

Appendices

FOR ONLINE PUBLICATION

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A Deviations from the pre-analysis plan

After the pre-analysis plan was filed, the survey was shortened in order to make sure respondents were paying attention throughout its duration. Several questions on the following topics were cut:

- Expenditure on education
- Psychological well-being
- Belief in market values
- The expenditures for which borrowing occurred

As a result, I am unable to report effects on these outcomes.

Also, I had planned on a) using a split-sample strategy to select hypotheses for testing as recommended by Anderson and Magruder 2017 and Olken 2015 and b) reporting effects for indices of outcomes. I had intended to take these steps to reduce the number of hypotheses tested and therefore decrease the number of multiple-testing adjustments required. Instead, I tested all of the hypotheses reported in the pre-analysis plan and made multiple-testing adjustments within families of hypotheses; this choice should lead to more conservative p-values.

I also do not report heterogeneous effects on income group, lottery year, and whether the lottery building is in the same ward as the original home due to insufficient power to detect these effects.

B Variable definitions for survey outcomes

Table SI.1: Variable definitions.

Label	Survey Question	Response options	Coding
Makeshift floor	For enumerator: Is the respondent's floor:	Permanent, Makeshift	$I(x=\text{Makeshift})$
Makeshift roof	For enumerator: Is the respondent's roof:	Permanent, Semi-permanent, Makeshift	$I(x=\text{Makeshift} x=\text{Semi-permanent})$
Private tap	Is your water source shared?	Yes, No	$I(x=\text{No})$
Private toilet	Is your toilet shared?	Yes, No	$I(x=\text{No})$
Asset ownership	Does your household have [asset/item]?	Yes, No	$I(x=\text{Yes})$
Years of education	How many years of schooling have you completed?	Integer	Integer
Working	How many days did you work in the past week?	Integer	Working: $I(x>0)$; Full-time: $I(x\geq 5)$; Part-time: $(5\geq x>0)$
Schools	Are any of your [sons/daughters] enrolled in the following types of schools (select multiple):	Public, English medium, Religious, N/A	Public: $I(x=\text{Public})$; English-medium: $I(x=\text{English-medium})$
After-school tuition	Are any of your [sons/daughters] enrolled in after-school tuition?	Yes, No, N/A	$I(x=\text{Yes})$
Main earner salaried	Which of these categories best describes your/the households highest earners principal paid activity?	Salaried worker, Wage worker, N/A	$I(x=\text{Salaried worker})$
Main earner govt. job	Is your position with the following:	Government, Private sector, N/A	$I(x=\text{Government})$
Main earner formal sector job	Did you receive any of the following upon being hired:	Letter, Contract, Pension information, N/A	$I(x=\text{Letter Contract Pension})$
Happy w/ financial situation	How happy are you with the financial situation of your household?	Happy, Neither happy nor unhappy, Unhappy	$I(x=\text{Happy})$
Children will have better lives	Do you expect your children to have better lives than you?	Yes, No, Don't Know	$I(x=\text{Yes})$
Leaving Mumbai in the future	Do you think you will leave Mumbai in the future?	Would never leave, Might leave in future, Will definitely leave	Would never leave: $I(x=\text{Would never leave})$; Unsure: $I(x=\text{Might leave})$
Trusts others	Would you say that one can trust other people or that people cannot be trusted?	Yes, No, Don't know	$I(x=\text{Yes})$
Thinks effort leads to greater success	Do you think people who put in effort have more success than those who don't?	More, Less, Don't know	$I(x=\text{More})$
Claims to make own decisions	When make an important life decision (e.g. about your career, marriage, childrens education), how do you make your choices?	Traditional values guide me, My family's input guides me, Input from the neighborhood guides me, I make my own choices without input from others	$I(x=\text{I make my own choices})$
N Illnesses in the last month	In the past month, how many times have members of your household fallen ill?	Integer	Integer
Doctor type	What type of doctor does your family see?	Bengali/ ayurvedic/ homeopathic doctor, Medically certified doctor, Non-certified family member, Unsure/None	Homeopathic: $I(x=\text{Bengali/ ayurvedic/ homeopathic})$; Medically certified: $I(x=\text{Medically certified})$; Family: $I(x=\text{Non-certified family})$; Unsure/None: $I(x=\text{Unsure/None})$
Sources for loans	When you have a large or emergency expense, such as for a wedding, medical expenses, or school tuition, where do you go?	Savings, family/friends/neighbors, informal lenders, commercial banks, Don't know	$I([\text{option}] \text{ chosen})$

