



The Medium-Term Impact of the Primary Education Stipend in Rural Bangladesh

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Introduction

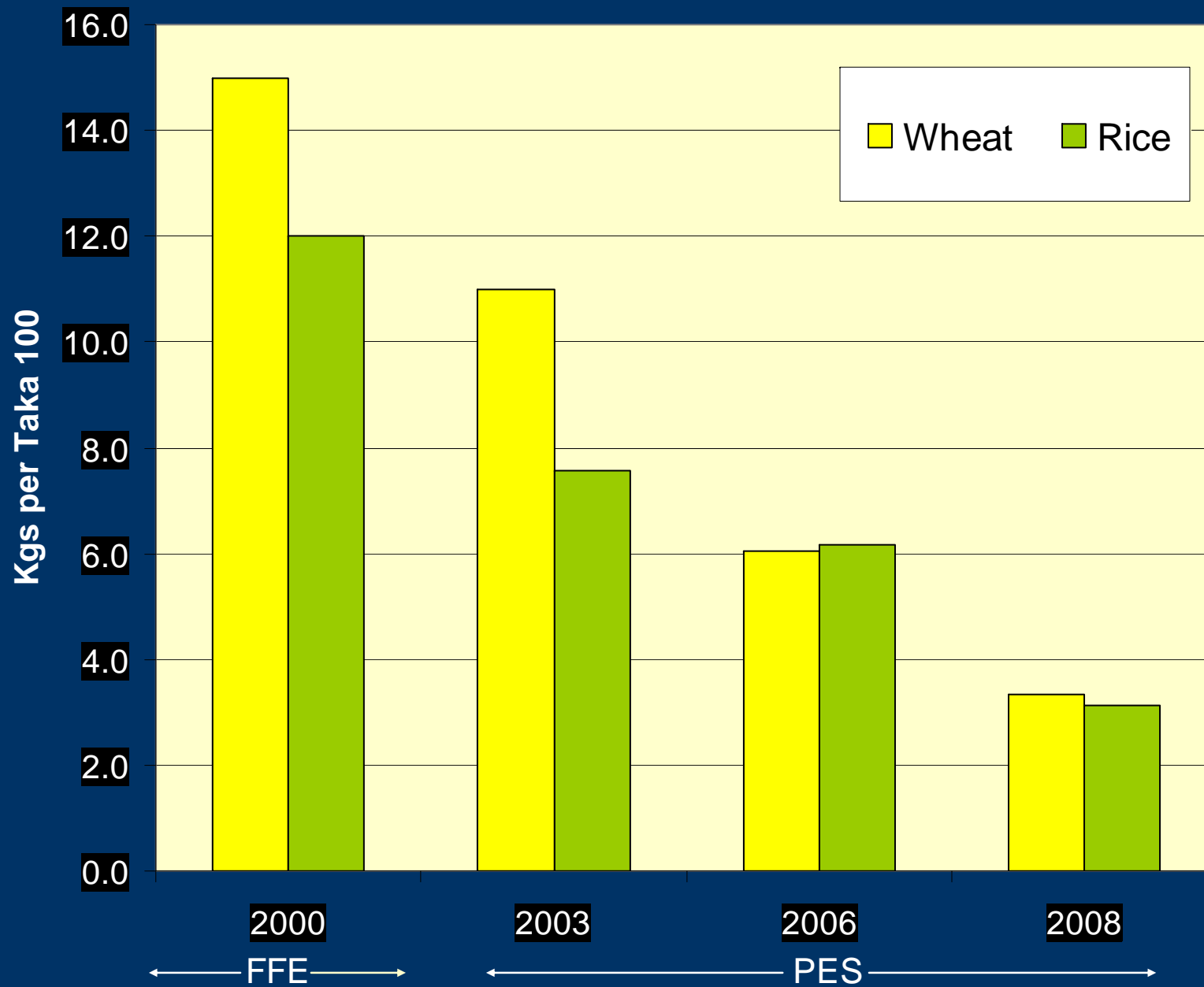
- Bangladesh has some of the longest-running educational transfer schemes in the world (starting with the 1993 Food for Education Program)
- The Primary Education Stipend (initiated in July 2002) provides payments of Tk100/month to eligible households who send their children to primary school and maintain 85% attendance
- The PES program covers all rural unions, has approximately 5 million beneficiaries and costs about a fifth of the primary education budget

