State Building, Elite Ideology, and Mass Schooling: The Formation of Education Leviathans Since the Nineteenth Century

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Abstract

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Why do some states develop highly centralized education systems while other states develop education systems that are less centralized? This dissertation presents a theory of the development of mass education to explain variation in the degree to which states monopolize control over public education at the central level of government. The project develops a theoretical framework of the political dynamics that influence the timing and centralization of public education during state-building, and derives a set of hypotheses that are tested using statistical techniques and comparative historical analysis. In particular, two factors are highlighted: the subnational distribution of central state capacity, or infrastructural power, and the deployment of ideas by political elites to mobilize support for state-controlled public education. In the context of state formation, in which policy decisions often occur in an environment rife internal instability and scarce resources, both infrastructural power and elite ideas help resolve uncertainty over whether mass education as a state (and nation) building project will contribute to legitimacy and political order.

States introduce mass education to delimit the boundaries of citizenship, inculcate dominant values, and (re)produce social and economic relations. Ruling elites in particular value centrally-governed mass education as a means to legitimate their political authority, but they

face material and political constraints in pursuit of its development. During early phases of state-building, regimes trade off between investing in the regulated provision of education or consolidating military and fiscal capacity to ensure political survival. Given that education systems are highly information-intensive institutions and logistically complex to govern from the political center and yield longer-term benefits for state legitimacy, centralized mass education is a costly trade-off relative to other state-building projects.

First, absent sufficient monitoring and enforcement capabilities, rulers' efforts to impose 'education-from-above' risks provoking political conflict with subnational actors. The state requires the necessary infrastructural power to collect and disseminate complex information about the population (i.e. informational capacity) before the regime can centralize control over education. However, state capacity may not be evenly distributed throughout the national territory. The more evenly distributed the infrastructural power of the state, the more likely that the central state will monopolize control over education. The project introduces a composite measure of centralized education based on an original historical dataset of laws, decrees, and institutions in forty-five countries in Europe and the Americas from 1800 to 1970. The results provide strong supportive evidence of the relationship between education centralization and the distribution of infrastructural power—specifically, the administration of national population censuses over time.

Second, elite ideologies also contribute to divergent levels of education centralization between states, even those with similar levels of infrastructural power. This study examines the cases of Argentina and Chile. The historical evidence shows that intellectual elites in both countries engaged in political entrepreneurship in order to steer the central government's state-building priorities. In the case of Argentina, state-sponsored primary education emerged early as a critical component of consolidating political order in the liberal nationalist discourse of influential elites. By contrast, Chilean political thought prioritized state-sponsored, but elite-centered secondary and university education as more important

for political order. In the Chilean case, elite consensus prioritized maintaining traditional social institutions as a means to construct the masses as citizen-subjects. As a consequence, Argentina's education system consolidated as more centralized than Chile's by 1900 despite the more rapid development of state capacity and political centralization that took place in the latter during the first half of the 19th century.

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DEDICATION

To my partner, Annie.

Chapter 1
INTRODUCTION

1.1 Introduction

> [M]ost of the forms that education takes are the political products of power struggles. They bear the marks of concession to allies and compromise with opponents. Thus to understand the nature of education at any time we need to know not only who won the struggle for control, but also how: not merely who lost, but also how badly they lost out.[1]

In 2006, the streets of the Chilean capital of Santiago were paralyzed with tens of thousands of student protesters. The mass movement, named the *Revolución de los Pingüinos* for the black-and-white high school uniforms, sought an end to educational inequality they viewed as a consequence of the market-based and decentralized system put in place by the Pinochet regime's *Ley Orgánica Constitucional de Enseñanza* (LOCE) in 1990. The student demonstrations demanded that the center-left government of Michelle Bachelet reform the Pinochet-era education system.[2] Four years later, thousands of public high school students in the Argentine capital of Buenos Aires marched on the presidential palace and occupied schools to protest deteriorating learning conditions, targeting both the center-right Buenos Aires mayor Mauricio Macri and center-left government of Peronist president Cristina Fernandéz de Kirchner.[3] In recent years, Argentine teachers have led waves of mass demonstra-

1. Archer, *Social Origins of Educational Systems*, 2.

2. Rather than reform the education system, the outgoing regime passed LOCE in order to "lock-in" Pinochet's reforms ahead of the transition to the new democratically-elected government.Bellei, Cabalin, and Orellana, "The 2011 Chilean student movement against neoliberal educational policies."

3. Rey, "Students protest education in Argentine capital."

tions against wage stagnation and budget cuts proposed by the center-right government of current president Macri.[4]

What do these episodes tell us about the politics of education? At a glance, both protests indicate strong public demand for quality and equitable education. They also show that a range of actors in both countries share an understanding of the national government as the overriding actor responsible for overseeing education. Still, the demonstrations rest on somewhat different social class, sectoral, and political bases. The Chilean *Pingüino* movement was largely a student-led and organized offensive against an existing system they viewed as responsible for unjust outcomes.[5] Alternatively, striking public school teachers in Argentina organized protests in defense of public education funding, as well as better wages, set against a backdrop of a center-right push for austerity.[6] The competing political dynamics in both countries raise a number of questions. For one, what are the ideological bases for how different actors view the role of the national government in the provision and organization of public education? Do the institutional and ideological contours of educational conflict in the early 21st century suggest a break from the past? Or, rather, do they indicate historical continuities that can shed light on how we understand the politics of education? How do the institutional foundations of national education systems condition public education as sites of political contestation between state and society?

At the core of the grievances raised by the waves of education protests in Argentina and Chile is disagreement over the distribution of authority and resources governing public education, and whether the education system privileges the interests of societal elites at the expense of the masses. The seeds of education as an important arena of political conflict were planted when the state began to displace religious authorities, localities, and the family in the regulation of childhood. Since Prussia introduced compulsory primary schooling to

4. In August of 2018, for example, striking teachers were joined by thousands of students and university professors in common cause for the defense of the right to free, public education at all levels. Polack, "Ya hubo más paros docentes en todo el país que en igual período de 2018."

5. Guzman-Concha, "The Students' Rebellion in Chile."

6. Polack, "Ya hubo más paros docentes en todo el país que en igual período de 2018."

the world stage in 1806, virtually all modern states have established a system of universal mass education.[7] As polities developed greater capacity to extract revenue and maintain national armies throughout the 19th century, central governments expanded their regulatory reach into the educational arena. By the mid-20th century, the principle of universal basic education, guaranteed by the state, was firmly entrenched across Europe and the Americas.[8] While mass schooling in the industrialized world has come to share many important features, one major source of institutional variation is the degree to which the central state exercises control over education.

The course of political development across Western republics since the 19th century is in no small part a story of the tug and pull between the national and the provincial, the public and the private, and the secular and ecclesiastical in educational matters. The education protests of 21st century Argentina and Chile highlight the historical legacies underlying political competition between public and national control, on the one hand, and private and provincial control, on the other. At the time of the 2006 protests in Chile, the education system under LOCE guaranteed state subsidies for the private education sector, including vouchers to attend religious institutions, while granting municipalities wide discretion to determine whether schools meet the minimum national standards outlined in the Constitution.[9] Since 1920, the Chilean public education system was governed by Law 3.654 of Compulsory Primary Education, which built upon the 1860 Law of General Instruction es-

7. Melton, *Absolutism and the Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*; Meyer, Ramirez, and Soysal, "World Expansion of Mass Education, 1870-1980."

8. Ramirez and Boli, "The Political Construction of Mass Schooling." Most significantly, the principle of free and compulsory primary education was designated a universal social right in 1948 under Article 26 of the United Nations *Universal Declaration of Human Rights*. Article 26, nevertheless, reproduces the historical tension between public education to promote social tolerance and the freedom of choice for parents: "(1) Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory [. . .] (2) Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace. (3) Parents have a prior right to choose the kind of education that shall be given to their children." See `https://www.un.org/en/universal-declaration-human-rights/index.html`.

9. Siavelis, "Chile's Student Protests: The Original Sin of Education Policy."

tablishing the principle of free basic education. As of the 2010 student protests of Buenos Aires the Argentine public education system was still largely constituted according to the much-celebrated Law 1420 of Common Education since 1884. Law 1420 instituted free and compulsory primary education and granted the central state near-exclusive authority over the regulation and provision of public education. However, decentralization reforms passed by Carlos Menem's government under Law 24.049 in 1991 significantly chipped away at the central state's superseding authority over primary education under Law 1420, much to the dismay of public school teachers.[10]

The republics of the Southern Cone illustrate the ebb and flow of educational development during the sustained period of state formation that took place over the long nineteenth century. Following independence, ruling elites in Argentina and Chile, much as in the rest of Latin America, scrambled to set the course of their new and fragile republics during the first half of the 19th century.[11] At times nascent governments pursued state-building projects in order to quickly resolve the specific domestic and regional dynamics fueling political disorder after Latin American independence. At other times, political elites ambitiously modeled their institutions on parallel developments and abstract debates taking place in France, Prussia, and the United States.[12] Admiration for the liberal federalism of the U.S. constitution among Latin American state-builders and rejection of centralist rule under the Spanish Crown often clashed with the pursuit of authoritarian institutions as a solution to internal social and political disorder.[13] The increasing fiscal, military, and regulatory centralization of the Prussian state and France's July Monarchy during the first tumultuous decades of Latin American independence offered ruling elites a road map for building a national state where none existed before.[14] A significant portion of the political elite in Latin

10. Murillo, "Recovering Political Dynamics," 40. The 1991 reforms built upon those of the anti-Peronist right-wing military dictatorship 1976 to 1983, but proved more consequential to the devolution of authority over compulsory education to provincial governments.

11. Sabato, *Republics of the New World*.

12. Centeno and Ferraro, *State and Nation Making in Latin America and Spain*.

13. Simon, *The Ideology of Creole Revolution*.

14. Caruso, "Latin American independence"; Caruso, "Literacy and suffrage"; Newland, "The Estado

America looked to the European expansion of permanent bureaucracies, standing armies, and a professional civil service, along with the centralization of education to accelerate collective identity formation (e.g., nationalism), as a model to be emulated.[15]

Elsewhere in Europe and the Americas, the link between the build up of secular state institutions—legal, military, and fiscal—and the consolidation of national education systems proved more tenuous. As national states moved on from the trappings of absolutism under the *ancien régime*, free and compulsory schooling, the supplanting of the religious monopoly on the provision of education, and the standardization of children's civic and moral values was a bridge too far for some. Even for countries in Latin America that achieved levels of political and economic progress comparable to that of Western Europe by the close of the 19th century, the path toward national education was uneven and fraught with prolonged political conflict. Strong central states in Argentina and Chile did not consolidate national education systems until 1884 and 1920, respectively.[16] To this day, governments in both countries struggle to mollify the concerns of large swaths of the population as to whether the state is effectively delivering on its educational obligations. In the context of the long nineteenth century, the educational trajectories of Prussia and France appear more the exception than the rule.

The disconnect between the increasing authority of states to conscript armies and tax income, on the one hand, and whether they ultimately exercise "direct rule" over education, on the other, suggests a puzzling relationship between state formation and educational development.[17] Why do some states centralize mass education while other states relegate the provision of schooling to subnational and ecclesiastical authorities? Among states that centralize mass education, what explains cross-national differences in the extent of that control?

Docente and Its Expansion."

15. Centeno et al., *States in the Developing World*.

16. Meanwhile, educational development in parts of Western Europe lagged behind its Latin American counterparts in the Southern Cone. For example, Belgium suffered a major political crisis during the First School War of 1879 to 1884, which was followed up by the longer Second School War from 1950 to 1959. Witte, Craeybeckx, and Meynen, *Political History of Belgium*.

17. Levi, "The Institution of Conscription."

To resolve this puzzle, I interrogate historical and cross-national variation in the development of mass education, and the political dynamics therein. This study is in large part influenced by scholarship that helps us understand the interaction of state and society through the exploration of the constituent institutions that make up modern states. The New Fiscal Sociology, in particular, demonstrates how the study of taxation and fiscal arrangements help us understand state development across time and place.[18] This scholarship takes seriously Joseph Schumpeter's oft-quoted declaration: "The spirit of a people, its cultural level, its social structure, the deeds its policy may prepare—all this and more is written in its fiscal history, stripped of all phrases."[19] In this same spirit, I propose an alternative formulation that guides this study: The spirit of the modern state—its social boundaries and economic hierarchies, sense of collective identity, and the ebb and flow of the legitimacy of political authority—all this and more is written in its educational history.

In this dissertation, I make several theoretical and empirical contributions to the study of state formation and educational development. First, the political causes and consequences of mass education has increasingly come to the attention of comparative scholarship.[20] This project shows that the study of educational development as a political phenomenon, as much as the study of institutions such as mass conscription, taxation, and the welfare state, merits political inquiry in both comparative and historical perspective. Second, I bring to bear important theoretical insights on state formation and education from disparate scholarly traditions. I argue that the political logic of educational development can be better understood if scholars broaden their understanding of state-building as a process that, on the one hand, involves ruling elites making short-term strategic decisions based on political and economic self-interest, and, on other hand, involves conflict over the ideological character of the state that will shape the political and social order long after ruling elites will ever see their projects

18. Martin, Mehrotra, and Prasad, *The New Fiscal Sociology*.

19. Schumpeter, *The Economics and Sociology of Capitalism*, 101.

20. Ansell and Lindvall, "The Political Origins of Primary Education Systems"; Moe and Wiborg, *The Comparative Politics of Education*; Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years"; Uslaner and Rothstein, "The Historical Roots of Corruption."

bear fruit.

Third, this study exploits the strengths of both quantitative and qualitative research methods to explain educational development. In doing so, I contribute to efforts by scholars to reconcile the analytic goals of statistical methods—i.e. causal identification and testing for the average effects of "independent variables" on "dependent variables"—with the goals of comparative historical methods focused on causal processes, sequence, and contingency in shaping long-term outcomes.[21] To bolster both the causal and descriptive goals of this project, I develop an original dataset of educational laws and institutions introduced at the national level that captures nine dimensions of educational development are comparable over time and across polities. These data are a first step in the process of creating a database of educational development with global historical coverage. Similarly, I also generate original measures of information capacity and state infrastructural power, drawing on recent historical data sets on census-taking and post offices around the world. These data efforts contribute to research efforts to capture state formation and state capabilities beyond measuring military and fiscal capacity.

1.2 National Education Systems in Historical and Comparative Perspective

There is a large body of scholarship that help explain patterns of educational development in comparative and historical perspective. One of the more well-developed research agendas on the rise of state-sponsored mass education comes from work in the "world polity" tradition.[22] Beginning with the premise that the nation-state is a "worldwide institution" constructed through the global diffusion of national models of state development, John W. Meyer and collaborators offer a number of theoretical and empirical insights about the consolidation of systems of mass education among Western polities.[23]

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21. Capoccia and Ziblatt, "The Historical Turn in Democratization Studies"; Mahoney, "After KKV"; Waldner, "Process Tracing and Qualitative Causal Inference."

22. Boli, Ramirez, and Meyer, "Explaining the Origins and Expansion of Mass Education"; Meyer, Ramirez, and Soysal, "World Expansion of Mass Education, 1870-1980"; Ramirez and Boli, "The Political Construction of Mass Schooling."

23. Meyer et al., "World Society and the Nation-State."

First, interstate competition combined with the development of *legitimate* national society across Europe rendered state-sponsored mass education necessary components of modern states.[24] The indispensability of mass education to the nation-state model follows from institutional effects of education as a "system of legitimation" that helps reorder the population, create and/or expand the elite classes, and define membership within new polities.[25] The notion of education as a means of legitimating political authority and social hierarchies is well founded in canonical accounts of the rise of nationalism. Ernest Gellner traces the advent of mass education to the formation of an 'official' nationalism from the cultural and linguistic homogeneity of the ruling elite. As an increasingly industrialized and restless society comes to constitute the nation-state, ruling elites seek to impose a legitimate "high culture" among the masses.[26] A key pre-condition of this transformation is wide-spread adoption of a single vernacular by the dominant sectors of society. According to Benedict Anderson, the rise of print capitalism and resulting linguistic homogeneity led to the diffusion of shared notions of identity within borders that survive over time, producing 'nations' (e.g., imagined communities).[27] Giving weight to the education-for-legitimation account, strong econometric and historical evidence offers support to materialist and technological accounts of the link between cultural and linguistic homogenization, print capitalism, and nation-state potential.[28]

Second, the spread of state-sponsored mass education shows a striking degree of convergence across modern nation-states. At a general level, mass education systems in modern states are characterized by universalism and standardization, become highly-institutionalized and exhibit homogenous organizational forms, and center the socialization of individuals.[29]

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24. Ramirez and Boli, "The Political Construction of Mass Schooling."

25. Meyer, "The Effects of Education as an Institution."

26. Gellner, *Nations And Nationalism*, 57.

27. Anderson, *Imagined Communities*.

28. Sasaki, "Publishing Nations." As Hobsbawm observes, the supply of linguistic uniformity was central to overcoming myriad collective action problems in economy and society under the guise of nation-state competition: "All the more so as the two great institutions of mass education, primary school and army, brought some knowledge of the official language into every home." Hobsbawm, *Nations and Nationalism Since 1780*, 115.

29. Boli, Ramirez, and Meyer, "Explaining the Origins and Expansion of Mass Education."

Indeed, the spread of normal schools for training primary school teachers, dedicated ministries of education and related state agencies, and compulsory education laws certainly support the thesis that mass education is a remarkably uniform global institution. However, a cursory analysis of education systems around the world beyond the general features that Boli et al. describe reveal significant differences among the institutional arrangements of state education, let alone the implementation of those institutions.[30] For example, studies show considerable variability in both the timing of the national laws mandating compulsory schooling in the United States and Europe and subsequent growth in school enrollment based on domestic political dynamics. Soysal and Strang find that strong church-state alliances contributed to the early establishment of national education systems, but weak societal mobilization around education would impede enrollment nevertheless.[31]

There is a flip side to the world polity account of the rise of mass education as a (mostly) uniform process of educational centralization and standardization as part of the diffusion of the nation-state. The institutional arrangements that ruling elites develop to organize political and social order are likely to depend on more than a model of the nation-state. State formation also entails legitimizing differentiation and stratification between elites and the masses, and citizens and non-citizens. The distribution of authority and organization of education systems depends on how those in power manage social differentiation and stratification through politics. Meyer and colleagues acknowledge as much, but their theoretical and empirical contributions focus on highlighting cross-national similarities across countries with diverse political, economic, and social conditions.[32] Figure 1.1 shows that while the onset

30. While universal education has joined the "pantheon of modern values," Gellner qualifies his own claims about the institution of mass schooling in the process of nation-making: "[what] is so very curious, and highly significant, about the principal of universal and centrally guaranteed education, is that it is an ideal more honoured in the observance than in the breach." Gellner, *Nations And Nationalism*, 28.

31. Soysal and Strang, "Construction of the First Mass Education Systems in Nineteenth-Century Europe." Looking ahead to the cases of Argentina and Chile, for instance, historical evidence reflects their conclusions. Chile's early political bargain between the Catholic Church and conservative politicians accelerated the creation of a national education system between 1833 and 1860, yet primary school enrollment lagged behind Argentina, an education system laggard by comparison, until 1890 (see Chapter 4 and 5).

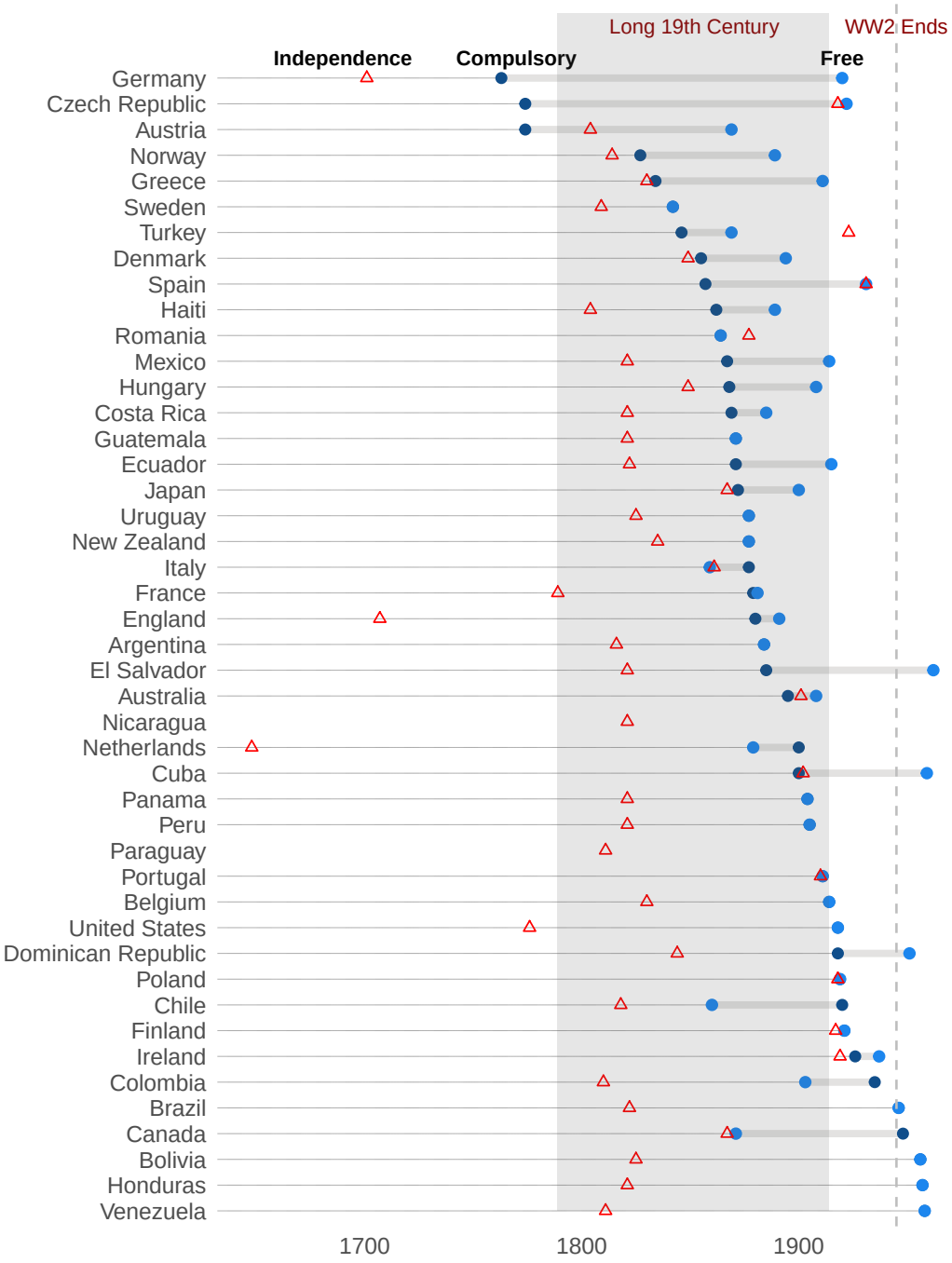
32. Meyer et al., "World Society and the Nation-State."

of compulsory and free primary education laws is a largely 19th century phenomenon, with some exceptions there is considerable cross-country variation in the timing and sequence of either type of law *relative* to the timing of sovereign statehood. The *means* by which states decide to educate the population in particular is a result of larger institutional differences, domestic political dynamics, and the capability of national governments to impose education on the population.

Political economy accounts of the historical development of economic institutions and educational attainment help us gain purchase on divergence in educational development where the focus of world polity scholars on convergence falls short. To explain the divergence in educational attainment and economic growth between North America and Latin America during the 19th century, Engerman et al. suggest a strong relationship between economic institutions, gains to human capital, and economic growth. Specifically, the authors link extractive institutions inherited from Spanish colonial rule in Latin America to higher inequality and economic activity with lower gains to mass schooling (and lower economic growth). As a consequence, the central state emerges as the dominant actor in education provision in place of civil society, where demand for schooling and local state capacity remains weaker. Alternatively, more productive economic institutions in the northern United States and Canada under colonialism produce a more equal distribution of wealth, higher local state capacity, and greater economic gains to schooling (and higher economic growth). As a result, local civil society demands, and wins, elite commitments to school provision before the central state needs to intervene. In Spanish America, then, the central state was the only actor with the capacity or incentive to provide mass schooling long after the public and local authorities in North America had already filled that role.[33] At a glance, global data on primary school enrollment and average years of schooling, aggregated at the country-level, support Engerman, Mariscal, and Sokoloff's[34] findings on educational progress across North and South America by the end of the 19th century (Figure 1.2). However, cross-national

33. Engerman, Mariscal, and Sokoloff, "The Evolution of Schooling in the Americas, 1800-1925."
34. Ibid.

Figure 1.1: Onset of National Laws of Compulsory and Free Primary Education



Note: Countries labeled according to modern designations as sovereign states rather than historical names (i.e. Prussia/Germany). Data sourced from the Comparative History of Educational Development (CHED) v1.0 introduced in this study. Any coding errors my own.

variation at the regional level in Western Europe and South America tells a different story.[35]

This account of educational attainment fits within the deep well of institutionalist research on the historical political economy of economic development.[38] One major theoretical implication of this scholarship for how we understand educational development is that economic institutions condition the sources of "supply and demand" for mass schooling, which in turn shapes the distribution of political authority over the provision of education between the central state and local governments. The resulting empirical implication for patterns of education centralization that Engerman et al. offer is that we should observe that inchoate nation-states that inherit higher levels of inequality and centralized economic institutions from earlier colonial or imperial rule are more likely to develop centralized education systems than those that do not. Yet, we know from both historical and social scientific research that state intervention in education is precipitated by political concerns around legitimacy and nation-building.[39]

In explaining the national development of education systems, political economic accounts, particularly that of the "new economic institutionalism" tradition, suffers from limited theoretical horizons. Endogenous theories of economic and educational development that help explain the regional divergence between North and South America, for example, gloss over the ideological and symbolic dimensions of education politics, on the one hand, while ignoring the complexity of cross-national and subnational variation in education governance among similar economies across Europe and the Americas since the 19th century, on the other.[40] These limitations stem from the empirical goals of political economy scholarship,

35. Note that a number of late industrialized, largely agrarian parts of Northern Europe (Norway and Sweden), the Mediterranean region of the Austro-Hungarian Empire, and British Guyana outperform much of Latin America and the rest of Europe, including Germany, by 1900.

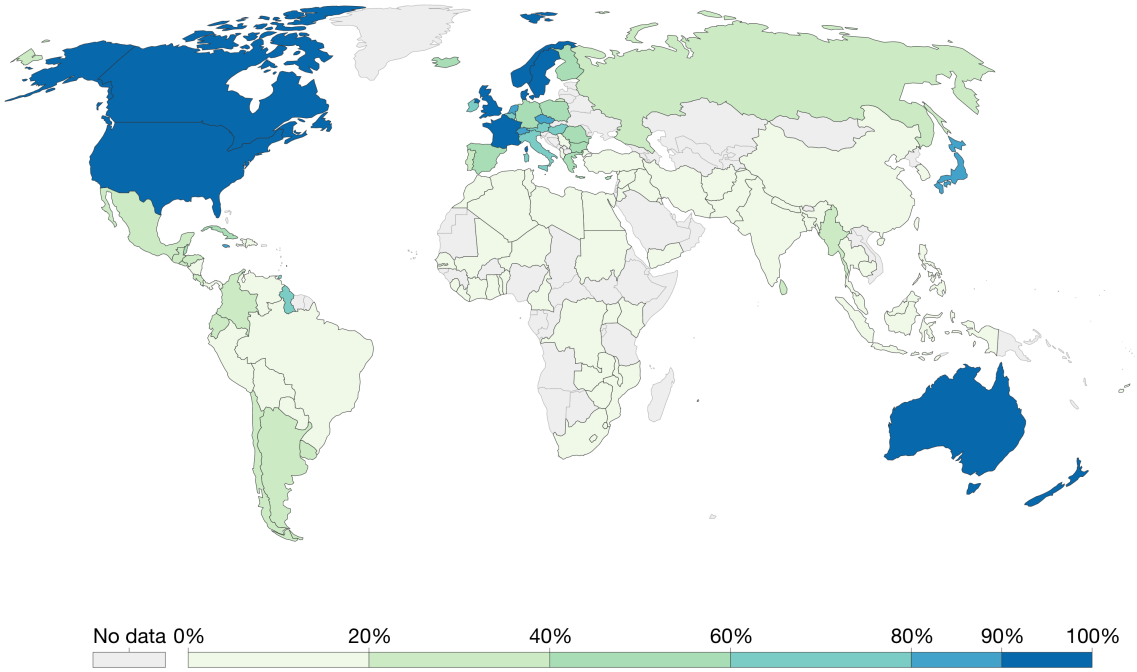
38. Acemoglu, Johnson, and Robinson, "The Colonial Origins of Comparative Development"; Acemoglu, Gallego, and Robinson, "Institutions, Human Capital, and Development."

39. Archer, *Social Origins of Educational Systems*; Bourdieu and Passeron, *Reproduction in Education, Society and Culture*; Brockliss and Sheldon, *Mass Education and the Limits of State Building, c.1870-1930*.

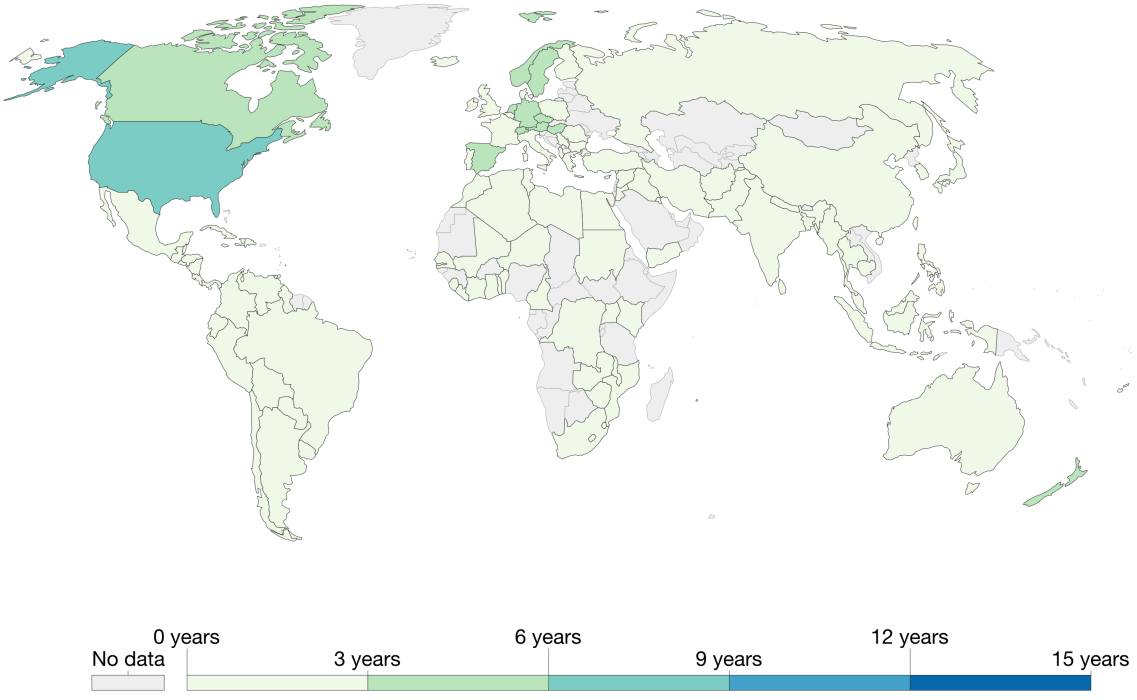
40. A particularly stark contrast exists between education systems in the United States and Australia, for example. While both share origins as Anglophone settler-colonial states that unified under federalist constitutions, Australia centralized control over compulsory public primary education early while the U.S. education system remains decentralized. For the impact of education centralization on secularization of

Figure 1.2: Mass Education Around the World in 1900

(a) Primary School Enrollment



(b) Mean Years of Schooling at Age 25+



Source: (a) Lee and Lee;[36] (b) Barro and Lee.[37] Figures generated at `www.ourworldindata.org/primary-and-secondary-education`.

which centers economic growth as the most important outcome of interest to be explained as a cause or consequence of institutions rather than the political and/or social factors that produce institutions in the first place. To that end, scholarship that sits at the intersection of political economy and macrosociology perhaps offers a more apt departure point for understanding educational development in the context of state formation.

There are a number of contributions from comparative historical scholarship on state formation that, while not focusing exclusively education, provide stronger theoretical insights through which to view the political and institutional development of education systems. In particular, examining institutional outcomes of nation-states entail serious engagement with ideology, historical contingency, and state capacity. First, understanding cross-national variation in the political centralization of nation-states, at a broad level, might go a long way to explain the formation of education systems. Ziblatt, in particular, looks to the puzzle of German and Italian state formation to examine the origins of federalism as an institutional form and organizing principle in the development of nation-states.[41] What matters most for federation as an outcome is not the military strength of the political center vis-à-vis subnational political units (e.g., provinces, municipalities), but the relative infrastructural strength of subunits vis-à-vis their own societies. In other words, federalism is more likely where greater state capacity to logistically implement decisions and govern society exists among subnational units. Thus, state-society relations matter for whether nation-states tend toward political centralization or not.[42] The 'embeddedness' of the provincial states in society give ruling elites of subnational territories leverage to negotiate for a federalist settlement. The political origins of federalism, and by extension the development of decentralized state institutions, appears to map on to how national education systems in Italy and Germany took shape. Yet, if we closely examine political development in Argentina and Chile, and much of Latin America for that matter, the impact of federalism on education centralization

public schools in the U.S. and Australia, see Mayrl, *Secular Conversions*.

41. Ziblatt, *Structuring the State*.

42. Migdal, *Strong Societies and Weak States*.

appears mixed.

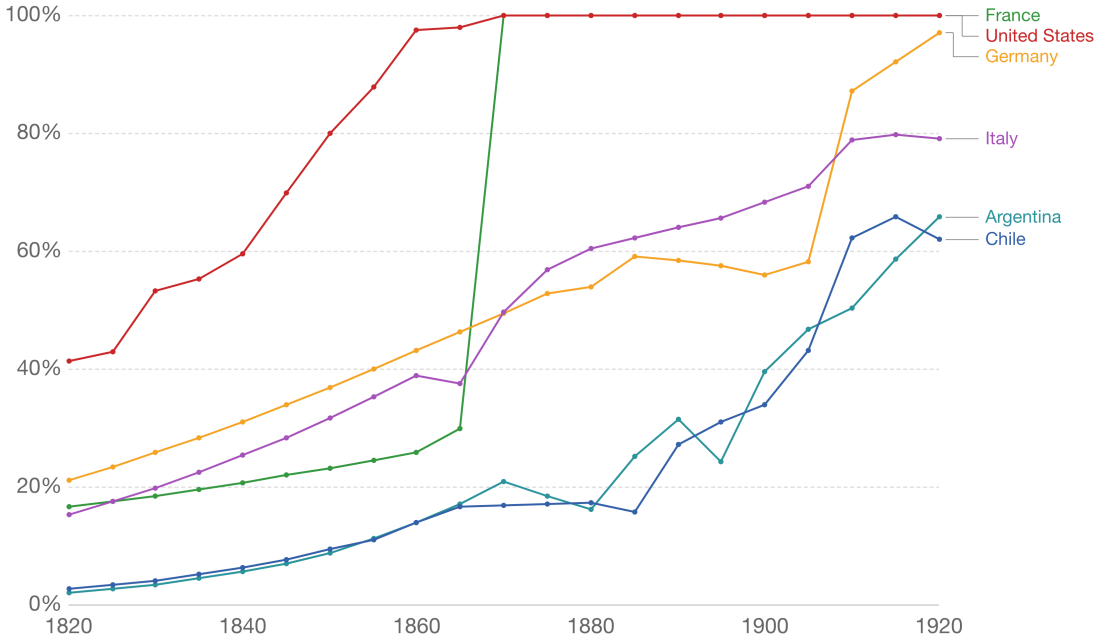
Relatedly, the relationship between state-building and the expansion of state capacity suggests a great deal of contingency in the emergence of "strong states" capable of centralizing education. In the context of Latin American nation-state formation, Soifer explores the causes and consequences of strong states.[45] Soifer finds that elite ideological consensus in favor of pursuing, and successfully achieving, state-building projects can be attributed to the political and economic primacy of a single urban center. The divergence between weak and strong national states in Latin America, then, came down to the decision by "central leaders" in countries with multiple urban centers to rule the periphery politically through alliances with local/regional elites (weak states) or administratively through the deployment of bureaucrats (strong states) in countries with a single urban center. The resulting success of state-building projects by coalitions of "order and progress" elites in the center during the critical juncture of Latin America's liberal era from 1850 to 1900 predicts current levels of state capacity in the region. For example, the overwhelming urban primacy of Santiago explains the success of "statist" ideology in Chile to produce a strong state, indicated by military, fiscal, and educational measures of state capacity. However, when it comes to explaining education in particular, Soifer's empirical account confounds education systems as a source of state capacity rather than a consequence of state capacity. Given the early development of a strong central state in Chile during the second half of the 19th century, why did it take until 1920 to fully establish free and compulsory primary education?

If we take state capacity as the basic capabilities of the state to tax the population and back its decisions with coercion, and consider education as a system of legitimation, then literacy, enrollment, and educational attainment could more accurately be considered *consequences* of state capacity. Figure 1.3a shows mixed educational results across the countries described above, all of which formed strong central governments by the end of the 19th century. Federalist states such as the U.S. and Germany mostly converge with unitary France in having nearly universal primary school enrollment among the school-aged population by

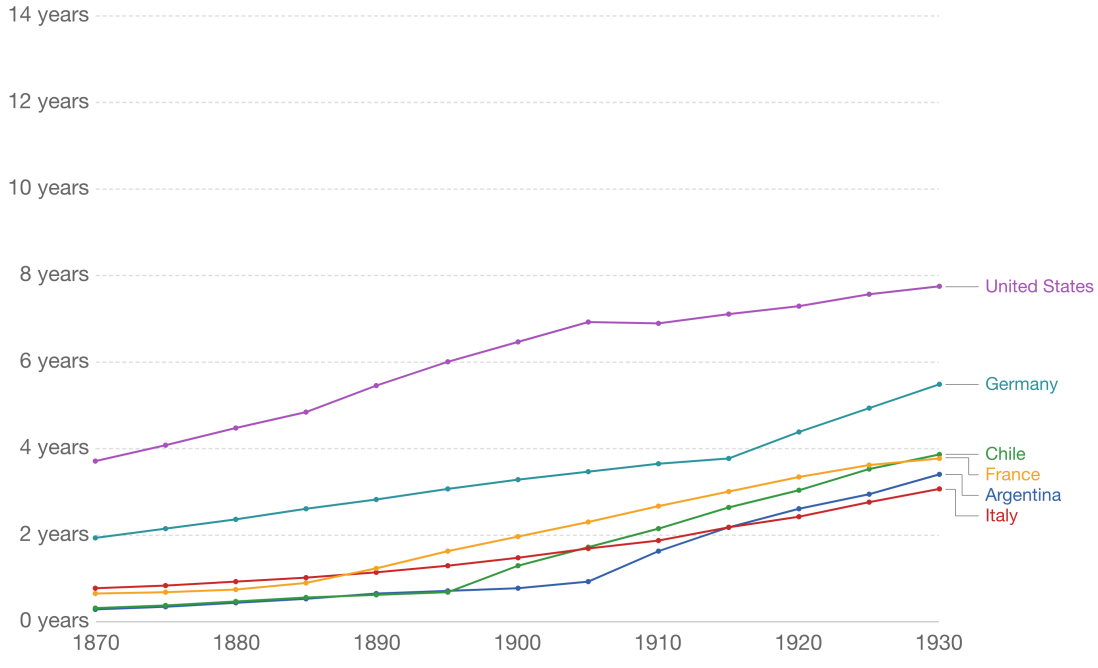
45. Soifer, *State Building in Latin America*.

Figure 1.3: Mass Education in Selected Countries during State Formation

(a) Primary School Enrollment, 1820-1920



(b) Mean Years of Schooling at Age 25+, 1870-1930



Source: (a) Lee and Lee;[43] (b) Barro and Lee.[44] Figures generated at `www.ourworldindata.org/primary-and-secondary-education`.

1920. Similarly, Argentina and Chile cluster together quite closely in the growth of primary school enrollment, while lagging behind their North American and European counterparts during this period. In terms of rising educational attainment, Figure 1.3b suggests that there is no discernible relationship between state structure and educational progress from 1870 to 1930—a major period for the consolidation of national education systems in the West.[46] These data do offer some evidence for the long-held assumption under modernization theory that educational progress in richer, more developed countries outpaces poorer, less developed countries.[47] We also know that the state's capacity to collect taxes and protect legally-defined property rights is a strong predictor of the divergence between richer and poorer countries.[48]

Table 1.1: Potential Explanations of Centralized Education

Potential Explanations	Outcome(s) of Interest	Implications for Education	Explanatory Factors
Diffusion of nation-state model	Spread of state-sponsored mass education	Convergence on centralized, standardized education	Interstate competition, nationalism
Economic institutions	Economic growth, human capital formation	Divergence between centralized and decentralized education	Economic inequality, gains to education
Territorial distribution of power	State formation, political centralization	Divergence between centralized and decentralized education	Elite competition over federalism, state capacity

That leaves us with a story in which state capacity and strong institutions drive economic development, which in turn positively impacts the returns to education and public resources for educational investment.[49] But we are still not much closer to explaining the main puzzle of historical, national differences in the institutional arrangements governing mass education than we were looking to sociological theories of the diffusion of the nation-state, political economy theories of economic institutions, or infrastructural power and urban primacy (Ta-

46. Ansell and Lindvall, "The Political Origins of Primary Education Systems."

47. Lipset, "Some Social Requisites of Democracy."

48. Besley and Persson, "State Capacity, Conflict, and Development."

49. Lindert, *Growing Public*.

ble 1.1). Efforts by scholars to more directly explain education centralization are few and far between. In particular, Ansell and Lindvall attribute the institutional trajectories of primary education to the success of secular liberal parties or social democratic parties over conservative parties allied with the Church in Europe from 1870 to 1930.[50] Yet, recent scholarship shows that state intervention in Western polities not only pre-dates the consolidation of party systems during this period, the expansion of public primary education pre-dates democratization by decades.[51] This finding is consistent with one of the central contentions of this study. The creation of national education systems is an autocratic, elite-driven process. It is a focus on the interests and ideas of ruling elites pursuing (and competing over) state-building and nation-making projects that will offer a systematic understanding of education centralization.

1.3 The National Educational Moment and State Centralization

What, then, accounts for cross-national differences in the formation of national education systems? In this study, I argue that education centralization is made possible during a national critical juncture, or national educational moment. I define education centralization as *direct rule* by the political center over the provision and regulation of primary and lower-secondary schooling. The critical juncture for education centralization occurs not in the denouement of nation-state formation, or in the shadow of consolidating party systems in the late 19th century.[52] Instead, it occurs in an environment of heightened political uncertainty before fundamental questions of national identity and the territorial distribution of political authority are resolved.[53] For now, I refer to a critical juncture as a "situation in which the structural (that is, economic, cultural, ideological, organizational) influences on political action are significantly relaxed for a relatively short period, with two main consequences:

50. Ansell and Lindvall, "The Political Origins of Primary Education Systems."

51. Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years."

52. Ansell and Lindvall, "The Political Origins of Primary Education Systems"; Lipset and Rokkan, *Party systems and voter alignments*.

53. Linz, "State building and nation building"; Ziblatt, *Structuring the State*.

the range of plausible choices open to powerful political actors expands substantially and the consequences of their decisions for the outcome of interest are potentially much more momentous."[54] That is, moments of "fluidity" and expanding agency create the political space for entrepreneurial elites to influence the development of education.[55]

The end of colonial or absolutist rule alone does not mark a national educational moment, even as it ushers in a prolonged period of upheaval and realignment of state-society relations.[56] Rather, a formative moment of uncertainty becomes a critical juncture for the development of national education systems in combination with the presence of two additional factors. First, "educational entrepreneurs"—generally hailing from the intellectual elite and often, but not necessarily, regime insiders—who actively pursue their preferences for the expansion and control of education at the direction of the central state. I use the term educational entrepreneur broadly to refer to political elites with a well-defined ideological and political interest in shaping the role of the state in education. I argue, and will show, that the trajectories of domestic debates concerning state intervention in mass education is in large part shaped by intellectual elites whose active promotion of their ideas in the educational arena broke through during periods of political uncertainty and had a lasting causal impact on state education. Second, the central state achieves a degree of infrastructural power—or ability to penetrate and implement logistically complex decisions throughout the national territory.[57] Given the administrative complexity of organizing a national and public education system, and obligating the population to participate, information capacity is the most critical source of infrastructural power contributing to education centralization. For now, I refer to information capacity as the ability of the state to collect and disseminate detailed demographic and administrative data about the population and state activities throughout the national territory.

In short, I argue that education centralization is more likely countries where the central

54. Capoccia and Kelemen, "The Study of Critical Junctures."

55. Pierson, *Politics in Time*.

56. Migdal, *Strong Societies and Weak States*.

57. Mann, "The autonomous power of the state."

state develops information capacity *and* where intellectual elites with a coherent educational ideology disseminates their ideas to mobilize political support for state education. However, these factors gain causal significance in shaping education governance in combination with a period of heightened political uncertainty—the result being a critical juncture for educational development. As I will discuss in the next chapter (Chapter 2), historical junctures that loosen political constraints (e.g., generate *permissive conditions*) become "critical" for the outcome(s) of interest in the presence of factors that take on causal weight (e.g., *permissive conditions*) only in the context of a significant opening of political constraints. That is, productive and permissive conditions are separately necessary and jointly sufficient for the emergence of critical juncture for educational development (Table 1.2).[58]

Table 1.2: Identifying the National Educational Moment during State Formation

		Productive Conditions (Educational Ideology & Information Capacity)	
		Present	*Absent*
Permissive Conditions (Political Rupture/Crisis)	*Present*	Critical Juncture (Major Reform)	Juncture not critical (No change)
	Absent	Juncture not critical (Incremental change)	No juncture (No change)

During the process of state formation, I theorize that information capacity and educational (institutional) entrepreneurship reduces the political center's uncertainty vis-á-vis the periphery as ruling elites consider education among potential state-building projects following a major political rupture or crisis. Likewise, where an intellectual elite(s) with a commitment to a coherent set of educational ideas is present, and able to internalize the costs of organizing national institutions overseeing mass education, the political center is more likely to prioritize a centralized, national education system as a state-building project. In other words, high levels of information capacity *combined* with the presence of institutional en-

58. Soifer, "The Causal Logic of Critical Junctures."

trepreneurs dedicated to educational development reduces the political risk and uncertainty associated with the center wresting control over the provision and organization of schooling from provincial elites and religious authorities in the periphery.

