

THE NON-DEMOCRATIC ROOTS OF MASS EDUCATION:  
EVIDENCE FROM 200 YEARS

Online Supplementary Materials

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**Online Appendix A** (pages 1-29)

Supplementary Figures and Tables

**Online Appendix B** (pages 30-34)

Primary School Systems Under Non-Democracies

**Online Appendix C** (pages 35-63)

Timing of Initial Central Government Intervention in Primary Education, and Sources Used, by Country

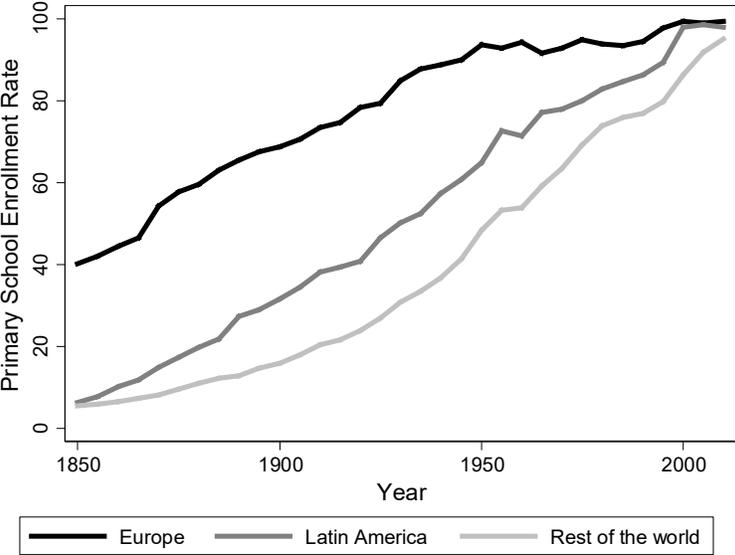
**Online Appendix D** (pages 64-66)

Timing of Education Statistics

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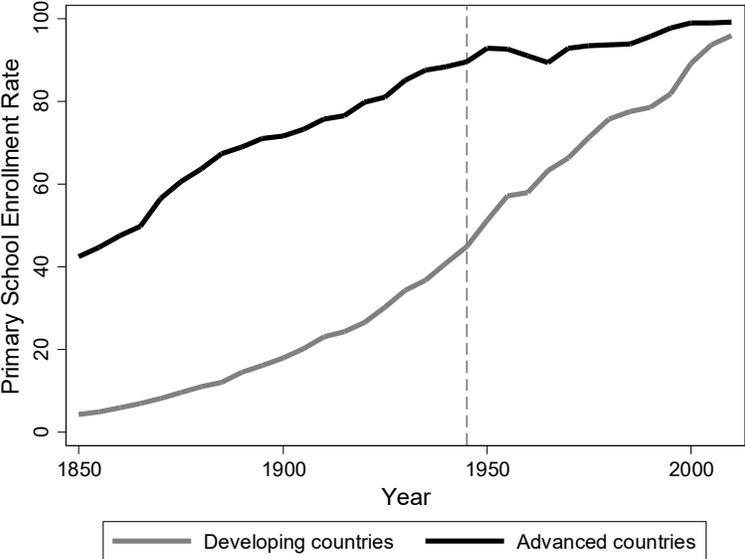
# Online Appendix A: Supplementary Figures and Tables

Figure A1. Average Primary School Enrollment Rate in Europe, Latin America, and the Rest of the World, 1850-2010



SOURCE: Enrollment data from Lee and Lee (2016).

Figure A2. Average Primary School Enrollment Rate in Developing and OECD Countries, Before and After 1945



NOTE: Vertical dashed line marks the year 1945.

SOURCE: Enrollment data from Lee and Lee (2016).

Figure A3. Timing of Different Types of State Intervention in Primary Education vs. Timing of Democratization

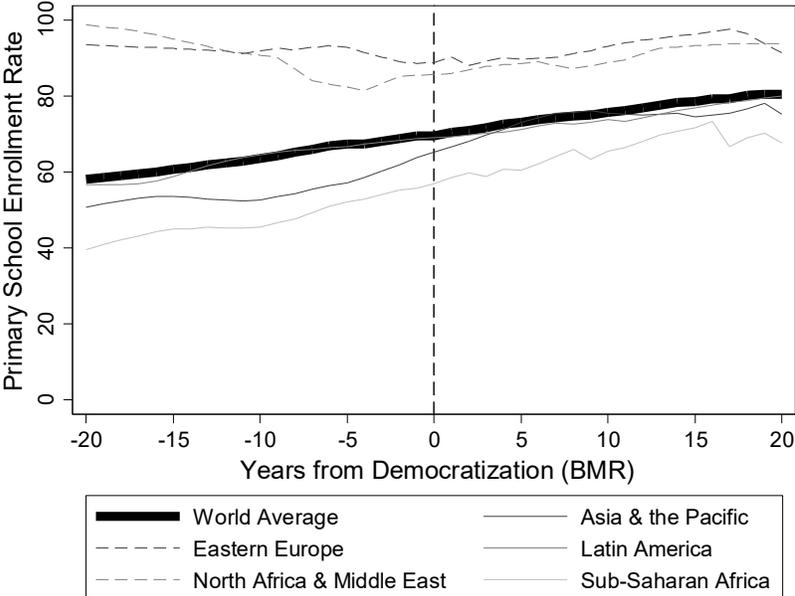


NOTE: Red dots indicate the first year in which the state intervened in primary education in the specific way indicated by the graph title; light blue squares indicate the timing of universal male suffrage; blue squares indicate the timing of the first transition to democracy according to Boix-Miller-Rosato (BMR); navy blue squares indicate the timing of the first transition to democracy according to Polity IV.

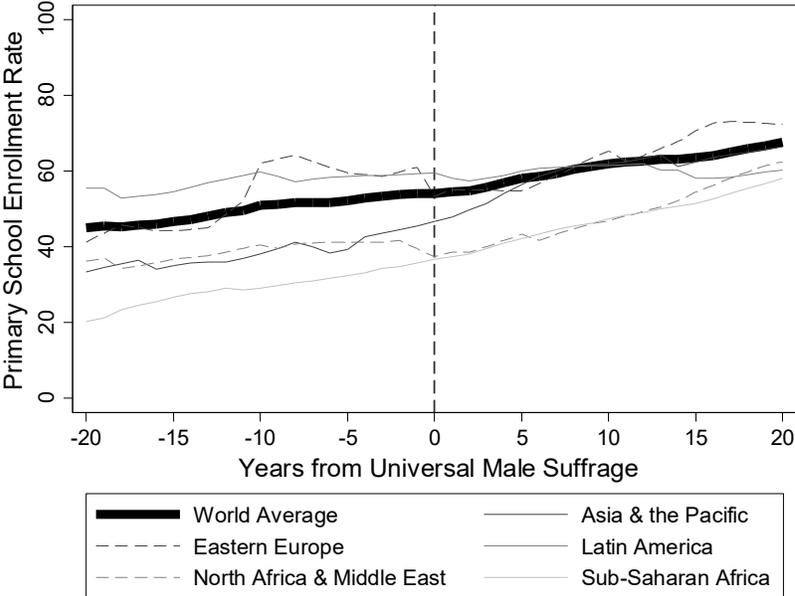
SOURCES: Author for timing of first central government intervention in primary education (see Online Appendix C); Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

Figure A4. Primary School Enrollment Rate Before and After Democratization, World and Regional Means, 1820-2010 – Additional measures of democracy

Panel A: Independent variable is democracy as measured by BMR



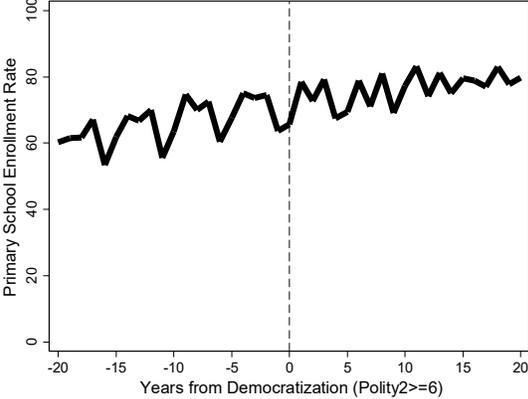
Panel B: Independent variable is universal male suffrage as measured by PIPE



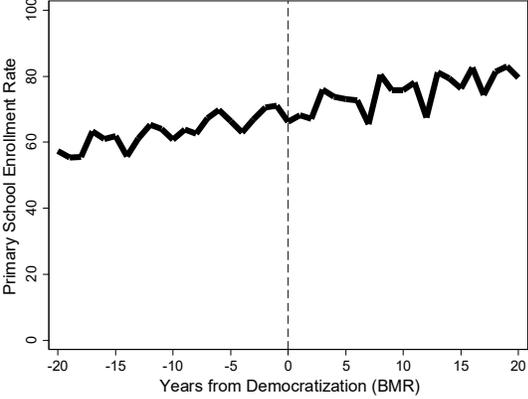
SOURCES: Lee and Lee (2016) for enrollment; BMR and Przeworski et al. (2013) for timing of democratization.

Figure A5. Primary School Enrollment Rate Before and After Democratization, World Mean, 1820-2010 – Non-interpolated (i.e. quinquennial) data

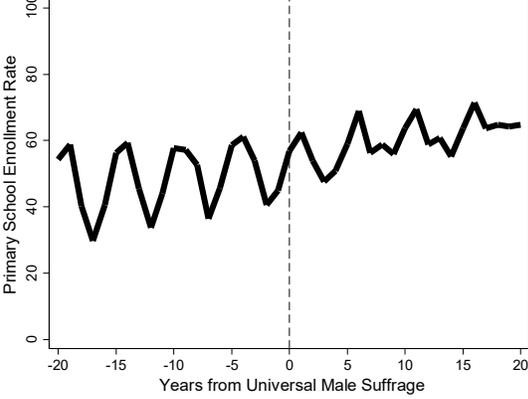
Panel A: Independent variable is binary measure of democracy (polity2 between 6 & 10)



Panel B: Independent variable is democracy as measured by BMR

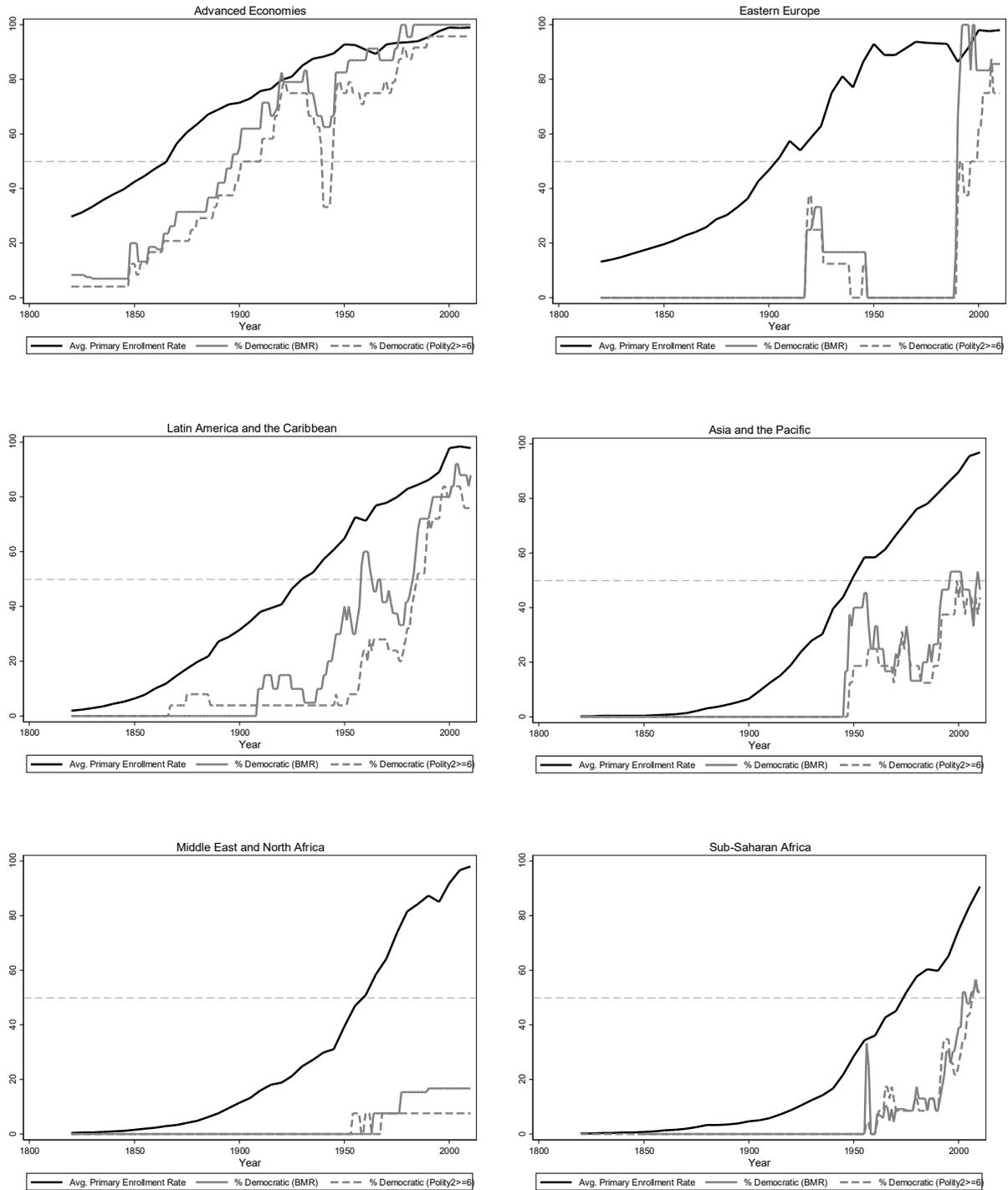


Panel C: Independent variable is universal male suffrage as measured by PIPE



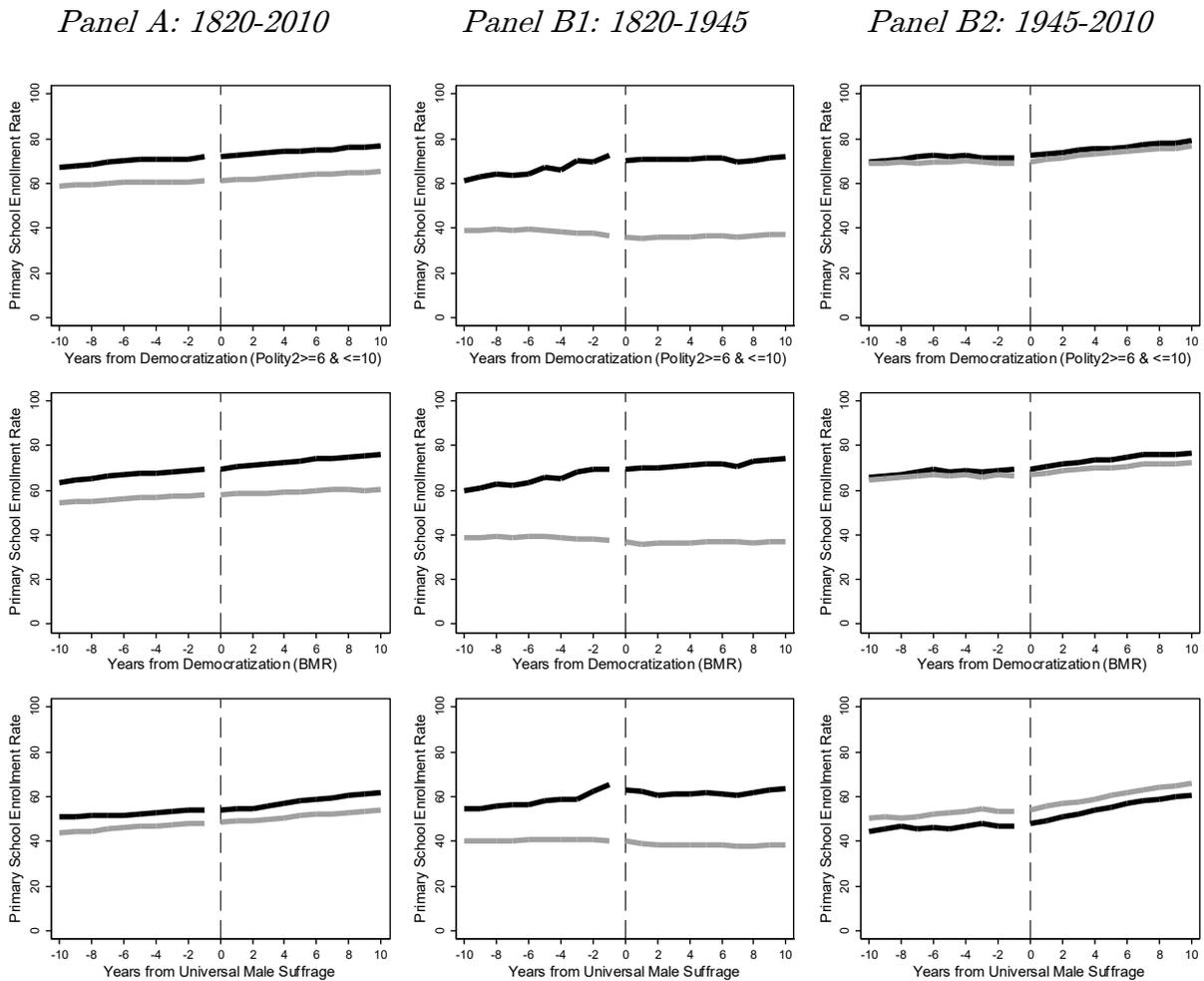
SOURCES: Lee and Lee (2016) for enrollment; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

Figure A6. Primary School Enrollment Rates and Percentage of Countries that Are Democratic, by Region, 1820-2010



SOURCES: Lee and Lee (2016) for enrollment; Polity Project and BMR for democracy.

**Figure A7. Average Primary School Enrollment Rates Before and After Democratization, Treated and Comparison Groups, 1820-2010 and Subperiods**

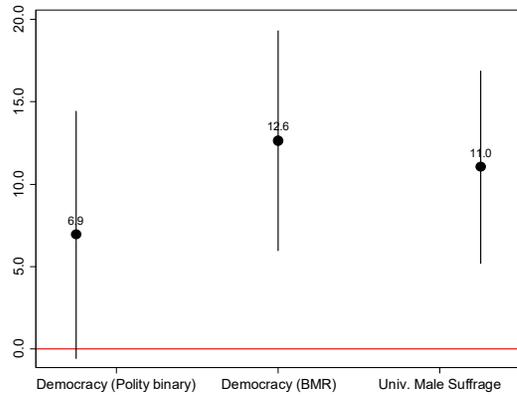


NOTE: Democratizing countries' trend in black; non-democracies' in grey. For visualization purposes, quinquennial enrollment rates at the country level were interpolated to obtain annual estimates. For each country that democratized in year  $t=T$ , I compute the average primary SER of a comparison group, which in any given year  $t$  is composed of countries that were non-democratic in that year. I then compute the average primary SER across all comparison groups, depicted by the grey line. Democratization as defined by Polity IV in row 1; BMR in row 2; and introduction of universal male suffrage in row 3.

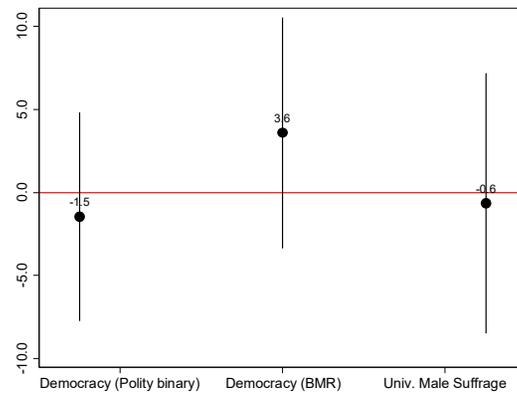
SOURCE: Author for primary school enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization as measured in rows 1, 2, and 3, respectively.

