

Child Marriage

The Problem

Child marriage is defined by India’s Child Marriage Prohibition Act 2006 as the marriage of girls under 18 years of age, and marriage of boys below 21 years of age. Although efforts to reduce child marriage in India have sharply accelerated over the past two decades, raising the median age of marriage of both girls and boys to over 18, the country still accounts for close to 40% of the world’s child marriages with one-in-five girls married before the age of 15.

As per latest National Family Health Survey (NFHS-4 2015/16), while child marriage overall has declined substantially over the last ten years, an average of 26.8% of women between the ages of 20-24 were still married before age 18 (relative to 47.4% a decade earlier). In Rajasthan, the numbers fell from 65.2% to 35.4% over this period, but it still remains in the bottom quartile of states across India.

Solutions

Interventions	BCR	Total benefit (INR crore)	Total cost (INR crore)
Conditional bicycle Transfer (per cohort of girls)	4.5	1,645	365
Conditional Cash Transfer (per cohort of girls)	2.8	2,695	951
Provision of Girls Toilet (over 20 years)	4.1	4,688	1,138
Vocational Training (10 Lakhs girls)	4.8	3,263	677

Total costs and benefits are discounted at 5%

The full paper by by **Reena V. Mithal** from Sankhya Capital is available on www.rajasthanpriorities.com/gender.

Conditional bicycle transfers for secondary school girls

The Solution

The objective is to transfer bicycle to all eligible secondary school girls aged 14 years (687,301 girls in Rajasthan as per Census 2011) in the first year of the intervention. The intervention will be implemented for four years with the same cohort of girls.

Using Muralidharan and Prakash (2016) calculation for bicycle transfers in Bihar, the number of girls in school increases to 52% after the first year of the intervention followed by 46% in the second year, 25% in the third year and 24% in the final year of secondary school. The first-year enrolment boost is 32% of the current female net enrolment rate, second year is 18% followed by 12% for the third year and 6% for the final year,

adjusted by appropriate dropout rates derived from DISE.

Costs

The cost component for this intervention includes: (a) cost of the bicycle i.e. the product of Rs. 1992 per girl; (b) the cost of secondary education per additional girl enrolled in school, and the opportunity cost of being at school i.e. lost wages. This comes to Rs. 3316 per girl.

The total cost of the intervention for one cohort of 14-year-old girls over four years is Rs 365 crore (at a 5% discount rate).

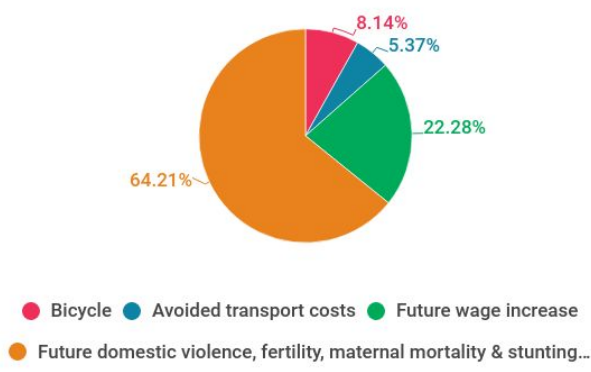
Benefits

Direct Benefits include discounted value of higher future wages resulting from the increase in education attainment due to the intervention (for additional girls in school). This comes to Rs. 5451 per girl. Plus the bicycle itself can be considered as a benefit for all of

the girls. This benefit is therefore worth Rs. 1992 for every girl. Avoided transport costs are another benefit - worth Rs. 1314 per girl. And finally, there are benefits from delayed marriage, including a reduction in domestic violence, and improved maternal mortality and nutrition of the next generation. These benefits are worth 15,172 per girl.

These benefits add up to 4.5 times the costs.

Benefits of bicycle transfers to all eligible secondary school girls age 14



Conditional cash transfer for secondary school girls

The Solution

This intervention seeks to provide monthly conditional cash transfer for girls on their enrolment at secondary school. Like intervention I this will be implemented for all eligible secondary school girls aged 14 years (687,301 girls in Rajasthan as per Census 2011) in the first year of the intervention. This will be implemented for four years and with same cohort. Literature review suggests conditional cash transfer results in an average of 18.9% increase in enrolment in secondary education as a result of a targeted CCT. This amounts to 46.6% of eligible girls in the first year, 45.6% in the second year, 25.5% in the third year and about 25% in the last year of secondary school.

Costs

Total costs include the (a) cost of education per girl child, (b) opportunity cost of lost wages etc. For

subsequent years the cost numbers are adjusted by different levels of incremental enrolment in school. The total cost of the intervention is Rs. 13,842 per girl in target group.