However, the relationship between these factors and education centralization also depends on the *values* of education ideology and information capacity during a critical juncture. I expect that variation between highly centralized education systems and partially-centralized or even decentralized education systems following a critical juncture is conditional on the extent to which an education ideology supporting centralized has disseminated over time among ruling elites and the degree to which the central state has developed a sufficiently even territorial distribution of infrastructural power in the form of information capacity (Table 1.3). I develop the theoretical framework in greater detail in the next chapter by further specifying why the national census emerges as a critical source of information capacity during state formation and why the coherence of educational ideology among the intellectual elite matters for educational development. In the next section, I provide an overview of the research plan of this study.

Table 1.3: Expected Relationship Between Productive Conditions and Mass Education

		Dissemination of state-centered education ideology among elite	
		Strong	*Weak*
Distribution of infrastructural power (Information capacity)	*More even*	Highly centralized	Partially centralized
	Less even	Partially centralized	Decentralized

1.4 Research Strategy

The empirical strategy of this study is motivated by a need to unpack the complex and endogenous relationship between state-building, infrastructural power, and educational development. In order to disentangle the factors that most directly shape the distribution of

political authority over national education systems from factors that contribute broadly to the historical process of nation-state formation, I turn to a multi-method research design that combines comparative historical analysis (CHA) and statistical methods.[59] Given the historical and categorical nature of state-building and educational development, neither a purely quantitative or qualitative approach is sufficient to test the core theoretical hypotheses I develop in Chapter 2.

First, I focus on examining the relationship between infrastructural power—and information capacity, specifically—and the centralization of education systems (Chapter 3). I introduce an original historical dataset on the comparative institutional development of mass education systems in forty-five countries from 1800 to 1970, concentrating on Europe and the Americas. The empirical strategy exploits a panel data framework using novel measures of state capacity that proxy for the geographic reach of the central state. Specifically, the analysis focuses on the state's ability to collect information and monitor the population throughout the territory it governs using national census, post offices per capita, and railway density as key measures of subnational state capacity. Controlling for potential confounders such as economic growth, modernization, and regime type, I show strong supportive evidence of the relationship between the geographic reach of state infrastructural power, particularly informational capacity, and education centralization.

To preview results, panel least squares estimates with country fixed effects show that every additional comprehensive population census administered over time is expected to increase education centralization by between 2 and 5 percentage points. Robustness checks show a consistent and statistically significant relationship between informational capacity and education centralization across multiple specifications and model types, including difference generalized method of moments (GMM) estimation. The findings also show some positive support for the role of communications and transportation infrastructure as captured by postal and railway density, respectively. I also show a weak statistical relationship between coercive and fiscal capacity and education centralization, thus providing confirmatory

59. Mahoney and Thelen, *Advances in Comparative-Historical Analysis*.

evidence that forms of state capacity that capture overall levels are insufficient contributing factors to centralized mass education. Rather, it is specific types of state capacity and its territorial distribution that matter for education centralization.

Second, I conduct a comparative case study of Argentina (Chapter 4) and Chile (Chapter 5) to trace the effects of educational ideology and infrastructural power on the formation of national education systems. I identify key historical periods following independence in both countries in which productive and permission conditions combined to produce national educational moments for the state contra periods that constrained state centralization. Moreover, through a CHA approach I analyze the timing of when permissive and productive conditions emerge in order to identify whether the theoretical argument is supported by the sequence of key events in both cases. The data include primary and secondary historical sources, including excerpts of letters, speeches, and essays about education by influential political and intellectual figures of the 19th century. I conducted three months of archival research and digitized a number of documents, including ministerial and government publications, as well as out-of-print or rare scholarly publications by education historians from both countries. My approach is consistent with other CHA scholars whose case studies primarily leverage established historical findings on their subject in combination with original data.[60] I describe the case selection strategy and preview findings below.

1.4.1 Case Selection for Comparative Historical Analysis: Argentina and Chile

In this study, I seek to test the relationship between information capacity, elite education ideologies, and political uncertainty over education centralization as causal pathways for the historical development of education systems. I interrogate the theorized pathways through a comparative historical analysis of Argentina and Chile. I show that Argentina, a federalist state, built a highly centralized, secular system of public primary education by the end of the 19th century (Chapter 4) while Chile, a unitary state, built a partially-centralized national

60. See, for example, the work of Mahoney, *Colonialism and Postcolonial Development*; Ziblatt, *Structuring the State*.

education system in which the university sector and religious authorities governed primary schooling well into the early 20th century (Chapter 5). The case selection rationale is based on a most-similar systems (MSS) approach to best examine the strength of my argument for explaining this variation.[61] This approach is useful for confirming or disconfirming the hypothesized causal relationships in a given theory.

A MSS case selection strategy entails matching all explanatory factors except the one in which the researcher seeks to observe variation that corresponds to cross-case variation in the outcome of interest: "In its purest form, the chosen pair of cases [are] similar across all background conditions that might be relevant to the outcome of interest, as signified by X_2, the vector of control variables. The cases differ, however, on one dimension—X_1—and on the outcome, Y. It may be presumed from this pattern of covariation across cases that the presence or absence of X_1 is what causes variation on Y."[62] The MSS case selection strategy and CHA approach will allow me to observe whether the available evidence supports the hypothesized causal relationship between X_1 and the different values of Y. To the degree possible for an observational study of educational change in developing nation-states, themselves highly heterogeneous and complex units of analysis, Argentina and Chile match on important background conditions (e.g., X_2). In particular, comparing Argentina and Chile helps minimize cross-case variation on factors that may contribute to institutional divergence during state formation according to extant theories discussed earlier in this chapter, including colonial legacies, demography, religion, economic institutions, and urban primacy.

First, Argentina and Chile declared independence from the Spanish crown within several years of one another (1816 in Argentina and 1818 in Chile). This allows me to compare educational development in countries with similarly timed onsets of state and nation-building processes following independence. Independence in this context provides a common exogenous shock from which to examine the emergence of critical junctures for national education

61. Gerring, *Case Study Research*.

62. Seawright and Gerring, "Case Selection Techniques in Case Study Research A Menu of Qualitative and Quantitative Options," 304.

systems during state formation.[63] Second, both countries had smaller, less densely concentrated indigenous populations and more "Europeanized" masses relative to the rest of Spanish America (i.e. Peru and Mexico) by the 19th century. As a consequence, major population centers of political and economic importance in Argentina and Chile had similar patterns of demographic transformation anchored by a class stratified *criollo* population divided between a homogeneous ruling elite of European ancestry and *mestizo* working class population of European and Amerindian ancestry.[64] Third, in the distribution of colonial administrative centers prior to independence both Buenos Aires and Santiago were highly urbanized yet geographically isolated zones of political, military, and intellectual activity. Mahoney shows that both Santiago de Chile and the Río de la Plata regions were historically peripheral or semi-peripheral colonial centers compared to the importance of viceroyalties in Peru, Colombia, or Mexico to the metropole.[65] Fourth, the Catholic Church was the primary actor in education provision under the "indirect rule" approach to schooling under the colonial state, and remained an entrenched and influential source of political support to conservative republican elites in the post-independence decades. By and large, the consequences of these similar background conditions can be seen by comparable levels of wealth and urbanization between Argentina and Chile, relative to other Latin American states, by the end of the century. Figure 1.4 shows both countries clustering close together in the upper-right quadrant having levels of urbanization and GDP per capita above mean levels of 8.3% (urbanization) and 7.7 (GDP per capita, logged) in 1900. Specifically, by 1900 urbanization and GDP per

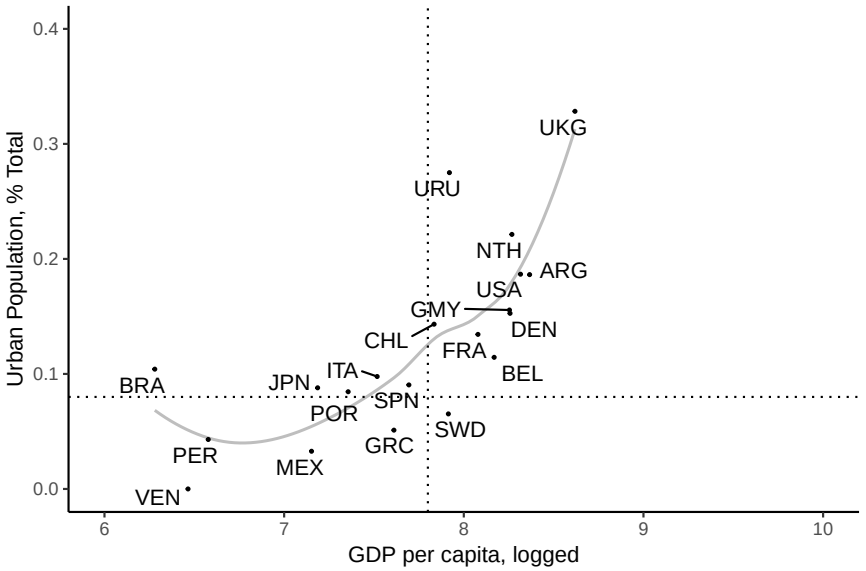
63. Mahoney and Thelen, *Advances in Comparative-Historical Analysis*.

64. Mahoney, "Long-Run Development and the Legacy of Colonialism in Spanish America." While stratification based on whiteness is a feature of Latin American society, the geographic distance between indigenous territory, mostly in the south, and established subnational territories and boundaries did not begin to close in either country until the latter decades of the 19th century. It is also important to acknowledge that the largest indigenous group to inhabit both countries, the Mapuche people, were concentrated in Chile in greater numbers. The Mapuche were violently conquered by the Argentine and Chilean governments in the second half of the 19th century and "incorporated" into their respective states, but to a greater degree in Chile. To this day, both governments stand accused of violating the political and human rights of the Mapuche and of engaging in indigenous ethnic cleansing during the "Wars of Pacification." See `https://minorityrights.org/minorities/mapuche-2/`.

65. Mahoney, *Colonialism and Postcolonial Development*.

capita in Argentina and Chile reached 18.6% and 14.3% and 8.4 and 7.8, respectively, falling within one standard deviation of the mean for both measures.

Figure 1.4: Economic Development: Per Capita Wealth and Urbanization in 1900



Source: Dotted horizontal and vertical lines indicate the mean x-y values for countries plotted. Data for GDP per capita from Haber and Menaldo (2011). Data on urban population from National Material Capabilities (NMC) Data v5.0.

Turning to productive conditions driving education centralization (e.g., independent variables X_1)—information capacity and education ideology—Argentina and Chile vary in important ways. In my argument, variation in information capacity is one element of X_1 shaping education centralization. As noted in the previous section, I test this hypothesis using econometric methods in Chapter 3 and find a generally positive relationship between information capacity and education centralization. However, I have to hold this element constant in a MSS case selection strategy so that I can observe covariation between Y (education centralization) and the other element of X_1, education ideology. Several observations

stand out that approximate ceteris paribus conditions for the development of state capacity in 19th century Argentina and Chile prior to educational consolidation, but varied according to the ideological centers of gravity among the dominant elite.

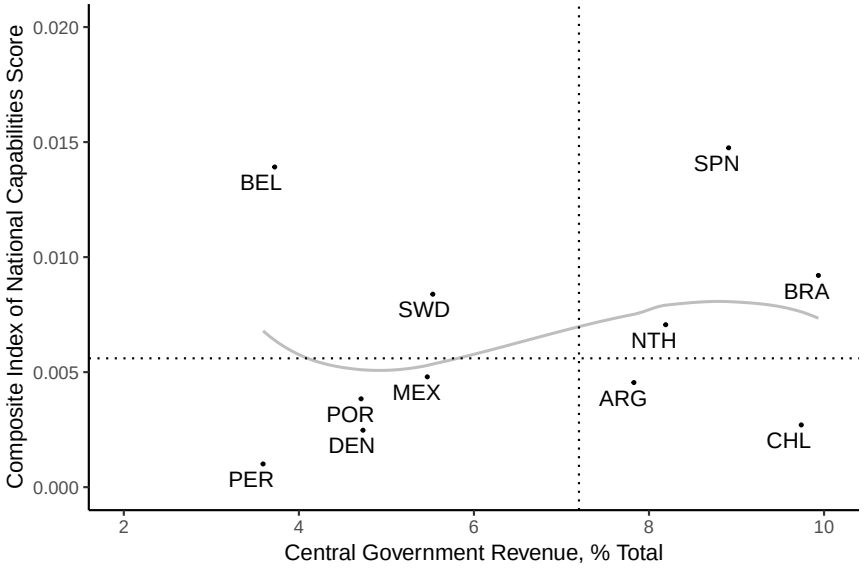
First, both countries reached similar levels of infrastructural power relatively early. Argentina reached a higher level of urbanization earlier than Chile, both countries largely converged in railway density by the end of the 19th century.[66] In terms of general levels of state capacity, Argentina and Chile found themselves similarly placed in the hierarchy of state strength among Western nation-states in 1900 (Figure 1.5). For example, Figure 1.5 shows that in terms of fiscal capacity (measured by central government tax revenue) and material capabilities (measured by CINC score) Argentina and Chile are similarly located in the bottom-right quadrant.[67] That is, Argentina (7.28, 0.0045) and Chile (9.74, 0.0027) fall above the mean value of fiscal capacity (7.2%) and below the mean value in material capabilities (0.023) well-within one standard deviation for both measures.

Alternatively, the political dynamics of Argentina and Chile during the 19th century exhibit both similarities and differences in terms of ideological conflict. Historians show that 19th century Argentina was characterized as having a somewhat more secular liberal intellectual tradition than Chile, but both countries had similarly timed and influential intellectual movements concentrated in the capitals. While neither Argentina's Generation of 1837 or Chile's Generation of 1842 reached consensus on the role of the state in education, nor did they agree on federalism, both movements promoted enlightenment and republican ideas buoyed by a belief in scientific rationalism and European immigration as critical to consolidating the nation-state. However, Argentina suffered from more political instability than Chile. Higher turnover of regimes (and constitutions) as a result of violent political

66. Bignon, Esteves, and Herranz-Loncán, "Big push or big grab?"; Kurtz, *Latin American State Building in Comparative Perspective*; Soifer, *State Building in Latin America*.

67. Data on central government revenue from Andersson, "Democracy, Urbanization, and Tax Revenue." Composite Index of National Capabilities (CINC) score, which measures raw and industrial material output and military personnel, from Singer's ("Reconstructing the correlates of war dataset on material capabilities of states, 1816–1985") and National Material Capabilities (NMC) Data v5.0 at `http://www.correlatesofwar.org/data-sets/national-material-capabilities`.

Figure 1.5: State Capacity: Central Government Revenue and Material Capabilities in 1900



Source: Dotted horizontal and vertical lines indicate the mean x-y values for countries plotted. Data for central government revenue from Andersson (2018). Data for CINC score from National Material Capabilities (NMC) Data v5.0.

conflict between conservative federalists and liberal unitarists resulted in several protracted periods of heightened political uncertainty and internal disorder.[68] I will show that it was during these punctuated periods of political turmoil and uncertainty that the dissemination of educational ideas by intellectual elites, particularly those concerned with mobilizing state action on public primary education, led to a more expansive and centralized system of compulsory primary schooling at the national level.

68. Centeno and Ferraro, *State and Nation Making in Latin America and Spain*; Drake, *Between tyranny and anarchy*.

1.5 Preview of Study

The rest of this study is organized as follows. Chapter 2 develops the main argument introduced above. I situate the main theoretical framework within the context of theories of state rationalization and legitimacy and further specify the conceptual foundations and assumptions guiding this study. Specifically, I introduce information capacity as a critical element of infrastructural power that is distinct from fiscal and coercive forms state capacity most often used to categorize strong versus weak states. From here, I abstract alternative scenarios for how I expect the interplay between state-building, information capacity, and elite educational ideas to shape educational development in terms of the centralization of mass education. In Chapter 3, I test the effects of the territorial distribution of infrastructural power on education centralization using measures of information capacity, communications, and transportation networks, controlling for fiscal and coercive capacity and country wealth. In Chapter 4, I conduct a comparative historical analysis of Argentina from independence to the passage of Law 1420 in 1884, which fully centralized, standardized, and secularized compulsory and free primary education. Chapter 5 looks at the case of Chile as a counterfactual to Argentina, focusing on the period from independence to the passage of the Primary Education Act of 1860 that established the principle of free basic education, which fell far short of the scope of Argentina's Law 1420. Chapter 6 concludes with a discussion of the theoretical argument given the findings of the study, and suggests new questions and recommendations for improving and expanding upon this study.

References

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson. "Institutions, Human Capital, and Development." *Annual Review of Economics* 6, no. 1 (2014): 875–912.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. "The Colonial Origins of Comparative Development: An Empirical Investigation." *The American Economic Review* 91, no. 5 (December 2001): 1369–1401.

Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Verso Books, November 2006.

Andersson, Per F. "Democracy, Urbanization, and Tax Revenue." *Studies in Comparative International Development* 53, no. 1 (March 2018): 111–150.

Ansell, Ben, and Johannes Lindvall. "The Political Origins of Primary Education Systems: Ideology, Institutions, and Interdenominational Conflict in an Era of Nation-Building." *American Political Science Review* 107, no. 03 (2013): 505–522.

Archer, Margaret Scotford. *Social Origins of Educational Systems*. Sage Publications Ltd., 1979.

Barro, Robert J., and Jong-Wha Lee. "International data on educational attainment: updates and implications." *Oxford Economic Papers* 53, no. 3 (July 2001): 541–563.

Bellei, Cristián, Cristian Cabalin, and Víctor Orellana. "The 2011 Chilean student movement against neoliberal educational policies." *Studies in Higher Education* 39, no. 3 (March 2014): 426–440. doi:10.1080/03075079.2014.896179.

Besley, Timothy, and Torsten Persson. "State Capacity, Conflict, and Development." *Econometrica* 78, no. 1 (January 2010): 1–34.

Bignon, Vincent, Rui Esteves, and Alfonso Herranz-Loncán. "Big push or big grab? Railways, government activism, and export growth in Latin America, 1865–1913." *The Economic History Review* 68, no. 4 (November 2015): 1277–1305.

Boli, John, Francisco O. Ramirez, and John W. Meyer. "Explaining the Origins and Expansion of Mass Education." *Comparative Education Review* 29, no. 2 (May 1985): 145–170.

Bourdieu, Pierre, and Jean-Claude Passeron. *Reproduction in Education, Society and Culture*. SAGE, October 1990.

Brockliss, L., and N. Sheldon. *Mass Education and the Limits of State Building, c.1870-1930*. Springer, February 2012.

Capoccia, Giovanni, and R. Daniel Kelemen. "The Study of Critical Junctures: Theory, Narrative, and Counterfactuals in Historical Institutionalism." *World Politics* 59, no. 3 (2007): 341–369.

Capoccia, Giovanni, and Daniel Ziblatt. "The Historical Turn in Democratization Studies: A New Research Agenda for Europe and Beyond." *Comparative Political Studies* 43, nos. 8-9 (August 2010): 931–968.

Caruso, Marcelo. "Latin American independence: education and the invention of new polities." *Paedagogica Historica* 46, no. 4 (August 2010): 409–417.

———. "Literacy and suffrage: the politicisation of schooling in postcolonial Hispanic America (1810-1850)." *Paedagogica Historica* 46, no. 4 (August 2010): 463–478.

Centeno, Miguel A., and Agustin E. Ferraro. *State and Nation Making in Latin America and Spain: Republics of the Possible*. Cambridge University Press, March 2013.

Centeno, Miguel A., Atul Kohli, Deborah J. Yashar, and Dinsha Mistree. *States in the Developing World*. Cambridge University Press, February 2017.

Drake, Paul W. *Between tyranny and anarchy: a history of democracy in Latin America, 1800-2006*. Stanford University Press, 2009.

Engerman, Stanley L., Elisa V. Mariscal, and Kenneth L. Sokoloff. "The Evolution of Schooling in the Americas, 1800-1925." In *Human Capital and Institutions: A Long-Run View*. Cambridge University Press, 2009.

Gellner, Ernest. *Nations And Nationalism*. John Wiley & Sons, Limited, 2006.

Gerring, John. *Case Study Research: Principles and Practices*. Cambridge University Press, 2007.

Guzman-Concha, Cesar. "The Students' Rebellion in Chile: Occupy Protest or Classic Social Movement?" *Social Movement Studies* 11, nos. 3-4 (August 2012): 408–415.

Haber, Stephen, and Victor Menaldo. "Do Natural Resources Fuel Authoritarianism? A Reappraisal of the Resource Curse." *American Political Science Review* 105, no. 1 (February 2011): 1–26.

Hobsbawm, E. J. *Nations and Nationalism Since 1780: Programme, Myth, Reality*. Cambridge University Press, October 1992.

Kurtz, Marcus J. *Latin American State Building in Comparative Perspective: Social Foundations of Institutional Order*. Cambridge University Press, March 2013.

Lee, Jong-Wha, and Hanol Lee. "Human capital in the long run." *Journal of Development Economics* 122 (September 2016): 147–169.

Levi, Margaret. "The Institution of Conscription." *Social Science History* 20, no. 1 (1996): 133–167.

Lindert, Peter H. *Growing Public: Volume 1, The Story: Social Spending and Economic Growth Since the Eighteenth Century*. Cambridge University Press, January 2004.

Linz, Juan J. "State building and nation building." *European Review* 1, no. 04 (October 1993): 355–369.

Lipset, Seymour Martin. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *The American Political Science Review* 53, no. 1 (March 1959): 69–105.

Lipset, Seymour Martin, and Stein Rokkan. *Party systems and voter alignments: cross-national perspectives*. Free Press, 1967.

Mahoney, James. "After KKV: The New Methodology of Qualitative Research." *World Politics* 62, no. 1 (2010): 120–147.

Mahoney, James. *Colonialism and Postcolonial Development: Spanish America in Comparative Perspective*. Cambridge University Press, February 2010.

———. "Long-Run Development and the Legacy of Colonialism in Spanish America." *American Journal of Sociology* 109, no. 1 (July 2003): 50–106.

Mahoney, James, and Kathleen Thelen. *Advances in Comparative-Historical Analysis*. Cambridge University Press, July 2015.

Mann, Michael. "The autonomous power of the state : its origins, mechanisms and results." *European Journal of Sociology / Archives Européennes de Sociologie / Europäisches Archiv für Soziologie* 25, no. 2 (1984): 185–213.

Martin, Isaac William, Ajay K. Mehrotra, and Monica Prasad. *The New Fiscal Sociology: Taxation in Comparative and Historical Perspective*. Cambridge University Press, 2009.

Mayrl, Damon. *Secular Conversions: Political Institutions and Religious Education in the United States and Australia, 1800–2000*. Cambridge University Press, September 2016.

Melton, James van Horn. *Absolutism and the Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*. Cambridge University Press, 1988.

Meyer, John W. "The Effects of Education as an Institution." *American Journal of Sociology* 83, no. 1 (July 1977): 55–77.

Meyer, John W., John Boli, Thomas, and Francisco O. Ramirez. "World Society and the Nation-State." *American Journal of Sociology* 103, no. 1 (July 1997): 144–181.

Meyer, John W., Francisco O. Ramirez, and Yasemin Nuhoḡlu Soysal. "World Expansion of Mass Education, 1870-1980." *Sociology of Education* 65, no. 2 (April 1992): 128–149.

Migdal, Joel S. *Strong Societies and Weak States: State-society Relations and State Capabilities in the Third World*. Princeton University Press, 1988.

Moe, Terry M., and Susanne Wiborg. *The Comparative Politics of Education*. Cambridge University Press, 2016.

Murillo, María Victoria. "Recovering Political Dynamics: Teachers' Unions and the Decentralization of Education in Argentina and Mexico." *Journal of Interamerican Studies and World Affairs* 41, no. 1 (1999): 31–57.

Newland, Carlos. "The Estado Docente and Its Expansion: Spanish American Elementary Education, 1900-1950." *Journal of Latin American Studies* 26, no. 2 (1994): 449–467.

Paglayan, Agustina. "Democracy and Educational Expansion" Evidence from 200 Years." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2018.

Pierson, Paul. *Politics in Time: History, Institutions, and Social Analysis*. Princeton University Press, 2004.

Polack, María Elena. "Ya hubo más paros docentes en todo el país que en igual período de 2018." *La Nacion* (Buenos Aires), May 2019.

Ramirez, Francisco O., and John Boli. "The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization." *Sociology of Education* 60, no. 1 (1987): 2–17.

Rey, Debora. "Students protest education in Argentine capital." *Boston.com*, September 2010.

Sabato, Hilda. *Republics of the New World: The Revolutionary Political Experiment in Nineteenth-Century Latin America*. Princeton University Press, February 2018.

Sasaki, Yu. "Publishing Nations: Technology Acquisition and Language Standardization for European Ethnic Groups." *The Journal of Economic History* 77, no. 4 (December 2017): 1007–1047.

Schumpeter, Joseph Alois. *The Economics and Sociology of Capitalism*. Princeton University Press, January 1991.

Seawright, Jason, and John Gerring. "Case Selection Techniques in Case Study Research A Menu of Qualitative and Quantitative Options." *Political Research Quarterly* 61, no. 2 (June 2008): 294–308.

Siavelis, Peter M. "Chile's Student Protests: The Original Sin of Education Policy." *ReVista: Harvard Review of Latin America*, no. Fall (2012).

Simon, Joshua. *The Ideology of Creole Revolution: Imperialism and Independence in American and Latin American Political Thought*. Cambridge University Press, June 2017.

Singer, J. David. "Reconstructing the correlates of war dataset on material capabilities of states, 1816–1985." *International Interactions* 14, no. 2 (May 1988): 115–132.

Soifer, Hillel David. *State Building in Latin America*. Cambridge University Press, June 2015.

———. "The Causal Logic of Critical Junctures." *Comparative Political Studies* 45, no. 12 (December 2012): 1572–1597.

Soysal, Yasemin Nuhoglu, and David Strang. "Construction of the First Mass Education Systems in Nineteenth-Century Europe." *Sociology of Education* 62, no. 4 (1989): 277–288.

Uslaner, Eric M., and Bo Rothstein. "The Historical Roots of Corruption: State Building, Economic Inequality, and Mass Education." *Comparative Politics* 48, no. 2 (January 2016): 227–248.

Waldner, David. "Process Tracing and Qualitative Causal Inference." *Security Studies* 24, no. 2 (April 2015): 239–250. ISSN: 0963-6412, accessed April 6, 2019. doi:10.1080/09636412.2015.1036624.

Witte, Els, Jan Craeybeckx, and Alain Meynen. *Political History of Belgium: From 1830 Onwards*. Asp / Vubpress / Upa, 2009.

Ziblatt, Daniel. *Structuring the State: The Formation of Italy and Germany and the Puzzle of Federalism*. Princeton University Press, 2006.

Chapter 2

THEORY

2.1 Introduction

The departure point for theorizing the relationship between state capacity and education centralization follows from a large body of scholarship across a number of disciplines, including political science, sociology, economics, and history, that recognizes the limitations of modernization theory for patterns of state educational development.[1] In particular, I build on the idea that the early spread of state education is less a function of democratic (e.g., redistributive) demand, or an instrumental policy choice to drive economic growth, than it is an effort by ruling elites to inculcate values that legitimate the authority of the state.[2] Indeed, a recent study on the expansion of mass education since the 19th century shows that central government intervention in primary education predates the universal male suffrage by ninety years on average.[3] This finding underscores why, if we want to understand the formation of national education systems, we need to situate educational development in the broader context of state building and nation making.

The successful transition from pre-modern states in which society is organized via provincial (indirect) rule, whether by a landed aristocracy, local warlords, or colonial administrators, to one organized via public (direct) rule under a central government necessitates the creation of a common set of beliefs of state legitimacy (e.g., nationalism).[4] However, the

1. Archer, *Social Origins of Educational Systems*; Caruso, "Latin American independence"; Engerman, Mariscal, and Sokoloff, "The Evolution of Schooling in the Americas, 1800-1925"; Green, *Education and State Formation*; Paglayan, "Civil War, State Consolidation, and the Spread of Mass Education."

2. Bourdieu and Passeron, *Reproduction in Education, Society and Culture*.

3. Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years."

4. Anderson, *Imagined Communities*; Gellner, *Nations And Nationalism*; Hechter, *Containing Nationalism*.

recognition by ruling elites that education is an important tool for political socialization does not render centralized mass education a *fait accompli* during state formation. Instead, at critical junctures that offer favorable conditions for national organization, statebuilders intent on establishing a national education system are constrained by the territorial reach of state capacity and the political risks of centralization.[5] However, whatever the permissive conditions that arise at such a juncture do not alone provide ruling elites with the sort of coherent vision of a desired political order or the corresponding nationalist principles that inform state-building activities.[6]

There is a robust literature examining the importance of state capacity for establishing the institutions of centralized governance that characterize modern nation-states.[7] While the relationship between state capacity and political development is well-documented, in practice there are few studies that systematically analyze how different state "capacities" shape the institutional trajectories of mass education across a diverse set of countries over the *longue durée*.[8] The question of how and why states establish centrally-governed systems of compulsory schooling forces a more complex characterization of the state itself.

2.2 The State as an Education Leviathan in Waiting

The state is not just, in a minimal Weberian sense, a coercive and revenue-maximizing organization; it is also a monopolist of social life.[9] Instead, I proceed from a broader conception

5. By *criticial juncture*, I refer to historical periods in which the "the loosening of the constraints of structure to allow for agency or contingency to shape [institutional] divergence from the past, or divergence across cases." Soifer, "The Causal Logic of Critical Junctures," 1573. Similarly, we can also think of a critical juncture to also reflect a period of heightened political and social uncertainty around the future of the polity. See Hanson, *Post-Imperial Democracies*.

6. Gellner, *Nations And Nationalism*; Hechter, *Containing Nationalism*.

7. Dincecco, Federico, and Vindigni, "Warfare, Taxation, and Political Change"; Levi, *Of Rule and Revenue*; Migdal, *Strong Societies and Weak States*; Ziblatt, *Structuring the State*.

8. Soifer's research on state formation in Latin America comes close, but in situating public education itself as a form of state capacity, rather than an outcome of it, the causal relationship between other forms state capabilities and centralized mass education remains unclear. Soifer, *State Building in Latin America*.

9. Levi, *Of Rule and Revenue*, 1. Much of contemporary political economy scholarship on state-building, with some exceptions, ignores Weber's careful work on the cultural, ideational, and symbolic dimensions of politics, instead focusing on his paradigmatic contributions to understanding the rise of the rationalized,

of the state as "a 'pastoral' organization that claims clear priority (if not complete monopoly) over the legitimate means of socialization within a given territory."[10] Such an extension of Weber's definition of the state follows from Bourdieu's understanding of the state as a monopolist of both physical and *symbolic* violence. For Bourdieu, the state also regulates group relations via official classifications—which confer legitimacy on some categories while excluding others—that are then "internalized as mental categories through schooling".[11] Thus, my theoretical approach is in part a response to challenges by scholars who suggest that comparative research moves beyond the analytic strictures of Weberian 'stateness'.[12] The central claim of this study is that the state's information capacity increases the likelihood of the political centralization of mass education during formative periods of statebuilding, ceteris paribus, and that this occurs primarily by mitigating the political uncertainty of elites who seek to exert state control over education throughout the territory. The routine collection and dissemination of detailed population data *throughout a national territory* is a useful resource for political elites with designs on consolidating a national education system in countries where the state has yet to fully displace the primacy of local authorities in the pursuit of social order. However, absent an intellectual elite mobilizing political support around a coherent educational ideology, a highly centralized system is unlikely to take shape even where state capabilities otherwise favor education centralization at a critical juncture.

A few brief caveats are in order. I am not arguing that educational development or centralized education is uniformly epiphenomenal to information capacity. Indeed, there

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bureaucratic state. For instance, see Weber's "Class, Status, Party." Weber, "Class, Status, Party."

10. Gorski, *The Disciplinary Revolution*, xvi.

11. Swartz, *Symbolic Power, Politics, and Intellectuals*, 36.

12. In particular, Migdal offers an alternative definition of the state as, invoking Bourdieu, "a field of power marked by the use and threat of violence and shaped by (1) the image of a coherent, controlling organization in a territory, which is a representation of the people bounded by that territory, and (2) the actual practices of its multiple parts." Migdal, *State in Society*, 16. The image of the state implies a"Janus-faced" political center in terms of a coherent, bureaucratic, rule-making organization, on the one hand, and a mobilizer of collective sentiment and legitimacy "intimately" bound up with the citizenry, on the other. Thus, the state is a paradoxical source of social control and social solidarity. The "practices" of the state, mass education in the case of this study, imply the myriad capacities, agents, routines, customs, and constituent bodies that underlay the state's image. See Migdal, "Researching the State," 166-176.

are cases of "revolutionary" regimes that implement centralized mass education in the periphery, irrespective of the state's weak local knowledge. The case of the Soviet Union's expansive educational reforms throughout its growing periphery, such as the implementation of "indigenization" in Ukrainian schools, represents a non-modal case of educational development among modern states.[13] Similarly, I do not seek to explain the quality or efficiency of education systems as a function of centralization. Educational outcomes in terms of literacy, enrollment, attainment, and cost per pupil vary widely among both decentralized and centralized education systems around the world.[14] For example, both the United States and France experienced significantly higher rates of literacy, 80% and 69% respectively, relative to a global average of 19%, and nearly by 1870.[15] Such outcomes likely have more to do with antecedent conditions, political institutions (e.g., electoral systems), and redistributive conflict in later periods, not whether statebuilders pursue and establish an education system with centralized control.[16] Among advanced industrialized countries, in particular, multi-party parliamentary democracies tend to outpace two-party presidential systems in education spending and fiscal progressivism whether the government is unitary or federalist.[17]

In the following sections, I specify the conceptual terrain and scope conditions of this study and outline the core theoretical framework and empirical implications. First, I situate my approach to state capacity and ideology in extant, and at times conflicting, approaches found across political economy and macrosociological theories of the state. From there I discuss the link between information capacity, elite ideas, and education as an overlooked and important component of state development. I also introduce the operational definitions

13. Pauly, *Breaking the Tongue*. In that regard, a state elite unified around a single ideological program to centralize control over political and social life is undoubtedly sufficient.

14. Barro and Lee, "International data on educational attainment"; Lindert, *Growing Public*.

15. Barro and Lee, "International data on educational attainment."

16. Engerman, Mariscal, and Sokoloff, "The Evolution of Schooling in the Americas, 1800-1925"; Schneider and Soskice, "Inequality in developed countries and Latin America."

17. Iversen and Stephens, "Partisan Politics, the Welfare State, and Three Worlds of Human Capital Formation."

that guide this study and the empirical strategy. Finally, I restate the argument and further develop the two theoretical mechanisms introduced in the previous chapter that I argue shape historical and cross-national variation in education centralization: legibility and ideology. The closing section sets the stage for the next chapter on the empirical strategy and main statistical findings.

2.3 Conceptual Terrain

There is broad scholarly consensus that the pursuit of a social order amenable to the designs of sovereign statehood is a fundamental aim of ruling elites.[18] New regimes seeking to govern over the long-term inevitably come up against the geographic and symbolic limits of their authority, especially where the central state's 'capacities' are alien to the society it seeks to govern.[19] Political elites that take the reigns of new states have incentives to develop institutions capable of legitimating the emerging political order. Mass education is one of the primary tools available to governments with which to instill social discipline, limit the bounds of citizenship, and bolster the legitimacy of the state.[20] Therefore, elites in nascent states have an interest in directing the provision of education.[21] However, centrally-governed mass education is a disruptive, highly information-intensive, and complex institutional innovation of modern states. While ruling elites may hope to achieve a national education system, their ability to undertake the political project of mass schooling is subject to a number of constraints endemic to the challenges of imposing new institutions on society.

First, states need to resolve the issue of legibility. The central state's 'rationalization' of the population and national territory through enumeration is an important precondition for the project of collective identity formation. By rendering the population's identity congruous with the routines of the state, governments can rely less on coercion to gain compliance over

18. Anderson, *Imagined Communities*; Hechter, Kuyucu, and Sacks, "Nationalism and Direct Rule"; Mitchell, "The Limits of the State."

19. Migdal, *Strong Societies and Weak States*.

20. Coleman, *Education and Political Development*; Gellner, *Nations And Nationalism*.

21. Archer, *Social Origins of Educational Systems*; Paglayan, "Civil War, State Consolidation, and the Spread of Mass Education"; Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years."

time.[22]As James C. Scott keenly observes:

> The utopian, immanent, and continually frustrated goal of the modern state is to reduce the chaotic, disorderly, constantly changing social reality beneath it to something more closely resembling the administrative grid of its observations [. . .] The aspiration to such uniformity and order alerts us to the fact that modern statecraft is largely a project of internal colonization, often glossed, as it is in its imperial rhetoric, as a 'civilizing mission'.[23]

Similarly, Bourdieu describes the parallel development of the state's concentration of "informational capital" in tandem with its concentration of economic (e.g., extractive) and physical (e.g., coercive) capital a la Tilly.[24] In the accumulation of informational capital, the state "concentrates, treats, and redistributes information [and] claims responsibility for all operations of *totalization* (especially thanks to census taking and statistics or national accounting) [. . .] as well as for all operations of *codification* [. . .] implying centralization and monopolization in the hands of clerks and men of letters."[25] Specifically, cultural elites of the bureaucracy and intellectual classes take on an entrepreneurial role in the state's civilizing mission even at the early stages of rationalization. In doing so, they set the stage for the articulation of official national identities.

Of particular relevance to the state's use of classification to impose "mental structures" and "common principles of vision and division" for the "civilized mind"[26] is Loveman's research on ethno-racial classification by Latin American states in the struggle to develop coherent national identities.[27] Loveman shows that by the 1870s Latin American elites, influenced by scientific racism, saw the national census reports as sites to obscure demographic

22. Migdal, Kohli, and Shue, *State Power and Social Forces*.
23. Scott, *Seeing Like a State*, 82.
24. Bourdieu, Wacquant, and Farage, "Rethinking the State"; Tilly, *Coercion, Capital and European States*.
25. Bourdieu, Wacquant, and Farage, "Rethinking the State," 7.
26. Ibid.
27. Loveman, *National Colors*.

realities to construct an image of a modern "civilized nation."[28] For example, the official publication of Argentina's first national census of 1869 was prefaced by its author claiming that through official census data "societies come to have plain consciousness of their weakness or their strength, substituting...the uncertain and hypothetical with the incontestable reality of facts. [Censuses] are thus, for nations, like the useful and fecund words '*know yourself*'.[29] Yet, census officials in both Argentina and Chile made deliberate choices through classification schemes to emphasize their nations' "Europeanness."[30] Thus, census enumeration can serve a contradictory role in both increasing the state's informational capital while selectively representing population data to project an image of a largely homogeneous nation-state.

Second, states need to resolve the question of their legitimacy among the population. The state's accumulation of informational capital through official statistics is, at best, a partial solution to establishing a common, governable political culture. Rather, the institution of centralized mass education represents the apotheosis of the state's 'civilizational' program.[31] Research on the spread of state education in Europe supports the notion that mass schooling was seen as an important tool for establishing the political legitimacy of newly independent states and burgeoning republics.[32] One example is Eugene Weber's classic account of nation-building in 19th century France.[33] Beginning with the first comprehensive national census in 1836, the state regularly deployed enumerators to conduct surveys of urban and rural inhabitants. Census records throughout much of the 19th century revealed to state elites a persistent and stubborn cultural and linguistic fragmentation among the rural masses (and extremely low literacy). Though early efforts of educational development by noted intellectual and Minister of Public Instruction, François Guizot had some success, it was

28. Loveman, "Census Taking and Nation Making in Nineteenth-Century Latin America," 344.

29. Ibid., 337.

30. Ibid., 345.

31. In particular, national education intersects what Mann describes as ideological power and political power, "the centralized and territorial regulation of social life." See Mann, *The Sources of Social Power*, 12. Similarly, Bourdieu characterizes pedagogic authority as a form of symbolic power, and "coerced" compulsory education as symbolic violence. See Bourdieu and Passeron, *Reproduction in Education, Society and Culture*.

32. Ramirez and Boli, "The Political Construction of Mass Schooling."

33. Weber, *Peasants Into Frenchmen*.

under the Jules Ferry Reforms of the Third Republic in which the modern French education system took shape. [34] State elites saw the education system, particularly in the wake of the defeat during the Franco-Prussian war, as a means to construct a national political community congruent with Paris as the political and cultural center of the French state.

Mass education also emerged as an institutional arena for reshaping the social order in Latin America and much of the post-colonial world.[35] As Anderson shows, education was used by colonial administrators and nationalist elites across Asia, Latin America, and the Middle East, both prior to and in the context of the spread of mass schooling, to impose unifying ideologies on native populations and ethnolinguistic groups incongruous with the dominant culture.[36] Thus, elites may seek to monopolize education for the purpose of managing ethnic and racial cleavages that pose a threat to the political center, either by demobilizing the salience of "subaltern" identities that challenge the state's legitimacy,[37] or by incorporating broader sectors of society into the nation as was the case with *Blanqueamiento* in Latin America and the Carribbean beginning in the late 19th century.[38] For example, liberal elites in late 19th century Nicaragua under the Zelaya regime turned to expanding the underdeveloped education system in order assimilate ethnic minorities and native Amerindians to the cultural and political "blueprint" set forth by the state.[39] The same way the national census constructs official political and social boundaries during initial stages of the state's accumulation of informational capital, mass education eventually emerges as an important

34. Weber, *Peasants Into Frenchmen*, 307. While modest in terms of overall numbers, Guizot's deployment of school inspectors and state-certified teachers to enforce a law requiring one elementary school per commune laid the groundwork for the further expansion of primary education under Jules Ferry's ministerial tenure. Between 1833 and 1847, the number of primary schools increased by 100 percent and the number of students enrolled increased by 200 percent.

35. Caruso, "Latin American independence."

36. Anderson, *Imagined Communities*.

37. Alvarez, "The relationship between processes of national state consolidation and the development and expansion of systems of public education during the nineteenth century in Central America"; Caruso, "Latin American independence."

38. Gott, "Latin America as a White Settler Society"; La Belle and White, "Education and Colonial Language Policies in Latin America and the Caribbean"; Miller, "The 'Immoral' Educator."

39. Alvarez, "The relationship between processes of national state consolidation and the development and expansion of systems of public education during the nineteenth century in Central America," 181.

political institution with which to impose a universal logic on an otherwise particularistic society.[40]

By and large, Bourdieusian notions of the relationship between schooling and nationalism dovetail with influential accounts of nationalism most commonly employed in comparative research.[41] Ruling elites helped create "imagined communities" by advancing initiatives such as national monuments, museums, censuses, and official language policies, among others. However, it is the cultural elite that is the position to organize the type of nationalism that "engenders nations," particularly through education.[42]

> By universally imposing and inculcating (within the limits of its authority) a dominant culture thus constituted as *legitimate national* culture, the school system, through the teaching of history (and especially the history of literature), inculcates the foundations of a true "civic religion" and more precisely, the fundamental presuppositions of the national self-image [. . .] It is especially through the school, with the generalization of elementary education through the 19th century that the unifying action of the state is exercised in matters of culture.[43]

The project of a national education system governed from the political center is inextricably tied to that of rationalization. Many governments relied on the census and other sources of statistical information to get the 'lay of the land' when adjudicating between state-building and nation-making priorities.[44] In pursuit of nation-making, I argue that the central state's information capacity to monitor and "standardize" the population is an important determinant of the consolidation of national education systems. Likewise, I argue that ruling

40. Bourdieu neatly describes the inherently contradictory function of state education in serving both a 'dominating' and 'integrating' function, observing that the "school, which is the most advanced form of monopoly in the cultural domain, also has a reverse side of dispossession: the school system produces the uncultured, the culturally dispossessed." Bourdieu, *On the State*, 229.

41. Anderson, *Imagined Communities*; Gellner, *Nations And Nationalism*.

42. Gellner, *Nations And Nationalism*, 4.

43. Bourdieu, Wacquant, and Farage, "Rethinking the State," 8.

44. Brambor et al., "The Lay of the Land."

elites develop state-sponsored systems of mass education in order to promote the political legitimacy of the emerging nation-state. By legitimacy I refer to what Levi and other scholars define as *value-based* legitimacy, or "a sense of obligation or willingness to obey authorities," as opposed to *behavioral legitimacy* that focuses on legitimacy-as-compliance.[45] However, I go one step further by recognizing that value-based legitimacy has foundations in the symbolic authority of the state, which itself has cognitive and sentimental dimensions tied up with culture. In other words, the education system is a means to bolstering value-based legitimacy by disseminating ideologies and social habits that fit the dominant culture.[46] Intellectual elites, in particular, are well-positioned to shape the institutional trajectory of educational development to the degree that a sufficient consensus around education and a "legitimate" national culture is achievable.

2.3.1 A Note on Terminology

Before outlining the mechanisms linking information capacity and elite ideology to education centralization, I should further specify the use of terminology and conceptual categories in this study. First, I focus on a particular dimension of what Mann terms *infrastructural power*, which broadly refers to the "institutional capacity of a central state [. . .] to penetrate its territories and logistically implement decisions."[47] While state capacity and infrastructural power share some conceptual points of overlap, scholars more commonly systematize the former in narrower terms as the state's ability to "coax compliant behavior" from individuals within a given territory.[48] The state's ability to induce compliance is generally indicated by its tax capacity, which arises via the 'warmaking as statemaking' (fiscal-military) foundations

45. Levi, Sacks, and Tyler, "Conceptualizing Legitimacy, Measuring Legitimating Beliefs," 356.

46. Bourdieu, *On the State*, 230.

47. Mann, *The Sources of Social Power*, 59.

48. Ottervik, *Conceptualizing and Measuring State Capacity: Testing the Validity of Tax Compliance as a Measure of State Capacity*, 8. For a more recent effort by scholars to further refine state capacity beyond its application to explaining economic growth, see Lindvall and Teorell, "State Capacity as Power."

of state formation and economic development.[49] Alternatively, I am concerned with the implications of 'legibility' for the state's capacity to shape the social order toward political ends (e.g., legitimacy).[50]

Thus, I explore the role of *information capacity*, or the state's ability to "collect, process and publish reliable information about 'persons, activities, and resources within their government's territorial jurisdiction' [. . .] including economic production, consumption, and social organization.".[51] Information capacity falls within the broader Bourdieusian notion of informational capital, itself a parallel historical development with state capacity as tax compliance. Both state capacity, narrowly understood as coercive and extractive capabilities, and informational capital, which includes information capacity and legitimation capacity through institutions of social control, can be understood as elements of infrastructural power. See Figure 2.1 for a conceptual map illustrating the relationship between these concepts and the development of political and social order during state formation.[52]

What matters most for the argument presented here, however, is the distribution of infrastructural power between the center and the periphery. The availability and reach of different state capacities constrains the ability of the central government to impose new institutions throughout the periphery.[53] For the rest of this study, infrastructural power, including information capacity, will exclusively refer to the *territorial distribution* of state capabilities; alternatively state capacity will be used to refer to aggregate *levels* of coercive and extractive capacity. In line with scholarship that finds that infrastructural power shapes state-building and nation-making outcomes,[54] I argue that the "evenness" of the central

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49. Besley and Persson, "Wars and State Capacity"; Levi, *Of Rule and Revenue*; Tilly, *Coercion, Capital and European States*.

