

Gender attitudes among adolescents in Haryana

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Gender attitudes

- ▶ Mistreatment of women throughout life-cycle in India
 - ▶ Economic incentives do not appear to make major impact
 - ▶ Promising window for changing gender attitudes: Adolescents
 - ▶ Can a school-based gender sensitization program change attitudes and behavior?
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- ▶ Conducting randomized controlled trial (RCT) in Haryana (Jhajjar, Panipat, Rohtak, Sonipat)
 - ▶ Intervention designed and implemented by Breakthrough, gender human rights NGO
 - ▶ 150 treatment schools, 164 control schools
 - ▶ Targeting students in 7th, 8th and 9th grades in govt schools
 - ▶ Program from 2014 to 2016 academic years

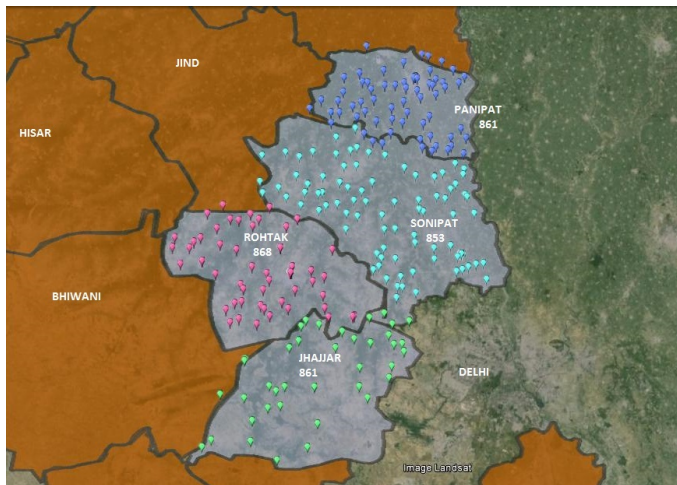
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Outline

- ▶ Overview of study sample and baseline data collection
- ▶ Determinants of gender attitudes
 - ▶ Intergenerational transmission (Parents → Children)
 - ▶ Peer effects (Children → Classmates)
- ▶ Excerpts from Breakthrough's gender-attitude intervention

Study location



Study population

- ▶ Govt secondary schools, students in grades 6-7 at the time
 - ▶ Survey conducted September 2013 to January 2014
 - ▶ Oversampled grade 6 girls
- ▶ Students whose parents provide consent and who themselves provide assent (84% of consent forms were returned signed)
- ▶ Conducted a parent survey for 40% of students
 - ▶ Randomly chose households to survey (stratified by school-grade-student gender)
 - ▶ Randomly chose whether to survey mother or father
- ▶ Response rate of 70% for fathers and 89% for mothers
- ▶ Sample: 14,800 students and 6,100 parents

Survey operations



Measuring attitudes

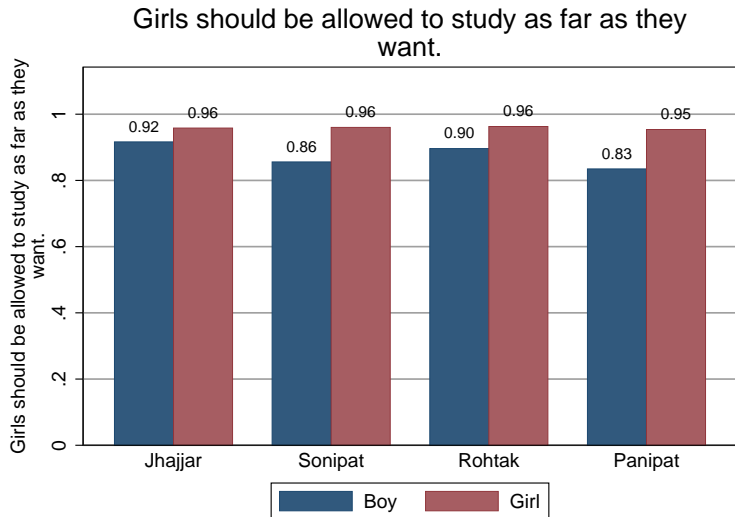
- ▶ What is a good way to measure attitudes among children?
 - ▶ Appropriate tests for 10-14 year olds in this context
 - ▶ Avoiding social desirability bias
 - ▶ Feasible to implement - survey length, time and expense
- ▶ Three types of measures
 - ▶ Direct attitude questions
 - ▶ Vignette
 - ▶ Implicit Association Test

