

## Supplementary material:

### When Does Education Increase Political Participation? Evidence from Senegal

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## A.1 Index description

The **economic index** in Panel A of Table 2 is made up of *employed*, *assets index*, and *basic necessities index*.

The **assets index** in Panel A of Table 2 is made up of *owns radio*, *owns TV* and *owns vehicle*.

The **basic necessities index** in Panel A of Table 2 is made up of *no food*, *no water*, *no healthcare*, *no fuel* and *no income*.

The **interest index** in Panel B of Table 2 is made up of *interest in pub affairs*, *discuss politics*, and *news index*.

The **news index** in Panel B of Table 2 captures whether an individual gets political news via *newspaper*, *TV*, and *radio*.

The **participation index** in Panel A of Table 3 is made up of *participate index* and *contact index*.

The **participate index** in Panel A of Table 3 is made up of *voted* in the last election and *raise issue*.

The **contact index** in Panel A of Table 3 is made up of *contact officials*, *contact local government councilor*, and *contact MP*.

The **democratic quality index** in Panel A of Table 4 is made up of *careful speaking about politics*, *free to speak their mind*, *free to join political organization*, and *free to vote their choice*. It also includes opinions on *how democratic is Senegal* and their *satisfaction with Senegal's democracy*.

The **democratic support index** in Panel B of Table 4 is made up of the *checks on president index* and *democratic institutions index*.

The **checks on president index** in Panel B of Table 4 is made up of *media accountability*, *against presidential discretion*, and *opposition parties criticize*.

The **democratic institutions index** in Panel B of Table 4 is made up of *reject one man rule*, *against one party rule*, support for *term limits* and *election choice*, *against government banning organizations*, and believes in freedom of the press (*newspapers free*).

The **corruption index** in Table 5 is made up of four variables measuring corruption in the *office of the presidency*, *government officials*, *members of parliament*, and *local government councilors*.

The **performance index** in Table 5 is made up of *government performance* variables, *government handles economy* variables, and *government handles public goods* variables.

## A.2 Variable description

**Educational attainment:** Education is measured using a three-point scale, where 0 = none or informal education; 1 = incomplete primary school; 2 = complete primary school.

**Birth year:** Respondent's year of birth, as determined by year of survey minus respondent age. The post-reform variable, as well as cohort fixed effects, are created using respondent birth year.

**Reform intensity:** Reform intensity defined as the percentage of people, aged 17-26, who did not complete middle school by 2002. We compute this variable at the CR level using the 2002 census data.

**Basic necessities:** The basic necessities variable is an index of five variables – whether the respondent had no food, fuel, healthcare, water, and income in the last year. For each basic necessity in this list, the variable is coded 1 if the respondent lacked the necessity “several times,”

“many times,” or “always.”

**Employed:** Coded 1 if employment status is “part-time” or “full-time”

**Assets:** The assets variable is an index of three variables – whether the respondent owns a vehicle, TV, and radio.

**Presidential discretion:** Part of the *checks on president index*, and records the level of agreement to the question “The President must always obey the laws and the courts, even if he thinks they are wrong.” Three point scale, where 1 = agree, and 2 = strongly agree.

**Checks and balances:** Part of the *checks on president index*, and records whether the respondent believes that the president should not be able to make laws without National Assembly consent. Three point scale, where 1 = agree, and 2 = strongly agree.

**Term limits:** Part of the *checks on president index*, and records whether the constitution should limit presidential term limits to two terms. Three point scale, where 1 = agree, and 2 = strongly agree.

**Opposition criticizes:** Part of the *checks on president index*, and records the level of agreement to the question “After losing an election, opposition parties should monitor and criticize the government in order to hold it accountable.” Three point scale, where 1 = agree, and 2 = strongly agree.

**Reject one man rule:** Part of the *checks on president index*. Three point scale, where 1 = disapproves of one man rule, and 2 = strongly disapproves.

**Media accountability:** Part of the *democratic institutions index*, and records the level of agreement to the question “The news media should constantly investigate and report on government mistakes and corruption.” Three point scale, where 1 = agree, and 2 = strongly agree.

**Reject one party rule:** Part of the *democratic institutions index*. Three point scale, where 1 = disapproves of one party rule, and 2 = strongly disapproves.

**Reject military rule:** Part of the *democratic institutions index*. Three point scale, where 1 = disapproves of one party rule, and 2 = strongly disapproves.

**Leaders through election:** Part of the *democratic institutions index*, and records the level of agreement to the question “We should choose our leaders in this country through regular, open and honest elections.” Three point scale, where 1 = agree, and 2 = strongly agree.

**Free media:** Part of the *democratic institutions index*, and records the level of agreement to the question “The media should have the right to publish any views and ideas without government control.” Three point scale, where 1 = agree, and 2 = strongly agree.

**Against government ban of organizations:** Part of the *democratic institutions index*, and records the level of agreement to the question “We should be able to join any organization, whether or not the government approves of it.” Three point scale, where 1 = agree and 2 = strongly agree.

**Supports democracy:** Coded 1 if respondent supports democracy.

**Contact officials index:** The contact officials index is made up of three variables—whether the respondent contact officials, local government councilors, and MPs. These variables are coded on a three point scale, where 1 = contacts official, and 2 = contacts official often.

