Replication Tables and Figures

Age of Marriage and Women's Political Engagement: Evidence from India

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Table 1: Effects of Marriage Age on Political Engagement

	Attended village council meeting last year			Discussess politics and community with husband			Participates in a political organization		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marriage Age	0.006*	0.009**	-0.000	0.016***	0.013**	0.016	0.001	0.001	0.002
	(0.003)	(0.004)	(0.005)	(0.006)	(0.006)	(0.011)	(0.001)	(0.001)	(0.002)
Sample	Full	Rural	Urban	Full	Rural	Urban	Full	Rural	Urban
Observations	37037	24452	12584	35843	23683	12159	37072	24471	12600

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12. All regressions include district FEs, height, age, parents' education, caste, religion. Regressions with the full sample include a rural dummy. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 2: Effects of Marriage Age on Education and No. of Children, Rural Women

	Education and Literacy			Number of Children		
	(1)	(2)	(3)	(4)	(5)	(6)
	Years educ	Can read & write	Can converse in English	Living w/ respondent	Total still alive	Live births
Marriage Age	0.275***	0.018***	0.018***	-0.064***	-0.105***	-0.109***
	(0.046)	(0.006)	(0.005)	(0.019)	(0.018)	(0.021)
Observations	24505	24505	24500	24369	24501	24369

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 3: Educated vs. Uneducated, Rural Women

	Attended village council meeting last year		Discusses politics and community with husband		Participates in a political organization	
	(1)	(2)	(3)	(4)	(5)	(6)
Marriage Age	0.016**	–0.000	0.020**	0.003	0.002	0.000
	(0.006)	(0.005)	(0.009)	(0.009)	(0.002)	(0.001)
Sample	Educ	Uneduc	Educ	Uneduc	Educ	Uneduc
Observations	13185	11257	12902	10772	13191	11270

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. The sample in the odd (even) columns consist of women who have ever (never) attended school. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 4: Below vs. Above Median No. of Children Living with Respondent, Rural Women

	Attended village council meeting last year		Discusses politics and community with husband		Participates in a political organization	
	(1)	(2)	(3)	(4)	(5)	(6)
Marriage Age	0.010**	0.006	0.027***	–0.025**	0.001	0.000
	(0.005)	(0.007)	(0.008)	(0.012)	(0.002)	(0.002)
Sample	Below Median	Above Median	Below Median	Above Median	Below Median	Above Median
Observations	16567	7741	15966	7583	16576	7751

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. The sample in the odd (even) columns consist of women who have two or fewer (three or more) children living with them. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table A1: Previously Married vs. Currently Married Women

Panel A: Rural and Urban Women

	Attended village (rural) or municipal (urban) council meeting last year			Participates in a political organization		
	(1)	(2)	(3)	(4)	(5)	(6)
Widow/Separated/Divorced	0.021**			0.003		
	(0.009)			(0.003)		
Widow		0.026***			0.003	
		(0.009)			(0.003)	
Separated/Divorced			-0.019			0.004
			(0.021)			(0.009)
Observations	37048	37048	37048	37083	37083	37083

Panel B: Rural Women

	(1)	(2)	(3)	(4)	(5)	(6)
Widow/Separated/Divorced	0.036***			0.004		
	(0.011)			(0.004)		
Widow		0.042***			0.005	
		(0.012)			(0.004)	
Separated/Divorced			-0.015			-0.008***
			(0.028)			(0.002)
Observations	24459	24459	24459	24478	24478	24478

Panel C: Urban Women

	(1)	(2)	(3)	(4)	(5)	(6)
Widow/Separated/Divorced	-0.005			0.003		
	(0.012)			(0.006)		
Widow		-0.003			-0.001	
		(0.012)			(0.005)	
Separated/Divorced			-0.026			0.033
			(0.030)			(0.027)
Observations	12589	12589	12589	12605	12605	12605

Notes: OLS regression. Data from IHDS 2011–12. *Widow/Separated/Divorced* is a dummy variable equal to 1 if the respondent is separated, divorced or widow, and 0 if the respondent is currently married. The dummy variables *Widow* and *Separated/Divorced* are defined similarly. The data contain 1053 widows (of whom 676 live in rural areas) and 136 separated/divorced women (of whom 91 live in rural areas). The outcome variable *Discusses politics and community with husband* is not included in this table as it does not apply to women who are no longer married. All regressions include district FEs, height, age, education, parents' education, household caste, religion. Regressions in Panel A include a rural dummy. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table A2: Below vs. Above Median Length of Marriage

Panel A: Rural and Urban Women

	Attended village (rural) or municipal (urban) council meeting last year		Discusses politics and community with husband		Participates in a political organization	
	(1)	(2)	(3)	(4)	(5)	(6)
Marriage Age	0.006	0.007	0.012	0.018**	-0.000	0.003*
	(0.005)	(0.005)	(0.010)	(0.008)	(0.002)	(0.002)
Sample	Below Median	Above Median	Below Median	Above Median	Below Median	Above Median
Observations	17601	18282	17587	18256	17616	18300

