor
- Nutrition or health problems
- High child labor
- Target dropout rather than never in school

Benefit cost ratios have been substantial