**Voted:** Coded 1 if respondent voted in the past election.

**Raised issues:** Ordinal scale from 0 to 4, which measures whether the respondent got together with others to raise an issue, where 0 = never raises issues, and 4 = raises issues often.

**News index:** The news index includes three variables that records whether the respondent gets information from the radio, TV, and newspaper. Each variable is on an ordinal scale from 0 to 4,

where 0 = never gets information from the medium, and 4 = gets information from the medium often.

**Discuss politics:** On a three point scale, where 1 = discusses politics with others, and 2 = discusses politics with others often.

**Interest in public affairs:** On a three point scale, where 1 = interested in public affairs, and 2 = very interested in public affairs.

**Careful to say:** Part of the *democratic quality index*. Coded 1 if respondents feel that they must be careful about what they say regarding politics.

**Trust courts:** Part of the *democratic quality index*. Coded 1 if respondents agree that they trust the courts of law.

**Trust EC:** Part of the *democratic quality index*. Coded 1 if respondents agree that they trust the Election Commission.

**Free to speak mind:** Part of the *democratic quality index*. Coded 1 if respondents feel that they are free to speak their mind.

**Free to join political organization:** Part of the *democratic quality index*. Coded 1 if respondents feel that they are free to join any political organization.

**Vote for choice freely:** Part of the *democratic quality index*. Coded 1 if respondents feel that they can vote for their chosen candidate freely.

**How democratic is Senegal:** Part of the *democratic quality index*. Coded 1 if respondents feel that Senegal is “A democracy, but with minor problems” or “A full democracy.”

**Satisfaction with Senegal’s democracy:** Part of the *democratic quality index*. Coded 1 if respondents feel “fairly satisfied” or “very satisfied” with Senegal’s democracy.

**Corruption:** All four variables measuring corruption in the office of the presidency, government officials, MPs, and local government councilors are coded 0 = none of them, 1 = some of them, 2 = most of them, 3 = all of them.

**Government performance:** Part of the *performance index*. These variables measuring whether the respondent approves the president’s performance, MP performance, and the local government councilor’s performance. Responses range from 0 = strongly disapprove to 3 = strongly approve.

**Government handles economy:** Part of the *performance index*. Variables measuring how well the government handles the economy, employment, inequality, and inflation. Variables are coded from 0 to 3, where 3 indicates strongest approval.

**Government handles public goods:** Part of the *performance index*. Variables measure how well the government handles health, education, and infrastructure. Variables are coded from 0 to 3, where 3 indicates strongest approval.

### A.3 Summary statistics

Table A1: Treatment and IV Summary Statistics

	count	mean	sd	min	max
Schooling	3348	1.055	0.920	0	2
Post $\times$ Intensity	3212	0.318	1.242	-.410086	3.381767
Post	3360	0.238	0.396	0	1
Intensity	3212	0.812	0.170	.2681018	1
Treated population (HE = 1)	1227	0.121	0.276	0	1
Treated population (HE = 0)	2133	0.306	0.436	0	1

Table A2: Economic Index Summary Statistics

	count	mean	sd	min	max
Economic index	3360	0.379	0.244	0	1
Employed	3343	0.278	0.448	0	1
Assets	2841	0.376	0.297	0	1
Basic necessities	3360	0.483	0.327	0	1
No food	3353	0.632	0.482	0	1
No water	3356	0.580	0.494	0	1
No healthcare	3350	0.490	0.500	0	1
No fuel	3344	0.538	0.499	0	1
No income	3335	0.171	0.377	0	1
Owens radio	2841	0.654	0.476	0	1
Owens TV	2841	0.397	0.489	0	1
Owens vehicle	2835	0.075	0.264	0	1

Table A3: Interest Index Summary Statistics

	count	mean	sd	min	max
Interest index	3360	1.567	0.606	0	3.5
Interest in public affairs	3334	1.055	0.836	0	2
Discuss politics	3342	1.113	0.730	0	2
News index	3359	2.526	1.030	-.5	6.5
News from radio	3353	3.331	1.123	0	4
News from TV	3351	3.126	1.323	-1	9
News from newspaper	3312	1.093	1.535	0	4

Table A4: Participation Index Summary Statistics

	count	mean	sd	min	max
Participation index	3360	0.718	0.501	0	2.75
Participate index	3360	1.241	0.784	0	4
Contact index	3348	0.193	0.463	0	3
Voted in last election	3337	0.532	0.499	0	1
Raise issue	3330	1.957	1.384	0	4
Contact officials	3346	0.126	0.492	0	3
Contact LG councilor	3344	0.328	0.799	0	3
Contact MP	3345	0.120	0.481	0	3