Figure A8. Estimated Effect of Democratization on Primary School Enrollment Rates, 1820-1945 – Using an original longitudinal dataset of primary school enrollment rates in Europe and Latin America

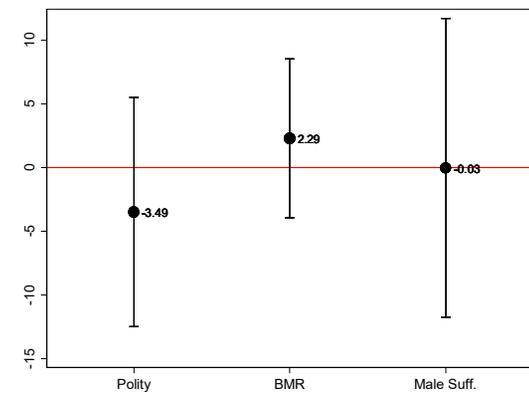
**Country FE only**



**Country & Year FE**

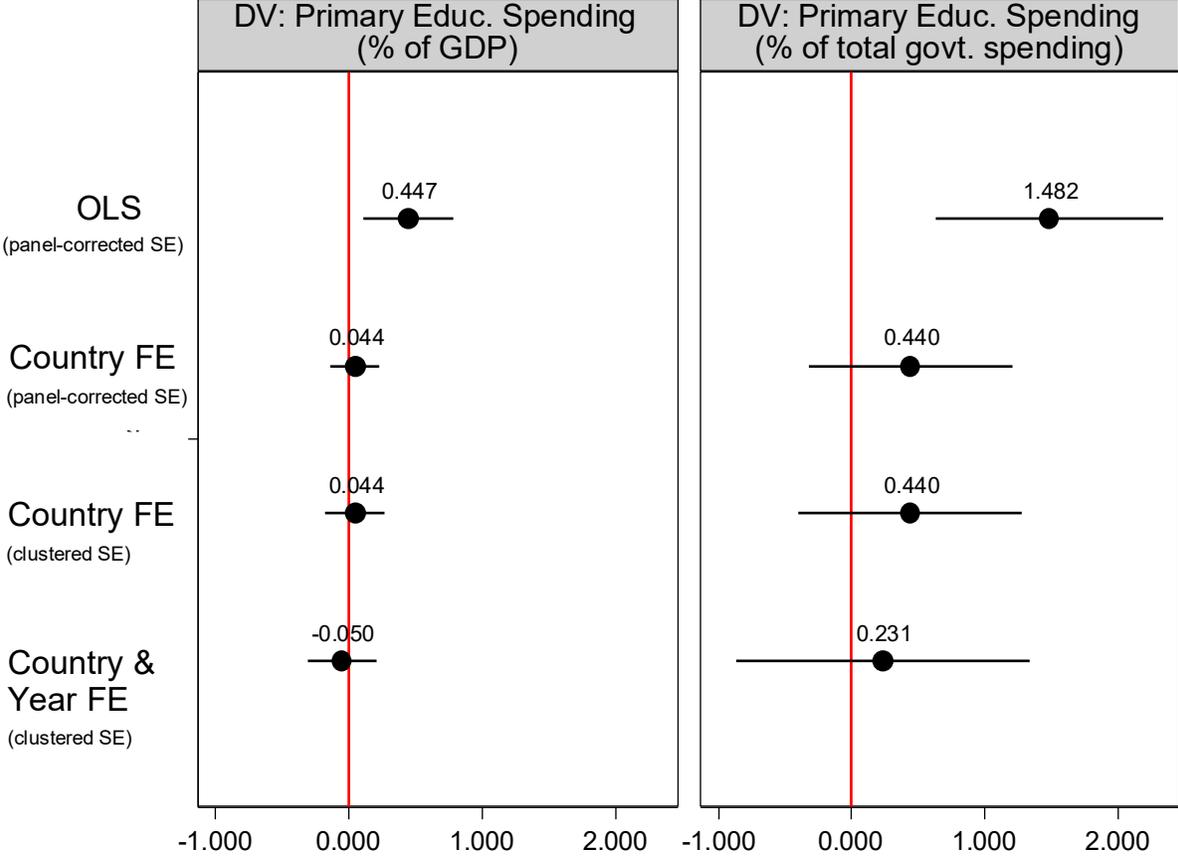


**ITS estimates**



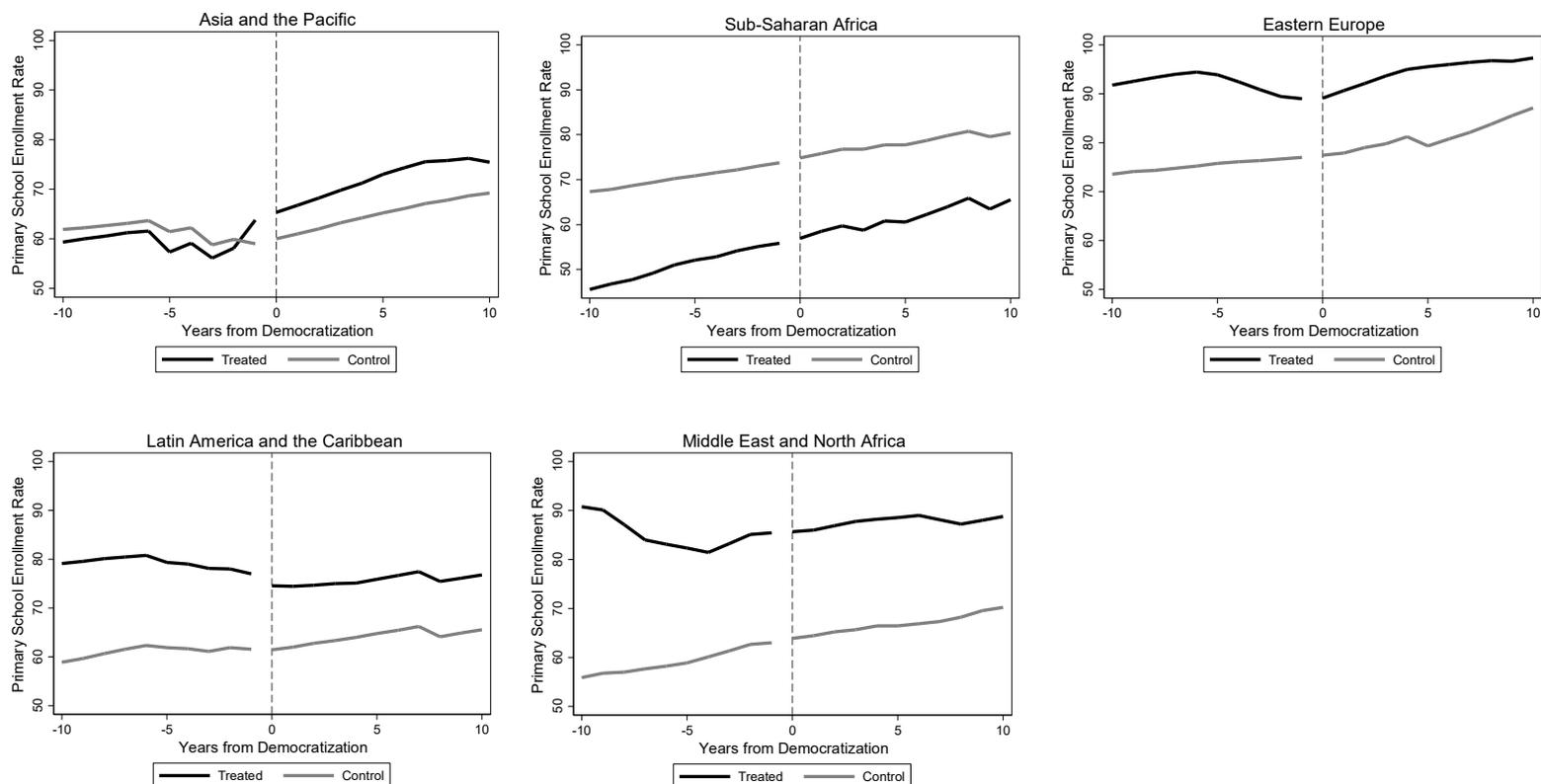
SOURCES: Paglayan (2017) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

Figure A9. Estimated Effect of Multiparty Elections on Public Spending on Primary Education in Africa, 1980-1996 – Using spending data from Stasavage (2005)



SOURCES: Author based on replication data from Stasavage (2005).

**Figure A10. Average Primary School Enrollment Rates Before and After Democratization, Treated and Comparison Groups, by Region, 1945-2010**— Visual evidence suggests democracy had a positive effect only in Asia. In all other regions, the rapid expansion of primary schooling in recent decades cannot be attributed to the move towards democracy—and for Latin America, visual evidence suggests that democracy had a negative impact on enrollment. See Tables A4.

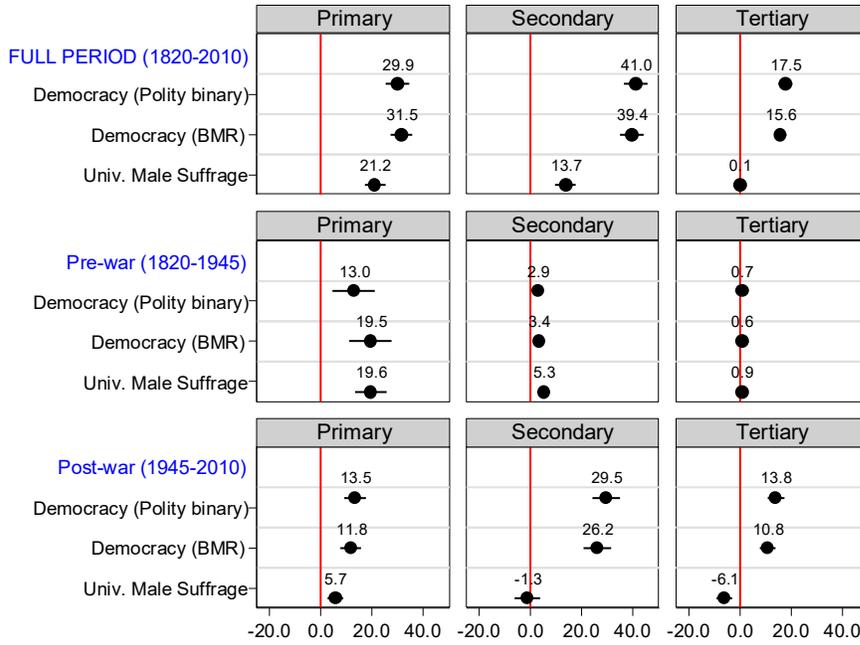


NOTE: Democratizing countries' trend in black; non-democracies' in grey. For visualization purposes, quinquennial enrollment rates at the country level were interpolated to obtain annual estimates. For each country that democratized in year  $t=T$ , I compute the average primary SER of a comparison group, which in any given year  $t$  is composed of all countries that were non-democratic in that year. I then compute the average primary SER across all comparison groups, depicted by the grey line.

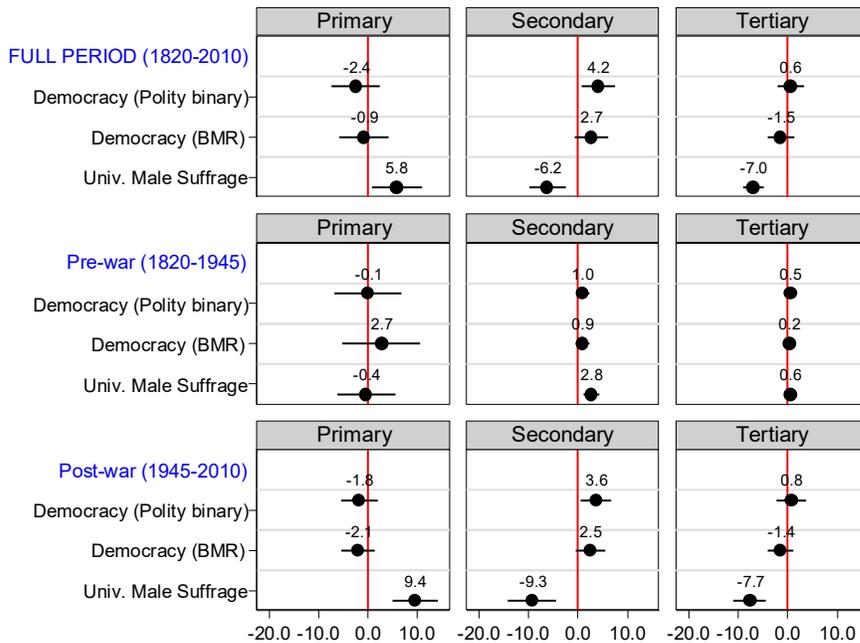
SOURCES: Lee and Lee (2016) for enrollment rates; BMR for timing of democratization.

Figure A11. Estimated Effect of Democratization on Primary, Secondary and Tertiary Education Enrollment Rates, 1820-2010 and Subperiods

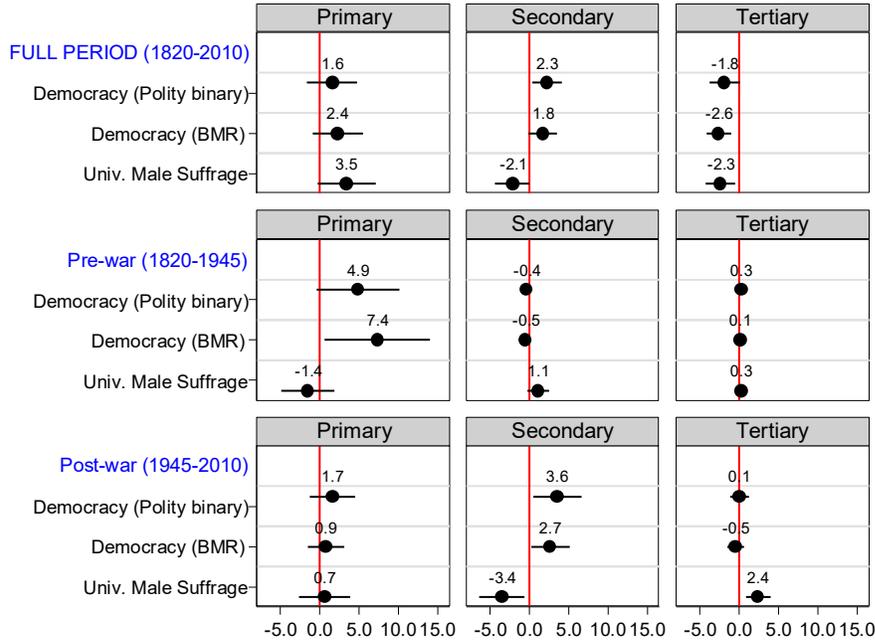
Panel A: Country fixed effects, no year fixed effects



Panel B: Country and year fixed effects



Panel C: Country and year fixed effects, and country-specific linear time trends

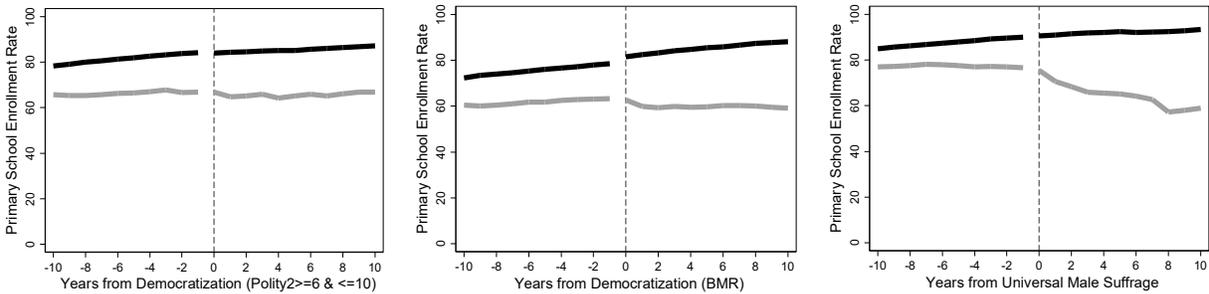


NOTE: Point estimates and 95% confidence intervals from standard errors clustered at the country level. 109 countries contribute data to estimate the equations that span the entire period (1820-2010) and the postwar period (1945-2010); 98 countries contribute data to estimate the equations that focus on the prewar period (1820-1944).

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

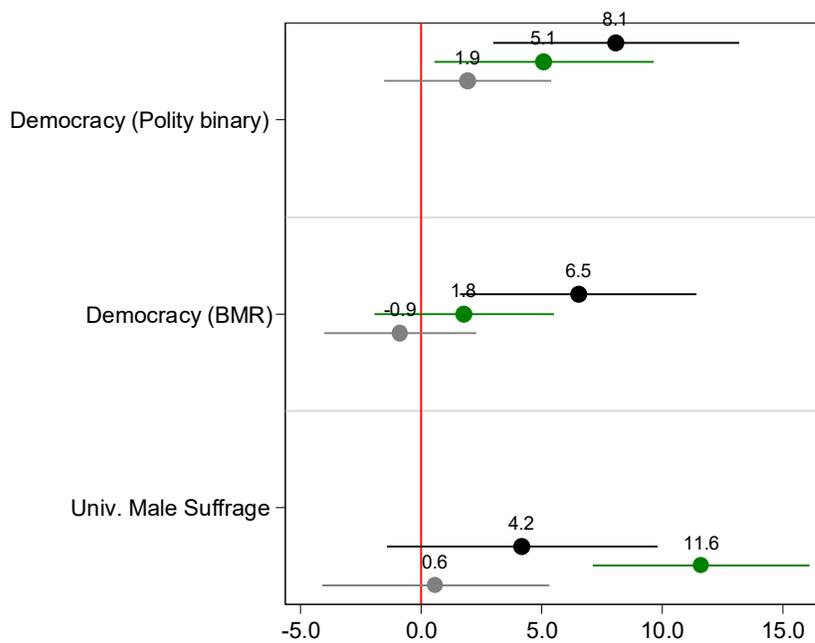
## Figure A12. Exploration of Past Studies

Panel A: Lindert (2004): 21 countries, 1880-1930



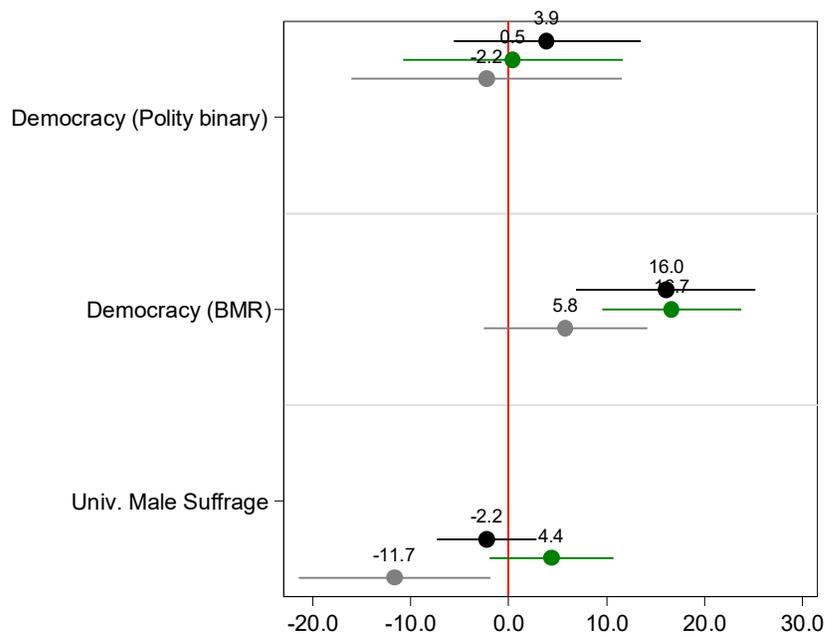
NOTE: Average primary SER in countries that democratized between 1880-1930, 10 years before and after transitioning to democracy (black line), compared to contemporaneously non-democratic countries (grey). For visualization purposes, quinquennial enrollment rates at the country level were interpolated to obtain annual estimates. For each country that democratized in year  $t=T$ , I compute the average primary SER of a comparison group, which in any given year  $t$  is composed of countries that were non-democratic in that year. I then compute the average primary SER across all comparison groups, depicted by the grey line. The sample of countries includes Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Greece, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, UK, and US.