Direct questions on gender attitudes

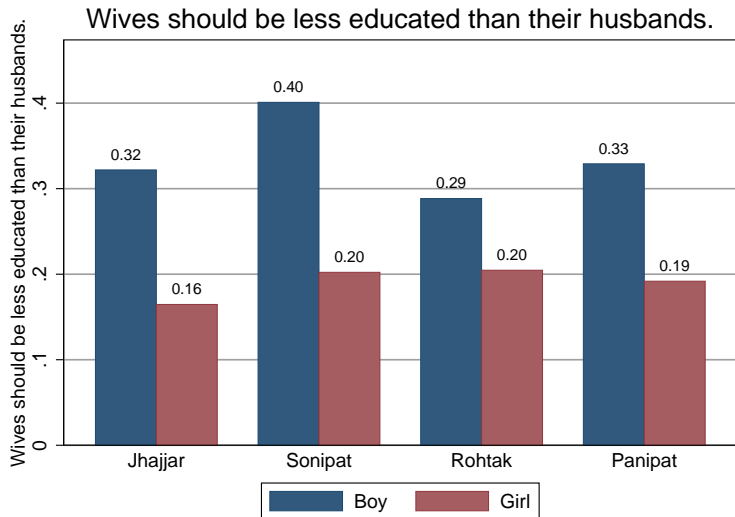
Measured on a five point scale

- 1 A woman's most important role is being a good homemaker
- 2 A man should have the final word about decisions in his home
- 3 A woman should tolerate violence to keep her family together
- 4 Wives should be less educated than their husbands
- 5 Boys should get more opportunities/resources for education than girls
- 6 Men and women should get equal opportunities in all spheres of life - education
- 7 Girls should be allowed to study as far as they want
- 8 Daughters should have a similar right to inherited property as sons
- 9 It would be a good idea to elect a woman as the village Sarpanch

Results



Results



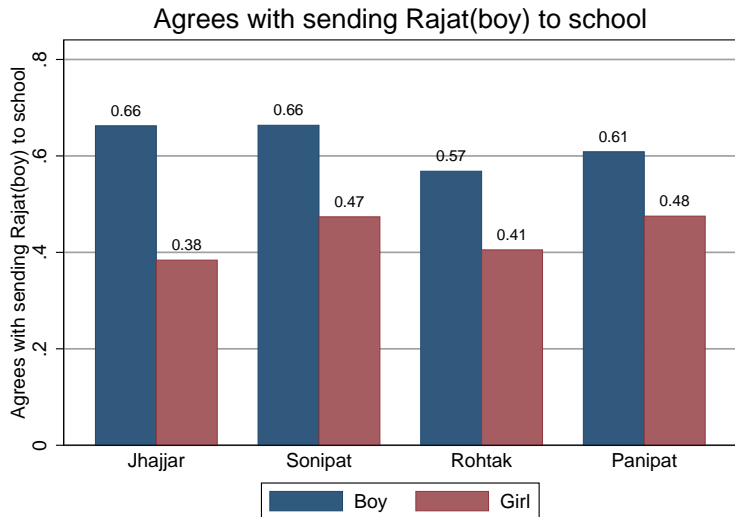
Vignette

There exists a lower middle class family a village. The family consists of three children, their parents and grandparents. Among the three children the two elder ones Rakhi and Rajat are twins. They have a younger brother Ramesh.