Table A5: Democratic Institutional Quality Summary Statistics

	count	mean	sd	min	max
Democratic quality index	3351	0.904	0.572	-3	3
Democratic support index	3357	1.184	0.368	0	2
Checks on president	3341	1.175	0.462	0	2
Democratic institutions index	3357	1.195	0.391	0	2
Trust courts	3165	2.104	1.054	0	3
Trust election commission	2691	0.786	0.410	0	1
Careful to say	3262	2.196	0.985	0	3
Free to speak mind	2248	1.585	0.704	0	2
Free to join political organization	2248	1.795	0.520	0	2
Free vote choice	2248	1.841	0.464	0	2
How democratic is Senegal	3067	0.891	0.772	0	2
Satisfied with Senegal's democracy	2992	0.822	0.745	0	2
Reject one man rule	3245	1.549	0.660	0	2
Term limits	2701	1.346	0.809	0	2
Against presidential discretion	2732	1.091	0.777	0	2
Opposition criticizes	2224	0.429	0.738	0	2
Checks and balances	3265	1.262	0.793	0	2
Media accountability	2201	1.091	0.875	0	2
Against one party rule	3285	1.472	0.716	0	2
Reject military rule	3264	1.407	0.786	0	2
Free choice of leaders through elections	3317	1.483	0.690	0	2
Freedom of media	2791	0.744	0.843	0	2
Against government ban of organizations	2791	1.339	0.711	0	2
Supports democracy	2764	0.796	0.403	0	1

Table A6: Controls and Balance Test Summary Statistics

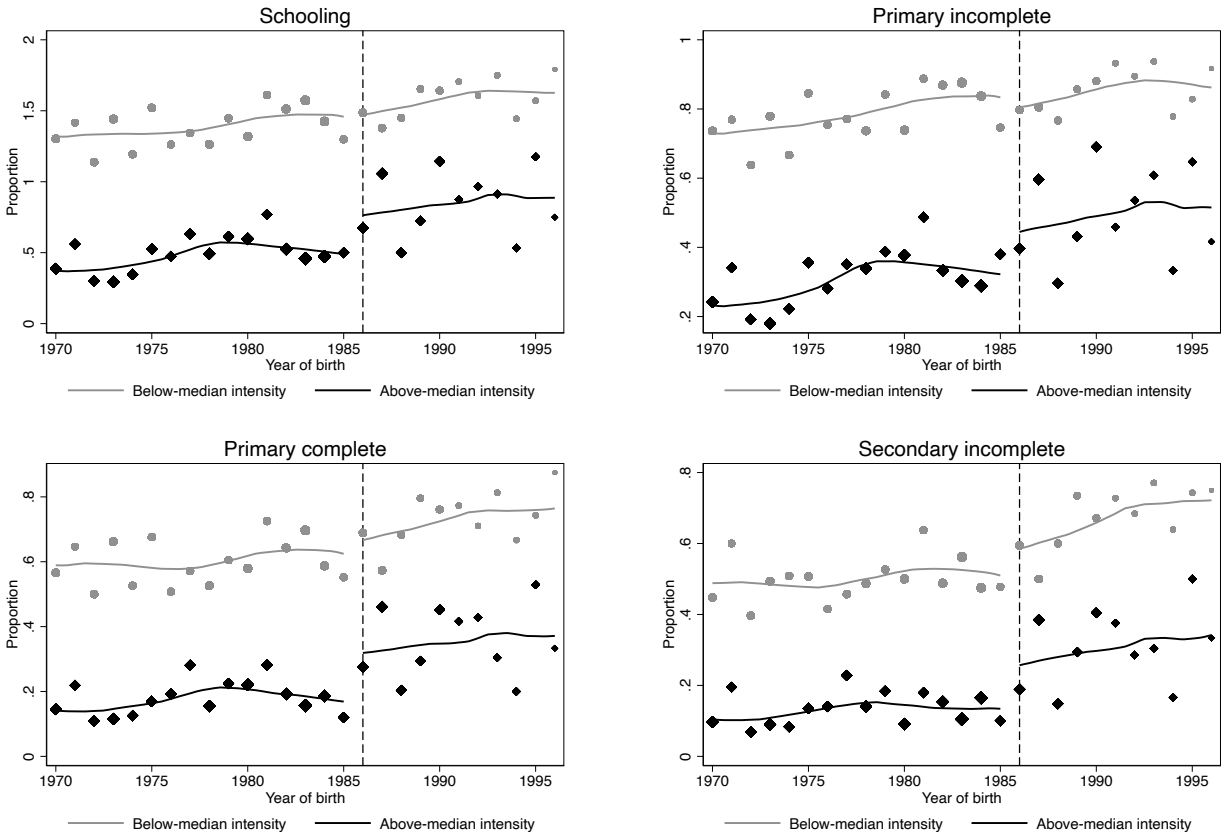
	count	mean	sd	min	max
Corruption index	2790	1.204	0.727	0	3
Government performance index	3354	1.276	0.562	0	3
Very corrupt president office	2581	1.142	0.859	0	3
Very corrupt government officials	2607	1.275	0.798	0	3
Very corrupt MPs	2528	1.224	0.820	0	3
Very corrupt LG councilors	2131	1.250	0.861	0	3
Government handles economy	3217	1.243	0.857	0	3
Government handles employment	3262	0.975	0.833	0	3
Government handles inflation	3267	0.936	0.827	0	3
Government handles inequality	3175	0.903	0.795	0	3
Government handles health provision	3289	1.393	0.851	0	3
Government handles education provision	3263	1.334	0.871	0	3
Government handles water provision	3266	1.346	0.871	0	3
Local government handles roads	2670	1.016	0.923	0	3
Local government handles community cleaning	1867	1.181	0.954	0	3
Local government handles markets	2014	1.039	0.914	0	3
Local government handles health in restaurants	1120	1.062	0.889	0	3
Local government handles license fees	284	1.514	1.035	0	3