Benefits

Economic benefits include the present value of higher wages in adulthood based on increased education attainment. Also added is cash transfer comprising the school subsidy. The total direct benefit from the intervention is Rs 1543 crore (5% discount). This intervention will avoid 9,620 child marriages for this cohort.

Provision and Maintenance of Girls toilets in Secondary Schools

The Solution

This intervention calls for provision of toilets in all eligible secondary schools in Rajasthan (5993 schools estimated as per ASER – 2016 and DISE data) and maintenance of existing toilets in schools. The intervention will cover all 687,301 girls (14-year-old girls in Rajasthan according to Census 2011). Literature review suggests that construction of girls-only toilets for cohorts increased upper-primary school enrolment by 11%.

Costs

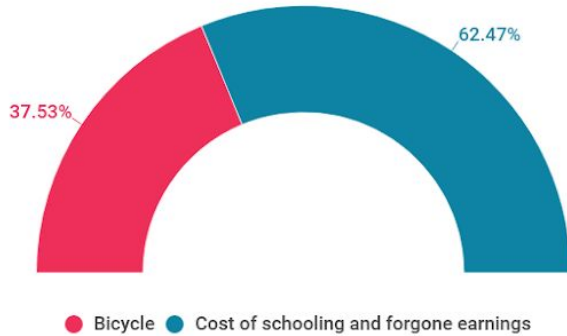
Total costs are a sum of direct individual-level costs: the cost of secondary school and the opportunity cost of being in school and the second is cost of toilet construction and maintenance, and in cases where toilets already exist and have to be repaired, the incremental cost of repairing. Total 20-year cost of the intervention is Rs 1138 crore (5% discount). Approximately 10% of this is the upfront investment cost of building or repairing toilets, while the rest represents ongoing toilet maintenance as well as opportunity and education costs from the new girls going to school as a result of a toilet being present.

Benefits

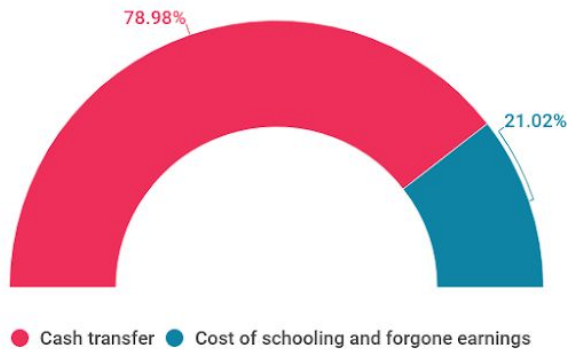
Benefits include higher wages resulting from increased education attainment. Calculations for this are done for 20-year life of each toilet and adjust for expected growth in real incomes. This is Rs 2373 crore (5% discount). The benefits of avoided early marriage are Rs. 2315 crores and therefore the total benefits of the intervention are Rs 4688 crore (5% discount).

Cost components of policies to increase girls' secondary school enrollment

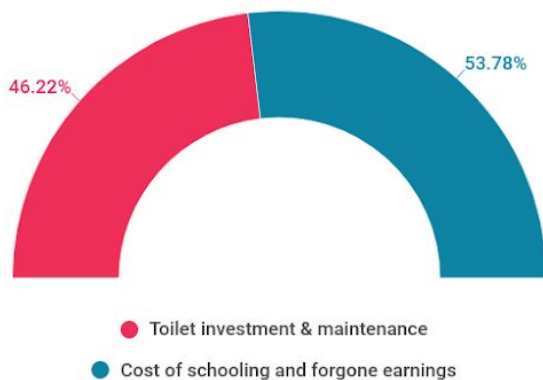
Bicycle transfer to girls in secondary school



Cash transfer to girls in secondary school



Toilet provision for girls in secondary school



Vocational Training (tailoring) for 10 lakhs girls age 16 and above

The Solution

This intervention calls for provision of vocational training for girls aged 16 and above. There is no school subsidy calculated as the target group may not be attending the school. This intervention covers 1,000,000 girls and will be implemented by Rajasthan over a period of 18 months.

Costs

The eligibility for the said intervention is not derived from school enrolment data as girls with no secondary school education are also eligible as long as they are 16 years old or more. The costs and economic benefits of the program are from Literature review. The cost of the program per girl is Rs. 1910 for 18 months.

Benefits

Benefit of this intervention is rise of 32% future stream of wages. The assumption is that the wage premium benefit will last for ten years. The value of this benefit for the 1m women targeted by the intervention is Rs 3234 crore. Five percent of the 1m girls in the intervention will be below the age of 18, and this will have a small effect on the prevalence of early marriage, reducing early marriages by 0.04 percentage points (259 early marriages avoided). This has benefits of 29 crores for total benefits of Rs 3263 crore.