

What Good is a College Degree? Education and Leader Quality Reconsidered
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Online Appendix

Table 1a: Random Leadership Transitions and Output, Inequality, and Unrest
 (Using Unrest Count Instead of Strike Count)

Dependent Variable	GDP (Logged)	GDP (Logged)	Top 1% Income Share	Top 1% Income Share	Unrest Index	Unrest Index
5 years after transition (ind.)	0.00 (0.01)	--	0.86** (0.24)	--	0.04 (0.13)	--
5 yrs after trans— <i>college</i> (ind.)	--	0.01 (0.01)	--	0.87** (0.27)	--	0.13 (0.16)
5 yrs after trans— <i>no college</i> (ind.)	--	-0.02 (0.02)	--	0.83 (0.51)	--	-0.11 (0.20)
<i>The Difference College Makes</i>	--	0.03 (0.02)	--	0.04 (0.56)	--	0.24 (0.26)
<i>“Best” bound (90%)</i>		0.07		-0.88		-0.18
<i>N</i>	12,482	12,482	1,186	1,186	9,025	9,025
<i>R</i> ²	0.9034	0.9034	0.8346	0.8346	0.2335	0.2336
St. Err.	.31688	.31688	1.9606	1.9616	2.9616	2.9616

Sources: Alvaredo et al. (2014); Banks and Wilson (2013); and Besley et al. (2011).

Notes: Results are from linear regression models that include controls for country and year, with robust standard errors. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 1b: Random Leadership Transitions and Output, Inequality, and Unrest
(Controlling for Leader Education and Outcome Variables Prior to Leadership Transition)

Dependent Variable	GDP (Logged)	GDP (Logged)	Top 1% Income Share	Top 1% Income Share	Unrest Index	Unrest Index
5 years after transition (ind.)	0.00 (0.01)	--	0.86** (0.24)	--	0.04 (0.13)	--
5 yrs after trans— <i>college</i> (ind.)	--	-0.49** (0.12)	--	-2.73** (0.41)	--	-0.01 (0.03)
5 yrs after trans— <i>no college</i> (ind.)	--	-0.51** (0.12)	--	-2.49** (0.64)	--	-0.05* (0.24)
<i>The Difference College Makes</i>	--	0.03 (0.02)	--	-0.24 (0.55)	--	0.04 (0.04)
<i>“Best” bound (90%)</i>		0.07		-1.16		-0.02
<i>N</i>	12,482	12,465	1,186	1,176	9,025	9,025
<i>R</i> ²	0.9034	0.9037	0.8346	0.8411	0.2335	0.1781
St. Err.	.31688	.31647	1.9606	1.9241	2.9616	.48083

Sources: Alvaredo et al. (2014); Banks and Wilson (2013); and Besley et al. (2011).

Notes: Results are from linear regression models with robust standard errors that include controls for country, year, leader education prior to transition, and outcome variable prior to transition. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 1c: Random Leadership Transitions and Output, Inequality, and Unrest
(Using Three-year Estimates Instead of Five-year Estimates)

Dependent Variable	GDP (Logged)	GDP (Logged)	Top 1% Income Share	Top 1% Income Share	Number of Strikes	Number of Strikes
3 years after transition (ind.)	-0.01 (0.01)	--	0.80* (0.32)	--	0.05+ (0.03)	--
3 yrs after trans— <i>college</i> (ind.)	--	0.01 (0.01)	--	0.89* (0.35)	--	0.08+ (0.04)
3 yrs after trans— <i>no college</i> (ind.)	--	-0.03 (0.02)	--	0.34 (0.60)	--	0.00 (0.03)
<i>The Difference College Makes</i>	--	0.04 (0.03)	--	0.55 (0.65)	--	0.08 (0.05)
<i>“Best” bound (90%)</i>		0.08		-0.52		-0.005
<i>N</i>	12,482	12,482	1,186	1,186	9,025	9,025
<i>R</i> ²	0.9034	0.9034	0.8337	0.8337	0.1722	0.1724
St. Err.	.31684	.31688	1.9664	1.9669	.48264	.48261

Sources: Alvaredo et al. (2014); Banks and Wilson (2013); and Besley et al. (2011).

Notes: Results are from linear regression models that include controls for country and year, with robust standard errors. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 1d: Random Leadership Transitions and Output, Inequality, and Unrest
(Using One-year Estimates Instead of Five-year Estimates)

Dependent Variable	GDP (Logged)	GDP (Logged)	Top 1% Income Share	Top 1% Income Share	Number of Strikes	Number of Strikes
1 year after transition (ind.)	-0.00 (0.02)	--	0.70 (0.54)	--	0.06 (0.04)	--
1 yr after trans— <i>college</i> (ind.)	--	0.01 (0.03)	--	0.93 (0.60)	--	0.07 (0.05)
1 yr after trans— <i>no college</i> (ind.)	--	-0.02 (0.04)	--	-0.50 (0.96)	--	0.04 (0.07)
<i>The Difference College Makes</i>	--	0.03 (0.05)	--	1.43 (1.12)	--	0.02 (0.08)
<i>“Best” bound (90%)</i>		0.11		-0.41		-0.11
<i>N</i>	12,482	12,482	1,186	1,186	9,025	9,025
<i>R</i> ²	0.9034	0.9034	0.8328	0.8329	0.1719	0.1719
St. Err.	.31689	.31689	1.9717	1.9716	.48271	.48274

Sources: Alvaredo et al. (2014); Banks and Wilson (2013); and Besley et al. (2011).