50. Scott, *Seeing Like a State*; Lee and Zhang, "Legibility and the Informational Foundations of State Capacity"; Loveman, *National Colors*.

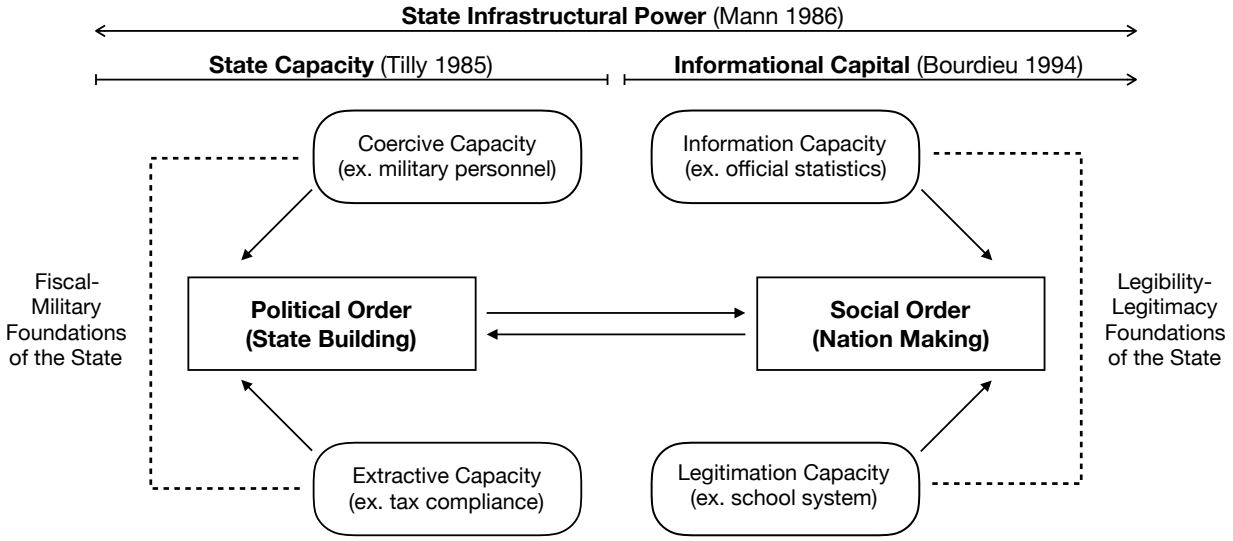
51. Brambor et al., "The Lay of the Land," 5.

52. In line with other scholars, I view *state formation* as a "dual process" of state-building and nation-making that entails political competition over the ideational and material resources that undergird political and social order. Ziblatt, *Structuring the State*.

53. Soifer and Hau, "Unpacking the Strength of the State."

54. Soifer, "The Sources of Infrastructural Power"; Hau, "Unpacking the School"; Ziblatt, *Structuring the*

Figure 2.1: A Conceptual Map of Infrastructural Power, State Capacity, and Informational Capital



state's infrastructural power emerges as an important constraint in the development of mass education.

Second, I use the terms "mass education" and "national education system" interchangeably to describe state-sponsored primary and/or lower-secondary schooling through the expansion of laws, regulations, and public bureaucracies operating at the national level. Mass education is distinct from the decentralized, private, aristocratic, and ecclesiastical sources of education provision that predominantly characterizes formal schooling that develops in the absence of state intervention. Whereas an earlier generation of scholarship in the world polity theory tradition view mass education as a global and largely homogeneous political phenomenon, I am interested in institutional variation in what these scholars correctly identify as an otherwise strikingly similar feature of modern nation-states.[55] Moreover, I agree

State.

55. Boli, Ramirez, and Meyer, "Explaining the Origins and Expansion of Mass Education"; Meyer, Ramirez, and Soysal, "World Expansion of Mass Education, 1870-1980"; Ramirez and Boli, "The Political Construction

with recent scholarship that challenges world polity theorists' emphasis on the causal role of diffusion effects in nation-state formation.[56] Wimmer and Feinstein convincingly show that historical configurations of power between domestic actors are likely to have a stronger role in the consolidation of nation-states than the diffusion of policy models.[57] Nonetheless, I also investigate convergence in the development of mass education and patterns of centralization, albeit through an alternative mechanism.

This study defines education centralization in line with prior scholarship on state centralization as a process by which the political and social organization of society transitions from "various systems of 'indirect rule' to a situation where a national state actually directly organizes these activities."[58] Thus, by *education centralization* I refer to the movement from a de facto educational landscape of "indirect rule" in which schooling is governed by local authorities and traditional social actors, such as religious institutions or landlords, to a de jure environment of "direct rule" in which education and its content are hierarchically organized by the political center. Under colonialism, direct and indirect rule can be thought of as "variants" of centralized or decentralized despotism.[59] Extending this logic to internal statebuilding, we can think of the choice to centralize authority in a particular domain to be that between a governance scheme dominated by provincial autocrats in the periphery and one dominated by state autocrats in the center.[60] However, direct rule can manifest in many ways, such as central state spending, monitoring, bureaucracy, or laws.

I view direct rule (centralization) as a multidimensional phenomenon. Following Hechter, direct rule consists of two elements: 1) the *scope* of the state, or "the quantity and quality of the collective goods that it provides," and 2) *penetration*, or "the proportion of laws and poli-

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of Mass Schooling."

56. Wimmer and Feinstein, "The Rise of the Nation-State across the World, 1816 to 2001," 781.

57. Ibid.

58. Acemoglu, Robinson, and Torvik, *The Political Agenda Effect and State Centralization*, 1.

59. Mamdani, *Citizen and Subject*, 18.

60. Lange offers an operational definition of direct rule under a colonial metropole that could readily stand in for centralization within a sovereign state: "the construction of a complete system of colonial [e.g., state] domination in which both local and central institutions are well integrated and governed by the same authority and organizational principles." Lange, *Lineages of Despotism and Development*, 28.

cies that are enacted and enforced by central as against regional or local decision-makers."[61] The first, scope, is represented generally by growth in the central state's civil expenditures across a number of domains, including education, such as transportation, communications, and civil service.[62] Instead, education centralization in this study is conceived in terms of the second element of direct rule (penetration) by focusing on the state's 'control capacity' the over the legal and institutional infrastructure governing mass education.[63] While information capacity may correlate positively with measures of the "size of government" (scope), penetration and scope do not necessarily covary.[64] Moreover, I claim that statebuilders exert control over mass education for political ends, not to maximize efficiency in governance. Thus, while penetration via laws and bureaucratic organization may in many cases enable increases in public investment in education and quality of outcomes (e.g., scope), a theoretical account of that relationship is beyond the scope of this study.

This rest of this chapter further specifies a theory of educational development that highlights how infrastructural power and ideology shapes the centralization of national systems of compulsory primary and lower-secondary schooling. The argument begins with a set of propositions regarding the constraints and trade-offs facing governing elites deciding between developing a national (public) education system, or neglecting educational development in favor of other priorities. I extend the insights of the political business cycle, particularly the intertemporal choice problem facing ruling elites, to the unique conditions of state and nation-building during the long nineteenth century to explain the political centralization of education.[65] Specifically, I outline how information capacity and elite educational ideology

61. Hechter, Kuyucu, and Sacks, "Nationalism and Direct Rule," 86.

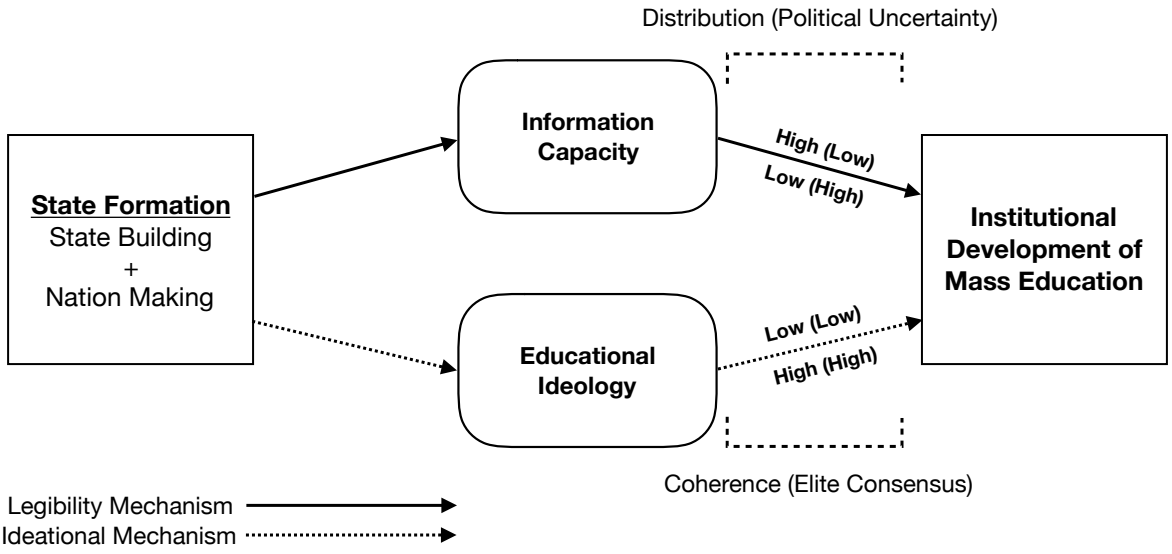
62. Mann, *The Sources of Social Power*, 378-381. Recent empirical research suggests that scope can be attributed to distributive politics that does not necessarily map onto the contours of penetration. For example, Hollenbach finds that demand from industrial elites in 19th century Prussia contributed to expanded public investment in education, well after the Prussian state already firmly established direct rule over primary education Hollenbach, "Elite interests and public spending."

63. Hechter, "From Class to Culture," 425.

64. Ibid.

65. Hobsbawm characterizes the long nineteenth century as the critical period defining the consolidation of modern nation-states, beginning with the French Revolution in 1789 and ending with the start of WWI. This period is followed by the "short twentieth century" that entails the development of the post-WWII

Figure 2.2: A Theory of State Formation and Educational Development



mitigates political uncertainty among elites in the political center over the centralization of mass education (See Figure 2.2. The theory offers potential causal mechanisms underlying cross-national variation in the development of national education systems.

2.4 Information Capacity and Education Centralization

The argument for the link between information capacity and education centralization focuses on the role of uncertainty. During early periods of state building, ruling elites, operating in an environment of scarcity and political uncertainty, face a number of constraints when allocating resources toward institution-building. New institutions that are particularly disruptive to existing social relations (e.g. mass education) risk provoking a political response that may jeopardize the regime's survival in the short-term. The main constraint is the

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order and welfare state golden age until the collapse of the Soviet Union in 1991. See Hobsbawm, *The Age of Revolution, 1789-1848*; Hobsbawm, *The Age of Capital, 1848-1875*; Hobsbawm, *The Age of Empire, 1875-1914*.

question of whether there is sufficient capacity to introduce new institutions while maintaining political order. Overall levels of state capacity that regimes in developing contexts rely on to keep order (i.e. extractive and coercive capacity) are highly variable and important for political survival in the short-term.[66] Thus, maintenance of these capabilities will take precedence relative to the development of other national institutions.

Central governments consider a combination of factors in deciding whether to implement direct rule over education. On the one hand, leaders have to weigh the political benefits of implementing a national education system; on the other hand, they have to consider whether asymmetries in information and state capabilities are sufficient to overtake competing sources of authority in the periphery that may oppose such a form of direct rule. In this context, the state trades off between 1) regulated provision of mass schooling throughout the territory, typically at the risk of conflict with actors vested in the educational status quo, and 2) shoring up alternative domains of state capacity. In other words, the state can establish a national education system that yields political benefits down the line (to increase legitimacy and symbolic power vis-á-vis society) or can hire more soldiers and tax collectors now (to maintain regime survival).

First, the initial development of national education is, at its core, a largely undemocratic and elite driven project driven by competing political factions. For simplicity, I consider two groups: provincial elites, or those who believe that any state involvement in education should largely uphold the traditional social order, and are therefore likely to contest or limit the nationalization of schooling; and state elites, or those who believe state intervention into education should remake the social order as a fundamental part of the state-building project. Above the particularistic interests of these groups, however, both groups seek to maintain their economic and political privileges, and therefore prioritize political survival.[67]

Second, these groups operate in an environment of variable uncertainty, costs, and risk

66. Besley and Persson, "The Origins of State Capacity: Property Rights, Taxation, and Politics"; Olson, "Dictatorship, Democracy, and Development."

67. Bruce Bueno de Mesquita and Alastair Smith, "Political Survival and Endogenous Institutional Change"; Olson, "Dictatorship, Democracy, and Development."

when pursuing state-building activities. New states, whether post-colonial republics, break-away states, or former imperial metropoles cum constitutional monarchies, inherit some baseline level of state capacity.[68] The "legacy" level of state capacity inherited from the *ancien régime* may or may not approach that of a fully formed state, e.g. one in which the state's constitutive institutions and agencies have achieved self-reinforcing stability.[69] Most importantly, infrastructural power, not state capacity, determines the information environment in which the state operates. The ex ante legibility of the state, either through population censuses, communications and transit infrastructure, and/or other sources of enumerative power (tax records) impacts whether the political center is an information-poor environment with limited reach vis-á-vis the periphery.[70] Thus, any potential threats, particularly from the periphery, that ruling elites perceive varies according to the extant infrastructural power at their disposal.

Third, given that ruling elites at the center value political survival by shoring up their legitimacy and/or expanding state capacity, they must carefully consider the costs and trade-offs inherent to various state-building activities. Some forms of state-building have shorter-term payoffs than others. For example, expanding military recruitment and wages for conscripts will yield more immediate benefits in terms of boosting legitimacy and state capacity than building primary schools and enforcing compulsory attendance, particularly in states where the center's hold on power is uneven and tenuous throughout the territory.[71] In terms of the legitimating function of state education—e.g. the benefits of inculcating youth with the dominant values of the center—education has longer term payoffs relative to investing in overall state capacity. As a consequence, public education is a second-order priority for the incumbent regimes. I therefore assume that members of the incumbent regime have relatively short time horizons that often lead to a form of political myopia in their pursuit

68. Acemoglu, Johnson, and Robinson, "The Colonial Origins of Comparative Development"; Mahoney, *Colonialism and Postcolonial Development*.

69. Pierson, *Politics in Time*.

70. Slater and Fenner, "STATE POWER AND STAYING POWER."

71. Dincecco, Federico, and Vindigni, "Warfare, Taxation, and Political Change."

of state-building activities.[72]

Finally, I make several assumptions about the nature of educational development that depart from standard political economy assumptions about public education. First, the beginning phases of educational development are largely a question of distribution rather than redistribution as other scholars have argued.[73] Since fiscal structures, tax effort, and sources of revenue are highly variable cross-nationally during formative periods of state formation, I depart from fiscal theories of state formation.[74] Initial educational investments are unlikely to map on to the contemporary dynamics of fiscally-progressive education funding that characterizes education reforms during the 20th century.[75] Instead, state-building regimes often wield wide discretion in the use of revenue, often from tariffs and direct investment, toward developing institutions as set forth by ruling elites.[76] Thus, initial investments in educational capacity such as ministerial bureaucracies, teacher training, school buildings, and school inspections are distributive at the outset. National education is as much an ideational resource as it is a distributive social policy with material returns, but elites are more likely to value it as a latent source of cultural capital and legitimacy with political returns.[77] Through the development of laws and institutions governing the national education regime, state-building elites can better shape the emerging political and social order to reflect their preferences.[78]

Next, I abstract a scenario and derive three testable implications for the relationship between infrastructural power, primarily information capacity, and centralized mass education.

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72. One possible exception is when a regime includes influential elites, or institutional entrepreneurs in education Levy and Scully, "The Institutional Entrepreneur as Modern Prince," who can overcome myopic policy-making by mobilizing government action on education despite limited infrastructural power. With respect to national education as a state-building strategy, these institutional entrepreneurs have longer time horizons and discount the future less than their contemporaries Mutch, "Reflexivity and the Institutional Entrepreneur."

73. Ansell, *From the Ballot to the Blackboard*; Busemeyer, Franzmann, and Garritzmann, "Who Owns Education?"

74. Dincecco, *Political Transformations and Public Finances*; Levi, *Of Rule and Revenue*.

75. Kiser and Karceski, "Political Economy of Taxation."

76. Centeno, "Blood and Debt."

77. Bourdieu and Passeron, *Reproduction in Education, Society and Culture*; Mann, *The Sources of Social Power*.

78. Huntington, *Political Order in Changing Societies*; Vaughan, *Cultural Politics in Revolution*.

2.4.1 Mechanism 1: Information Capacity and Political Uncertainty over Education Centralization

To explain education centralization, I abstract the following scenario. During formative periods of state-building, there are two groups of elites. Both groups compete for dominance over the development of state institutions that influence the configuration of political and social relations. The first group, which I refer to as *state elites*, are members of the incumbent regime and consist of governing actors representing the interests of the political center. The second group, *provincial elites*, are members of the opposition and consist of actors that represent the interests of the political periphery.[79] Both groups have a shared interest in maximizing political survival and maintaining political stability, but differentiated interests in institution-building.[80] State elites see the development of a national education system as part of the institutional toolkit of the modern state, and a means of political legitimacy that favors the center. By extension, the payoffs to state elites from educational development are positive. The opposition, alternatively, sees national education as a potential threat to the societal status quo in the periphery. Thus, the payoffs to education are negative. However, there is a time inconsistency problem that state elites face when deciding whether to invest resources and expend political capital on educational development.[81]

The political center does not yield any positive payoffs from a national education system until some indeterminate point in the future, and may yield negative payoffs in the short-term depending on background conditions. Historically, mass education is an important part of state formation, but returns to education, whether in bolstering the state's legitimacy or spurring economic growth through an educated labor force, are not realized in the short-term.

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79. Whether the opposition can be characterized as loyal, or otherwise unwilling to threaten regime change, is beyond the scope of this initial set up. I assume that the periphery can threaten regime change should reforms sufficiently challenge the material or symbolic interests of provincial elites.

80. To the degree that the conditions for political stability sufficiently serves the interests and political survival of provincial elites, I assume that not threatening the center is preferable to threatening and risking conflict or repression.

81. Alesina and Tabellini, "Bureaucrats or politicians?"; Atolia et al., *Investing in Public Infrastructure*; Bonfiglioli and Gancia, "Uncertainty, Electoral Incentives and Political Myopia."

This tension, which can be described as a "roads versus schools" dilemma, or in this scenario "soldiers versus teachers," strongly implies that an incumbent regime is likely to regard education as having second-order political benefits relative to other state activities.[82] In making distributive policy choices, then, the incumbent regime is likely to act with a degree of political myopia. Even if we can assume that state elites believe that extending direct rule over mass education, more than transportation networks or soldiers, will yield greater long-term benefits along any number of dimensions—political stability, social cohesion, moral order and legitimacy—they will not see those benefits in the near term.[83]

In this scenario, I assume that the governing center acts in the manner of an "insecure autocrat" with short time horizons and hence uncertainty over future incumbency.[84] This assumption follows from the notion that state-building regimes operate in an unsettled institutional environment in which the constitutional order, party system or coalitional dynamics, and basic institutions are in flux.[85] Therefore, I expect the center to prioritize activities that further the incumbent regime's coercive capacity and hence secure a longer expected period of rule. The perceived security of the incumbent regime directly shapes the degree to which state elites discount the future. By turn, the incumbent regime's time inconsistency problem with respect to pushing education as a key component of its state-building portfolio is either worsened or mitigated by the perceived insecurity of their hold on power. Provincial elites in the periphery similarly have shorter or longer time horizons depending on their perception of the center's hold on power. Assuming imperfect information between the center and the periphery, and that the perceived security of one group with respect to the other does not precisely correlate with actual security, I treat both groups as having short time horizons. As a consequence, both state elites and provincial elites discount the future at similar rates unless their respective uncertainty of political survival is conditioned by other factors. In

82. Atolia et al., *Investing in Public Infrastructure*.

83. For example, a recent study finds that the economic gains to education take thirty years to overtake the gains from investment in roads that are realized within fifteen years. ibid.

84. Olson, "Dictatorship, Democracy, and Development."

85. Linz, "State building and nation building."

particular, infrastructural power becomes an important factor impacting state elites' time horizons.

The political uncertainty of one group's survival vis-á-vis the other is conditioned by the geographic distribution of infrastructural power in the informational, monitoring, and enforcement capabilities of the central state. Therefore, infrastructural power conditions state elites' ability to project their values and institutional goals into the periphery. Since provincial elites can threaten regime change if state elites engage in state-building activities that encroach upon the balance of existing power structures in the periphery, the political uncertainty of the center is inversely related to infrastructural power. Similarly, since state elites can use coercive means to minimize threats from the periphery, the political uncertainty of provincial elites is positively related to infrastructural power. Infrastructural power impacts the state elites' perception of political uncertainty, which in turn shapes the risk associated with centralized education relative to other state-building activities. Thus, infrastructural power covaries with state elites' perception of the political risk of mass education by influencing their perception of overall political uncertainty and time horizons, on the one hand, and the future payoffs from centralized education, on the other. To summarize this scenario in terms of testable implications I introduce the following set of expectations regarding the institutional trajectory of educational development. I state these hypotheses such that they can be subjected to empirical tests of observable dimensions of infrastructural power along informational and geographic dimensions.

First, and most importantly, the weaker the information capacity of the central state, the more uneven the monitoring capabilities of the government are beyond the center. The less information central governments have about their populations throughout the territory, the more uncertainty they have about their ability to implement decisions beyond the center and create political order in the periphery.[86] The more uncertainty governments have about their ability to create political order as a consequence of weak information capacity, the less likely that state elites will mandate or provide public education *ex ante* a sufficient increase in

86. Brambor et al., "The Lay of the Land."

information capacity. Conversely, the stronger the information capacity of the central state, the more certainty that central governments have about their ability to implement decisions beyond the center and higher the greater the likelihood that they will introduce public education. Thus, I derive the following hypothesis: *the greater the information capacity of the state, the more likely the central state will assert control over education.*

Second, where there is slow or otherwise unreliable methods to share and disseminate information about the population between the central state and officials charged with implementing decisions, the more difficult it is to maintain centralized authority over institutions.[87] Specifically, the more limited the communications infrastructure, the higher the cost in time and resources needed to exert administrative authority over distances.[88] There is strong evidence that historical growth in communications infrastructure facilitates economic productivity and growth during the 19th century.[89] Thus, even where the central state can gather administrative data throughout the territory, the speed of communications can limit how actionable such information is in practice. Similar to information capacity, the less certainty governments have about their ability to leverage information into centralized control over institutions, and the more risk that is incurred by any attempts to centralize education. Thus, I derive the following hypothesis: *the more evenly distributed that communications infrastructure is throughout the national territory, the more likely the central state will assert control over education.*

Third, the greater the physical constraints on the reach of the central state, the more difficult it is for central governments to efficiently move state agents to monitor citizens and enforce decisions.[90] Specifically, the more limited the mobility of administrative and security personnel throughout the territory, the higher the cost in time and resources needed to develop state institutions and political order beyond the center.[91] Thus, the weaker

87. Soifer, "Authority over distance."
88. Kurtz, *Latin American State Building in Comparative Perspective*.
89. Rogowski et al., "State Infrastructure and Economic Development: Evidence from Postal Systems."
90. Soifer, "Authority over distance."
91. Kurtz, *Latin American State Building in Comparative Perspective*.

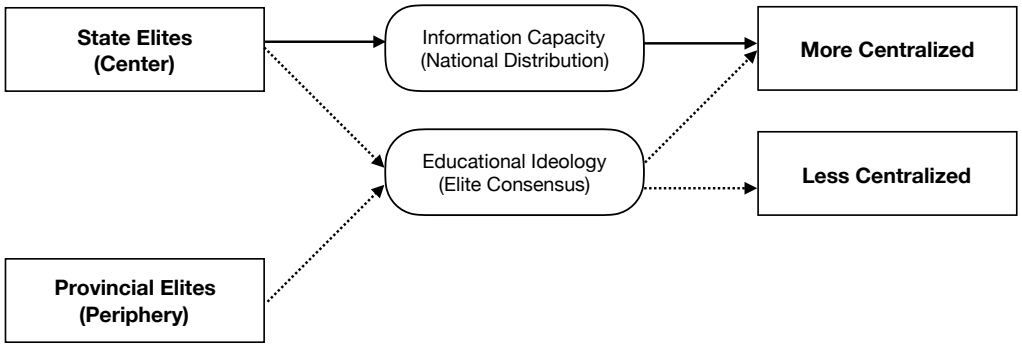
the state's capabilities to overcome geographic distance in implementing decisions from the center, the greater the risk of state-building activities in the periphery. By implication, the higher the risk incurred by projecting state-building efforts farther distances from the center, and the less likely that state elites will expend effort on public education *ex ante* a sufficient increase in the geographic reach of the state. Alternatively, the fewer physical constraints on the reach of the state, the less risk incurred by introducing public education throughout the territory. Thus, I derive the following hypothesis: *the greater the physical reach of the state, the more likely the central state will assert control over education.*

Taken together, the compounding effect of the above domains of state capabilities on infrastructural should shape not just when the center is likely to introduce compulsory schooling, but also the degree to which the political center centralizes public education. In short, as the center gains greater capacity to collect information, monitor the population, and enforce decisions throughout the territory, state elites will perceive less uncertainty and risk that is associated with expanding the state's authority over education. thus increasing their time horizons. Given the role of mass education for inculcating values among society that increase state legitimacy, state elites are likely to push for expanding educational where they perceive having sufficient informational capital throughout the territory, above all due to information capacity and the ability to communicate and monitor decisions over distances.

2.5 Elite Ideas and Education Centralization

In this section I develop the second part of the theoretical framework, which focuses on the institutional role of elite ideas in education centralization. Specifically, I introduce intellectual elites as "institutional entrepreneurs" who seek to mobilize the support of state elites behind their ideological program for mass education. Where an intellectual elite (or elites) actively promotes an educational ideology, and the more *coherent* that ideology, the more likely that state elites will arrive at a consensus in favor of centralized mass education. What do I mean by ideology in this context? According to Sartori's classic construction, ideology is "a belief system based on i) fixed elements, characterized by ii) strong affect and iii) closed cognitive

Figure 2.3: State Elites versus Provincial Elites and Education Centralization



structure."[92] Ideology, then, is to be distinguished from "pragmatism," which is made up of flexible elements and an open cognitive structure.[93]

However, the empirical application of an ideal type approach to ideology as a closed cognitive structure is limited at best. As scholars point out, ideological 'closure' in the mold of Sartori's definition suggests a rigidity that eludes the reality of how ideologies interact with politics and society. Even totalitarian ideologies throughout history exhibit some degree of "ideational flexibility" while other ideologies may even encourage such flexibility. [94] For example,[95] Conversely, by expanding a definition of ideology to include flexibility such that it resembles instrumental pragmatism introduces analytic ambiguity where there should be

92. Sartori, "Politics, Ideology, and Belief Systems," 405.

93. Ibid.

94. Freeden, "Practising Ideology and Ideological Practices," 309. More to this point, Freeden astutely notes that complete ideological closure would be "unintelligible to most political actors, even including political élites."

95. Pauly, *Breaking the Tongue*.

clarity. For example, the political ideas of Porfirio Diaz, while considered broadly liberal, would be misidentified as an ideology despite evidence of flexibility in terms of church-state relations and secularization over the course of his rule.[96] Thus, I agree with Gerring's rationale that "coherence" is ultimately the most important attribute in assessing ideology:

> The importance of *coherence*—aka "consistency" or "constraint"—is virtually unchallenged in the social science literature. Ideology, at the very least, refers to a set of idea-elements that are bound together, that belong to one another in a non-random fashion [. . .] One might add, as corollaries, *contrast* and *stability*—the one implying coherence vis-á-vis competing ideologies and the other implying coherence through time.[97]

In developing a theory of ideology as a causal force in political transformation, Hanson describes ideology as "any clear, consistent definition of the criterion for membership in a desired political order."[98] While I agree with the inclusion of clear (e.g., coherent) and consistent (e.g., stability over time) in this definition, the emphasis on ideology as a criteria for political membership runs into trouble once we disaggregate the state into its various domains of action. In 19th century Argentina, for example, prominent politicians and intellectuals, pre-dominantly of the liberal elite, had reached a broad consensus on the desired political order, or the Argentine "nation," by the collapse of the Rosas dictatorship. This included a common belief in the need to integrate what liberal elites viewed as the 'backward' and largely mestizo population of the rural interior outside Buenos Aires into the polity in conjunction with promoting European immigration. However, a major schism erupted over the state's approach to education between two of the leading intellectual elites of the post-Rosas period of Argentine state-building (See Chapter 4).[99] I argue that we can think of ideology as also consisting of articulated theories of the *means* of reaching a desired political

96. **CITE**.
97. Gerring, "Ideology," 980.
98. Hanson, *Post-Imperial Democracies*, 48.
99. **CITE**.

order. To be clear, I reject the notion that such a theory requires complexity or sophistication.[100] Thus, ideology in service of a desired political order implies ideas about "how to get there" that may manifest as complex legal theories that elites employ in the juridical realm,[101] or, as I examine here, a theory of centralized mass education as a top-down vehicle of nation-making.

For educational ideas to meet the criteria of what I will call an *educational ideology* intellectual elites need to advance a theory of education and the polity. I propose that in order for a set of educational ideas to achieve coherence as an ideology requires three fixed elements: 1) identification of a fundamental problem threatening the political order, 2) a belief in a causal relationship between education and the scope of the problem, and 3) a proposal for the means by which education should be organized in order to address the problem. According to this definition, for intellectual elites to have an educational ideology they should clearly articulate a belief that there is an as of yet unresolved threat to the polity and that education is not only the solution, but also requires some heretofore non-existent institutional arrangements in order to realize its salutary ends. Therefore, neither liberal elites who broadly support public investment in more schools nor conservative elites who broadly reject state spending on education would meet any criteria for holding an educational ideology, even as they may hold general beliefs on education consistent with their respective political orientations. What might the role of ideology look like in the broader context of state transformation and in the context of my argument?

The causal power of ideology during political transformation lies in its ability to offer otherwise short-sighted elites a framework to overcome the "Hobbesian dilemma" plaguing institutional choices that require a far-sighted view of politics.[102] A case in point is France's Third Republic. Ideological coherence allowed French republicans and legitimasts to outflank Orléanists and Bonapartists in the design of democratic institutions. In an environment

100. Gerring, "Ideology."
101. Ingram, "Crafting Courts in New Democracies."
102. Hanson, *Post-Imperial Democracies*.

of high political uncertainty, elites with consistent and clear ideological programs gain a strategic advantage over pragmatists. Ideological elites can use their ideas to solve elite collective action problems by elongating the time horizons of political allies who adopt their ideas. The first years of the Third Republic was rife with political uncertainty and disorder following the disastrous Franco-Prussian War, thus presenting a critical juncture that favored the ideas of the republican elite as a sharp contrast with a political opposition that reflected much of the old regime status quo.[103]

Likewise, I argue that intellectual elites with a coherent vision for a national state that prioritizes mass education have an advantage during moments of high political uncertainty in mobilizing state elites to centralize control over education. By elongating the time horizons of state elites, intellectual elites emerge as institutional entrepreneurs who help reduce political uncertainty and create elite consensus in favor education centralization. As Hanson succinctly argues:

> Ideologues, by providing clear and consistent definitions of who belongs to the future political order they propose, in effect offer instrumentally rational actors the chance to "gamble" on the truth of their ideological prophecies. In a social world characterized by pervasive distrust and clear evidence that most of one's fellows are thinking in terms of only short-term interests, the clarity and consistency of small groups of committed ideologues who have joined for value-rational or affectual reasons can provide prima facie evidence that "conversion" to the ideology may be worthwhile.[104]

2.5.1 Mechanism 2: Educational Ideology and Political Uncertainty over Education Centralization

To further explain education centralization, I posit a variation of the aforementioned scenario (Mechanism 1) now taking into account the role of intellectual elites and educational

103. Hanson and Sigman, *Leviathan's Latent Dimensions*.

104. Hanson, *Post-Imperial Democracies*, 52.

ideology. For now, I set aside information capacity, and infrastructural power in general, and assume ceteris paribus conditions. During formative periods of state-building, state elites and provincial elites compete for dominance over the development of state institutions that influence the configuration of political and social relations. Both groups have a shared interest in maximizing political survival and maintaining political stability, but hold differentiated interests in institution-building. The incumbent regime sees the development of a national education system as part of the institutional toolkit of the modern state, and a potential means of political legitimacy that favors the political center. By extension, the perceived payoffs to state elites from centralized education are positive, but to what degree and when is unknown in the short-term. Provincial elites, alternatively, sees centralized mass education as a potential threat to their political authority in the periphery. Thus, the perceived payoffs to education centralization are negative.

I still assume that both state elites and provincial elites have short time horizons and that their respective levels of uncertainty over political survival are further heightened during a critical juncture. A heightened sense of political uncertainty in turn constrains the institutional choices of state elites in the center. Therefore, I expect state elites to prioritize coercive and extractive capacity over extending direct rule over education. Similarly, I expect provincial elites to accommodate state elites only to the extent that they retain their political hold (e.g., legitimacy) in the periphery and reap economic benefits from the center's investments in state capacity. However, a third group, intellectual elites, also emerge as key actors that inform whether and how state elites pursue new institutions. Intellectual elites make available to other state elites a range of ideas about organizing the emerging political order, particularly toward the production of a legitimate national identity. These ideas in turn shape the perceived payoffs, time horizons, and political uncertainty facing the political center over the question of educational development.

First, by pointing to the lack of an organized national education system as a threat to political order, intellectual elites with a coherent educational ideology shape the perceived short and long-term payoffs from mass education. The center does not yield any positive

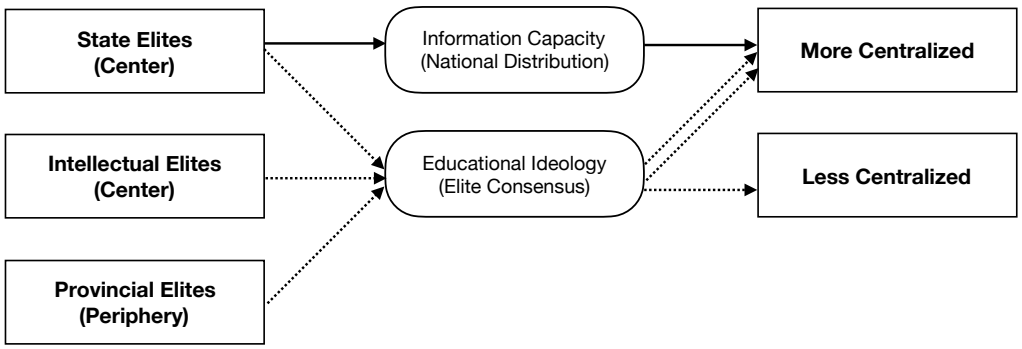
payoffs in terms of political legitimacy from a national education system until some indeterminate point in the future, and may yield negative payoffs in the short-term by provoking conflict in the periphery. However, where intellectual elites can leverage their ideas about the underdevelopment of education as a threat to political order state elites are likely to view direct rule over mass education as a potentially beneficial state-building strategy.

Second, by articulating a theory linking mass education and achieving a desired political order intellectual elites are likely to mobilize consensus among other state elites toward education centralization. Whereas state elites prioritize monopoly control over coercion as a first-order priority in state-building, they also understand the latent value of political legitimacy derived from institutions beyond the military real. Therefore, where intellectual elites achieve consensus around an educational ideology as a way to increase the legitimacy of the state, elites who adopt this ideology increase their time horizons vis-á-vis educational development.

Third, by specifying the means by which the state organizes and controls mass education intellectual elites alleviate uncertainty over institutional choice and design of the education system. Intellectual elites, by fulfilling the role of institutional entrepreneurs, alleviate uncertainty about the organizational, bureaucratic, curricular, and legal infrastructure of a future national education system. Therefore, the more coherent an educational ideology in terms of the means, the more that state elites will perceive educational development as having a higher chance of success in the short-term. In other words, the center will associate educational development with less political risk with respect to resistance from provincial elites in the periphery.

Taken together, intellectual elites with a coherent educational ideology make elite consensus on the role of education in nation-making more likely, thus increasing the prospect for elite collective action on centralizing education. By increasing the perceived pay-offs and uncertainty, intellectual elites elongate the time horizons of intellectual elites adjudicating between state-building priorities. Therefore, state elites are less constrained by the political risk associated instituting a mass education system over which the political center exercises

Figure 2.4: State and Intellectual Elites versus Provincial Elites and Education Centralization



direct rule in opposition to provincial elites. If we then also assume a high level of information capacity and complementary infrastructural power mitigating against a heightened environment of political uncertainty, the combination of elite consensus around a coherent educational ideology and information capacity are likely to render the political center as an education leviathan with near monopoly control over schooling.

2.6 Conclusion

This chapter has described two factors associated with the political centralization of mass education, particularly in the context of high uncertainty during state-building. As scholars have shown, state formation entails periods of particularly heightened uncertainty. These periods arise in the form of critical junctures in which political actors have fewer constraints under which to pursue their desired political order.[105] However, much of this scholarship focuses on broader patterns of nation-state formation as a consequence of infrastructural power and overarching ideology. Alternatively, I offer a "disaggregated" approach to understanding state development by focusing on the relationship between two important sources of state power—legibility and legitimacy—and the institutional development of mass education. In doing so, I suggest that we can better understand historical and national variation in education systems by examining the state as a social and cultural organization seeking a monopoly on physical and symbolic violence.

The theoretical framework I introduced examines the relationship between two universal institutions representative of legibility and legitimacy: the national census and mass education. I described the national census as a form of information capacity that lays the groundwork for the creation of a legitimate national identity, which is then taken up by intellectual elites seeking to mobilize the state around their respective ideological visions of the desired political order. The model presented in this chapter, though identifying information capacity and elite educational ideology as two potential and complementary mechanisms

105. Hanson, *Post-Imperial Democracies*; Soifer, "The Causal Logic of Critical Junctures"; Wimmer and Feinstein, "The Rise of the Nation-State across the World, 1816 to 2001"; Ziblatt, *Structuring the State*.

for education centralization, cannot explain the complete range of educational systems we observe across the world. Thus, I focus on the expansion of direct rule by central states over education in the context of 19th and early 20th century state-building in Europe and the Americas. To explore the causal role of information capacity on education centralization, I employ a number of econometric and statistical tests in the next chapter. In order to examine the causal role of educational ideology, I examine the elite ideas and state-building in two historical chapters that follow on Argentina and Chile following independence.

References

Acemoglu, Daron, Simon Johnson, and James A. Robinson. "The Colonial Origins of Comparative Development: An Empirical Investigation." *The American Economic Review* 91, no. 5 (December 2001): 1369–1401.

Acemoglu, Daron, James A Robinson, and Ragnar Torvik. *The Political Agenda Effect and State Centralization*. Working Paper 22250. National Bureau of Economic Research, May 2016.

Alesina, Alberto, and Guido Tabellini. "Bureaucrats or politicians? Part II: Multiple policy tasks." *Journal of Public Economics* 92, no. 3 (April 2008): 426–447.

Alvarez, Rina. "The relationship between processes of national state consolidation and the development and expansion of systems of public education during the nineteenth century in Central America: Nicaragua and Costa Rica in comparison." Ph.D., Columbia University, 2006.

Anderson, Benedict. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. Verso Books, November 2006.

Ansell, Ben W. *From the Ballot to the Blackboard: The Redistributive Political Economy of Education*. Cambridge University Press, March 2010.

Archer, Margaret Scotford. *Social Origins of Educational Systems*. Sage Publications Ltd., 1979.

Atolia, Manoj, Bin (Grace) Li, Ricardo Marto, and Giovanni Melina. *Investing in Public Infrastructure: Roads or Schools?* SSRN Scholarly Paper ID 3053188. Rochester, NY: Social Science Research Network, May 2017.

Barro, Robert J., and Jong-Wha Lee. "International data on educational attainment: updates and implications." *Oxford Economic Papers* 53, no. 3 (July 2001): 541–563.

Besley, Timothy, and Torsten Persson. "The Origins of State Capacity: Property Rights, Taxation, and Politics." *American Economic Review* 99, no. 4 (2009): 1218–1244.

———. "Wars and State Capacity." *Journal of the European Economic Association* 6, nos. 2-3 (April 2008): 522–530.

Boli, John, Francisco O. Ramirez, and John W. Meyer. "Explaining the Origins and Expansion of Mass Education." *Comparative Education Review* 29, no. 2 (May 1985): 145–170.

Bonfiglioli, Alessandra, and Gino Gancia. "Uncertainty, Electoral Incentives and Political Myopia." *The Economic Journal* 123, no. 568 (May 2013): 373–400.

Bourdieu, Pierre. *On the State: Lectures at the Collège de France, 1989 - 1992*. John Wiley & Sons, 2014.

Bourdieu, Pierre, and Jean-Claude Passeron. *Reproduction in Education, Society and Culture*. SAGE, October 1990.

Bourdieu, Pierre, Loic J. D. Wacquant, and Samar Farage. "Rethinking the State: Genesis and Structure of the Bureaucratic Field." *Sociological Theory* 12, no. 1 (1994): 1–18.

Brambor, Thomas, Agustın Goenaga, Johannes Lindvall, and Jan Teorell. "The Lay of the Land: Information Capacity and the Modern State." *STANCE Working Paper Series* 2016, no. 2 (2016).

Bruce Bueno de Mesquita and Alastair Smith. "Political Survival and Endogenous Institutional Change." *Comparative Political Studies* 42, no. 2 (February 2009): 167–197.

Busemeyer, Marius R., Simon T. Franzmann, and Julian L. Garritzmann. "Who Owns Education? Cleavage Structures in the Partisan Competition over Educational Expansion." *West European Politics* 36, no. 3 (May 2013): 521–546.

Caruso, Marcelo. "Latin American independence: education and the invention of new polities." *Paedagogica Historica* 46, no. 4 (August 2010): 409–417.

Centeno, Miguel Angel. "Blood and Debt: War and Taxation in Nineteenth-Century Latin America." *American Journal of Sociology* 102, no. 6 (1997): 1565–1605.

Coleman, James Smoot. *Education and Political Development*. Princeton University Press, 1965.

Dincecco, Mark. *Political Transformations and Public Finances: Europe, 1650–1913*. Cambridge University Press, September 2011.

Dincecco, Mark, Giovanni Federico, and Andrea Vindigni. "Warfare, Taxation, and Political Change: Evidence from the Italian Risorgimento." *The Journal of Economic History* 71, no. 4 (2011): 887–914.

Engerman, Stanley L., Elisa V. Mariscal, and Kenneth L. Sokoloff. "The Evolution of Schooling in the Americas, 1800-1925." In *Human Capital and Institutions: A Long-Run View*. Cambridge University Press, 2009.

Freeden, Michael. "Practising Ideology and Ideological Practices." *Political Studies* 48, no. 2 (May 2000): 302–322.

Gellner, Ernest. *Nations And Nationalism*. John Wiley & Sons, Limited, 2006.

Gerring, John. "Ideology: A Definitional Analysis." *Political Research Quarterly* 50, no. 4 (1997): 957–994.

Gorski, Philip S. *The Disciplinary Revolution: Calvinism and the Rise of the State in Early Modern Europe*. University of Chicago Press, 2003.

Gott, Richard. "Latin America as a White Settler Society." *Bulletin of Latin American Research* 26, no. 2 (April 2007): 269–289.

Green, Andy. *Education and State Formation: Europe, East Asia and the USA*. Palgrave Macmillan, October 2013.

Hanson, Jonathan K., and Rachel Sigman. *Leviathan's Latent Dimensions: Measuring State Capacity for Comparative Political Research*. SSRN Scholarly Paper ID 1899933. Rochester, NY: Social Science Research Network, September 2013.

Hanson, Stephen E. *Post-Imperial Democracies: Ideology and Party Formation in Third Republic France, Weimar Germany, and Post-Soviet Russia*. Cambridge University Press, July 2010.

Hau, Matthias vom. "Unpacking the School: Textbooks, Teachers, and the Construction of Nationhood in Mexico, Argentina, and Peru." *Latin American Research Review* 44, no. 3 (2009): 127–154.

Hechter, Michael. *Containing Nationalism*. OUP Oxford, 2000.

———. "From Class to Culture." *American Journal of Sociology* 110, no. 2 (2004): 400–445.

Hechter, Michael, Tuna Kuyucu, and Audrey Sacks. "Nationalism and Direct Rule." In *The SAGE Handbook of Nations and Nationalism*, 84–93. London: SAGE Publications Ltd, 2006.

Hobsbawm, Eric J. *The Age of Capital, 1848-1875*. New American Library, 1975.

Hobsbawm, Eric J. *The Age of Empire, 1875-1914*. Pantheon Books, 1987.

———. *The Age of Revolution, 1789-1848*. New American Library, 1962.

Hollenbach, Florian M. "Elite interests and public spending: Evidence from Prussian cities." *The Review of International Organizations*, March 2019.

Huntington, Samuel P. *Political Order in Changing Societies*. Yale University Press, 2006.

Ingram, Matthew C. "Crafting Courts in New Democracies: Ideology and Judicial Council Reforms in Three Mexican States." *Comparative Politics* 44, no. 4 (July 2012): 439–458.

Iversen, Torben, and John D. Stephens. "Partisan Politics, the Welfare State, and Three Worlds of Human Capital Formation." *Comparative Political Studies* 41, nos. 4-5 (April 2008): 600–637.

Kiser, Edgar, and Steven M. Karceski. "Political Economy of Taxation." *Annual Review of Political Science* 20, no. 1 (May 2017): 75–92.

Kurtz, Marcus J. *Latin American State Building in Comparative Perspective: Social Foundations of Institutional Order*. Cambridge University Press, March 2013.

La Belle, Thomas J., and Peter S. White. "Education and Colonial Language Policies in Latin America and the Caribbean." *International Review of Education* 24, no. 3 (1978): 243–261.

Lange, Matthew. *Lineages of Despotism and Development: British Colonialism and State Power*. University of Chicago Press, 2009.

Lee, Melissa M., and Nan Zhang. "Legibility and the Informational Foundations of State Capacity." *The Journal of Politics* 79, no. 1 (October 2016): 118–132.

Levi, Margaret. *Of Rule and Revenue*. University of California Press, July 1989.

Levi, Margaret, Audrey Sacks, and Tom Tyler. "Conceptualizing Legitimacy, Measuring Legitimating Beliefs." *American Behavioral Scientist* 53, no. 3 (November 2009): 354–375.

Levy, David, and Maureen Scully. "The Institutional Entrepreneur as Modern Prince: The Strategic Face of Power in Contested Fields." *Organization Studies* 28, no. 7 (July 2007): 971–991.