Eligibility Criteria for the PES

To qualify for the PES, households must have at least one primary school age child and meet at least 1 one of 5 criteria:

- Being landless or near landless household (owning less than 0.5 acre of land)
- Being the children of day laborers
- Being the children of sharecroppers
- Being female-headed households
- Coming from a household that earn its living from a low-income occupation (fishing, pottery, weaving, blacksmithing, and cobbling)

Declining Value of Educational Transfers



Data

- 3 wave panel survey conducted in 2000, 2003 and 2006
- 2000 wave covered 600 households in 60 villages in 10 upazilas. Two-thirds of the households surveyed lived in FFE areas
- 2003 and 2006 waves surveyed 473 and 511 households in 48 villages in 8 upazilas.
- Household attrition rate of 6.1%
- 41 of the 48 villages had primary schools

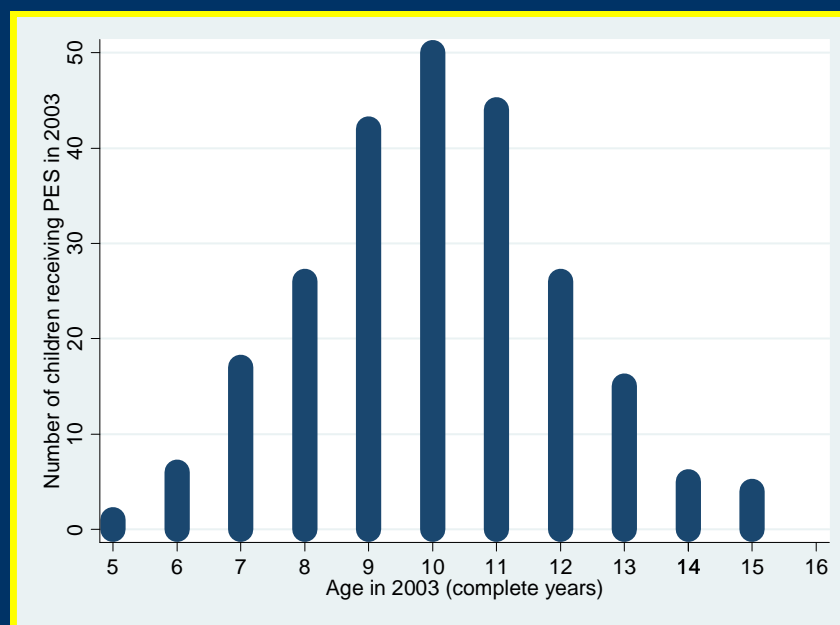
Net Primary School Enrolment Rates for Survey Households

	2000	2006
All	84.0%	92.2%
Girls	85.2%	93.3%
Boys	82.8%	91.0%

Note: Primary school age used is 6 to 12 years old

Targeting of the PES (1)

PES Status 2006	Eligible for PES	
	yes	no
Beneficiary	72.6%	27.4%
Non-Beneficiary	31.6%	68.4%



Evaluation Methodology

- Treatment and comparison groups based on whether households were eligible or ineligible to receive the PES
- Change in a wide range of outcomes variables at both the household and individual level between 2000 and 2006
- Difference-in-differences combined with covariate and propensity score matching (nearest neighbour matching & local linear regressions)
- Restricted sample is used to remove confounding influence of FFE