Panel B: Rural Women

	(1)	(2)	(3)	(4)	(5)	(6)
Marriage Age	0.010	0.008	0.011	0.012	-0.001	0.003
	(0.006)	(0.006)	(0.011)	(0.009)	(0.002)	(0.002)
Sample	Below Median	Above Median	Below Median	Above Median	Below Median	Above Median
Observations	11662	12044	11650	12033	11668	12055

Panel C: Urban Women

	(1)	(2)	(3)	(4)	(5)	(6)
Marriage Age	-0.009	0.005	-0.003	0.022	0.001	0.004
	(0.008)	(0.007)	(0.021)	(0.014)	(0.004)	(0.004)
Sample	Below Median	Above Median	Below Median	Above Median	Below Median	Above Median
Observations	5937	6237	5935	6222	5946	6244

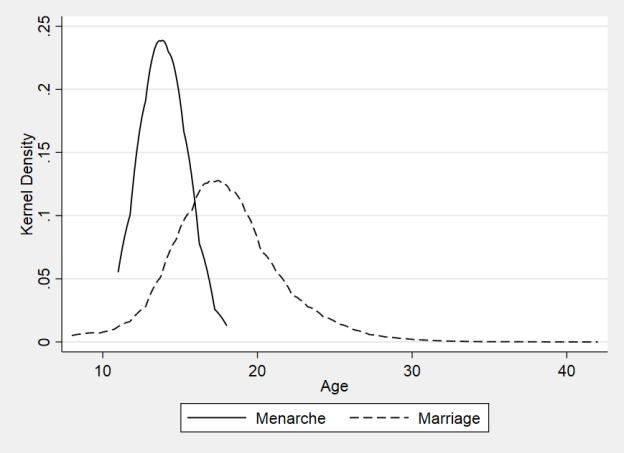
Notes: IV regression. *Marriage Age* is instrumented with *Menarche Age*. Data from IHDS 2011–12, currently married women. The sample in the odd (even) columns consist of women who have been married for 18 or fewer (19 or more) years. All regressions include district FEs, height, age, parents' education, household caste, religion. Regressions in Panel A include a rural dummy. Robust SEs in parenthesis. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Appendix Table B1: Summary Statistics

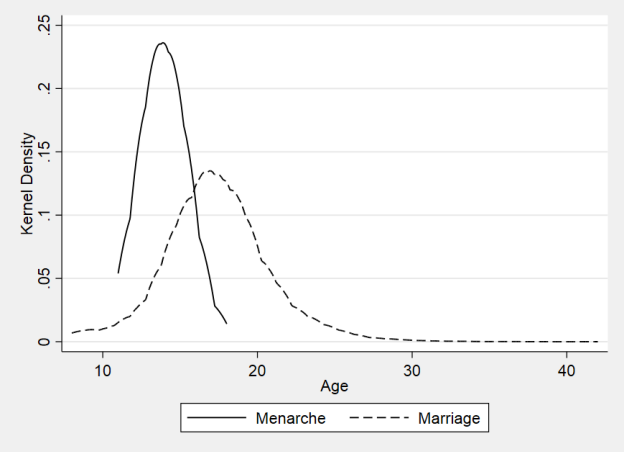
	Rural and Urban		Rural		Urban	
	Mean	SD	Mean	SD	Mean	SD
Household Characteristics						
Household size	5.461	2.472	5.552	2.535	5.286	2.337
Monthly expenditure per capita (Rupees)	2164.799	2408.515	1839.630	1966.962	2792.530	2988.812
Hindu	0.821	0.383	0.842	0.364	0.779	0.415
Muslim	0.118	0.323	0.096	0.295	0.161	0.368
Scheduled Caste	0.213	0.410	0.228	0.419	0.186	0.389
Scheduled Tribe	0.081	0.274	0.107	0.309	0.032	0.177
Other Backward Class	0.408	0.491	0.406	0.491	0.411	0.492
Woman Demographic Characteristics						
Age	36.306	9.874	35.839	10.038	37.206	9.485
Height (cm)	151.736	8.300	151.460	8.532	152.272	7.802
Marriage age	17.886	3.581	17.316	3.388	18.985	3.686
Cohabitation age	18.243	3.195	17.774	2.916	19.149	3.501
Menarche age	13.905	1.306	13.950	1.328	13.820	1.259
Mother's years of education	1.493	3.052	0.957	2.401	2.529	3.814
Father's years of education	3.446	4.506	2.714	4.033	4.864	5.007
Ever attended school	0.623	0.485	0.541	0.498	0.782	0.413
Years education completed	5.214	4.926	4.124	4.486	7.319	5.054
Can read and write	0.613	0.487	0.529	0.499	0.775	0.417
Can converse in English	0.208	0.406	0.142	0.349	0.335	0.472
Number of children living with respondent	2.016	1.323	2.053	1.362	1.945	1.241
Number of children still alive	2.557	1.557	2.666	1.608	2.346	1.429
Number of live births	2.833	1.841	2.991	1.918	2.530	1.640
Woman Political Characteristics						
Attended council meeting	0.085	0.279	0.096	0.294	0.065	0.247
Discusses politics and the community with husband	0.710	0.454	0.704	0.457	0.723	0.448
Participates in a political organization	0.008	0.088	0.007	0.084	0.009	0.096