Panel B: Brown (1999): Developing countries, 1960-1987



NOTE: Point estimates and 95% confidence intervals of a model with region fixed effects only, as in Brown 1999 (black); country fixed effects (green); and country and year fixed effects (grey).

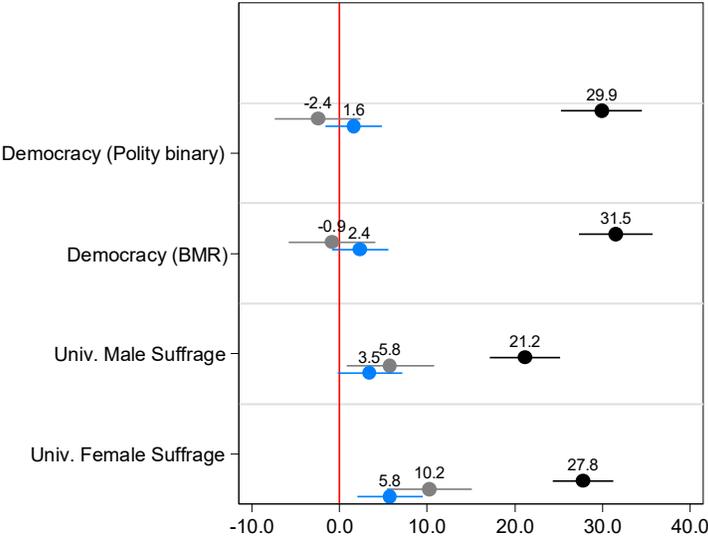
Panel C: Mariscal and Sokoloff (2000): 20 countries in the Americas, 1860-1945



NOTE: Point estimates and 95% confidence intervals of a model with year dummies for 1920 and 1945, as in Mariscal and Sokoloff 2000 (black); country fixed effects (green); and country and year fixed effects (grey).

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

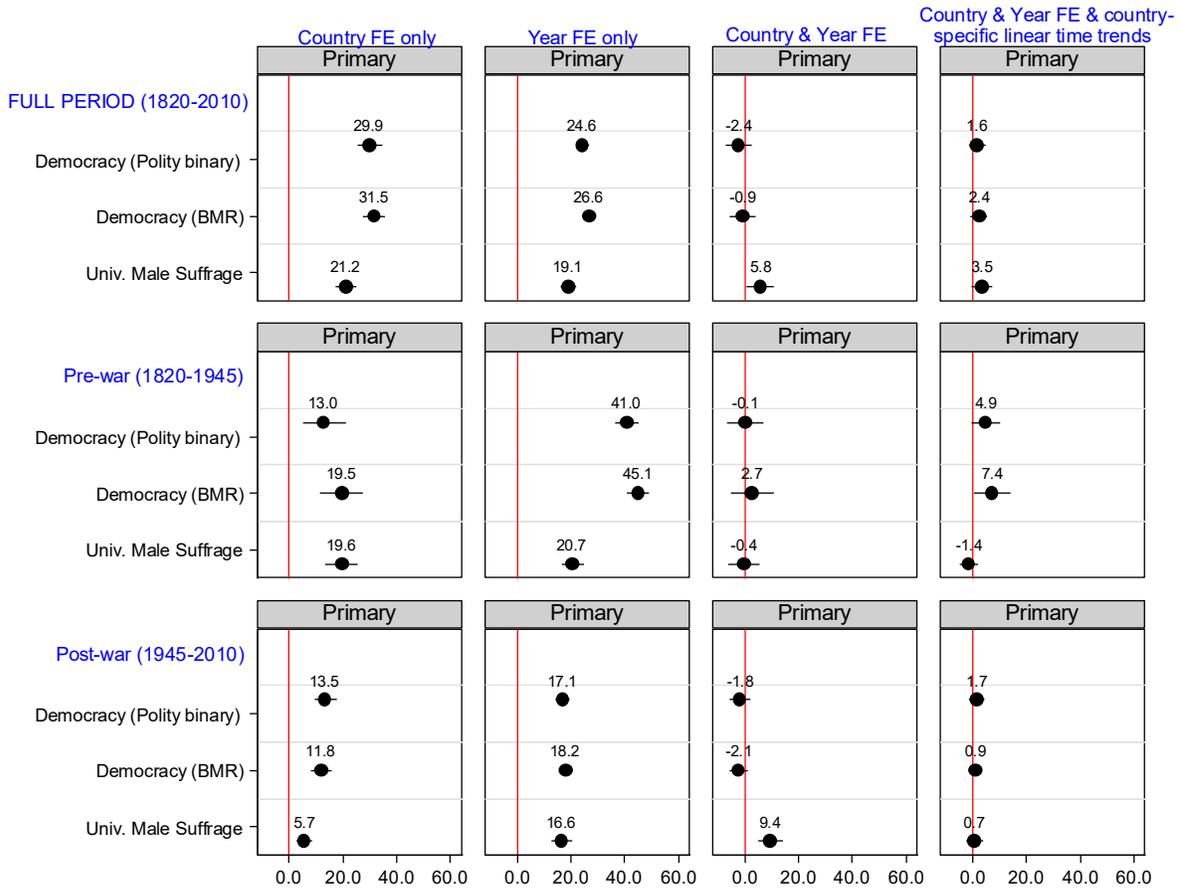
**Figure A13. Estimated Effect of Universal Female Suffrage on Primary School Enrollment Rates, 1820-2010**



NOTE: Point estimates and 95% confidence intervals based on standard errors clustered at the country level. Black represents the results from a model with country fixed effects but no year fixed effects; grey is for the results from a model with both country and year fixed effects; blue is for the results from a model with country and year fixed effects and country-specific linear time trends.

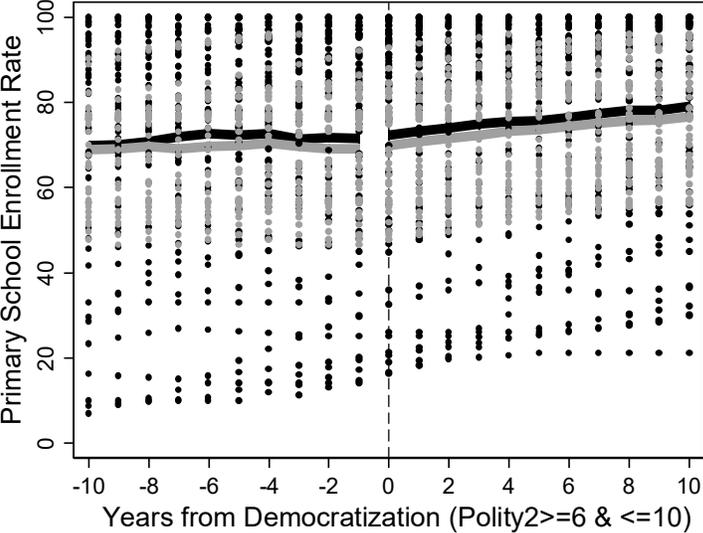
SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project and BMR for timing of democratization; Przeworski et al. (2013) for timing of universal male and female suffrage.

**Figure A14. Estimated Effect of Democratization on Primary School Enrollment Rates in Models with Year Fixed Effects but No Country Fixed Effects, 1820-2010 and Subperiods –** Year fixed effects are not enough to explain the variation in enrollment; country fixed effects are also needed to account for selection into democracy. At any given point in time, democratic regimes have higher average enrollment rates than non-democracies.



SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

Figure A15. Primary School Enrollment Rates Before and After Democratization: Average Trends in Treated and Comparison Groups and Variation Across Countries, 1945-2010 – Treated countries are those that transitioned to democracy during the period 1945-2010



NOTE: Democratizing countries' trend in black; non-democracies' in grey. For visualization purposes, quinquennial enrollment rates at the country level were interpolated to obtain annual estimates. For each country that democratized in year  $t=T$ , I compute the average primary SER of a comparison group, which in any given year  $t$  is composed of countries that were non-democratic in that year. I then compute the average primary SER across all comparison groups, depicted by the grey line.

SOURCE: Lee and Lee (2016) for enrollment rates; Polity Project for timing of democratization.

Table A1. Methodological Characteristics of Peer-Reviewed Publications

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
Lindert (2004, Cambridge University Press)	Yes	Yes	No (21 countries in Europe, Latin America, the US, Canada, New Zealand, Australia, and Japan)	Yes (1880-1930)	Primary school enrollment (as a % of pop. 5-14 years)  <b>Sources:</b> Flora et al. 1983; Mitchell 1998; Bloomfield 1984; Norway, <i>Statistisk Sentralbyran</i> 1978; Sweden, <i>Statistisk Tidskrift</i> 1873, 1913, 1932; Mitch n.d.; US Census Bureau, <i>Historical Statistics of the United States</i> 1975; Banks 1971	“The spread of democratic voting rights plays a leading role in explaining why some nations forged ahead in education and others fell behind. ... The rise of voting rights apparently accelerated the rise of primary schooling” (p. 105). “What fuller democracies delivered, relative to nondemocracies or elite democracies, was <i>primary</i> education, the kind of tax-based education that redistributed the most from rich to poor.” (p. 107)
Lindert (2002, JEH)	No	No	No (24 countries: Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Thailand, UK, US)	Yes (1880-1930)	Enrollment in public primary, public secondary, and total university (as a % of pop. 5-14 years)  <b>Sources:</b> see Lindert 2004	“Fuller franchises delivered ... greater equality through primary schooling” (p. 345); “Political voice strongly influences schooling. Historical differences in the spread of suffrage go a long way toward explaining which countries’ children were educated in the nineteenth and twentieth centuries. Suffrage also had a systematic effect on the tax effort put into education finance between the 1880s and the 1930s ... The willingness to spend tax money on primary education was significantly greater in full democracies ... The same was not true of public spending on university education ... What makes the link between broad suffrage and primary schooling so important is that the marginal growth effect of primary schooling is particularly high in less developed settings.” (p. 324); “Elite rule damages growth by underinvesting in egalitarian human capital, especially primary schooling” (p. 315).
Mariscal & Sokoloff (2000, Hoover Institution Press)	No	Yes (year dummies for 1920 and 1945)	No (the Americas only: Argentina, Barbados, Bolivia, Brazil, Belize, Chile, Colombia, Costa Rica, Cuba, Guatemala, Honduras, Jamaica,	Yes (1860-1945)	Literacy rate; enrollment in primary and secondary schools combined (% of pop. 5-19 years)  <b>Sources:</b>	“Inequality in political power, as reflected in the proportion of the population who voted, was significantly related to the fraction of the population provided with schooling ... The coefficients on the variables representing the proportion of the population voting are

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
			Mexico, Paraguay, Peru, Puerto Rico, Uruguay, Venezuela, Canada, US)		<i>Literacy</i> : Newland 1991, 1994; Helg 1987; Roberts 1957; Britton 1994; U.S. Bureau of the Census 1967; Egnal 1966; <i>Enrollment</i> : Mitchell 1993; Oficina Nacional de Estadística Costa Rica 1912	consistently positive and large ... even after controlling for time, region, and per capita income. The implication is that differences in schooling can be fully accounted for by differences in per capita income and our measure of inequality in political influence" (p. 210); "Not only were the United States and Canada well ahead of their neighbors in establishing institutions of primary education open to virtually all segments of society, but even among the other countries in the New World, those societies that had relatively more [political] equality ... organized public schools earlier... Particularly relevant for identifying a causal mechanism is the observation that in both the United States and Canada political decisions to expand public schools ... followed shortly after the extension of suffrage to broad segments of the population" (p. 212); "Our account focuses on the importance of the extent of inequality for how education institutions like universal primary education and literacy evolved in ... the Americas" (p. 212); "We regard the evidence as generally consistent with the hypothesis that the extent of inequality ... had a major impact on educational institutions in the New World and that the relative equality characteristic of the United States and Canada from the beginning was a major reason why these economies were committed early and strongly to the establishment of universal primary schooling." (p. 213)
Brown (1999, <i>PRQ</i> )	No	No	Yes (136 countries in the Middle East, South and East Asia, Sub-Saharan Africa, Central America, and South America)	No (1960-1987)	Primary school enrollment rate (% of school-age children)  <b>Source</b> : World Bank	"Poor democracies enroll a larger percentage ... than do their authoritarian counterparts... The institutions associated with individual rights and electoral competition [measured through polity] have an important effect on primary school enrollment." (p. 681)
Brown & Hunter (1999, <i>APSR</i> )	Yes (fn. 24)	No	No (17 countries in Latin America)	No (1980-1992)	Social spending per capita (in 1987 dollars), which includes central government expenditures on	"Especially in poor countries during economic crisis, democracies increase the allocation of resources to social programs relative to authoritarian regimes. This suggests that the latter are more constrained by economic forces, whereas democracies are more constrained by

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
					education, health, sanitation, housing, and social security  <b>Source:</b> CEPAL/ ECLAC 1996	popular demands. Hence, calls to abandon broad categorizations of regime type appear to be premature: Democracy can matter in systematic and substantial ways." (p. 779)
Brown & Hunter (2004, <i>CPS</i> )	Yes	No	No (17 countries in Latin America: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela, and Uruguay)	No (1980-1997)	Percentage of current education spending distributed to the preprimary and primary school levels; aggregate per capita central government spending on education  <b>Source:</b> UNESCO	"The authors ... test whether democratic governments allocate a greater share of resources to primary education, the level that benefits the largest segment of the electorate and that is most critical for human capital formation in developing countries." (p. 842) "We found that democracy exerts a positive influence on the share of spending devoted to primary education" (p. 856) "and that [democracies] maintain higher absolute spending levels on education in the aggregate, thereby enhancing the prospects of human capital formation." (p. 842)
Stasavage (2005, <i>AJPS</i> )	Yes	No	No (44 countries in Africa)	No (1980-1996)	Spending on primary (university) education as % GDP; spending on primary (university) education as % of total education spending; Total spending on education as % GDP; Total spending on education as % of total govt spending  <b>Source:</b> UNESCO data obtained from World Bank	"I develop an argument ... that the need to obtain an electoral majority may have prompted African governments to spend more on education and to prioritize primary schools over universities. ... I find clear evidence that democratically elected African governments have spent more on primary education, while spending on universities appears unaffected by democratization." (p. 343)
Kosack (2013, <i>BJPS</i> )	Yes (implicit)	No	No (Brazil, Ghana, and Taiwan)	Yes (1930-2000)	DV: type of education policy (bottom-up: focus on expanding access to and resources for primary schools, and also effort to make higher education accessible to the poor; or top-down: concentration of resources on higher education, with	Political entrepreneurship/ organization of the poor, not regime type, predicts the implementation of pro-poor ("bottom-up") education policies, whose "basic characteristic is increased access to quality primary education" (p. 424). "Ghana, Taiwan, and Brazil show these patterns clearly. Whenever the government was engaged in political entrepreneurship, it subsequently improved and expanded the lower levels of the education system. When this political entrepreneurship stopped, the

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
					remains inaccessible to the poor, and reduction in availability and/or funding for primary education)	government subsequently shifted resources from the lower to the upper levels and restricted access so that those levels were increasingly available only to elites." (p. 424) "Moreover, where democracy and pro-poor education coincided, pro-poor education preceded democracy, not the other way around: every period in which a country was both a democracy and produced pro-poor education followed a period in which the country was autocratic and yet produced pro-poor education" (p. 410).
Harding & Stasavage (2014, <i>JoP</i> )	Yes	No	No (29-38 countries in Africa – varies by dependent variable)	No (1990-2007)	Primary school attendance rate; primary school fee abolition; student-teacher ratio in primary schools  <b>Sources:</b> <i>Attendance:</i> Demographic and Health Surveys (DHS); <i># of Teachers:</i> UNESCO	"The results suggest that democracies have higher attendance rates ... however, democracies do not tend to provide more teachers than nondemocracies" (p. 233). "If African democracies tend to have a higher percentage of children that attend primary school, this is due primarily to the fact that democratically elected governments are more likely to abolish primary school fees... this phenomenon appears to be electorally determined." (p. 244)
Lake & Baum (2001, <i>CPS</i> )	Yes	No	Yes (89 countries with primary school enrollment rate data; 80 with secondary school enrollment data)	No (1970-1992)	Illiteracy rates; primary school enrollment rate; persistence to 4 <sup>th</sup> grade; secondary school enrollment rate; primary school student-teacher ratio; secondary school student-teacher ratio; tertiary enrollment ratio  <b>Source:</b> World Bank	"The statistical results strongly support their hypothesis" that democratic states will ... produce a higher level of services than autocracies" (p. 587). Results with cross-sectional data: Higher levels of democracy are associated with higher primary school enrollment rates (Table 1, p. 600). Results with time-series data: "Increases in democracy ... appear to produce greater rates of [secondary school] enrollment" (p. 613). (Time-series analysis for primary school enrollment not conducted due to limited data availability.)
Baum & Lake (2003, <i>AJPS</i> )	Yes	No	Yes (128 countries)	No (1967-1997)	Female secondary school enrollment rate  <b>Source:</b> World Bank	"A maximum increase in democracy ... in nonpoor countries ... increased secondary enrollment by 0.26 percentage points. ... These are substantively important effects." (p. 333). "The coefficient on democracy for poor countries fails to achieve standard levels of statistical significance" (p. 343).

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
Ansell (2008, <i>IO</i> )	Yes	No	Yes (113 countries)	No (1960-2000)	DV: Public expenditure on education as a % of GDP; private education spending as a % of GDP; ratio of per student funding on tertiary versus primary education  <b>Sources:</b> World Bank	“Because increased access to public education chiefly benefits the middle class and poor, democratization should lead to increased public education spending, reduced private education spending, and a focus on universal primary education rather than ... tertiary education” (p. 190). “Democracy ... appears to be a powerful predictor of the level and composition of education spending” (p. 315). “The strong redistributive impact of education spending explains why democracies, with poor median voters relative to autocracies, prefer to fund public education more heavily. Furthermore, democracies are also more likely to tilt spending toward universally provided primary education and away from elite-targeted tertiary education and private education.” (p. 314)
Ansell (2010, Cambridge University Press)	Yes	No	Yes (115 countries)	No (1960-2008)	See Ansell 2008	See Ansell 2008. “I show that democracies ... tilt their education spending toward primary education rather than higher education.” (p. 17)
Lott (1999, <i>JPE</i> )	Yes	Yes	Yes (99 countries)	No (1985-1992)	DV: Public primary and secondary school expenditures per capita  <b>Source:</b> UNESCO	“Governments use public education and public ownership of the media to control the information that their citizens receive. More totalitarian governments make greater investments in publicly controlled information. ... My results reject the standard public-good view linking education and democracy.” (p. S127) “A higher totalitarianism rating ... should increase educational expenditures. ... All coefficients have the expected sign and are significant” (p. S135, S137).
Aghion, Jaravel, Persson & Rouzet (2019, <i>JEEA</i> )	Yes	Yes	No for period before postwar (countries in Europe); Yes for postwar period	Yes for European countries; No for other countries	DV: Primary enrollment per 10,000 inhabitants and primary education reforms  <b>Source:</b> CNTS Data Archive for enrollment and and Flora (1983) for education reforms	“First, primary-education enrollments are positively and significantly associated with military rivalry or recent involvement in an external war. Second, the correlation between democracy ... and education investments in negative when we control for military rivalry. ... These results are no longer statistically significant when we cluster standard errors by country over the entire panel” (p. 378).