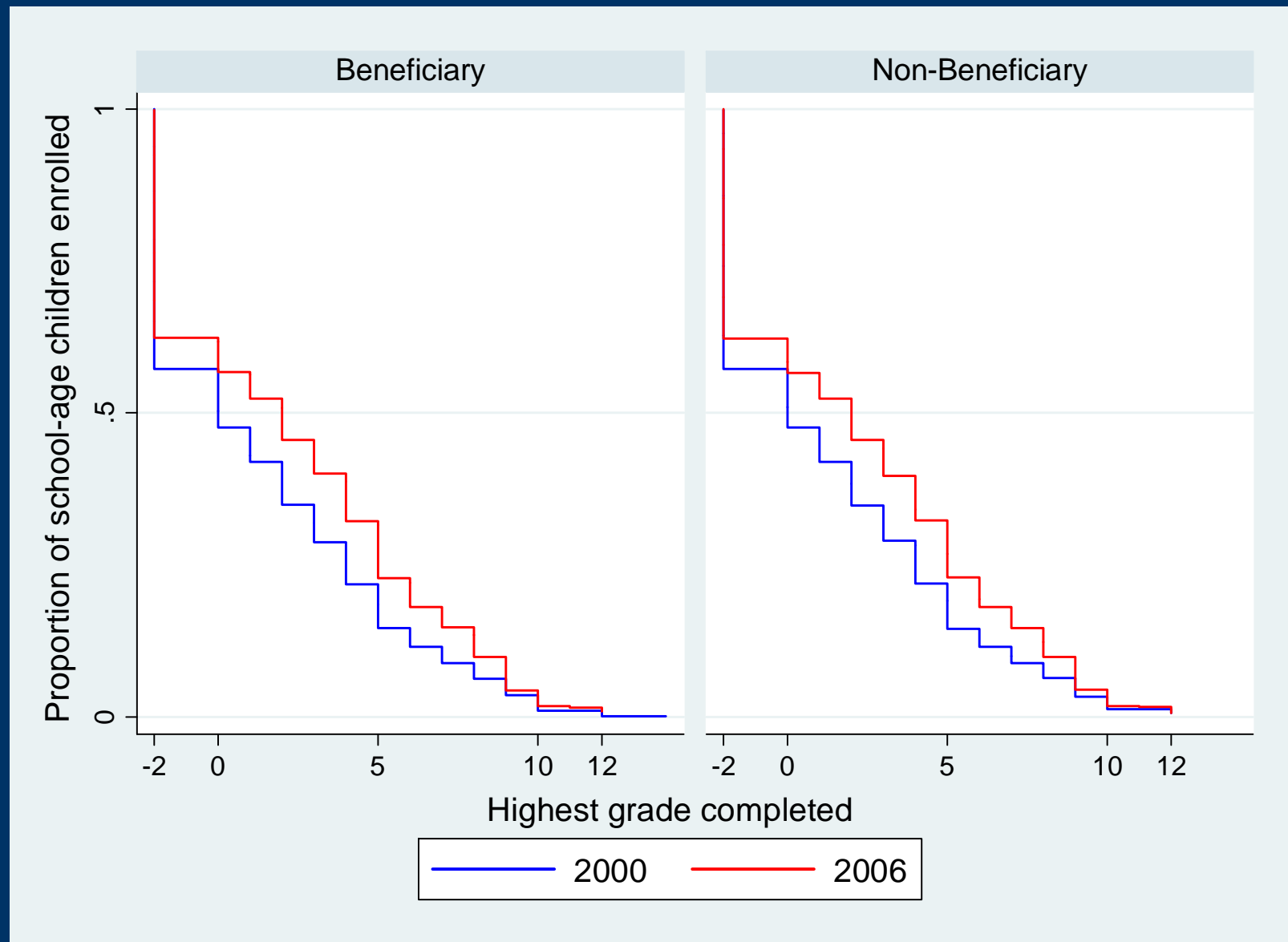
Summary of Impact of PES: Household Level Impacts, 2000-2006

- PES has insignificant impacts on expenditures, calorie & protein consumption at the household level
- PES has significant impacts on the % of children who are stunted, and value of consumable durables
- but stunting result is not robust to matching methods
- In restricted sample (non-FFE unions + beneficiaries), PES has significant impact on reducing % of children with low BMI by one-fifth
- Biggest surprise is that PES has no discernable impact on primary school enrolments

Summary of Impact of PES: Individual Level Impacts, 2000-2006

- In full sample, PES has significant but negative impacts on grade progression for boys and girls together
- In full sample, PES has positive but insignificant impact on nutritional indicators
- In restricted sample, impact of PES on grade progression is also negative, and twice as high for boys than girls.
- In restricted sample, PES has positive impacts on thinness of boys and the height of girls

Proportion of Children Enrolled in School by PES Beneficiary Status



Why has the PES had negligible impacts on educational outcomes?