C Additional lottery information

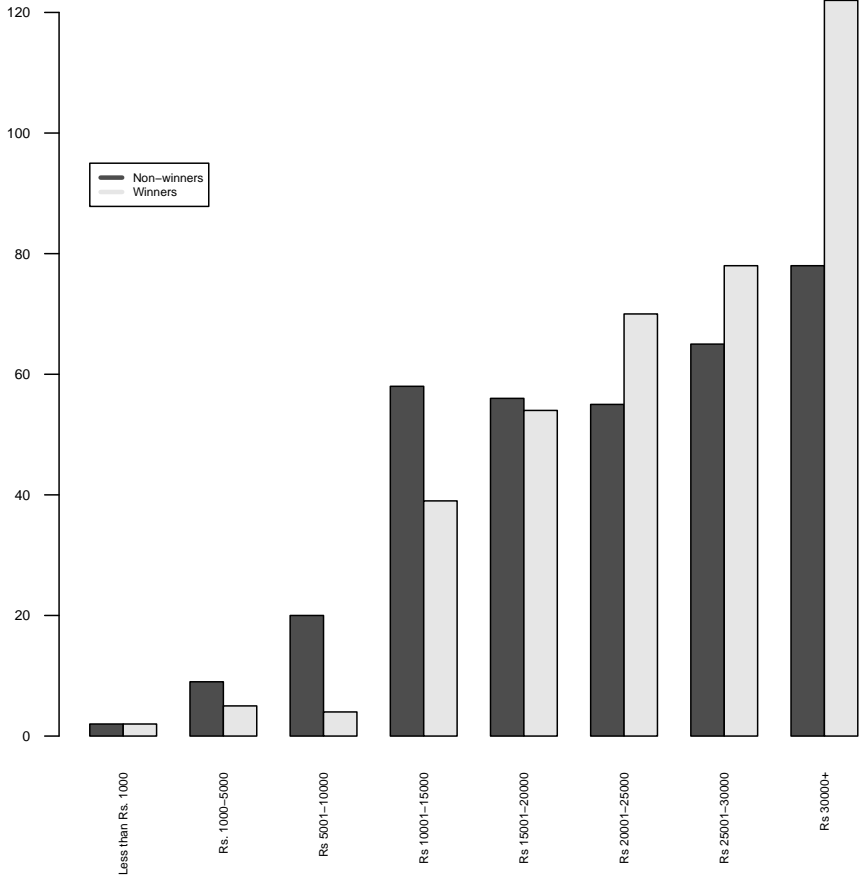
Table SI.2: Caste/occupation category codes

Code	Category
AR	Artist
CG	Central govt. servant occupying staff qrts.
DF	Families of defense personall
DT	Denotified tribes
EX	Ex-servicemen and dependents
FF	Freedom fighters
GP	General public
JR	Journalists
ME	MHADA employees
MP/MLA/MLC	Ex-members of parliament, legislative assemblies, legislative councils
NT	Nomadic tribes
PH	Handicapped persons
SC	Scheduled castes
SG	State government employees who have retired
ST	Scheduled tribes

D Effects on income

Respondents were generally unable to provide numbers for monthly earnings, but preferred to provide ranges instead. Enumerators thus placed respondents into income bins. The bins used, unfortunately, appear to not capture the full range of the income distribution but rather only the left tail. Even so, a rightward shift in the distribution shows that winners clearly are earning more than non-winners. The p-value for a KS-test comparing these two distributions is 0.001.

Figure SI.1: The reported income distribution for winners and non-winners. Bars represent the frequency of households in each income bin



E Additional balance tests

Table SI.3: Proportion of members of each category in treatment and control groups after mapping with p-values for difference in proportions test.

