

SUPPLEMENTARY MATERIALS

Table S1: Economic and Educational Contexts for Nine Countries

Metric	Southeastern Europe			Latin America		Sub-Saharan Africa		Southeast Asia	
	Armenia	Georgia	Macedonia	Bolivia	Colombia	Ghana	Kenya	Laos	Vietnam
Panel 1: Economic (for population)									
Population, in millions	3.0	4.5	2.1	10.6	47.8	26.8	44.9	6.7	90.7
GDP growth rate	4.7%	4.8%	2.0%	5.8%	4.5%	6.9%	5.2%	8.0%	5.5%
Per-capita income (US \$)	\$3,620	\$3,670	\$5,150	\$3,236	\$7,904	\$1,443	\$1,358	\$1,660	\$2,052
Poverty rate	2.4%	11.5%	< 2.0%	7.7%	6.1%	25.2%	33.6%	30.1%	3.2%
Gini coefficient	31.5	40.0	44.1	48.1	53.5	42.8	47.7	37.9	38.7
Panel 2: Education (from survey)									
None or Less Than Primary	0.2%	0.1%	0.6%	14.6%	8.3%	10.0%	15.2%	39.2%	4.2%
Primary	0.6%	0.9%	1.7%	5.2%	27.5%	12.2%	24.6%	27.0%	14.4%
Lower Secondary	6.5%	4.5%	15.8%	13.0%	4.7%	36.9%	13.3%	14.0%	21.7%
Upper Secondary	37.0%	28.3%	55.0%	19.6%	36.7%	26.5%	30.0%	8.1%	32.9%
Post-Secondary, Non-Tertiary	-----	-----	0.5%	18.3%	-----	-----	8.6%	5.9%	0.7%
Short-Cycle Tertiary	19.8%	18.6%	4.3%	11.8%	14.9%	8.3%	1.9%	2.8%	6.0%
Bachelor's Degree	31.6%	13.1%	19.1%	8.6%	7.6%	5.1%	5.3%	2.7%	17.9%
Master's Degree	4.2%	33.7%	2.9%	3.9%	0.3%	0.9%	0.5%	0.3%	1.7%
Doctor's Degree	0.1%	0.8%	0.1%	0.1%	0.0%	-----	0.1%	0.0%	0.5%

Notes: Population figures obtained from WDI 2016. Economic indicators are obtained from the World Development Indicators, 2015 and 2016 (<http://data.worldbank.org/data-catalog/world-development-indicators>). Growth rate covers the 2012-14 period. Per-capita income in 2014 US\$. Poverty refers to percentage of the population living below \$1.90US/day. Educational data are computed from the survey data based on population ages 18 to 65 without missing data on the variables used in the study. For Georgia, educational figures for bachelor's and master's degree holders in this year are likely merged.

Table S2: Data Balancing Checks Using Propensity Score Weighting

<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Armenia (N=1,342)	Female	0.002	0.951	0.002	0.952
	Attended Preschool	0.110	0.000	-0.004	0.901
	Middle Family SES	-0.068	0.012	-0.003	0.927
	Upper Family SES	0.101	0.000	-0.001	0.986
	Economic Shocks	-0.070	0.067	-0.018	0.722
	Parent Ed: Primary	-0.057	0.000	0.001	0.953
	Parent Ed: Secondary	0.355	0.000	-0.007	0.829
	Parent Highly Engaged	0.084	0.000	0.010	0.735
	Birth Order	-0.285	0.000	0.029	0.769
	Number Siblings	-0.486	0.000	0.048	0.666
<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Georgia (N=1,498)	Female	0.087	0.001	-0.003	0.944
	Attended Preschool	0.133	0.000	-0.022	0.533
	Middle Family SES	-0.138	0.000	-0.009	0.812
	Upper Family SES	0.192	0.000	0.005	0.881
	Economic Shocks	-0.109	0.001	-0.001	0.976
	Parent Ed: Primary	-0.028	0.000	-0.003	0.728
	Parent Ed: Secondary	0.322	0.000	-0.010	0.777
	Parent Highly Engaged	0.133	0.000	-0.008	0.817
	Birth Order	-0.263	0.000	0.011	0.888
	Number Siblings	-0.397	0.000	0.068	0.633
<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Macedonia (N=2,138)	Female	0.130	0.000	-0.051	0.206
	Attended Preschool	0.177	0.000	-0.053	0.209
	Middle Family SES	-0.056	0.021	0.033	0.398
	Upper Family SES	0.129	0.000	-0.030	0.328
	Economic Shocks	-0.057	0.007	-0.030	0.224
	Parent Ed: Primary	-0.209	0.000	0.075	0.136
	Parent Ed: Secondary	0.318	0.000	-0.015	0.533
	Parent Highly Engaged	0.164	0.000	-0.049	0.355
	Birth Order	-0.411	0.000	0.220	0.149
	Number Siblings	-0.619	0.000	0.471	0.214