Table A7: Controls and Balance Test Summary Statistics

	count	mean	sd	min	max
Wolof	3325	0.477	0.500	0	1
Toucouleur/Peul	3325	0.209	0.406	0	1
Serer	3325	0.115	0.319	0	1
Bambara	3325	0.070	0.255	0	1
Soninke	3325	0.012	0.109	0	1
Diola	3325	0.048	0.213	0	1
Other ethnicities	3325	0.026	0.158	0	1
Male	3360	0.437	0.496	0	1
Rural	3360	0.508	0.500	0	1
Age of respondent	3360	27.749	6.758	18	44
Christian	3346	0.044	0.206	0	1
Muslim	3346	0.951	0.215	0	1
Wolof (language)	3360	0.613	0.487	0	1
Toucouleur/Peul (language)	3360	0.177	0.382	0	1
Serer (language)	3360	0.063	0.243	0	1
Mandinka (language)	3360	0.050	0.218	0	1

## A.4 Parallel trends

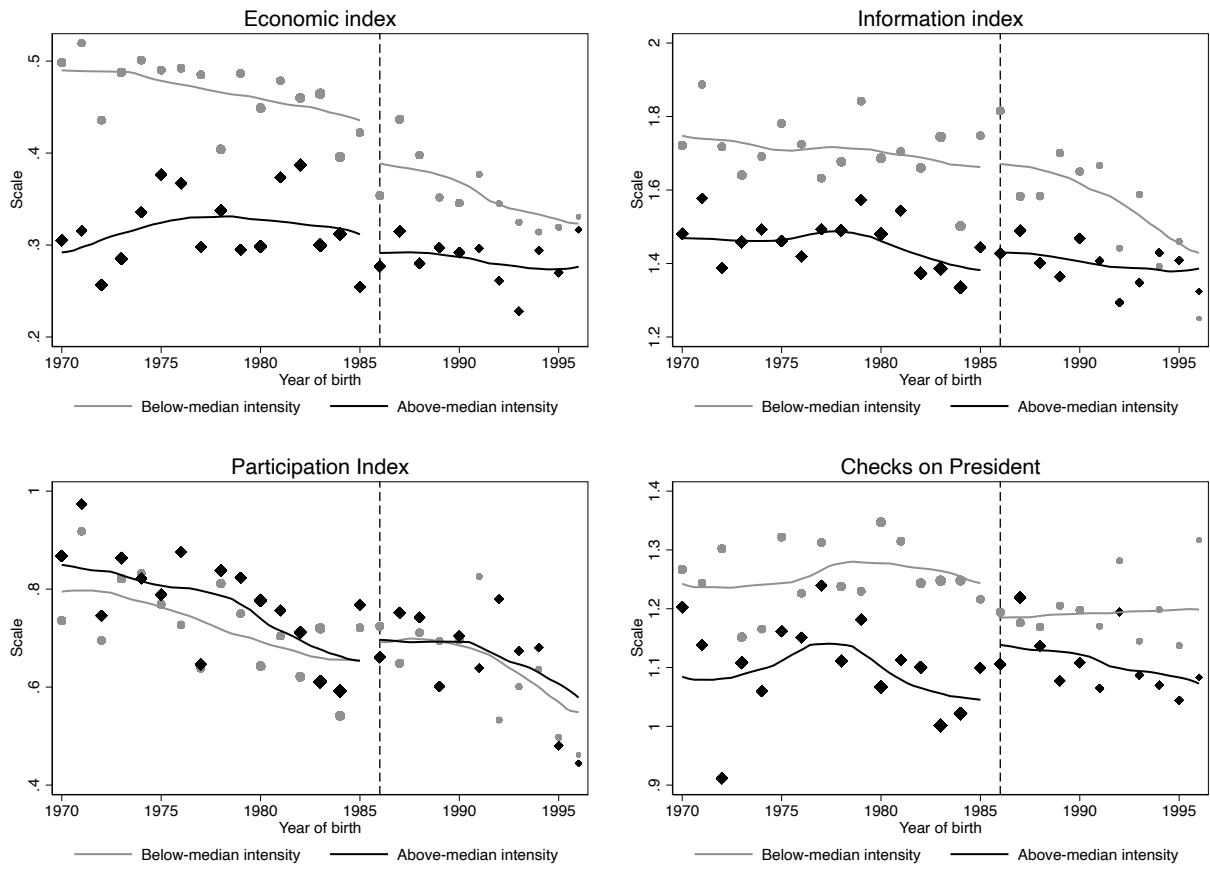
Figure A1: Parallel trends on schooling prior to the reform



*Note:* Parallel trends for each educational level. The first plot, School index, is operationalized as a 0-2 variable where 0=no schooling, 1=incomplete primary, and 2=complete primary. The three other plots are coded as 0 if the individual did not achieve that level of schooling, and 1 if they have achieved that level of schooling or above. The dotted line denotes the birth year after which individuals are affected by the education expansion program.



