C Web Appendix: Education and Military Rivalry

Table W1: IV Regressions
Panel A: First Stage Regressions

	(1)	(2)	(3)
1st Stage	Rivalry	Rivalry	Rivalry*Democracy
Neighboring rivalry	0.047**	0.051**	-0.744***
	[0.021]	[0.023]	[0.203]
Neighboring rivalry*Democracy		-0.002	0.288***
		[0.002]	[0.022]
Democracy	-0.005***	-0.003	0.294***
	[0.001]	[0.002]	[0.020]
Government expenditure (p.c.)	0.000	0.000	-0.000***
	[0.000]	[0.000]	[0.000]
Population growth	0.001*	0.001*	0.026***
	[0.000]	[0.000]	[0.004]
Military expenditure (p.c)	0.000	0.000	0.001**
	[0.000]	[0.000]	[0.000]
Excluded Instruments	Neighboring rivalry	Neighboring rivalry	Neighboring rivalry
		Neigh. rivalry*Democracy	Neigh. rivalry*Democracy
F-statistic of Excluded Instruments	4.91	2.47	87.49
Observations	4,220	4,220	4,220
Country Fixed Effects	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
R-squared	0.781	0.781	0.811

Notes: All specifications include country and time fixed effects. Robust standard errors in brackets. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. For country i, *Neighboring rivalry*$_{i,t}$ is equal to 1 if in year t one of its bordering countries j is engaged in a rivalry with at least one other country k which is not contiguous to i. The sample includes all countries during the entire time period (including the Cold War, which was excluded in Table 5). The F-statistic in Panel A and the Cragg-Donald Wald F statistic and Kleibergen-Paap Wald r F statistic in Panel B show that the instruments are weak.

Table W1: IV Regressions
Panel B: Second Stage Regressions

	Primary enrollment rate	
2nd Stage		
Rivalry	5,114.65020**	5,373.77194**
	[2,312.528]	[2,409.759]
Rivalry*Democracy		86.12937**
		[41.827]
Democracy	17.72724	-24.00761
	[12.782]	[24.408]
Government expenditure (p.c.)	-0.31113***	-0.26420***
	[0.053]	[0.059]
Population growth	5.19118**	2.18842
	[2.487]	[3.148]
Military expenditure (p.c.)	-0.32542	-0.41841
	[0.246]	[0.264]
Endogenous Regressors	Rivalry	Rivalry
		Rivalry*Democracy
Instruments	Neighboring rivalry	Neighboring rivalry
		Neighboring rivalry*Democracy
Anderson-Rubin Wald test	151.21	200.93
Cragg-Donald Wald F statistic	9.500	4.612
Kleibergen-Paap Wald rk F statistic	4.912	2.450
Observations	4,220	4,220
Country Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes

Notes: All specifications include country and time fixed effects. Robust standard errors in brackets. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table W2: Robustness: Education Reforms and Military Rivalry
Panel A: Imputed reforms

| | Logit for "imputed reforms" | | | |
	(1)	(2)	(3)	(4)
Rivalry	0.271**	0.177	0.190*	0.379***
	[0.119]	[0.113]	[0.113]	[0.145]
Democracy		-0.055***	-0.059***	-0.061***
		[0.007]	[0.010]	[0.010]
Rivalry*Democracy			0.009	0.013
			[0.014]	[0.017]
Relative arrmy of rivals				-0.005
				[0.019]
Population growth.	0.009***	0.004	0.004	0.003
	[0.003]	[0.003]	[0.003]	[0.003]
Military expenditure p.c.	-0.001**	-0.001**	-0.001**	-0.001
	[0.000]	[0.000]	[0.000]	[0.000]
Observations	1390	1299	1299	1163

Notes: All specifications include country and time fixed effects. Robust standard errors in brackets. *** p<0.01, ** p<0.05, * p<0.1.