Lindert, Peter H. *Growing Public: Volume 1, The Story: Social Spending and Economic Growth Since the Eighteenth Century*. Cambridge University Press, January 2004.

Lindvall, Johannes, and Jan Teorell. "State Capacity as Power: A Conceptual Framework." *STANCE Working Paper Series* 2016, no. 1 (2016).

Linz, Juan J. "State building and nation building." *European Review* 1, no. 04 (October 1993): 355–369.

Loveman, Mara. "Census Taking and Nation Making in Nineteenth-Century Latin America." In *State and Nation Making in Latin America and Spain: Republics of the Possible*, edited by Miguel A. Centeno and Agustin E. Ferraro, 329–355. Cambridge University Press, 2013.

———. *National Colors: Racial Classification and the State in Latin America*. Oxford University Press, 2014.

Mahoney, James. *Colonialism and Postcolonial Development: Spanish America in Comparative Perspective*. Cambridge University Press, February 2010.

Mamdani, Mahmood. *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*. Princeton University Press, 1996.

Mann, Michael. *The Sources of Social Power: The Rise of Classes and Nation-States, 1760 - 1914*. Cambridge University Press, 1986.

Mann, Michael. *The Sources of Social Power: Volume 3, Global Empires and Revolution, 1890-1945*. Cambridge University Press, 2012.

Meyer, John W., Francisco O. Ramirez, and Yasemin Nuhoḡlu Soysal. "World Expansion of Mass Education, 1870-1980." *Sociology of Education* 65, no. 2 (April 1992): 128–149.

Migdal, Joel S. "Researching the State." In *Comparative Politics*, Second edition. Cambridge Studies in Comparative Politics. Cambridge University Press, 2009.

———. *State in Society: Studying How States and Societies Transform and Constitute One Another*. Cambridge University Press, 2001.

———. *Strong Societies and Weak States: State-society Relations and State Capabilities in the Third World*. Princeton University Press, 1988.

Migdal, Joel Samuel, Atul Kohli, and Vivienne Shue. *State Power and Social Forces: Domination and Transformation in the Third World*. Cambridge University Press, 1994.

Miller, Nicola. "The 'Immoral' Educator: Race, Gender and Citizenship in Simón Rodríguez's Programme for Popular Education." *Hispanic Research Journal* 7, no. 1 (February 2006): 11–20.

Mitchell, Timothy. "The Limits of the State: Beyond Statist Approaches and their Critics." *American Political Science Review* 85, no. 01 (March 1991): 77–96.

Mutch, Alistair. "Reflexivity and the Institutional Entrepreneur: A Historical Exploration." *Organization Studies* 28, no. 7 (July 2007): 1123–1140.

Olson, Mancur. "Dictatorship, Democracy, and Development." *The American Political Science Review* 87, no. 3 (September 1993): 567–576.

Ottervik, Mattias. *Conceptualizing and Measuring State Capacity: Testing the Validity of Tax Compliance as a Measure of State Capacity*. Technical report 20. University of Gothenburg: The Quality of Government Institute, 2013.

Paglayan, Agustina. "Civil War, State Consolidation, and the Spread of Mass Education." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2017.

———. "Democracy and Educational Expansion" Evidence from 200 Years." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2018.

Pauly, Matthew. *Breaking the Tongue: Language, Education, and Power in Soviet Ukraine, 1923-1934*. University of Toronto Press, 2014.

Pierson, Paul. *Politics in Time: History, Institutions, and Social Analysis*. Princeton University Press, 2004.

Ramirez, Francisco O., and John Boli. "The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization." *Sociology of Education* 60, no. 1 (1987): 2–17.

Rogowski, Jon C, Matthew Maguire, John Gerring, and Lee Cojocaru. "State Infrastructure and Economic Development: Evidence from Postal Systems." Harvard University, December 2017.

Sartori, Giovanni. "Politics, Ideology, and Belief Systems." *The American Political Science Review* 63, no. 2 (1969): 398–411.

Schneider, Ben Ross, and David Soskice. "Inequality in developed countries and Latin America: coordinated, liberal and hierarchical systems." *Economy and Society* 38, no. 1 (February 2009): 17–52.

Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press, 1998.

Slater, Dan, and Sofia Fenner. "State Power and Staying Power: Infrastructural Mechanisms and Authoritarian Durability." *Journal of International Affairs* 65, no. 1 (2011): 15–29.

Soifer, Hillel David. "Authority over distance: Explaining variation in state infrastructural power in Latin America." Ph.D., Harvard University, 2006.

———. *State Building in Latin America*. Cambridge University Press, June 2015.

———. "The Causal Logic of Critical Junctures." *Comparative Political Studies* 45, no. 12 (December 2012): 1572–1597.

———. "The Sources of Infrastructural Power: Evidence from Nineteenth-Century Chilean Education." *Latin American Research Review* 44, no. 2 (2009): 158–180. doi:10.1353/lar.0.0103.

Soifer, Hillel, and Matthias vom Hau. "Unpacking the Strength of the State: The Utility of State Infrastructural Power." *Studies in Comparative International Development* 43, nos. 3-4 (August 2008): 219–230.

Swartz, David L. *Symbolic Power, Politics, and Intellectuals: The Political Sociology of Pierre Bourdieu*. University of Chicago Press, April 2013.

Tilly, Charles. *Coercion, Capital and European States: AD 990 - 1992*. Wiley, 1992.

Vaughan, Mary K. *Cultural Politics in Revolution: Teachers, Peasants, and Schools in Mexico, 1930-1940*. University of Arizona Press, 1997.

Weber, Eugen. *Peasants Into Frenchmen: The Modernization of Rural France, 1870-1914*. Stanford University Press, 1976.

Weber, Max. "Class, Status, Party." In *From Max Weber: Essays in Sociology*. Psychology Press, 1991.

Wimmer, Andreas, and Yuval Feinstein. "The Rise of the Nation-State across the World, 1816 to 2001." *American Sociological Review* 75, no. 5 (October 2010): 764–790.

Ziblatt, Daniel. *Structuring the State: The Formation of Italy and Germany and the Puzzle of Federalism*. Princeton University Press, 2006.

Chapter 3
DATA AND METHODS

3.1 Introduction

In the previous chapter, I outlined the theoretical framework of this project and derived a number of empirical implications. My argument is informed by a critical junctures framework in which I focus on the combinatory effect of infrastructural power—specifically, information capacity—and elite educational ideology during state formation in the context of political uncertainty. One drawback of comparative historical analysis, broadly, and critical junctures, specifically, is the difficulty in modeling, let alone measuring, the complex interactions of ideas and state capacity in educational development across heterogeneous units over time. Moreover, in offering a theory of educational development based on the interaction of political uncertainty, state capacity, and ideology in state centralization, I allow for a degree of contingency that cannot be modeled directly without violating a number of statistical assumptions. Conversely, the advantage of a multi-method research design is the ability to apply a range of methodological tools as is most appropriate for the range of empirical implications in question.

In this chapter, I employ statistical methods to interrogate the role of infrastructural power and information capacity contra rival explanations. Specifically, I focus on testing the effect of information capacity vis-á-vis alternative sources of state capacity and infrastructural power. The two chapters that follow constitute a comparison of Argentina and Chile, in turn, that rely primarily on qualitative primary and secondary historical data. For a preview of the findings and a description of the methodological approach of the case study chapters, please refer to Chapter One. The remainder of this chapter introduces my measurement and empirical strategy with respect to infrastructural power, and introduces a new comparative

historical dataset of educational development.

In testing my theory of national educational development, I have to consider a number of challenges. For one, I need to adjudicate between endogenous theories of economic development and human capital, modernization theories, and the effects of regime type so that I can demonstrate that education centralization is indeed epiphenomenal to state infrastructural power and elite-led development. Thus, I have to show that the effects of state infrastructural power on education centralization occurs at least partially independent of economic development, political party competition, or regime type. First, in terms of modernization approaches, predictions for the endogenous relationship between economic development, the expansion of state capacity, and centralization are observationally equivalent with my central argument. There are likely feedback effects and the potential for joint determination between some forms of state capacity (e.g. legal and fiscal capacity) and economic development that may confound my argument. Put simply, economic development could lead to more resources for public investment in state capacity and centralized bureaucracy, and vice versa.

Second, there is reason to expect a strong inverse relationship between democratization and education centralization, particularly in federalist countries. As political competition increases, given greater political autonomy for regional and local governments, it is less likely that the central state would succeed in monopolizing control over education. The United States during the twentieth century is a ideal typical example of high levels of state capacity and democratization undermining efforts to centralize education under federalism. If this prediction accounts for cross-national and temporal variation in education centralization, democratization may produce indeterminate results due to observational equivalence with the effects of state capacity (e.g., more democracy, stronger fiscal and legal institutions); or it generates endogeneity bias given the relationship between democratization, economic development, and state capacity in Western countries during the 19th and 20th centuries.

Third, theories of human capital formation and economic development do not provide clear predictions for the centralization of education. What these theories do offer is a strong empirical and theoretical basis for a virtuous cycle of institutional development, educational

attainment, and economic development..[1] Yet, these theories do not explain the means by which modernizing countries choose to govern education as a function of *a priori* beliefs about the empirical relationship between human capital and economic output. Such a relationship was likely unknown by ruling elites prior to state consolidation during the period under investigation. However, Engerman, Mariscal, and Sokoloff's[2] suggest a conditional relationship between strong institutions, and gains to human capital and economic development that implies less centralization (North America) than if development takes place under extractive institutions (Latin America). In the former scenario, civil society, enjoying a more equal distribution of economic gains and greater local state capacity, leads to elite commitments to school provision; in the latter the central state is the only actor with the capacity or incentive to provide mass schooling.[3] Instead, canonical accounts of modernization point to a positive relationship between important correlates of economic development and mass schooling, irrespective of regime type, such as a greater share of the population living in urban areas (e.g. within closer proximity to the political "center").[4]

Finally, since one of the core contentions of the theoretical framework is that educational development is a second-order priority of governing elites focused on state-building I also need to control for the strength of coercive and fiscal capacity—core institutions of "stateness." I argue that investment in, and consolidation of, national education is likely to take place once the state reaches some threshold of coercive capacity. On the one hand, increasing coercive capacity through expanding the military may have a positive, and thus endogenous, relationship with education centralization as the state expands its monopoly over violence deeper into the periphery. For example, mass conscription as a central state institution

1. Acemoglu, Gallego, and Robinson, "Institutions, Human Capital, and Development"; Engerman, Mariscal, and Sokoloff, "The Evolution of Schooling in the Americas, 1800-1925."

2. Engerman, Mariscal, and Sokoloff, "The Evolution of Schooling in the Americas, 1800-1925."

3. This argument implies a sequential effect of regime type on educational development: the introduction of mass schooling prior to a democratic transition is more likely to result in higher centralization. As noted earlier, however, there is weak evidence for the relationship between regime type and mass schooling. Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years."

4. Lipset, "Some Social Requisites of Democracy."

could itself create greater demand for schooling on behalf of the central government. On the other, after some inflection point, increases in coercive capacity could have a trade-off, or inverse, relationship to educational consolidation. Since both activities depend on scarce resources during state-building, military expansion could overwhelm the state's ability to contemporaneously consolidate a centralized national education system. Alternatively, education centralization may simply depend on the central state's ability to raise revenue through taxation, which itself could be a strong correlate of informational capacity. In other words, fiscal capacity itself could also have a relationship with centralization and be observationally equivalent with infrastructural power.

I therefore test a number of empirical implications that depart from typical models of state capacity, democracy, and development.[5] The ability of the central state to monopolize an institution so directly embedded in the organization of social and family life, e.g. primary education, requires a large amount of information and monitoring throughout the national territory. I therefore evaluate the hypotheses that when state infrastructural power is more evenly distributed throughout the territory, centralization is more likely; specifically, and in order of importance, the capacity to 1) collect information, 2) efficiently transmit information, and 3) transport important personnel such as administrators and teachers, all over distances. Given the potential confounders outlined above, my task is to control for the variable effects of economic development, regime type, and correlates of modernization linked with education, as well as fundamental sources of state capacity, e.g. coercive and fiscal capacity.

3.2 Data

The summary statistics, descriptions, and sources of the main variables of interest are shown in Table 3.1. The dependent variable is education centralization, or *Centralization*, which is a composite of binary categorical variables that indicates the year of introduction of the following national-level laws and institutions: compulsory primary education, free primary

5. Besley and Persson, "The Origins of State Capacity: Property Rights, Taxation, and Politics."

Table 3.1: Explanation and Descriptive Statistics of Variables Used in Econometric Analyses

Variable, Units, Definition, and Sources	N	Mean	St. Dev.	Min	Max
Dependent Variables: CHED Dataset					
Centralization (Index)	7,697	0.416	0.365	0	1
Average of all CHED variables except local law					
Local Law (Binary)	7,697	0.707	0.455	0	1
Year national law mandating local school provision introduced					
Compulsory Primary (Binary)	7,697	0.490	0.500	0	1
Year of national law mandating compulsory primary education					
Free Primary (Binary)	7,697	0.371	0.483	0	1
Year in which primary education rendered tuition-free					
Curricula Cent. (Binary)	7,697	0.449	0.497	0	1
Year central government begins regulating school curricula					
Curricula Secular (Binary)	7,697	0.204	0.403	0	1
Year of secularization of school curricula					
Unified Educ. (Binary)	7,697	0.154	0.361	0	1
Year of unified public primary & lower-secondary education					
Educ. Ministry (Binary)	7,697	0.468	0.499	0	1
Year ministry of education is established					
Normal School (Binary)	7,697	0.562	0.496	0	1
Year government normal school for teachers established					
Covariates					
National Census (Interval)	3,606	6.040	6.644	0.000	30.000
Total num. of comprehensive national censuses administered Brambor et al.[6]					
Postal Density (in %)	1,299	0.392	0.327	0.001	1.956
Total number of post offices as % of total population Rogowski et al.[7]					
Rail Density (in %)	936	0.373	0.756	0.000	11.200
Total railway length by km per 100^2 *km* Bignon, Esteves, and Herranz-Loncán and Marti-Henneberg[8]					
Fiscal Capacity (% GDP)	2,920	9.510	5.863	0.000	37.808
Tax revenue collected by central government. Andersson[9]					
Military Density (in %)	4,549	0.008	0.011	0.000	0.161
Military personnel as proportion of population. Singer.[10] NMC Data v5.0					
Urban Pop. (in %)	4,746	0.115	0.109	0.000	0.655
Urban population as proportion of total population. Singer.[11] NMC Data v5.0					
Democracy (Ordinal Scale)	5,605	2.857	1.926	0.000	6.000
Lexical index democracy score from 0 to 6 Skaaning, Gerring, and Bartusevičius[12]					
GDP PC (in %)	4,142	2,928.872	2,214.314	374.774	15,179.000
Gross domestic product divided by total population. Bolt and Zanden[13]					

Notes: See appendices for more detailed explanations of measures, calculations, and sources used.

education, national curricula, education ministry, government normal schools, and the unification of public primary and lower-secondary into a cohesive compulsory education system. I calculate *Centralization* by taking the row mean of these variables for a given country-year observation. These data come from the Comparative History of Educational Development (CHED) project v1.0, an original categorical dataset of education laws and institutions I constructed that to date include forty-five countries in Europe, the Americas, Oceania, Turkey, and Japan from 1800 to 1970 (see Table 1 in appendix). All told, the data used in this analysis are made up of 360 hand-coded "political events" of when these laws and institutions went into effect, based on a large number of primary and secondary qualitative sources describing historical developments in education systems. These indicators capture the multi-dimensional nature of educational governance in which the central state may or may not assert authority over all or even most of these domains as the education system consolidates over time.

For skeptical readers who may suspect that educational decrees and laws represent "cheap talk" by leaders rather than meaningful evidence of education centralization, I should note that *Centralization* is composed of several items that signal costly commitments to consolidating a centrally-managed education system (i.e., building normal schools, controlling curriculum, and the unification of compulsory primary and lower secondary). The variable for *Normal School*, which measures the establishment of government normal schools responsible for primary teacher training and certification, intersects with the approach of[14] to measuring centralization. Whereas they measure centralization as a single binary variable operationalized by the level of employment of teachers and whether central governments regulated hiring and employment conditions of teachers,[15] I treat the teacher-state relationship as but one source of variation in education centralization. Further, I also treat *Free Primary* as under the domain of centralization, as the national guarantees of subsidized school attendance (along with compulsory attendance laws) represents the central government wresting

14. Ansell and Lindvall, "The Political Origins of Primary Education Systems."
15. Ibid., 510.

control from the extant conditions of educational provision among society. By this measure, all developed states with compulsory, free primary education have attained some degree of centralization. However, in combination with the centralization of curriculum and textbook regulation, the unification of primary and compulsory lower-secondary into a standardized system, and the establishment of independent education ministries (e.g. not ministries with combined responsibility for education and other areas), there is significant variation in *Centralization* as indicated by the mean and variance shown in Table 3.1.[16]

Next, the main independent variable is the spatial distribution of state infrastructural power as measured across three dimensions described in order of importance. First, the state's ability to collect population data over distances, or informational capacity, is of paramount importance for a centralized education system. Thus, informational capacity is indicated by *National Census*, which I calculate by taking the column sum for each country of all nationally comprehensive censuses administered over time in a given country. This measure is calculated from data by,[17] who code the country-year of when a comprehensive national census is assessed as a binary variable. These data are taken from the Historical V-Dem Project v8.0.[18] Rather than using the authors' original binary coding of country-year observations in which a census was taken, I expect informational capacity to be cumulative. In short, the more censuses taken over time, the more longtitudinal statistical data the state has on the population and the more it has penetrated localities in the periphery to collect these data.

Second, the ability of the state to reliably share information between education authorities at the local, regional, and national levels of government allows central government officials

16. Detailed descriptions of the CHED data and coding strategy used are in the supplementary appendix.

17. Brambor et al., "The Lay of the Land."

18. Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Svend-Erik Skaaning, Jan Teorell, David Altman, Michael Bernhard, M. Steven Fish, Agnes Cornell, Sirianne Dahlum, Haakon Gjerløw, Adam Glynn, Allen Hicken, Joshua Krusell, Anna Lührmann, Kyle L. Marquardt, Kelly McMann, Valeriya Mechkova, Juraj Medzihorsky, Moa Olin, Pamela Paxton, Daniel Pemstein, Josefine Pernes, Johannes von Römer, Brigitte Seim, Rachel Sigman, Jeffrey Staton, Natalia Stepanova, Aksel Sundström, Eitan Tzelgov, Yi-ting Wang, Tore Wig, Steven Wilson, and Daniel Ziblatt. 2018. *V-Dem [Country-Year/Country-Date] Dataset v8.* Varieties of Democracy (V-Dem) Project. https://doi.org/10.23696/vdemcy18.

to use population data to better inform decisions. Communications infrastructure, then, is a complementary source of state capacity. To measure communications infrastructure, I calculate the number of public post offices divided by the total population (in thousands) to generate *Postal Density*. This measure proxies for how evenly postal service, the primary means of communicating records over distances for the period under study, is distributed throughout a country.[19]

Third, the state needs to be able to deploy necessary education personnel, such as administrators, teachers, and government monitors efficiently to centralized control. For this reason, the geographic distribution of transportation infrastructure provides a second complementary source of state capacity. To capture transportation infrastructure, I use *Rail Density*, which I measure as total rail length in kilometers per 100 square kilometers, which itself is calculated using total square kilometers within present-day borders. The bulk of railway length data come from studies by[20] (Latin America) and[21] (Western Europe). For all remaining European (Central and Eastern) and non-European countries (e.g. Commonwealth states, the U.S., Japan, and Turkey) not included in those datasets, I used *World Railways of the Nineteenth Century: A Pictorial History in Victorian Engravings*[22] as a reference to collect rail length data at 10-year intervals from roughly 1860 to 1920. For these countries, there are missing observations for the intervening years as a result.

Finally, to account for alternative explanations and potential confounders I control for the following. I take the log of Gross Domestic Product per capita to measure economic development (*GDP PC*). To control for modernization, I measure urbanization by dividing the urban population (population living in cities with population greater than 100,000; in thousands) over the total population (in thousands) to create *Urban Pop*. For regime type, I

19. Country-year data on the total number of post offices come courtesy of Rogowski et al., "State Infrastructure and Economic Development: Evidence from Postal Systems," who kindly shared these unpublished data in beta form for this project.

20. Bignon, Esteves, and Herranz-Loncán, "Big push or big grab?"

21. Marti-Henneberg, "European integration and national models for railway networks (1840–2010)."

22. Harter, *World Railways of the Nineteenth Century*.

use the Lexical Index of Electoral Democracy score[23] and rename *Democracy*. This variable measures regime type on a 0 to 6 ordinal scale, where 0 indicates a regime in which no election are held and 6 indicates a minimally procedural, multi-party competitive democracy with universal adult suffrage.[24] The largest threat to my argument is the role of state capacity in terms of overall levels of coercive and fiscal capacity rather than infrastructural power. Since my argument is that distribution rather than levels of state capacity matter, I need to control for coercive capacity by holding constant military size as well as test for the independent effects of fiscal capacity as an rival source of informational capacity that could drive education centralization. To hold coercive capacity constant I control for *Military Density* and test repeat the tests of the main models using *Fiscal Capacity* as an explanatory variable, as measured by central government tax revenue as a percentage of GDP. [25]

3.2.1 Descriptive Analysis of Education Centralization in Comparative Perspective

First, it is helpful to explore univariate and bivariate variation in the data. By exploring the distribution of variance on the outcome of interest across countries, we can begin to establish measurement validity against expectations based on historical evidence. To begin, we can observe in Figure 3.1 that by 1900 France, Italy, and Austria are among the most centralized mass education systems in Europe; while countries such as Norway, Denmark, Germany, and imperial territories such as Hungary, exhibit relatively high centralization as well. The most centralized countries conform to what we would expect to find in light of the Jules Ferry reforms in France,[26] the institutional legacy of the imperial Prussian and Austrian education

23. Skaaning, Gerring, and Bartusevičius, "A Lexical Index of Electoral Democracy."

24. In line with most democratization scholarship ibid., 1495 define democracy as "a regime where leaders are selected through contested elections held periodically before a broad electorate." Levels 1 to 5 of the index are operationalized as follows: L1: No-party or one-party elections; L2: Multiparty elections for legislature; L3: Multiparty elections for legislature and executive; L4: Minimally competitive, multiparty elections for legislature and executive; and L5: Minimally competitive, multiparty elections with full male or female suffrage for legislature and executive.

25. Similarly, Albertus and Menaldo, "Coercive Capacity and the Prospects for Democratization" hold coercive capacity, proxied by military size, to test the marginal effects of security spending on democratization.

26. Weber, *Peasants Into Frenchmen*.

systems,[27] and the unification of Italy as a unitary state and the use of education in the state's struggle for political legitimacy.[28] However, given the heterogeneity in political histories and pathways to sovereignty for post-absolutist European states, questions remain as to whether centralization may be a function of other factors: the distribution of infrastructural power—and informational capacity, in particular—that allows ruling elites to seize on education as a means to establish public legitimacy.

The Latin American context provides a useful comparison to further assess measurement validity. For one, all the states that eventually coalesced in the region were colonial territories far from the metropole. Second, virtually all the political units in Latin America were under Spanish rule, save for Brazil and Haiti (Suriname and French Guyana, and most Caribbean countries save for Cuba, Dominican Republic, and Haiti, are excluded from the data). Third, the collapse of the Spanish Empire following the Napoleonic occupation of Spain and the unstable restoration period gave way to similarly timed independence wars across the continent motivated broadly by republican ideas of sovereignty.[29] Taken together, much of the regional variation at the time of independence is captured by variable state capacity, factor endowments, and demographics. In Table 3.2 we can see that there was very little state intervention in mass education by 1840; the new republics largely left education within the domain of the Catholic Church and existing colonial structures.[30]

By 1900, however, we can observe high centralization in the Southern Cone, with Argentina and Uruguay the most centralized, as well as Chile to a lesser degree. After the fall of the Rosas regime in 1852, the unified Argentine Republic immediately began embarking on a project of mass primary education, with Sarmiento advising several presidents even as he alternated between diplomatic and academic roles in his professional life.[31] It was not

27. Melton, *Absolutism and the Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*.

28. Palomba, "Education and State Formation in Italy"; Ziblatt, *Structuring the State*.

29. Sabato, *Republics of the New World*.

30. Caruso, "Literacy and suffrage."

31. Criscenti, *Sarmiento and His Argentina*.

Figure 3.1: Education Centralization in Europe, 1900

Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 3.2: Centralization of Mass Education across Latin America during the 19th Century

(a) 1840 (b) 1870 (c) 1900

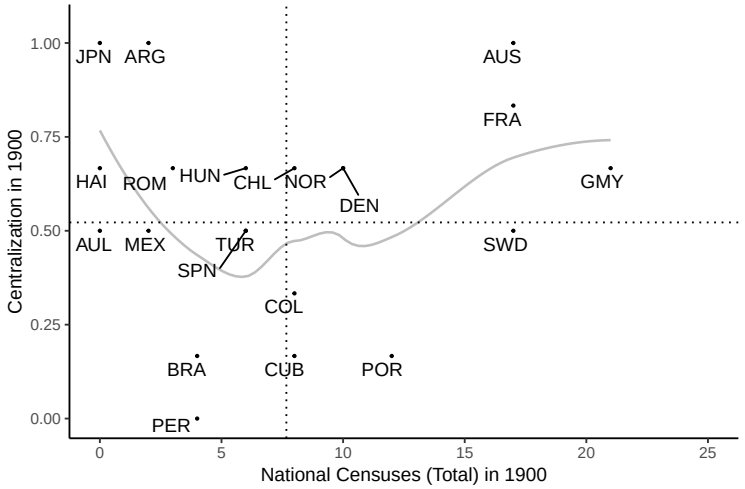
until 1884 when Law 1420 gave the federal government near complete authority over teacher training, textbooks, and school organization. The Law 1420 has since remained the foundation of the Argentine education system.[32] Most importantly, we would expect the Southern Cone countries to be regional leaders in educational development given their relatively higher levels of economic development and state capacity during this period.[33]

The next task is to assess to evaluate the main hypotheses at the bivariate level. In Figures 3.4, 3.5, and 3.6 I plot the bivariate relationship between the main covariates used in the analysis and education centralization for the year 1900 and fit a loess curve due to the small number of observations and non-linearity of the distribution. I argue that 1900 is a useful reference year for educational development in that it is both the middle point

32. Narodowski and Manolakis, "Defending the "Argentine Way of Life". The State and School Textbooks in Argentina (1884-1984)."

33. Kurtz, *Latin American State Building in Comparative Perspective*.

Figure 3.3: Bivariate Relationship between Informational Capacity and Education Centralization



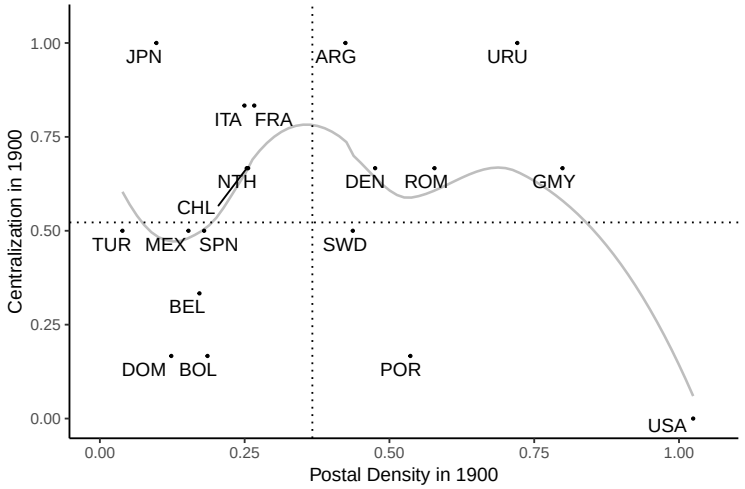
Notes: Comparative History of Educational Development Dataset, v1.0.; Brambor et al.[34]

in the historical period of primary education consolidation examined by[35] and precedes the exogenous shock and massive political transformations brought about by World War I and the resulting interregnum across Europe. In Figure 3.3, the relationship between informational capacity and education centralization appears curvilinear and U-shaped with a mostly positive slope beginning with six or more national censuses. Several countries are notable outliers. Both Japan and Argentina centralized their education systems by 1900 despite either administering more than a few rounds of a national census (zero and two respectively).[36] Surprisingly, Figure 3.4 shows a mixed relationship between post offices per capita and education centralization, with the United States and Uruguay as clear outliers with high postal density in both, but centralization in the former only. However the downward slope at higher

35. Ansell and Lindvall, "The Political Origins of Primary Education Systems."

36. Japan did administer the Nationwide Population Census based on the Family Register Law in 1872, but the first official modern and comprehensive population census did not take place until 1918. See https://www.nstac.go.jp/en/about/timeline.html for an historical timeline by the Japan's National Statistics Center.

Figure 3.4: Bivariate Relationship between Communications Infrastructure and Education Centralization

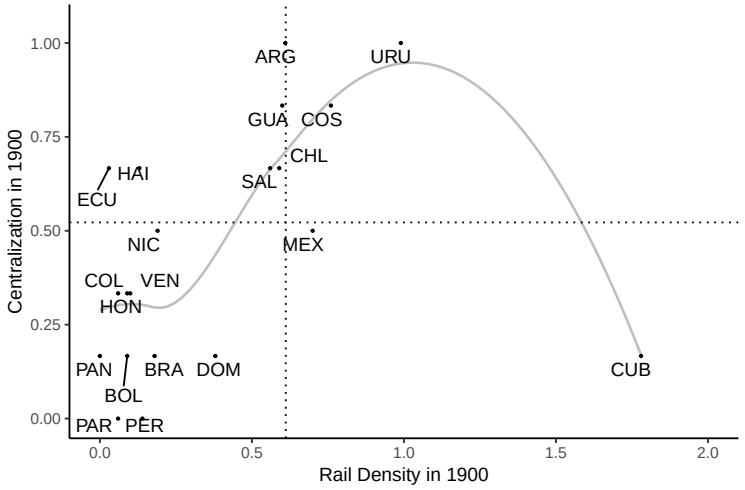


Notes: Comparative History of Educational Development Dataset, v1.0.

levels of postal density can be entirely attributed to the United States, which is an extreme outlier with very low centralization and a more even distribution of communications capacity. Otherwise, there is a generally positive relationship as postal density increases. Figure 3.5 shows a less ambiguous and positive relationship between transportation infrastructure and education centralization with an inverted U-shaped curve resulting from Cuba as an extreme outlier. Thus far, the bivariate analysis offers supportive evidence in favor of the main hypotheses.

Next, I plot the bivariate relationship between my main hypothesized independent variable, informational capacity, and education centralization using time-series graphs in sample of twenty countries in Figure 3.6 from 1800 to 1930. Based on my argument, I expect to observe a lagged pattern in which at least one, if not several, population censuses have been administered by the state before education centralization begins to increase. Indeed, that is what this time-series figure using small multiples shows. Overall, there is a clear spread in which the number of censuses diverges from zero ahead of education centralization. Noting

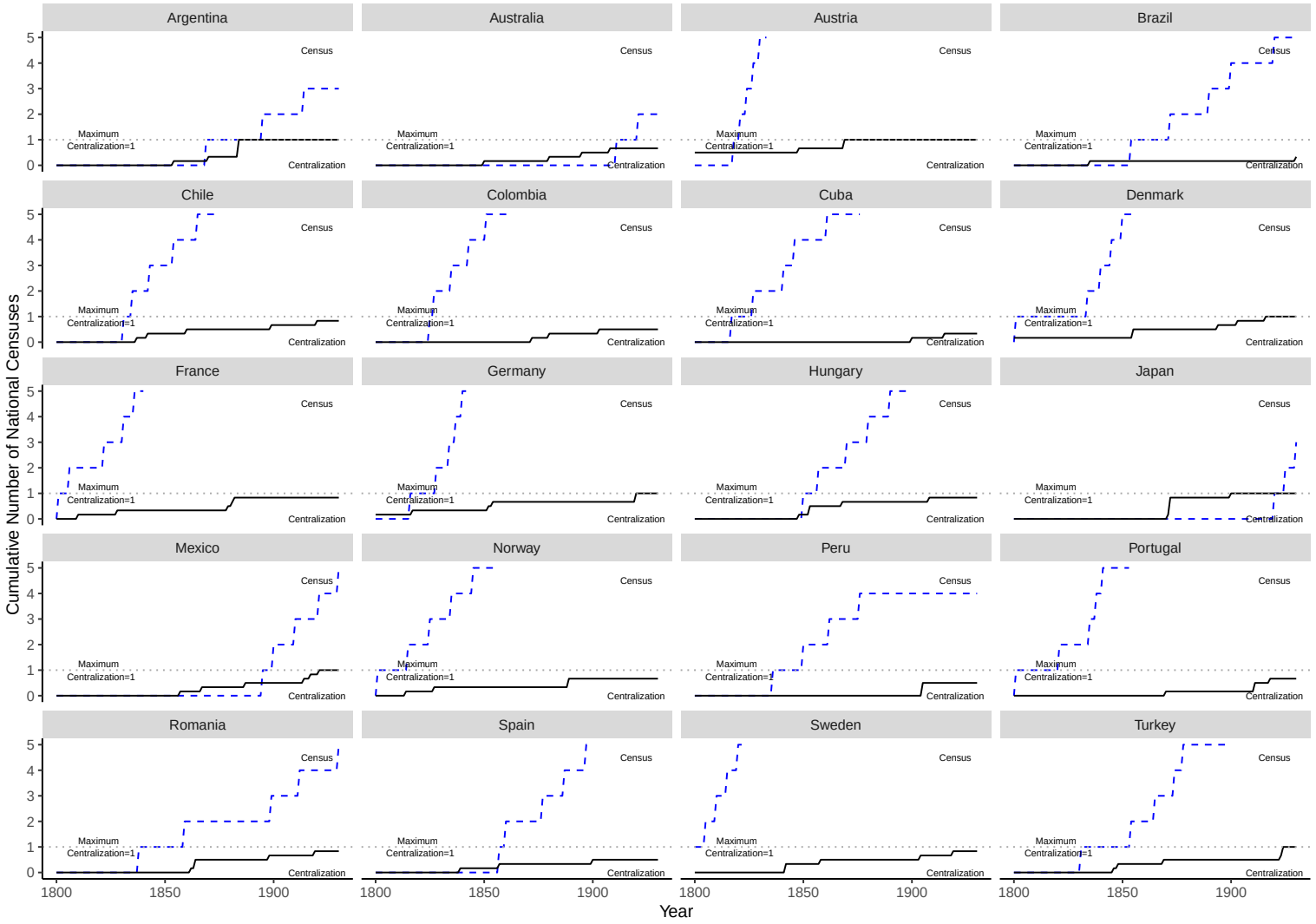
Figure 3.5: Bivariate Relationship between Transportation Infrastructure and Education Centralization



Notes: Comparative History of Educational Development Dataset, v1.0.

that the scale of the y-axis reflects the cumulative number of national censuses and the x-axis indicates year, we can see that in general any uptick in the level of education centralization (bounded between 0 and 1 on the y-axis) follows after the introduction of the census. Interestingly, a handful of countries appear to have experienced some education centralization either ahead of the first national census (i.e. Australia, Japan, Mexico) or after only fewer than two or three censuses (i.e. Argentina, Romania). To the extent that there appears to be a linear time-series trend in which the census and education centralization positively covary with the expected lag in the latter, there is certainly variation unaccounted for at the bivariate level. This variation could be better explained by other sources of infrastructural power and/or ideational factors that I take up in the rest of this chapter and the chapters that follow.

Figure 3.6: Time-Series Relationship between Informational Capacity and Education Centralization, 1800-1930



Notes: Census count indicated by dashed blue line, education centralization (0 to 1 scale) indicated by solid black line, and the dotted horizontal line indicates the maximum value =1 of education centralization. Sources: Comparative History of Educational Development Dataset, v1.0.;.[37]

3.3 Econometric Results: Infrastructural Power and Education Centralization

In testing the three hypotheses posited above, I first estimate a series of panel models using ordinary least squares (OLS) regression. The nature of the data generating process for my data produce a number of modeling challenges, including heteroskedasticity, cross-sectional dependence, and serial correlation. To correct for bias that stems from auto and spatial correlation and heteroskedastic data, and because the size of N relative to T is variable as a result of unbalanaced data, I correct the estimates using Driscoll and Kraay robust standard errors.[38] To deal with the non-random and unobserved heterogeneity inherent in data where country-year is the unit of analysis, I estimate all panel models using a unit fixed effects "within" estimator.[39] Finally, I re-estimate and report the saturated models (Model 6 in all tables) using Instrumental Variables Two Stage Least Squares (IV-2SLS) estimation and instrument state infrastructural power with *Country Age*, measured by the natural log years of sovereignty. *Country Age* is lagged up to five periods for each additional control added to the baseline model. I borrow this instrument from studies that instrument state capacity with country age and.[40][41]

I also lag each covariate according to the AR process displayed by plotting the partial autocorrelation function. All covariates show an AR(1) process, thus I lag each right-hand side variable one period. Finally, running a panel Durbin Watson test suggests I have high serial correlation between my model residuals, while an augmented Dickey-Fuller test

38. I also estimate the models using Beck and Katz panel-corrected standard errors, which produce bias the SEs downward a bit more from the Driscoll-Kraay estimates. However, there is no substantive difference in the significance of coefficients with either specification.

39. To determine which specification is appropriate, I run a Hausman Test on the baseline model for both the "within" and "random" estimator. The results returns a $p < 0.05$ thereby rejecting the null hypothesis that the unique errors are not correlated with the regressors in support of fixed effects.

40. Albertus and Menaldo, "Gaming Democracy"; Menaldo, *The Institutions Curse*.

41. Country age is coded from the the first year of independence for post-colonial states or states that seceded from another country or larger political unit. If a country was independent before 1800, they are coded as sovereign from that year on. The logic of *Country Age* as an appropriate instrument for state capacity is described in Menaldo, *The Institutions Curse*, 216: "the longer a country has been independent, the greater its ability to penetrate the hinterlands, establish a monopoly on violence, and tax the economy."

indicates my data are non-stationary.[42] Thus, I do not include a lagged dependent variable (LDV) as a regressor in the models. LDVs are inappropriate unless the stationarity condition holds and model residuals are not highly correlated. For example, studies show that including an LDV under these conditions, even if theoretically appropriate, can create overly negatively biased estimates as well as inconsistently estimate the direction of coefficients.[43]

The results are reported in Tables 3.2, 3.3, and 3.4. I also evaluate the main results against the hypothesis that overall fiscal capacity accounts for the centralization of state institutions in Table 3.5. The advantage of using OLS fixed effects regression is the consistency of estimates and ease of interpretation of results relative to more sophisticated dynamic panel models or instrumental variable approaches.

First, I model the effect of informational capacity, measured by *National Census*, on education centralization. I report the results in Table 3.2. It should be noted that across Models 1–5 *National Census* has a positive effect and is statistically significant at the $p < 0.001$ level. Further, F-statistics for Models 1–5 all show model significance, but none for Model 6. Beginning with a bivariate model (Model 1), the results show that for every unit increase in *National Census* there is an increase in *Centralization* of 0.05 points. In Models 2 through 3, the size of the coefficient decreases to 0.02 and model fit as measured by adjusted R^2 improves by .10–.12 points as controls are added. GDP per capita logged has a consistently estimated positive and significant effect of between 0.28 and 0.30 points. Somewhat counter-intuitively, urbanization is statistically significant and consistently estimated as having a negative coefficient between 0.34 and 0.36 for Models 3–5, while Military Density and Democracy are not significant, though democratization has an expected negative coefficient. Estimating Model 6 as 2SLS instrumenting informational capacity with Country Age produces a poorer model fit (adjusted $R^2 = 0.13$) with an F-statistic that shows the model is not significant. This is likely a result of a weak instrument problem or other undiagnosed mis-specification, but

42. Since *Centralization* is bounded by 0 and 1, the DGP precludes stationarity.

43. Achen, "Why Lagged Variables Can Suppress the Explanatory Power of Other Independent Variables"; Keele and Kelly, "Dynamic Models for Dynamic Theories."

further diagnostics are needed. Nevertheless, Model 6 shows that a unit increase in National Census now produces a 0.08 increase in education centralization while all other covariates losing statistical significance. Unexpectedly, GDP per capita is now negatively associated with education centralization.

Table 3.2: informational capacity and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
National Census	0.050***	0.016***	0.018***	0.017***	0.017***	0.081**
	(0.008)	(0.002)	(0.003)	(0.003)	(0.003)	(0.026)
GDP PC (log)		0.275***	0.294***	0.298***	0.303***	−0.137
		(0.019)	(0.032)	(0.035)	(0.036)	(0.461)
Urban Pop.			−0.360***	−0.339***	−0.339***	1.346
			(0.092)	(0.098)	(0.099)	(2.726)
Military Density				0.211	−0.054	−29.366
				(0.483)	(0.445)	(44.351)
Democracy					−0.007	−0.154
					(0.005)	(0.182)
R^2	0.551	0.692	0.657	0.642	0.643	0.145
Adj. R^2	0.547	0.688	0.653	0.637	0.638	0.132
Observations	3587	2078	1778	1698	1691	1656
Country fixed effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
2SLS IV Model	*No*	*No*	*No*	*No*	*No*	*Yes*

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Driscoll-Kraay standard errors in parentheses. Country fixed effects are controlled for via a within transformation. Constants are not shown. All independent variables are lagged one period.

Next, I model the effect of communications infrastructure, measured by *Postal Density*, on education centralization. I report the results in Table 3.3. I report the results in Table 3.2. In Models 1–5 *Postal Density* has a positive effect and is statistically significant at the $p < 0.001$ level. Likewise, F-statistics for Models 1–5 all show model significance. Beginning with a bivariate model (Model 1), the results show that for every logged unit increase in *Postal Density* there is an increase in *Centralization* of 0.07 points. In Models 2 through 5, the size of the coefficient decreases to 0.02 and model fit as measured by adjusted R^2

improves substantially, increasing from a very poor -0.005 to 0.46 points as other covariates are included. GDP per capita logged has a consistently estimated positive and significant effect of between 0.24 and 0.27 points in Models 2–5. In the expected direction, urbanization is positively associated with the outcome in Models 3–5, but the estimates are not statistically significant. Models 4 and 5 show that Military Density is associated with a 1.5 and 1.7 unit increase in education centralization, respectively, and both estimates are significant at the $p < 0.1$ level. In Model 5, Democracy generates a positive and statistically significant, but substantively small (0.009), effect. Similarly to Table table:censusplm results, the 2SLS estimation produces a very poor model fit (adjusted $R^2 = -0.035$) with an F-statistic that shows the model is not significant. Further, the coefficient sizes are inconsistently estimate relative to Models 1–5 and none of the covariates show statistical significance.

Table 3.3: Communications Infrastructure and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Postal Density (log)	0.065***	0.024*	0.024*	0.022*	0.021*	−0.369
	(0.019)	(0.012)	(0.011)	(0.011)	(0.011)	(0.797)
GDP PC (log)		0.268***	0.261***	0.253***	0.243***	−0.774
		(0.024)	(0.023)	(0.022)	(0.025)	(1.901)
Urban Pop.			0.064	0.098	0.081	11.975
			(0.224)	(0.221)	(0.216)	(17.958)
Military Density				1.541†	1.650†	−46.632
				(0.908)	(0.935)	(94.240)
Democracy					0.009†	−0.110
					(0.005)	(0.636)
R^2	0.028	0.479	0.479	0.483	0.487	0.007
Adj. R^2	−0.005	0.460	0.460	0.463	0.467	−0.035
Observations	1273	1123	1123	1100	1095	1077
Country fixed effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
2SLS IV Model	*No*	*No*	*No*	*No*	*No*	*Yes*

***$p < 0.001$, **$p < 0.01$, *$p < 0.05$, †$p < 0.1$

Driscoll-Kraay standard errors in parentheses. Country fixed effects are controlled for via a within transformation. Constants are not shown. All independent variables are lagged one period.

Finally, I model the effect of transportation infrastructure, measured by *Rail Density*, on education centralization. Table 3.4 shows the results. F-statistics for Models 1–5 all show model significance. The bivariate specification (Model 1) shows *Rail Density* has a positive effect and is statistically significant at the $p < 0.001$ level. The results show that for every unit increase in *Postal Density* there is an increase in *Centralization* of 0.25 points. However, Models 2 through 6 show much smaller and variable results for railway density, including the sign flipping to negative for Models 3–6. The size of the coefficients decreases to 0.02, but model fit as measured by adjusted R^2 improves substantially, increasing from a very poor -0.005 to 0.46 points as other covariates are included. GDP per capita logged has a consistently estimated positive and significant effect of between 0.47 and 0.77 points in Models 2–6. Urbanization here is positively and significantly associated with the outcome in Models 3–5, showing that a unit increase coincides with betweem 0.80 and 0.85 increase in education centralization. Military Density is not significant and negative associated with education centralization in Models 4 and 5. In Model 5, a unit increase in Democracy generates a negative and statistically significant effect of 0.02 points. As with the other tables thus far, the 2SLS estimation is not significant. These results are likely a problem of the high degree of unbalanced data for the covariates used, with substantial missingness for railway density. The observations used decrease in the saturated models to 349 from 936 in the bivariate model. This points to a need for further data collection and multiple imputation in order to increase modeling efficiency and consistency of estimates.

As an additional check on state capacity theories that emphasize the role of the development of fiscal capacity in state consolidation,[44] I examine the effects of *Fiscal Capacity*, as measured by central government tax revenue (as % of GDP), on education centralization. I briefly note these results in Table 3.5. While all the models are significant, the only positive and substantive result for fiscal capacity occurs in the bivariate model (Model 1). The only consistently estimated covariates are GDP per capita and urbanization. Models 2–5 show a positive significant effect on education centralization for ever logged unit increase in *GDP*

44. Levi, *Of Rule and Revenue*.

Table 3.4: Transportation Infrastructure and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Rail Density	0.246***	0.056	−0.017	−0.024	−0.024	−0.060
	(0.058)	(0.036)	(0.014)	(0.017)	(0.018)	(0.038)
GDP PC (log)		0.468***	0.475***	0.489***	0.500***	0.775*
		(0.061)	(0.040)	(0.042)	(0.047)	(0.373)
Urban Pop.			0.818*	0.823*	0.854**	0.223
			(0.340)	(0.324)	(0.318)	(3.000)
Military Density				−6.363	−6.631	0.250
				(5.029)	(5.100)	(40.350)
Democracy					−0.018*	−0.104***
					(0.007)	(0.025)
R^2	0.209	0.344	0.470	0.475	0.489	0.350
Adj. R^2	0.173	0.290	0.431	0.434	0.448	0.297
Observations	936	385	352	350	349	344
Country fixed effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
2SLS IV Model	*No*	*No*	*No*	*No*	*No*	*Yes*

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Driscoll-Kraay standard errors in parentheses. Country fixed effects are controlled for via a within transformation. Constants are not shown. All independent variables are lagged one period.