Figure A2: Parallel trends for main outcomes



*Note:* Parallel trends for main outcomes.

## A.5 Balance on personal attributes

Table A8: Effect of Education Access on Personal Attributes

	(1)	(2)	(3)	(4)
<b>Panel A:</b>	Respondent age	Christian	Muslim	Other religions
Post × Intensity	-0.000*** (0.000)	0.019 (0.016)	-0.015 (0.017)	-0.004 (0.005)
Observations	3212	3198	3198	3198
DV Mean	38.180	0.045	0.951	0.004
<b>Panel B:</b>	Wolof (lang)	Touc/Peul (lang)	Serer (lang)	Mandinka (lang)
Post × Intensity	0.033 (0.034)	-0.026 (0.024)	-0.012 (0.026)	-0.003 (0.018)
Observations	3212	3212	3212	3212
DV Mean	0.617	0.172	0.069	0.042

*Notes:* \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Differences in the number of observations for panels A and B depend on missingness in the Afrobarometer surveys.

**Panel A:** Balance on age and religions. The "other" category includes individuals who responded "no religion."

**Panel B:** Balance on the four largest language groups identified in the Afrobarometer surveys.

## A.6 Treatment effects on support for the ruling party

Table A9: PDS support

	Close to PDS
Post × Intensity	-0.084*** (0.029)
Observations	3137
DV Mean	0.272

*Notes:* \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity.

## A.7 Effects of reform on educational attainment

Table A10: Effects of reform on educational attainment

	(1)	(2)	(3)	(4)
<b>A: Main Effect</b>	Schooling	Primary incomplete	Primary complete	Secondary incomplete
Post $\times$ Intensity	0.209*** (0.062)	0.140*** (0.033)	0.069* (0.035)	0.025 (0.035)
Observations	3166	3166	3166	3166
First-stage $F$ statistic	11.994	19.058	4.052	.617
<b>B: Democracy Threatened</b>	Schooling	Primary incomplete	Primary complete	Secondary incomplete
Post $\times$ Intensity	0.166** (0.080)	0.140*** (0.042)	0.027 (0.044)	-0.019 (0.044)
Post $\times$ Intensity $\times$ HE	0.056 (0.178)	0.010 (0.075)	0.046 (0.135)	0.102 (0.126)
Observations	3166	3166	3166	3166
First-stage $F$ statistic	2.629	2.926	.119	.153

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Program exposure is defined as  $post \times intensity$ . Democracy threatened is defined as “1” if the survey years are 2005 and 2008, and “0” otherwise. *Schooling* is on a scale of 0-2 and is comprised of *incomplete primary* and *complete primary*. Notably, we find no heterogeneous effect of our instrumental variable on *Schooling*. This provides assurance that the reform had no differential effect on education for individuals surveyed during the period of democracy threatened.

## A.8 Expanding the participation index

Table A11: Expanding the participation index

	Participation			Dem. Threatened		
	(1) Participate	(2) Vote	(3) Raise issue	(4) Participate	(5) Vote	(6) Raise issue
Post × Intensity	-0.043 (0.063)	0.002 (0.039)	-0.084 (0.115)	-0.058 (0.073)	-0.005 (0.048)	-0.117 (0.138)
Post × Intensity × HE				0.285** (0.140)	0.185 (0.117)	0.387 (0.255)
Observations	3177	3154	3150	3177	3154	3150
DV Mean	1.297	0.582	2.022	1.241	0.530	1.960

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. *Participate index* is an made up of *voted* in the last election, *raise issue*.

## A.9 Individual economic outcomes when democracy is threatened

Table A12: Individual economic outcomes when democracy is threatened

	(1) Economic index	(2) Employed	(3) Assets index	(4) Basic necessities index
Post × Intensity	0.095*** (0.026)	0.204*** (0.047)	0.098*** (0.036)	-0.014 (0.026)
Post × Intensity × HE	0.002 (0.039)	-0.093 (0.077)	0.113** (0.055)	-0.008 (0.058)
Observations	3177	3160	2676	3177
DV Mean	0.375	0.274	0.372	0.478

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. *Economic index* is made up of *employed*, *assets index*, and *basic necessities index*. We create the *assets index* using *owns radio*, *owns TV* and *owns vehicle*, and the *basic necessities index* using *no food*, *no water*, *no healthcare*, *no fuel* and *no income*.