Notes: Data from IHDS 2011–2012. Marriage age is winsorized at bottom 1%. The sample consists of women who have never remarried and have menarche age between 11−18 (1st−99th percentile).

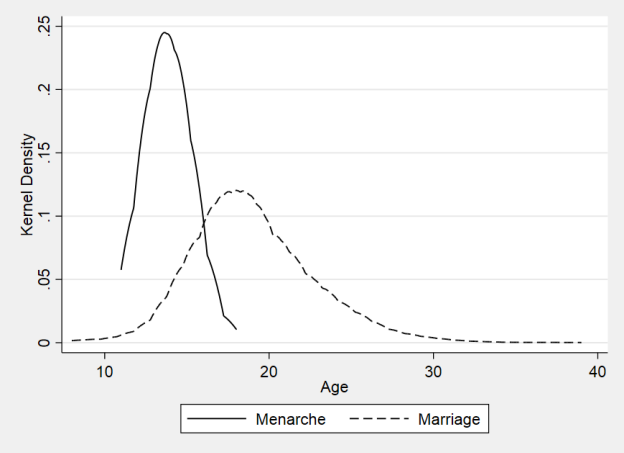
Appendix Figure B1: Distribution of Menarche Age and Marriage Age



(a) Rural and Urban Women



(b) Rural Women



(c) Urban Women

Notes: This figure plots the distribution of menarche age and marriage age. Data from IHDS 2011-12. Epanechnikov kernel with bandwidth equal to one.

Appendix Table C1: First Stage Regressions, Rural and Urban Women

	(1)	(2)	(3)	(4)	(5)	(6)
Menarche Age	0.398***	0.387***	0.372***	0.347***	0.367***	
	(0.015)	(0.015)	(0.014)	(0.014)	(0.014)	
Height (cm)		0.011***	0.005***	-0.001	0.004*	0.005***
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Hindu		-0.683***	-0.591***	-0.511***	-0.538***	-0.589***
		(0.089)	(0.086)	(0.081)	(0.085)	(0.086)
Muslim		-1.245***	-0.788***	-0.431***	-0.646***	-0.788***
		(0.103)	(0.100)	(0.095)	(0.099)	(0.100)
Scheduled Caste		-1.405***	-0.821***	-0.395***	-0.637***	-0.819***
		(0.049)	(0.048)	(0.046)	(0.048)	(0.048)
Scheduled Tribe		-1.136***	-0.461***	0.059	-0.193***	-0.465***
		(0.074)	(0.073)	(0.071)	(0.073)	(0.073)
Other Backward Class		-0.886***	-0.530***	-0.289***	-0.440***	-0.534***
		(0.045)	(0.043)	(0.041)	(0.043)	(0.043)
Age		-0.056***	-0.039***	-0.012***	-0.026***	-0.039***
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Mother's Years of Education			0.156***	0.075***	0.151***	0.156***
			(0.007)	(0.007)	(0.007)	(0.007)
Father's Years of Education			0.112***	0.027***	0.080***	0.112***
			(0.005)	(0.005)	(0.005)	(0.005)
Years Education Completed				0.247***		
				(0.005)		
Ever Attended School					1.096***	
					(0.037)	
Menarche Age = 12						0.782***
						(0.144)
Menarche Age = 13						1.354***
						(0.144)
Menarche Age = 14						1.812***
						(0.144)
Menarche Age = 15						2.056***
						(0.146)
Menarche Age = 16						2.388***
						(0.154)
Menarche Age = 17						2.385***
						(0.179)
Menarche Age = 18						2.890***
						(0.216)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Instrument F-stat	727.089	710.986	696.143	659.180	693.980	107.129
Observations	38352	37383	37118	37116	37116	37118

Notes: OLS regressions for the IV first stage. The dependent variable is marriage age. The first stage specification used throughout the analysis corresponds to column 3. Columns 4 and 5 control for respondent's education and are shown as a robustness check. Column 6 allows for non-linearity in the effect of menarche age. Data from IHDS 2011–12, full sample of rural and urban women. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table C2: First Stage Regressions, Rural Women