PC between 0.28 and 0.30, while Models 3–5 show a positive effect between 0.27 and 0.32 for every unit increase in *Urban Pop.*

Table 3.5: Fiscal Capacity and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Central Tax (%GDP)	0.026***	−0.000	−0.002	−0.001	−0.001	−0.008
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.114)
GDP PC (log)		0.330***	0.309***	0.294***	0.282***	−2.843
		(0.016)	(0.019)	(0.019)	(0.023)	(64.504)
Urban Pop.			0.274†	0.321†	0.318†	20.195
			(0.164)	(0.169)	(0.173)	(450.216)
Military Density				0.347	0.486	−33.878
				(0.578)	(0.587)	(627.344)
Democracy					0.008†	0.393
					(0.004)	(2.941)
R^2	0.250	0.599	0.603	0.593	0.595	0.016
Adj. R^2	0.242	0.595	0.598	0.587	0.589	0.001
Observations	2891	2679	2361	2262	2260	2229
Country fixed effects	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*	*Yes*
2SLS IV Model	*No*	*No*	*No*	*No*	*No*	*Yes*

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Driscoll-Kraay standard errors in parentheses. Country fixed effects are controlled for via a within transformation. Constants are not shown. All independent variables are lagged one period.

To summarize the analysis thus far, the results show that both informational capacity and communications infrastructure, as measured by *National Census* and Postal Density respectively, have the most consistently estimated and substantive positive effect on education centralization (as shown in Tables 3.2 and 3.3). Alternative, *Rail Density* does not generate strong results in the expected direction aside from the bivariate specification, while overall *Fiscal Capacity* appears a weak predictor of education centralization relative to the other three measures of state infrastructural power. The weak and/or null effects of fiscal capacity and military density in these models suggest the results of infrastructural power (especially informational capacity) are robust.[45] Informational capacity as national census is positive

45. For an additional check on robustness, I re-run the models on the data subset by three time periods

and significant across all three I report these results with some caution as to any causal interpretation that is implied. Though the empirical strategy is careful not to overfit or misspecify any of the models, I cannot completely rule out endogeneity without identifying a strong instrument for my measures of state capacity that meets the exclusion restriction. I plot the results in Tables 3.2, 3.3, and 3.4 in Figure 3.7. Each of the bracketed coefficient estimates in Figure 3.7 correspond to the results reported by Models 1, 2, and 5, in that order.

In the interest of ruling out Nickell bias and endogeneity concerns, I also fit these models using Difference Generalized Method of Moments (GMM) models with a lagged dependent variable (LDV). The degree of missingness in quite high under specifications for state infrastructural power as measured by *Postal Density* and *Rail Density*.[46] In Table 3.6 I re-specify the first series of models (see Table 3.2) to again estimate the effect on informational capacity by instrumenting *Country Age* lagged up to five periods. Though I should note that while Sargan tests reveal the instrument fails to meet the exclusion restriction, *National Census* produces consistent and positive estimates across all models, from the bivariate specification (Model 1) to the saturated model (Model 5). The results shows that holding everything else constant a one percentage point increase in informational capacity yields a 0.03 percentage point increase in education centralization. While the LDV soaks up much of the variation, despite the additional negative bias introduced by the LDV the only other statistically significant covariate across any of the models that remains is *National Census*. I plot the results in Figure 3.8 and report the GMM results for postal and rail density in their entirety in Table 3 and Table 4 (see appendix).

(1800–1870, 1870–1930, and 1930–1970). It is possible that the results only hold when estimating all country-year observations, whereas informational capacity may lack significance or even change direction when subset by a range of T. Instead, *National Census* produces the positive and statistically significant estimates for all three time periods. This procedure follows recent studies by economic historians who note that panel analyses could hide inconsistent effects of explanatory variables at different intervals of a time series and recommend subsetting data as a check on robustness Maurer and Abad, "The Long Shadow of History? The Impact of Colonial Labor Institutions on Economic Development in Peru."

46. I report the GMM results for communications and transportation infrastructures in the appendix (see Tables 3 and 4), along with pooled OLS regressions of the same models (Tables 5, 6, 7, and 8).

Table 3.6: Informational Capacity and Education Centralization, Difference GMM

	Model 1	Model 2	Model 3	Model 4	Model 5
Centralization $(t-1)$	0.52***	0.44***	0.44***	0.44***	0.47***
	(0.09)	(0.07)	(0.06)	(0.04)	(0.04)
National Census	0.03***	0.03***	0.03***	0.03**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
GDP PC (log)		0.01	−0.01	−0.01	−0.01
		(0.03)	(0.03)	(0.02)	(0.02)
Urban Pop.			0.01	0.12	0.14
			(0.30)	(0.27)	(0.26)
Military Density				0.01	0.14
				(0.42)	(0.43)
Democracy					0.00
					(0.00)
n	45	45	45	45	45
T	173	173	173	173	173
Num. obs.	7697	7697	7697	7697	7697
Num. obs. used	455	1985	1722	1611	1607
Sargan Test: chisq	21.00	22.00	21.00	21.00	21.00
Sargan Test: df	342.00	513.00	683.00	852.00	1020.00
Sargan Test: p-value	1.00	1.00	1.00	1.00	1.00
Wald Test Coefficients: chisq	145.55	166.05	207.39	457.26	565.21
Wald Test Coefficients: df	2	3	4	5	6
Wald Test Coefficients: p-value	0.00	0.00	0.00	0.00	0.00

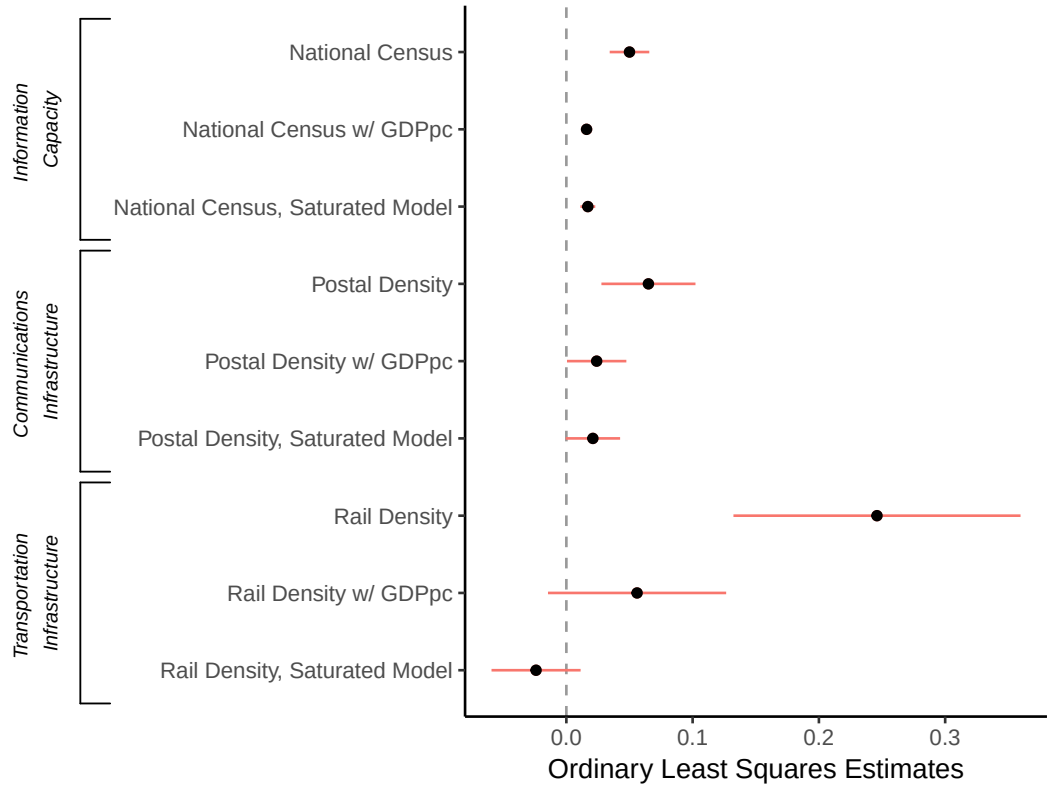
$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Notes: Difference GMM one-step estimator with unit fixed effects. Constants are not shown. DV lagged one period. All independent variables are lagged one period. No substantive difference in estimates or model fit between results of lagged and non-lagged covariates.

3.4 Conclusion

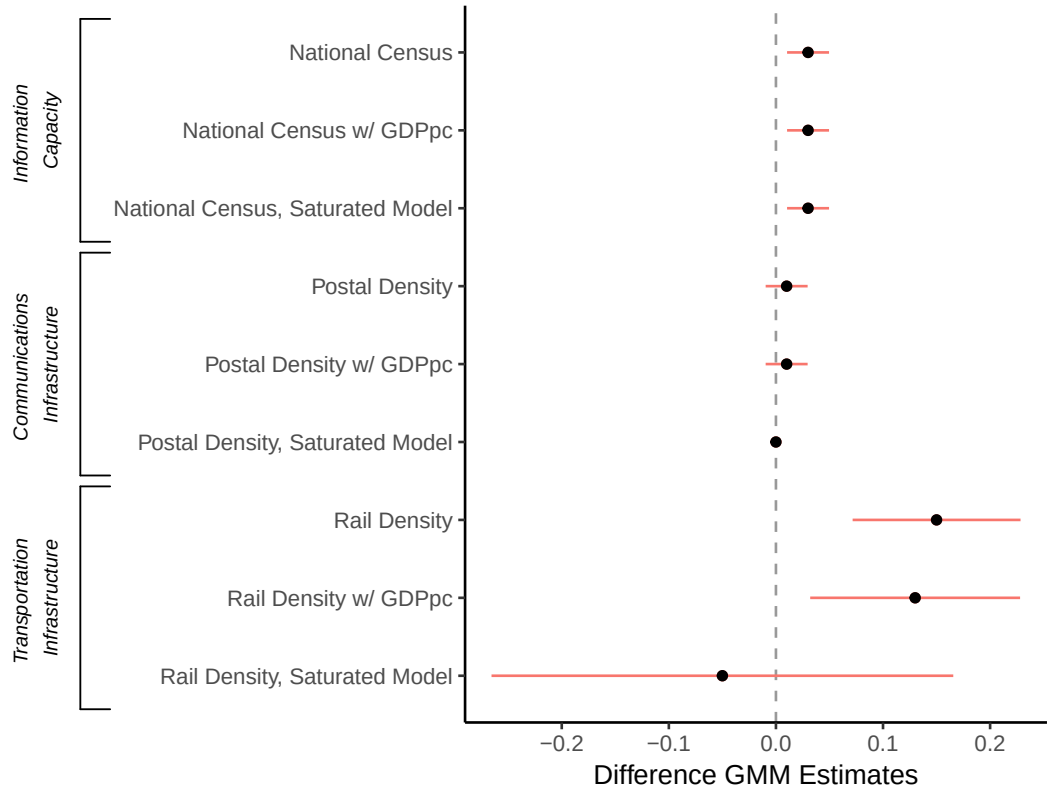
To summarize, panel least squares estimates with country fixed effects show that every additional comprehensive population census administered over time is expected to increase education centralization by between 2 and 5 percentage points. Robustness checks show a consistent and statistically significant relationship between informational capacity and education centralization across multiple specifications and model types, including difference generalized method of moments (GMM) estimation. The findings also show some positive

Figure 3.7: Summary Plot of Panel Estimates of State Infrastructural Power and Education Centralization



Notes: Each of the bracketed coefficient correspond to estimates by Models 1, 2, and 5 reported in Tables 3.2, 3.3, and 3.4.

Figure 3.8: Summary Plot of Difference GMM Estimates of State Infrastructural Power and Education Centralization



Notes: Each of the bracketed coefficient correspond to estimates by Models 1, 2, and 5 reported in Tables 3.6, 3, and 4.

support for the role of communications and transportation infrastructure as captured by postal and railway density, respectively. I also show a weak statistical relationship between coercive and fiscal capacity and education centralization, thus providing confirmatory evidence that forms of state capacity that capture overall levels are insufficient contributing factors to centralized mass education. Rather, it is specific types of state capacity and its territorial distribution that matter for education centralization. The following chapters explore educational development in Argentina and Chile from independence to the end of the nineteenth century.

References

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson. "Institutions, Human Capital, and Development." *Annual Review of Economics* 6, no. 1 (2014): 875–912.

Achen, Christopher. "Why Lagged Variables Can Suppress the Explanatory Power of Other Independent Variables." University of Michigan, July 2000.

Albertus, Michael, and Victor Menaldo. "Coercive Capacity and the Prospects for Democratization." *Comparative Politics* 44, no. 2 (2012): 151–169.

———. "Gaming Democracy: Elite Dominance during Transition and the Prospects for Redistribution." *British Journal of Political Science* 44, no. 03 (July 2014): 575–603.

Andersson, Per F. "Democracy, Urbanization, and Tax Revenue." *Studies in Comparative International Development* 53, no. 1 (March 2018): 111–150.

Ansell, Ben, and Johannes Lindvall. "The Political Origins of Primary Education Systems: Ideology, Institutions, and Interdenominational Conflict in an Era of Nation-Building." *American Political Science Review* 107, no. 03 (2013): 505–522.

Besley, Timothy, and Torsten Persson. "The Origins of State Capacity: Property Rights, Taxation, and Politics." *American Economic Review* 99, no. 4 (2009): 1218–1244.

Bignon, Vincent, Rui Esteves, and Alfonso Herranz-Loncán. "Big push or big grab? Railways, government activism, and export growth in Latin America, 1865–1913." *The Economic History Review* 68, no. 4 (November 2015): 1277–1305.

Brambor, Thomas, Agustın Goenaga, Johannes Lindvall, and Jan Teorell. "The Lay of the Land: Information Capacity and the Modern State." *STANCE Working Paper Series* 2016, no. 2 (2016).

Caruso, Marcelo. "Literacy and suffrage: the politicisation of schooling in postcolonial Hispanic America (1810-1850)." *Paedagogica Historica* 46, no. 4 (August 2010): 463–478.

Criscenti, Joseph. *Sarmiento and His Argentina*. Lynne Rienner Publishers, 1993.

Engerman, Stanley L., Elisa V. Mariscal, and Kenneth L. Sokoloff. "The Evolution of Schooling in the Americas, 1800-1925." In *Human Capital and Institutions: A Long-Run View*. Cambridge University Press, 2009.

Harter, Jim. *World Railways of the Nineteenth Century: A Pictorial History in Victorian Engravings*. JHU Press, 2005.

Keele, Luke, and Nathan J. Kelly. "Dynamic Models for Dynamic Theories: The Ins and Outs of Lagged Dependent Variables." *Political Analysis* 14, no. 2 (2006): 186–205.

Kurtz, Marcus J. *Latin American State Building in Comparative Perspective: Social Foundations of Institutional Order*. Cambridge University Press, March 2013.

Levi, Margaret. *Of Rule and Revenue*. University of California Press, July 1989.

Lipset, Seymour Martin. "Some Social Requisites of Democracy: Economic Development and Political Legitimacy." *The American Political Science Review* 53, no. 1 (March 1959): 69–105.

Marti-Henneberg, Jordi. "European integration and national models for railway networks (1840–2010)." *Journal of Transport Geography* 26 (January 2013): 126–138.

Maurer, Noel, and Leticia Arroyo Abad. "The Long Shadow of History? The Impact of Colonial Labor Institutions on Economic Development in Peru." Presented at Severyns Ravenholt Seminar in Comparative Politics, University of Washington, 2018.

Melton, James van Horn. *Absolutism and the Eighteenth-Century Origins of Compulsory Schooling in Prussia and Austria*. Cambridge University Press, 1988.

Menaldo, Victor. *The Institutions Curse*. Cambridge: Cambridge University Press, 2016.

Narodowski, Mariano, and Laura Manolakis. "Defending the "Argentine Way of Life". The State and School Textbooks in Argentina (1884-1984)." *Paedagogica Historica* 38, no. 1 (January 2002): 301–316.

Paglayan, Agustina. "Democracy and Educational Expansion" Evidence from 200 Years." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2018.

Palomba, Donatella. "Education and State Formation in Italy." In *International Handbook of Comparative Education*, 195–216. Springer International Handbooks of Education. Springer, Dordrecht, 2009.

Rogowski, Jon C, Matthew Maguire, John Gerring, and Lee Cojocaru. "State Infrastructure and Economic Development: Evidence from Postal Systems." Harvard University, December 2017.

Sabato, Hilda. *Republics of the New World: The Revolutionary Political Experiment in Nineteenth-Century Latin America*. Princeton University Press, February 2018.

Singer, J. David. "Reconstructing the correlates of war dataset on material capabilities of states, 1816–1985." *International Interactions* 14, no. 2 (May 1988): 115–132.

Skaaning, Svend-Erik, John Gerring, and Henrikas Bartusevičius. "A Lexical Index of Electoral Democracy." *Comparative Political Studies* 48, no. 12 (October 2015): 1491–1525.

Weber, Eugen. *Peasants Into Frenchmen: The Modernization of Rural France, 1870-1914*. Stanford University Press, 1976.

Ziblatt, Daniel. *Structuring the State: The Formation of Italy and Germany and the Puzzle of Federalism*. Princeton University Press, 2006.

Chapter 4

ARGENTINA

4.1 Introduction

> I do not regard education above the primary level as being a means of civilization. It is primary education that civilizes and develops the people's moral fibre. All peoples have always had their learned elders and sages, without being civilized. *Primary schools are therefore the very basis of civilization.*—Domingo F. Sarmiento[1]

On June 26, 1884, the Senate approved the passage of the landmark *Ley 1420 de Educación Común de Argentina* (Law 1420 of General Common Education of Argentina) under the Presidency of General Julio Argentino Roca. The legislation was notable not just for the detailed and sweeping governance structure set forth for primary and lower-secondary education, but also for the law's mandate putting the central state in firm control of education in a country marked by decades of internecine conflict between provincial elites in the rural periphery and those in urban Buenos Aires Province. Following independence, unresolved questions regarding the political and economic autonomy of the provinces vis-á-vis the central government triggered decades of violent political conflict. The political disorder of Argentina in the 19th century also revolved around who gets to define the Argentine national project and how. The political development of Argentina is a story of the role of the state in constructing a new political and social identity among the masses after the collapse of the Spanish colonial *ancien regime* in Latin America.

The passage of Law 1420 embodies the culmination of the political struggle over the

1. Quoted from Sarmiento, Montt, and Sarmiento, *Obras de D.F. Sarmiento* in Bravo, "Domingo Faustino Sarmiento."

terms of social control that lingered in the background of broader conflicts, hot and cold, between elites who desired a weak central state (and weak Buenos Aires) and those who saw the state as the answer to internal disorder. Law 1420 reflected the victory of the central elites, who supported central control over Argentina's education. Why and how did a federalist republic with one of the largest national territories in the Western Hemisphere come to establish and organize a centralized system of mass education before the turn of the 19th century? This chapter takes up this question and interrogates the theoretical and empirical implications identified in Chapters 2 and 3 in the period leading up to the passage of Law 1420. Specifically, this chapter examines the ideological foundations of educational development following independence and the political dynamics of education in the context of Argentine state-building.

First, I discuss the political and intellectual antecedents of Law 1420 in the liberal *unitario* movement concentrated in Buenos Aires during the early years of the United Provinces of the Río de la Plata (Argentina) after independence. The *Rivadavian Epoch* was defined by a rapid but short period of educational development and institution-building in the city of Buenos Aires under the first president of the Republic, Bernardino Rivadavia, before education reverted to colonial-era governance under the long dictatorship of General Juan Manuel Rosas.

Second, I discuss the return of intellectual and political debate over education, among other larger questions of political organization, during the educational dark age that led up to the fall of Rosas. The collapse of the Rosas regime marks, I argue, a critical juncture for educational development in the Buenos Aires Province in which important institution-building took place and debates over education resumed, with the exiled politician, educator, and intellectual Domingo F. Sarmiento at the forefront. These developments impacted the trajectory of mass education during the second critical juncture, this time at the national level, in which the Argentine Republic was unified under the presidency of liberal intellectual and general Bartolome Mitre in 1862, an ally of Sarmiento who succeeded Mitre in the presidency in 1868.

Third, I discuss the institutional consequences of the Mitre-Sarmiento period (1862-1874), which saw the expansion of railways and telegraphs, along with the introduction of the national census, the creation of a state system of normal schools to train teachers, and the first public provincial education systems in the Buenos Aires and San Juan provinces. Educational development under this period codified the educational ideology of Sarmiento and his allies, especially among graduates of the normal school system, that played a large role in the the formation of a national education system during the liberal, yet oligarchic, *Orden Conservador* (Conservative Order) (1880 - 1920). The primary outcome of interest is the passage and implementation of Law 1420 in 1884, arguably the most comprehensive piece of education legislation in Latin America and milestone in the process of Argentine nation-making. I conclude the chapter with an analysis of the above by assessing my theoretical argument using a critical junctures framework.[2]

4.2 Education in the Early Argentine Republic: From the Rivadavian Epoch to the Fall of Rosas

What are the *critical antecedents* of the state-centered educational ideology that would take hold in the Argentine republic? What are the roots of the rampant political disorder that generated a political environment rife with uncertainty well into the second half of the 19th century? To understand the sources and origins of Argentine educational ideas and political instability, it is important to understand educational development following independence in the colonial territory formerly known as the Viceroyalty of the Río de la Plata.

Prior to independence, education in the Río de la Plata was largely an elite resource. The commercial and legal needs of the viceroyalty generated demand for formal education among the creole middle and upper classes, which expanded education beyond the colonial aristocracy during the 18th century. In particular, legal and administrative training offered opportunities for bureaucratic advancement within the colonial government and conferred

2. Soifer, "The Causal Logic of Critical Junctures."

status upon the urban middling classes seeking to enter the elite.[3] Nevertheless, professional schooling served only the small portion of the creole population who could afford it, while basic primary education remained a private affair left to wealthy families who could afford tutors or school fees at Church-run schools.

In many ways, intellectual life in Argentina's two major centers of education—Buenos Aires and Córdoba—lagged significantly behind other colonial centers in Mexico City and Lima. Aside from the small education sector catering to the political elite and bourgeois professionals, childhood education was virtually an afterthought in Argentine colonial society. As of 1776, for example, there were only ten Church-governed primary schools between Buenos Aires and Córdoba and women were excluded from the limited education system that existed in the Río de la Plata.[4] It was not until the May Revolution that an Argentine intellectual renaissance began.

Mariano Moreno, the first major political thinker of the independence period, embodied the contradictions of the 'Creole Revolution'.[5] In particular, Moreno's views toward the role of education in society anticipates the paradoxical nature of Argentine educational thought of the first half of the 19th century. On the one hand, Moreno was a liberal shaped by Enlightenment thinkers, particularly Jean Jaques Rousseau, and as a radical egalitarian he modeled himself in the Jacobin tradition during the independence wars. For instance, in 1810 Moreno attempted to impose an abridged version of Rousseau's *The Social Contract*, which he considered a master work and translated himself, as required reading in schools throughout Buenos Aires to prepare "citizens" to receive a constitution.[6] On the other hand, Moreno also exhibited the authoritarian tendencies of creole followers of the Enlightenment by censoring all Rousseau's references to religion, thus using the strictures of scholasticism in order to weaken the Church's influence on the youth.[7]

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3. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 110-111.
4. Shumway, *The Invention of Argentina*, 13-14.
5. Shumway, *The Invention of Argentina*; Simon, *The Ideology of Creole Revolution*.
6. Newland, "La educacion elemental en Hispanoamerica," 8.
7. Shumway, *The Invention of Argentina*, 30.

Moreno also articulated the importance of civics and history lessons to create citizens of the new republic, even as such a curriculum would inevitably promote the values of the dominant political class.[89] In doing so, Moreno and other liberal intellectuals of the May Revolution made explicit the link between education and political development in the new independent republics yet to take shape in the region.

After the May Revolution, there was a marked shift in educational thought toward a need for public schools to create moral and political order beyond just Buenos Aires. For example, in 1813 General Manuel Belgrano founded public schools in Jujuy Province. Belgrano believed that education should be communal in order "to form [. . .] the citizen's conscience."[10] Political elites of the period echoed the contradictory elements of Moreno's view of education as a means to at once create citizen-subjects and participatory citizens of the republic:

> The view of the submissive child, in sometimes uneasy combination with the notion of education as preparation for citizenship, was shared by all the elites and crossed the ideological and socioeconomic divisions that otherwise divided them [. . .] Schooling became an ideological construct which included both the infusion of political content into the curriculum and the belief—derived from the republican ethos shared by the patriots of 1810—that formal training was a required ingredient in a new, liberal camaraderie.[11]

The emerging consensus among revolution leaders around the need for a post-independence education for political socialization and stability stood parallel to the notion of schooling as a private matter left to the (affluent) family. Under the government of Bernardino Rivadavia,

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8. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 117.

9. In the foreword to his translation of *The Social Contract*, Moreno makes the case that "education is vital in free societies since 'if the people are not enlightened . . . perhaps our fate will be to change tyrants without destroying tyranny'. Shumway, *The Invention of Argentina*, 30.

10. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 111-112.

11. Ibid., 113.

first as governor of Buenos Aires province and then as first President of the Republic, these contradictory positions would manifest in the extreme polarization between the unitarios (unitarians) and federalistas (federalists) during the first decades of the Republic.

4.2.1 The Rivadavian Epoch

The state of educational affairs in Buenos Aires after independence, and even more so in the rural interior provinces, suggested a de novo institutional environment for education reform. The indirect rule approach to education provision under the colonial viceroyalty remained firmly in place. By 1815 just under 1200 school-aged children attended a total of thirteen primary schools in Buenos Aires. While thirteen schools in 1815 represents a nearly threefold increase from the four primary schools that served Buenos Aires in 1776,[12] just under five percent of school-aged children (roughly 1200 students) attended schools.[13] At less than a five percent increase in student registration between 1815 and 1820, enrollment grew very slowly. By the time Bernardino Rivadavia was appointed to Buenos Aires in June of 1821, the number of schools in the city remained unchanged and hardly budged two years into his tenure. As of September 1823 there were a total of nine boys' schools serving 1139 students and five girls' schools serving 364 students for just over 1500 total school-aged children in school.[14] Rivadavia sought to remedy the slow pace of educational development in the province.

Between 1821 and 1825, Rivadavia, as minister of government in the Buenos Aires province, led an ambitious agenda to spur on political modernization in the former capital of the region's Spanish Viceroyalty. Before even assuming his role as first president of Argentina in 1826, then the United Provinces of the Río de la Plata, Rivadavia oversaw a sweeping education agenda. In 1821, Rivadavia founded the University of Buenos Aires followed by the Argentine Museum of Natural Sciences, the Sociedad de Beneficia (Beneficent

12. Shumway, *The Invention of Argentina*, 14.
13. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 132.
14. Figures taken from Appendices A and B in Newland, *Buenos Aires no es pampa*.

Society), and the Colegio de Ciencias Morales (College of Moral Sciences). Notable for the time, Rivadavia established the Beneficent Society as a secular foundation to provide education and social services to women and girls. Once elected president in 1826, Rivadavia would go on to decree that schoolmasters adopt the Lancasterian method of primary schooling and secularize the qualifications of primary teachers.[15]

The College of Moral Sciences embodied the May Revolution's emphasis on education as a mechanism for civilizing the masses. Rivadavia funded scholarships in order to open the institution to secondary students throughout the provinces. In a few short years, the college and its instructors would endear a generation of influential Argentines to the "largely unfulfilled social ideals of the May Revolution."[16] Recipients of the scholarship included included future Argentine intellectuals and political activists Juan Bautista Alberdi and Esteban Echeverría, both of who would go on to be founding members of the Generation of 1837.[17]

Rivadavia himself was an admirer of English utilitarianism and an intellectual disciple of Jeremy Bentham. Bentham's thinking was a strong influence on Rivadavia's educational reforms.[18] Bentham actively promoted the monitorial method (e.g. Lancasterian system) that Rivadavia later introduced to, and eventually imposed upon, public and private schools throughout Buenos Aires.[19][20] It is important to not overstate Bentham's influence on Rivadavia.[21] In many ways Rivadavian ideals of Argentine education telegraphed Sarmiento's

15. Bushnell, *Reform and Reaction in the Platine Provinces, 1810-1852*, 28-29. In addition to institutional developments in education, Rivadavia also helped found the Literary Society of Buenos Aires and the Public Museum of Buenos Aires, and supported the creation of a national theater company. Shumway, *The Invention of Argentina*.

16. Katra, *The Argentine Generation of 1837*, 22.

17. ibid., 21. A young Domingo F. Sarmiento was not awarded a coveted position at the time, which he lamented later in life. ibid.

18. Shumway, *The Invention of Argentina*, 86.

19. Harris, "Bernardino Rivadavia and Benthamite "Discipleship"," 137-138.

20. The monitorial method entailed older pupils teaching younger pupils under the supervision of a head instructor, thus allowing for the cheaper provision of mass education. In addition to Rivadavia, independence leaders such as San Martin, O'Higgins, and Bolivar endorsed Lancasterian schooling. See Newland, "La educacion elemental en Hispanoamerica," 342.

21. The historical record suggests that Rivadavia recognized the limitations of Benthamite philosophy and

own vision of mass education in the new Argentina. Likewise, Rivadavia's reforms revealed political cleavages over the role of the state in education that will persist well into the late 19th century.

The Rivadavian educational program had anti-authoritarian and elitist elements. On the one hand, the Colegio and other Rivadavian schools wrested control from traditional monastic orders, subsidized attendance, and rejected the punitive culture of colonial education.[22] For instance, the government assured that "in all state schools all systems of humiliating the young through cruel corrections are forbidden; rather, students will find "concerned teachers who are also friends and counselors."[23] On the other hand, the use of examinations to target the "brightest" young people in the country for admissions and emphasis on further elevating Buenos Aires as an intellectual center of 'civilization' vis-á-vis the outer provinces belied the egalitarian aims of the new state schools. Similarly, the Beneficent Society emerged as a sort of social club for women from the upper sectors of Buenos Aires while the rejection of colonial-era Church paternalism for the poor reflected the hostile attitudes of the Rivadavians toward the popular classes.[24]

The unitarian cause, embodied by Rivadavia's Buenos Aires, did not go unnoticed by federalistswho counted the working classes and caudillos of the interior as supporters. For the uneducated masses in the interior provinces, education was seen as a significant cultural cleavage between the poor majority of the population and the elitist *porteños* of Buenos Aires. They resented the university-educated "dotores" (doctors) of the city, and saw the modernizing political program of Rivadavia as a way for the "civilized" urban elite to maintain dominance over the "backward" peoples of the rural interior.[25] Alternatively, the popular sectors turned to the *caudillos* and landed elite who advocated the Federalist position as the

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balanced Bentham's educational ideas against the political, legal, and social realities of Buenos Aires at the time. Harris, "Bernardino Rivadavia and Benthamite "Discipleship"."

22. Newland, "La educacion elemental en Hispanoamerica."

23. Shumway, *The Invention of Argentina*, 86.

24. Katra, *The Argentine Generation of 1837*; Shumway, *The Invention of Argentina*.

25. Katra, *The Argentine Generation of 1837*, 17.

legitimate representatives of the people.[26]

The federalists were not so much a political movement founded on strong intellectual foundations as they were a coalition of provincial elites, the Catholic Church, and the rural working classes, all united in their distrust of Buenos Aires. To characterize the federalists as simply a reactionary force, though certainly they exhibit key elements of such, would obfuscate legitimate political claims consistent with the ideological underpinnings of Latin American republicanism. For instance, the federalists' demands reflect republican principles formed in the independence movement, such as separation of powers through decentralized government, in opposition to centralized control by an urban metropole that defined colonial rule.[27] On the other hand, federalist elites sought to maintain traditional social and economic hierarchies post-independence.[28][29] Rather than break from the colonial structure of social relations, the federalists' vision of a provincial populism under caudillo rule implicates the anti-democratic contradictions of the Creole Ideology.[30] To this point, Katra succinctly summarizes this tension:

> The federalist *caudillo* [. . .] often assumed the function of interpreter of the regional will and was friend and protector of the poor. This spontaneous political creation of the American territories was essentially a populist society, even though it had its owners and bosses. From this decisive fact came the great political paradox of the Rioplatense revolution: the oligarchic and aristocratic spirit of the Europeanized and educated forces of the city embraced liberalism as the ideological basis for their struggle, while they were opposed by the radically

26. As presumed defenders of local traditions and values against the disruptive centralization of Buenos Aires, the federalists inherited the mantle of the May Revolution among provincial society. Katra, *The Argentine Generation of 1837*.

27. Sabato, *Republics of the New World*; Simon, *The Ideology of Creole Revolution*.

28. Shumway, *The Invention of Argentina*.

29. Noting the colonial legacy of social relations in the country, Sarmiento observes that "before 1810 in the Argentine Republic [there existed] two rival societies that were distinct and incompatible." Sarmiento, *Obras de D. F. Sarmiento, Vol. 7*, 46.

30. Simon, *The Ideology of Creole Revolution*.

democratic spirit of the autochthonous, rustic masses of the countryside.[31]

The "Rivadavian Epoch" was short-lived. The *Federalistas* rejected the "Europeanization" of Buenos Aires as represented by the Constitution of 1826 introduced by Rivadavia soon after assuming the presidency. In his aggressive push to reign in the Catholic Church, extend the franchise, and centralize political power in Buenos Aires, the *Unitario* president threatened the political, economic, and social primacy of the rural elite and ecclesiastical authorities that made up the Federalist base. In particular, when Rivadavia restricted the Franciscans from administering the education sector, instead turning over school governance to the University of Buenos Aires, traditionalists felt they were vindicated in their fear of a liberal state displacing church and family in shaping children's values.[32] Likewise, by supplanting the Church in the educational and social arenas with state institutions staffed by secular clergy, Rivadavia made it possible for nuns and monks to take on duties outside the hierarchies of the traditional monastic orders.[33]

As Argentine sociologist Juan Agustín García recounts, traditionalists feared that the "Jacobin family" would be the inevitable result of Rivadavia's reforms.[34] These fears illustrated the fundamental societal rift between public and private authority that emerged under republicanism:

> Government-sponsored schooling [. . .] threatened to displace traditional community and familial norms. In the revolutionary ideology of Spanish America, republican virtues were public virtues established on the basis of extrafamilial in-

31. Katra, *The Argentine Generation of 1837*, 19.

32. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina." Rivadavia's decree stated that "the education which is provided at the Franciscan monastery under the direction of the members of the order does not provide the authorities with the guarantees that they should count on in matters of this nature. This is why schooling in all its aspects is to be found under the supervision of the University [of Buenos Aires]. This provides the government with the confidence that such an institution will work efficiently on behalf of the nation's civilization. From this moment forth, no member of the Franciscan order will provide any instruction." ibid., 118.

33. Shumway, *The Invention of Argentina*, 104.

34. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 118.

> terests: the achievements of the nation's youth were regarded as the foundation of national progress, not merely of a given family's welfare.[35]

Rivadavia's reforms were met with violent resistance in the greater Buenos Aires Province and the interior. In place of party competition, the constant threat of a military coup and bouts of urban insurrection produced institutional anarchy throughout the United Provinces.[36] The beleaguered presidency of Rivadavia was further weakened by the Cisplatine War with Brazil over disputed territory in Uruguay. By June of 1827 Rivadavia resigned and the first constitution of Argentina was repealed almost as quickly as it began.[37]

4.2.2 Juan Manuel Rosas and the Dictadura Unificada

On December 5, 1829, Juan Manuel Rosas, the "Undisputed Leader of the Federalist Party," became Governor of Buenos Aires province.[38] The unitarians, now out of power in Buenos Aires, launched a civil war against the federalists. Under the leadership of General José María Paz, the unitarians quickly seized power of the United Provinces from the *caudillos* loyal to the federalist cause. A period of extreme political uncertainty commenced as the federalists launched a counteroffensive to retake power in the provinces. In 1831 General Paz was finally captured and the unitarians defeated. By this time Rosas came to be seen as a stabilizing force in Buenos Aires in the wake of the civil war and accompanying economic depression throughout the provinces. Though loyal federalists, the "Rosistas" above all held Rosas up as the legitimate representative of their interests.[39] The *estancieros*, or landed elite, that made up the upper sectors of society closed ranks around Rosas, himself a *criollo* landowner and one of their own.[40]

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35. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 118.
36. López-Alves, *State Formation and Democracy in Latin America, 1810-1900*, 172.
37. Lynch, *Argentine caudillo*, 15-17.
38. Ibid., 17.
39. Ibid., 16-17.
40. Katra, *The Argentine Generation of 1837*, 20.

Following the end of the civil war, the federalists split between moderates willing to accommodate the remaining Unitario-governed provinces and the Rosistas. For example, in 1833 the Unitario government in Córdoba moved to desegregate public education and universities, including private Catholic institutions, by opening admissions to freed blacks and *pardos*.[41] These reforms spurred resistance by the Church as well as university students.[42] Meanwhile, Rosas' term as Governor of Buenos Aires came to an end in December of 1832. The interregnum of 1833 to 1834 was a period of severe economic and political instability.

The administrations of subsequent federalist governors of Buenos Aires failed to sustain enough political support to effectively govern. Rosas, still popular among the dominant class of estancieros after a successful campaign pacifying the indigenous population, is offered the governorship. Rosas declined at first, but he ultimately accepted on the condition of *suma de poder publico*, or the sum of public power. On March 7, 1835, Rosas assumed control of Buenos Aires with virtually unlimited authority, thus officially marking the beginning of Rosas' uninterrupted rule until 1852.[43] Thus, the brief *Epoca Rivadavia* gave way to the long *Dictadura Unificadora*.[44]

The Rosas period reversed many of the educational gains made under Rivadavia. In contrast to Rivadavia's (and later Sarmiento's) view of education, Rosas "restored the *ancien régime*'s view that education was a privilege reserved for the gentry and associated elites."[45]

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41. Pardos are Spanish Americans of mixed European, black African, and indigenous ancestry. Scholars of racial and ethnic identity in early Latin America note the distinction between the censorial categories of pardos, mestizos (European and Amerindian ancestry), and the English term mulattos (white European and black African). See Twinam, *Purchasing Whiteness*.

42. Bushnell, *Reform and Reaction in the Platine Provinces, 1810-1852*, 91.

43. Lynch, *Argentine caudillo*, 16. As a testament to Rosas' popularity with the landed elite, Lynch describes an episode in July 1985 in which prominent estancieros "from all corners of the province [. . .] traveled to Buenos Aires to mount guard before the governors house as a mark of respect and deference. ibid., 17.

44. Germani, *Estructura social de la Argentina*; Solari, *Historia de la educación argentina*. The periodization of the Rivadavia and Rosas regimes is consistent with both Solari and Germani. However, Solari describes the Rosas period as the Age of Anarchy, which is a misleading descriptor for a period of prolonged internal stability under a totalitarian patronage system built on a foundation of the caudillo elites in control of the interior provinces.

45. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 124.

Rosas believed that education could "degrade the energy of man" and that free, state education would not only subvert morality and public order, but also further impoverish the poor "by taking away the time they needed to learn a trade."[46] Whatever institutional foundations Rivadavia put in place toward a future Argentine education system, Rosas either defunded or dismantled altogether. Instead, Rosas believed that the military should play the role of educational institution to instill social discipline and shape "habits of minds" of the rural masses.[47]

In April 1838, Rosas issued a series of decrees that halted funding for all primary and secondary schools, including the Beneficent Society and College of Moral Sciences, as well as the University of Buenos Aires.[48] When the state did enact education policy under Rosas, schools were subject to indoctrinating practices. In an ironic attempt to instill deference to the federalist system, as opposed to the centralizing tendencies of the prior regime, Rosas's minister of government, Tomás de Achorena, instructed school inspectors to ensure that school employees, and students themselves, wear the red emblem of Rosas' Federalist Party. Rosas went further and mandated that teachers prevent any talk of politics on or near school grounds under threat of immediate school closure.[49] Otherwise, Rosas deliberately neglected primary schooling in the country, which already served only a small percentage of the population.[50]

Rosas lacked an explicit ideological orientation toward education. Rosas' own intellectual development entailed a childhood education that equipped him with basic literacy, enough to develop a cursory familiarity with political theorists of French absolutism.[51] At best, his outlook on education was consistent with provincial elites who saw education reform as disruptive to domestic patriarchal authority. For the majority of Argentine society outside

46. Newland, "La educacion elemental en Hispanoamerica," 339.
47. Szuchman, "Imagining the State and Building the Nation," 327.
48. Lynch, *Argentine caudillo*, 91.
49. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 119-120.
50. Newland, "La educacion elemental en Hispanoamerica," 22.
51. Lynch, *Argentine caudillo*, 2.

of Buenos Aires, "the subordination of the child to the household, both in body and in mind, was to them an essential ingredient of social as well as domestic stability."[52]

Rosas' indifference to governing education stood in stark contrast to his commitment to the economic primacy of the landed elite, law and order, and military strength. Rosas established a system of patronage based on land grants to his caudillo supporters and land confiscation for estancieros who failed to pledge their fealty or sided with the unitarians. As a narrower iteration of the Argentine federalist movement, "*rosismo* was less an ideology than an interest group, a focus of property rather than of principles."[53] Rosas' neglect of education, and social provision generally, freed up resources for domestic economic warfare and strengthening the military.[54] Consequently, Rosas established a highly repressive and personalist authoritarian regime that, ironically, leveraged patronage among federalist caudillos in order centralize political control and coercive capacity in Buenos Aires.[55]

The Rosas period was a dark age of educational and social development in which educational progress largely reverted to a colonial era system of decentralized, indirect rule.[56] Though there were some efforts at educational reform in some of the interior,[57] Argentine education remained virtually unchanged until the 1850s when the fall of Rosas opened the opportunity for political reformers to create the national education system that the Rivadavians failed to create. Until then, Rivadavia's reforms languished as the basic features of colonial education persisted as the status quo under the deliberate neglect of Rosas.[58]

Between 1840 and 1850, cracks developed in Rosas' system of patronage and he began to lose his stronghold on the provinces. Rosas developed a dictator's paranoia as he correctly

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52. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 123.

53. Lynch, *Argentine caudillo*, 23.

54. Ibid., 78.

55. López-Alves, *State Formation and Democracy in Latin America, 1810-1900*.

56. Lynch, *Argentine caudillo*.

57. In 1839, just a year before his exile to Chile, a young Sarmiento founded a girls' school in San Juan province where he enjoyed the freedom to enact the top-down, disciplinary and civilizing educational project he believed was required to shape Argentina into a modern republic Szuchman, "Imagining the State and Building the Nation," 327.

58. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 128.

suspected that a caudillo may rise to threaten his regime, and he largely retreated from the public. Ever the lifelong general, Rosas saw an opportunity to reestablish his authority as the sole military and political leader of Buenos Aires and the Argentine provinces through war.[59]

In 1851, the as-yet unresolved territorial disputes of the Cisplatine War resurfaced in the Platine War, in which the anti-Rosas opposition leader of the breakaway Entre Ríos Province, Justo José de Urquiza, made common cause with anti-Rosas forces in Uruguay and Brazil. Rosas overestimated his strategic position and was roundly defeated at the Battle of Caseros. As news of Rosas' defeat spread, Rosas' own brother-in-law "to the disgust of many [. . .] surrendered to Urquiza with the cry, 'Long live Urquiza! Death to the tyrant Rosas!'."[60] In his defeat, Rosas was forced into exile by Urquiza and the allied commanders of the unitarian, Uruguayan, and Brazilian forces. The allied commanders included Bartolome Mitre, Juan Bautista Alberdi, and Domingo F. Sarmiento.[61]

4.2.3 The Generation of 1837 and the Intellectual Foundations of National Organization

As the Rivadavian education project collapsed under the weight of the Rosas Regime, members of the Generation of 1837 took advantage of their political exile to develop ideas about the Argentine polity that prefigured the unified republic that would eventually emerge. Broadly, the 1837 Generation refers to members of the intellectual and political movement formally associated through meetings at the Literary Salon in Buenos Aires. As political activists against Rosas and caudillismo, the "Young Argentines" embodied the intellectual legacy of the Rivadavian wing of the May Revolution that many liberal unitarians supported. Yet, they also articulated a new political program for the future of the as-yet fragmented republic. In light of the internal political disorder that overwhelmed Rivadavia's attempt at national organization, the 1837 Generation departed from the earlier generation of liberals

59. Lynch, *Argentine caudillo*.
60. Ibid., 157.
61. Shumway, *The Invention of Argentina*.

that emerged from the May Revolution.[62]

Like the May Revolution liberals, the 1837 Generation is defined by a shared consensus among its members around the need for a democratic, modern republic based on enlightenment principles. However, its membership represented a variety of ideological tendencies vying to shape Argentina in the post-Rosas era. Though the 1837 Generation included a number of important political figures, Juan Bautista Alberdi, Esteban Echeverría, Bartolome Mitre, and Domingo F. Sarmiento emerged as the four key intellectual and political leaders of the group.[63] The political contrasts among the movement would come to the fore in the uncertainty that followed the fall of Rosas. The political rupture at this juncture is best represented by two poles. At one end is Sarmiento, an uncompromising ideologue committed to his dream of civilization prevailing over barbarism through mass education. At the other is Alberdi, a self-styled practical thinker not entirely unsympathetic to the political and economic demands of caudillo elites in his analysis of Argentina after Rosas.[64]

4.3 The Educational Moment in Argentina: From the Fall of Rosas to the Orden Conservador, 1852 - 1884

One important element of the main argument is the role of political uncertainty in generating the *permissive conditions* in which a political entrepreneur is more likely to succeed in mobilizing state elites to support a state-centered education system. With the collapse of the Rosas regime, there was no guarantee that the anti-Rosas coalition would find common cause in how they pursued the development of the Argentine Republic. What are the sources of continued political disorder and instability following end of the Rosas dictatorship? How did this uncertainty help generate a wave of political entrepreneurship and conflict over the ideological and institutional character of the Argentine state after 1852? What did educational entrepreneurship and ideas look like in the post-Rosas period, and what were the consequences in terms of educational progress as new political and social cleavages emerged?