Peer-reviewed publication *	Internal Validity		External Validity		DV & Sources	Argument/ Findings
	Country fixed effects?	Year fixed effects?	Global geographic coverage?	Pre-1960 data?		
Avelino, Brown & Hunter (2004, <i>AJPS</i> )	Yes	Yes	No (19 countries in Latin America)	No (1980-1999)	DV: public education expenditures as a % of GDP  <b>Source:</b> CEPAL/ECLAC	“We find that democracies do not increase spending on health or social security but do increase spending on education ... Democracies enhance the prospects for investing in human capital” (p. 634).
This article	Yes	Yes	Yes (109 countries in the OECD, Eastern Europe, Asia and the Pacific, Latin America, Sub-Saharan Africa, and Northern Africa and the Middle East)	Yes (1820-2010)	DV: primary school enrollment rates (% of school-age children)  <b>Source:</b> Lee and Lee (2016)	“Transitions to democracy lead to a (modest) increase in primary school coverage only when a majority of the population lacked access to primary schooling under non-democracy. However, this condition rarely holds: In three-fourths of countries that experienced democratization, a majority of the population already had access to primary schooling before democratizing.”
	Yes	Yes	No (38 countries in Europe and Latin America)	Yes (1828-1945)	DV: primary school enrollment rates (% of pop. 5-14 years)  <b>Source:</b> Paglayan (2017)	

\*Peer-reviewed publications that include school enrollment rates and/or education expenditures among the dependent variables. *AJPS*=*American Journal of Political Science*; *APSR*=*American Political Science Review*; *BJPS*=*British Journal of Political Science*; *CPS*=*Comparative Political Studies*; *IO*=*International Organization*; *JEH*=*Journal of Economic History*; *JoP*=*Journal of Politics*; *PRQ*=*Political Research Quarterly*; *JEEA*=*Journal of the European Economic Association*; *JPE*=*Journal of Political Economy*

**Table A2. Difference-in-Differences Estimate of the Effect of Democratization on Primary School Enrollment Rates Using Tobit to Account for the Presence of a Censored Dependent Variable, 1820-2010 and Subperiods**

	Full period (1820-2010)	Postwar (1945-2010)
Democracy (Polity2 between 6 and 10)	2.55 (1.8071)	1.97 (1.4911)
Democracy (BMR)	3.02 (1.8019)	0.84 (1.2554)
Universal male suffrage	4.96 * (1.9761)	0.70 (1.7029)

NOTE: Tobit estimates for a model with country and year fixed effects and country-specific linear time trends. Dependent variable is primary school enrollment rates. Standard errors clustered at country level in parenthesis. Stars denote statistical significance at \*0.05 and \*\*0.01 level.

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization.

**Table A3. Effect of Changes in Regime Type Using a Continuous Measure of Democracy, 1820-2010 and Subperiods**

	<b>DV: Primary School Enrollment Rate</b>				
	1820-2010	1820-1945		1945-2010	1970-2010
	Lee & Lee enrollment data	Lee & Lee enrollment data	Original enrollment data	Lee & Lee enrollment data	Lee & Lee enrollment data
<b>With country fixed effects only</b>					
<i>polity2</i>	1.61 ** (0.2004)	0.79 * (0.3019)	0.18 (0.1902)	1.03 ** (0.1898)	1.01 ** (0.1759)
<b>With country and year fixed effects</b>					
<i>polity2</i>	0.00 (0.1754)	0.12 (0.2650)	-0.26 (0.1642)	0.06 (0.1614)	0.21 (0.1689)

NOTE & SOURCES: Estimated effect of democracy as measured by *polity2* scores, which range from -10 to 10. *Polity2* scores are from the Polity Project. Scores between 6 and 10 denote that a country is democratic; between -10 and -6, autocratic, and between -5 and 5, a hybrid or anocracy. Stars denote statistical significance at \*0.05 and \*\*0.01 level.

**Table A4. Estimated Effect of Democratization on Primary School Enrollment Rates, by Region, 1945-2010** – A linear difference-in-differences model that allows for heterogeneous treatment effects of democracy by region suggests that the difference between Asia and other regions is not statistically significant (Panel B). See also Figure A10.

	<i>Panel A</i>	<i>Panel B</i>
<i>Democracy</i>	4.06 (2.7918)	2.94 (3.0569)
<i>Democracy x Asia</i>		6.16 (7.6855)
Constant	72.17 ** (2.6993)	73.38 ** (2.9169)
No. of clusters	109	109
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes

NOTES: Panel A shows results of a linear difference-in-differences model with country and year fixed effects:  $Y_{i,t} = \gamma_i + \phi_t + \beta_1 Democracy_{i,t} + \epsilon_{i,t}$ .  $Democracy_{i,t}$  takes a value of 1 for treated countries in the post-treatment period; and a value of 0 otherwise. Panel B shows results of a linear difference-in-differences model that allows for heterogeneous treatment effects of democracy for Asian and non-Asian countries:  $Y_{i,t} = \gamma_i + \phi_t + \beta_1 Democracy_{i,t} + \beta_2 Democracy_{i,t} x Asia_i + \epsilon_{i,t}$ .  $Asia_i$  takes a value of 1 if country  $i$  is in Asia, and a value of 0 otherwise. Standards errors clustered at the country level in parenthesis. Enrollment rates are the number of students enrolled in primary education as a percentage of the school-age population. Stars denote statistical significance at the \*0.05 and \*\*0.001 level.

SOURCE: Lee and Lee (2016) for enrollment rates; BMR for timing of democratization.

**Table A5. Estimated Effect of Democratization on Primary, Secondary, and Tertiary Enrollment Rates, 1820-2010 – By Whether or Not Democratization Was Preceded by a Revolution –** A linear difference-in-differences model that allows for heterogeneous treatment effects of democracy depending on whether or not democratization was immediately preceded by a revolution does not provide support for the claim that there is a difference in the effect of democratization on primary SERs depending on whether or not elites can anticipate, and therefore capture, a transition to democracy.

	<i>Panel A: OLS</i>			<i>Panel B: Tobit</i>		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
	school enrollment rate			school enrollment rate		
<b>Independent variable:</b>						
<b>Polity2 between 6 and 10</b>						
<i>democracy</i>	0.4 (3.6652)	6.3 (3.2179)	1.7 (2.8681)	1.3 (3.6671)	6.3 * (3.1656)	1.7 (2.8215)
<i>democracy x revolution</i>	-9.1 (5.3752)	0.0 (4.0757)	2.5 (3.6015)	-9.2 (5.4184)	0.0 (4.0095)	2.5 (3.5429)
<b>Democracy (BMR)</b>						
<i>democracy</i>	-1.1 (3.1932)	-0.2 (2.6267)	-4.6 (2.4013)	-1.3 (3.0838)	-0.3 (2.6032)	-4.6 (2.3650)
<i>democracy x revolution</i>	-2.0 (4.2969)	3.7 (3.5521)	7.4 * (2.9539)	-1.0 (4.1556)	3.8 (3.5282)	7.4 * (2.9093)
<b>Universal male suffrage (PIPE)</b>						
<i>democracy</i>	2.9 (5.1144)	1.4 (4.2339)	-2.1 (1.9353)	4.9 (5.3491)	1.4 (4.1243)	-2.1 (1.8825)
<i>democracy x revolution</i>	9.9 (6.6764)	-10.8 (5.9578)	-3.3 (2.6984)	7.9 (7.2203)	-10.8 (5.7898)	-3.3 (2.6248)

NOTE: Results based on a linear DD model with country and year fixed effects similar to the one given by Equation 1 but allowing for heterogeneous treatment effects depending on whether or not a country that transitioned to democracy experienced a revolution in the same year or the year before transitioning to democracy:  $Y_{i,t} = \gamma_i + \phi_t + \beta_1 Democracy_{i,t} + \beta_2 Democracy_{i,t} x Revolution_i + \epsilon_{i,t}$ .  $Revolution_i$  takes a value of 1 if country  $i$  had a revolution at  $t=0$  and/or at  $t=-1$ , and 0 otherwise. OLS estimates (Panel A) and Tobit estimates (Panel B). Standard errors clustered at the country level in parenthesis. Stars denote statistical significance at the \*0.05 and \*\*0.01 level. The number of countries contributing data is 49, 52, or 28 depending on whether democracy is measured by *polity2*, BMR, or universal male suffrage, respectively.

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization; Banks and Wilson's (2017) Cross-National Time-Series Data Archive (CNTS) for timing of revolutions.

**Table A6. Estimated Effect of Democratization on Primary, Secondary, and Tertiary Enrollment Rates, 1870-2010 – By Ideology of the Head of Government –** A linear difference-in-differences model that allows for heterogeneous treatment effects of democracy depending on whether or not the head of government has a left-wing ideology does not provide consistent evidence for the claim that there is a difference in the effect of democratization on primary SERs depending on whether or not the new democratic government is left-wing. There is some evidence that democratization leads to a reduction in secondary SERs when the new democratic government is left-wing, but not otherwise.

	<i>Panel A: OLS</i>			<i>Panel B: Tobit</i>		
	<b>Primary</b>	<b>Secondary</b>	<b>Tertiary</b>	<b>Primary</b>	<b>Secondary</b>	<b>Tertiary</b>
	<b>school enrollment rate</b>			<b>school enrollment rate</b>		
<b>Independent variable:</b>						
<b>Polity2 between 6 and 10</b>						
<i>democracy</i>	-0.6 (4.4017)	4.0 (2.5996)	-2.7 (1.6167)	1.4 (4.7074)	3.5 (2.5922)	-2.7 (1.5788)
<i>democracy x left-wing</i>	8.3 (9.3844)	-5.2 (5.9389)	0.1 (2.4966)	7.3 (9.9738)	-5.3 (5.8158)	0.1 (2.4381)
<b>Democracy (BMR)</b>						
<i>democracy</i>	1.7 (3.9878)	3.1 (2.8404)	-2.1 (1.6367)	3.9 (3.9437)	2.6 (2.8121)	-2.1 (1.6024)
<i>democracy x left-wing</i>	10.1 (7.5711)	-8.7 (5.2658)	-1.1 (2.6438)	8.2 (7.4646)	-8.9 (5.1713)	-1.1 (2.5884)
<b>Universal male suffrage (PIPE)</b>						
<i>democracy</i>	5.7 (3.8318)	3.2 (2.4251)	-4.2 * (1.5065)	7.9 * (4.0006)	2.8 (2.4155)	-4.2 ** (1.4672)
<i>democracy x left-wing</i>	21.3 ** (6.0293)	-26.6 ** (4.4683)	-3.7 (2.7581)	20.6 ** (6.3720)	-26.3 ** (4.3832)	-3.7 (2.6862)

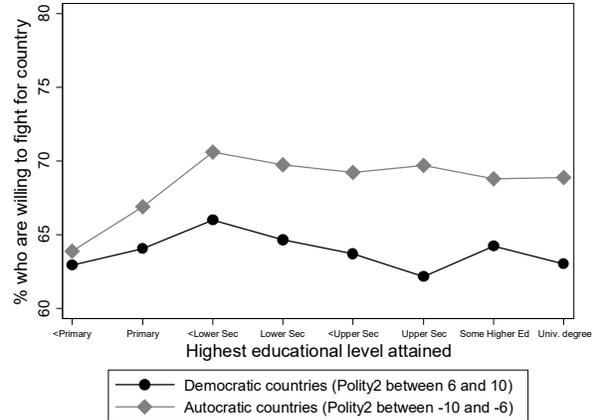
NOTE: Results based on a linear DD model with country and year fixed effects similar to the one given by Equation 1 but allowing for heterogeneous treatment effects depending on whether or not the new democratic government was left-wing or not:  $Y_{i,t} = \gamma_i + \phi_t + \beta_1 Democracy_{i,t} + \beta_2 Democracy_{i,t} \times Leftwing_i + \epsilon_{i,t}$ .  $Leftwing_i$  takes a value of 1 if the new democratic government of country  $i$  (at  $t=0$ ) was left-wing, and 0 otherwise, with ideology of the government based on the variable *hogideo* available in “The Ideology of Heads of Government, 1870-2012” (Brambor, Lindvall, and Stjernquist 2017). OLS estimates (Panel A) and Tobit estimates (Panel B). Standard errors clustered at the country level in parenthesis. Stars denote statistical significance at the \*0.05 and \*\*0.01 level. The number of countries contributing data is 24, 27, or 21 depending on whether democracy is measured by *polity2*, BMR, or universal male suffrage, respectively.

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project, BMR, and Przeworski et al. (2013) for timing of democratization; Brambor, Lindvall, and Stjernquist (2017) for whether the new democratic government was left-wing or not.

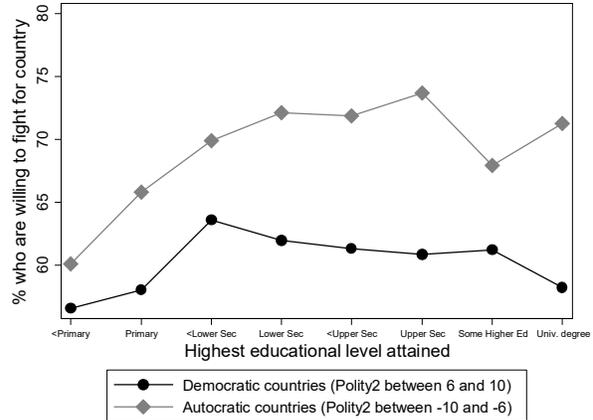
# Online Appendix B: Primary School Systems Under Non-Democracies

Figure B1. Educational Attainment and Willingness fo Fight for One’s Country, in Democracies vs. Non-Democracies, 1981-2014 – Individual willingness to fight for one’s country increases with years of schooling in autocracies (grey line) but not in democracies (black line).

Panel A:  
Data from all waves (1981-2014)



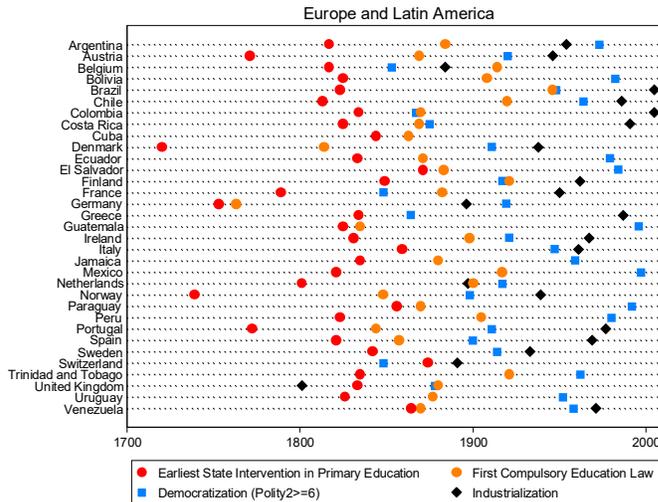
Panel B:  
Data from most recent wave (2010-2014)



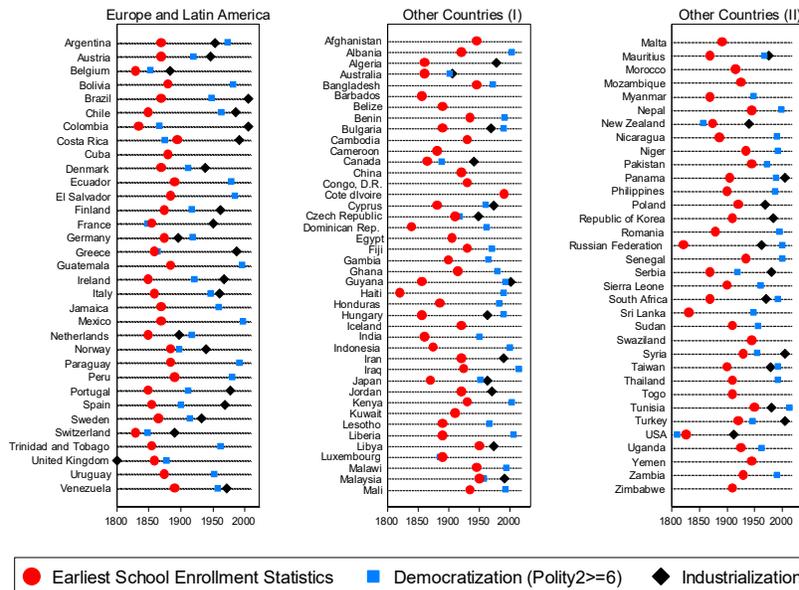
SOURCES: World Values Survey (multiple waves: 1981-1984, 1989-1993, 1994-1998, 1999-2004, 2005-2009, 2010-2014) for highest level of education attained and individual willingness to fight for one’s country based on; Polity Project for regime type.

**Figure B2. Timing of Industrialization and of State Intervention in Primary Education, by Country** – On average, the timing of central government intervention in primary schooling (red dots) preceded the timing of industrialization (black diamonds) by over 100 years.

Panel A: Europe and Latin America



Panel B: All Regions

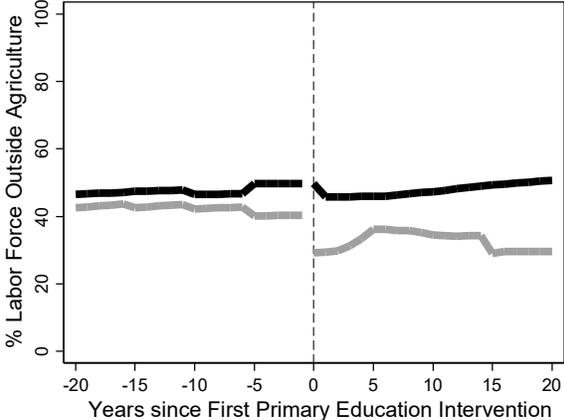


NOTE: The timing of industrialization is defined as the first year in which employment in industry exceeded that in agriculture.

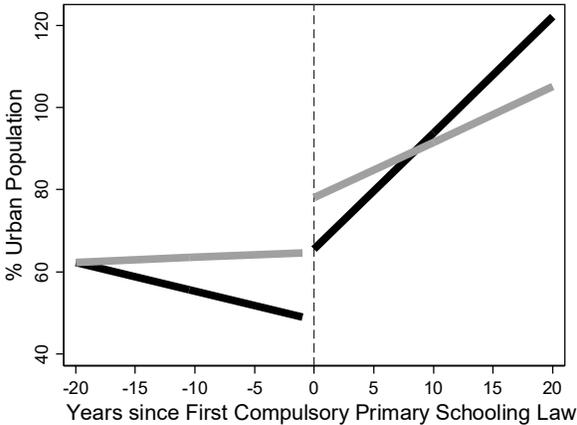
SOURCES: Author for timing of first central government intervention in primary education (see Online Appendix C); Lee and Lee (2016) for first primary school enrollment statistics; Polity Project for timing of democracy; Bentzen, Kaarsen and Wingender (2013) for timing of industrialization.