	(1)	(2)	(3)	(4)	(5)	(6)
Menarche Age	0.400***	0.398***	0.391***	0.369***	0.386***	
	(0.017)	(0.017)	(0.016)	(0.016)	(0.016)	
Height (cm)		0.005**	0.003	-0.001	0.002	0.003
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Hindu		-0.456***	-0.463***	-0.446***	-0.442***	-0.463***
		(0.114)	(0.112)	(0.108)	(0.111)	(0.112)
Muslim		-0.698***	-0.518***	-0.288**	-0.414***	-0.524***
		(0.134)	(0.132)	(0.128)	(0.131)	(0.132)
Scheduled Caste		-1.026***	-0.684***	-0.381***	-0.527***	-0.683***
		(0.057)	(0.057)	(0.056)	(0.057)	(0.057)
Scheduled Tribe		-0.729***	-0.321***	0.055	-0.109	-0.326***
		(0.082)	(0.082)	(0.081)	(0.082)	(0.082)
Other Backward Class		-0.611***	-0.418***	-0.264***	-0.340***	-0.423***
		(0.054)	(0.053)	(0.052)	(0.053)	(0.053)
Age		-0.063***	-0.050***	-0.024***	-0.038***	-0.050***
		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Mother's Years of Education			0.113***	0.053***	0.106***	0.113***
			(0.010)	(0.009)	(0.010)	(0.010)
Father's Years of Education			0.093***	0.027***	0.065***	0.093***
			(0.006)	(0.006)	(0.006)	(0.006)
Years Education Completed				0.204***		
				(0.006)		
Ever Attended School					0.905***	
					(0.043)	
Menarche Age = 12						0.824***
						(0.171)
Menarche Age = 13						1.449***
						(0.169)
Menarche Age = 14						2.002***
						(0.169)
Menarche Age = 15						2.201***
						(0.172)
Menarche Age = 16						2.559***
						(0.180)
Menarche Age = 17						2.477***
						(0.205)
Menarche Age = 18						3.094***
						(0.248)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Instrument F-stat	561.559	578.977	578.699	544.718	574.032	92.902
Observations	25267	24662	24507	24505	24505	24507

Notes: OLS regressions for the IV first stage. The dependent variable is marriage age. The first stage specification used throughout the analysis corresponds to column 3. Columns 4 and 5 control for respondent's education and are shown as a robustness check. Column 6 allows for non-linearity in the effect of menarche age. Data from IHDS 2011–12, rural women. Robust SEs in parenthesis. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Appendix Table C3: First Stage Regressions, Urban Women

	(1)	(2)	(3)	(4)	(5)	(6)
Menarche Age	0.407***	0.384***	0.345***	0.313***	0.340***	
	(0.028)	(0.028)	(0.027)	(0.025)	(0.027)	
Height (cm)		0.022***	0.010***	-0.002	0.008**	0.010***
		(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Hindu		-0.825***	-0.598***	-0.431***	-0.512***	-0.596***
		(0.141)	(0.137)	(0.127)	(0.135)	(0.137)
Muslim		-1.859***	-1.086***	-0.515***	-0.887***	-1.083***
		(0.159)	(0.155)	(0.147)	(0.154)	(0.155)
Scheduled Caste		-1.823***	-1.039***	-0.460***	-0.859***	-1.038***
		(0.092)	(0.091)	(0.087)	(0.091)	(0.092)
Scheduled Tribe		-1.316***	-0.519***	0.027	-0.273	-0.515***
		(0.198)	(0.192)	(0.181)	(0.190)	(0.192)
Other Backward Class		-1.035***	-0.581***	-0.256***	-0.497***	-0.581***
		(0.076)	(0.073)	(0.069)	(0.072)	(0.073)
Age		-0.048***	-0.026***	-0.004	-0.017***	-0.026***
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Mother's Years of Education			0.160***	0.072***	0.155***	0.160***
			(0.011)	(0.010)	(0.010)	(0.011)
Father's Years of Education			0.116***	0.021***	0.087***	0.116***
			(0.008)	(0.008)	(0.008)	(0.008)
Years Education Completed				0.286***		
				(0.008)		
Ever Attended School					1.300***	
					(0.074)	
Menarche Age = 12						0.654**
						(0.258)
Menarche Age = 13						1.065***
						(0.260)
Menarche Age = 14						1.372***
						(0.260)
Menarche Age = 15						1.768***
						(0.266)
Menarche Age = 16						2.011***
						(0.286)
Menarche Age = 17						2.329***
						(0.347)
Menarche Age = 18						2.403***
						(0.411)
District Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Instrument F-stat	209.252	189.992	163.089	151.018	162.733	23.615
Observations	13085	12721	12611	12611	12611	12611