Notes: Results are from linear regression models that include controls for country and year, with robust standard errors. ** $p < 0.01$, * $p < 0.05$, + $p < 0$.

Table 1e: Random Leadership Transitions and National Prosperity
(Focusing Only on Countries that Experienced Unexpected Transitions, Analyzing Changes in Outcome Variables Between the Five Years Before the Transition and the Five Years After, and Controlling for the Level of the Outcome Variable in the Year Prior to the Transition)

Dependent Variable	Δ GDP (Logged)	Δ Top 1% Income Share	Δ Number of Strikes
College to College	0.04 (0.03)	-0.01 (0.07)	0.05 (0.25)
No College to College	0.00 (0.04)	-0.05 (0.10)	-0.04 (0.32)
No College to College (omitted)	--	--	--
<i>N</i>	133	95	32
<i>R</i> ²	0.0142	0.1730	0.0148
St. Err.	.16725	.33588	.63541
Degrees of Freedom	129	91	28

Sources: Alvaredo et al (2014); Banks and Wilson (2013); Besley, Montalvo, and Reynal-Querol (2011); and Kenwick et al (2013).

Notes: Results are from linear regression models that include controls for the value of the outcome variable during the year prior to the transition. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 2a: Education and Legislator Performance in the U.S. Congress
(Focusing on Members Elected Prior to 1946)

Dependent variable	Bills Enacted	Bills Enacted	Years in Congress	Years in Congress	Lost Re-Election Bid (ind.)	Lost Re-Election Bid (ind.)
Member first elected in close race (ind.)	0.00 (0.00)	--	0.09** (0.02)	--	-0.31** (0.10)	--
Member first elected in close race— <i>college</i> (ind.)	--	0.00 (0.00)	--	0.08** (0.02)	--	-0.29** (0.11)
Member first elected in close race—no <i>college</i> (ind.)	--	0.00 (0.00)	--	0.11** (0.04)	--	-0.36* (0.16)
<i>The Difference College Makes</i>	--	0.00 (0.00)	--	-0.03 (0.04)	--	0.07 (0.18)
<i>“Best” bound (90%)</i>	--	0.01	--	0.38	--	-0.09
<i>N</i>	2,185	2,185	2,185	2,185	2,185	2,185
<i>R</i> ²	0.9979	0.9979	0.2518	0.2520	0.9517	0.9517
St. Err.	.00141	.00141	.45072	.45078	1.9632	1.9636

Source: ICPSR and McKibben (1997).

Notes: Results are from linear regression models estimated with robust standard errors and controls for state, chamber, the year the member first took office, and the year the member left office. Data are from members who first served in Congress between 1901 and 1946. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 2b: Education and Legislator Performance in the U.S. Congress
(Focusing on Members Who *Weren't* First Elected in Close Races)

Dependent variable	Bills Enacted	Bills Enacted	Years in Congress	Years in Congress	Lost Re-Election Bid (ind.)	Lost Re-Election Bid (ind.)
Member first elected by larger % (ind.)	-0.00 (0.01)	--	0.22** (0.07)	--	-0.09** (0.02)	--
Member first elected by larger %— <i>college</i> (ind.)	--	-0.00 (0.01)	--	0.23** (0.07)	--	-0.08** (0.02)
Member first elected by larger %—no <i>college</i> (ind.)	--	-0.02* (0.01)	--	0.13 (0.12)	--	-0.09** (0.03)
<i>The Difference College Makes</i>	--	0.01 (0.01)	--	0.10 (0.11)	--	0.01 (0.03)
<i>“Best” bound (90%)</i>	--	0.02	--	0.28	--	-0.04
<i>N</i>	3,555	3,555	3,555	3,555	3,555	3,555
<i>R</i> ²	0.4325	0.4328	0.9598	0.9598	0.2355	0.2356
St. Err.	.16829	.16827	1.7249	1.7249	.45205	.45211

Source: ICPSR and McKibben (1997).

