

# 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 Andhra Pradesh, the numbers fell from 54.8% to 33% over this period, but it still remains in the bottom quartile of states across India.

The calculations of costs varies as per the intervention but calculations for social benefits are identical across all four interventions and result from a lower fertility rates, a lower incidence of domestic violence (IPV) and a lower incidence of stunting in children.

## Solutions

Interventions	BCR	Total benefit (INR crore)	Total cost (INR crore)
<b>Conditional bicycle Transfer</b> (per cohort of girls)	11.7	4,525	387
<b>Conditional Cash Transfer</b> (per cohort of girls)	5.2	5,714	1,099
<b>Provision of Girls Toilet</b> (over 20 years)	11.9	19,294	1,621
<b>Vocational Training</b> (10 Lakhs girls)	4.4	2,272	521

Total costs and benefits are discounted at 5%

The full paper by by **Reena V. Mithal** from Sankhya Capital is available on [www.appriorities.com/gender](http://www.appriorities.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 (455,530 girls in AP as per Census 2011) in the first year of the intervention. This intervention is implemented for four years with same cohort. Education stipend is also paid to all eligible girls for four years. Using Muralidharan and Prakash (2016)’s calculation for bicycle transfers in Bihar, the number of girls in school increases to 69%, followed by 61% in the second year, 57% in the third year and 54% in the final year of secondary school.

### Costs

The cost component for this intervention includes (a) the cost of secondary education per additional girl enrolled in school multiplied by the 16.7% of girls in the state added to the cohort of girls in school; (b) opportunity cost of being at school i.e. lost wages (basis Labour and Employment Survey 2015-16); (c) one-time cost of bicycles procurement. Over 4 years, the cost is 8488 rupees for each 14 year-old girl. About one-third of this is the cost of the bicycle, and the rest is essentially the cost of the increased number of girls in school.

### Benefits

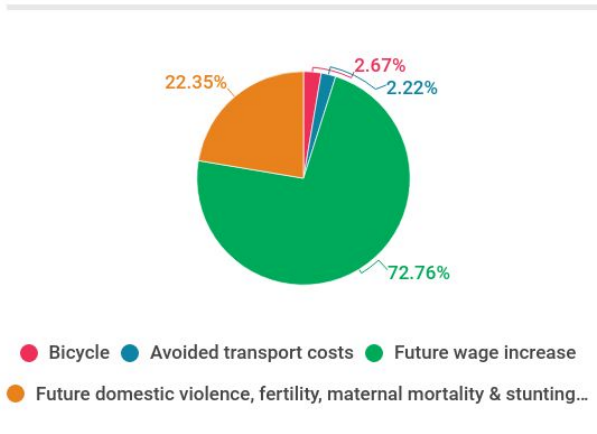
Direct benefits include discounted value of the higher future wages resulting from the increase in education

attainment. Also included is the value of bicycle (as it's a transfer in kind) and cost saved on alternate forms of public transportation (derived from NSS 71).

The policy will mean higher wages when girls graduate, because they will be better educated. Each year it will also mean 8,200 fewer girls child brides which has benefits for the girls, their children, and society.

When all of these costs and benefits are compared, Dr. Mithal finds that each rupee spent will generate Rs. 11.7 in benefits to society, with three-quarters of the benefits coming from the increase in girls' future wages.

### 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 (455,530 girls in AP 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 equal to 9.3% of consumption. This amounts to 62% of eligible girls in the first year, 60.4%

in the second year, 58.4% in the third year and 57.6% 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.

### 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. This intervention will avoid 10,588 child marriages for this cohort.

## Provision and Maintenance of Girls toilets in Secondary Schools

### The Solution

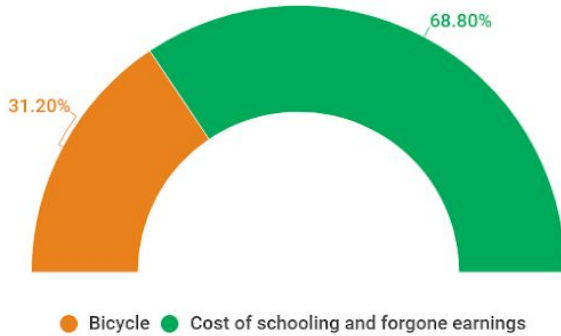
This intervention calls for provision of toilets in all eligible secondary schools in AP (4183 schools estimated as per ASER – 2016 and DISE data) and maintenance of existing toilets in schools. The intervention will cover all 455,530 girls (14-year-old girls in AP according to Census 2011). Literature review suggests that construction of girls-only toilets for cohorts increased upper-primary school enrolment by 11%. Calculations for AP consider that secondary school enrolment of 52.1% increases to 53.8% in the first year, 53.6% in the second year, 52.5% in the third year and 52.3% in the final year. It is assumed that each toilet, properly maintained will last for twenty years.

### Costs

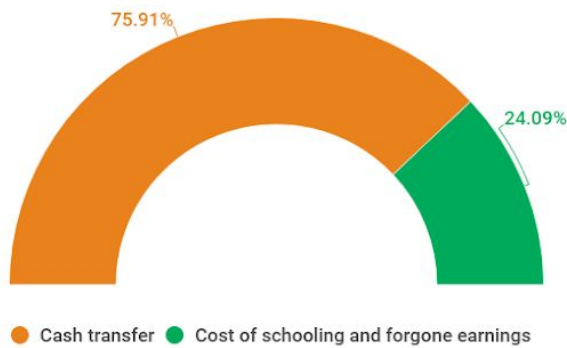
Total costs are a sum of direct individual-level costs: the cost of secondary school and the opportunity cost of being in school and the second is cost of toilet construction and maintenance, and in cases where toilets already exist and have to be repaired, the incremental cost of repairing. Total 20-year cost of the intervention is Rs 1621 crore (5% discount). Approximately 8% of this is the upfront investment cost of building or repairing toilets, while the rest represents ongoing maintenance as well as opportunity and education costs from the new girls going to school as a result of a toilet being present.

## Cost components of policies to increase girls' secondary school enrollment

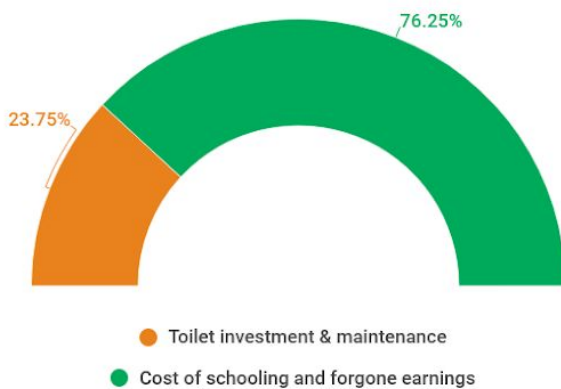
Bicycle transfer to girls in secondary school



Cash transfer to girls in secondary school



Toilet provision for girls in secondary school



### 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 15,736 crore (5% discount). The benefits of avoided early marriage are Rs. 3558 crores and therefore the total benefits of the intervention are Rs 19,294 crore (5% discount).

## 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 AP 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 2245 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 0.05 percentage points (242 early marriages avoided). This has benefits of 26 crores for total benefits of Rs 2272 crore.