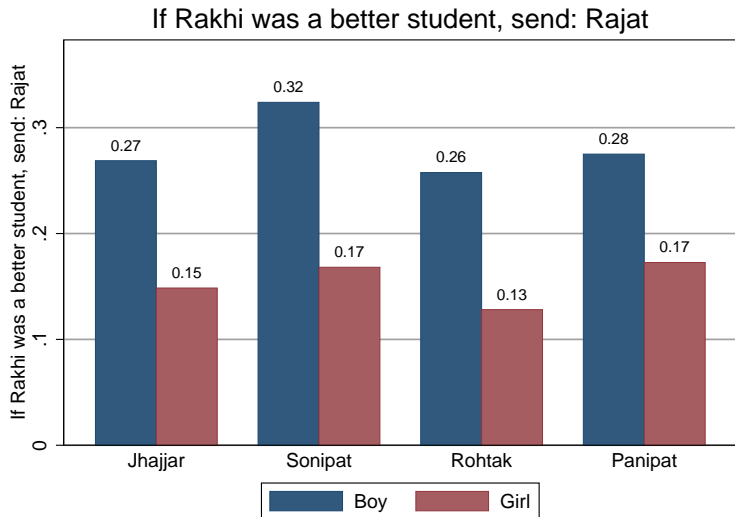
Rakhi and Rajat have just passed their HSC exams with 80% marks. Both of them have aspirations to go to the nearby town and study in a good college. But that will require them to stay in a hostel in the town independently.

The family has got just enough money to send only one of their two children to the town. They also have another younger son to take care of. Finally their father decides that Rajat should continue his studies whereas Rakhi will stay in the home and help her mother in the household chores and eventually get married.

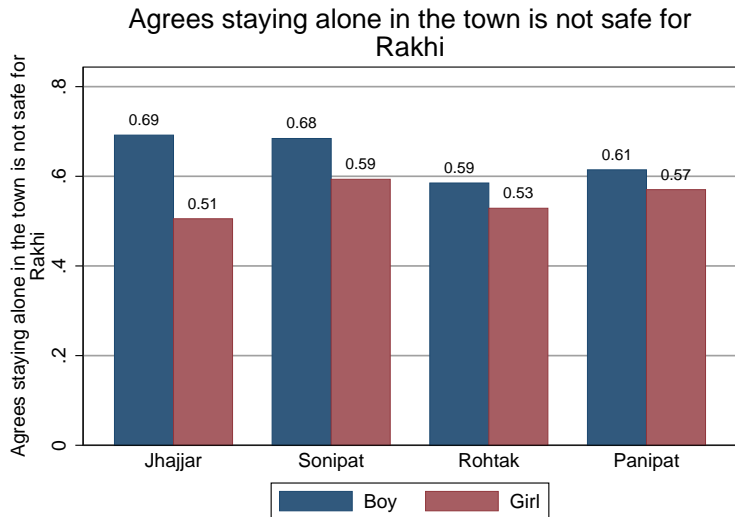
Vignette responses



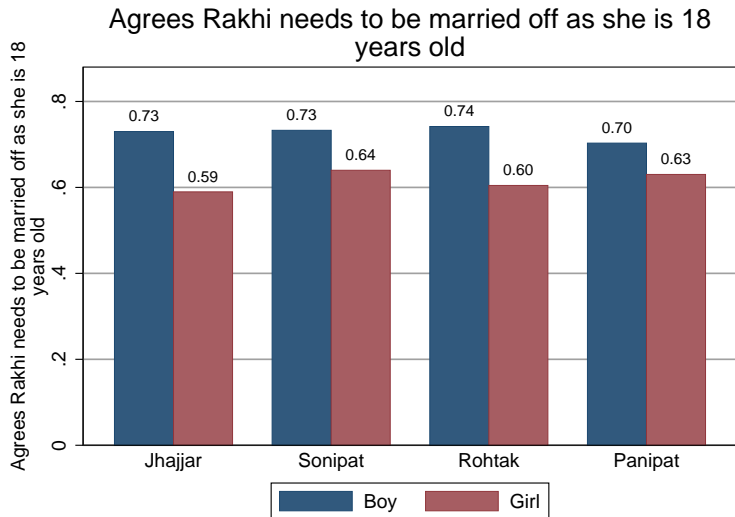
Vignette responses



Vignette responses



Vignette responses



Implicit Association Test (IAT)