Notes: Results are from linear regression models estimated with robust standard errors and controls for state, chamber, the year the member first took office, and the year the member left office. Data are from members who first served in Congress between 1901 and 1996. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 2c: Education and Legislator Performance in the U.S. Congress
(Focusing on All Members and Using Additional Controls)

Dependent variable	Bills Enacted	Years in Congress	Lost Re-Election Bid (ind.)
Member who attended college (ind.)	0.01* (0.00)	0.09 (0.09)	0.01 (0.02)
<i>“Best” bound (90%)</i>	0.01	0.23	-0.02
<i>N</i>	4,006	4,006	4,006
<i>R</i> ²	0.4519	0.9590	0.2303
St. Err.	.16208	1.7481	.45544

Source: ICPSR and McKibben (1997).

Notes: Results are from linear regression models estimated with robust standard errors and controls for state, chamber, the year the member first took office, and the year the member left office. These models also include additional controls for the member’s gender, the member’s party identification, the state the member was born in, and the branch and level of any military service the member engaged in. Data are from members who first served in Congress between 1901 and 1996. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 3a: Mayor Education and Corruption in Brazil
(Using Logistic Regressions)

Dependent Variable	Broad Corrup. (Ind.)	Broad Corrup. (Ind.)	Narrow Corrup. (Ind.)	Narrow Corrup. (Ind.)
Mayor first elected in close race (ind.)	-0.01 (0.17)	--	-0.25 ⁺ (0.14)	--
Mayor first elected in close race— <i>college</i> (ind.)	--	0.32 (0.27)	--	-0.28 (0.21)
Mayor first elected in close race—no <i>college</i> (ind.)	--	-0.20 (0.20)	--	-0.23 (0.17)
<i>The Difference College Makes</i>	--	0.52 (0.32)	--	-0.05 (0.25)
<i>“Best” bound (90%)</i>		0.00		-0.46
<i>N</i>	1,192	1,192	1,192	1,192
<i>Pseudo-R²</i>	0.0874	0.0896	0.0911	0.0911
Degrees of Freedom	1,169	1,168	1,169	1,168

Source: Brollo et al. (2013).

Notes: Results are from logistic regression models that include controls for region and mayoral term, with standard errors clustered by municipality. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$.

Table 3b: Mayor Education and Corruption in Brazil
(Focusing on All Mayors and Using Additional Controls)

Dependent Variable	Broad Corrup. (Ind.)	Narrow Corrup. (Ind.)	Broad Corrup. (Pct.)	Narrow Corrup. (Pct.)
Mayor who attended college (ind.)	0.00 (0.03)	-0.05 (0.03)	-1.38* (0.71)	-0.85* (0.48)
<i>“Best” bound (90%)</i>	-0.05	-0.10	-2.55	-1.64
<i>N</i>	948	948	906	906
<i>R</i> ²	0.0960	0.1515	0.0806	0.0733
St. Err.	.4181	.4693	10.566	6.916
Degrees of Freedom	907	907	865	865

Source: Brollo et al. (2013); Supreme Electoral Tribunal.

Notes: Results are from linear regression models that include controls for region and mayoral term, with standard errors clustered by municipality. These models also include additional controls for the mayor’s gender, age, and party affiliation. ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$.

Table 3c: Mayor Education and Corruption in Brazil
(Controlling for Municipal Demographics)

Dependent Variable	Broad Corrup. (Ind.)	Broad Corrup. (Ind.)	Narrow Corrup. (Ind.)	Narrow Corrup. (Ind.)	Broad Corrup. (Pct.)	Broad Corrup. (Pct.)	Narrow Corrup. (Pct.)	Narrow Corrup. (Pct.)
Mayor first elected in close race (ind.)	0.00 (0.03)	--	-0.05 ⁺ (0.03)	--	-0.13 (0.68)	--	-0.28 (0.46)	--
Mayor first elected in close race— <i>college</i> (ind.)	--	0.05 (0.04)	--	-0.06 (0.05)	--	0.08 (1.11)	--	-0.13 (0.85)
Mayor first elected in close race—no <i>college</i> (ind.)	--	-0.04 (0.03)	--	-0.05 (0.04)	--	-0.25 (0.80)	--	-0.37 (0.49)
<i>The Difference College Makes</i>	--	0.09* (0.05)	--	0.00 (0.05)	--	0.32 (1.30)	--	0.24 (0.94)
<i>“Best” bound (90%)</i>		0.02		-0.09		-1.81		-1.31
<i>N</i>	1,192	1,192	1,192	1,192	1,131	1,131	1,131	1,131
<i>R</i> ²	0.0882	0.0910	0.1232	0.1232	0.0486	0.0487	0.0433	0.0434
St. Err.	.3959	.3955	.4720	.4722	10.285	10.29	6.332	6.334
Degrees of Freedom	1,165	1,164	1,165	1,164	1,103	1,102	1,103	1,102

Source: Brollo et al. (2013); Supreme Electoral Tribunal; Brazilian Institute of Geography and Statistics.

Notes: Results are from linear regression models that include controls for region and mayoral term, with standard errors clustered by municipality. These models also include additional controls for the municipality’s population, literacy rate, urbanization rate, and per capita income.

** $p < 0.01$, * $p < 0.05$, + $p < 0.10$.