	Non-winners (C)	Winners (T)	p
<i>Caste/Occupation category</i>			
AR	0.021	0.026	0.541
CG	0.021	0.019	0.829
DF	0.017	0.008	0.164
DT	0.008	0.011	0.524
EX	0.024	0.021	0.683
FF	0.006	0.015	0.129
GP	0.592	0.601	0.774
JR	0.021	0.032	0.249
ME	0.009	0.021	0.130
MP/MLA/MLC	0.002	0.008	0.179
NT	0.019	0.011	0.316
PH	0.030	0.023	0.447
SC	0.135	0.124	0.593
SG	0.062	0.047	0.284
ST	0.034	0.034	0.995
	1.00	1.00	
<i>Lottery income category</i>			
EWS	0.314	0.298	0.563
LIG	0.686	0.702	0.563
	1.00	1.00	
<i>Apartment building #</i>			
274	0.011	0.017	0.434
275	0.019	0.015	0.638
276	0.013	0.021	0.340
283	0.293	0.305	0.673
284	0.139	0.139	0.990
302	0.239	0.243	0.872
303	0.211	0.205	0.833
305	0.075	0.055	0.174
	1.00	1.00	

Table SI.4: Proportion of members of each category in full and mapped samples after mapping with p-values for difference in proportions test.

	Full Sample	Mapped Sample	p
AR	0.022	0.024	0.740
CG	0.021	0.020	0.886
DF	0.022	0.012	0.050
DT	0.014	0.009	0.250
EX	0.052	0.023	0.00
FF	0.028	0.010	0.00
GP	0.520	0.596	0.00
JR	0.028	0.026	0.779
ME	0.017	0.015	0.723
MP/MLA/MLC	0.004	0.005	0.883
NT	0.014	0.015	0.828
PH	0.026	0.026	0.947
SC	0.117	0.130	0.303
SG	0.053	0.055	0.902
ST	0.063	0.034	0.00
	1.00	1.00	
<i>Lottery income category</i>			
EWS	0.307	0.306	0.950
LIG	0.693	0.694	0.950
	1.00	1.00	
<i>Apartment building #</i>			
274	0.015	0.014	0.825
275	0.015	0.017	0.711
276	0.015	0.017	0.711
283	0.291	0.299	0.651
284	0.140	0.139	0.926
302	0.241	0.241	0.968
303	0.216	0.208	0.602
305	0.065	0.065	0.961
	1.00	1.00	

Table SI.5: Reasons for attrition with p-values for difference in proportions tests.

	Control	Treatment	p
Surveyed	413	421	0.6
Address not found	9	7	0.8
Home demolished	1	0	1
Home locked	5	11	0.2
Respondent deceased	1	0	1
Refused	14	20	0.4
Unable to locate household that has moved	19	10	0.1
Incomplete survey	37	31	0.5
Total	500	500	-

Once mapped, I place households into state and municipal electoral wards to test for evidence of selection into the mapped treatment group by electoral ward. Selection by ward would indicate that individuals from certain locations or with certain political representatives are more likely than others to win the lottery. Here, I estimate regressions of the treatment indicator on the state and municipal ward membership indicators and calculate a heteroscedasticity-robust Wald statistic for the hypothesis that the coefficients on all of the indicators (other than stratum randomization dummies) are zero. The p-values for regressions on state and municipal ward membership are 0.35

Table SI.6: Regression of treatment indicator on the covariates

Covariates ¹	Winning the housing lottery
OBC	-0.053 (0.057)
SCST	0.060 (0.071)
<i>Maratha</i> caste member	-0.041 (0.046)
Muslim	0.002 (0.066)
<i>Kutcha</i> ² floor	0.200 (0.118)
<i>Kutcha</i> ² roof	-0.277 (0.124)
From Mumbai	-0.003 (0.047)
From the same ward as the apartment building	0.051 (0.061)
Block dummies?	Yes
F Statistic (df = 91; 742)	1.2046
N	834
R ²	0.120
Adjusted R ²	0.015

¹ Unless otherwise specified, all covariates are dummy variables. ² "*Kutcha*" means "raw" or "impermanent." Variable measured at time of application through recall.

and 0.46, respectively.