**Figure B3. Industrialization Before and After State Intervention in Primary Education, Treated and Comparison Groups –** Among countries with data, state intervention in primary schooling is followed by a divergence in industrialization and urbanization rates (black line) vis-a-vis countries without state intervention (grey line).

Panel A: Percent of the Labor Force Outside Agriculture



Panel B: Urbanization Rate

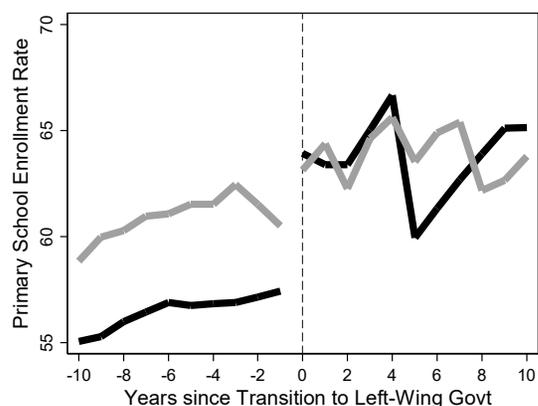


NOTE: Only 8 countries have labor force composition data before and after the central government’s first intervention in primary education, and only 20 countries have urbanization data before and after the first intervention. The black lines are the average percentage of the labor force employed outside agriculture (Panel A) and the average urbanization rate (Panel B) twenty years before and after the first central government intervention in primary schooling; the grey lines are the average trends among control countries (those where the central government had not yet intervened in primary education).

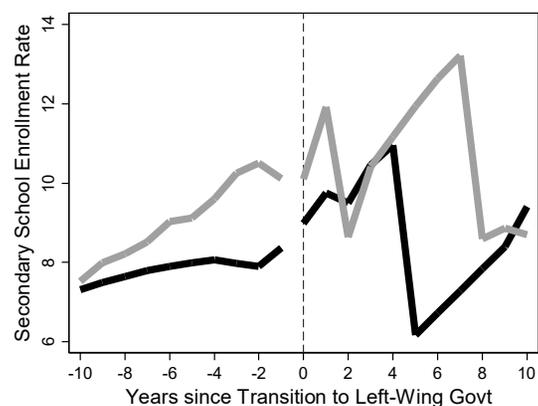
SOURCES: Author for timing of first central government intervention in primary education (see Online Appendix C); Banks and Wilson’s (2017) Cross-National Time-Series Data Archive (CNTS) for labor force composition and urbanization rate.

**Figure B4. Average School Enrollment Rates Before and After Transitioning from a Non-Left- to a Left-Wing Non-Democracy, in Treated and Comparison Groups, 1820-2010** – Transitions from a non-left- (i.e., center- or right-) to a left-wing non-democracy (black line) are, on average, followed by an increase in primary school enrollment rates above and beyond the increase observed in non-democracies that remain non-left-wing (grey line).

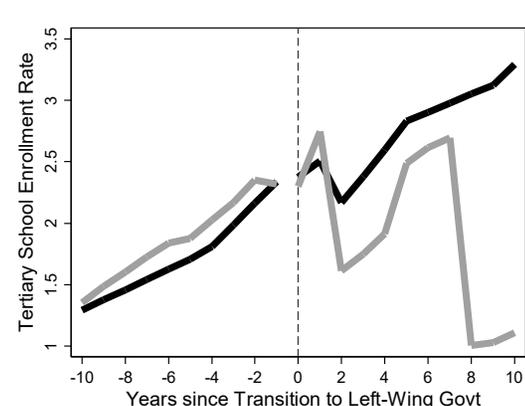
Panel A: Primary Education



Panel B: Secondary Education



Panel C: Tertiary Education

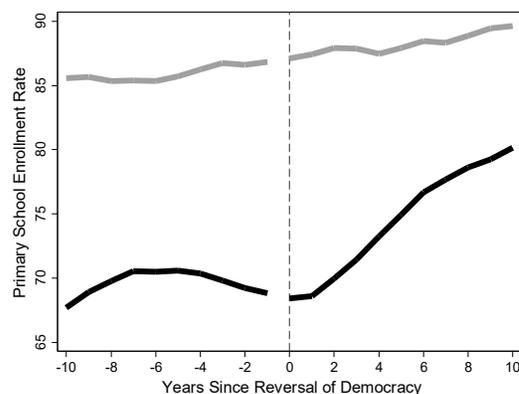


NOTE: The black line is average enrollment rate in primary, secondary and tertiary education among countries that transitioned from non-left- to left-wing non-democracy; the grey line is average enrollment rate among non-democracies that remain non-left-wing. A country is coded as non-democratic if *polity2* is below 6. Ideology of the government (right, center, left) is based on the variable *hogideo* available in “The Ideology of Heads of Government, 1870-2012” (Brambor, Lindvall, and Stjernquist 2017).

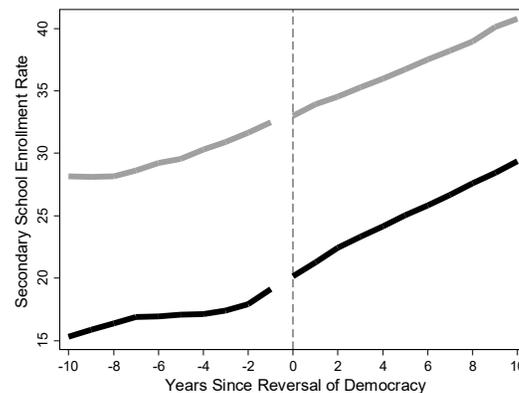
SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project for regime type; Brambor, Lindvall, and Stjernquist (2017) for the ideology of the government.

**Figure B5. Average School Enrollment Rates Before and After Democratic Backsliding, in Treated and Comparison Groups, 1820-2010** – Reversals from democracy to non-democracy are, on average, followed by an acceleration of primary school enrollment rates (black line) that is not observed in countries that remain democratic (grey line).

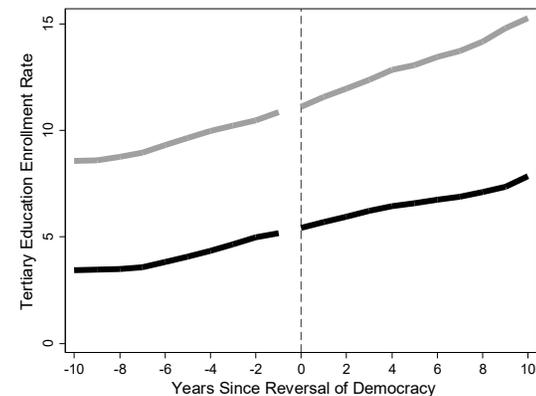
Panel A: Primary Education



Panel B: Secondary Education



Panel C: Tertiary Education



NOTE: The black line is average enrollment rate in primary (Left), secondary (Center) and tertiary (Right) education among countries that were democratic for at least ten years and reversed to non-democracy; the grey line is average enrollment rate among stable democracies (i.e., democracies that did not experience reversal to non-democracy). A country is coded as democratic if its *polity2* is between 6 and 10. If a country experiences more than one reversal from democracy to non-democracy, only the earliest reversal is considered. Democratic reversals (for countries containing pre- and post-reversal enrollment rate data) include: Austria in 1933; Colombia in 1886; Czech Republic in 1939; Fiji in 1987; Finland in 1931; France in 1958; Gambia in 1994; Greece in 1915; Myanmar in 1962; Pakistan in 1999; Peru in 1992; Portugal in 1926; Spain in 1923; Uruguay in 1971.

SOURCES: Lee and Lee (2016) for enrollment rates; Polity Project for regime type.

## Online Appendix C: Timing of Initial Central Government Intervention in Primary Education, and Sources Used, by Country

Table B.1. Timing of Initial Central Government Intervention in Primary Education and Sources Used, by Country

Country	State begins to <b>fund</b> primary schools	State begins to <b>establish/ administer</b> primary schools	State requires <b>"universal"</b> provision of schooling, or requires that every community provide schooling	State establishes <b>compulsory</b> primary education	State establishes that public primary education must be <b>free</b> at least for the poor	State begins to regulate <b>requirements to become a teacher</b>	State begins to provide <b>teacher training</b> for prospective teachers	State begins to regulate the <b>curriculum</b>
<i>Europe</i>								
Austria	1774 (Flora 1983: 555; Van Horn Melton 1988: 210-213)	1774 (Van Horn Melton 1988: 210-213)	1774 (Van Horn Melton 1988: 210-213)	1869 (Ramirez and Boli 1987: 5)	1869 (Garrouste 2010: 118)	1774 (Van Horn Melton 1988: 210-213)	1771 (Van Horn Melton 1988: 203)	1774 (Van Horn Melton 1988: 210-213)
Belgium	1831 (Michote 1932)	1831 (Michote 1932)	1842 (Flora 1983: 561; U.S. Bureau of Education 1895: 162-165; Garrouste 2010: 137)	1914 (Garrouste 2010: 137)	1842 (Flora 1983: 561; U.S. Bureau of Education 1895: 162-165; Garrouste 2010: 137)	1822 (Mallinson 1963: 237)	1817 (Mallinson 1963: 237)	1842 (Flora 1983: 561; U.S. Bureau of Education 1895: 162-165; Garrouste 2010: 137)
Denmark	1720 (Christian Larsen, Aarhus University, via email)	1720 (Christian Larsen, Aarhus University, via email)	1814 (Christian Larsen, Aarhus University, via email; Flora 1983: 567)	1814 (Christian Larsen, Aarhus University, via email; Flora 1983: 567)	1814 (Christian Larsen, Aarhus University, via email; U.S. Bureau of Education 1898: 74; Garrouste 2010: 181)	1818 (Christian Larsen, Aarhus University, via email)	1790 (Christian Larsen, Aarhus University, via email)	1739 Tveit 1991: 244
England	1833	1870 (Green 2013: 16)	1870 (Green 2013: 16)	1880 (Green 2013: 16)	1891 (Green 2013: 16)	1846 (Keating 2010)	1890 (Keating 2010)	1870 (Green 2013)
Finland	1849 (Jari Salminen, University of Helsinki, via email)	1866 (Garrouste 2010: 190; Jari Salminen, University of Helsinki, via email)	1898 (Flora 1983: 572; Finnish National Board of Education website)	1921 (Flora 1983: 572; Finnish National Board of Education; Jari Salminen, University of Helsinki, via email)	1919 (Flora 1983: 572; Finnish National Board of Education)	1866 (Garrouste 2010: 190; Jari Salminen, University of Helsinki, via email)	1863 (Kansanen 2003: 86; Iisalo 1979: 53)	1866 (Garrouste 2010: 190; Jari Salminen, University of Helsinki, via email)

Country	State begins to <b>fund</b> primary schools	State begins to <b>establish/ administer</b> primary schools	State requires <b>"universal"</b> provision of schooling, or requires that every community provide schooling	State establishes <b>compulsory</b> primary education	State establishes that public primary education must be <b>free</b> at least for the poor	State begins to regulate <b>requirements to become a teacher</b>	State begins to provide <b>teacher training</b> for prospective teachers	State begins to regulate the <b>curriculum</b>
France		1789 (Barry Bergen, Gallaudet University, via email).	1833 (Flora 1983: 577)	1882 (Flora 1983: 577; Garrouste 2010: 201)	1881 (Flora 1983: 577; Garrouste 2010: 201)	1833 (Green 2013: 14, 30; Flora 1983: 577)	1833 (Flora 1983: 577)	1793 (Dwyer and McPhee 2002: 88-89; Barry Bergen, Gallaudet University, via email)
Greece	1885 (Ifanti 1995: 272-3)	1885 (Ifanti 1995: 272-3)	1895 (Watson 1921: 744-5)	1834 (U.S. Bureau of Education 1884: CCXXIX)	1885 (Ifanti 1995: 272-3)	1834 (Kazamias 2009: 245)	1834 ( <a href="http://education.sta-teuniversity.com/pages/543/Greece-EDUCATIONAL-SYSTEM-OVERVIEW.html">http://education.sta-teuniversity.com/pages/543/Greece-EDUCATIONAL-SYSTEM-OVERVIEW.html</a> accessed 12/05/2017)	1834 (U.S. Bureau of Education 1884: CCXXIX)
Ireland	1831 (Coolahan 1981: 4; Thomas Walsh, Maynooth University, via email)	1831 (Coolahan 1981: 4; Thomas Walsh, Maynooth University, via email)	1892 (Thomas Walsh, Maynooth University, via email)	1898 (Flora 1983: 593)	1831 (Thomas Walsh, Maynooth University, via email)	1834 (Walsh 2012: 24)	1834 (Walsh 2012: 24)	1831 (Coolahan 1981: 13-14; Thomas Walsh, Maynooth University, via email)
Italy		1859 (Stefano Chianese, University of Rome, via email)	1859 (Stefano Chianese, University of Rome, via email)	1859 (Stefano Chianese, University of Rome, via email)	1859 (Stefano Chianese, University of Rome, via email)	1859 (Stefano Chianese, University of Rome, via email)	1859 (Stefano Chianese, University of Rome, via email)	1860 (Stefano Chianese, University of Rome, via email)
Netherlands	1801 (U.K. Board of Education 1902: 307)	1806 (U.K. Board of Education 1902: 310)	1889 (U.K. Board of Education 1902: 331, 352)	1900 (Garrouste 2010: 286)	1889 (U.K. Board of Education 1902: 331)	1806 (U.K. Board of Education 1902: 310)	1816 (U.K. Board of Education 1902: 308)	1806 (U.K. Board of Education 1902: 310)
Norway	1739 (Rust 1989: 13-14)	1739 (Rust 1989: 13-14)	1848 (Rust 1989: 39-40, 71)	1848 (Rust 1989: 39-40, 71)	1739 (Rust 1989: 13-14)	1860 (Rust 1989: 86-90)	1826 (Rust 1989: 39-40)	1848 (Rust 1989: 39-40, 71)
Portugal	1854 (Da Costa 1871: 261)	1772 (U.K. Board of Education 1902: 445)	1834 (Da Costa 1871: 269)	1844 (Da Costa 1871: 169)	1822 ( <a href="http://education.sta-teuniversity.com/pages/1220/Portugal-HISTORY-">http://education.sta-teuniversity.com/pages/1220/Portugal-HISTORY-</a>	1869 (Da Costa 1871: 225, 274-75)	1862 (Mogarro 2006: 321)	1844 (Mogarro 2006: 321)

Country	State begins to <b>fund</b> primary schools	State begins to <b>establish/ administer</b> primary schools	State requires <b>"universal"</b> provision of schooling, or requires that every community provide schooling	State establishes <b>compulsory</b> primary education	State establishes that public primary education must be <b>free</b> at least for the poor	State begins to regulate <b>requirements to become a teacher</b>	State begins to provide <b>teacher training</b> for prospective teachers	State begins to regulate the <b>curriculum</b>
					BACKGROUND.html, accessed 12/5/2017)			
Prussia		1763 (Cubberley 1920: 558)	1826 (Green 2013: 13-14)	1763 (Cubberley 1920: 558)	1868 (Green 2013: 13-14)	1753 (Kandel 1910: 8; Van Horn Melton 1988: 172)	1753 (Kandel 1910: 8; Van Horn Melton 1988: 172)	1763 (Cubberley 1920: 558)
Spain		1857 (Boyd 1997: 4-5)	1857 (Boyd 1997: 4-5)	1857 (Boyd 1997: 4-5)	1857 (Boyd 1997: 4-5)	1825 (Clara Núñez, UNED, Begoña Moreno, UNED, and Gloria Quiroga Valle, Universidad Complutense de Madrid, via email)	1839 (Escolano Benito 1982: 59-60)	1821 (Clara Núñez, UNED, Begoña Moreno, UNED, and Gloria Quiroga Valle, Universidad Complutense de Madrid, via email)
Sweden	1842 (Larsson & Stanfors)	1842 (Larsson & Stanfors)	1842 (Larsson & Stanfors)	1842 (Larsson & Stanfors)		1853 (Larsson & Stanfors)	1860 (U.S. Bureau of Education 1884: CCXLIV)	1878 (Larsson & Stanfors)
Switzerland	1902 (U.S. Bureau of Education 1912: 1367)		1874 (Jenzer n.d.: 1)	1874 (Jenzer n.d.: 1)	1874 (Jenzer n.d.: 1)			1874 (Jenzer n.d.: 1)
<b>Latin America</b>								
Argentina	1871 (Memoria del Ministro de Justicia, Culto e Instruccion Publica 1876: LI)	1817 (Solari 1972: 47-51)	1884 (Campobassi 1942)	1884 (Campobassi 1942)	1884 (Campobassi 1942)	1884 (Jennifer Guevara, Universidad de San Andrés, via email)	1870 (Jennifer Guevara, Universidad de San Andrés, via email)	1884 (Mariano Narodowski, Universidad Torcuato Di Tella, via email)
Bolivia	1826	(Kent 1996: 4-19)	1825	1908 (Kent 1996: 4-19)	1851 (Daza 2012: 171)	1851 (Kent 1996: 4-19)	1909 (Kent 1996: 4-19)	1826 (Daza 2012: 179)
Brazil		1823 (Havighurst and Moreira 1965: 71)	1827 (Havighurst and Moreira 1965: 72)	1946 (Havighurst and Moreira 1965)	1823 (Havighurst and Moreira 1965: 72)	1879 (Musacchio et al. 2012: 6)	1879 (Musacchio et al. 2012: 6)	1879 (Musacchio et al. 2012: 6)
Chile	1860 (Camila Pérez Navarro,	1860 (Camila Pérez Navarro,	1860 (Camila Pérez Navarro,	1920 <a href="http://www.memoriaachilena.cl/602/w3-">http://www.memoriaachilena.cl/602/w3-</a>	1860 (Camila Pérez Navarro,	1813 (Camila Pérez Navarro,	1842 (Camila Pérez Navarro,	1860 (Camila Pérez Navarro,

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	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)	<a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">article-3565.html#cronologia</a> accessed 8/2/2016	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)	Universidad de Chile, via email)	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)	Universidad de Chile, via email; <a href="http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia">http://www.memoriaachilena.cl/602/w3-article-3565.html#cronologia</a> accessed 8/2/2016)
Colombia	1834 (Ramírez and Salazar 2007: 30-31)		1860 (Alarcón Meneses 2011: 359)	1870 (Ramírez and Salazar 2007: 17)	1860 (Alarcón Meneses 2011: 359)	1870 (Ramírez and Salazar 2007: 17)	1872 (Alarcón Meneses 2011: 296)	1865 (Alarcón Meneses 2011: 357)
Costa Rica	1825 (González Flores 1978: 285-288)	1825 (González Flores 1978: 285-288)	1847 (González Flores 1978: 229)	1869 (González Flores 1978: 230)	1869 (González Flores 1978: 230)	1849 (González Flores 1978: 201)	1849 (González Flores 1978: 201)	1849 (González Flores 1978: 232)
Cuba	1844 (Cruz 1952: 278)	1844 (Cruz 1952: 278)	1880 (Cruz 1952: 278)	1863 (OEI n.d.: 2-3)		1863 (OEI n.d.: 2-3)	1863 (OEI n.d.: 2-3)	1880 (OEI n.d.: 2-3)
Ecuador		1833 (Freile, n.d.: 1-3; Ministerio de Educacion (Ecuador), n.d.: 1)	1871 (Ministerio de Educacion (Ecuador), n.d.: 1)	1871 (Freile, n.d.: 1-3; Henderson 2008: 165)	1871 (Freile, n.d.: 1-3; Henderson 2008: 165)	1873 (Vargas 1965: 375)	1873 (Henderson 2008: 165)	1871 (Henderson 2008: 154-155)
El Salvador	1871 (Olga Vásquez Monzón, Universidad Centroamericana "José Simeón Canas," via email)	1871 (Olga Vásquez Monzón, Universidad Centroamericana "José Simeón Canas," via email)		1883 (Vásquez Monzón 2012: 164, 230)	1871 (Vásquez Monzón 2012: 98)		1874 (Vásquez Monzón 2012: 114)	1873 (Vásquez Monzón 2012: 163)
Guatemala		1835 (Gonzalez Orellana 2007: 160)	1825 (Gonzalez Orellana 2007: 182)	1835 (Gonzalez Orellana 2007: 160)	1831 (Gonzalez Orellana 2007: 188)	1831 (Gonzalez Orellana 2007: 188; Centro de Informacion y Documentacion Educativa de Guatemala 2006: 11 & 15)	1835 (Gonzalez Orellana 2007: 160; Centro de Informacion y Documentacion Educativa de Guatemala 2006: 11 & 15)	1825 (Gonzalez Orellana 2007: 182)