62. Shumway, *The Invention of Argentina*.

63. Katra, *The Argentine Generation of 1837*.

64. Shumway, *The Invention of Argentina*, 132-133.

The Generation of 1837, having witnessed the severe political instability which gave rise to Rosas and persisted during his regime during their formative years, was disillusioned with democracy as a means to create a modern republic.[65] Though Generation '37 developed from the cultural and educational legacy of the Rivadavian Epoch, and largely shared common intellectual foundations, the Rosas years revealed fissures in their plank for the post-Rosas moment. The question of what institutions mattered most to consolidating the provinces into a unified republic, and how such institutions would be structured remained unresolved. Rosas' defeat largely left the political, economic, and social structures that preceded intact.[66] Whether educational development would be used to dismantle or accommodate those structures occupied the writings of Generation '37, but none more than Sarmiento.[67]

Sarmiento stood at the intellectual center of the educational ideas that would shape Argentina after Rosas. Other members of Generation '37 whose ideas about Argentine education would inevitably weigh in, often in opposition to Sarmiento's agenda. The older Alberdi, a close associate of Echeverría, emerged as Sarmiento's main intellectual and political rival in this arena. In particular, Alberdi's vision of a bottom-up liberal education stood in contrast to Sarmiento's hopes of an education system modeled on public school systems he admired from France, Prussia, and the northeastern United States.[68] Like Sarmiento, Alberdi was critical of Rivadavian liberalism's failure to adequately understand the limits of republicanism and democratic means for civilizing what they saw as a violent and backward society.[69] Sarmiento and Alberdi differed in the latter's sympathies for the populist features of federalism. While Sarmiento never wavered from his dualist "civilization-barbarism" theory of world, Alberdi was more tolerant of federalist caudillos due in no small part to their

65. Katra, *The Argentine Generation of 1837*.

66. Bethell, *Argentina Since Independence*, 38.

67. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions."

68. Bravo, "Domingo Faustino Sarmiento"; Krumtum, "Domingo Faustino Sarmiento, the Horace Mann of Argentina"; Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina."

69. Shumway, *The Invention of Argentina*. Notably, Alberdi, Sarmiento, and the rest of the 1837 Generation held similarly racist views against the Amerindians, pardos, and mestizos of the interior and a future need for an aggressive European immigration policy to develop the country Katra, *The Argentine Generation of 1837*, 141.

support among the rural masses..[70] Instead, Alberdi saw caudillismo as simply "badly organized democracy" and viewed liberal violence against caudillos as "wars of extermination against the nature of our pastoral classes and their natural representatives."[71]

By 1852, the intellectual affinities of Generation '37 gave way to factionalism and infighting. After Rosas' defeat Alberdi and Echeverría took a more moderate approach to negotiating with the federalists than the more radical position taken by Sarmiento and Mitre. The provinces remained under the control of a network of landed oligarchs and caudillos while civil society, particularly in the rural interior, languished as a consequence of Rosas' deliberate neglect of any social development. As a result of his victory, General Urquiza was designated the Provisional Director of the Argentine Confederation. Meanwhile, Buenos Aires remained a politically and economically dominant relative to the rest of the provinces. Mitre, as Governor of Buenos Aires, refused to allow the province to be incorporated into a confederation still governed by caudillo oligarchs.[72]

Likewise, Sarmiento decided to resume his exile in Chile rather than support Urquiza's government. Despite fighting alongside Urquiza's forces, Sarmiento did not view an Argentine Confederation in which Urquiza was president as compatible with his ideas for national organization.[73] In 1853 Urquiza was formally elected president of the Confederation for a six-year term. However, the provinces did not yet resemble a nation-state in any form. Even among elites there existed no coherent sense of national identity. Much as Rosas before him, Urquiza presided over a Confederation that consisted of a loyal network of caudillo provincial governors.[74]

In May 1853, the Confederation and its constituent provinces formally adopted a new constitution that was largely the product of Alberdi and his intellectual vision for reconcil-

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70. Katra, *The Argentine Generation of 1837*.

71. Shumway, *The Invention of Argentina*, 183.

72. Bethell, *Argentina Since Independence*, 38.

73. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 22.

74. Bethell, *Argentina Since Independence*, 39.

ing the "two Argentinas".[75] The new constitution offered a federal republic that balanced centralized authority and provincial rights, along with promoting modernization through immigration, education, and economic rights. Reflecting the general consensus among the elites favoring education, Article 5 of the National Constitution of 1853 conferred a right (not a guarantee) to education in which elementary schooling would be the responsibility of provincial governments, and established a national Ministry of Worship and Public Instruction.[76]

However, Buenos Aires would continue as a breakaway province.[77] The 1853 constitution reflected the influence of U.S. federalism on Latin American constitutional design, albeit with an outsized role of the executive that would characterize the strong presidentialism of the region.[78] The new constitution:

> divided power between the executive, the legislative and the judiciary. The legislature consisted of two houses, a senate to which each provincial legislature elected two members, and a chamber of deputies elected by male suffrage in public voting. While assuring local self-government to the provinces, the constitution gave countervailing authority to the federal government. The president, who was chosen by an electoral college for six years, was given strong executive powers; he could introduce his own bills, appoint and dismiss his ministers without reference to congress. The president was also empowered to intervene in any province in order to preserve republican government against internal disorder or foreign attack; to this effect he could remove local administrations and impose federal

75. Adelman, "Between Order and Liberty."

76. The constitution was vague as a guarantor of elementary education, giving considerable leeway to provincial governments in its interpretation until the passage of National Law 1420 of Common Education in 1884. Article 5 states that: "Each Province shall adopt for itself a constitution under the republican, representative system, in accordance with the principles, declarations, and guarantees of the National Constitution, ensuring its administration of justice, municipal government, and elementary education. Under these conditions, the Federal Government guarantees to each Province the enjoyment and exercise of its institutions." See www.constituteproject.org/.

77. Bethell, *Argentina Since Independence*, 38.

78. Mainwaring, Shugart, and Lange, *Presidentialism and Democracy in Latin America*.

officials.[79]

Despite Alberdi's attempt to balance the interests of unitarism and federalism under the new constitution, Argentina was split between two states: Buenos Aires, and the Argentine Confederation consisting of the remaining provinces. The Confederation would maintain a capital in Entre Ríos Province in the city of Paraná while Buenos Aires, too powerful to be forced into accepting a constitution that was a "facade for caudillsmo" maintained its namesake city as the seat of Mitre's government.[80] Alberdi's moderation is readily apparent in his views on education. In his foundational text, *Bases y puntos de partida para la organización política de la República Argentina* (Bases and starting points for the political organization of the Argentine republic), published on May 1, 1852, Alberdi outlines not just his constitutional vision, but his materialist and conservative educational philosophy.[81]

The inconsistency of his educational ideas is clear. Alberdi argued all at once that moral values and habits of a republican citizen were best learned in the work-place and that the family and church should continue to provide a religious education; and that state-sponsored schools should not impose religious instruction.[82] Even as Alberdi advocated for free schooling, his priority was on vocational education to train workers for "commerce, industry, and agriculture."[83] Alberdi argued:

> Our young people must be educated in the industrial life, and, for this, instructed in the arts and sciences that are auxiliary to industry. Our South American man must be the type formed to conquer the great and oppressing enemy of our progress: the desert, material backwardness, and the brutal and primitive nature of our continent.[84]

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79. Bethell, *Argentina Since Independence*, 38.
80. Ibid., 39.
81. Katra, *The Argentine Generation of 1837*.
82. Ibid., 162.
83. Dougherty, "Juan Bautista Alberdi," 495.
84. Alberdi, *Obras completas de J. B. Alberdi.*, 418-419.

Alberdi's emphasis on material advancement and tertiary schooling as the underlying basis of an educated and civilized polity stands in contrast to Sarmiento's ideas. Sarmiento saw European immigration as a means to expand the proportion of the population more likely to be receptive to public education than the existing rural masses. Alternatively, Alberdi saw European immigrants, particularly 'Anglo-Saxons', as performing an educational role by demonstrating "habits of industry" to the Argentine working classes.[85] Alberdi's contradictory ideas were evident in his assumption that the working classes must be trained to be citizens, yet promoted an education system that inculcated habits of economic productivity rather than civic identity.[86]

> The lawyers do not serve us by building railroads, in making navigable and navigating rivers, in developing mines, in working the land, in colonizing the deserts; that is to say, they do not serve us by giving South America what it needs [. . .] It is an unhappy error to believe that primary or university instruction are what can give our people the aptitude for material progress and the practice of liberty.[87]

While Sarmiento expressed admiration for *Bases*, Sarmiento viewed Alberdi's ideas on education as a direct challenge to his own ideas of universal education. To Sarmiento, Alberdi's educational writings were tantamount to a complete (and public) refutation of his political raison d'être. Thus, a relationship of mutual admiration based on shared liberal and republican ideals escalated into hostilities that erupted into harsh and personal polemic in the press as a result of their educational disagreements.[88][89]

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85. Dougherty, "Juan Bautista Alberdi," 496.

86. Ibid., 500.

87. Alberdi, *Obras completas de J. B. Alberdi.*, 529.

88. Katra, *The Argentine Generation of 1837*, 168-169.

89. Sarmiento's public responses to Alberdi's attacks in the press include calling Alberdi, who he viewed as capitulating to the caudillo class, a "traitor to the educated class of South America [. . .] who prostituted his intelligence and personal dignity on behalf of practical business deals. ibid., 173

During Sarmiento's self-exile in Chile, he continued to develop his educational philosophy and advocate for his program as a journalist. In 1852 Sarmiento founded the *El Monitor de las escuelas*, The School Monitor, the first journal of education in South America.[90] His friend Manuel Montt, now president of Chile, also appointed Sarmiento director of primary education in the country. Sarmiento took advantage of his position to distribute his educational views in the region by printing his journal and writings for wide circulation.[91] Unable to overcome political opposition to expanding public primary education in Chile, Sarmiento and Montt ultimately failed to establish a system of popular education.[92] While Sarmiento's efforts led to educational improvements in Chile (see Chapter X), he felt that his educational work in Santiago was at an impasse.

Meanwhile, the autonomous government of Buenos Aires moved aggressively to restore the educational improvements of the Rivadavian period. One of the first acts of the government nullified all of Rosas' decrees on public education, reinstated education in the government budget, and restored the principle of free education. On April 5, 1852, the government decreed the establishment of the Buenos Aires education system and a Ministry of Public Instruction with the authority to inspect all schools and educational institutions.[93] As Minister of Public Instruction, Sarmiento's friend Vicente Fidel Lopez founded a normal school and reorganized the University of Buenos Aires to resume its original mission as an autonomous and secular public institution.[94] However, establishing a coherent educational system soon proved difficult.

In May 1852, the government reinstated the Beneficent Society. Under Rivadavia, the society was charged with directing women's education and given institutional independence. In October, a decree gave the University of Buenos Aires Department of Primary Letters

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90. Bravo, "Domingo Faustino Sarmiento."

91. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 22.

92. Ibid.

93. Ibid., 116.

94. Ibid.

control over all schools for boys. Further complicating the jurisdictional scope of the government over education was the creation of the Commission of Education by the municipal government of the city of Buenos Aires in 1854.[95] In addition, numerous private schools operated according to their own rules and regulations outside the control of public bodies while the Catholic Church angled for influence with schools resistant secularization.[96] Taken together, efforts to redevelop education in Buenos Aires instead spurred a complex educational system rife with jurisdictional uncertainty.

4.3.1 Sarmiento and Education Reform in Buenos Aires Province

Sarmiento finally returned to Buenos Aires in 1855 where he took up a position as managing editor of the leading newspaper, *El Nacional*, and in 1856 accepted an appointment as Director of the Department of Schools of the State of Buenos Aires. Sarmiento used his position to promote the expansion of railroads in the province, which he considered a major driver of social and economic progress in the United States.[97] A centralist at heart, Sarmiento refrained from taking a clear position on the question of federalism upon his return. Instead, he advocated for the incorporation of Buenos Aires into an Argentine federation in order to overcome the social and political urban-rural divide.[98] Sarmiento nevertheless focused, above all else, on his educational mission.

The government of Buenos Aires organized the Council of Public Instruction in February 1855 to direct primary and university teaching, which failed to exert any authority over the Beneficent Society or municipal schools. At Sarmiento's direction, education reform began in earnest in Buenos Aires province in 1856 with the hopes of establishing a unified school authority under the state's Department of Schools.[99] In typical fashion, Sarmiento used

95. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 116-117.

96. Peard, "Enchanted Edens and Nation-Making," 462.

97. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 22.

98. Ibid., 23.

99. Ibid., 118.

his dual-position as influential writer and journalist and Schools Director to push for his educational program.[100] On July 30, 1855, Governor Mitre recognized an urgent need for up-to-date population statistics for the province and ordered the first population census since Rosas took power.[101]

In 1858 Sarmiento was the founding editor of the *Anales de la educación común* continuing his strategic use of the press as a means to spread his ideas.[102] In each issue, *Anales* featured Sarmiento's "statistics, excerpts from [Sarmiento's] messages and memoranda, translated articles and legislative projects."[103] Sarmiento did not hide the fact that the new publication was founded to expand his campaign for mass education. He understood the importance of rallying public sentiment to his ideas:

> The special object of publication is to keep the public up to date on the efforts that are being made to introduce, organize, and generalize a vast system of education. Reforms of such radical nature and of such beneficial consequences are not initiated in the schools but in public opinion. It is not the teacher but the legislator who produces them, and the law will be a dead letter if the father of the family does not lend for its execution the heat of his sympathies.[104]

Against the vigorous opposition of the Beneficent Society, Sarmiento worked relentlessly to bend the state's educational authority toward his vision of free, primary education open to both boys and girls. Sarmiento considered the Society a holdout of entrenched aristocracy and found it to be a poor quality institution of women's education.[105] Given its jurisdictional overlap with the Schools Department, Sarmiento further resented the Society's quasi-veto power over the establishment of new primary schools. As a state senator in 1857, he sponsored

100. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 130.

101. Provincia, *Registro oficial (de la provincia de Buenos Aires).*, 90-91.

102. Bravo, "Domingo Faustino Sarmiento."

103. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 119.

104. Ibid.

105. Ibid., 121.

three legislative acts to fund the creation of new schools. The first, which would have allocated proceeds from municipal property sales to new schools, passed while proposals to use fines and a variety of taxes, including on the Provincial Bank to create new schools and to support a teacher retirement pension failed. Nevertheless, he remained optimistic that he could now begin to build a modern school system in Buenos Aires.[106]

In 1859 Sarmiento met a crucial intellectual and political ally in Juana Manso (1819-1875). Manso, an educator, writer, and feminist activist, was an admirer of Sarmiento's thinking on the need for a public, secular, and co-educational primary education system.[107] To Manso and Sarmiento, primary education was foundational to nation-making in three ways. First, both believed that mass education was important for incorporating the lower classes, and especially the rural population, into the polity. Through education, the masses would be inoculated against the manipulations of demagogues and the elite, thus becoming a bulwark against tyranny. Second, women should be educated on equal footing with men as they are responsible for raising children as future citizens of a republic. This would entail eliminating gendered distinctions in class subjects that would waste school resources to teach domestic skills that women can gain in the home.[108] Finally, Sarmiento and Manso, borrowing much of their educational philosophy from Horace Mann in the U.S., believed publicly-funded, common schools were the basis for national prosperity.[109] By learning self-restraint and social discipline in schools, workers would naturally be more productive across sectors.[110]

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106. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 119-120.

107. Peard, "Enchanted Edens and Nation-Making"; Southwell, "Juana P. Manso (1819–1875)." Manso and Sarmiento departed, however, on the latter's racist ideas of the 'backwardness' of the interior stemming from the rural population's mestizo and Amerindian ancestry and his justifications for violent military campaigns against the Indian population. Rather, the more radical Manso believed that the 'cultural backwardness' of the rural population could be attributed not to some immutable difference rooted in biology, but due to a lack of "hygiene, exercise, good laws, and especially education." Peard, "Enchanted Edens and Nation-Making," 459

108. Ibid., 458-459.

109. Ibid., 460-461.

110. This last point is a clear rebuke of Alberdi's theory that only through work and industry alongside new European immigrants, not through public primary education, would the Argentine masses be civi-

Sarmiento, as head of the Schools Department, enlisted Manso in his fight to break the hold of the Beneficent Society on educational planning in Buenos Aires. In 1859, Sarmiento appointed Manso the lead editor of the *Anales de la educación común* where her intellectual and feminist conviction could further amplify their co-educational mission.[111] Manso made *Anales* her own and used its platform to spread Sarmiento and her ideas. However, Manso took an even more uncompromising and radical position on a number of issues, such as the abolition of corporal punishment and whether the Catholic Church should have any influence on public education.[112] Manso took up Sarmiento's fight against the Beneficent Society, a political struggle that would define much of her career. Manso particularly took issue with the Beneficent Society's dominance of public schools funding at 66 percent of the public elementary school budget in 1854.[113]

All the while, Buenos Aires and the Argentine Confederation were on the precipice of another civil war. The political rift between Buenos Aires and the Argentine Confederation widened during this period. At the heart of this conflict was the continued dominance of Buenos Aires in outcompeting the Confederation for European trade and investment. Urquiza personally led efforts to establish an import-export center in Rosario up the Paraná River, but the extra five-day journey upriver was no match for the shipping access granted by the Port of Buenos Aires. Moreover, the Confederation's attempt to lure European dollars away from Buenos Aires through favorable differential tariffs failed.[114] Eventually, economic rivalry between Buenos Aires and the Argentine Confederation led to military conflict between the forces of Mitre and Urquiza. In 1859, Urquiza defeated Mitre's army at the Battle of Cepeda, forcing Buenos Aires into the Argentine Confederation.[115]

Eventually, Sarmiento established coeducational normal schools to train women as pri-

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lized.Dougherty, "Juan Bautista Alberdi"

111. Peard, "Enchanted Edens and Nation-Making," 458.

112. Ibid., 463.

113. Ibid., 466.

114. Bethell, *Argentina Since Independence*, 39.

115. Ibid., 40.

mary school teachers and began opening new schools in the province. In April 1859, Sarmiento wrote to the president of the Beneficent Society invoking executive authority to open a co-educational public primary school in the Monserrat District that would be directed by Juana Manso. As a testament to Sarmiento and Manso's work, in July 1860 Sarmiento inaugurated the *Colegio Modelo de Catedral al Sud* that resulted from his 1857 law of school construction as a state senator. The school was staffed with highly-trained teachers, many from North America, with all new textbooks and equipment.[116] Between 1856 and 1861, Sarmiento significantly expanded education in the province founding thirty-six new primary schools in Buenos Aires.[117] He also innovated in the area of curriculum by instituting new grammar textbooks and recruiting pedagogical professionals to implement curricular changes.[118] With the support of Juana Manso, Sarmiento's tenure as Schools Director for Buenos Aires set the province on the path to having one of the best, most modern public education systems in Latin America.

Even as Buenos Aires was forcefully brought under the authority of the Argentine Confederation, it nevertheless remained a powerful economic and political hegemon in the region. In 1861, Mitre launched an offensive against the Confederation, fighting Urquiza's forces to the brink of defeat at the Battle of Pavón. Now negotiating from a position of strength, Mitre convinced Urquiza to dismantle the Confederation in favor of a settlement of "national organization." The compromise bridged the political demands of liberal unitarism and conservative federalism, with Mitre accepting the constitution of 1853. For nearly a year, Mitre's de jure authority as Governor of Buenos Aires, much like Rosas before him, allowed him to exercise de facto executive authority over the Argentine state.[119] But in October 1862 Mitre was elected first President of the Republic of Argentina, now unified as a federation in which

116. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 122.

117. Criscenti, *Sarmiento and His Argentina*, 81.

118. Szuchman, "Childhood Education and Politics in Nineteenth-Century Argentina," 130.

119. Rennie, *The Argentine republic*, 110.

the city of Buenos Aires becomes the seat of a national government.[120]

Table 4.1: Timeline of Key Events Before and After 1st Critical Juncture, 1845 - 1861

Year	Major Events
1845	*Facundo* by D.F. Sarmiento is published
	Divides centralist porteños and federalist caudillos as "civilization or barbarism"
1849	*Educación Popular* by D.F. Sarmiento is published
1852	Rosas defeated by Urquiza; Argentine Confederation established
	Mitre reinstitutes education policies of Rivadavia in Buenos Aires
1853	Constitutional convention accepts Alberdi's proposal for the Argentine Constitution
	First Argentine Constitution adopted by Argentine Confederation
	Buenos Aires province remains independent of Confederation under Mitre
	First frInternational Statistical Congress (ISC) organized by Adolph Quetelet meets in London
1855	Mitre establishes Buenos Aires Council of Public Instruction
	Sarmiento is named director of newspaper *El Nacional*
	Sarmiento publishes *Public Education in the State of Buenos Aires*
	Sarmiento sends copy to Mitre
1856	Sarmiento appointed Director of Buenos Aires Department of Schools
	Sarmiento pushes for unified central authority over education
1857	Sarmiento succeeds in passage of his Law of School Construction as senator
	New Buenos Aires schools to be built through revenue from property taxes
1858	Sarmiento is founding editor of *Annals of Common Education*
	Sarmiento launches public campaign for his educational ideas in Annals
1859	Sarmiento meets ideological ally and educator Juana Manso
	Sarmiento and Manso open normal school and unify education under Schools Department
	Urquiza defeats Mitre's army and forces Buenos Aires province into Confederation
1860	Mitre appoints Sarmiento Minister of War and Foreign Relations of Buenos Aires province
1861	Mitre defeats Urquiza in offensive and reaches settlement of National Organization
	Mitre adopts 1853 Constitution in negotiations
	Mitre as Governor of Buenos Aires is de facto executive authority of Confederation

4.3.2 Education Reform in the Interior

The unification of the Argentine Republic and election of Mitre as president in 1862 marked a turning point in the process of national organization. At last, the porteño unitarians were in power with Mitre claiming for him and the Liberal Party a "victor's right [to] power."[121]

120. Bethell, *Argentina Since Independence*, 40.

121. Rennie, *The Argentine republic*, 110.

Nevertheless, a dispute dating back to the Rivadavia period over the proposed *capitalization* of the Buenos Aires Province as the seat of government created a split among the loosely-organized Liberals. Mitre and his centralist allies became the Nacionalistas with the Autonomista party forming under the leadership of Adolfo Alsina. While all sides agreed that Buenos Aires should be the capital of the republic, the Nacionalistas favored the dissolution of the provincial legislature to avoid conflicting jurisdictions within the federal capital. Meanwhile, much of the north remained in anarchy and the newly empowered porteño elite fell under a violent reactionary fervor of "war to the death" against caudillo guerrillas in the interior, most exemplified by the gaucho warlord Angel Vicente Peñaloza, or "El Chacho."[122]

Despite the Liberal split and insurgent violence in opposition to the new unitarian governments in the provinces, the uncertainty was also accompanied by the political space for the establishment of a national education system. In particular, the work of Sarmiento and Juana Manso in Buenos Aires during the post-Rosas years laid the intellectual and policy foundations for a public primary education system at the national level. They also promoted a state-building agenda that they saw as fundamental to their program of education and civilization. Manso, like Sarmiento, praised the expansion of rail and steamboats in South America as a 'silent revolution' and saw a link between technological progress and mass education asking "Of what use are railroads [. . .] if, as well as developing trade and industry, they do not also led to the dissemination of ideas and the interchange of intellectual advances."[123] By the time, Mitre assumed the presidency, much of the progress yet to spread across the Argentine state had been realized in Buenos Aires.

For Sarmiento, the task ahead was to extend the state and nation-building project to the interior. Seeing an opportunity to bring his 'civilizing' project to the rural periphery, Sarmiento successfully ran for and won the governorship of his home province of San Juan in 1863. With Mitre's presidency and the creation of a federated Argentina, Sarmiento's vision for a unified and modern Argentine nation-state finally seemed within reach. As Governor of

122. Rennie, *The Argentine republic*, 111.

123. Peard, "Enchanted Edens and Nation-Making," 462.

San Juan, Sarmiento would be able to experiment with advancing his educational ideas in the periphery beyond the urban and cosmopolitan confines of Buenos Aires. At the same time, Sarmiento would continue to wage his existential war against the vestiges of caudillismo, being tasked by Mitre to put down El Chacho's guerrilla movement. To porteños, El Chacho represented a new incarnation of Facundo as well as an opportunity to put into action the lessons of Sarmiento's call for "civilization over barbarism."[124] Sarmiento in particular wrote at length about his disdain for El Chacho's illiteracy, poor etiquette, and use of slang, thus ascribing symbolic significance to the insurgent as a figure of backwardness that must be exterminated for the Argentine Republic to prosper.[125] Sarmiento's zealous polemics in favor of mass education and public disdain for gaucho culture represented two sides of the same coin in his vision of a top-down civilizational program to construct the Argentine nation.

While he prioritized establishing a model public primary education system that could be scaled up nationally, Sarmiento also understood the need for modern infrastructure as a means of 'civilizing' the interior. Sarmiento embarked on a modernizing agenda in the province that saw the creation of not just schools, but also state-building projects. During his short tenure as governor, his administration established "hospitals, and sanitariums, built roads, planned cities; he organized the administration of justice in the province; he brought about a new election law to prevent fraud and produce a more democratic system".[126]

As governor of San Juan, Sarmiento prioritized his home province to advocate for public primary education.[127] In a speech on July 10, 1862, Sarmiento identifies himself as an educator above all else, invoking his childhood in the province as the reason he departs from his elite contemporaries in his vision for popular education:

> The inspiration to consecrate myself to the education of the people came to me here in my youth. My labor of thirty years, that of serving the countries where I

124. Rennie, *The Argentine republic*, 111.

125. Ibid., 111-112.

126. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 24.

127. Krumtum, "Domingo Faustino Sarmiento, the Horace Mann of Argentina," 35.

> resided with schools, turns now to Its point of departure, to the very simple idea of the importance of primary school education over all other education, to insure the happiness of nations. If I had been born in Buenos Aires, or Córdoba, or in Santiago de Chile, I should have been preoccupied with the brilliant university, and should have aspired to its honors. But I was born and educated amidst the people of a province where there was no other education than that of the public school, and the 'Escuela de la Patria' was one of the first order, without a rival in any private one, conducted by a man so respected by the people and the government, that at that time the school-master was looked upon as one of the first magistrates of the province.[128]

Indeed, Sarmiento quickly moved to build a compulsory and public primary school system throughout San Juan Province in 1863. In April 1862 the provincial legislature granted Sarmiento unilateral authority to completely codify and restructure education in San Juan. His reforms included a radical increase in the provinces's fiscal commitment to public education by allocating revenue from fines and court fees and mandating all departments (e.g., sub-province) in the province to pay for the maintenance of one or more public primary schools for each district (e.g., municipalities). Finally, on November 12, 1863 Sarmiento decreed that primary education would be obligatory in San Juan. Parents who did not oblige would be reported to the Justice of the Peace, who would then deploy police if they did not comply with the new law. Moreover, Sarmiento instituted numerous state-building projects including an office of statistics, roads, school construction, and public health facilities in support of his "program of civilization."[129] His rapid education reforms were viewed with hostility by religious authorities and locals, particularly when he built a public normal school on the site of a convent. Similarly, his hopes for a landmark set of agricultural reforms in particular proved financially and politically unsustainable. Despite the failure of his pro-

128. Sarmiento, *Obras de D. F. Sarmiento, Vol. 21*, 148.

129. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 123-124.

gram for agriculture modernization, Sarmiento succeed in establishing Argentina's first state education system outside of Buenos Aires province.[130]

Sarmiento was also tasked with projecting the will of Buenos Aires in the north. In 1863, El Chacho launched a rebellion from the neighboring province of La Rioja. Mitre called on Sarmiento to lead a military campaign "to the death" against El Chacho and his rebels.[131] Sarmiento enthusiastically accepted given his disdain for what he saw as the barbarism of gaucho culture. El Chacho, for his part, incorrectly assumed Urquiza, the "caudillo of Entre Ríos," would back his movement in the struggle against Mitre and Sarmiento. Instead, Uquiza put his support for national unification first, despite his preference for confederation, and ultimately backed Mitre's government.[132] It was through the campaign against El Chacho in which the political affinities between Sarmiento and Mitre would break down. Sarmiento's campaign was particularly brutal and resulted in El Chacho's head being displayed on a pole and the extrajudicial execution of all rebel prisoners prompting a national scandal.[133] Politically isolated and embattled, Sarmiento resigned the governorship in April 1864.[134]

Mitre re-assigned Sarmiento to diplomatic duties that would take him back to Chile and eventually the United States. It was during his diplomatic travels in the U.S. where he would befriend Horace Mann's widow, Mary Mann, and further develop his ideas on public education.[135] Even from abroad, Sarmiento continued to promote education as a necessity for Argentine development. In 1866 Sarmiento published *Las Escuelas, base de la prosperidad y la republic en los Estados Unidos* (Schools, the basis of prosperity in the republic of the United States), a sweeping study of the U.S. education system as the foundation of stable, republican government. Sarmiento viewed himself as the "Argentine Horace Mann" and

130. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 126.

131. Bethell, *Argentina Since Independence*, 41.

132. Rennie, *The Argentine republic*, 112-113.

133. Bethell, *Argentina Since Independence*, 41.

134. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 127.

135. Ibid., 130.

subscribed to Mann's educational philosophies, which he saw as similar to his own. Mary Mann also helped Sarmiento establish a network of U.S. teachers he hoped to recruit to work in Argentina[136] However, while Sarmiento saw Mann's ideas of the common school as a refined version of his own educational philosophy, he was decidedly more eager to wield the power of the state to implement public education.

Out of favor with the Mitre government, and isolated from domestic politics in his diplomatic role, Sarmiento's educational agenda stalled. In 1865, Juana Manso was forced to resign her post as headmistress of an experimental, co-educational public primary school in the Monserrat District of Buenos Aires.[137] Manso served as director of the model "Primary School I" since her appointment by Sarmiento in April 1859, which marked one of their first victories over the Beneficent Society.[138] However, after years of advocating for progressive reforms in the mode of educational thinkers, such as Johann Pestalozzi and Friedrich Froebel, Manso came up against the authoritarian and centralizing traditions of Argentine conservativism that characterized even the liberal disposition of Buenos Aires. Manso's promotion of free play and self-directed, co-educational learning for young children proved too much a threat to the patriarchal social order.[139] While her longtime ally Sarmiento abandoned their national education project for his governorship and diplomatic travels between 1862 and 1868, Manso's efforts kept them alive in the meantime.[140] The Mitre government continued to develop new capacities for the Argentine state. In 1864, the government established the first Office of National Statistics under the purview of the Ministry of Finance, despite arguments that the current system of provincial and local authorities charged with collecting data for the national government was sufficient.[141]

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136. Criscenti, *Sarmiento and His Argentina*, 80-82.

137. Southwell, "Juana P. Manso (1819–1875)."

138. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 122.

139. Szuchman, *Order, Family, and Community in Buenos Aires, 1810-1860*, 178.

140. Peard, "Enchanted Edens and Nation-Making," 463.

141. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900," 101.

President Mitre returned to Buenos Aires in 1868 to a situation of great uncertainty for the successful transfer of power. Now approaching the end of his term and in the midst of a war against Paraguay (e.g., War of Triple Alliance), Mitre hoped to handpick his successor after the unexpected death of his vice-president, Marcos Paz. However, his options were limited to two hardline centralist allies that risked provoking elites in the interior still clinging to their federalist sympathies. With Sarmiento's controversial administration as Governor of San Juan in the rearview, the now-ambassador to the United States found himself an unexpected frontrunner when one of Mitre's two choices for his successor, Autonomista leader Adolfo Alsina, withdrew from the consideration in support of a Sarmiento presidency on the condition of serving as vice-president. As a figure from the interior palatable to both the porteño and more liberal-minded provincial elites from the interior, Sarmiento handily won the presidency on August 16, 1868.[142] Sarmiento did not return to Buenos Aires until after his election, being informed of his victory by a twenty-one gun salute from an American warship docked in the Port of Buenos Aires as his return ship from the U.S. approached the harbor.[143]

Without the work of Manso during his time away, the "national drive" for public education would have completely languished.[144] Still, Sarmiento and Manso's vision remained incomplete as he assumed the presidency of the Argentine Republic. It remained to be seen whether Sarmiento would dedicate his administration to his educational mission, but his priorities were made clear immediately upon setting foot in the Port, much to the dismay of his more aristocratic contemporaries.

> Sarmiento [. . .] is regarded with disdain by the courtly sectors, for whom he only brings "schools, nothing but schools", from the United States, where he has been a minister for three years. He responds with vigor, in front of the schoolchildren who have come to welcome him to the port and visit him later, in his home:

142. Shumway, *The Invention of Argentina*, 251.
143. Rennie, *The Argentine republic*, 115.
144. Peard, "Enchanted Edens and Nation-Making," 463.

> "It is necessary to educate the people in true democracy, to teach everyone the same, so that everyone is equal." And he asks himself: "Why do doctors leave the University who know nothing about schools, the people, or democracy?"[145]

4.3.3 Sarmiento's Presidency

During state formation, education centralization is more likely when the state accumulates information capacity, primarily through the introduction of the national census, *and* where a political entrepreneur with a coherent educational ideology can mobilize other elites to support a state-centered education system to inculcate dominant values and instill political order. The accelerated period of national organization and bureaucratic development ushered in by Mitre's government paved the way for Sarmiento to build on the educational progress he helped oversee in Buenos Aires and San Juan provinces. However, there was still much work to be done in terms of infrastructural and technological development throughout the territory. In particular, Mitre's Office of National Statistics had yet to conduct an official enumeration of the territory and population in its five years of existence.

In his first annual address to Congress in May 1869, Sarmiento promised to deliver on his civilizing mission noting that his party's symbol of "a school, a telegraph, and a railway" would serve as "agents of pacification and order that are much surer than cannon and penitentiaries."[146] In keeping with his zeal for modernizing the republic, Sarmiento's first act as President was to order the first Argentine National Census of 1869. The Office of National Statistics, established five years earlier, organized the Census and established advanced technical criteria consistent with international standards earlier than many other Western governments. Latin American political elites in Argentina, Chile, and Venezuela looked to the conventions established at the first meeting of the International Statistical Congress in 1853 as a template for how modern nation-states should conduct census-taking.[147] For instance,

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145. Sarmiento, *Obras de D. F. Sarmiento, Vol. 21*, 246.

146. Wright, *British-owned railways in Argentina*, 39.

147. Loveman, "Census Taking and Nation Making in Nineteenth-Century Latin America," 331.

the consideration of individual-level rather than household data was a major innovation over colonial-era census practices that persisted in the region.[148] Sarmiento in particular was keenly aware of the constitutive and state capacity-enhancing power of censuses.

Above all, Sarmiento wanted to know *what* he was governing—the population total, the population's geographic distribution, their housing conditions, and, of course, whether they could read or write. In an April 1870 letter to the Venezuelan Minister of Foreign Relations, Sarmiento indicated his belief in the census as an important mechanism for establishing public education, inspired by his time in the U.S.: "The remedy [for education] can be sought by two ways, and I will point them out so as not to leave this examination of causes and effects incomplete. That of the United States, the most fertile of all and the most simple is known. It consists of counting by the census the number of children, calculating the cost of each one's education, and imposing a special contribution to cover the expense."[149] The Argentine Census of 1869, the first of its kind, revealed the enormity of the task ahead for Sarmiento's presidency. In keeping with Sarmiento's strong views on racial difference and Argentine national identity, however contradictory to his informational goals, the Census notably omitted Amerindians and Afro-Argentines as census categories. These omissions were justified by exaggerated and aspirational claims of the 'inevitable' disappearance of non-whites due to their small size relative to a supposedly homogenous Euro-Argentine population.[150]

The 1869 Census clarified the previously unquantified lack of social development. In particular, the geographic inequality between Buenos Aires and the periphery could not be overstated. The myriad demographic and developmental challenges threatened to derail Sarmiento's hopes of finally implementing his ideas for nation-building now that he held the presidency. Of the 1.8 million people living in the country, only one-fifth lived in permanent housing (i.e. adobe or brick structures) and these households were almost exclusively con-

148. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900," 101.

149. Sarmiento, *Obras de D. F. Sarmiento, Vol. 47*, 19.

150. Loveman, "Census Taking and Nation Making in Nineteenth-Century Latin America," 346.

centrated in Buenos Aires province. Most disconcerting for Sarmiento was that 78 percent of the population was illiterate, and much of the literate population resided in Buenos Aires province as well. In response Sarmiento lamented in typically polemical language that the "barbarity of the people advances at the same time that the learned oligarchy feels more proud that we have the honor of belonging [to the republic]."[151] More vexing was the discrepancy between the population reporting they could read (360,683) and those that could write (312,001), indicating a degree of uncertainty around the actual literacy rate.[152]

On the one hand, Sarmiento found himself uniquely positioned to use the strong executive authority to impose his program on a weak, underdeveloped periphery, on the one hand. On the other, the census results suggested that there were considerable barriers to his ambitious plans for nation-building. As the teacher-president saw it, there were two factors contributing to the uneven spread of popular education throughout the national territory. First, the construction and maintenance of schools in the provinces depended on the "good or bad will of rulers and legislators" relying on unstable public budgets to invest in education. To promote the "diffusion" of schooling in the interior, Sarmiento created a permanent fund for schools under National Law No. 8608 of September 25, 1871 that would regulate subsidies for primary education in the provinces.[153] Second, and most importantly, there were not enough teachers to meet the needs of a system of common education, and the state of teacher training was woefully inadequate outside of the handful of municipal normal schools he and Juana Manso helped found years earlier.

Sarmiento led an effort to establish a national network of normal schools to train teachers. On October 6, 1869, Congress passed a law granting the executive complete authority over the funding (and control) of normal schools.[154] He also introduced the white school uniforms that are worn by public elementary school students in the country to this day. Notably, Sarmiento

151. Homenaje a Sarmiento, *Discursos pronunciados por el presidente de la Nación, Dr. Raúl Ricardo Alfonsín y el Dr. Carlos Alconada Aramburú, presidente de la comisión nacional de homenaje en el centenario de la muerte de Domingo Faustino Sarmiento, 1888-11 de septiembre-1988*, 46.

152. Rennie, *The Argentine republic*, 116.

153. Barba, "La ley de educación común de Buenos Aires de 1875," 61.

154. Bailey, "Early history of the Argentine normal schools," 22.

used his executive authority to override political opposition to bringing in "foreign" teachers to oversee the growing provincial network of normal schools in 1870.[155] Sarmiento would go on to personally appoint many of the North American teachers he had come to know through his travels to establish state normal schools across the country. For Sarmiento, it was crucial that the new normal schools reflected his educational philosophies. By executive decree on June 13 of 1870, Sarmiento installed the first normal school with his philosophic base, setting forth the entire curriculum and organizational structure in seven articles.[156] The first normal school to be established was the flagship Normal School of Paraná in Entre Ríos, which was founded by American educator Goerge Albert Stearns at Sarmiento's direction.[157] As the former seat of Urquiza's Argentine Confederation until 1861, Paraná was chosen for symbolic reasons as the frontline in the battle of civilization over barbarism. The Normal School of Paraná would serve as the "nucleus" of Sarmiento's civilizing ideology: "Educating the sovereign—the synthesis of the *sarmientista* message—was the motto of the men of Paraná who, like Sarmiento, believed that in a country like ours, which aspired to democracy, popular education was indispensable since 'an ignorant people will always choose Rosas'."[158]

By this point, however, Urquiza himself had already rejected caudillismo and conceded to a unified Argentine nation.[159] Urquiza would be assassinated by the last remaining caudillo of political significance, Ricardo López Jórdan, who seized control of the governorship of Entre Ríos in a revolt in 1870. Sarmiento deployed the national army to put down López Jórdan and his allies. Sarmiento saw the campaign as an opportunity to demonstrate to the Argentine nation that the army had the authority to deploy wherever needed, declaring that "the national forces are at home wherever national laws are in force."[160] In 1871, the defeated caudillo fled to Brazil, thus signaling the collapse of the anti-porteño federalism

155. Criscenti, *Sarmiento and His Argentina*, 83.
156. Bailey, "Early history of the Argentine normal schools," 22.
157. Criscenti, *Sarmiento and His Argentina*, 83.
158. Solari, *Historia de la educación argentina*, 155.
159. Hentschke, "Argentina's Escuela Normal de Paraná and its disciples," 7.
160. Rennie, *The Argentine republic*, 118.

that sustained the ideological influence of *rosismo* since the early decades of the burgeoning republic.[161]

Sarmiento also oversaw the normal school curriculum, which adopted English and French textbooks of his choosing. By 1874, Spanish translations of foreign textbooks were available for Argentine students. By 1878, the Normal School of Paraná alone graduated 526 teachers and saw 18,281 students attend the accompanying public primary school.[162] The institution's success, echoed by the expansion of state normal schools in outlying provinces throughout the periphery, is further evidenced by the normal school's resilience against hostile social forces. In the face of the Catholic Church's antagonistic political opposition to the school's foreign influence and secularism, six American teachers quit by 1875 and Stearns himself suddenly resigned in 1876 threatening to close the school. However, Argentine teachers in Entre Ríos Province refused to let the school close even at the cost of reduced teacher salaries.[163]

The school also left a marked intellectual and ideological legacy on the consolidation of the Argentina national education system. Beginning with Stearns' tenure and continuing under the direction of his successor, Spanish immigrant José María Torres, the school bridged Sarmiento's pre-positivist liberal and nationalist pedagogy with a Comtean positivism that formalized the science of teaching from the 1880s. Rather than breaking from the model set forth by Sarmiento, the Normal School of Paraná, under Torres' direction, helped consolidate the state's teacher education by melding Sarmiento's educational ideas rooted in top-down liberal nationalism with modern theories of social control consistent with the rise of Argentine positivism among elites.[164] As Argentine education historian Manuel Solari observes:

> The Normal School of Paraná—a center that diffused, during the last century, all the pedagogical influences that have influenced [Argentine] education—was, during its first years, "a school in Boston transplanted in the solitudes of the

161. Rennie, *The Argentine republic*, 118.
162. Criscenti, *Sarmiento and His Argentina*, 83.
163. Hentschke, "Argentina's Escuela Normal de Paraná and its disciples," 8.
164. Ibid., 9.

> South America," because Americans were its directors, texts, programs, methods, furniture, etc. This influence made it possible for them to spread, and then replace the then existing, pedagogical principles that the essentially practical genius of the Americans had systematized and schematized and, in more than one aspect, mechanized. Later, with José María Torres, the establishment of Paraná achieved its definitive organization, becoming a model for all Argentine normal schools. At the same time, through the action of Torres and the professors who supported him, the pestalozzian [pedagogy], which had been introduced by the Americans, was combined with the republican and democratic sense that Sarmiento wanted for education. Its fusion formed in the national magisterium the awareness that the act of teaching was a powerful means to achieve the civilization of the country and its social transformation.[165]

Sarmiento also recruited astronomer, geographer, and mathematician Francisco Latzina to the Argentina National Observatory in Córdoba, which was part of the Argentine Academy of Sciences. Latzina would form a network of statisticians and scientists that extended from the interior to Buenos Aires and launch a number of cartographic and standardization projects during the long-period of national organization.[166] Latzina would become Director of the National Bureau for Statistics from 1880 to 1916, the successor agency of the Office of National Statistics. Latzina was a colleague of Adolph Quetelet and member of the International Statistical Congress. In addition to shaping modern Argentina through map-making and standardizing measurement in a range of fields and economic sectors, Latzina would also come to be known for advancing children as a population category in census-taking.[167] As Dussel notes, Sarmiento was instrumental in the hiring of "scientific cadres" of foreigners during his Presidency that formed the basis of scientific and national institutions

165. Solari, *Historia de la educación argentina*, 180.

166. Bollo, "Francisco Latzina (1843-1922), funcionario estadístico del Estado argentino (1880-1916)."

167. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900."

such as the first Military School in 1869.[168] Latzina in particular would turn out to be a major figure in national education statistics.

It is important to note that information capacity and a coherent educational ideology are more likely to influence educational development during periods of heightened political uncertainty around state-building priorities and internal disorder. There was no shortage of either during Sarmiento's tumultuous presidency in which he inherited the Paraguayan War, the last gasps of caudillo insurrection, and economic recession.

In 1874, embattled by a severe debt crisis bookending six years of rapid (and contentious) reforms, civil revolts, and the end of the Paraguayan War, Sarmiento's short but eventful presidency came to an end. Meanwhile, Sarmiento's former ally Mitre re-emerged as the preferred candidate of the landed and commercial debtor classes.[169] Nevertheless, Sarmiento achieved much of what he had long hoped to see transpire in the new Argentina, despite political and fiscal constraints that ultimately stymied his efforts to fully make good on his promise in 1869 to drastically expand railways. Though Sarmiento, like his intellectual rival Alberdi, long believed railways would unify and civilize the republic he was nevertheless attacked by Alberdi for a "lukewarm" approach to railway construction. Still, Sarmiento helped oversee the passage of an 1872 law authorizing the construction of five new lines linking the provincial capitals and funded the expansion of the Central Argentine rail line that connected Córdoba and Tucumán. Both achievements would prove consequential to the social, economic, and political integration of the interior and Buenos Aires once construction commenced after Sarmiento left office.[170]

Most significantly, Sarmiento laid the foundation for a national and public education system that would culminate in the passage of Law 1420 of Common Education a decade

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168. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900," 112.

169. Rock, *Argentina, 1516-1987*, 147-148. For example, between 1872 and 1873 the government took on 80 percent of the foreign debt increasing the deficit from 14 percent to 26 percent, thus driving down public spending as unemployment increased. See ibid., 148.

170. Wright, *British-owned railways in Argentina*, 39-40.

after the end of his term.[171] Even with a growing economic crisis, Sarmiento managed to quadruple the central government's educational subsidies to the provinces between 1868 and 1874.[172] In Buenos Aires alone, the number of public primary schools increased by more than 18 percent and the number of students enrolled increased by more than 25 percent between 1868 and 1872.[173] Meanwhile, the establishment of the first wave of public normal schools, including the National Normal School of Paraná in Entre Ríos and a normal school in Tucumán, further extended the reach of a state system of public instruction beyond the confines of Buenos Aires. In the decades following his presidency, Sarmiento's successors in office adhered to the educational roadmap of 1868 to 1874 with remarkable continuity. By 1888, Sarmiento's *norteamericanos* founded thirty-four normal schools throughout the country. Not only did the national government continue to recruit normal school founders and faculty from Sarmiento's network of *norteamericanos*, the founders were also given the authority to appoint their Argentine successors to direct the schools thereby ensuring the influence of Sarmiento (and Juana Manso's) educational ideas in the infrastructure of teacher training for decades.