I also conduct balance tests *within* each of Mumbai's municipal wards. The indicator for being from the same ward as the one in which the lottery is held is removed here. One ward (A) is dropped due to low sample size. Figure SI.2 presents the distribution of the 24 estimated treatment effects along with the estimated 24 p-values. Consistent with the null hypothesis, the distributions of the estimated treatment effects appear roughly centered at 0, and the p-curves appear to take on a roughly uniform distribution.

Figure SI.2: Distribution of (a) treatment effects and (b) p-values of tests on fixed characteristics across Mumbai's 24 administrative wards.

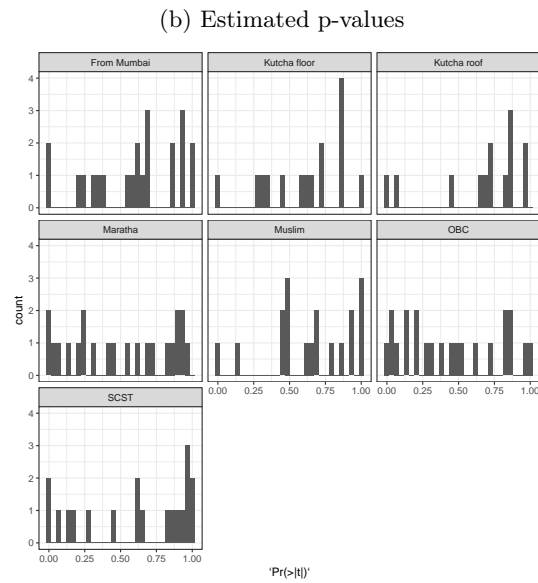
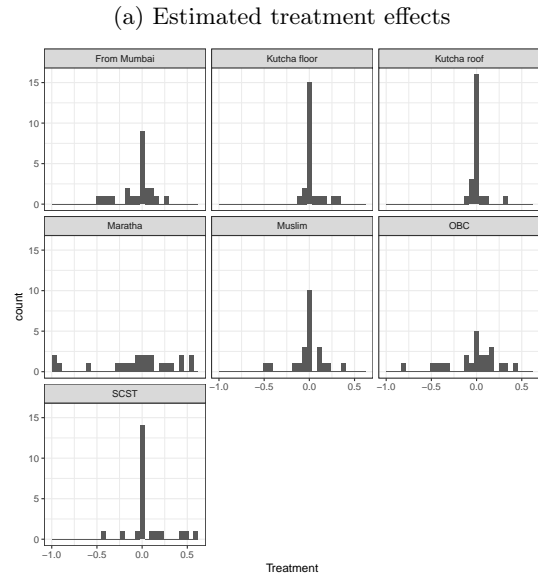


Table SI.7: Treatment effects on age by cohort.

Cohort	Control	Treatment	sd
$Turned_6$	9.454	-0.067	0.227
$Turned_{16}$	19.228	-0.107	0.340
$Turned_{18}$	21.175	-0.242	0.308
$Turned_{21}$	23.638	-0.099	0.218
Older	44.859	0.259	0.505

The “Control” column presents means for winning households. The “Treatment” column presents the difference between winning and non-winning households estimated through an OLS regression of each variable on indicators for winning the lottery. All models include standard errors clustered at the household level and the treatment indicator interacted with mean-centered block dummies. “ $Turned_X$ ” is an indicator for membership in the cohort of individuals that completed X years of age in between the lottery and being surveyed, using $age_{\bar{i}}$, or each individual’s oldest possible age. “Older” is an indicator for being in the cohort of individuals older than 21 at the time of the lottery.

Table SI.8: Rates of completing tertiary and primary education along with employment rates among different cohorts in the sample.