(Table continues)

Appendix Table B: Data Balancing Checks Using Propensity Score Weighting

<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Bolivia (N=1,249)	Female	-0.089	0.007	-0.009	0.908
	Attended Preschool	0.257	0.000	-0.014	0.848
	Middle Family SES	0.207	0.000	0.002	0.982
	Upper Family SES	0.067	0.000	-0.003	0.892
	Economic Shocks	-0.887	0.000	0.017	0.960
	Parent Ed: Primary	-0.029	0.144	-0.010	0.794
	Parent Ed: Secondary	0.447	0.000	-0.005	0.886
	Parent Highly Engaged	0.093	0.001	-0.052	0.564
	Birth Order	-0.310	0.028	-0.180	0.563
	Number Siblings	-0.950	0.000	-0.115	0.644

<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Colombia (N=1,582)	Female	-0.019	0.656	0.050	0.453
	Attended Preschool	0.212	0.000	-0.041	0.535
	Middle Family SES	0.056	0.181	0.014	0.837
	Upper Family SES	0.133	0.000	0.011	0.760
	Economic Shocks	-0.404	0.000	-0.017	0.946
	Parent Ed: Primary	-0.174	0.000	-0.052	0.450
	Parent Ed: Secondary	0.228	0.000	0.000	0.989
	Parent Highly Engaged	0.074	0.030	0.002	0.969
	Birth Order	-0.151	0.436	0.389	0.228
	Number Siblings	-0.727	0.003	0.148	0.693

<u>Country</u>	<u>Variable</u>	Before Balancing		After Balancing	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Ghana (N=1,031)	Female	-0.139	0.011	-0.078	0.375
	Attended Preschool	0.075	0.102	-0.072	0.423
	Middle Family SES	0.146	0.007	-0.069	0.444
	Upper Family SES	-0.015	0.748	-0.009	0.897
	Economic Shocks	-0.326	0.005	0.187	0.358
	Parent Ed: Primary	-0.027	0.186	-0.022	0.336
	Parent Ed: Secondary	0.213	0.000	-0.031	0.442
	Parent Highly Engaged	0.123	0.018	-0.016	0.850
	Birth Order	0.031	0.916	0.048	0.920
	Number Siblings	-0.233	0.571	-0.150	0.798

(Table continues)

Appendix Table B: Data Balancing Checks Using Propensity Score Weighting

<u>Country</u>	<u>Variable</u>	<u>Before Balancing</u>		<u>After Balancing</u>	
		<u>Beta</u>	<u>P-Value</u>	<u>Beta</u>	<u>P-Value</u>
Kenya (N=2,474)	Female	-0.132	0.000	-0.083	0.148
	Attended Preschool	0.147	0.000	-0.006	0.926
	Middle Family SES	-0.074	0.023	0.013	0.816
	Upper Family SES	0.178	0.000	-0.040	0.044
	Economic Shocks	-0.512	0.000	-0.032	0.827
	Parent Ed: Primary	-0.146	0.000	0.016	0.784
	Parent Ed: Secondary	0.415	0.000	-0.006	0.819
	Parent Highly Engaged	0.223	0.000	-0.026	0.664
	Birth Order	-0.335	0.026	0.079	0.744
	Number Siblings	-0.350	0.046	0.304	0.344
Laos (N=1,487)	Female	-0.181	0.000	-0.061	0.616
	Attended Preschool	0.223	0.000	0.013	0.730
	Middle Family SES	0.110	0.025	0.098	0.365
	Upper Family SES	0.051	0.033	0.000	0.995
	Economic Shocks	-0.572	0.000	-0.143	0.541
	Parent Ed: Primary	0.003	0.934	0.129	0.320
	Parent Ed: Secondary	0.183	0.000	-0.003	0.824
	Parent Highly Engaged	0.009	0.799	-0.086	0.494
	Birth Order	-0.033	0.881	0.030	0.906
	Number Siblings	-0.613	0.010	0.386	0.561
Vietnam (N=2,046)	Female	-0.047	0.060	0.011	0.763
	Attended Preschool	0.164	0.000	-0.005	0.889
	Middle Family SES	0.084	0.001	-0.017	0.668
	Upper Family SES	0.045	0.001	0.000	0.992
	Economic Shocks	-0.308	0.000	0.073	0.598
	Parent Ed: Primary	-0.172	0.000	0.041	0.286
	Parent Ed: Secondary	0.228	0.000	-0.001	0.928
	Parent Highly Engaged	-0.001	0.975	0.015	0.438
	Birth Order	-0.527	0.000	0.311	0.297
	Number Siblings	-1.017	0.000	0.341	0.261

Notes: Coefficients were obtained by regressing each explanatory variable against the dichotomous variable for higher education degree attainment. Balancing achieved by weighting data using the weights for the average

treatment effects with propensity score weighting. All results were also weighted to account for the stratified sampling design in STEP.