## A.10 Endogenous estimates (OLS)

Table A13: Main Effects Robustness Checks

	(1)	(2)	(3)	(4)
<b>A: Economic</b>	Economic index	Employed	Assets index	Basic necessities index
Schooling	0.047*** (0.007)	0.034*** (0.012)	0.047*** (0.008)	0.057*** (0.010)
Observations	3166	3152	2669	3166
DV Mean	0.370	0.263	0.409	0.450
<b>B: Interest</b>	Interest index	Interest in pub affairs	Discuss politics	News index
Schooling	0.154*** (0.016)	0.075*** (0.022)	0.106*** (0.020)	0.285*** (0.030)
Observations	3166	3141	3151	3165
DV Mean	1.571	1.097	1.119	2.488
<b>C: Participation</b>	Participation index	Participate index	Contact index	
Schooling	0.057*** (0.013)	0.068*** (0.021)	0.043*** (0.011)	
Observations	3166	3166	3155	
DV Mean	0.781	1.297	0.263	
<b>D: Support for Democracy</b>	Democratic quality index	Dem support index	Checks on president	Dem institutions index
Schooling	0.002 (0.015)	0.070*** (0.011)	0.087*** (0.014)	0.053*** (0.012)
Observations	3158	3163	3151	3163
DV Mean	0.894	1.191	1.186	1.200

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. Program exposure is defined as  $post \times intensity$ . All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity.

## A.11 Robustness Checks

Table A14: Main Effects Robustness Checks

	(1)	(2)	(3)	(4)
<b>Dropping partially treated</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.087*** (0.021)	0.098** (0.047)	-0.029 (0.045)	0.066* (0.038)
Observations	2800	2800	2800	2787
DV Mean	0.370	1.571	0.781	1.186
<b>Region-specific trends</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.073*** (0.023)	0.117** (0.052)	0.002 (0.047)	0.081** (0.040)
Observations	2520	2520	2520	2507
DV Mean	0.370	1.571	0.781	1.186
<b>Using 1975-1997 sample</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.085*** (0.026)	0.105 (0.067)	0.026 (0.061)	0.090** (0.045)
Observations	2127	2127	2127	2122
DV Mean	0.370	1.571	0.781	1.186
<b>5 year cohorts</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.093*** (0.020)	0.125*** (0.045)	-0.009 (0.047)	0.090** (0.037)
Observations	3177	3177	3177	3162
DV Mean	0.370	1.571	0.781	1.186
<b>Drop populated CRs</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.122*** (0.026)	0.215*** (0.063)	0.023 (0.064)	0.106** (0.048)
Observations	2254	2254	2254	2240
DV Mean	0.370	1.571	0.781	1.186
<b>Adding age as a control</b>	Economic index	Interest index	Participate index	Checks on pres
Post $\times$ Intensity	0.090*** (0.020)	0.125*** (0.045)	-0.018 (0.047)	0.094** (0.037)
Observations	3177	3177	3177	3162
DV Mean	0.370	1.571	0.781	1.186

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. Program exposure is defined as *post*  $\times$  *intensity*. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity.

**Dropping partially treated:** Those who were born between 1986 to 1988 are dropped from the sample, so that we are only comparing those who were 17 or older with those who were 13 or younger.

**Region-specific trends:** In Senegal, the region is the first administrative level. We include region-specific trends to the main model by adding a region  $\times$  birth year term.

**Using 1975-1997 sample:** We narrow the sample size in our main model from 1970 to 1975 to tighten the bandwidth around the treated cohorts.

**5 year cohorts:** Instead of defining reform intensity using the education level of those between 17-26 years in 2002, we define reform intensity here using the education level of those between 17-21 years in 2002.

**Dropping most populated CRs:** We use our original specification but drop the top quartile of the most populated CRs in Senegal.

Table A15: Democracy threatened Robustness Checks

	(1)	(2)	(3)	(4)	(5)
<b>Dropping partially treated</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.057 (0.070)	0.017 (0.044)	0.023 (0.033)	0.043 (0.044)	0.003 (0.037)
Post × Intensity×HE	0.185 (0.174)	0.018 (0.102)	0.224 (0.140)	0.169 (0.164)	0.278** (0.137)
Observations	2800	2792	2798	2787	2798
DV Mean	1.238	0.904	1.182	1.173	1.193
<b>Region-specific trends</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.004 (0.094)	0.052 (0.055)	0.052 (0.034)	0.064 (0.052)	0.037 (0.042)
Post × Intensity×HE	0.331** (0.167)	-0.216* (0.116)	0.180* (0.108)	0.191 (0.131)	0.168 (0.102)
Observations	2127	2127	2127	2122	2127
DV Mean	1.377	1.044	1.202	1.168	1.238
<b>Using 1975-1997 sample</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.049 (0.077)	0.009 (0.054)	0.028 (0.035)	0.044 (0.046)	0.011 (0.039)
Post × Intensity×HE	0.334* (0.172)	-0.251* (0.143)	0.243** (0.114)	0.248* (0.138)	0.242** (0.110)
Observations	2520	2513	2518	2507	2518
DV Mean	1.208	0.915	1.186	1.177	1.197
<b>5 year cohorts</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.056 (0.072)	0.038 (0.045)	0.033 (0.032)	0.054 (0.042)	0.012 (0.037)
Post × Intensity×HE	0.277* (0.141)	-0.247** (0.118)	0.238** (0.098)	0.245** (0.116)	0.235** (0.100)
Observations	3177	3169	3174	3162	3174
DV Mean	1.241	0.906	1.181	1.172	1.192
<b>Drop populated CRs</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	0.030 (0.099)	0.072 (0.055)	0.048 (0.045)	0.096 (0.062)	-0.000 (0.052)
Post × Intensity×HE	0.048 (0.174)	-0.366*** (0.132)	0.138 (0.109)	0.111 (0.121)	0.168 (0.121)
Observations	2254	2246	2251	2240	2251
DV Mean	1.264	0.915	1.168	1.156	1.183
<b>Adding age as a control</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.086 (0.081)	0.035 (0.050)	0.034 (0.031)	0.057 (0.043)	0.010 (0.036)
Post × Intensity×HE	0.248 (0.175)	-0.324*** (0.113)	0.199** (0.097)	0.228* (0.121)	0.176* (0.096)
Observations	3212	3204	3209	3197	3209
DV Mean	1.238	0.903	1.181	1.173	1.192