	<i>Dependent variable:</i>			
	>12 Years Education (1)	<4 Years Education (2)	Education (3)	Employed (4)
T	0.028 (0.025)	-0.012 (0.011)	-0.018 (0.012)	0.017 (0.018)
Constant	0.160 (0.089)	0.110 (0.008)	0.046 (0.035)	0.630 (0.066)
Cohort	Older than 22 during lottery	Full Sample	Older than 22 at lottery	Older than 22 at lottery
Observations	2,150	3,170	2,150	2,150
R ²	0.057	0.040	0.053	0.029
Adjusted R ²	0.019	-0.001	0.016	-0.009
Residual Std. Error	0.470 (df = 2067)	0.310 (df = 3037)	0.270 (df = 2067)	0.490 (df = 2067)

F Results using alternative age indicator

As the survey did not collect information on dates of birth or age at the time of the lottery but age at the time of the survey only, this coding was done using the following logic: For applicants to the 2012 and 2014 lotteries, surveys were conducted 5 years and some fraction of a year or 3 years and some fraction of a year after the lotteries, respectively. Suppose an individual was age_s on the date of the survey in 2017, s , and participated in the 2012 lottery. On date s in 2012, she would be exactly $age_s - 5$. If her birthday had occurred between the lottery and the survey, she would have been $age_s - 6$ at the time of the lottery. If her birthday had occurred before the lottery that year, she would be $age_s - 5$ at the time of the lottery. This same logic holds for participants of the 2014 lottery, except the lottery age could be either $age_s - 3$ or $age_s - 4$. In this way, one can code two possible ages age_l for individuals at the time of the lottery using age_s , which we will call $age_l^{\bar{}}$ and $age_l^{\underline{}}$ to correspond to the older and younger possible options. Individuals are further coded to have turned X years old ($Turned_X$) after the lottery if age_s is greater than or equal to X and $age_l^{\bar{}}$ is less than X. Given the two possible values for $age_l^{\bar{}}$, there are also two values for $Turned_X$. For simplicity, tables in the text present results assuming all individuals were $age_l^{\bar{}}$ at the time of the lottery. Results using $age_l^{\underline{}}$ are similar and presented in here.

Table SI.9: Regressions of individual completion of various years of education on the treatment indicator.

	<i>Dependent variable:</i>								
	Years of education	I(>0 years)		I(>10 years)		I(>12 years)		I(=15 years)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
T	0.618 (0.183)	0.008 (0.009)	0.009 (0.009)	0.071 (0.018)	0.058 (0.019)	0.056 (0.019)	0.039 (0.021)	0.041 (0.017)	0.029 (0.017)
$Turned_6$			0.045 (0.019)						
$Turned_{16}$					0.358 (0.036)				
$Turned_{18}$							0.411 (0.044)		
$Turned_{21}$									0.327 (0.048)
$TXTurned_6$			-0.003 (0.020)						
$TXTurned_{16}$					0.068 (0.046)				
$TXTurned_{18}$							0.074 (0.061)		
$TXTurned_{21}$									0.111 (0.066)
Constant	10.230 (0.131)	0.935 (0.006)	0.931 (0.007)	0.505 (0.013)	0.478 (0.013)	0.318 (0.013)	0.291 (0.014)	0.258 (0.012)	0.232 (0.012)
Observations	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170
R ²	0.033	0.047	0.049	0.053	0.098	0.051	0.121	0.058	0.112
Adjusted R ²	0.007	0.005	0.007	0.012	0.010	0.017	0.082	0.018	0.073

All models include standard errors clustered at the household level and the treatment indicator interacted with mean-centered block dummies. “ $Turned_X$ ” is an indicator for whether the individual completed X years of age in between the lottery and being surveyed, using $age_l^{\bar{}}$, or each individual’s oldest possible age. “Older” is an indicator for an individual being older than 21 at the time of the lottery.

Table SI.10: Regressions of individual employment on the treatment indicator.