- Declining value of educational transfers
- Increasing opportunity cost of older children attending school
- Weak targeting at the household level
- Not focused on poorest unions (unlike FFE)
- May have reduced Gov't expenditure to improve the quality of primary education

Policy Implications: Should Bangladesh Abandon the PES?

- Studies of CCTs in other countries suggest CCTs are a critical interrupter of chronic/ intergenerational poverty.
- PES needs to be overhauled not abandoned
- Increase PES payments while focusing on the poorest households
- Target PES geographically
(to upazilas with the lowest enrolment rates?)

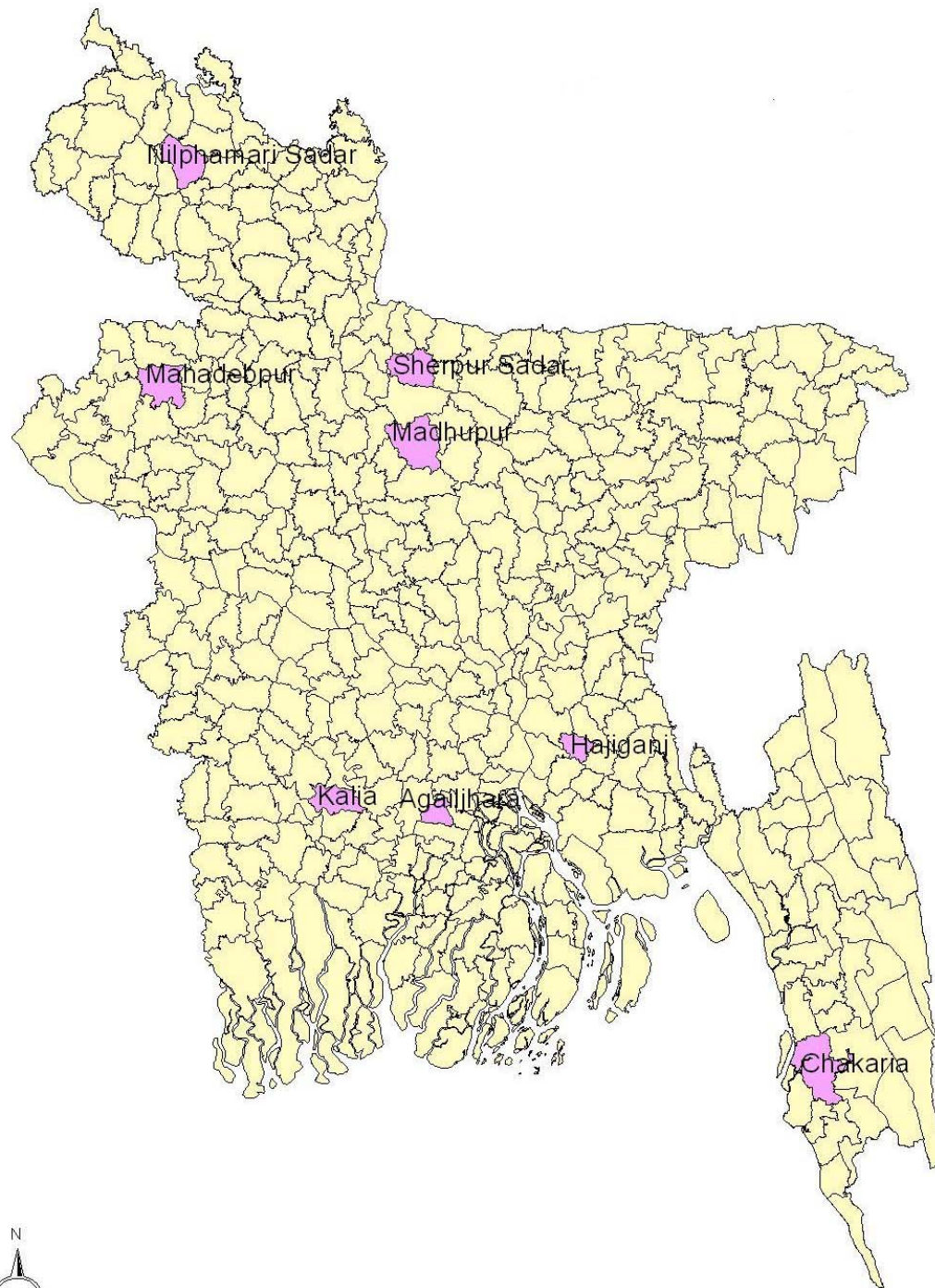
Further Information

- Baulch, B. (2010) 'The medium-term impact of the Primary Education Stipend in rural Bangladesh', *IFPRI Discussion Paper 00976*