51

Table W2: Robustness: Education Reforms and Military Rivalry
Panel B: Known reforms

	Logit for "known reforms"			
	(1)	(2)	(3)	(4)
Rivalry	0.522***	0.531**	-0.157	0.148
	[0.085]	[0.052]	[0.237]	[0.522]
Democracy		0.005	0.004	0.005
		[0.013]	[0.052]	[0.054]
Rivalry*Democracy			0.075	0.049
			[0.074]	[0.058]
Relative army of rivals			0.145***	0.166***
			[0.034]	[0.034]
Government expenditure p.c.				0.000
				[0.001]
Population growth	-0.001	-0.000	0.009	0.009
	[0.009]	[0.009]	[0.008]	[0.013]
Military expenditure p.c.	0.000	0.000	0.001	0.001
Observations	741	741	720	666

Notes: All specifications include country and time fixed effects. Robust standard errors in brackets.. *** p<0.01, ** p<0.05, * p<0.1

Table W3: Robustness: Industrialization and Urbanization

	Primary enrollment rate					
	(1)	(2)	(3)	(4)	(5)	(6)
Rivalry	46.696*	-206.815***	123.750***	-224.838***	91.071***	-350.082***
	[27.121]	[56.273]	[23.512]	[38.495]	[23.310]	[41.705]
Democracy	-4.435**	-5.266***	-21.407***	-11.426***	-23.061***	-12.288***
	[2.002]	[2.005]	[1.748]	[1.822]	[1.724]	[1.828]
Rivalry*Democracy	4.261*	4.744*	24.061***	12.233***	26.393***	13.889***
	[2.429]	[2.444]	[2.276]	[2.406]	[2.238]	[2.405]
Industry/GDP	8.187***	3.293**				
	[1.162]	[1.491]				
Rivalry*industry/GDP		8.209***				
		[1.584]				
% Urban (50,000)			9.066***	-1.547		
			[1.116]	[1.354]		
Rivalry*% urban (50,000)				15.330***		
				[1.331]		
% Urban (20,000)					6.470***	-1.963*
					[0.979]	[1.110]
Rivalry*% urban (20,000)						13.850***
						[1.128]
Population growth	4.012***	4.087***	9.272***	9.034***	8.323***	7.708***
	[0.853]	[0.878]	[0.917]	[0.889]	[0.914]	[0.850]
Military expenditure p.c.	-0.318***	-0.319***	-0.936***	-0.966***	-1.337***	-1.332***
	[0.074]	[0.075]	[0.197]	[0.190]	[0.209]	[0.193]
Observations	2,675	2,675	4,112	4,112	3,927	3,927
R-squared	0.797	0.801	0.721	0.736	0.727	0.747

Notes: All specifications include country and time fixed effects. Robust standard errors in brackets. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. "% Urban (50,000)" is the share of the population living in cities of 50,000 or more inhabitants (in %) and "% Urban (20,000)" is the share of the population living in cities of 20,000 or more inhabitants (in %). "Industry/GDP" is the share of industrial output in GDP (in %).

53

Table W4: Robustness: Specification and Sample Selection

	Primary enrollment rate				
	(1)	(2)	(3)	(4)	(5)
Rivalry	235.331***	162.249*	99.116***	185.977***	8.003
	[53.953]	[97.405]	[15.692]	[27.376]	[33.710]
Democracy	-6.038***	-89.206***	-5.731***	-8.944***	-8.381***
	[2.327]	[17.487]	[1.404]	[2.136]	[1.727]
Rivalry*Democracy	2.733	92.965***	6.035***	14.514***	6.751***
	[2.773]	[17.533]	[1.776]	[2.712]	[2.082]
Relative army of rivals		8.685***	-1.023	10.823***	2.714**
		[1.257]	[0.760]	[1.411]	[1.177]
Ethnic fractionalization	1,497.845***				
	[307.765]				
Ethnic fractionalization*Rivalry	-313.186***				
	[104.442]				
Primary enrollment of rivals		0.185***			
		[0.029]			
Lagged Primary enrollment			0.806***		
			[0.022]		
Population growth	3.689***	8.957***	3.870***	7.650***	2.874***
	[0.788]	[1.126]	[0.681]	[0.706]	[0.570]
Military expenditure p.c.	-0.330***	-0.532***	-0.204***	-0.634***	-0.338***
	[0.075]	[0.165]	[0.077]	[0.184]	[0.107]
Observations	2692	1952	3,857	3,094	4,275
R-squared	0.778	0.838	0.840	0.813	0.251