	<i>Dependent variable:</i>													
	Employed			Employed (full-time)				Employed (part-time)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
T	0.043 (0.014)	0.040 (0.015)	0.051 (0.016)	0.039 (0.016)	0.030 (0.016)	0.069 (0.030)	0.082 (0.020)	0.072 (0.020)	0.066 (0.019)	0.087 (0.035)	-0.025 (0.012)	-0.019 (0.013)	-0.024 (0.013)	-0.013 (0.026)
Turned6 ¹	-0.057 (0.015)	-0.490 (0.014)												
Turned16	-0.027 (0.029)		-0.370 (0.033)				-0.320 (0.038)				0.081 (0.035)			
Turned18	0.092 (0.035)			-0.180 (0.050)				-0.140 (0.050)				0.070 (0.034)		
Turned21	0.620 (0.035)				0.180 (0.041)				0.200 (0.040)				-0.019 (0.024)	
Older ²	0.530 (0.016)					0.380 (0.025)				0.300 (0.026)				-0.091 (0.021)
TXTurned6		-0.024 (0.021)												
TXTurned16			0.003 (0.048)				0.006 (0.054)				0.021 (0.047)			
TXTurned18				0.100 (0.069)				0.086 (0.070)				-0.050 (0.044)		
TXTurned21					0.140 (0.060)				0.100 (0.057)				0.033 (0.037)	
TXOlder						-0.030 (0.036)				-0.010 (0.038)				-0.013 (0.027)
Constant	0.036 (0.015)	0.490 (0.011)	0.480 (0.012)	0.460 (0.011)	0.440 (0.011)	0.190 (0.021)	0.480 (0.014)	0.470 (0.014)	0.440 (0.014)	0.250 (0.025)	0.081 (0.009)	0.082 (0.009)	0.088 (0.009)	0.150 (0.019)
Observations	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170	3,170
R ²	0.250	0.093	0.074	0.040	0.054	0.150	0.084	0.057	0.073	0.130	0.068	0.062	0.059	0.087
Adjusted R ²	0.210	0.053	0.033	-0.003	0.012	0.110	0.044	0.016	0.033	0.089	0.026	0.020	0.018	0.047

All models include standard errors clustered at the household level and the treatment indicator interacted with mean-centered block dummies. ¹ "Turned_{*x*}" is an indicator for whether the individual completed *X* years of age in between the lottery and being surveyed, using *age_{*t*}* or each individual's oldest possible age. ² "Older" is an indicator for an individual being older than 21 at the time of the lottery.

G Covariate adjusted results

Table SI.11: Covariate adjusted treatment effects.

Variable ¹	Control ²	Treatment effect ³	s.e. ⁴	Adjusted p ⁵
A: Housing quality				
Makeshift floor	1.000	0.012	0.013	0.360
Makeshift roof	0.790	0.150	0.034	0.000
Private tap	0.670	0.120	0.039	0.001
Private toilet	0.510	0.240	0.042	0.000
B: Asset ownership				
Stand-alone closet	0.820	-0.082	0.048	0.340
Dining table	0.160	-0.018	0.039	0.840
Working TV	0.870	0.036	0.026	0.440
Working Fridge	0.830	0.051	0.031	0.340
Gas for cooking	0.810	0.035	0.029	0.540
Electricity for cooking	0.820	0.010	0.033	0.880
Computer	0.290	0.022	0.049	0.840
Internet	0.500	-0.110	0.050	0.200
Sewing Machine	0.150	0.020	0.036	0.840
Mobile phone	0.560	-0.041	0.047	0.670
Smart phone	0.730	0.040	0.042	0.670
Car	0.013	-0.002	0.025	0.950
Two-wheeler	0.290	0.009	0.048	0.920
Bicycle	0.096	-0.076	0.018	0
C: HH-level education and employment				
Public school (sons)	0.110	-0.084	0.020	0.000
Public schools (daughters)	0.110	-0.084	0.018	0.000
English medium school (sons)	0.360	0.029	0.046	0.650
English medium school (daughters)	0.420	0.012	0.045	0.790
After-school tuition (sons)	0.320	-0.027	0.039	0.650
After-school tuition (daughters)	0.370	-0.022	0.040	0.650
Main earner salaried	0.750	0.080	0.039	0.110
Main earner govt. job	0.180	0.039	0.039	0.560
Main earner formal sector job	0.130	0.056	0.034	0.230
D: Individual-level education and employment⁶				
Years of education	9.800	0.600	0.240	0.022
Working	0.420	0.047	0.026	0.092
Working full-time	0.470	0.074	0.026	0.016
Working part-time	0.086	-0.019	0.014	0.160
E: Ward level neighborhood characteristics (control group SDs)⁷				
HH size	22.000	0.350	0.100	0.002
Sex ratio	22.000	-0.150	0.100	0.220
%Scheduled caste	2.200	0.013	0.086	0.880
%Scheduled tribe	3.500	0.042	0.095	0.750
%Literate	30.000	-0.340	0.100	0.002
%Working	21.000	-0.360	0.100	0.002
%Main workers	19.000	-0.330	0.100	0.002
%Marginal workers	6.400	-0.097	0.094	0.400
F: Postal code level school characteristics (control group SDs)⁸				
%Senior secondary schools	1.600	-0.200	0.092	0.075
%public schools	2.300	0.120	0.091	0.350
Mean # classrooms	3.800	-0.071	0.089	0.490
Mean # permanent classrooms	3.800	-0.071	0.089	0.490
% schools w/ office for headmaster	36.000	-0.380	0.100	0.000
% schools with library	55.000	-0.110	0.088	0.350
Mean # teachers w/ prof qualifications	3.300	0.004	0.092	0.960
%English medium	3.100	-0.220	0.096	0.075
G: Sources for loans				
Savings	0.720	0.042	0.049	0.650
Family, friends and neighbors	0.590	0.023	0.051	0.670
Informal lender	0.007	0.005	0.012	0.670
Commercial bank	0.074	0.056	0.029	0.250
Don't know	0.059	-0.017	0.016	0.650
H: Future-looking attitudes				
Happy w/ financial situation	0.480	0.190	0.046	0.000
Children will have better lives than them	0.560	0.120	0.048	0.024
Would never leave Mumbai	0.630	0.078	0.038	0.057
Unsure about leaving Mumbai	0.280	-0.062	0.035	0.079
I: Individualistic attitudes				
Trusts others	0.680	-0.047	0.045	0.290
Thinks effort leads to greater success	0.760	0.074	0.035	0.062
Claims to make own decisions	0.210	0.074	0.036	0.062
J: Healthcare				
N illnesses in the last month	0.740	-0.012	0.250	0.960
Homeopathic doctor	0.097	0.055	0.024	0.052
Medically certified doctor	0.950	0.019	0.020	0.440
Family member's advice	0.013	0.034	0.014	0.052