Notes: OLS regressions for the IV first stage. The dependent variable is marriage age. The first stage specification used throughout the analysis corresponds to column 3. Columns 4 and 5 control for respondent's education and are shown as a robustness check. Column 6 allows for non-linearity in the effect of menarche age. Data from IHDS 2011–12, urban women. Robust SEs in parenthesis. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

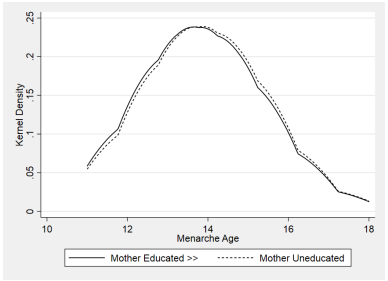
Appendix Table D1: Scientific Studies on Menarche Age in India

Reference	Sample	Geographic Location	Mean Menarche Age
Indian Council of Medical Research (1972)	All India	India	13.80
Satyanarayana and Naidu (1979)	Girls aged 12-18	Rural Hyderabad, Andhra Pradesh	14.60
Tyagi et al. (1983)	Girls aged 9-16, Oraon and Munda ethnic groups	Villages in Ranchi district, Jharkhand	12.80 (Oraon), 12.76 (Munda)
Chakravarty (1994)	Rajbanshi ethnic group	North Bengal, West Bengal	14.70
Sharma et al. (2005)	Girls aged 9-15, Brahmin and Rajput castes	Rural areas, Jammu & Kashmir	13.857 (Brahmin), 13.859 (Rajput)
Khatoon (2011)	Girls aged 10-19, urban and rural public schools	Lucknow, Uttar Pradesh	12.43
Deb (2011)	Adolescent girls	East Khasi Hills, Meghalaya	13.22

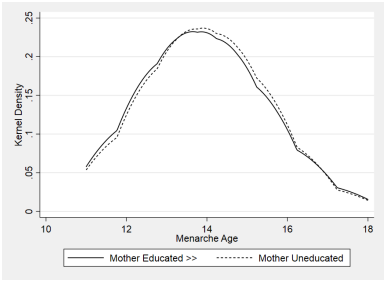
Notes: This table, adapted from Pathak, Tripathi, and Subramanian (2014), lists previous papers documenting the onset of menstruation among Indian girls and the mean menarche age found in the study.