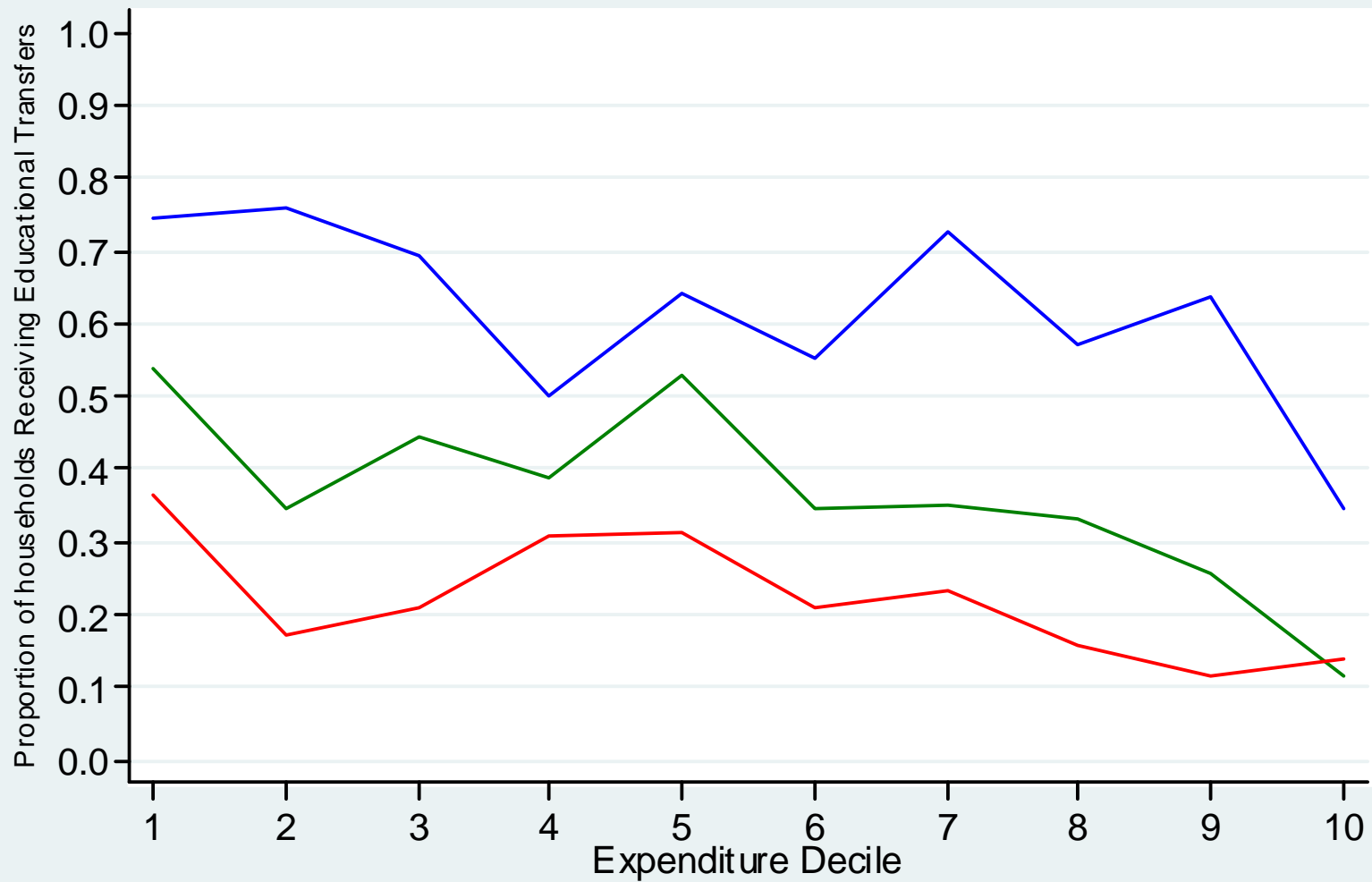
<http://www.ifpri.org/publication/medium-term-impact-primary-education-stipend-rural-bangladesh>