¹ Variable definitions for survey-based outcomes available in Table SI.1.

² Estimate for α in Equation 1. ³ Estimate for β in Equation 1.

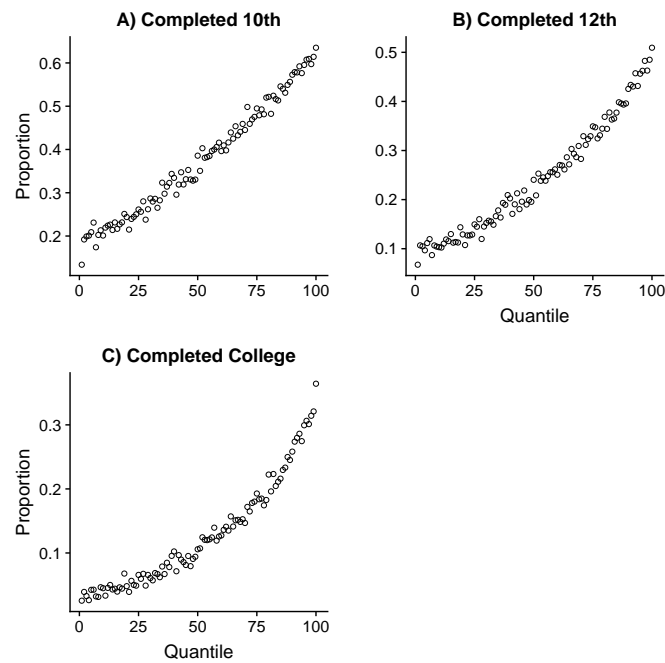
⁴ HC2 errors, with errors clustered at the household level for individual results.

⁵ Benjamini-Hochberg adjusted p-values.

⁶ N=3,170 ⁷ Data from 2011 Indian Census. Measured for where households live at the time of survey. ⁸ Postal-code level data for 2017 from the Ministry of Human Resource Development, Government of India. Measured for where households live at the time of survey.

H Consumption and education in India

Figure SI.3: Mean rates of completing various years of education at different quantiles of consumption in India.



Data source: Indian National Sample Survey, 68th round (2011-2012). Urban households only. N=176,236, divided into 100 bins.

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