Appendix Figure D1: Distribution of Menarche Age by Respondent Characteristics

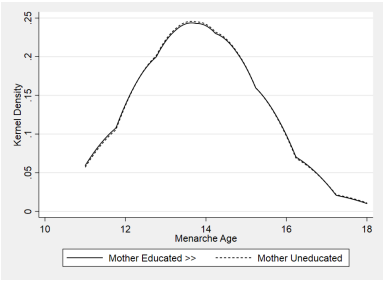
Panel A: Mother's Education



(a) Rural and Urban Women

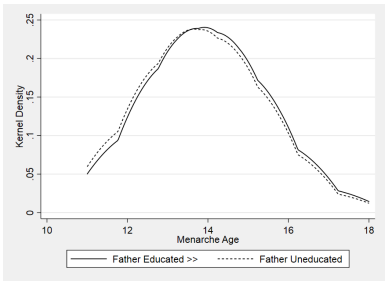


(b) Rural Women

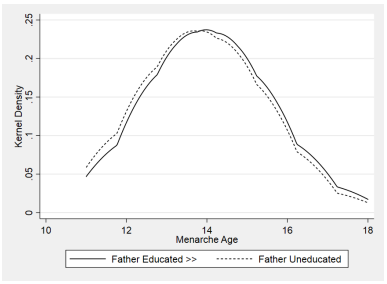


(c) Urban Women

Panel B: Father's Education



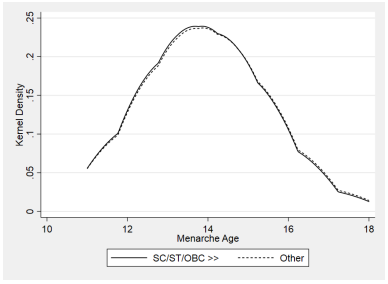
(a) Rural and Urban Women



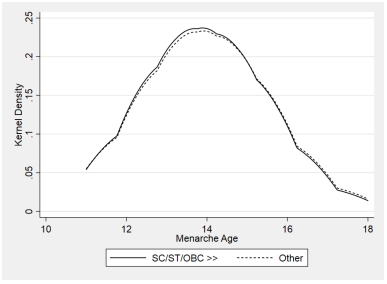
(b) Rural Women

(c) Urban Women

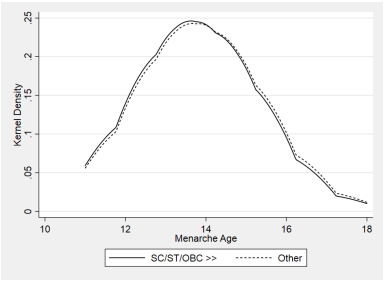
Panel C: Caste



(a) Rural and Urban Women

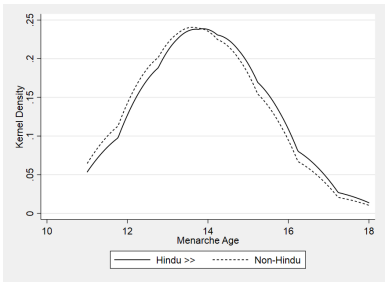


(b) Rural Women

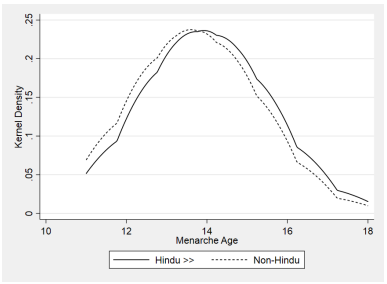


(c) Urban Women

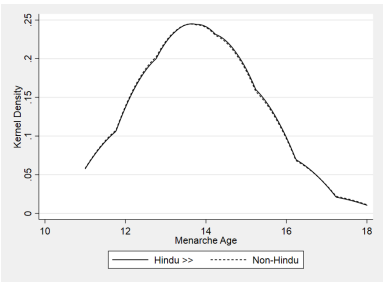
Panel D: Religion



(a) Rural and Urban Women



(b) Rural Women



(c) Urban Women

Notes: This figure plots the distribution of menarche age by respondent characteristics. The first two panels are based on the education of the respondent's parents, where educated is defined as ever attended school. The last two panels are based on the caste and religion, respectively, of the respondent's spousal household. SC, ST and OBC refer to Scheduled Caste, Scheduled Tribe, and Other Backward Class. Data from IHDS 2011-12. Epanechnikov kernel with bandwidth equal to one.

Appendix Table E1: Robustness to Controlling for Years of Education

	Attended village council meeting last year			Discussess politics and community with husband			Participates in a political organization		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marriage Age	0.006*	0.008**	-0.000	0.015***	0.011*	0.015	0.001	0.001	0.003
	(0.003)	(0.004)	(0.005)	(0.006)	(0.007)	(0.012)	(0.001)	(0.001)	(0.003)
Sample	Full	Rural	Urban	Full	Rural	Urban	Full	Rural	Urban
Observations	37035	24450	12584	35841	23681	12159	37070	24469	12600

Notes: This table replicates the IV regressions in Table 1, but controls for the respondent's years of education as a robustness check. The first stage regression is shown in column 4 of Appendix Tables C1 (full sample), C2 (rural sample), and C3 (urban sample). Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table E2: Robustness to Controlling for Ever Schooled

	Attended village council meeting last year			Discussess politics and community with husband			Participates in a political organization		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marriage Age	0.006*	0.009**	-0.000	0.016***	0.012*	0.016	0.001	0.001	0.002
	(0.003)	(0.004)	(0.005)	(0.006)	(0.006)	(0.011)	(0.001)	(0.001)	(0.002)
Sample	Full	Rural	Urban	Full	Rural	Urban	Full	Rural	Urban
Observations	37035	24450	12584	35841	23681	12159	37070	24469	12600

Notes: This table replicates the IV regressions in Table 1, but controls for an indicator for whether the respondent ever attended school as a robustness check. The first stage regression is shown in column 5 of Appendix Tables C1 (full sample), C2 (rural sample), and C3 (urban sample). Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table E3: Robustness to Using Menarche Age Dummies as Instruments

	Attended village council meeting last year			Discussess politics and community with husband			Participates in a political organization		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Marriage Age	0.005*	0.008**	-0.000	0.017***	0.014**	0.019*	0.001	0.001	0.002
	(0.003)	(0.004)	(0.005)	(0.005)	(0.006)	(0.011)	(0.001)	(0.001)	(0.003)
Sample	Full	Rural	Urban	Full	Rural	Urban	Full	Rural	Urban
Observations	37037	24452	12584	35843	23683	12159	37072	24471	12600

Notes: This table replicates the IV regressions in Table 1, but uses dummies for menarche age as instruments to account for non-linearity in the effect of menarche age on marriage age. The first stage regression is shown in column 6 of Appendix Tables C1 (full sample), C2 (rural sample), and C3 (urban sample). Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table F1: Effect of Menarche Age on Political Participation, Rural Women

	(1) Attended village council meeting last year	(2) Discusses politics and community with husband	(3) Participates in a political organization
Menarche age	0.003**	0.005**	0.000
	(0.002)	(0.002)	(0.000)
Observations	24461	23692	24480

Notes: OLS regression. Data from IHDS 2011–12, rural sample. All regressions include district FEs, height, age, parents' education, household caste, religion. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Appendix Table F2: Mediation Analysis, Rural Women