Additional Slides
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Location of Upazilas Surveyed

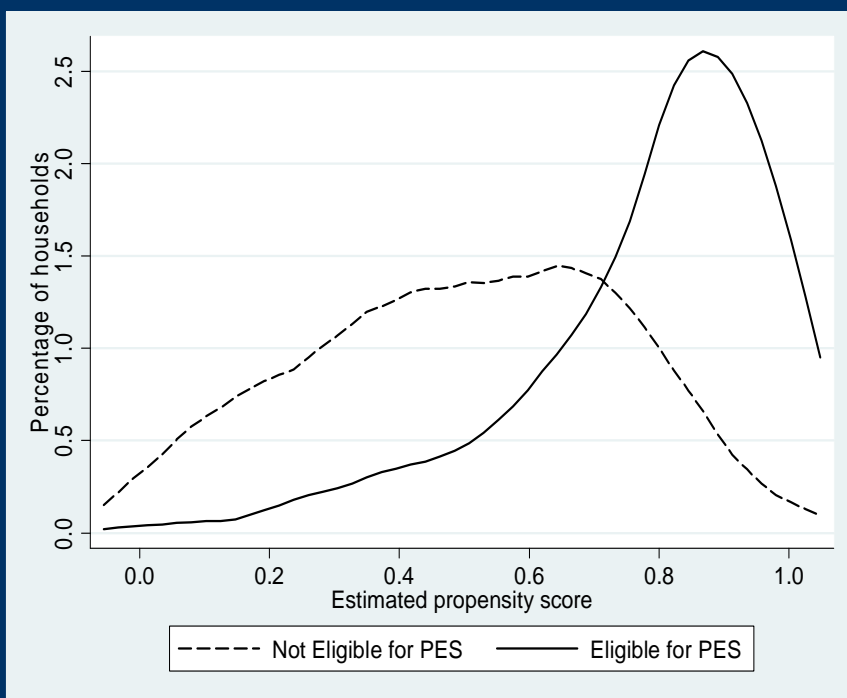


Targeting of the PES (2)

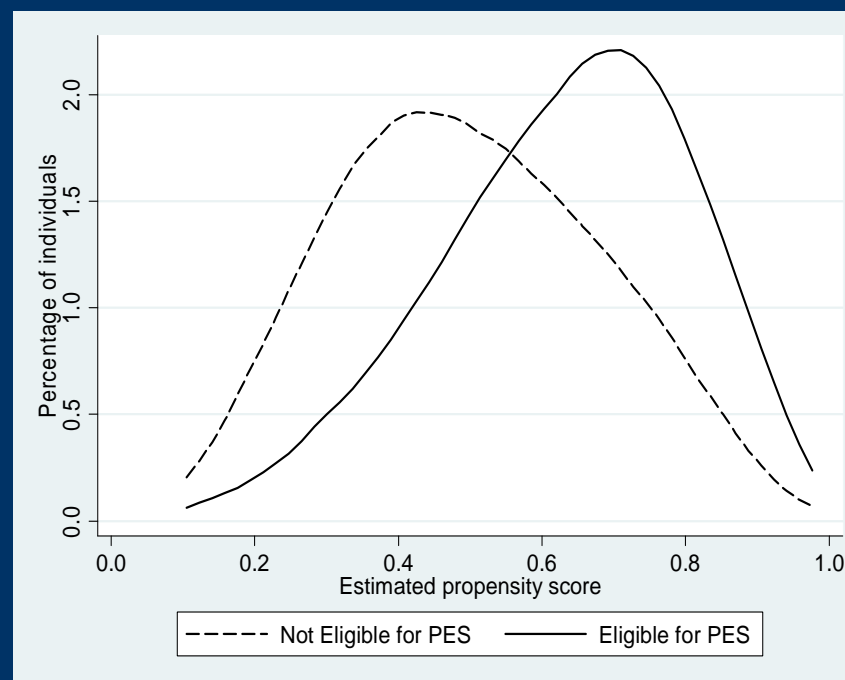


Estimated Propensity Scores at the Household and Individual Levels

Household



Individual



Note: Matching covariates including demographics and education in 2000 plus shocks (dowries, floods and illness) and upazila dummies