On October 12, 1874 Sarmiento handed the presidency over to his intellectual protegè and former education minister, Nicolas Avellaneda. Sarmiento's rise to the presidency as a *provinciano* and support of Avellaneda, originally from Tucumán Province, created a split between Nationalists in the porteño elite who supported Mitre and those in the Autonomist Party who supported Sarmiento. As a consequence, a coalition between the Autonomists, pro-Sarmiento Nationalists, and provincial elites formed the Partido Autonomista Nacional (PAN) behind Avellaneda's candidacy. Avellaneda defeated Mitre in the election securing 146 electoral college votes against Mitre's 79.[174] However, a key part of Sarmiento's electoral strategy involved deploying the national army throughout the provinces as political support for his chosen successor in the election. Despite Sarmiento's professed republican ideology,

171. Solari, *Historia de la educación argentina*.

172. Rock, *Argentina, 1516-1987*, 130.

173. Barba, "La ley de educación común de Buenos Aires de 1875," 55.

174. Rock, *Argentina, 1516-1987*, 130.

he remained skeptical of universal suffrage and had few qualms about engaging in electoral fraud as a means of putting in place leaders that reflected his priorities.[175]

In many ways, Avellaneda was a transitional figure who bridged the national project that began under Sarmiento and Mitre with the "Orden Conservador" that marks the start of PAN member Julio Roca's election in 1880.[176] Education remained Sarmiento's most pressing concern for civilizing the nation during his term and Avellaneda shared his predecessor's beliefs on education.[177] Avellaneda picked up where Sarmiento left off for the most part. Most importantly, Avellaneda accelerated Sarmiento's educational project by expanding the network of state normal schools based on the Paraná model throughout the provinces. One of the lasting political consequences of Avellaneda's victory included breaking the hold of the porteño elite over economic policies that favored Buenos Aires over the provinces. Avellaneda, like Sarmiento, wanted to extend the advances of Buenos Aires through the interior, beginning with the extension of the Córdoba to Tucumán railway.[178] Avellaneda was also successful in putting down rebellions either influenced by or led by Mitre on behalf of the porteño oligarchs between 1874 and 1880.[179] Avellaneda's military victories were due in no small part to then General Julio Roca's leadership, who eventually became Minister of War in 1877 and PAN's presidential nominee for the 1880 election.[180]

175. Katra, *The Argentine Generation of 1837*, 286-287.
176. Rock, *Argentina, 1516-1987*.
177. Hentschke, *Philosophical Polemics, School Reform, and Nation-building in Uruguay, 1868-1915*, 98.
178. Rock, *Argentina, 1516-1987*, 131.
179. Katra, *The Argentine Generation of 1837*, 287.
180. Rock, *Argentina, 1516-1987*, 154-155.

Table 4.2: Establishment of State Normal Schools Under North American Educators, 1869 - 1888

Year Founded	School	Province	Founding Director(s)	President	Party
1869	Normal de Concepción del Uruguay	Entre Ríos	Clementina Comte	Sarmiento	Liberal (Unitarian)
1870	Normal de Paraná	Entre Ríos	George Albert Stearns	Sarmiento	Liberal (Unitarian)
1874	Normal de la Provincia de Buenos Aires	Buenos Aires	Clara Jeannette Armstrong	Sarmiento	Liberal (Unitarian)
1875	Normal de Tucumán	Tucumán	Mary E. Conway	Avellaneda	National Autonomist
1875	Normal de Maestras	Mendoza	Sara Boyd, Sara Cook	Avellaneda	National Autonomist
1875	Normal Superior de Rosario	Santa Fe	Alcinda Morrow	Avellaneda	National Autonomist
1878	Normal de Señoritas de Catamarca	Catamarca	Clara Jeannette Armstrong	Avellaneda	National Autonomist
1879	Normal Superior Sarmiento	San Juan	Mary Olstine Graham	Avellaneda	National Autonomist
1884	Normal Nacional de Maestras de Córdoba	Córdoba	Frances Armstrong de Bessler	Roca	National Autonomist
1884	Normal de Maestras de Jujuy	Jujuy	Jeannette Stevens	Roca	National Autonomist
1884	Normal de Maestras de La Rioja	La Rioja	Annette Havens	Roca	National Autonomist
1886	Normal Mixta de San Nicolás de los Arroyos	Buenos Aires	Clara Jeannette Armstrong	Juárez Celman	National Autonomist
1887	Normal de Mercedes	Buenos Aires	Edith Howe	Juárez Celman	National Autonomist
1887	Normal de Goya	Corrientes	Isabel King	Juárez Celman	National Autonomist
1888	Normal Nacional de La Plata	Buenos Aires	Mary Olstine Graham	Juárez Celman	National Autonomist
1888	Normal Mixta de Esquina	Corrientes	Edith Howe	Juárez Celman	National Autonomist

Sources: Gobierno de La República Argentina. 1893. *Registro Nacional de La República Argentina*; Argentina Ministerio de Justicia e Instrucción. 1903. *Antecedentes sobre Enseñenza Secundaria y Normal en La República Argentina.* Taller Tipográfico de la Penitenciaría Nacional.; *The School Journal.* 1901. E.L. Kellogg Company; Criscenti, Joseph. 1993. *Sarmiento and His Argentina.* Lynne Rienner Publishers; Alliaud, Andrea. 2007. *Los Maestros Y Su Historia.* Ediciones Granica S.A.

Another overlooked impact of Avellaneda's government was the appointment of Carlos Casares as Governor of Buenos Aires. From 1870 to 1873, Buenos Aires Province held a Constitutional Convention that resulted in the acceptance of national funds for a common education system as part of Sarmiento's Law No. 8608 of 1871 (Ley de Subvenciones Escolares). On September 14, 1875 Governor Casares approved Act No. 888, or the Common Education Law of Buenos Aires, once again placing Buenos Aires at the forefront of educational progress. The Common Education Law rendered primary education free and compulsory in the province, re-organized secondary and university education, and finally created a unified and coherent governing structure that would serve as an important antecedent of Law 1420.[181] The law also had an explicitly political goal to further a common national and moral culture to justify the harsh penalties for non-compliance with mandatory attendance.[182] Sarmiento, despite his advanced age and failing health, stayed active in public education between 1875 and 1880 and helped support the roll out of the new law. After leaving office he resumed his former role as Senator of his home province of San Juan in March of 1875. That same year Casares appointed Sarmiento to his old position as Director General of Schools for Buenos Aires Province allowing him to hold the post as Senator of San Juan. The following year Sarmiento founded the journal *La Educación Comun en la Provincia de Buenos Aires* (Common Education in the Province of Buenos Aires) and again assumed the editorship of the newspaper *El Nacional*.[183]

4.3.4 The Generation of 1880 and Educational Consolidation during the Orden Conservador

By the end of Avellaneda's presidency, Julio Roca had firmly entrenched himself in the military-political coalition of the PAN. Whereas the Mitre-Sarmiento years represented the implementation (and limits) of the Generation of 1837, Roca's presidency ushered in the

181. Barba, "La ley de educación común de Buenos Aires de 1875," 63-64.

182. Ibid., 56.

183. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 138-139.

intellectual reign of the Generation of 1880. In many ways, the conservative and authoritarian tendencies that shaded Sarmiento's liberalism was formalized in the thought of Roca, who emerged as the de facto intellectual leader of Generation '80, and his vision of a centralized state as the solution to civilizing the nation.[184] At this time, even Sarmiento himself observed that order and peace should take priority over republican ideals of "fraternity, equality, and liberty."[185] Roca and the Generation of 80 shared the goals of their intellectual forbears in Generation 1837, but saw those goals as achievable through the adoption of positivist thinking and a conservative liberalism made concrete by the formation of PAN.[186] With the dissolution of provincial militias and the support of the national army, Roca assumed office with a degree of executive autonomy and party hegemony that eluded Sarmiento's time in office. In his first address to parliament, Roca communicated his intention to govern unilaterally from the center, echoing the unitarist principles of the earlier generation of Argentine liberals: "It is as though we were a people recently born to national life, for you have to legislate about everything that constitutes the attributes, resources and power of the nation."[187]

Between 1880 and 1885, Roca passed a series of laws that would transfer power to the central government and rapidly accelerate the process of national organization that begun under Mitre. Roca's opponents anticipated the political implications of the new government while his supporters in the interior wrongly expected the power of provincial governments to increase. As Bethell notes:

> Leandro N. Alem, the future leader of the Radical opposition party, was not very far from the truth when he asserted in 1880 that the future would see the creation of a central government so strong that it would absorb 'all the strength of the peoples and cities of the Republic'. The legislation passed in the 1880s

184. Foster, *The Argentine generation of 1880*.
185. Bethell, *Argentina Since Independence*, 81-82.
186. Hentschke, *Philosophical Polemics, School Reform, and Nation-building in Uruguay, 1868-1915*, 263.
187. Bethell, *Argentina Since Independence*, 82.

> consolidated the authority of the central government and placed the reins of power firmly in the hands of the head of the National Executive. In a sense the presidentialism which followed was merely the consequence of putting into practice the ideas originally proclaimed by the framers of the constitution of 1853. Scarcity of resources, insuperable geographical barriers and strong local political traditions had prevented these ideas being implemented before 1880.[188]

Specifically, a national education system would finally take shape that would transpose the educational progress of state education systems in Buenos Aires and San Juan to the national level. A series of important legislative and intellectual events would culminate in the passage of Law 1420, one of the defining institutions of Argentine national development during the Conservative Order. First, Roca federalized the city of Buenos Aires, further weakening the position of porteño elites who long enjoyed the porous political boundaries between city, province, and nation. Likewise, Roca managed provincial elites through a patronage network controlled by the PAN-dominated "League of Governors."[189] The federalization of Buenos Aires and the League of Governors granted the central government and executive a degree of autonomy that merged the political and economic primacy of the city of Buenos Aires under Mitre with the top-down management of the provincial oligarchy under the caudillo system of the Rosas regime. The law also brought all public and municipal buildings in the capital under the jurisdiction of the Nation, including educational agencies charged with governing the provincial education system under the 1875 law. The government worked with representatives of the province for the transfer of these establishments to the new provincial capital of La Plata.[190] Thus, the central state inherited the robust physical and bureaucratic infrastructure that long-defined the city of Buenos Aires as the most advanced political jurisdiction in the nation.

Second, the initial move toward the centralization of primary education began with the

188. Bethell, *Argentina Since Independence*, 82.
189. Rock, *Argentina, 1516-1987*, 155.
190. Campobassi, *Ley 1420*, 19-20.

establishment of the *Consejo Nacional de Educación* (CNE) by Executive Decree on February 1 of 1881.[191] The CNE resulted from the success of Sarmiento's propaganda promoting a model for organizing primary education under an autonomous expert bureaucracy, a model that finally took shape in the 1875 Common Education Law of Buenos Aires.[192] In defiance of the federalist dictates of the 1853 Constitution, the CNE was granted wide authority over the distribution of funding to provinces for school maintenance and teacher salaries, as well as given the responsibility to enforce national laws governing primary education in the provinces to promote uniformity. Roca appointed none other than Sarmiento as the first Superintendent of Education of the CNE, giving him control over the agency during its first year before resigning in 1882.[193] As Superintendent, Sarmiento founded the official journal of the CNE, *Monitor de la Educación Común*.[194] Unfortunately, the political clashes between Sarmiento and pro-Church members of the Council during his term kept the CNE from submitting a draft for a common education law to Congress by April of 1881.[195] Though Sarmiento failed to achieve the primary task of the CNE upon its founding—a common education law—during his short time as Superintendent, he oversaw the initial organization of the CNE and the publication of the *Monitor*. The journal was a fitting follow-up to his launch of the *El Monitor de Las Escuela Primarias* for the Chilean government in 1853 while in self-imposed exile.[196] Thus, Sarmiento left his mark on the intellectual apparatus of the agency and launched yet another official publication that would disseminate his ideas and pedagogical advice to teachers throughout the nation.[197] The financial autonomy of the CNE also kept its operations free from political interference by Congress.[198]

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191. Campobassi, *Ley 1420*, 27.

192. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 153.

193. Ibid.

194. Salvatore, "Between Empleomanía and the Common Good," 234.

195. Campobassi, *Ley 1420*, 28.

196. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions."

197. Salvatore, "Between Empleomanía and the Common Good," 234.

198. With the establishment of the Argentine central bank in 1891, *Banco de la Nación*, the CNE would benefit from a permanent budget held in a special account at the bank that would only bolster its fiscal

Third, the Pedagogic Congress of 1882 in Buenos Aires brought together educationalists, teachers, and political thinkers from across Latin America. The Pedagogic Congress arose in large part from both the failure of the CNE to deliver the common education bill that Roca demanded and the heightened public interest and debate around national education early in his presidency. Roca submitted the idea for organizing the Congress to the CNE for consideration in November of 1881 hoping that the combined effort of the state and individuals could produce the draft bill that failed to materialize earlier in the year. The CNE approved and Roca immediately decreed the meeting of the Pedagogic Congress for the following month to take place in the "Capital of the Republic" under the direction of the CNE.[199] The meeting generated a regional consensus around the need and basic criteria for providing a common "education for all" as part of social development.[200] The *sarmientista* legacy of the Normal School of Paraná played a crucial role at the proceedings. Faculty and graduates of Paraná drove many of the debates (and conclusions) of the Pedagogic Congress, including the recommendations that would inform the design of Law 1420. In particular, Torres argued at the meeting that education was a responsibility of the nation and that through a "cooperative federalism" the central government should allocate, and supervise, subsidies for primary education in the provinces.[201] Even as the influence of positivism infused the proceedings, the *normalistas* of Paraná clearly internalized Sarmiento's view of popular education as the primary means of civilization.[202] Thus, by the time the positivist orientation that characterized the Generation of 1880 was introduced to Argentine educators, first by Torres at Paraná and then by Uruguayan educators at the Pedagogic Congress, Argentine

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independence. See Salvatore, "Between Empleomanía and the Common Good," 235.

199. Campobassi, *Ley 1420*, 31-32.

200. Salvatore, "Between Empleomanía and the Common Good," 233.

201. Hentschke, *Philosophical Polemics, School Reform, and Nation-building in Uruguay, 1868-1915*, 124.

202. ibid., 123. As Hentschke notes: "Of the 88 students who had graduated between 1874 and 1882 and were still alive, 72 could be traced and worked in all provinces. Twenty-one were employed in normal schools (many had stayed in Paraná) and the same number as primary school head teachers. Nine had found a job in national colleges and two in agronomical schools. Sixteen became inspectors and three education officials. By 1890, twenty years after the Paraná Normal School's inauguration, 214 students, 90 percent of them men, had completed a course for *profesores normales*.

educational thought remained anchored in Sarmiento's liberal nationalism through at least until the next generation of normal school students would graduate later in the decade.[203] The general interest in public education reached a point such that Roca, in his annual message to Congress in 1882, noted that "questions related to education have managed to excite the public spirit, as can be observed by the movement around these questions operates in all social circles."[204] As he gave this address, the Pedagogic Congress that he organized for the very purpose of formalizing these debates in an official setting was in its closing moments.[205]

By 1883, Roca successfully consolidated a strong central government, in part through the federalization of Buenos Aires and as a consequence of Mitre and Sarmiento's defeats of Urquiza and caudillismo, which significantly weakened federalism in the interior. Meanwhile, the institutional infrastructure of a centralized, national education system was put in place with the creation of the CNE and the increasing consensus around common education advocated by Paraná educators at the 1882 Pedagogic Congress. Likewise, the promotion of foreign scientists and official statistics during Sarmiento's presidency would also begin to bear fruit for the consolidation of national education leading up to Roca's term. In 1877, for example, Latzina produced a detailed census of the state of education in four major provinces (Córdoba, Entre Ríos, Santa Fe, and Corrientes) visiting nearly 600 schools.[206] Most significantly, Roca charged the CNE to prepare a law for establishing a uniform set of national standards that would govern all phases of public education, and primary schooling in particular, through the entire country.

The legal framework for the national education law developed by the CNE following the Pedagogic Congress was finally completed and presented to Congress in the fall of 1883, with Roca himself authorizing its submission to the Chamber of Deputies unchanged. Despite

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203. For a detailed intellectual and organizational history of the Normal School of Paraná and Argentine *normalismo*, see Hentschke, "Argentina's Escuela Normal de Paraná and its disciples."

204. Campobassi, *Ley 1420*, 31.

205. Ibid.

206. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900." The report formed the foundation for the first National School Census of 1885, which Parliament mandated at the end of 1883 as part of the passage of Law 1420 in 1884.

some of his own administration's disagreements with the plan, Roca prioritized projecting the image of a unified voice between the executive and the agency he created.[207] The evolution of the law from the creation of the CNE in 1881 to its reception in parliament two years later required careful political maneuvering from the start. For his part, Roca smoothed any antagonisms with the Church through his appointment of Manuel D. Pizarro, a Córdoban senator, nationalist and devout Catholic, as Minister of Justice, Religion, and Public Instruction upon taking office in 1880. Eventually, Roca's trust in Pizarro would erode as the latter's clerical affinities became a point of contention with the secular President and fellow cabinet members. Sarmiento's short and tumultuous term as president of the CNE previewed the conflict over the national education law in 1883. The majority of the CNE members reflected the Catholic orientation of Pizarro set against Sarmiento's strong belief in lay public education. The internal disagreement came to a head when Miguel Navarro Viola, a committed Catholic on the Council and Sarmiento's personal adversary (of which he had many), was elevated to the vice-presidency of the CNE. Pizarro refused to entertain Sarmiento's request to dismiss Navarro Viola, thus prompting the en masse resignation of Sarmiento and the governing Council of the CNE on January 1, 1882.[208]

The clashes between the former leadership and Pizarro continued apace in the press in a "violent" journalistic dispute that captured the public's attention with the "virulence" of the ensuing discourse.[209] As would be expected, Sarmiento published harsh polemics against Pizarro in *El Nacional*, who he long-viewed as an obstacle to public education free from clerical influence.[210] The internal disorder of the CNE and the public pressure led Pizarro to resign his post as minister of public instruction.[211] Another Roca ally and a liberal nationalist of thoroughly secular convictions, Eduardo Wilde, was appointed as Pizarro's replacement

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207. Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 325.

208. Campobassi, *Ley 1420*, 38-39.

209. Ibid.

210. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 129.

211. Campobassi, *Ley 1420*, 39.

on January 9 of 1882.[212] On the same day Roca decreed that Wilde assume the position as interim president of the CNE until a new Council could be organized.[213] In the first *Memoria* of the ministry published under his leadership at the end of 1882, Wilde made clear that "the Church should be subordinate to the State [stating that] 'All the prelates and other (ecclesiastical) employees have given . . . due respect to the laws and authorities of this nation'."[214] In this way, Wilde was cut from the same cloth as Sarmiento and aggressively moved to promote liberal policies that would sideline the Church in matters of social control.[215]

The introduction of the education law would trigger the most significant debates between liberals and the Church of the late 19th century. The debates that ensued generated essentially two visions of the law, despite the general consensus among both factions in favor of a national education bill. Remarkably, both clerical and liberal factions supported plans for a system of compulsory schooling with guaranteed federal funding independent of partisan budget priorities, despite decades of religious resistance to sarmientista reforms in Buenos Aires, Entre Ríos, and San Juan since the fall of Rosas. However, the plan included a provision for a primary education curriculum that would require moral and religious instruction that remained a point of contention.[216] For liberals, the law should establish a secular system free from religious instruction in primary schools governed by a four-seat council at the CNE, appointed by the executive, with bureaucratic autonomy free from political oversight. For the Church and its allies, religious instruction should remain a part of the curriculum while primary education would be governed by an eight-man council at the CNE that requires Senate (e.g., political) approval.[217] The Church positioned itself as a defender of local au-

212. Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 322-323.

213. Campobassi, *Ley 1420*, 39.

214. **Memoria 1882** cited in Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 323.

215. Of note, Wilde was successful in the establishment of national civil registry, which become law in October 1884. ibid., 324.

216. Ibid., 326.

217. Ibid., 327.

tonomy and the interests of the Catholic citizenry, echoing the same arguments that Church officials used to oppose public primary education altogether in San Juan under Sarmiento's governorship.[218]

The debates that began in the Chamber of Deputies also spilled onto the pages of the major newspapers in the country.[219] However, the polemics around education have been fueled by the press since Sarmiento's time in the CNE while still serving as editor of *El Nacional*. Between 1881 and 1883, Sarmiento engaged in verbal warfare not just against Pizarro and his Catholic colleagues at the CNE, but also against Catholic delegates to the Pedagogic Congress and even his friend Avellaneda who favored religious instruction.[220] In addition to *El Nacional*, a number of major newspapers provided a space for pro-secular education opinions such as *La Nación*, *Sud America*, and *La Prensa* overwhelming opposing commentary in *La Union* and others. Even ex-President Mitre weighed in with a series of articles in *La Nación* in support of secularization while Miguel Navarro Viola and Jose Manuel Estrada responded in kind in *La Unión*.[221] The dividing lines between the major papers remained in the wake of the passage of Law 1420 as Minister Eduardo Wilde moved to implement the law.[222]

In the end, the Church was outnumbered not just in the press, but in the National Congress as well. The strongest voices for liberal position on lay primary education (and by extension an autonomous CNE) included Onésimo Leguizamón of Entre Ríos while Mariano Demaría of Buenos Aires, an ally of Navarro Viola, represented the push for clericalism.[223]

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218. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 126.

219. Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886."

220. Campobassi, *Ley 1420*, 37. Sarmiento's attacks were especially personal in response to Avellaneda's article "The school without religion", by publishing "The school without my wife's religion" in which he accused the ex-President and other pro-Church authorities of merely giving in to their wives' religious preferences.

221. Ibid.

222. For example, the pro-secular papers were unified in support of Wilde's successful efforts to remove Canon Gerónimo Emiliano Clara as vicar of the bishopric of Córdoba for refusing to follow the law in the province.Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 333-334.

223. Ibid., 326.

Demaría, who originally presented the Church-friendly CNE legislation to the Chamber of Deputies unaltered as a member of the commission of justice, worship, and public instruction, argued that it was "a primordial necessity [to form] the character of men by the teaching of religion and republican institutions."[224] His position came down to a vision of good government in which the State should not innovate in "transcendental matters" and risk disorder, even as he supported the organization of primary education by national law. Even Wilde was impressed with his presentation to the Chamber during the 1883 sessions held from July 4 to July 12.[225] Still, Demaría emphasized in his opening statements the consensus around enacting a national education law of compulsory, free primary education "applicable throughout the Nation's territory" in order to secure "freedom, peace, and the maintenance of institutions."[226] Leguizamón echoed similar notions in support of the principle of compulsory schooling: "If a nation has the duty to educate [. . .] there can be no right to be ignorant anywhere."[227] The lawmaker also voiced his support for national inspections of schools from government to ensure uniformity in terms of "hygiene, morals, and discipline [. . .] according to common social notions in public education."[228] The complementary views of these otherwise opposing positions resemble the liberal nationalism long-promoted by Sarmiento's educational program for constructing republican citizens through social and moral discipline.[229] Like Sarmiento, however, Leguizamón and his allies rejected clericalism in education on constitutional and nationalist grounds.[230]

The very day that debate opened in the Chamber of Deputies on July 4, 1883, Sarmiento published an editorial in *El Nacional* that summarized the stakes of the legislation in the minds of liberal elites:

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224. Campobassi, *Ley 1420*, 44.
225. Ibid., 45.
226. Ibid., 43.
227. Ibid., 95-96.
228. Ibid., 108.
229. Katra, *The Argentine Generation of 1837*.
230. Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 326.

> Today our Congress must discuss a law of education that is to serve as the basis for the new agglomeration of men that takes place from all the old nations of the world, seeking better conditions for existence [. . .] It is the foundation of a new edifice, adapted to the needs of the modern world, of the free man and of the intelligence nourished already of the knowledge of the readings of nature, open like a blank page, to receive new truths and new facts.[231]

Likewise, Minister Wilde in a July 13 session of the Chamber of Deputies argued that the primary aims of the law of education was fundamental to making whole the individual. He declared that the public education law should completely shape the Argentine "from his morals to his feet, and to educate him in everything, in his ideas and in his body, so that he is strong, so that he knows things, so that he realizes the principles, so that he is moral, vigorous and stiff."[232] Thus, while liberals and clericals differed on the role of religious instruction, they broadly supported the nationalist aims of primary education as a mechanism of inculcating moral and social discipline under the purview of the state. Such a broad consensus was unimaginable only ten years earlier during the administration of the "teacher-president" Sarmiento.[233]

The debates of 1883 culminated in a detailed and robust set of articles that would form the foundation of the bill, which essentially built upon the draft recommendations of the Pedagogic Congress and the CNE. However, by June 1884 it was still unclear whether the impasse on secularization would favor the clerical or liberal positions. The momentum turned toward the secular version of the bill. The heated debates over education in the press and parliament from 1881 to 1883 gave way to an increase in liberal members of the PAN in congressional elections. On June 23, the Chamber of Deputies passed a resolution in support of the lay version of the bill 48 to 10 and tied 11 to 11 in the Senate, giving the lay version of the bill congressional sanction by procedure. President Roca signed Law 1420 of General

231. Campobassi, *Ley 1420*, 43.

232. Ibid., 95.

233. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions."

Common Education of Argentina putting into effect one of the most comprehensive national education laws of the time.[234] Law 1420 was momentous in the scope of its governing mandate, laid out in eight-one articles. First and foremost, public primary education was rendered free, obligatory, and secular for the purpose of making the ideal citizen (Articles 1 through 5). Article 1, in particular, states: "The primary school has for sole purpose to promote and simultaneously direct the moral, intellectual and physical development of every child from six to fourteen years of age."[235] Articles 4 through 8 outline the secular nature of primary instruction on the part of teachers and schools, while Article 6 lays out a national curriculum for primary and lower-secondary schooling. Thus, the passage of Law 1420 granted the central state sweeping regulatory power and oversight authority across all provinces in matters of education, further eroding the primacy of provincial governments in this arena.

The law also prescribed the technical tasks necessary to implement the law on a national scale, including mandating a national school census to commence the following year (Article 12) and official inspections of schools and teaching practices (Articles 35 to 37).[236] First, the 1885 School Census, organized according to the model of the 1869 National Census, collected data on not just school children and learning outcomes, but facilities, subjects, and instructional materials. The School Census found that nearly 40 percent of students were foreign born, but Latzina continued the minimization of racial difference of the 1869 Census to overstate the 'whiteness' of the population.[237] Further, the data showed major disparities and negligence by provincial and local authorities in providing adequate facilities or hiring enough teachers to serve the number of students.[238] The School Census offered officials an

234. Kress, "Argentine Liberalism and the Church Under Julio Roca, 1880-1886," 331. Law 1420 was comparable to few pieces of education legislation of its scope aside from, most notably, the Jules Ferry laws of France that came to pass only three years earlier. See Weber, *Peasants Into Frenchmen*.

235. Campobassi, *Ley 1420*, 95.

236. For a complete draft of the law and corresponding opinions, see Chapter 4 in ibid., 93-127. For the resulting organization, jurisdiction, and division of authority of across political units and bureaucratic agencies, see Figure 1. in Hall, "The Elementary School in Argentina."

237. INSERT something on this

238. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900,"

actionable roadmap for enforcing Law 1420 in areas where subnational governments failed to meet the progress of public education systems in Buenos Aires and San Juan provinces. Other contributions of the School Census included recommendations for higher teacher wages and the need for a larger and better trained corps of school inspectors.[239]

Second, the provision for school inspections marked the realization of the administrative vision Sarmiento first laid out in *Educación Popular* thirty-five years earlier. In this work, Sarmiento recognized the need for a specialized body to inspect school activity and ensure a minimum of quality, uniform pedagogical standards, and to create a channel by which local demands can be communicated upward to national authorities.[240] However, in the wake of the Law 1420 the school inspector also played a crucial role to personally recruit non-compliant households distrustful of compulsory schooling. By 1887, school inspectors and the 1885 School Census revealed weak and uneven capacity to implement 1420 as well as low levels of compliance among the population with an otherwise mandatory system.[241] As in the case of the Ferry Reforms in France, school inspectors were central to the rapid expansion of the education system *and* the recruitment of the student population in the decades that followed.[242] Between 1895 and 1920 primary school enrollment as a percentage of school-aged children in attendance increased from 24 to 66 percent compared to an increase from only 16 to 24 percent in the preceding fifteen years.[243] Thus, while the underlying legal and administrative infrastructure set forth in Law 1420 did not immediately guarantee rapid implementation in the interior, the law's technical provisions on the collection of education statistics and school inspection system under the CNE established the infrastructure required to monitor and enforce the law.

104-105.

239. Dussel, "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900."

240. Sarmiento, *De la educación popular*; Southwell, "La Ley 1420 y la tarea de los Inspectores escolares."

241. Southwell, "La Ley 1420 y la tarea de los Inspectores escolares," 67.

242. Weber, *Peasants Into Frenchmen*.

243. These statistics are based on estimates from Lee and Lee, "Human capital in the long run."

Table 4.3: Timeline of Key Events From 2nd Critical Juncture, 1862 - 1884

Year	Major Events
1862	Mitre elected first president of the unified Federal Republic of Argentina
1863	Sarmiento is appointed governor of San Juan province
	Sarmiento seeks and is is granted unilateral authority over education reform by legislature
	San Juan education system becomes most advanced in Argentina outside of Buenos Aires
1864	Office of National Statistics is established under Ministry of Finance
	Sarmieno resigns governship and befriends Mary Mann in the U.S. during ambassadorship
	Embarks on study of North American education system
1865	War of Triple Alliance (Paraguayan War) begins
1866	Sarmiento publishes *Schools: The Basis of Prosperity and the Republic in the United States*
1868	Sarmiento elected president of Argentina as Paraguayan War is in its fourth year
1869	Sarmiento orders first National Census as first act of presidency
	Sarmiento successfully passes Law of Normal Schools to create state system of teacher training
	Sarmiento recruits U.S. educators he met as ambassador to direct normal schools
1870	Flagship Normal School of Parana founded in Entre Ríos
	Sarmiento's appoints American educator George Albert Stearns as founding director
	Paraguayan War ends with majority of male Afro-Argentine population killed
1871	Sarmiento defeats caudillo, Lopez Jordan, ending influence of rosista federalism in the interior
1872	First School Census of the Province of Buenos Aires carried out
1874	Nicolas Avellaneda wins presidency as Sarmiento's handpicked successor
	Avellaneda accelerates expansion of normal schools under Sarmiento's model
	Avellaneda begins decades long rule by National Autonomist Party until 1916
1875	Sarmiento appointed Superintendent of Public Schools by Governor of Buenos Aires
	Law of Common Education of Buenos Aires Province is passed
	Sarmiento elected National Senator of San Juan Province
1876	Sarmiento publishes new journal *Educación Común*
	Sarmiento continues to publish as a journalist and resumes directorship of *El Nacional*
1877	Francisco Latzina publishes report on state of education in four provinces
1880	Roca becomes president of the republic and city of Buenos Aires is federalized as national capital
	La Plata becomes new capital of Buenos Aires province separating federal and provincial authorities
1881	Sarmiento becomes superintendent of schools of the National Council of Education
1882	Sarmiento resigns from National Council of Education
	The Pedagogic Congress of 1882 meets in Buenos Aires
1883	Parliament authorizes First National School Census directed by Latzina
1884	Roca successfully pushes for passage of Law 1420 of General Common Education Law 1420
	Law 1420 based on ideas and policies promoted by Sarmiento throughout his career
	Primary school becomes free and compulsory for all children
	Public school curricula, teacher training, and administration regulated by education ministry
	Roca signs law to fund the publication of the complete works of Sarmiento
	First National School Census is carried out between 1884 and 1885

4.4 Conclusion and Analysis

The road toward the national consolidation of mass education in Argentina following independence was far from inevitable. However, the seeds of a centralized state education system could be found in the May Revolution. Rivadavia and his adherents laid the intellectual groundwork in the city of Buenos Aires during his short presidency of the disjointed United Provinces through the College of Moral Sciences. It was at the *Colegio* that the young ideologues of the Generation of 1837 formed their ideas about what Argentina should be. While there was wide agreement in support of republicanism and a unitary government with European institutions, as opposed to the caudillismo and gaucho culture in the rural periphery, only a young Sarmiento articulated a vision that put mass education at the center of the civilizing mission of the state. Sarmiento, himself rejected from attending the *Colegio* alongside his Generation '37 compatriots, would go beyond the Rivadavians, whose educational ideas took for granted the capacity of society to adopt and implement the institutions of mass education absent a strong central government.

Thus, I argue that the Rivadavian Epoch produced the *critical antecedents* for Law 1420. Rivadavia's early state interventions in Buenos Aires created the institutional environment in which a coherent educational ideology could form. The question of state education was, of course, among many that members of Generation '37 considered within their broader agenda for Argentine state-building and political modernization. On the one hand, the Rivadavians introduced the intellectual and educational infrastructure where young liberal elites in Buenos Aires could advance new ideas on immigration, the economy, citizenship, education, and suffrage that contrasted with the otherwise entrenched political and social inertia that favored federalism beyond their province. On the other hand, Rivadavia offered an early model of state-supported (if not governed) primary, secondary, and university education. The Rivadavian education agenda demonstrated the potential and limits of the liberal wing of the May Revolution against the entrenched interests of the Bueno Aires aristocracy and federalist caudillos who held sway over the masses throughout the provinces.

The first of two *productive conditions* that I argue contributed to the two critical junctures (1853 to 1861 and 1862 to 1884) for Argentine educational development—a coherent educational ideology—developed in the disorder the Rivadavian Epoch and the Rosas dictatorship that followed. Reflecting on the short life of the 1826 Constitution and Rivadavia's presidency, Sarmiento arrived at many of the same conclusions as his fellow Generation '37 members in favor of a more 'muscular' liberal nationalism to counter *rosismo* and the hold of federalism in the periphery. Unlike the porteño elites that made up this group who saw education as just one means of arriving at their preferred political order, Sarmiento concluded that compulsory primary education—co-educational, secular, public, and organized by the state—should take priority in achieving the political program of Generation '37. Such an educational program would need to be accompanied by an uncompromising strategy to eliminate, by physical violence if need be, what Sarmiento and much of the Generation '37 saw as barriers to establishing a modern republic in their image: caudillismo and the largely *mestizo* guacho culture, and the Amerindians who would impede territorial expansion within the borders of the Argentine nation. In particular, two major works stand out as instrumental to the formation of a coherent educational ideology that defined the political terrain of education during Argentina's development.

First, the writing and publication of *Facundo* in 1845 served in equal parts as a literary, political polemic against caudillismo and the Rosas regime and as a diagnosis of the political disorder of Argentina being rooted in the ignorance of the backward, rural masses. In *Facundo*, Sarmiento introduced Argentina (and the Americas) to the dichotomy of 'civilization versus barbarism' that made concrete the political conditions that arise from fragmented political authority and uneducated masses susceptible to the demagogic appeals of charismatic strongmen. Second, in *Educación Popular* (1849) Sarmiento developed the prescription for the problems of barbarism outlined in *Facundo*. In *Educación Popular*, Sarmiento suggested that the vision of unified nation-state governed as a republic, as promoted by liberal unitarians and the writings of Generation '37, could not take hold without 'civilizing' the masses

of all social classes through basic education.[244] The book articulated the first iteration of the educational program that Sarmiento would develop further in his capacity as an educator, journalist (and polemicist), and politician.

Sarmiento distinguished himself from the rest of Generation '37 not just in his virtually singular focus on mass education, comparable only to Alberdi's dedication to constitutional design, but also in his dynamic *political entrepreneurship* for his educational program. While much of his contemporaries broadly agreed that education was important for a modern republic, much of their thinking attributed greater weight to elite levels of schooling (e.g., secondary and university education), increasing European immigration, and economic modernization as a means of civilizing the population. Again, Alberdi's thinking stood out as representative of the liberal skepticism toward mass education. In Sarmiento's view this line of thinking, which neglected primary schools and accommodated clericalism and provincial elites on the road to industrialization, would allow 'barbarism' to continue to thrive. In his exile during the Rosas years, Sarmiento lobbied both fellow elites and the broader public to support the 'civilizational' importance of primary education, as well as recruited a national and transnational network of educators, intellectuals, and politicians to promote political consensus in service of his cause. These efforts accelerated upon Sarmiento's return to Buenos Aires in 1855, and gained national traction after the formal unification of the Argentine Republic under President Bartolome Mitre in 1862.

Sarmiento's political entrepreneurship involved both discursive and institutional mechanisms. First, Sarmiento utilized his editorship of *El Nacional* to disseminate his educational ideas, often through vitriolic public debates with rival liberal intellectuals like Alberdi, and continued to publish studies and essays on education, such as *Public Education in the State of Buenos Aires* that he delivered directly to Mitre. Second, Sarmiento used his myriad political and administrative appointments in Buenos Aires to challenge existing jurisdictional and institutional fragmentation in education governance in the city and province of Buenos Aires during Mitre's reign as Governor of an independent Buenos Aires Province during the

244. Sarmiento, *De la educación popular*.

Table 4.4: First critical juncture: Subnational educational development in Buenos Aires Province, 1852-1861

Critical Antecedent	Rivadavian Epoch and Birth of Generation of 1837
Permissive condition	Fall of Rosas Dictatorship in 1852 and political uncertainty due to Buenos Aires split from Argentine Confederation and rupture between liberal elites of Generation '37
Productive condition	Spread of educational ideas of Sarmiento and increasing state infrastructural power in Buenos Aires Province
Outcome	Return of Rivadavian education system unification of primary education jurisdiction under Buenos Aires Department of Schools
End of critical juncture	End of Argentine Confederation and defeat of Urquiza in 1861
Mechanisms of reproduction	Publication of Annals of Common Education and centralization of public education in Buenos Aires and San Juan provinces

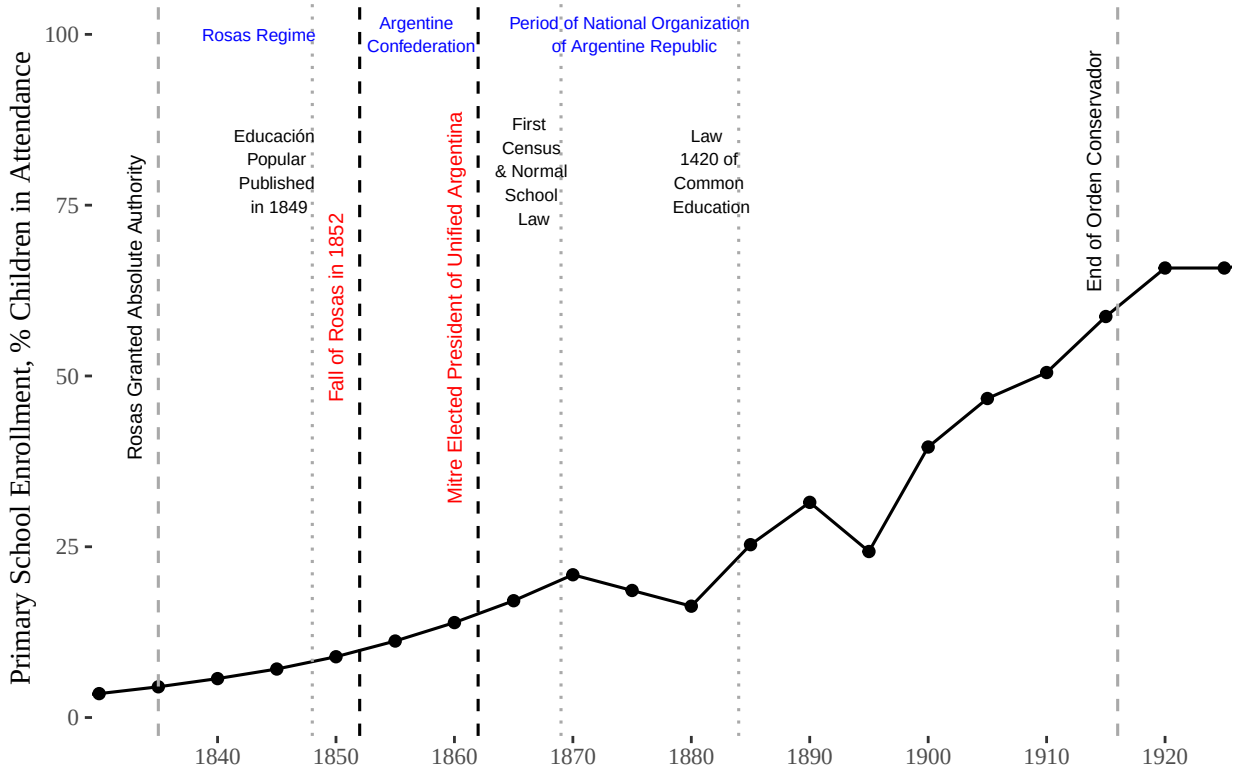
Argentine Confederation and then as first President of the Republic. During this period, Sarmiento founded the *Annals of Common Education*, was Director for the Buenos Aires Department of Schools, secured tax-funded school construction as Senator of Buenos Aires, and served as Governor of San Juan Province where he pushed for the development of the first public education system in the rural interior despite resistance from the Church and its political allies. However, the War of Triple Alliance (1865-1870) saddled the Argentine economy with massive debt and led to a period of retrenchment in public investment.

The second *productive condition* that I argue is crucial for an educational critical juncture to occur—information capacity—increased in several stages. First, during the autonomous period of Buenos Aires Province (1853-1861) Mitre ordered the first detailed population census of the province in 1855, but the same could not be said for the rest of the provinces that constituted the Argentine Confederation. Second, after the unification of the republic President Mitre, with Sarmiento's urging, oversaw the establishment of the Office of National Statistics in 1864. The Office of National Statistics would then be responsible for

conducting the first national census at the direction of President Sarmiento in 1869. The census, despite the irregularities and errors endemic to data collection over a massive territory, made available detailed population data available to the central state for the first time in the history of the republic. The 1869 National Census and the Law of Normal Schools represented a clear critical juncture for education at the national level. While the census increased the state's information capacity the normal school law created a formal state system of teacher training throughout the provinces that consolidated Sarmiento's educational ideology in a growing national network of teachers and pedagogues, particularly through the highly-regarded flagship Normal School of Paraná.

One of the major defining features of a critical juncture is that permissive conditions, or the 'loosening of constraints', and productive conditions are separately necessary and jointly sufficient for the latter to have causal impact during a critical juncture. In other words, while the fall of Rosas and subsequent rupture among the liberal elites of Generation '37 between the Argentine Confederation and the newly autonomous Buenos Aires created a period of heightened political uncertainty (permissive conditions), the *reach* of increasing infrastructural power, particularly information capacity, was limited to Buenos Aires Province. The evidence suggests that to the extent that the 1852 to 1861 period represented a critical juncture in which educational ideology and information capacity had any causal weight on the centralization of mass education, it was largely contained to Buenos Aires Province (see Table 4.4). As such, I cannot conclude that 1852 to 1861 represented a national critical juncture, so much as a subnational critical juncture. Alternatively, the unification of the Republic after Urquiza's surrender and the final defeat of caudillismo allowed the productive conditions to operate at the national level for the first time. During the Mitre-Sarmiento presidencies, the mechanisms of reproduction of Sarmiento's educational ideology were institutionalized through the normal school system and the 1875 Law of Common Education of Buenos Aires that was passed a year after Sarmiento left office. The 1875 education law proved to be an important legal antecedent to Law 1420, while the graduates of the Normal School of Paraná were instrumental to forming a consensus at the Pedagogic Congress of

Figure 4.1: Primary School Enrollment and Educational Development in the Republic of Argentina, 1830-1920



(a) Notes: Data on enrollment based on estimates constructed by Lee and Lee.[245] Dotted lines indicate educational events of note while dashed lines indicate regime transitions. Black dashed lines represent critical junctures for Argentine educational development.

Table 4.5: Second critical juncture: Educational development during national organization, 1862-1884

Critical Antecedent	Rivadavian Epoch and Birth of Generation of 1837
Permissive condition	Fall of Rosas Dictatorship and political uncertainty due to Buenos Aires split from Argentine Confederation and rupture between liberal elites of Generation '37
Productive condition	Spread of educational ideas of Sarmiento and increasing state infrastructural power, especially information capacity through 1869 National Census
Outcome	Consolidation of centralized national education system under Law 1420 during Conservative Order in 1884
End of critical juncture	End of Roca's first term as president, with continuation of Roca's policies under President Juárez Celman (1886-1890) and death of Sarmiento in 1888
Mechanisms of reproduction	State normal school network dominated by fusion of *sarmentista* and positivist pedagogical thought

1882 as momentum toward a national education law increased under Roca. Thus, the 1862 to 1884 period represents a *national critical juncture* for the centralization of mass education under Law 1420 (see Table 4.5).

To conclude, I argue in this study that during state-building education centralization is more likely when the state accumulates information capacity through enumerating the national territory and its population *and* where a political entrepreneur with a coherent educational ideology (an intellectual elite) can mobilize elite consensus in support of centrally-regulated mass education as the best means to inculcate dominant values and instill political order. Both information capacity and a coherent educational ideology exert causal impact during periods of heightened political uncertainty around state-building priorities, which increases during the political disorder that comes with regime transitions and the concomitant ideological ruptures among elites. In the case of Argentina, Sarmiento emerged from Generation '37 as an intellectual elite and political entrepreneur whose liberal nationalism revolved around a belief in the central importance of mass education for nation-building.

By 1881, the PAN took power and the Conservative Order begun, the intellectual and institutional foundations of a national education system were in place for Roca to build on with the founding of the CNE and push for Law 1420. By this time, the need for a national education bill was no longer under question and the lingering debates over secularism saw the final victory for Sarmiento's long-time agitation for lay public education. The historical evidence suggests a very different institutional outcome in a counterfactual scenario in which Alberdi, and not Sarmiento, defined the educational agenda of liberal elites. The likelihood of Law 1420 ever materializing would have been much lower with Alberdi's thinking as the intellectual foundation for Argentine education. Law 1420 virtually subsumes Argentina's federalist structure and provincial governments to the central state in the arena of public education, and remains firmly in place to this day. Rather, Alberdi, and even unitarian liberals such as Mitre, saw local and provincial autonomy in education with state support as acceptable compromises in a unified Argentine Republic. In such an alternative scenario, economic modernization and the promotion of European immigration would have been cast as an adequate means of achieving victory in the battle of 'civilization versus barbarism' during Argentina's long nineteenth century.

References

Adelman, Jeremy. "Between Order and Liberty: Juan Bautista Alberdi and the Intellectual Origins of Argentine Constitutionalism." *Latin American Research Review* 42, no. 2 (2007): 86–110.

Alberdi, Juan Bautista. *Obras completas de J. B. Alberdi.* Buenos Aires : 1886.

Bailey, Dorothy Dee. "Early history of the Argentine normal schools." *Peabody Journal of Education* 36, no. 1 (July 1958): 16–26.

Barba, Fernando Enrique. "La ley de educación común de Buenos Aires de 1875." *Trabajos y Comunicaciones* 18 (1968): 53–65.

Bethell, Leslie. *Argentina Since Independence*. Cambridge University Press, October 1993.

Bollo, Hernán Gustavo González. "Francisco Latzina (1843-1922), funcionario estadístico del Estado argentino (1880-1916)." *Estatística e Sociedade*, no. 3 (2013): 110–121.

Bravo, Héctor Félix. "Domingo Faustino Sarmiento." *Prospects: The Quarterly Review of Comparative Education* 3, no. 4 (1994): 487–500.

Bushnell, David. *Reform and Reaction in the Platine Provinces, 1810-1852*. University Presses of Florida, 1983.

Campobassi, José Salvador. *Ley 1420: antecedentes históricos (1810-1884), debates parlamentarios (1881-1884), enseñanza neutral, religiosa o laica, texto y opiniones sobre los artículos de la ley, aplicación, resultados, vicisitudes y actualidad de la ley*. Ediciones Gure, 1956.