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Jamaica	1835 (Foner 1973: 38)	1885 (Foner 1973: 39)	1892 (Goulbourne 1988: 5, 42)	1880 (Carley 1942: 2)	1892 (Foner 1973: 39; Goulbourne 1988: 5, 42)	1863 (Carley 1942: 4)	1885 (Jamaica Ministry of Education 1922: 2; <a href="http://stcoll.edu.jm/about/history/">http://stcoll.edu.jm/about/history/</a> )	
Mexico	1842 (Anne Folger Staples Dean, Colegio de Mexico, via email)	1842 (Anne Folger Staples Dean, Colegio de Mexico, via email)	1821 (Escalante Gonzalbo et al. 2010: 1818)	1917 (Escalante Gonzalbo et al. 2010: 1917)	1917 (Escalante Gonzalbo et al. 2010: 1917)	1842 (Escalante Gonzalbo et al. 2010: 1819; Anne Folger Staples Dean, Colegio de Mexico, via email)	1833 (Escalante Gonzalbo et al. 2010: 1831)	1842 (Escalante Gonzalbo et al. 2010: 1819; Anne Folger Staples Dean, Colegio de Mexico, via email)
Paraguay	1870 (Pineda 2012)	1870 (Pineda 2012)	1870 (Pineda 2012)	1870 (Pineda 2012)	1940 (OEI)	1878 (Pineda 2012)	1856 (Zayas Rossi 2015)	1870 (Pineda 2012)
Peru	1862 (Espinoza 2013: 12)	1905 (Espinoza 2013: 12)	1823 (Constitution of 1823, art. 184)	1905 (OEI n.d.: 4)	1828 (OEI n.d.: 2)	1850 (OEI n.d.: 3)	1825 ( <a href="http://www.archivodellibertador.gob.pe/escritos/buscador/spip.php?article8907">http://www.archivodellibertador.gob.pe/escritos/buscador/spip.php?article8907</a> )	1823 (Constitution of 1823, art. 184)
Trinidad & Tobago	1835 (Trinidad and Robago Independence Celebration Committee 1962: 10)	1849 (Trinidad and Robago Independence Celebration Committee 1962: 13)	1849 (Trinidad and Robago Independence Celebration Committee 1962: 13-14)	1921 (Trinidad and Tobago Independence Celebration Committee 1962: 12)	1849 (Trinidad and Robago Independence Celebration Committee 1962: 13-14)	1851 (Trinidad and Tobago Independence Celebration Committee 1962: 9)	1852 (Trinidad and Robago Independence Celebration Committee 1962: 36)	1849 (Trinidad and Robago Independence Celebration Committee 1962: 13-14)
Uruguay	1826 (Uruguay, Ministerio de Educacion y Cultura 2014: 19)	1826 (Uruguay, Ministerio de Educacion y Cultura 2014: 19)	1827 (Uruguay, Ministerio de Educacion y Cultura 2014: 19)	1877 (Uruguay, Ministerio de Educacion y Cultura 2014: 32-33)	1827 (Uruguay, Ministerio de Educacion y Cultura 2014: 19)	1827 (Administracion Nacional de Educacion Publica 2007: 2)	1827 (Administracion Nacional de Educacion Publica 2007: 2)	1847 (U.S. Bureau of Education 1895: 337; Uruguay, Ministerio de Educacion y Cultura 2014: 27-28)

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Venezuela	1870 (Rivero Hidalgo 2011: 52-58)	1870 (Rivero Hidalgo 2011: 52-58)	1870 (Rivero Hidalgo 2011: 56-58)	1870 (Rivero Hidalgo 2011: 56-58)	1864 (Rivero Hidalgo 2011: 56)	1897 (Pinto Iglesias & García García 2002: 48-49)	1876 (Pinto Iglesias & García García 2002: 42)	1870 (Rivero Hidalgo 2011: 56-58)

## *Europe*

**Austria.** Prior to 1774, school was provided by the Church and people were charged a fee. Primary school is brought under state control through Maria Theresa's General School Ordinance of 1774 (Flora 1983: 555). The General School Ordinance established that every town and every rural parish would have at least one minor school (*Trivialschule*) which was to provide elementary instruction, and that in urban areas there also had to be a major school (*Hauptschule*) designed for middle-class pupils hoping to advance to the Gymnasium; (ii) standardized the curriculum for elementary schools, which differed for rural and urban areas; (iii) required that a normal school be established in every province; and (iv) required that schoolmasters and tutors be certified by a normal school (Van Horn Melton 1988: 210-213). The first normal school, the Vienna Normal School, had been created with Maria Theresa's approval, and with the monarchy's funding, in January of 1771 (Van Horn Melton 1988: 203). Between 1805 and 1867, an alliance between the Crown and the Church re-establishes ecclesiastical supervision of education (Flora 1983: 555). The definitive movement toward a state education system in Austria came in the late 1860s: the Constitution of 1867 put schools firmly under state control; in 1868, complete separation of schools from the Church was instituted; in 1869, the Imperial Act on Primary Education (*Reichsvolksschulgesetz*) was passed, establishing a system of compulsory primary schooling (Ramirez and Boli 1987: 5) and abolishing school fees (Garrouste 2010: 118).

**Belgium.** "When the Congress of Vienna, in 1815, united Belgium and the Netherlands into one, William I, King of the Netherlands, sought by progressive steps to institute in the new provinces state monopoly in education and to use the schools as an instrument for Protestant propaganda. He entrusted to the Government the general control of all elementary education, and placed the supervision and inspection of schools of every grade in the hands of officials and commissions depending on the central authority. To it was granted the exclusive right to establish or to authorize the establishment of schools under conditions in which private initiative was extraordinarily restricted." (Michote 1932). The first teacher training schools are established by William I in Lierre in 1817; and a regulation from 1822 established that all lay primary school teachers ought to be certified (Mallinson 1963: 237). The Belgium Constitution of 1831, passed right after Belgium separates from the Dutch, established "freedom of education," and "side by side with private education the Constitution provides for a system of public education organized by the State or its subdivisions—provinces and communes." (Michote 1932). The First School Law on Primary Education, from 1842, made provision for the elementary instruction of all children; establishes that each local authority must establish and support at least one primary school and that primary education must be free for the poor; specifies that the State must create and maintain at least 2 normal schools; specifies the branches of a mandatory curriculum; and emphasized the importance of teachers' training in normal schools (Flora 1983: 561; U.S. Bureau of Education 1895: 162-165; Garrouste 2010: 137). Subsequent legislation in 1879 again obliged the communes to maintain at least one public school; removed the Church from any school inspection activities; established new requirements to become a teacher (must be Belgian and have a teaching diploma); extended the mandatory curriculum and excluded religious instruction; and increased the number of State normal schools." (U.S. Bureau of Education 1895: 162-165). Compulsory

education at the primary level is introduced in 1914 for children 6-14 years (Garrouste 2010: 137).

**Denmark.** King Frederik IV in 1720 established 240 schools for children financed by the State. It was the first time the State paid for primary school education in Denmark (Christian Larsen, Aarhus University, via email received on 01/21/2016). In 1736, the State decided to make confirmation mandatory for all children in the country. The Royal Confirmation Ordinance of 1736 indirectly demanded compulsory schooling for all children, since in addition to making confirmation compulsory, it stated that "No children shall be admitted to confirmation, who have not earlier attended school". The Royal School Ordinance of 1739 ordered schooling for all children from the age of 6 or 7 until they "are at least able to read without hesitation from a Book and know their Catechism. (Tveit 1991: 244; Christian Larsen, Aarhus University, via email received on 01/21/2016). The 1739 School Ordinance established that primary schools must teach reading and religion (Tveit 1991: 244). However, because the State was poor, the expenses were left to landowners, who protested against this. In 1740 the King withdrew his order and made it voluntary for landowners to provide education in the countryside. In towns, the legislation was different. Universal, compulsory, free primary education for all children first became a reality with the Public Education Act of 1814. (Christian Larsen, Aarhus University, via email received on 01/21/2016). The law required public schools (*Folkeskole*) to be set up in all municipalities; established compulsory schooling for children ages 7-14 (Flora 1983: 567); and established that instruction be free for those who could not afford tuition (U.S. Bureau of Education 1898: 74; Garrouste 2010: 181). The 1814 Act also established a new mandatory curriculum, making Denmark the first Nordic country to require writing as a school subject (Tveit 1991: 244). The first State Seminarium (teacher training college), Blaagaard Seminarium, was founded in Copenhagen in 1790, and the first law establishing requirements to be a teacher was passed in 1818 (Christian Larsen, Aarhus University, via email received on 01/21/2016).

**England.** In 1846, the State begins to require individuals to go through the pupil-teacher system of training to become elementary school teachers; entry into the system required being 13 years or older, having completed primary school, and fulfilling certain scholastic, moral and physical conditions (Keating 2010). The Cross Commission on Elementary Education, publishing a report in 1888 recommending that day teacher training colleges be set up by universities and university colleges. The Government accepted this proposal and six were opened in 1890, and four more the following year. By 1900 there were 16 with 1,150 students. (Keating 2010). "A national public system of primary education in England and Wales was established by the 1870 Elementary Education Act. Compulsory attendance was not effected in most areas until the 1880s and elementary schools were not entirely free until 1891. (Green 2013: 16). The Elementary Education Act of 1870 created local education boards which were responsible for ensuring access to elementary education for all, and established standards of what children ought to learn in school. Elementary schooling became compulsory with the Elementary Education Act of 1880; and became free of charge in both board (public) and voluntary (church) schools in 1891. (Wikipedia, "Elementary Education Act 1870", accessed 11/11/2015: [https://en.wikipedia.org/wiki/Elementary\\_Education\\_Act\\_1870](https://en.wikipedia.org/wiki/Elementary_Education_Act_1870)).

**Finland.** The State began funding existing private schools in 1849 (Jari Salminen, University of Helsinki, via email on 11/17/2015). The first teacher-training college for primary school teachers was founded in Jyväskylä in 1863 (Kansanen 2003: 86; Iisalo 1979: 53). The Primary School Act of 1866 establishes the Finnish Folk School System with six years of primary schooling (Garrouste 2010: 190), and transfers responsibility for organizing primary schools from the Church to the communes (Flora 1983: 572). It also set some guidelines for teacher qualifications and the primary school curriculum (Jari Salminen, University of Helsinki, via email on 11/17/2015). The Compulsory School Founding Act of 1898 mandated every local authority to provide all school-aged children with an opportunity for schooling (Flora 1983: 572; Finnish National Board of Education website accessed 11/12/2015). Finland gains independence in 1917; the Constitution of 1919 sets an obligation to provide "free instruction for all in primary schools"; and in 1921 an Act is introduced that established six years of compulsory schooling in folk schools (Flora 1983: 572; Finnish National Board of Education website accessed 11/12/2015).

**France.** A system of public schools under civil control was established in 1780. During the Reign of Terror in 1793-1794, the revolutionary government introduced education policy through the Bouquier Law of December 1793, which envisaged a system of free, compulsory education for children of 6-13 years with a curriculum emphasizing patriotism and republican virtues, physical activity, field study and observation, and a role for schools in civic festivals. This would replace the primary education provided previously by priests. The punitive provisions of the law highlighted the Jacobins' insistence on education as a duty, not just a right. The Jacobins had neither the time nor the funds to implement such a program, and the reforms were left largely unimplemented (Dwyer and McPhee 2002: 88-89; Barry Bergen via email). Elementary education was returned to the control of the Church in 1802. Between 1815-1830, the Jesuits and Catholic Church maintain influence over education, and their emphasis shifts toward primary schools. The Guizot Law of 1833 represents the first legislation to organize a national primary school system. It mandates the establishment of a primary school in each commune, a higher elementary school in each town, and a primary teachers' school in each department (Flora 1983: 577); and extends the State's control over the licensing of teachers and inspection of schools (Green 2013: 14). New recruits, although not required to undergo specific training, had to show evidence of intellectual ability and receive a certificate of fitness from local councilors (Green 2013: 30), and teachers at Catholic schools had to take a state examination (Flora 1983: 577). The Falloux Law of 1850 re-establishes the influence of the clergy on educational matters. School fees are abolished for public primary schools in 1881; and 7 years of compulsory schooling are introduced by the Jules Ferry Laws of 1882 (Flora 1983: 577; Garrouste 2010: 201).

**Greece.** Since independence in 1828, the Greek education system became increasingly centralized. A Decree from April 3<sup>rd</sup>, 1833, gave the Secretary of Religious Affairs and Public Education the responsibility to: establish, control and supervise schools all over the country, and train primary and secondary school teachers. In practice, however, the organization of schools and the appointment of teachers remained under the control of the local government, as it used to be during the Turkish occupation (Ifanti 1995: 272-273). A law of 1834 established compulsory primary education for children between 5 and

12 years of age and a mandatory curriculum for common schools including: “the catechism, elementary Greek, writing, arithmetic, weights and measures, linear drawing, singing, and, ”when convenient,” the elements of geography, history of the country, and the elementary training most needed in natural sciences” (U.S. Bureau of Education 1884: CCXXIX). The same law of 1834 specified the qualifications, the classification, and the salaries of teachers (Kazamias 2009: 245). A teacher training institution was established in 1834 in Naupleion, the provisional capital of Greece (<http://education.stateuniversity.com/pages/543/Greece-EDUCATIONAL-SYSTEM-OVERVIEW.html> accessed 12/05/2017). In 1885, fees for primary school were abolished. The move was linked to the enforcement of compulsory education at this level of schooling, and resulted in the transfer of the financial responsibility for primary teachers and schools from local to central government. In addition, the Decree issued on March 12<sup>th</sup>, 1894, determined a new curriculum and the weekly timetable of primary schools.” (Ifanti 1995: 272-3). A law from 1895 established that the whole expense for primary education ought to be borne by the State. The same law required teachers to have undergone a three years’ preparatory course in some training school; and extended primary education to the remotest part of the country.” (Watson 1921: 744-5).

**Ireland.** “Ireland ... got a state-supported primary school system under control of a state board of commissioners in 1831.” (Coolahan 1981: 4). In 1831, the Stanley Letter creates a system of national elementary education and defines the statutory rules for National (i.e. primary) Schools. Under the 1831 law, primary schooling was always free to pupils; no fees could be charged in schools operating under the national system (Thomas Walsh, Maynooth University, via email received on 11/10/2015); the Commissioners of National Education held the power of distributing funds and approving schemes, of setting out rules and regulations, of controlling the curriculum, of publishing and sanctioning textbooks, of suspending teachers and removing managers. The Inspectors acted as agents of the Commissioners to ensure that regulations were carried out.” (Coolahan 1981: 13-14). For teachers’ salaries to be funded by the national government, they had to meet certain criteria (Thomas Walsh, Maynooth University, via email received on 11/10/2015). The Stanley Letter also contained a provision for the establishment of a central teacher training college in Marlborough Street, which operated between 1834 and 1922. Teacher training remained a contentious issue throughout most of the nineteenth century. There were numerous attempts to ensure they teachers properly trained but both the church and the state feared the political affiliation of teachers (Walsh 2012: 24). Compulsory primary schooling in towns was introduced in 1892, and extended to rural areas in 1898 (Flora 1983: 593).

**Italy.** The first general law of primary education in Italy was the “Legge Casati,” introduced in the State of Sardinia in 1859 and extended to the rest of the provinces after the unification of Italy. The law instituted free and compulsory primary schooling; called for the creation of “Scuole Normali” (Normal Schools) to train primary school teachers; and required teachers to hold a license, obtained through an examination and a “certificate of morality” issued by the Mayor of the city in which they worked. The Casati Law structured primary education in two levels, each one lasting two years. The curriculum

was regulated by the Royal Decree of September, 15<sup>th</sup>, 1860, and included, for lower primary schools: religion, reading, writing, arithmetic, Italian language, and basics of the metric system; and for upper primer schools: rules of composition, calligraphy, book-keeping, elementary beography, national history, and the knowledge of basic physics and natural sciences. The main goals of the school curricula were to reduce illiteracy and to contribute to cultural and linguistic unification. Great emphasis was given to the teaching of Italian language, to civil rules, religious precepts and basic math. (Stefano Chianese, University of Rome, via email received 10/8/2015). “It should be noted that under the 1859 law the communes were to bear the expense of establishing new primary schools.” (U.S. Bureau of Education 1884: CCXXXI).

**Netherlands.** In 1801, the Elementary Education Act establishes, for the first time, a direct connection between the State and national education. The law stipulates that there should be an adequate number of schools in every district. The schools were to be administered by the communes, but the central government was responsible for school inspection and provided financial assistance to support teachers’ salaries (U.K. Board of Education 1902: 307). “The law of 1806 ... formally ordained the exclusive right of the State to erect schools and permitted the communes to erect them only under the direction, and subject to the control, of the Government. ... The legislation did not establish Normal Schools, but did require of everyone intending to enter the teaching profession a ‘certificate for general admission’ which was obtained through examination... The law established that education ought to be religious but non-denominational, or ”neutral” (i.e., schools taught the general principles of Christianity, but the goal being a social, civil one, not one of religious conversion or anything alike; each religious institution taught the specifics of its doctrine during religious service, not during school time” (U.K. Board of Education 1902: 310). The first Normal Schools, in Haarlem and Lierre, are established in 1816 (U.K. Board of Education 1902: 308). “A law of 1889 made education free for the poor” (U.K. Board of Education 1902: 331) and established “that all children who wish to access a public school should be able to do so, and that, to that end, every commune must have a sufficient number of schools that are open to all children” (U.K. Board of Education 1902: 352). Both the constitutions of 1815 and 1848 provided for state control of education (Cubberley 1920: 712-3). Finally, the first legislation making education compulsory was passed in 1900. It prescribed 6 years of compulsory education (between the ages of 6 and 12) (Garrouste 2010: 286).