Panel A: Effect of Menarche Age on Mediator

	(1) Years education	(2) No. of children living with respondent
Menarche age	0.1173***	-0.0281***
	(0.0192)	(0.0074)

Panel B: Effect of Menarche Age and Mediator on Outcomes

	Attended village council meeting last year		Discusses politics and community with husband		Participates in a political organization	
	(1)	(2)	(3)	(4)	(5)	(6)
Menarche age	0.0031**	0.0036**	0.0039	0.0049**	0.0004	0.0004
	(0.0016)	(0.0016)	(0.0024)	(0.0024)	(0.0005)	(0.0005)
Years education	0.0031***		0.0065***		0.0006***	
	(0.0006)		(0.0008)		(0.0002)	
No. of children living with respondent		0.0035***		0.0091***		-0.0002
		(0.0012)		(0.0021)		(0.0003)

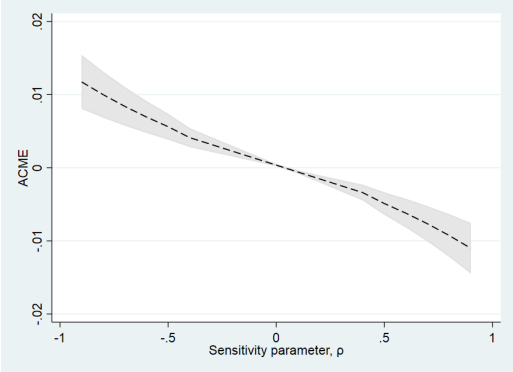
Panel C: Causal Mediation Effects

Outcome	Attended village council meeting last year		Discusses politics and community with husband		Participates in a political organization	
	(1)	(2)	(3)	(4)	(5)	(6)
Mediator	Years education	No. of children living with respondent	Years education	No. of children living with respondent	Years education	No. of children living with respondent
ACME	0.0004***	-0.0001***	0.0008***	-0.0003***	0.0001***	0.0000
	(0.0002, 0.0005)	(-0.0002, -0.0000)	(0.0005, 0.0011)	(-0.0004, -0.0001)	(0.0000, 0.0001)	(-0.0000, 0.0000)
ADE	0.0032**	0.0036**	0.0040*	0.0051**	0.0004	0.0004
	(0.0004, 0.0061)	(0.0008, 0.0066)	(-0.0004, 0.0087)	(0.0007, 0.0097)	(-0.0005, 0.0013)	(-0.0005, 0.0014)
ATE	0.0035**	0.0035**	0.0048**	0.0048**	0.0004	0.0004
	(0.0008, 0.0065)	(0.0007, 0.0066)	(0.0005, 0.0094)	(0.0004, 0.0095)	(-0.0004, 0.0014)	(-0.0004, 0.0014)
Proportion of ATE Mediated	0.1027	-0.0274	0.1580	-0.0527	0.0986	0.0102

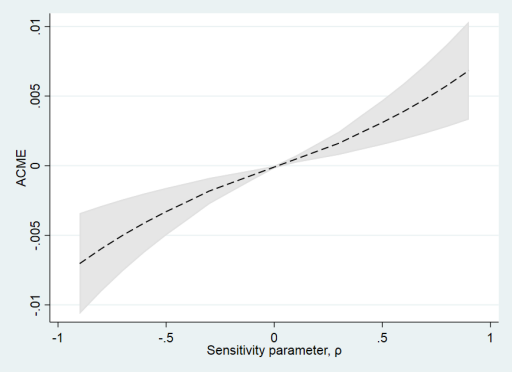
Notes: This table presents results for causal mediation analysis following the framework in Imai et al. (2011). The mediators considered are *Years education* and *No. of children living with respondent*. The treatment variable considered is *Menarche age*. Panel A reports the estimates for the OLS regression of the mediator on menarche age. Panel B reports the estimates for the OLS regression of outcomes on menarche age and the mediator. All regressions include district FEs, height, age, parents' education, household caste, religion. Panel C reports the estimates of the Average Causal Mediation Effect (ACME) and Average Direct Effect (ADE). The Average Treatment Effect (ATE) corresponds to the results for the effect of menarche age on outcomes in Appendix Table F1. The proportion of ATE Mediated is calculated as ACME divided by ATE. In Panels A and B, robust standard errors are shown below coefficient estimates. In Panel C, the 95% confidence interval is shown below the estimate. Data from IHDS 2011–12, rural women. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Appendix Figure F1: Sensitivity Analysis