Household Level Outcomes

Full Sample

Outcome Variable	Nearest-neighbor Matching		
	<i>n</i>	ATT	<i>p</i> value
Change in adult equivalent expenditures	167	0.1611	0.096
Change in adult equivalent food expenditures	167	0.1894	0.054
Change in adult equivalent calorie consumption	166	0.11	0.17
Change in adult equivalent protein consumption	166	0.1909	0.058
Change in percentage of stunted children	167	0.1897	0.018
Change in percentage of low-body mass index children	167	0.005	0.939
Change in primary school enrollment	167	-0.0748	0.427
Change in value of nonland assets	167	0.1626	0.361
Change in value of consumer durables	167	0.3492	0.045

Note: ATT = average treatment effect on the treated

Household Level Outcomes

Restricted Sample

Outcome Variable	Nearest-neighbor Matching		
	<i>n</i>	ATT	<i>p</i> value
Change in adult equivalent expenditures	70	0.1253	0.344
Change in adult equivalent food expenditures	70	0.1532	0.266
Change in adult equivalent nonfood expenditures	70	0.125	0.548
Change in per capita calorie consumption	70	0.1293	0.177
Change in per capita protein consumption	70	0.2056	0.106
Change in adult equivalent calorie consumption	70	0.0718	0.525
Change in adult equivalent protein consumption	70	0.1482	0.287
Change in percentage of stunted children	70	0.2372	0.064
Change in percentage of low-body mass index children	70	-0.1954	0.046

Note: ATT = average treatment effect on the treated

Individual Level Outcomes

Full Sample

	Nearest-neighbor matching		
Outcome Variable	<i>n</i>	SATT	<i>p</i> value
<u>Boys and Girls</u>			
Grade progression	668	-0.2531	0.09
Change in height for age	276	0.151	0.341
Change in BMI z-score	274	0.1803	0.161
<u>Boys Only</u>			
Grade progression	341	-0.240	0.282
Change in height for age	122	-0.093	0.51
Change in BMI z-score	121	0.268	0.136
<u>Girls Only</u>			
Grade progression	327	-0.231	0.242
Change in height for age	154	0.336	0.183
Change in BMI z-score	153	0.145	0.412

Note: SATT = Sample Average Treatment Effect; BMI = Body Mass Index.

Policy Footnote

The Daily Star

Friday, April 23, 2010

Front Page

Stipend for primary students to increase

Staff Correspondent

State Minister for Primary and Mass Education Motahar Hossain yesterday said the stipend for primary school students will be increased from 40 percent to 85 percent as part of the government's pledge to achieve education for all by 2014.

He was addressing a roundtable at National Press Club in the capital organized by The Daily Star in association with Save the Children and Campaign for Popular Education.

The conditions that the students must achieve 45 percent marks and have class attendance of 75 percent may also be relaxed, he said.

"Every child must be enrolled in school by the year 2011, and the country will achieve the goal of education for all before 2014," he stressed