- ▶ Computer-based test developed by psychologists to detect the strength of a person's automatic association between concepts in memory
- ▶ For example, how quickly do we associate *women* with *humanities* and *men* with *engineering* **relative to** *men* with *humanities* and *women* and *engineering*?
- ▶ Categorization task done quickly; software measures speed of response
- ▶ Helps overcome social desirability bias in measuring attitudes
- ▶ Sensitive to context (words, images, language etc.)
- ▶ Created IAT for measuring gender attitudes in this context (grade 6-7 in govt schools in Haryana)

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उपर देखें, चारों श्रेणियाँ अब एक नयी समूह में दिखाई दे रही हैं। हर चित्र/शब्द सिर्फ एक ही समूह में आ सकती है।

'E' और 'I' कुंजियो का प्रयोग करके चित्र/शब्द को बायें-दायें चार श्रेणियों में छांटें और दूसरी कुंजी दबाकर गलतियाँ को ठीक करें।

शुरू करने के लिए "स्पेस बार" दबाएँ ।

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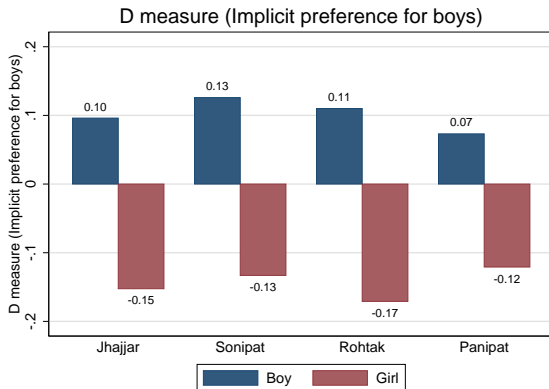
समझदार

Taking the Implicit Association Test



IAT D-measure

- ▶ D-measure is aggregate measure of bias, incorporating response time and correct/incorrect answers
- ▶ Higher value means stronger association of boys with good



Intergenerational transmission of gender attitudes

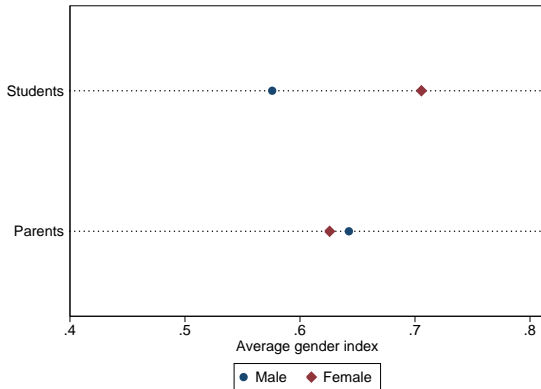
- ▶ Besides providing descriptive statistics from baseline data, we use the data to address an important research question
- ▶ How are adolescents' gender attitudes affected by their parents' attitudes?
 - ▶ Are mothers or fathers more influential?
 - ▶ Are girls or boys more influenced?
 - ▶ Is there an interactive effect?
- ▶ How are adolescents' gender attitudes affected by their peers?
- ▶ How do parents' attitudes affect their parenting and children's aspirations and behavior?

Related literature

- ▶ Literature in sociology and psychology examining correlation of parents' and children's gender attitudes (mostly in the US)
- ▶ Cultural origins of preferences and behavior
 - ▶ Female labor force participation of origin country affects 2nd-generation immigrants' LFP (Fernandez and Fogli 2009)
 - ▶ Redistributive preferences of origin country persist across generations (Luttmer and Singhal 2011)
- ▶ Mothers' behavior influence sons' behavior – wife more likely to work if your mother did (Fernandez et al. 2004)
- ▶ Our contribution
 - ▶ Direct measurement of gender attitudes for two generations in a developing country (and setting with persistent gender gaps)
 - ▶ Able to control for contextual factors to improve causal interpretation