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Program exposure is defined as  $post \times intensity$ . Democracy threatened is defined as “1” if the survey years are 2005 and 2008, and “0” otherwise.

**Dropping partially treated:** Those who were born between 1986 to 1988 are dropped from the sample, so that we are only comparing those who were 17 or older with those who were 13 or younger.

**Region-specific trends:** In Senegal, the region is the first administrative level. We include region-specific trends to the main model by adding a region × birth year term.

**Using 1975-1997 sample:** We narrow the sample size in our main model from 1970 to 1975 to tighten the bandwidth around the treated cohorts.

**5 year cohorts:** Instead of defining reform intensity using the education level of those between 17-26 years in 2002, we define reform intensity here using the education level of those between 17-21 years in 2002.

**Dropping most populated CRs:** We use our original specification but drop the top quartile of the most populated CRs in Senegal.

## A.12 IV Estimates

Table A16: Effect of Education on Economic Well-being and Interest in Politics (IV estimates)

	(1)	(2)	(3)	(4)
<b>A: Economic</b>	Economic index	Employed	Assets index	Basic necessities index
School index	0.435*** (0.124)	0.730*** (0.234)	0.497*** (0.166)	0.084 (0.078)
Observations	3166	3152	2669	3166
DV Mean	0.375	0.274	0.373	0.479
AR t-stat	26.259	18.754	15.761	1.163
AR p-value	0	0	0	.281
AR CIs	[.262301, .892074]	[.386607, 1.57367]	[.253839, 1.12295]	[-.079608, .284529]
<b>B: Interest</b>	Interest index	Interest in pub affairs	Discuss politics	News index
School index	0.574*** (0.215)	0.686** (0.334)	0.559** (0.235)	0.494 (0.362)
Observations	3166	3141	3151	3165
DV Mean	1.562	1.052	1.114	2.514
AR t-stat	7.989	5.21	6.672	1.736
AR p-value	.005	.022	.01	.188
AR CIs	[.207666, 1.2302]	[.117347, 1.73114]	[.158543, 1.29392]	[-.293669, 1.36841]

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Differences in the number of observations depend on missingness in the Afrobarometer responses.

**Panel A:** *Economic index* is made up of *employed*, *assets index*, and *basic necessities index*. We create the *assets index* using *owns radio*, *owns TV* and *owns vehicle*, and the *basic necessities index* using *no food*, *no water*, *no healthcare*, *no fuel* and *no income*.

**Panel B:** The interest index (*interest index*) is made up of *interest in pub affairs*, *discuss politics*, and *news index*. We define the *news index* as whether an individual gets political news via *newspaper*, *TV*, and *radio*.



Table A17: Effect of Education on Political Participation (IV estimates)

	(1)	(2)	(3)	(4)
<b>A: Economic</b>	Economic index	Employed	Assets index	Basic necessities index
Schooling	0.435*** (0.124)	0.730*** (0.234)	0.497*** (0.166)	0.084 (0.078)
Observations	3166	3152	2669	3166
DV Mean	0.375	0.274	0.373	0.479
AR t-stat	26.259	18.754	15.761	1.163
AR p-value	0	0	0	.281
AR CIs	[.262301, .892074]	[.386607, 1.57367]	[.253839, 1.12295]	[-.079608, .284529]
<b>B: Interest</b>	Interest index	Interest in pub affairs	Discuss politics	News index
Schooling	0.574*** (0.215)	0.686** (0.334)	0.559** (0.235)	0.494 (0.362)
Observations	3166	3141	3151	3165
DV Mean	1.562	1.052	1.114	2.514
AR t-stat	7.989	5.21	6.672	1.736
AR p-value	.005	.022	.01	.188
AR CIs	[.207666, 1.2302]	[.117347, 1.73114]	[.158543, 1.29392]	[-.293669, 1.36841]

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. Democracy threatened is defined as “1” if the survey years are 2005 and 2008, and “0” otherwise. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Differences in the number of observations depend on missingness in the Afrobarometer responses.

**Panel A:** We create *Participation index* using *participate index* and *contact index*. *Participate index* is an made up of *voted* in the last election, *raise issue*. *Contact index* is made up of *contact officials*, *contact local government councilor*, and *contact MP*.