Panel A: Attended village council meeting last year

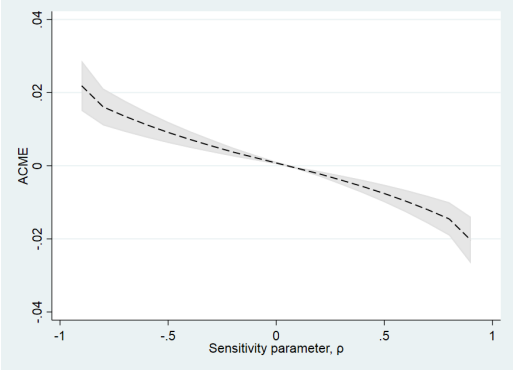


(a) Years of Schooling

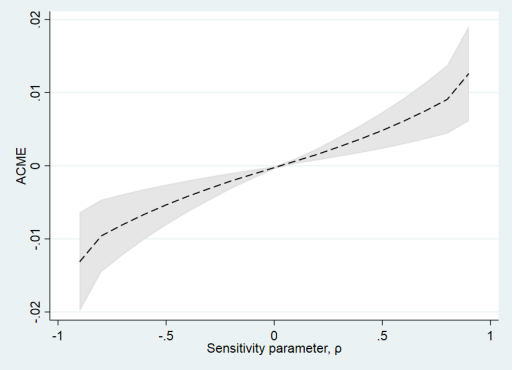


(b) No. of Children Living w/ Resp.

Panel B: Discusses politics and community with husband

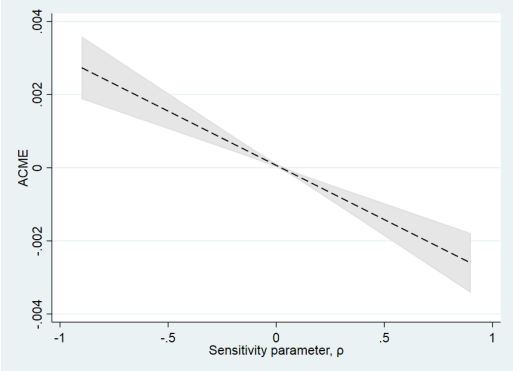


(c) Years of Schooling

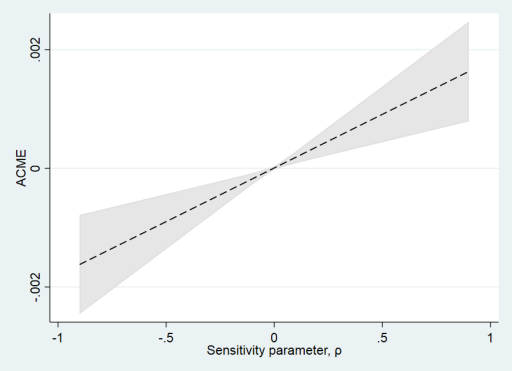


(d) No. of Children Living w/ Resp.

Panel C: Participates in a political organization



(e) Years of Schooling



(f) No. of Children Living w/ Resp.

Notes: This figure shows how the estimates of the Average Causal Mediation Effect (ACME) change with different values of ρ, defined as the correlation between the error terms in the regression of the mediator on the treatment, and the regression of outcomes on the treatment and the mediator. The dashed line represents the estimated ACME for the given mediator and for different values of ρ, while the shaded area represents the 95% confidence interval. The figures on the left consider years of education as the mediator. Those on the right use the number of children living with the respondent as the mediator. The treatment variable is menarche age. Sequential ignorability implies that ρ is equal to zero, so the ACME for $\rho = 0$ in the above figures corresponds to the ACME estimate in Table F2.

Appendix Table G1: Effects on Employment, Rural Women

	(1) Ever worked for pay	(2) Worked for pay last year	(3) Currently working for pay
Marriage Age	–0.002	–0.002	–0.007
	(0.006)	(0.006)	(0.006)
Observations	24480	24507	24430

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Appendix Table G2: Effects on Mobility, Rural Women

	Respondent can go alone to			
	(1) Local health center	(2) Friends in the village	(3) Nearby retail shop	(4) Short distance by train/bus
Marriage Age	–0.012*	–0.001	–0.011*	0.007
	(0.006)	(0.006)	(0.006)	(0.007)
Observations	24253	24166	23025	24143

Notes: IV regression, *Marriage Age* instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.10$.

Appendix Table G3: Effects on Household Decision-Making, Rural Women

	Respondent has major say in					
	(1) What to cook on a daily basis	(2) Buying expensive items	(3) How many children you have	(4) What to do if you fall sick	(5) Buying land or property	(6) Spending on social functions
Marriage Age	–0.008	–0.001	0.018***	–0.005	–0.004	–0.005
	(0.006)	(0.004)	(0.006)	(0.006)	(0.004)	(0.005)
Observations	24395	24270	23506	24392	24042	24310

Notes: IV regression, *Marriage Age*instrumented with *Menarche Age*. Data from IHDS 2011-12, rural women. All regressions include district FEs, height, age, parents' education, caste, religion. Robust SEs in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.