Gender differences in attitudes: Adolescents and adults

- ▶ Boys have more pro-male bias than girls, but men and women have similar gender attitudes
- ▶ Girls seem to become more pro-male as they age; but could also be cohort effects



Not driven by boys in govt schools being poorer

	Parent gender index (1)	Student gender index (2)	Student gender index (3)
Mother	-0.015*** [0.006]		
Girl		0.119*** [0.010]	0.114*** [0.010]
Propensity score to be a girl			0.054** [0.021]
Controls for prop. to be boy	No	No	No
District-Grade, School FEs	Yes	Yes	Yes
Observations	5,483	5,483	5,483

Descriptive statistics for parent-student sample

	Girls	Boys	Mothers	Fathers
Age	11.667 [1.247]	11.917 [1.257]	34.951 [5.595]	40.488 [6.750]
6th Grade	0.568 [0.495]	0.508 [0.500]	N/A	N/A
Illiterate	N/A	N/A	0.390 [0.488]	0.164 [0.371]
Finished primary	N/A	N/A	0.302 [0.459]	0.274 [0.446]
Finished secondary	N/A	N/A	0.202 [0.401]	0.270 [0.444]
Finished Class 10+	N/A	N/A	0.106 [0.308]	0.292 [0.455]
Hindu	0.945 [0.228]	0.947 [0.225]	0.940 [0.237]	0.953 [0.212]
Muslim	0.053 [0.223]	0.048 [0.214]	0.056 [0.231]	0.043 [0.203]

Descriptive statistics – continued

	Girls	Boys	Mothers	Fathers
Scheduled caste	0.311 [0.463]	0.320 [0.467]	0.189 [0.392]	0.169 [0.375]
Scheduled tribe	0.000 [0.018]	0.002 [0.045]	0.010 [0.099]	0.011 [0.102]
Number of children	3.778 [1.293]	3.263 [1.227]	3.577 [1.306]	3.512 [1.266]
Percent sons among children	0.563 [0.299]	0.513 [0.356]	0.542 [0.325]	0.540 [0.328]
Mother is illiterate	0.344 [0.475]	0.372 [0.484]	N/A	N/A
Father is illiterate	0.134 [0.341]	0.157 [0.364]	N/A	N/A
Dwelling has flush toilet	0.165 [0.372]	0.123 [0.329]	0.148 [0.355]	0.145 [0.352]
Observations	3,044	2,439	3,104	2,379

Gender attitude questions

	Fathers	Mothers	Boys	Girls
Disagree: A woman's most important role is being a good homemaker	0.267 [0.442]	0.287 [0.452]	0.209 [0.407]	0.430 [0.495]
Disagree: A man should have the final word about decisions in his home	0.439 [0.496]	0.412 [0.492]	0.328 [0.470]	0.513 [0.500]
Disagree: A woman should tolerate violence to keep her family together	0.456 [0.498]	0.361 [0.480]	0.610 [0.488]	0.667 [0.472]
Disagree: Wives should be less educated than their husbands	0.560 [0.497]	0.528 [0.499]	0.564 [0.496]	0.744 [0.436]
Disagree: Boys should get more opportunities/resources for education than girls	0.491 [0.500]	0.469 [0.499]	0.181 [0.385]	0.428 [0.495]
Men and women should get equal opportunities in all spheres of life	0.953 [0.211]	0.933 [0.251]	0.904 [0.295]	0.924 [0.265]
Girls should be allowed to study as far as they want	0.955 [0.207]	0.962 [0.192]	0.875 [0.331]	0.959 [0.198]
Observations	2,379	3,104	2,439	3,044

Gender attitude questions (continued)