**Norway.** The Royal Confirmation Ordinance of 1736 made confirmation mandatory, and stated that “No children shall be admitted to confirmation, who have not earlier attended school;” and the Royal School Ordinance of 1739, replicating the one passed in Denmark earlier that year, “required all young people in the countryside, regardless of social station or position, to attend school for the purpose of gaining a foundation of Christian faith and turning toward salvation. All children in the countryside would be expected to attend school from the age of seven years and remain at least until they were ten to twelve years old, or until they could read and undergo confirmation in Christianity, at about the age of fourteen.” The purpose of lower schooling was to teach children religion and reading; they rarely taught children how to write. The decree dictated that permanent schools be

established wherever possible, but “it was simply not possible to establish permanent schools in a country where over 90% of the population lived in isolated farming households.” Moreover, although the schools were to be administered centrally by the official class, the local districts were required to raise most of the funds to pay for the schools, which encountered great resistance, so in 1741 adjustments were made allowing each local parish to decide what type of common schools to set up (Rust 1989: 13-14). The first teacher training seminar supported by the state was opened in 1826 (Rust 1989: 39-40). In 1827, a School Law applying to the countryside established that one teacher training seminar should be set up in each bishopric. Each parish was directed to establish (with its own funds) at least one permanent school if there were thirty or more youth who were of compulsory attendance age, and attendance was made compulsory beginning at age 7 and until the young person had completed confirmation. The content of instruction was set to include reading with comprehension, Christian studies with Bible history; singing in the hymnal; writing and calculating (Rust 1989: 39-40). In 1848, the Folk School Law applying only to the towns, mandated that at least one permanent folk school exist in a town; that teachers be teacher seminar qualified; that they instruct no more than 60 pupils in a single day, and that children attend from the age of seven years until confirmation. ... The law also mandated that each town have a school commission consisting of the priest, the residing curate, a representative of the magistrate, and other representatives determined by the town council. ... The course of study, which had focused mainly on reading and religion in the past, was also expanded to include other basic subjects ... as singing, writing and calculating were to be taught in all schools.” (Rust 1989: 71). The 1848 law extended to the towns what the School Law of 1827 had stipulated for schools in the countryside with respect to universal provision of schooling and compulsory attendance. Finally, the 1860 Folk School Law, applying “both in the city and the countryside, ... included provisions for teacher qualifications and salary, school days per year, curriculum, etc.” and stipulated “a separate school budget at the county level to finance folk schooling. ... Teachers would be required to meet certain qualifications. The conventional route would be through a county teacher seminar, but some could qualify by going to a so-called lower seminar that consisted of a higher common school experience, by apprenticing as a teacher, or by taking an examination approved by the king. ... The required subjects in the law were reading, Christian studies, nature studies, history, singing, writing, calculating, and some optional subjects such as gymnastics and military services.” (Rust 1989: 86-90).

**Portugal.** The Marquis of Pombal, Prime Minister of King Joseph I, through an education reform introduced in 1772 (U.K. Board of Education 1902: 445), set about to replace Jesuit education with state-controlled primary schools to train government clerks and instill respect for the new order of “enlightened despotism” (Birmingham 2003: 85), but these schools were mostly for the upper classes, not the poor. In 1834, there was a short-lived attempt to reform primary education under liberal principles, decentralizing the provision of primary education and requiring the communes to provide it (Da Costa 1871: 269). In 1844, the Royal Decree of September 20<sup>th</sup> established compulsory primary schooling, and penalties for parents whose children did not attend school; required the establishment of Normal Schools to train primary school teachers (Da Costa 1871: 169), but the first Normal School was founded in Lisbon in 1862 (Mogarro 2006: 321); and

established a curriculum (Lalor 1886: 302). Until 1854, despite the presence of legislation promoting primary schools, there was no central government funding for it. In 1854, the central government committed a fixed annual amount to promote primary schools (Da Costa 1871: 261). The creation of a National Ministry of Education in 1870 was followed by a new reform of primary education which stipulated the primary schooling ought to be provided not only for boys but also for girls on an equal basis; decentralized the administration of schools; created incentives for teachers and required they be trained in Normal Schools; and established a curriculum which included physical education, moral education, and practical (agricultural) education (Da Costa 1871: 225, 274-75). In 1869, the central government established new procedures and requirements for accessing teaching jobs (Da Costa 1871: 262). Free primary schooling was guaranteed by the Constitutions of 1822 and 1926.<sup>1</sup>

**Prussia.** In 1753, the King gave the Normal School of Berlin, which had been established by Hecker as a private institution in 1748, an annual grant, and extended for the whole state the order that all vacancies should be filled with teachers from the Berlin Normal School (Kandel 1910: 8; Van Horn Melton 1988: 172). The School Code of 1763 ordered compulsory education for all children ages 5-13/14; the fees of the children of the poor were ordered paid; fines on parents not sending their children to school were defined; the requirements for a teacher, his habits, his qualifications and examination, the license to teach, and the extent to which he might ply his trade or business, were all laid down in some detail; and the organization, instruction, textbooks, order of exercises, and discipline for all schools were prescribed at some length (Cubberley 1920: 558). Frederick II's compulsory attendance laws in 1763 marked the first important move in the direction of national education. "Further regulations in 1826 made schooling compulsory between the ages of 7 and 14, gave each parish an elementary school, and prescribed training for all teachers. Free elementary tuition was not made law until 1868. (Green 2013: 13-14).

**Spain.** Until the end of the 18th century, teacher training was undertaken by the Church and by teachers' associations. The *Plan Provisional de Instruccion Primaria* of 1838 stipulated the creation of Normal Schools in the provinces and in Madrid, and the first Normal School, the *Seminario Central de Maestros del Reino*, opened in 1839." (Escolano Benito 1982: 59-60)."It was not until 1857 that a durable law of national education (subsequently known as the Ley Moyano for its author, the moderate liberal Claudio Moyano) was approved by the Spanish Cortes. Like its French counterpart, the *Loi Falloux* of 1850, the *Ley Moyano* was a pragmatic compromise between the competing claims of church and state. ... It assigned responsibility for public instruction to the minister of development (*fomento*), who was given authority to regulate personnel, curricular, textbooks, examinations, and degrees at all levels in the educational pyramid. ... The financial resources of the state being limited, responsibility for school finance was distributed among municipal, provincial, and state authorities. All towns of more than five hundred inhabitants were required to provide obligatory and--in the case of the poor-

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<sup>1</sup> <http://education.stateuniversity.com/pages/1220/Portugal-HISTORY-BACKGROUND.html>, accessed 12/5/2017

-free primary instruction for all children between the ages of six and nine. In provincial capitals and large cities, the law also mandated a public upper primary school (*escuela primaria superior*) for boys and girls ages ten to thirteen.” (Boyd 1997: 4-5). “Ley Moyano stipulated ministerial regulation of textbooks and course content.” (Boyd 1997: 6).

**Sweden.** As per the Elementary School Act of 1842 (Flora 1983: 613), every parish and municipality must provide at least one school providing basic education for the general public. Every parish and municipality should also provide at least one trained teacher. A parish that is unable to pay a teacher the statutory compensation can apply for a state subsidy. This implied that all school-aged girls and boys should have access to basic education, but there was no measure of compulsion stated in this code. Neither was there any curriculum applying to all schools; this was first introduced in 1878 (by the *Normalplan för undervisningen i folkskolor och småskolor*). With the introduction of the curriculum, basic education was formally set to six years. The code of 1842 stated that local schools should to be set up within five years so that distances were not prohibitive for any child to go to school. It proved difficult to enact the ordinance within the given time frame. The act SFS 1853:65 stated more firmly that teachers must have specific training and also set standards for teachers’ salaries (in cash as well as in kind). Exceptions were made regarding schools in remote areas (typically in the north). In these areas the parish priest was free to recruit teachers irrespective of their training. SFS 1858:31 introduced a specific legal framework relating to the first years of elementary school (i.e. *småskolan*), which implied that smaller schools only for beginners could be established without the same demands relating to teachers’ training. This statute is considered to be underlying the enactment of compulsory schooling in Sweden, although it was not formally the case. (Larsson & Stanfors, <http://www.perfar.eu/policies/hms-statute-184219-regarding-education-among-general-population-also-known-1842-primary>). ”The first Normal Schools for female teachers of primary schools were opened in 1860, and the normal school for female teachers of secondary schools was opened in Stockholm in 1861” (U.S. Bureau of Education 1884: CCXLIV).

**Switzerland.** “In 1848, the 25 confederate cantons formed a federal state. The new federal constitution guaranteed the continued existence of the Swiss cantons as partially sovereign states. From this point onward ... the federal government’s powers were very limited and the majority of administrative tasks, including the responsibility for the education system, remained with the cantons. Hence, in the 19th century, the school systems developed at the cantonal level. The cantonal education systems were and still are generally perceived to be very diverse – ... the mandatory school age, the teaching materials, and styles of lettering, all of which differed from canton to canton. Over time, the strong emphasis on the differences between the cantonal school systems led to the familiar reference to Switzerland’s “26 school systems”” (Hofmann 2014: 225). “The first mention of public school (*Volksschule*) appears in the Constitution of 1874 (still in effect), and that mention was only minimal. Article 27 of the Constitution merely states that the cantons must provide “adequate elementary instruction subject to government control which must be compulsory, non-denominational and free at the public schools” (Jenzer n.d.: 1). “Each Canton is autonomous in the conduct of its school system within the limits determined

by the constitution and general laws. The constitution (adopted May 29, 1874) provides for the organization of schools, and by popular vote of November 23, 1902, there was added an article which established the obligation of the Federation to subsidize primary schools” (U.S. Bureau of Education 1912: 1367).

### ***Latin America***

**Argentina.** Following independence from Spain in 1816, the post-independence Cabildo begins to establish new elementary public schools in Buenos Aires in 1812 (Solari 1972: 47) and begins to regulate the curriculum of Buenos Aires schools as early as 1811 (Solari 1972: 50). In 1816, Buenos Aires (City and Province) adopted a regulation (“reglamento”) that established the principle of compulsory education; required mayors and priests to ensure its enforcement; determined the methods and content of teaching; and established the mechanisms by which schools ought to be funded and governed. (Solari 1972: 50). The central government established seven schools in Buenos Aires between 1810 and 1817 (Solari 1972: 51). In the rest of the provinces, ... education continued to be provided by religious and private entities (Solari 1972). In 1872, Congress approves a law that commits the central government to provide funding to support primary schooling in the provinces (Memoria del Ministro de Justicia, Culto e Instruccion Publica 1876: LI). The Normal School of Parana, the first Normal School founded by the government, opens in 1870. In 1884, Congress passes the *Ley de Educacion Comun*, or Law 1420, which stipulates that primary education is universal, compulsory, free and secular; sets the minimum required qualifications for those who want to become primary school teachers; and establishes a mandatory curriculum for all primary schools in the territory (Campobassi 1942).

**Bolivia.** Through a Decree of December 11th, 1825, Simon Bolivar [first president of the Republic] and Simon Rodriguez [Director General de Enseñanza Publica], created the first schooling legislation. It establishes that education is the number one duty of the Government; that education must be general and uniform; that schools must comply with the state’s education laws and that the health of the Republic depend of the morality that its citizens acquire through schools during childhood. The Decree also stipulates that a primary school should be established in the capital city of each department, in order to educate all children (boys and girls). The Decree also establishes mechanisms for funding schools. (Kent 1996: 4). A Decree of December 11th, 1826, ordered the rents of the Church to be devoted to education, instruction, and public welfare. (Kent 1996: 18). On December 31<sup>st</sup>, 1826, Congress approved the Plan de Ensenianza, which establishes primary schools, secondary schools, and arts and sciences schools; stipulates how schools should be organized, what subjects should be taught, and how education should be government. Primary schools were required to teach students to read and write, as well as provide them with religious, moral, and agricultural education ... The Constitution of 1851 introduced the notion of education as an inalienable individual right, accepted the “right to teach” under the inspection of the state, and established that teachers must demonstrate their morality and qualifications to be able to teach. It also established that primary schooling ought to be free. (Kent 1996: 19). In December of 1908, a new national law, the *Estatuto General de Educacion*, established that primary education was compulsory; required the creation of Normal Schools to train teachers; and required that

individuals have a teaching degree (Daza 2012: 171). The first Normal School was founded in 1909 via National Decree dated June 5th, 1909. Its goal was to train primary and secondary school teachers for public schools (Daza 2012: 179).

**Brazil.** “After independence was proclaimed on September 7, 1822, both the Imperial government of Pedro I, as well as the Regency and the government of Pedro II sought to organize a free popular system of education that was capable of stimulating the cultural development of the nation. The effort was not altogether successful. The good intentions of all the governments were defeated by the relative impoverishment of the country, the shortage of qualified teaching personnel, the lack of means for training teachers on the one hand, and the lack of interest in the professions on the part of potential students. The causes were aggravated by the public’s lack of enthusiasm for public education.” (Havighurst and Moreira 1965: 71). “Clause No. 23 of Article 179 of the Constitution promulgated by the Emperor on December 11, 1823, guaranteed free primary school education for all citizens.” (Havighurst and Moreira 1965: 72). “The law of 1827 provided for the establishment of primary schools in all cities, towns, and villages, as well as schools for girls in the cities and more populous towns; it did not, however, provide the technical facilities and necessary funds” (Havighurst and Moreira 1965: 72; Mendes de Faria Filho 2000: 137). “Clause No. 2 of Article 10 of the amendment to the Constitution, promulgated in 1834, decentralized the organization and administration of elementary and secondary education, turning it over to the competence of the provinces (later to become states).” (Havighurst and Moreira 1965: 72-73) “In 1879, Leôncio de Carvalho, Minister for Internal Affairs, sent a bill to reform the education system of the country to Congress that introduced secular education and mandated the creation of schools of education to train teachers.” (Musacchio et al. 2012: 6) “The Constitution, which was established in 1946, contains the following articles concerning education: Article 166: All persons shall be entitled to education...; Article 168: Statutes relating to education shall be based on the following principles: (1) Primary education shall be compulsory and shall be given only in the national language; (2) Official (public) primary education shall be given free of charge to all” (Havighurst and Moreira 1965).

**Chile.** In 1813, the *Reglamento para los maestros de primeras letras* established that all communities with fifty or more inhabitants had to fund and create a primary school; and established also that in order to work as a teacher anywhere in the national territory an individual had to have their knowledge of Cristian doctrine examined and approved by the local priest, and had to present three witnesses who could attest to the individual’s patriotism, life and customs (Camila Perez Navarro, Universidad de Chile, via email). The 1833 Constitution creates the Superintendency of Public Education, and assigns the municipalities the responsibility to fund primary schools (<http://www.memoriachilena.cl/602/w3-article-3565.html#cronologia> accessed 8/2/2016; Inzunza Higuera 2009: 23). The national Ministry of Justice, Worship and Public Instruction is created in 1837, adding to the already existing Ministries of Interior, Finance, and War. The responsibilities of the new ministry included to direct the education of the entire national territory (Inzunza Higuera 2009: 24). In 1842, the State creates the first *Escuela Normal de Preceptores* for training male teachers in Santiago. In

1860, Congress passes the *Ley General de Instruccion Primaria*, which establishes that the central State must guarantee free access to primary education for everyone, and specifies what is to be taught at primary schools. The central government implements an unprecedented program of expansion of schooling entailing the construction of new schools and the training of a large corps of primary school teachers. Primary education is not made compulsory until the passage in 1920 of the *Ley de Instruccion Primaria Obligatoria* (Memoria Chilena, “Origen y consolidacion del Estado docente. Inicios de la Instruccion primaria en Chile (1840-1920)”, accessed 8/2/2016: <http://www.memoriachilena.cl/602/w3-article-3565.html#cronologia>).

**Colombia.** Beginning in 1834, the central government spends some money on education, though it's only a tiny fraction of public spending (about 1%) compared to, for instance, “war and navy” expenses (50%) (Ramirez and Salazar 2007: 30-31). The 1860 Constitution established that the State guarantees to all its members free primary instruction (Alarcon Meneses 2011: 359). The Law of August 6th, 1865, gave the central government the power to design a public instruction plan and to set the curriculum requirements for primary schools (Alarcon Meneses 2011: 357). In 1870, during General Eustorgio Salgar's administration, the *Decreto Organico de Instruccion Publica* is passed, which established that primary education must be free, mandatory for children ages 6-14, secular, centralized, and under the inspection of the national government through the *Direccion General de Instruccion Publica*. The reform also covered issues related to how teachers had to be trained, and stipulated the creation of normal schools throughout the country (Ramirez and Salazar 2007: 17). The 1870 Law also establishes a firmer commitment from the federal government to devote some funding to primary schools, which now represents about 3-5% of of public spending, but the law also requires the districts and states to fund it (Alarcon Meneses 2011: 370). The establishment of schools was left to the local authorities (distritos). With respect to teacher training, Law 16 of 1822 ordered the creation of normal schools in Bogotá, Caracas and Quito. Later, in 1842, Pedro Alcantara's administration ordered the creation of normal schools in all provinces. However, in none of these cases did the government award any funds to these efforts. In 1870, the *Decreto Organico de Instruccion Publica* ordered the creation of normal schools for men and women in the capital city of all states (Ramirez and Salazar 2007: 22). The implementation of this order became effective in 1872, when several Normal Schools were opened in the states of Santander, Boyacá and Magdalena (Alarcon Meneses 2011: 296).

**Costa Rica.** Costa Rica becomes independent in 1821, and between 1824 and 1838, it forms part of the *Republica Federal de Centroamerica*, which also includes Guatemala, El Salvador, Honduras, and Nicaragua. The Federal Constitution gives each of the five states the responsibility to legislate and oversee matters related to public education. The first Chief of State, Juan Mora Fernández, a school teacher, assumes power in September of 1824. The *Carta Fundamental* of 1825 gives the Executive Power the duty to establish public schools in all towns (“pueblos”) of the State of Costa Rica (González Flores 1978: 1945-5; 285-8). In 1832, he passes a Law that established mandatory schooling for boys, but not for girls (Gonzalez Flores, op.cit, p. 194-5). The 1847 Constitution establishes that it is a sacred duty of the government to build schools and take all necessary measures to educate the people (Article 168); stipulates that “instruction is a right of all Costa

Ricans and the State must guarantee it ... by building normal schools, primary schools, and Sunday schools," (Article 169); and establishes that "the instruction of girls and boys must be uniform throughout the territory" and regulated and overseen by the *Director General de Instruccion Publica* (González Flores 1978: 229). In 1847, newly-elected President Jose Maria Castro founds a Normal School that trains girls to become primary school teachers. The school operated between 1849 and 1853 (González Flores 1978: 201). On October 4th, 1849, the first Reglamento Organico de Instruccion Publica is established, and along with it, the *Consejo de Instruccion Publica* is created to organize primary schooling. This Consejo establishes that aspiring teachers must pass exams on Christian doctrine, reading, writing, arithmetic, morality, virtues, urban issues, and the Constitution. The Consejo also sets the curriculum for primary schools (González Flores 1978: 232). The Constitution of April 15th, 1869, establishes that "primary education of both boys and girls is compulsory, free, and funded by the Nation" (Article VI) (Gonzalez Flores 1978: 230). The *Reglamento de Instruccion Primaria* of 1869 establishes that aspiring teachers must have a teaching degree; and also sets the curriculum and admission requirements of Normal Schools (Gonzalez Flores 1978: 240).

**Cuba.** The first *Ley de Instruccion Publica* for Cuba (while it was a Spanish colony) was passed as a Royal Order in 1844. It marks the beginning of an organized public education system in Cuba (Cruz 1952: 278). A new education law was introduced in 1863. It established compulsory schooling for children ages 6-9, stipulated the creation of two normal schools, one for men and one for women, and organized the inspection of schools (OEI n.d.: 2-3). New regulation was introduced in 1880: it established a new curriculum for popular education (OEI n.d.: 2-3) and stipulated the creation of a primary school for boys and girls in every community of at least 500 inhabitants (Cruz 1952: 278).