**Panel B:** We create *Community index* using *member of association* and *attend community meeting*.

Table A18: Effect of Education on Views Towards Democratic Quality and Institutions (IV estimates)

	(1)	(2)	(3)	(4)
<b>A: Support for Democracy</b>	Democratic quality index	Dem support index	Checks on president	Dem institutions index
Schooling	-0.184 (0.177)	0.312** (0.134)	0.403** (0.174)	0.215 (0.140)
Observations	3158	3163	3151	3163
DV Mean	0.906	1.181	1.172	1.193
AR t-stat	1.027	5.801	5.801	2.393
AR p-value	.311	.016	.016	.122
AR CIs	[-.611117, .201599]	[.074573, .69842]	[.093817, .918703]	[-.056032, .586555]
<b>B: Democracy Threatened</b>	Democratic quality index	Dem support index	Checks on president	Dem institutions index
Schooling	0.321 (0.291)	0.131 (0.193)	0.253 (0.251)	0.010 (0.226)
Schooling × HE	-1.143* (0.645)	0.950 (0.850)	0.902 (0.830)	0.954 (0.853)
Observations	3158	3163	3151	3163
DV Mean	0.906	1.181	1.172	1.193
AR t-stat	4.183	3.393	2.463	3.278
AR p-value	.041	.065	.117	.07
AR CIs	[ ... ,-.147414]	[-.026401, ... ]	[-.248333, ... ]	[-.025094, ... ]

Notes: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. Democracy threatened is defined as “1” if the survey years are 2005 and 2008, and “0” otherwise. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Differences in the number of observations depend on missingness in the Afrobarometer responses.

*Democratic quality index* is made up of *careful speaking about politics*, *free to speak their mind*, *free to join political organization*, and *free to vote their choice*. It also includes opinions on *how democratic is Senegal* and their *satisfaction with Senegal’s democracy*. We create the *democratic support index* using the *checks on president index* and *democratic institutions index*. We create the *checks on president index* using *reject one-man rule*, *support for term limits*, *against presidential discretion*, and *opposition parties criticize*, and belief in *checks and balances*. We create the *democratic institutions index* using a positive response towards *support for democracy*, *media accountability*, *against one party rule*, *reject military rule*, belief in *free election choice*, *against government banning organizations*, and belief in *freedom of the press (newspapers free)*.

## A.13 Placebo tests

Table A19: Main Effects Placebo Tests

	(1)	(2)	(3)	(4)
<b>Placebo year = 1969</b>	Economic index	Interest index	Participate index	Checks on pres
Post × Intensity	-0.001 (0.023)	0.031 (0.065)	-0.012 (0.056)	-0.007 (0.048)
Observations	3045	3045	3045	3019
DV Mean	0.388	1.601	0.831	1.205
<b>Placebo year = 1974</b>	Economic index	Interest index	Participate index	Checks on pres
Post × Intensity	0.077*** (0.025)	0.029 (0.052)	-0.026 (0.061)	0.003 (0.050)
Observations	3466	3466	3466	3439
DV Mean	0.390	1.589	0.786	1.194

*Notes:* \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. Program exposure is defined as *post* × *intensity*. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Differences in the number of observations depend on missingness in the Afrobarometer responses.

In both placebo cutoffs, the treated birth years – 1986 and onward – are removed from the sample. We keep the same window of birth years before and after treatment, such that the 1969 placebo cutoff regressions use those born between 1953 to 1980, while the 1974 placebo cutoff regressions use those born between 1958 to 1985.

Table A20: Democracy Threatened Placebo Tests

	(1)	(2)	(3)	(4)	(5)
<b>Placebo year = 1969</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.008 (0.106)	0.023 (0.087)	-0.013 (0.062)	-0.066 (0.071)	0.037 (0.071)
Post × Intensity × HE	0.046 (0.174)	0.070 (0.132)	-0.013 (0.092)	0.043 (0.111)	-0.069 (0.106)
Observations	3045	3028	3041	3019	3040
DV Mean	1.358	0.886	1.204	1.205	1.207
<b>Placebo year = 1974</b>	Participate index	Dem quality index	Dem support index	Checks on pres index	Dem inst index
Post × Intensity	-0.018 (0.086)	0.098 (0.066)	0.046 (0.057)	-0.025 (0.068)	0.119 (0.075)
Post × Intensity × HE	-0.169 (0.159)	-0.090 (0.108)	-0.092 (0.083)	0.006 (0.098)	-0.183* (0.101)
Observations	3466	3449	3461	3439	3460
DV Mean	1.306	0.885	1.192	1.194	1.194

*Notes:* \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Robust standard errors in parentheses, clustered at the CR level. All regressions include fixed effects for survey year, birth cohort, CR by gender, ethnicity, and urbanity. Program exposure is defined as *post* × *intensity*. Democracy threatened is defined as “1” if the survey years are 2005 and 2008, and “0” otherwise. Differences in the number of observations depend on missingness in the Afrobarometer responses.

In both placebo cutoffs, the treated birth years – 1986 and onward – are removed from the sample. We keep the same window of birth years before and after treatment, such that the 1969 placebo cutoff regressions use those born between 1953 to 1980, while the 1974 placebo cutoff regressions use those born between 1958 to 1985. The period of democracy threatened remains unchanged, and is coded as 1 for individuals surveyed in 2005 and 2008, and 0 otherwise.