	Fathers	Mothers	Boys	Girls
Daughters should have a similar right to inherited property as sons.	0.882 [0.323]	0.875 [0.331]	0.820 [0.385]	0.875 [0.331]
It would be a good idea to elect a woman as the village Sarpanch	0.779 [0.415]	0.805 [0.396]	0.692 [0.462]	0.810 [0.392]
Gender index	0.643 [0.201]	0.626 [0.192]	0.576 [0.192]	0.706 [0.182]
Gender pca	0.050 [1.493]	-0.050 [1.404]	-0.449 [1.339]	0.543 [1.401]
Wishes self/child to complete Class 13+	0.185 [0.388]	0.171 [0.376]	0.625 [0.484]	0.536 [0.499]
Discusses education goals with parents	N/A	N/A	0.845 [0.362]	0.795 [0.404]
Observations	2,379	3,104	2,439	3,044

Estimating equation

- ▶ Each observation is a child-parent pair i
- ▶ Outcome is child's gender attitudes (GA)

$$\begin{aligned} ChildGA_i = & \alpha_1 ParentGA_i + \\ & \alpha_2 ParentGA_i \times Mother_i + \\ & \alpha_3 ParentGA_i \times Girl_i + \\ & ParentGA_i \times Mother_i \times Girl_i + \\ & \text{main effects} + \text{school FEs} + \\ & \text{district-grade-gender FEs} + \epsilon_i \end{aligned}$$

- ▶ Standard errors clustered by school (village); 314 clusters

Transmission of attitudes

	Student gender index (1)	Student gender index (2)	Student gender index (3)	Student gender index (4)
Parent gender index	0.154*** [0.015]	0.115*** [0.021]	0.171*** [0.052]	0.087 [0.077]
Mother*Parent gender index		0.073*** [0.026]		0.130 [0.096]
Girl*Parent gender index			-0.049* [0.028]	-0.090** [0.040]
Mother*Girl*Parent gender index				0.074 [0.054]
Controls for prop. to be boy	Yes	Yes	Yes	Yes
District-Grade-Gender, School FEs	Yes	Yes	Yes	Yes
Mother has no effect		0.000		
No effect on girls			0.006	
Dad/girl=Mom/girl				0.012
Observations	5,483	5,483	5,483	5,483

Robustness of the results

- ▶ Strong correlation between parent's and child's attitudes + stronger effect for mothers are robust to different specifications
- ▶ Smaller effect for girls is sensitive to specification
- ▶ Consistently find positive (insignificant) triple interaction effect: Suggestive that mothers especially influence girls
- ▶ Robustness checks
 - ▶ Excluding school and district-grade-gender fixed effects
 - ▶ Using first principal component instead of simple mean of responses
 - ▶ Correcting for selection into the parent sample

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Alternative measure: Principal component

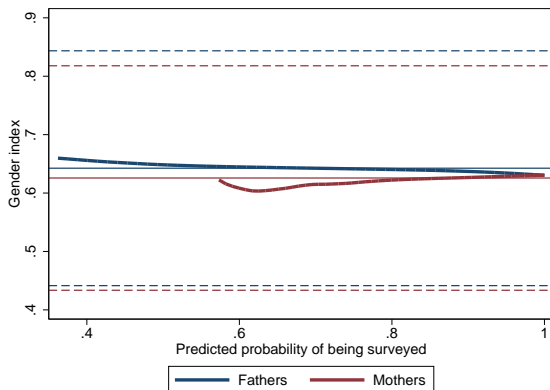
	Student gender pca (1)	Student gender pca (2)	Student gender pca (3)	Student gender pca (4)
Parent gender pca	0.159*** [0.014]	0.130*** [0.020]	0.156*** [0.053]	0.114 [0.076]
Mother*Parent gender pca		0.055** [0.025]		0.061 [0.097]
Girl*Parent gender pca			-0.023 [0.029]	-0.051 [0.039]
Mother*Girl*Parent gender pca				0.051 [0.054]
Controls for prop. to be boy	Yes	Yes	Yes	Yes
District-Grade-Gender, School FEs	Yes	Yes	Yes	Yes
Mother has no effect		0.000		
No effect on girls			0.003	
Dad/girl=Mom/girl				0.188
Observations	5,483	5,483	5,483	5,483

Differential response rate by gender

- ▶ Made 3 attempts to interview parent
- ▶ Response rate of 70% for fathers, 90% for mothers
- ▶ Estimate propensity to be surveyed using student survey data