**El Salvador.** The process of organizing and funding a system of public schools began in 1871 with the government of Mariscal Santiago Gonzalez, which also promoted secular education. The Salvadorean Constitution of October 16<sup>th</sup>, 1871, established that primary education ought to be uniform, free, and compulsory (Vasquez Monzon 2012: 98). Subsequently, the *Reglamento de Instruccion Publica* of 1873 established the curriculum for primary schools (Vasquez Monzon 2012: 163) and further dictated that primary education was compulsory for boys and girls ages 7-15 (Vasquez Monzon 2012: 162). However, in the case of girls, parents were not obliged to send them to school, but they were obliged to provide them with "adequate education" (Vasquez Monzon 2012: 162). Compulsory *schooling* was established by the Constitution of 1883, and further ratified by law in 1886 (Vasquez Monzon 2012: 164, 230). The first teacher training institute for women was created in 1874 (Vasquez Monzon 2012: 114).

**Ecuador.** Primary school provision began soon after 1830. In 1836, President Vicente Rocafuerte (1835-1839) creates by decree the *Direccion General de Intruccion e Inspeccion de Estudios* in each province, and establishes the *Decreto Reglamentario de Instruccion Publica*. By that time, there were already 290 primary schools in Ecuador (Ministerio de Educacion (Ecuador), n.d.: 1). Indeed, during the progressive period (1833-1895), primary schooling expanded so rapidly in terms of both the number of schools and the number of students, that Ecuador became the country with the greatest number of schools per capita

(Freile, n.d.: 1-3). In 1871, under the presidency of Gabriel Garcia Moreno (1861-1865; 1869-1875) a new law regulating public education abolished provincial education councils, prohibited municipalities from intervening in education issues, and transferred all the authority for education matters to the Executive (Ministerio de Educacion (Ecuador), n.d.: 1). The 1871 law established the right to access education in every community that had 500 children or more (Ministerio de Educacion (Ecuador), n.d.: 1); and, by the same law, primary schooling became compulsory and free (Henderson 2008: 154; Freile n.d.: 1-3), and a compulsory curriculum for primary schools was established (Henderson 2008: 154-155). The 1871 also stipulated the creation of normal schools (Freile, n.d.: 1-3); and in 1873 a special Indian normal school in Quito was opened (Henderson 2008: 165). Also in that year, teachers who did not meet certain competency criteria were removed from the classroom, and the salary of the “efficient” teachers left was increased (Vargas 1965: 374).

**Guatemala.** The Constitution of 1825 establishes that in every community (“en todos los pueblos”) there shall be a primary school, funded by the community, that will teach reading, writing, counting, morality, and the principles of the Constitutions (Gonzalez Orellana 2007: 182). The Constitution leaves the inspection of the entire education system to the central government (Gonzalez Orellana 2007: 182). In 1831, at the beginning Mariano Galvez’s administration (1831-1838) as *Jefe del Estado de Guatemala*, Galvez establishes by Decree the *Bases del Arreglo General de la Instruccion Publica* (Gonzalez Orellana 2007: 188; Centro de Informacion y Documentacion Educativa de Guatemala 2006: 11, 15), which establishes the structure of the first school system in Guatemalan history (Gonzalez Orellana 2007: 187), establishes the “freedom to teach” principle but also establishes that schools that are funded by the State will be uniform and free, and that private schools will be subject to the State’s inspection (Gonzalez Orellana 2007: 188). It also establishes criteria for selecting teachers (Gonzalez Orellana 2007: 188; Centro de Informacion y Documentacion Educativa de Guatemala 2006: 11, 15). The reform also entailed the creation of many primary schools. In 1835, a new statute, the first one specifically focused on primary schooling, stipulates the organization of public and private schools; establishes for the first time in Guatemalan history that primary education is compulsory as well as free, and establishes that the curriculum will be “secular” in the sense that moral education will include some religion, but the main domain of religious education will fall under parents and priests outside of school time (Gonzalez Orellana 2007: 160; 189). The first Normal School was established by decree in 1835 (Gonzalez Orellana 2007: 160). The liberal revolution (1867-1871) led to the prohibition of any type of clerical influence on education (Gonzalez Orellana 2007: 216). The *Ley Organica de Instruccion Primaria* of 1875, and the Constitution of 1879, recognized the freedom to learn and teach principle, but publically-funded schools and private schools who wanted to award legally valid degrees had to follow the State-mandated curriculum (Gonzalez Orellana 2007: 216).

**Jamaica.** Following the abolition of slavery in all British Caribbean territories, between 1835 and 1845 the British government provided an annual subsidy to build schoolhouses called the Negro Education Grant, and Jamaica got part of this money. The funds went to primary schools operated by the denominations; that is, the schools were founded by

the parishes (Foner 1973: 38). The government made no attempt to establish its own educational system until the establishment of the Crown Colony Government in 1865: the year after, denominational schools were placed under the supervision of an official inspectorate (Foner 1973: 39). Under the Crown Government, education policies were determined by a central board of education—the local authorities (parish councils) had no role whatsoever in determining policy, but were in charge of implementation and the day-to-day administration of schools (Goulbourne 1988: 3). An examination for schoolmasters was instituted in 1863, followed by the beginning of pupil teachers' examinations and registration of teachers in 1880 (Carley 1942: 4). A Compulsory Attendance Law was passed in 1880 (Carley 1942: 2). In 1885, the government began to build its own primary schools (Foner 1973: 39). In 1892, school fees were abolished and elementary education was made open to all as part of the Elementary and Secondary Education Laws (Foner 1973: 39; Goulbourne 1988: 5, 42). As of 1920, there were two teacher training colleges in Jamaica: Mico Training College, founded in 1835 by a Protestant education trust, and Shortwood Teachers' College, which was fully funded by the government and was founded in 1885 as part of a package of reforms spearheaded by Sir John Peter Grant, who was appointed Governor of Jamaica in 1866 (Jamaica Ministry of Education 1922: 2; Shortwood Teachers' College website, <http://stcoll.edu.jm/about/history/>, accessed 12/12/2017).

**Mexico.** A regulation of 1821 ordered the opening of a school in every town that had at least 100 inhabitants (Escalante Gonzalbo et al. 2010: 1818). The education reform of 1833 established the *Direccion General de Instruccion Publica* for the D.F. and the national territories; and stipulated the creation of a normal school for boys and a separate normal school for girls (Escalante Gonzalbo et al. 2010: 1831). The year 1842 marked the beginning of a deep centralization of primary schooling under the *Direccion General de Instruccion Primaria*. The central government began to fund and administer primary schools (Anne Folgers Staples Dean, Colegio de Mexico, via email 12/20/2017); a uniform textbook was created for all teachers to follow, and the qualifications to become a teacher were unified (Escalante Gonzalbo et al. 2010: 1819). The Constitution of 1917 established that public primary schooling ought to be secular and free (article 3) as well as compulsory (article 31) (Escalante Gonzalbo et al. 2010: 1917).

**Paraguay.** A Normal School is established in 1856, during the administration of Carlos A. Lopez (1844-1862) (Zayas Rossi 2015). In 1870, in the middle of a civil war that ends up overthrowing Lopez from power, a provisional government orders the establishment of primary schools in the main town of each department, and establishes that attendance for children is compulsory. Schools are established in public buildings—and about 98% of the territory is owned by the central government—but, because the central government is financially ruined, the day-to-day administration of schools becomes reliant on the municipalities. A new Constitution is approved in November of 1870, which established that primary education will be compulsory, preferably provided by the government, and that the oversight for such a system will fall under a new *Ministerio de Justicia, Culto e Instruccion Publica*. The Constitution establishes that this Ministry will be in charge of all primary schools, and that its function includes promoting by all necessary means the provision of primary and higher education. In 1871, the *Inspeccion General de Escuelas* is

established; and in 1872, the *Primer Consejo de Instruccion Publica*. From 1873 on, the national budget allocates money to hire primary school teachers in the interior of the country. Primary schools follow a common curriculum established by the central government. In 1878, a new teacher training institution opens, and new regulation establishes requirements to become a teacher, including certificates of competency (Pineda 2012). Primary education becomes free under the Constitution of 1940 (OEI n.d.).

**Peru.** The Constitution of 1823, in its article 184, establishes that there must be a primary school even in the smallest communities, where the Catholic catechism should be taught along with moral and civic obligations (Constitution of 1823, art. 184). In 1825, Simon Bolivar orders the establishment of a normal school in the capital city of every department (<http://www.archivodellibertador.gob.ve/escritos/buscador/spip.php?article8907>). The Constitutions of 1828 gives the state the responsibility to guarantee free access to primary schooling for all citizens (OEI n.d.: 2). In 1850, under the presidency of Ramon Castilla (1845-1851; 1854-1862), he issues the first national education code, the *Reglamento de Instruccion Publica para las Escuelas y Colegios de la Republica*. Articles 48-53 of that law refer to teachers, and establish that aspiring teachers must pass special examinations for entry into the profession (OEI n.d.: 3). Under Castilla, in the early 1860s, the national treasury begins to subsidize municipal schools (Espinoza 2013: 12). The second period of strengthened state hegemony in Lima came after President Jose Pardo (1904-1908), leading *Second Civilismo*, issued Law 162 in 1905. This law fully centralized the administration, funding, and supervision of public primary education.” (Espinoza 2013: 12). This law also makes primary schooling compulsory (OEI n.d.: 4).

**Trinidad & Tobago.** Following the abolition of slavery in all British Caribbean territories, between 1835 and 1845 the British government provided an annual subsidy to build schoolhouses and pay teachers’ salaries called the Negro Education Grant, and Trinidad got part of this money (Trinidad and Tobago Independence Celebration Committee 1962: 10). The main providers of elementary education at that time were the Church of England, the Catholic Church, and the Mico Charity, a Protestant educational trust that provided non-denominational schooling (Trinidad and Tobago Independence Celebration Committee 1962: 11). In 1849, Governor Lord Harris established a system of secular government schools called ward schools, paid for out of local (ward) rates. The government now had its own schools, which brought of various cultural backgrounds together and taught them the English language and English values, and no longer gave financial assistance to denominational schools (Trinidad and Tobago Independence Celebration Committee 1962: 13). The Harris scheme stipulated that a Committee or Board of Education be formed for the first time; that an Inspector of Schools be appointed with a salary; that a normal school be established; that the wardens of the several wards be called upon to establish schools at once, “which shall be under the direction of the Board”; that all children be received at schools free of expense; that no books be used in schools without the sanction of the Board; that instruction be secular (Trinidad and Tobago Independence Celebration Committee 1962: 13-14). The first teacher training school, Woodbrook, came into existence in 1852 (Trinidad and Tobago Independence Celebration Committee 1962: 36). Beginning in 1851, in order to be employed in public schools, teachers had to be certified by the Board of Education as competent in the 3 R’s and possessing the qualities of a good teacher (Trinidad and Tobago Independence Celebration Committee 1962: 9).

Compulsory education was first established in 1921 (Trinidad and Tobago Independence Celebration Committee 1962: 12).

**Uruguay.** A law of February 9, 1826, orders the creation of primary schools in all the towns of Uruguay under the direction of the central government (Uruguay, Ministerio de Educacion y Cultura 2014: 19). In 1827, a decree established that primary schooling must be free (Uruguay, Ministerio de Educacion y Cultura 2014: 19). In addition, the first Normal School was created in 1827, and beginning that year a degree was required to work as a teacher (Administracion Nacional de Educacion Publica 2007: 2). In 1847, the *Instituto de Instruccion Publica* was created, which established provisional regulations for the government schools, formulated methods of appointing teachers, and selected classical textbooks (U.S. Bureau of Education 1895, vol.1: 337). Beginning in 1847, a uniform curriculum is established for all primary schools in the country (Uruguay, Ministerio de Educacion y Cultura 2014: 27-28). The 1877 *Ley de Educacion Comun* reinforced the principle of free primary schooling, stipulated that only teachers with a teaching degree awarded by a public training institution could exercise the profession, established a new common curriculum, and introduced for the first time the principle that attendance was compulsory, stipulating penalties for parents whose children did not attend school (Uruguay, Ministerio de Educacion y Cultura 2014: 32-33).

**Venezuela.** Prior to 1843, primary education was left to the provinces and there was a general understanding that the Constitution did not allow the central government to intervene in this area. In 1843, the *Codigo de Instruccion Publica* reinforces this; it gives the responsibility over primary schools to the provinces, and leaves the central government in charge of secondary and university education (Rivero Hidalgo 2011: 52-56). This changes in 1870, when a centralized primary school system begins to emerge. President Guzman Blanco, through a decree signed on June 27, 1870, dictated the establishment of a national Ministry of Education and the provision of compulsory primary schooling. The decree also ordered that primary schools teach arithmetic, the metric system, Spanish reading and writing, moral education, and the foundations of the Constitution (Rivero Hidalgo 2011: 56-58). Further, the 1870 decree operationalizes a provision made under the 1964 Constitution, that primary education ought to be free (Rivero Hidalgo 2011: 56). The decree, however, made no mention about the creation of Normal Schools. The first Normal Schools were opened in 1876 (Pinto Iglesias & Garcia Garcia 2002: 42). Prior to that, no specific training could be required of teacher (Pinto Iglesias & Garcia Garcia 2002: 42). In 1897, Joaquin Crespo promulgates the *Codigo de Instruccion Publica*, which devotes an entire chapter to the qualifications of teachers (Pinto Iglesias & Garcia Garcia 2002: 48-49).

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## Online Appendix D: Timing of Education Statistics

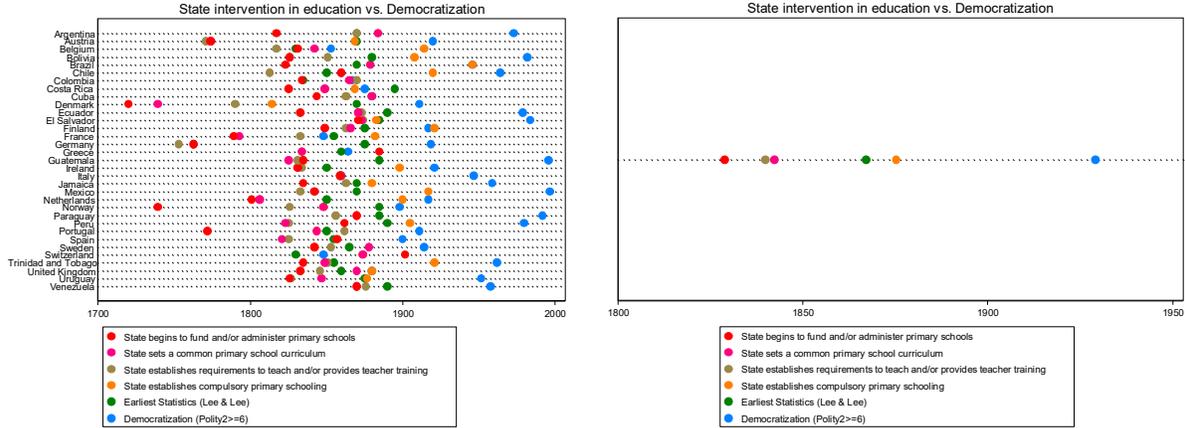
In this section I describe the results of two different exercises that assess the appropriateness of using Lee and Lee's data to make inferences about the timing of state intervention in primary education vis-à-vis the timing of democratization.

First, in Figure D1, I compare the initial timing of various forms of state intervention in primary education according to my dataset (33 Latin American and European countries) with the timing of education statistics for those same countries according to Lee and Lee, and find that in 32 of the 33 countries the earliest form of state intervention in primary education *preceded* the collection of education statistics reported in Lee and Lee. This suggests that using Lee and Lee's data on the timing of education statistics provides a *conservative estimate* of when states began to intervene in primary schooling—most likely, they began to intervene before that. This implies that using Lee and Lee's data on the collection of education statistics would bias the results *against* the hypothesis that states took an interest in primary schooling before democracy emerged. More specifically, as shown in Figure D1, across Europe and Latin America we see a general pattern whereby central governments begin to collect education statistics (green dots, based on Lee and Lee) *after* they had begun to fund and/ or administer primary schools (red), set a common primary school curriculum (pink), and regulate who can become a primary school teacher (brown), but before they established compulsory primary schooling (orange) and well before democratization took place (blue).

Figure D1. Initial Timing of State Intervention in Primary Education Based on My Dataset and Lee & Lee Vs. Timing of Democratization in Europe and Latin America

Panel A. Individual Countries

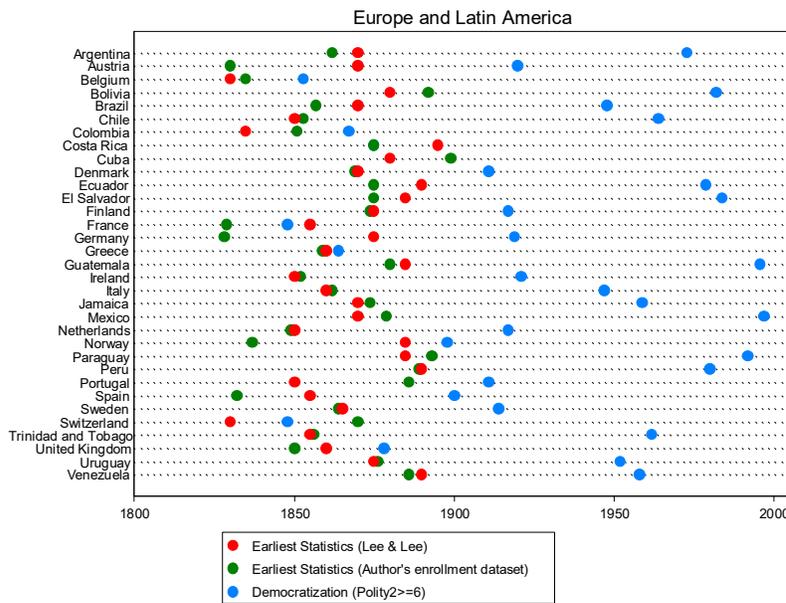
Panel B: Average Across All Countries



Second, in Figure D2, I compare Lee and Lee's data on the timing of education statistics with the first year of non-missing primary school enrollment rate information in my dataset for European and Latin American countries (Paglayan 2017), and find that, although there are discrepancies in most cases, in 31 of the 33 countries the discrepancy between the timing of education statistics according to Lee and Lee (green dots in Figure D2) vs. my dataset on enrollment rates (red dots) is too small (11 years on average) to change the main finding that state intervention in primary education preceded democratization (blue dots).<sup>2</sup> Moreover, in most cases (two-thirds of countries), my enrollment dataset contains more historical information about enrollment than what Lee and Lee indicate, implying that Lee and Lee provide a *conservative estimate* of when states began to collect education statistics.

<sup>2</sup> The two exceptions are France and Switzerland. In France, Lee and Lee's dataset imply that the timing of initial state intervention occurred *after* democratization; based on my dataset, this is incorrect. In Switzerland, Lee and Lee's dataset imply that the timing of initial state intervention preceded democratization; based on my dataset, this is also incorrect.

Figure D2. Initial Timing of Primary Education Statistics Based on My Dataset and Lee & Lee Vs. Timing of Democratization in Europe and Latin America



In sum, Figures D1 and D2 suggest that Lee and Lee’s data on the timing of education statistics provides a *conservative estimate* of when states began to regulate and monitor primary schooling. Most likely, they began to do so before the year suggested by Lee and Lee—both because we see that states generally began to fund and establish schools and regulate the curriculum and teaching profession before they began to collect statistics (Figure D1), and because in most European and Latin American countries, states began collecting education statistics before the year identified by Lee and Lee (Figure D2). These analyses imply that Lee and Lee’s dataset is good enough to get a sense of whether states took an interest in primary schooling before or after democratization (this study’s goal), though they would not be a good choice for a different paper that was interested in identifying when exactly states began to collect education statistics. For the purposes of this study, the comparisons discussed above suggest that, if anything, using Lee and Lee’s data will bias the results *against* the hypothesis that states took an interest in primary schooling before democracy emerged.