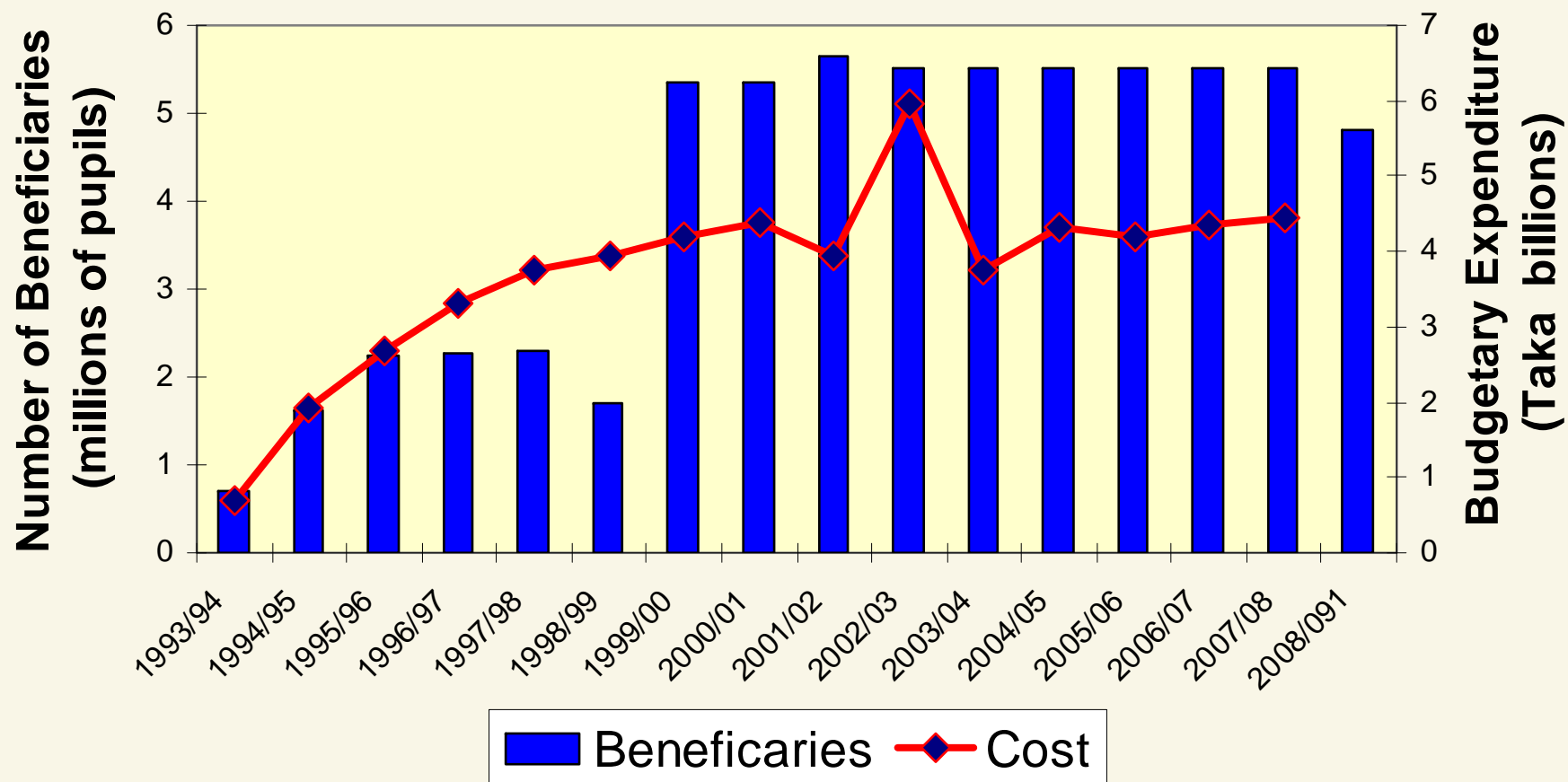
Individual Level Outcomes

Restricted Sample

	Nearest-neighbor Matching		
Outcome Variable	<i>n</i>	SATT	<i>p</i> value
<u>Boys and Girls</u>			
Grade progression	280	-0.4374	0.037
Change in height for age	111	0.5755	0.009
Change in BMI z-score	111	0.5074	0.008
<u>Boys Only</u>			
Grade progression	155	-0.5466	0.067
Change in height for age	57	0.1252	0.592
Change in BMI z-score	57	0.8194	0.008
<u>Girls Only</u>			
Grade progression	125	-0.2154	0.453
Change in height for age	54	1.3104	0
Change in BMI z-score	54	0.3174	0.195

Note: SATT = Sample Average Treatment Effect; BMI = Body Mass Index.

Beneficiaries and Cost of Bangladesh's Education Transfer Programs



Source: Primary Stipend Project