Differential response rate by gender

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- ▶ Response rate of 70% for fathers, 90% for mothers
- ▶ Estimate propensity to be surveyed using student survey data



Weighted using propensity to be surveyed

	Student gender index (1)	Student gender index (2)	Student gender index (3)	Student gender index (4)
Parent gender index	0.146*** [0.015]	0.110*** [0.020]	0.159*** [0.053]	0.086 [0.079]
Mother*Parent gender index		0.074*** [0.026]		0.120 [0.098]
Girl*Parent gender index			-0.051* [0.029]	-0.090** [0.041]
Mother*Girl*Parent gender index				0.080 [0.055]
Controls for prop. to be boy	Yes	Yes	Yes	Yes
District-Grade-Gender, School FEs	Yes	Yes	Yes	Yes
Mother has no effect		0.000		
No effect on girls			0.018	
Dad/girl=Mom/girl				0.015
Observations	5,483	5,483	5,483	5,483

Aspirations and behavior

	Wishes to complete Class 13+ (1)	Wishes to complete Class 13+ (2)	Wishes to complete Class 13+ (3)	Wishes to complete Class 13+ (4)	Discusses education goals with parents (5)	Discusses education goals with parents (6)	Discusses education goals with parents (7)	Discusses education goals with parents (8)
Parent GA	0.111*** [0.037]	0.080 [0.057]	-0.080 [0.146]	-0.042 [0.199]	0.015 [0.028]	-0.010 [0.041]	0.035 [0.109]	0.043 [0.164]
Mother*Parent GA		0.057 [0.072]		-0.089 [0.270]		0.046 [0.054]		-0.025 [0.236]
Girl*Parent GA			0.191** [0.079]	0.227** [0.114]			0.103 [0.065]	0.111 [0.095]
Mother*Girl*Parent GA				-0.068 [0.144]				-0.013 [0.124]
Controls for prop. to be boy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DGG, School FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mother has no effect		0.003				0.338		
No effect on girls			0.360				0.105	
Dad/girl=Mom/girl				0.498				0.838
Observations	5,480	5,480	5,480	5,480	5,483	5,483	5,483	5,483

Influence of peers and school environment

- Outcome is child's gender attitudes (GA)

$$ChildGA_i = \alpha_1 Classmates' GA_i + \text{school FEs} + \text{district-grade-gender FEs} + \epsilon_i$$

- Classmates' GA is average for your gender and grade in your school (excluding self)

Parents and peers both matter

	Student gender index (1)	Student gender index (2)	Student gender index (3)
Classmates' avg gender index	0.144** [0.057]	0.130** [0.057]	0.240** [0.096]
Parent gender index		0.158*** [0.015]	0.270*** [0.080]
Parent gender index * Classmates' avg gender index			-0.175 [0.124]
Controls for prop. to be boy	No	No	No
District-Grade-Gender, School FEs	Yes	Yes	Yes
Observations	5,483	5,483	5,483

tab peer edu 13plus

	Wishes to complete Class 13+ (1)	Wishes to complete Class 13+ (2)	Wishes to complete Class 13+ (3)	Wishes to complete Class 13+ (4)	Wishes to complete Class 13+ (5)
Classmates' avg gender index	0.292** [0.130]	0.282** [0.129]	0.294 [0.283]	0.252* [0.129]	0.274** [0.129]
Parent gender index		0.124*** [0.037]	0.137 [0.243]	0.123*** [0.037]	0.127*** [0.036]
Parent gender index * Classmates' avg gender index			-0.020 [0.375]		
Classmates' avg desire to complete Class 13+				0.069 [0.059]	
Wishes child to complete Class 13+					0.083*** [0.019]
Controls for prop. to be boy	No	No	No	No	No
District-Grade-Gender, School FEs	Yes	Yes	Yes	Yes	Yes
Observations	5,480	5,480	5,480	5,480	5,478