Notes: All specifications include country and time fixed effects. Standard errors in brackets. ***p<0.01, **p<0.05, *p<0.1. Column (1) includes the index of ethnic fractionalization from Alesina et al. (2003) and its interaction with rivalry; it covers only the period 1945-2001. Column (2) includes the primary enrollment rate of the largest rival if any. In column (3) "Lagged. Primary enrollment" is the 10-year lagged primary enrollment rate per 10,000 inhabitants. Column (4) excludes Western Europe. In column (5) country fixed effects are interacted with before/after 1950 dummies.

Table W5: Barro-Lee Education Attainment Data

Percentage of primary schooling attained 5 years later by adults 15-19 years old				
	(1)	(2)	(3)	(4)
Rivalry	3.049*	3.243		
	[1.844]	[2.571]		
Democracy	-0.365**	-0.346**	-0.196	-0.198
	[0.146]	[0.153]	[0.123]	[0.122]
Rivalry*Democracy	0.452**	0.893***		
	[0.206]	[0.257]		
Relaltive army of rivals		-0.095		
		[0.558]		
War in previous 10 years			7.032***	
			[2.090]	
War in 10 years*Democracy			-0.164	
			[0.257]	
Won war in previous 10 years				5.247*
				[2.882]
Lost war in previous 10 years				9.188***
				[2.619]
Won war in 10 years*Democracy				0.241
				[0.349]
Lost war in 10 years*Democracy				-0.338
				[0.315]
Military expenditure p.c.	0.006	-0.001	0.005	0.005
	[0.004]	[0.005]	[0.004]	[0.004]
Government expenditure p.c.	-0.002**	-0.001*	-0.001**	-0.001**
	[0.001]	[0.001]	[0.001]	[0.001]
Observations	1114	952	1114	1114
R-squared	0.112	0.098	0.116	0.122

Notes: All specifications include time and country fixed effects. Robust standard errors in brackets. ***$p<0.01$, **$p<0.05$, *$p<0.1$.

Table W6: Primary Enrollment and War Risk with State-Specific Linear Time Trends

	Primary enrollment					
	Strategic Rivalry			War in previous 10 years		
	(1)	(2)	(3)	(4)	(5)	(6)
Rivalry	95.168***	98.317***	94.801***			
	[24.552]	[24.521]	[30.983]			
Democracy	2.414***	-0.0561	-1.494	2.138*	2.361**	2.076*
	[1.130]	[1.593]	[1.806]	[1.129]	[1.163]	[1.237]
Rivalry*Democracy		4.584***	5.569**			
		[1.762]	[2.073]			
Relative army of rivals			4.953***			
			[1.204]			
War in				67.458***	70.215***	54.581***
previous 10 years				[11.355]	[12.050]	[13.476]
War in 10 years					-1.591	0.049
*Democracy					[1.319]	[1.475]
War casualties						42.683**
						[21.355]
Govt expenditure p.c.			0.016			0.035**
			[0.017]			[0.014]
Population growth.	0.674	0.650	0.552	0.810*	0.780*	0.510
	[0.467]	[0.463]	[0.533]	[0.449]	[0.449]	[0.448]
Military expenditure p.c.	-0.029	-0.041	0.552	-0.034	-0.035	-0.168**
	[0.052]	[0.052]	[0.533]	[0.052]	[0.052]	[0.065]
Observations	4,626	4,626	3,985	4,626	4,626	4,297
R-squared	0.893	0.900	0.893	0.894	0.894	0.700

Notes: All specifications include country, time fixed effects and state-specific linear time trends. Robust standard errors in brackets. ***p<0.01, ** p<0.05, * p<0.1. In columns (1) to (3) war risk is measured by the existence of one or more strategic rivalries according to the Thompson (2001) classification. In columns (4) to (6) war risk is measured by the occurrence of a war involving the country in the previous 10 years.