Summary

- ▶ Parents' gender attitudes affect children's attitudes
- ▶ Mothers are more influential than fathers
- ▶ Suggestive evidence that mothers are especially important for shaping girls' attitudes
- ▶ Parents' attitudes also affect children's aspirations, e.g., girls want to obtain more education if their mothers have more progressive attitudes
- ▶ Parents and peers appear equally influential

Some implications

- ▶ It may be particularly valuable to target the gender attitudes of adolescent girls in order to:
 1. Halt the (apparent) erosion of the girls' attitudes that occurs after adolescence
 2. Break the cycle of backwards gender norms
 - ▶ These girls will raise their own children differently, e.g., discuss educational goals with their daughters
 - ▶ They will also influence their children's gender attitudes, which in turn will affect the next generation

Can an attitude change program break this cycle?

- ▶ Hypothesis: Spending time thinking about gender gaps and the human rights and economic arguments for gender equality will change adolescents' attitudes and, in turn, their behavior
- ▶ Breakthrough's intervention
 - ▶ Began working with grade 7 to 9 students in May
 - ▶ Developed curricular activities that will be embedded in regular school curriculum once ever 2-3 weeks
 - ▶ Breakthrough facilitator visits school to lead activity
 - ▶ Goal: Teachers take over in second year of program
 - ▶ Also school-wide events like street plays + after-school clubs
- ▶ Study design: Measure impacts on attitudes and behavior
 - ▶ Measure attitudes and some behaviors (schooling, mobility) after 2 years
 - ▶ Track parents in 5-10 years to ask about child's marital status and children (age at marriage, sex ratio of their children)

Why this approach?

- ▶ Changing attitudes is likely more sustainable, with fewer unintended consequences, than financial schemes
- ▶ Adolescents are young enough to have malleable attitudes but old enough to think about these issues
- ▶ If the program works, very cost-effective way to tackle problem
- ▶ At scale-up, the curricular activities could be a regular part of government curriculum, taught by government schoolteachers

Breakthrough video van



Street play



Example: Street play storyline

- ▶ Central character 'Rani' is caught in a cycle of gender discrimination from the beginning of her life
- ▶ Starts with Rani as a young girl lacking basic rights such as education and recreation because of the burden of household chores
- ▶ Then Rani faces the pressure to marry; she questions the urgency of marriage and shows keen interest in studying and being independent
- ▶ She expresses worry about her future especially considering the challenges to women and girls' survival
- ▶ The play takes a satirical turn here: In the next scene a long queue of grooms are waiting to marry the very few suitable brides
 - ▶ Suggests we could soon end up with a society where women are vastly outnumbered by the men seeking to marry them
- ▶ Play ends with appeal to the audience to devise with solutions not just within their personal domain but also at the community level
- ▶ Play aims to use humor to subtly convey the messages without making them sound offensive or controversial

Breakthrough staff conducting teacher training



Classroom exercise with students



Example 1: Discussion of aspirations

- ▶ Name of session is “Today I am on top of the world”
- ▶ Students are asked to identify their career aspirations and strengths and write them down in this workbook
- ▶ All the students are asked to share their strengths and aspirations
- ▶ The discussion (likely) reveals the commonalities across gender: Both genders want to become teachers, pilots, etc.
- ▶ Helps establish the fact that both genders can have similar aspirations

Example 2: Discussion of sexual harassment

- ▶ Comic shows some boys teasing some girls
- ▶ The boys' friends discuss this with their parents
- ▶ Father tells them that this is sexual harassment and asks if he should talk to the friends
- ▶ The boys say that they would like to talk to their friends first
- ▶ The father agrees saying that they will understand it better coming from someone their own age



Concluding thoughts

- ▶ Both children and parents in Haryana state attitudes unfavorable to girls: fewer opportunities and autonomy
 - ▶ On Implicit Association Test, girls are pro-girl
- ▶ Girls are more progressive than boys; mothers are *not* more progressive than fathers
- ▶ Parental attitudes, especially mothers' attitudes, are transmitted to their children, but school environment matters too
- ▶ Stay tuned for our results on the impacts of the Breakthrough intervention in 2016