Criscenti, Joseph. *Sarmiento and His Argentina*. Lynne Rienner Publishers, 1993.

Dougherty, John E. "Juan Bautista Alberdi: A Study of His Thought." *The Americas* 29, no. 4 (1973): 489–501.

Dussel, Inés. "Counting, Describing, Interpreting: a study on early school census in Argentina, 1880-1900." In *The Rise of Data in Education Systems: Collection, Visualization and Uses*, edited by Martin Lawn. Comparative histories of education. Oxford, United Kingdom: Symposium Books, 2013.

Foster, David William. *The Argentine generation of 1880: ideology and cultural texts*. Columbia: University of Missouri Press, 1990.

Germani, Gino. *Estructura social de la Argentina: análisis estadístico*. Editorial Raigal, 1955.

Hall, Robert King. "The Elementary School in Argentina." *The Elementary School Journal* 39, no. 10 (1939): 769–776.

Harris, Jonathan. "Bernardino Rivadavia and Benthamite "Discipleship"." *Latin American Research Review* 33, no. 1 (1998): 129–149.

Hentschke, Jens R. "Argentina's Escuela Normal de Paraná and its disciples: mergers of liberalism, Krausism, and Comtean positivism in Sarmiento's temple for civilizing the nation, 1870 to 1916." *Journal of Iberian & Latin American Studies* 17, no. 1 (April 2011): 1–31.

———. *Philosophical Polemics, School Reform, and Nation-building in Uruguay, 1868-1915: Reforma Vareliana and Batllismo from a Transnational Perspective*. Nomos, 2016.

Homenaje a Sarmiento, Comisión Nacional de. *Discursos pronunciados por el presidente de la Nación, Dr. Raúl Ricardo Alfonsín y el Dr. Carlos Alconada Aramburú, presidente de la comisión nacional de homenaje en el centenario de la muerte de Domingo Faustino Sarmiento, 1888-11 de septiembre-1988*. Buenos Aires: Comisión Nacional de Homenaje a Sarmiento, 1988.

Katra, William H. *The Argentine Generation of 1837: Echeverría, Alberdi, Sarmiento, Mitre*. Fairleigh Dickinson University Press, 1996.

Korkatsch-Groszko, Maria. "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions." PhD diss., Loyola University Chicago, 1981.

Kress, Lee Bruce. "Argentine Liberalism and the Church Under Julio Roca, 1880-1886." *The Americas* 30, no. 03 (January 1974): 319–340.

Krumtum, James. "Domingo Faustino Sarmiento, the Horace Mann of Argentina." PhD diss., ProQuest Dissertations Publishing, 1936.

Lee, Jong-Wha, and Hanol Lee. "Human capital in the long run." *Journal of Development Economics* 122 (September 2016): 147–169.

López-Alves, Fernando. *State Formation and Democracy in Latin America, 1810-1900*. Duke University Press, 2000.

Loveman, Mara. "Census Taking and Nation Making in Nineteenth-Century Latin America." In *State and Nation Making in Latin America and Spain: Republics of the Possible*, edited by Miguel A. Centeno and Agustin E. Ferraro, 329–355. Cambridge University Press, 2013.

Lynch, John. *Argentine caudillo: Juan Manuel de Rosas*. SR Books, 2001.

Mainwaring, Scott, Matthew Soberg Shugart, and Peter Lange. *Presidentialism and Democracy in Latin America*. Cambridge University Press, May 1997.

Newland, Carlos. *Buenos Aires no es pampa: la educación elemental porteña, 1820-1860*. Grupo Editor Latinoamericano, January 1992.

———. "La educacion elemental en Hispanoamerica: Desde la independencia hasta la centralizacion de los sistemas educativos nacionales." *The Hispanic American Historical Review* 71, no. 2 (1991): 335–364.

Peard, Julyan G. "Enchanted Edens and Nation-Making: Juana Manso, Education, Women and Trans-American Encounters in Nineteenth-Century Argentina." *Journal of Latin American Studies* 40, no. 3 (2008): 453–482.

Provincia, Buenos Aires. *Registro oficial (de la provincia de Buenos Aires)*. Technical report. Gobierno de Buenos Aires, 1856.

Rennie, Ysabel F. Ysabel Fisk. *The Argentine republic*. New York: Macmillan, 1945.

Rock, David. *Argentina, 1516-1987: from Spanish colonization to the Falklands war*. Rev. and expanded ed. Berkeley: University of California Press, 1987.

Sabato, Hilda. *Republics of the New World: The Revolutionary Political Experiment in Nineteenth-Century Latin America*. Princeton University Press, February 2018.

Salvatore, Ricardo D. "Between Empleomanía and the Common Good." In *State and Nation Making in Latin America and Spain: Republics of the Possible*, edited by Miguel A. Centeno and Agustin E. Ferraro, 225–246. 2013.

Sarmiento, Domingo Faustino. *De la educación popular*. J. Belin i Compañía, 1849.

———. *Obras de D. F. Sarmiento, Vol. 21: Discursos Populares, Primer Volumen (Classic Reprint)*. Fb&c Limited, September 2018.

———. *Obras de D. F. Sarmiento, Vol. 47: Educar al Soberano (Classic Reprint)*. Fb&c Limited, August 2018.

———. *Obras de D. F. Sarmiento, Vol. 7: Civilización y Barbarie (Classic Reprint)*. Fb&c Limited, January 2018.

Sarmiento, Domingo Faustino, Luis Montt, and Augusto Belin Sarmiento. *Obras de D.F. Sarmiento: Educar al soberano. 1900*. Belin Hermanos, 1900.

Shumway, Nicolas. *The Invention of Argentina*. University of California Press, March 1993.

Simon, Joshua. *The Ideology of Creole Revolution: Imperialism and Independence in American and Latin American Political Thought*. Cambridge University Press, June 2017.

Soifer, Hillel David. "The Causal Logic of Critical Junctures." *Comparative Political Studies* 45, no. 12 (December 2012): 1572–1597.

Solari, Manuel Horacio. *Historia de la educación argentina*. Editorial Paidós, 1972.

Southwell, Myriam. "Juana P. Manso (1819–1875)." *PROSPECTS* 35, no. 1 (March 2005): 117–132.

———. "La Ley 1420 y la tarea de los Inspectores escolares." *Historia de la Educación* 16, no. 1 (2015): 63–72.

Szuchman, Mark D. "Childhood Education and Politics in Nineteenth-Century Argentina: The Case of Buenos Aires." *The Hispanic American Historical Review* 70, no. 1 (1990): 109–138.

———. "Imagining the State and Building the Nation: The Case of Nineteenth-Century Argentina." *History Compass* 4, no. 2 (March 2006): 314–347.

———. *Order, Family, and Community in Buenos Aires, 1810-1860*. Stanford University Press, 1988.

Twinam, Ann. *Purchasing Whiteness: Pardos, Mulattos, and the Quest for Social Mobility in the Spanish Indies*. Stanford University Press, January 2015.

Weber, Eugen. *Peasants Into Frenchmen: The Modernization of Rural France, 1870-1914*. Stanford University Press, 1976.

Wright, Winthrop R. *British-owned railways in Argentina: their effect on economic nationalism, 1854-1948,* Latin American monographs (University of Texas at Austin. Institute of Latin American Studies) ; no. 34. Austin: Published for the Institute of Latin American Studies by the University of Texas Press, 1974.

Chapter 5

CHILE

5.1 Introduction

> The question is whether universities and literary bodies are suitable instruments for the spreading of enlightenment. *I can hardly conceive of any doubt about this, in an age that is, par excellence, one of association and representation.*—Andrés Bello[1]

On August 26, 1920, the Chilean parliament passed *La Ley de Instrucción Primaria Obligatoria* (Law of Obligatory Primary Instruction), or *Law No. 3654*, under President Juan Luis Sanfuentes. The law established free and compulsory public primary education by the state for the first time in the history of the republic.[2] The law followed decades of debate on the organization of the primary education system since the landmark Primary Education Act of 1860 established the principle of free co-educational primary schooling at the direction of the state. The 1920 law granted greater centralized control over mass education, yet did not disrupt the parallel system of private ecclesiastical education and public schooling the developed during the 19th century. Nor did the law dismantle the long-established influence of the Catholic Church on the maintenance of religious instruction in primary schools. Why did the Chilean government take nearly a century following independence to consolidate a national education system? What explains the long gestation and incremental development of the public education system despite the 1833 Constitution granting the government responsibility for organizing education? Given Chile's unitary government, strong central

1. Speech delivered at the inauguration of the University of Chile. Bello, *Selected Writings of Andrés Bello*.

2. Campos Harriet, *Desarrollo educacional*.

state, and elite consensus, the failure of the 1860 Primary Education Act to impose a centralized, compulsory, and free primary education system on par with Argentina's Law 1420 is a puzzling development.

Chile stands out among 19th century Latin America for its relative political stability following independence. Chilean 'exceptionalism' is evidenced by the early adoption of a constitution under a unitary government in 1833, which remained uninterrupted until 1925, and comparably higher state capacity than its neighbors. By contrast, Argentina did not benefit from a sustained period of internal political stability and state-building until nearly three decades after Chile. The Chilean state's rapid bureaucratic development following the establishment of a constitutional, albeit autocratic, regime suggested favorable conditions for state centralization of education at all levels. Like the city of Buenos Aires during the Rivadavian Epoch, moreover, Santiago emerged as an intellectual center where elites of all political stripes debated foundational ideas about the Chilean national project. This chapter evaluates the theoretical arguments in the case of Chile to explore the period leading up to the 1960 Law of Primary Instruction. Specifically, this chapter explores 19th century Chilean educational development as a contrast to Argentine educational development to explain why the Chilean state took longer to establish compulsory and free public education and ultimately stopped short of the degree of centralization of Argentina's Law 1420.

First, I situate Chilean educational development in the context of the post-independence intellectual and political environment prior to the adoption of the 1833 Constitution under the Diego Portales regime. The educational thought of Venezuelan-Chilean diplomat and philosopher Andrés Bello (1781-1865) was formative during this period and influenced intellectual elites in the Generation of 1842, such as José Victorino Lastarria. Lastarria would emerge as an important Chilean liberal intellectual and educational thinker during the mid-19th century in support of state-sponsored popular education.[3] Bello's outsized role in shaping elite discourse regarding education in the new republic proves to be formative for state-building efforts in mass education. Second, I examine the twenty-year period of the

3. Barr-Melej, *Reforming Chile*.

successive presidencies of Manuel Bulnes (1799-1866) and Manuel Montt (1809-1880) from 1841 to 1861 marked the first wave of national educational development. The Bulnes-Montt period largely focused first on the establishment of elite state institutions at the secondary and university level. Though the Montt government succeeded in the passage of the Primary Education Act of 1860, I will argue that this period did not represent a national critical juncture for education centralization.

Despite the emergence of *productive conditions* for educational consolidation, e.g., the early development of the information capacity beginning with the 1835 National Census and 1843 creation of the *Instituto Nacional de Estadística de Chile* (INE), or National Statistics Institute, coupled with the formation of Chilean educational ideas among elites, a centralized, free, and compulsory mass education system failed to take shape. The propitious conditions never emerged to offer causal weight to information capacity and the education ideology promoted by liberal nationalists, an exiled Domingo F. Sarmiento, and President Manuel Montt. Rather, the relative political stability and consensus among the dominant Conservative elite and Catholic Church prevented the sort of prolonged political uncertainty that favors the adoption of new institutions, such as mass education, as a tenet of Chilean nationalism and political order. Finally, I conclude the chapter by applying a critical junctures framework to assess the validity of my theoretical argument in the Chilean case and how Chilean educational development approximates a counterfactual comparison with Argentina.

5.2 Education in the Early Chilean Republic: From Independence to the Conservative Consensus

Following independence, Chile set itself apart from much of Latin America in the early adoption of a stable constitution in 1833. In contrast with Argentine political development, the social and economic conditions of the country in combination with a dominant Conservative elite contributed to the quick resolution of cleavages around Liberalism, Federalism, and the role of the Catholic Church.[4] However, the early intellectual environment of Chile looked

4. Bethell, *Chile Since Independence*.

much like that of the United Provinces of Río de la Plata and the May Revolution. Elites wrote admiringly of republican institutions in the mold of the United States and the need for a "national morality." Writing in 1826, Juan Egaña demonstrated the widespread belief in the need to create a virtuous public, declaring that "the basis of politics should be to cultivate the virtues and to establish them amongst all classes of society."[5] As early as 1818, Chilean intellectuals began to view education as a means to moderate "national passions" and inculcate enlightenment principles as a bulwark against tyranny.[6]

The political and intellectual *critical antecedents* of Chilean education could be traced, however, to the provisional government during the first years of the War for Independence. The colonial education system left the overwhelming majority of the population illiterate. In response, pro-independence creole elites were eager to break with what they viewed as a despotic regime in the formation of new educational institutions in the context of a broader state project.[7] For example, the Junta of 1813 wrote in the Decree of June 1, 1813 on the political necessity of education for a fledgling republic: "[All] States degenerate and perish in proportion to their neglect of national education . . . If it is necessary to form character, and inspire in the People a certain type of morality analogous to their circumstances and constitutions, then it is doubly necessary in an infant State."[8] The Liberal faction of revolutionaries was particularly hostile to the 'backward' Spanish education regime. An anti-Spanish zeal permeated the urgency around education as a task for the new state.[9] However, the political and intellectual discourse around education at times centered the need for elite educational institutions while at other times centering mass education as a priority.

The creation of the *Instituto Nacional* (IN) in 1813 embodies the tension between a Chilean education that disrupts the colonial state to create an enlightened public and one that still largely serves the creole elite. In principle, the IN was to be de novo public institution of

5. Collier, *Ideas and politics of Chilean independence 1808-1833*, 165.
6. Ibid., 166.
7. Ruz, "Enlightenment, education, and the republican project," 482.
8. Collier, *Ideas and politics of Chilean independence 1808-1833*, 167.
9. Ibid., 197-198.

secondary education, modeled on the Napoleonic lycée system, offering practical and applied scientific education as the basis of republican education.[10] Juan Egaña, tasked by the Junta of 1813, emerged as the dominant figure behind the project. Egaña faced resistance from the Church when the Board of Education attempted to absorb colonial educational institutions, including seminaries, under the auspices of the IN. The Ecclesiastical Cabildo nearly shut down the project forcing Egaña to negotiate a concordat that ended up cementing the already predominant ecclesiastical influence over education within the very organizational structure of the IN. In a preview of the conservative consensus to come, the *Instituto* formed as a contradictory educational institution that promoted both enlightenment values and the traditional Christian morality of the colonial order.[11]

Over the next decade, any movement on the part of the *pipiolos*, or liberals, to develop competing institutions failed to break the hegemony of pro-ecclesiastical sympathies and elite-centered education. In particular, General Bernardo O'Higgins, independence leader and Supreme Director of Chile (1817-1823), emerged as an aggressive reformer following the Chilean republic's Declaration of Independence in February 1818. O'Higgins represented the authoritarian conservativism of the dominant Chilean elite while his ally General Ramón Freire spoke on behalf of the *pipiolo* movement who sought to "build the Republic on the ruins of the Colony."[12] Yet, O'Higgins championed state intervention in education, going as far as to promote the Lancasterian System and the need for schooling across all social classes and not just the aristocracy. Likewise, O'Higgins, along with Egaña, believed that Chile could be improved through European immigration.[13] Much like Argentine intellectual and constitutionalist Juan B. Alberdi, O'Higgins discussed the government's role in education in

10. Ruz, "Enlightenment, education, and the republican project," 486. In many ways, the creation of the College of Moral Sciences and its role in educating post-independence elites in Buenos Aires under Rivadavia (Chapter 4) serves as a corollary of the *Instituto Nacional*.

11. ibid. As Ruz notes, "In the Instituto's rules and regulations, it is noticeable that a body that promised to be a revolutionary institution was established upon a series of limitations which actually minimised its differences from the preceding colonial institutions."ibid.

12. Bethell, *Chile Since Independence*, 2-3.

13. Collier, *Ideas and politics of Chilean independence 1808-1833*, 249.

terms of promoting industriousness and an enlightened political and bureaucratic elite.[14]

After liberals and federalists rejected the centralism of Egaña's provisional constitution of 1823, Ramón Freire deposed O'Higgins and ushered in a short period of liberal rule in Chile as Supreme Director.[15] The liberal governments of 1823 to 1829 embarked on a reform agenda characterized by a discourse of anti-clericalism and anti-aristocracy. For example, Freire's final *pipiolo* successor as president, General Francisco Antonio Pinto, reconstituted the IN to serve the regime's interests and created a completely secular competitor institution in the *Liceo de Chile*.[16] But the conservative reaction was too great and generated a coalition of pro-clerical traditionalists (*pelucones*, O'Higgins loyalists, and *estanqueros* (e.g., members of the state tobacco monopoly) led by Diego Portales. The coalition formed the foundation of what would eventually become the Conservative Party of Chile in 1836. Meanwhile, the liberals and federalists devolved into factionalism as conservative anger came to a head in response to provisions in the 1828 Constitution that would have abolished the Spanish inheritance system of the landed elite, or *mayorazgo*. In 1829 a beleaguered Pinto resigned in anticipation of the coming conservative revolt.[17] The civil war of 1829 to 1830 ended in the defeat of Freire and ushered in the 'Conservative settlement' that governed the Chilean republic for decades to come.[18]

The Conservative political settlement began its proper reign over the state with the election of traditionalist General José Joaquín Prieto as president in 1831. Prieto, an avowed *pelucón*, would go on to serve two consecutive five-year terms until 1841, with his second term marking the first administration formally under the banner of the Conservative Party. It was Diego Portales, however, who most embodied the political principles that guided the

14. As O'Higgins declared in the Convention of 1822: "The current state of civilization and learning discloses the need to stimulate, or rather plan, our education and learning in an effective and sufficient manner. We need to shape statesmen, legislators, economists, judges, businessmen, engineers, architects, seamen, hydraulic experts, mechanics, chemists, artists, farmers, merchants . . .Collier, *Ideas and politics of Chilean independence 1808-1833*, 249.

15. Ibid., 308-309.

16. Ruz, "Enlightenment, education, and the republican project," 491.

17. Collier and Sater, *A History of Chile, 1808-2002*, 49-50.

18. Bethell, *Chile Since Independence*, 3.

new regime—principles that premised on a strong skepticism of the capacity of the masses for virtuous citizenship. Historians agree that until his untimely assassination in 1837, minister Portales governed as the de facto executive authority during the Prieto government.[19] From the collapse of the liberals in 1829, Portales demonstrated his effectiveness for maintaining order as minister of Interior and External Affairs and War and Navy under the transitional presidencies of Francisco Ruiz Tagle and José Tomás Ovalle. For Portales, the maintenance of tradition and social order through what historians describe as a combination of "colonial authoritarianism [and] outward forms of republican constitutionalism."[20] Portales and his contemporaries were concerned, above all, with keeping popular social forces at bay that might contest the legitimacy of the Conservative settlement. In a letter to a business partner in 1822, Portales clearly articulated the elitist and authoritarian vision for Latin American republicanism that shaped political discourse under the new regime:

> *Democracy*, which self-deceived men proclaim so much, is an absurdity in countries like those of America, which are full of vices, and whose citizens completely lack the virtue necessary for a true *Republic* [. . .] The *Republic* is the system we must adopt; but do you know how I conceive it for these countries?—a strong, centralizing government whose members are genuine examples of virtue and patriotism, and thus set the citizens on the straight path of order and virtues. When they have attained a degree of morality, then we can have the completely liberal sort of Government, free and full of ideals, in which all the citizens can take part.[21]

Portales' fears of the breakdown in social order from 'too much democracy' echoes Egaña's concern with the risks of 'too much education' dating back to 1813. As optimistic as Egaña was about the potential for education to inculcate in children moral principles that should

19. Collier and Sater, *A History of Chile, 1808-2002*.
20. Ibid., 54.
21. Collier, *Ideas and politics of Chilean independence 1808-1833*, 339.

"govern their opinions, sentiments and habits," he outright rejected education that could foment an overly independent sense of citizenship: "an excess of culture, particularly of religious and political knowledge, produces restlessness, price, and a spirit of innovation."[22]

During the 1829 to 1831 period, Portales' ideas for order and progress enjoyed significant popularity among conservative elites seeking to maintain the social and economic hierarchy inherited from the colonial state. By contrast, the conservatives saw the liberal 1828 Constitution as a recipe for anarchy that failed to take into account the education and public morality of the masses. The nascent Chilean state would have to govern the population with tradition and custom until such a time that the masses could demonstrate an enlightened proclivity for law and order.[23] The dispute over the 1828 Constitution very much echoed the deepening rift between unitarians and federalists that took place in Buenos Aires over Rivadavia's 1826 Constitution.[24] Thus, was the political backdrop for the adoption of a new constitution that went into effect in May 1833.[25] Portales' ideological influence on the formulation of the constitution was clear, but the General took no part in deliberations by the committee tasked with revising the 1828 Constitution. The committee included Juan Egaña's son, Mariano, and most notably the Venezuelan-Chilean intellectual and education reformer Andrés Bello.[26] Meanwhile, Portales reorganized the country's militias during the Prieto government into a national guard led by an officer class of the wealthy elite and infantry that far outnumbered the regular army.[27]

The 1833 Constitution codified the core principles of the Conservative settlement. The result was a centralist (e.g., unitary) government under a strong presidential system that allowed for two consecutive five-year terms. The executive was granted extensive emergency powers and the ability to suspend civil liberties and impose states of siege in whatever

22. Collier, *Ideas and politics of Chilean independence 1808-1833*, 273.
23. Ibid., 337.
24. Shumway, *The Invention of Argentina*.
25. Collier and Sater, *A History of Chile, 1808-2002*, 55.
26. Ibid., 54-55.
27. Ibid., 56.

provinces the president deemed necessary to maintain order. Moreover, the electorate was a small and elite subset of the population due to the strict property and literacy requirements, but also allowed for artisans and craftsmen who could demonstrate a yield of more than 200 pesos per year.[28] The result was four consecutive 'decennial' administrations under Conservative party presidents under an executive that exercised extensive control through patronage, administrative autonomy, and frequent use of emergency powers. Remarkably for 19th century Latin America, the Chilean Constitution of 1833 would operate uninterrupted until 1891 and go unamended until 1925.[29]

The 1833 Constitution also incorporated precepts introduced by Mariano Egaña that expanded the role of the government in the realm of education. In particular, Article 153 obligated the state to give "preferential attention" to public education by charging Congress with forming a general plan for national education. Article 154 also established a Superintendent of Public Education charged with directing school inspections. However, the constitutional provisions left much of the responsibility of promoting education to municipalities. Even though the provision granted the state the authority to establish a public education system, the government leaned on private and religious educational institutions and the IN to expand education due to a lack of resources.[30]

Once the constitution took effect, the resulting legal framework of education created three categories of schools: municipal schools, schools funded by the National Treasury, and ecclesiastical schools administered by religious orders.[31] The broad and somewhat vague educational mandate of the 1833 Constitution was followed on February 1, 1837 by the more focused Organic Law of Education that created the Ministry of Justice, Worship, and Public Instruction. The ministry was granted authority to, among other responsibilities, inspect schools, allocate scholarships to students and pensions to teachers, promote educational

28. Collier and Sater, *A History of Chile, 1808-2002*, 55-56.
29. Bethell, *Chile Since Independence*, 4.
30. Jaksic and Serrano, "In the Service of the Nation," 144.
31. Campos Harriet, *Desarrollo educacional*, 17.

development, and generally "direct education throughout the national territory."[32]

The burgeoning Portalian state also leapfrogged much of the continent in the realm of official statistics. Between 1834 and 1835, the government launched the first official population census, resulting in the 1835 publication of *Censo General de la Población de Chile I*.[33] Chile was the only Latin American republic to assess a comprehensive population census other than Peru until the following decade.[34] The census registered 1,103,036 inhabitants and even surveyed the state of public instruction in Article 24, albeit at a cursory level. At the time, Santiago de Chile only made up roughly 9 percent of the total population (97,786 inhabitants). Notably missing, however, was a section on primary education despite sections on universities, medical training, and the *Instituto Nacional*; nor was there any effort to collect data on literacy rates among the population.[35] Though the state would not survey the literacy rate until 1865,[36] the central government's growing administrative apparatus was, at the very least, supported by a great deal more statistical knowledge than other governments in the region at this point.

Thus, the Conservative settlement and institutional environment was set for the state-building and nation-making project of the republic. The next decade would see a critical wave of Chilean intellectualism and political thought, influenced largely by Andrés Bello's work as a statesman and educational reformer, flourish with the emergence of the Generation of 1842. Much as Alberdi and Sarmiento emerged as leading thinkers of the Argentine national project from the Generation of 1837, Bello, Montt, and Generation of 1842 luminary José Victorino Lastarria would leave their imprint on Chilean educational development.

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32. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 24.

33. *Censo Nacional de Chile*.

34. Loveman, *National Colors*.

35. *Censo Nacional de Chile*, 133.

36. *Censo jeneral de la República de Chile*.

5.2.1 The Generation of 1842 and the Intellectual Foundations of Chilean Education

The Conservative settlement generated a somewhat contradictory period of intellectual and political development. On the one hand, the 1833 Constitution solidified the hold of the Chilean oligarchy and quasi-authoritarian centralism preferred by the dominant conservative elite. On the other hand, the anomalous stability and security of the Chilean republic from the 1830s made it attractive safe haven for intellectuals and political dissidents from neighboring countries. In particular, young Argentine intellectuals of the Generation of 1837, including Alberdi and Sarmiento, fled to Santiago after the ascent of the Rosas dictatorship.[37] For all of the ideological and institutional trappings of conservative Chile, Latin American liberals found the capital city of Santiago a safe and hospitable intellectual environment to develop their ideas.

At the center of this intellectual activity stood Andrés Bello, whose ideas about education anchored debates about the future of the Chilean education system, specifically, and education in Latin America more broadly.[38] The founding of the state-run University of Chile in 1842, with Bello as its first rector, created an environment for young Chileans to form the literary and historical society known as the Generation of 1842. Prior to serving as rector of the university, Bello directed the *Colegio de Santiago*. The "Portalian" stability of the 1830s and the existence of elite educational institutions, such as the *Colegio de Santiago* and *Instituto Nacional*, also facilitated the growth of a young Chilean intellectual elite.[39] While the influence of Bello over educational development looms large throughout the 19th century, more radical thinkers emerged from the Generation of 1842 to challenge Bello's hold on Portalian education. In particular, José Victorino Lastarria, a liberal romanticist, gained intellectual influence through his writings and public feuds with Bello, a historical traditionalist.[40]

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37. Weinberg, "Andrés Bello (1781-1865)," 6.
38. Jaksic, *Andrés Bello*.
39. Wood, "The republic regenerated," 9.
40. Barr-Melej, *Reforming Chile*, 55.

Andrés Bello (1781-1865), originally from Caracas, cut a circuitous path to his role as a Chilean statesman. Bello worked in his youth as a tutor for Venezuelan elites, including as a teacher of protegé and revolutionary leader Simón Bolivar, before becoming a colonial administrator. His intellectual development was influenced largely by the ideas of Alexander von Humboldt and his two decades living in London. His work in London as a Venezuelan dignitary, writer, translator, and publisher exposed him to the work of utilitarian thinkers such as Jeremy Bentham and James Mill.[41] In particular, he viewed the rapid industrialization and social change in Britain as a model for material progress.[42] Meanwhile, Bello bore only a distant witness to the events unfolding during the Independence Wars through news reports and correspondence. After struggling to find a welcome home in a now independent and fractured Latin America, Mariano Egaña invited Bello to join the Ministry of Foreign Affairs and thus began his political life in Chile in June 1829.[43]

Bello's educational thought reflected his political conservatism and tendency to reject the binary between progress and traditionalism. The result was a set of ideas focused, above all, on the importance of elite institutions of secondary and university education as the foundation of an enlightened republic. In contrast with Sarmiento's self-described "mania" for universal and uniform primary education across social classes, Bello's thinking was grounded in the social and economic hierarchies that defined Chilean society. In an 1836 essay, *On the Aims of Education and the Means of Promoting It*, Bello outlines his educational philosophy. In it, Bello strongly advocates for mass education, but not necessarily for the purpose of equalizing the material or political potential of the population:

> But not all members of society need have the same education, though it is essential that all have some, for each person has a different way of contributing to the common wealth. No matter how much equality is established by political institutions, there nevertheless exists in all peoples an inequality [. . .] an

41. Weinberg, "Andrés Bello (1781-1865)," 3.
42. Ibid., 1-2.
43. Ibid., 4.

> inequality of condition, of needs, of style of life. Education must adjust itself to these differences in order to achieve the useful ends to which it is applied [. . .] It is very easy to think that all men are capable of an equal breadth of knowledge; but since there should only be a question of giving each man sufficient knowledge to attain the happiness he desires in his station in life, the question must be limited to the knowledge most useful for him.[44]

In the same essay, Bello expresses support for general and uniform instruction in the mold of the Prussian system of compulsory schooling. But he is pessimistic about whether the state could compel parents to send their children to schools. Bello's theory of mass education rests on three ideas. First, the state would need to create teacher-training schools before 'general instruction' could be implemented. Second, schools of general instruction (e.g., primary schools) would be targeted for the "impoverished classes" and not provide any more education than would be required for "productive labors." Echoing Egaña before him, Bello sees post-primary education for the masses as harmful by "exposing them to ideas that would not be of proven value [to their] lives," while the wealthy classes have the means, and are better-suited, to pursue "more careful education." Third, the government has a duty protect religious (e.g., Catholic) instruction: "as one of the chief instruments of the common wealth [the] principles of our religion must necessarily occupy first place, for without them we could not have a standard to guide our actions, one which [. . .] enables us to perform our duties to God, to men, and to ourselves."[45]

It is important to note that while Bello wrote on education, his ideas stopped short of a detailed vision for the organization of a mass education system at the national level. Unlike Sarmiento, Bello never developed a formal philosophy of education, nor did he engage deeply with pedagogical debates informed by thinkers such as Froebel, Mann, or Pestalozzi. Rather, Bello was more interested in connecting republican government to the proliferation of

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44. Bello, *Selected Writings of Andrés Bello*, 110-111.
45. Ibid., 113.

universities and elite educational institutions.[46] Bello believed that primary education would naturally develop in part as a consequence of a robust system of higher education, including normal schools of teacher training.[47] Thus, while it would be unfair to dismiss Bello's belief in primary schooling as insincere, his career demonstrates his dedication to higher education as the motor of national educational progress.

5.3 The Educational Moment in Chile: From the University of Chile to the Principle of Free Primary Education, 1842 - 1860

5.3.1 The University of Chile and the Organization of Mass Education

By 1841 the public primary education sector (e.g., fiscal primary schools) remained underdeveloped, with only fifty-six across the republic. Moreover, primary schools were mostly run by schoolmasters with little more education beyond reading and writing. Prompted by statements in the press by Bello, the new government under Prieto's successor, President Manuel Bulnes, sought to remedy the poor state of basic education. On behalf of the Bulnes government, the Minister of Public Instruction, Manuel Montt, issued a decree on January 18, 1842 to create the first state normal school in Santiago, *La Escuela Normal de Los Preceptores*.[48] None other than Argentine exile and educator Domingo F. Sarmiento was appointed as the Normal School's first director when it opened in 1843. The liberal Montt, like Sarmiento, departed from Bello in the belief that education for the masses, not elite higher education, was the solution to national progress. Eventually Montt would commission Sarmiento to study popular education systems abroad, which resulted in the 1848 publication of *Informes sobre educación* that called for universal public education.[49] However, it was the Univer-

46. Kilgore, "Notes on the Philosophy of Education of Andres Bello," 557.

47. For example, Bello argued that primary education could only thrive "where the arts and sciences are already in a flourishing state" and when a normal school could supply "good and upright masters" prepared to instruct their pupils in moral and religious lessons. Caldera, *Andrés Bello*, 103.

48. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 25.

49. Korkatsch-Groszko, "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions," 19-20.

sity of Chile, under the rectorship of Bello, that became the organizing center of primary education.[50]

The creation of the University of Chile (UCH) was authorized in the 1833 Constitution according to Bello's vision for a national state university to guide the intellectual development of the republic. By the end of the second Prieto administration, the government believed the IN failed to live up to its founding mission as an effective regulatory body and national center of Chilean educational development. However, while the founding of the UCH re-located the pedagogical system of the country, the IN remained the dominant educational institution for training the elite sectors for jobs in civil service and industry. By 1850, the Institute transformed into a "national preparatory school" for children of the wealthy elite hoping to gain entry to UCH and commanded an outsized share of the state education budget.[51]

The university took on many of the non-instructional tasks of the IN and was granted superseding authority to regulate primary schooling in the country. As a consequence, Montt and the Ministry of Public Instruction, itself fused with the Ministry of Justice, took on a subordinate role in governing primary public education and shaping the pedagogical direction of the nation.[52] By 1844, all "state-operated" education was under firm control of the new Council of Public Instruction at UCH, led by Bello and a committee of faculty deans and political appointments.[53] With the Council of Public Instruction in place, UCH became the "Superintendency of Education" as set forth by Bello in Subsection 2 of Article 8 of the Organic Law of the University of Chile. The law articulated that the University of Chile would be responsible for "the direction of the primary schools, proposing to the Government the rules that it deems most convenient for their organization, and taking charge of the writing or revision of the books that are to serve in them, keeping a statistical record, which

50. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 25.

51. In 1850, the IN received 12 percent of all allocated education funding compared to the 16 percent and 15 percent allocation, respectively, for primary and secondary education as a whole. Barr-Melej, *Reforming Chile*, 144.

52. Ibid.

53. Jaksic and Serrano, "In the Service of the Nation," 144.

presents each year a complete picture of the state of primary education in Chile and through its members or intelligent correspondents, the visit and inspection of schools primary of the capital of the provinces."[54]

The early organization of the Chilean public education system rested on an intellectual and institutional foundation organized by Bello. In his inaugural address of the University of Chile on September 17 of 1843, Bello outlined not just the aims of the university but also a political philosophy that lauded the advancement of scientific knowledge, the inseparability of religion and morality, and an education system and republic built on past traditions. For example, Bello signaled that the legal system and national laws should build upon existing legislation inherited from the Spanish metropole and promoted the study of Roman law.[55] On educational matters and more, Bello's sympathies for the conservative and traditionalist Portalian state clashed with the liberal and more populist educational ideas of his younger contemporaries in the Generation of 1842. Lastarria , in particular, was critical of Chilean education under Bello's scheme. Lamenting the "limited horizon" and reach of public education in the first decade of the Portalian state, Lastarria observes in his memoirs:

> Thus, all educational institutions were quite far from serving the education of a democratic nation; and since primary education was limited to teaching reading and writing in the wealthiest population centers, it is not overstating the case to declare that at that time the education of youth was not only lacking, but also unable in all respects to produce educated men, or even to setting out on a reliable road those students who aimed to complete their schooling [. . .] the results were favorable neither to democratic progress, nor to the emancipation of the spirit and of letters.[56]

Lastarria and Sarmiento formed an intellectual kinship based on their shared belief of

54. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 25-26.

55. Jaksic, *Andrés Bello*, 129.

56. Lastarria, Washbourne, and Nunn, *Literary Memoirs*, 60-61.

literary production and mass education for developing a modern nation. Much like his friend Sarmiento, Lastarria was himself a liberal historian, fiction writer, and politician, pioneered Chilean "literary nationalism" in advocating for a modern literary tradition that would define the "national character" based on the historical experience and social realities of the republic.[57] Though a former student of Bello, Lastarria was "appalled" by Bello's inaugural address to the University, going so far as to dub his mentor the "chorus master of the intellectual counterrevolution" and "servant" of the authoritarian Portalian state.[58] Similarly, Sarmiento, who also saw Bello as a mentor of sorts, derided him in the press as a reactionary figure stifling educational and national progress.[59] Despite their polemics against Bello, Lastarria and Sarmiento viewed the first years of the Bulnes presidency and stability of the Portalian order as a favorable period for the intellectual growth of Chile.[60]

5.3.2 Lastarria, Montt, and the Struggle to Reform the Portalian Education Regime

The liberal romanticism of Generation 1842 failed to gain much traction in the intellectual milieu of Bello's university.[61] However, Lastarria saw an opportunity to contribute to the spread of public primary education under the auspices of University of Chile's educational mandate. In 1843, Lastarria presented a plan to organize primary education to Congress and the Faculty of Philosophy and Humanities at UCH. The plan was rejected, with the major Chilean newspaper *El Mercurio* noting that consensus on the role of the state in primary education was still ill-defined.[62] Likewise, Montt's educational liberalism, along with Sarmiento's ideas for popular education, struggled in the shadow of the University of Chile

57. Barr-Melej, *Reforming Chile*, 80.

58. Jaksic, *Andrés Bello*, 133. In response to Bello's speech and its intellectual repudiation of the younger Generation of 1842, Lastarria writes: "Thus the man who represented the highest learning among us imposed the old laws on our new hopes. His position became a major force protecting the stale traditions that chained the human spirit, and from which we wanted to achieve independence." Lastarria, *Recuerdos literarios*, 234 as cited in Jaksic, *Andrés Bello*, 133.

59. Ibid., 146-147.

60. Barr-Melej, *Reforming Chile*, 80-81.

61. Ibid., 81.

62. Couyoumdjian, "Primary Education and Fiscal Policy in Mid-19th Century Chile," 150.

during the Bulnes presidency.

Montt, while a devoted conservative and supporter of the Portalian regime, nevertheless had more in common with the liberal Sarmiento in his views on popular education than those of Bello. As the end of the Bulnes administration neared, Bello and the Council of Public Instruction at UCH had yet to adequately address public primary education, even with the creation of the national Normal School in 1842.[63] As a Deputy in the National Congress lower house, the Chamber of Deputies, Montt followed up Lastarria's failed plan to organize primary education with legislation in 1849 that sought to remedy what he saw as a largely fiscal barrier to the spread of public primary schools. The plan eventually took shape as an ambitious proposal explicitly modeled on ideas from France, Prussia, and the United States that would blend decentralized municipal financing of primary schools with centralized administration and inspections. The influence of his friend Sarmiento's ideas from the recently published *De la Educación Popular* were apparent to his fellow politician and scholar, Diego Barros Arana, and the Chilean press.[64] Despite the simmering political rivalry between Montt and Lastarria, Lastarria praised the spirit of the plan in the Chamber of Deputies stating that primary is "an indispensable condition for the development of society, and therefore a right the State should satisfy."[65]

The plan, like Lastarria's 1843 proposal, was well-received as an important effort but dismissed as an overreaching and politically untenable solution for a small problem. For many of Montt's contemporaries, the redistributive implications of the plan combined with a widespread assumption that the masses neither sufficiently cared about nor needed education did not justify the fiscal burden on the tiny eligible electorate of mostly artisans and landowners. For liberals with populist leanings like Lastarria, the plan would unduly burden small artisans and other less affluent sectors of the electorate, while conservatives saw any standardization of inspections and funding as antagonistic to the Church, still largely tasked

63. Jaksic, *Andrés Bello*.

64. Couyoumdjian, "Primary Education and Fiscal Policy in Mid-19th Century Chile," 150-151.

65. Collier and Collier, *Chile*, 114.

with administering and financing schools.[66] Moreover, Sarmiento's local funding scheme was seen as a step toward federalism that would potentially undermine the strong, unitary state created by Portales.[67] There was also an authoritarian and anti-populist current to the public debate around the potential for expansive primary education to spread civic virtue. Writing in *Revista de Santiago* in 1849, Andrés Bello's son, Juan Bello, argued that there was widespread belief in the notion that "providing instruction to the popular classes [the pejoratively-termed *rotos*] could also lead to a subversion of authority."[68] Such a sentiment surprisingly failed to animate liberals to support Montt's proposal, likely as a consequence of Lastarria's looming rivalry with Montt for the next presidential election. After multiple legislative debates, commissions, and revisions to the plan over the course of a year, Montt's project nevertheless collapsed in Congress in June 1850.[69]

The status of mass education in mid-nineteenth century Chile reflected the victory of Bello's "neo-Aristotelian" views on education and social inequality described years earlier in *On the Aims of Education and the Means of Promoting It.*[70] During the Bulnes years, Montt's challenges to Bello's educational orthodoxy and alliance with Sarmiento eroded his support among the conservative elite.[71] In 1845, just three years after assuming the directorship of the *Escuela Normal* and a faculty appointment at UCH to help Bello standardize grammar, Montt re-assigned the troublesome Sarmiento to a three-year diplomatic study of education in Europe and the United States that culminated with the publications of *Educación Popular* in 1849 and *Informes sobre educación* in 1856.[72] Despite the construction of a formative administrative state, state normal school, and creation of the Council of Public Instruction, public primary education was largely neglected during the Bulnes years. For example, in 1841 Santiago was home to seventy-eight primary schools, only eight of which were

66. Couyoumdjian, "Primary Education and Fiscal Policy in Mid-19th Century Chile," 160.
67. Ibid., 168.
68. Ibid.
69. Ibid., 152.
70. Barr-Melej, *Reforming Chile*, 145.
71. Jaksic, *Andrés Bello*, 143.
72. ibid., 149. See Chapter Four of this study for more on Sarmiento during this period.

public municipal schools. By 1853 the national balance between public and private primary schools achieved near parity (280 public and 281 private), but primary school enrollment as a proportion of school-aged children was stuck at ten percent.[73] However, the bureaucratic infrastructure of the state continued to advance, even as the central government and UCH largely ignored their mandate to organize a public primary education system.

In particular, 1843 proved to be an eventful year for the consolidation of the statistical apparatus of the central government. Under Decree No. 18 of March 27, the Bulnes government created the Office of Statistics under the Ministry of Interior ahead of the second national census (*Censo General* II) administered October of that year. This was followed up with the Census Act of July 12, which codified the state's obligation to administer a national census on a decennial basis. With the passage of Law No. 187 in September 1847, the Bulnes government transformed the Office of Statistics into a permanent state agency: *El Instituto Nacional de Estadísticas de Chile* (INE). The INE, or National Institute of Statistics, was thereafter responsible for organizing the national census and enforcing the Census Act of 1843. The result has been a nearly uninterrupted *Censo General* at ten-year intervals ever since.[74] Thus, while the combined efforts by Montt, Lastarria, and Sarmiento to increase the role of the state in mass education collapsed under the weight of factionalism, political expediency, and a notable disinterest and lack of urgency among elites for advancing primary education, the central state was well-positioned to finally act once Manuel Montt assumed the presidency in 1851.

5.3.3 Manuel Montt and The General Law of Primary Education of 1860

On August 31st, 1851, Manuel Montt was declared president-elect of the republic. As a deputy, minister of Interior of Foreign Affairs, and minister of Public Instruction, Montt built a strong reputation such that even his adversary Latarria described him as "energetic, decisive, systematic, tenacious"—qualities he saw as lacking in the liberal opposition leader-

73. Barr-Melej, *Reforming Chile*, 145.

74. Estadisticas, *Los Censos de población en Chile y su evolución histórica hacia el Bicentenario*.

ship.[75] Montt overwhelmed his liberal opponent, General José María de la Cruz, among the broader electorate. Both candidates campaigned as champions of liberty and the working class against an aristocratic and regressive opposition, but the political momentum clearly favored the conservative Montt.[76] He had the support of the two major Chilean newspapers *El Mercurio* and *La Tribuna*, while his friend Sarmiento broke from Lastarria and fellow liberals of Generation 1842 in publishing a glowing pro-Montt manifesto. Unsurprisingly, Bulnes used the weight of his office throughout the national territory to promote Montt as the best way to continue the decades-long stability and progress that began with the Prieto-Portales government.[77] Montt won every province except Concepción, where Cruz and the liberal opposition was based.[78]

In the lead-up to the election, Lastarria found himself politically isolated and in temporary exile. After a group of his liberal allies, including Francisco Bilbao, attempted an uprising in April 1851, Lastarria lost his professorship at *Instituto Nacional* and was ejected from the Chamber of Deputies.[79] The civil war of 1851 was the first major crisis of the Portalian regime, but one that was limited in scope and contained quickly. The Liberal insurrection was no match for Montt and the durable Portalian regime firmly in place after two decades of Conservative rule.[80] The conflict of 1851 suggests an insurmountable rift between Liberals and Conservatives; however, there was significant ideological overlap between both camps on the notion of liberty and civilizational *progress* as a goal of the republic, broadly, and the promotion of progress through education and immigration, specifically.[81] The subsequent decade, despite a brief internal challenge to the regime, presented a significant political opportunity for organizing and expanding primary education under a president who has long promoted popular education.

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75. Collier and Collier, *Chile*, 84.
76. Ibid., 96.
77. Ibid., 95.
78. Ibid.
79. Ibid., 94.
80. Ibid., 102.
81. Ibid., 105.

Aside from the legislative stalemate on primary education under the Bulnes administration, Bello and the philosophy and humanities faculty remained actively engaged in promoting national education. The Council of Public Instruction at UCH, at Bello's direction, was responsible for inspecting schools, approving curriculum and textbooks for use, and collecting data resulting in a series of reports. The first report, issued by Bello in 1848, recommended that primary education be expanded into the rural periphery, while a second report in 1853 advocated for more state intervention in secondary education. It was not until 1859, however, that Bello finally produced a report that advocated for a state-led agenda for popular (e.g., public) education and libraries throughout the country.[82] The report offered detailed statistics on the expansion of the education system and development of the primary and secondary curriculum but also focused on his pet issues of improving Spanish grammar and bolstering secondary and university instruction in Roman law and Chilean civil legislation.[83]

Regardless of the university's centralized mandate for administrative oversight, the expansion of the primary school system was a largely decentralized process up until the later years of Montt's government. In practice, primary education was a hybrid institution combining a weak, but increasing, municipal public school sector with a robust private and Church-governed sector. The driving assumption was that the overwhelming majority of children attending primary schools would not matriculate to secondary schools and thus required no more than the most basic reading and writing skills and moral instruction.[84] The university was not entirely passive in primary education during this period. In 1851, Bello introduced a standardized Spanish grammar textbook and curriculum that was adopted nationwide in primary schools.[85] In Manuel Montt's 1861 presidential address to Congress he lauded Bello's tenure for the growth in primary schools from 186 to 482 across the country.[86] After his failure to pass his organic law of primary education as a Deputy, President Montt

82. Jaksic, "Ideological Pragmatism and Nonpartisan Expertise in Nineteenth-Century Chile," 192.
83. Jaksic, *Andrés Bello*, 198.
84. Barr-Melej, *Reforming Chile*, 145.
85. Jaksic, *Andrés Bello*, 199.
86. Jaksic, "Ideological Pragmatism and Nonpartisan Expertise in Nineteenth-Century Chile," 192.

mostly continued the Bulnes government's practice of governing primary education on an ad hoc basis by decrees. On July 12, 1853, Montt issued a decree soliciting ideas for a contest on organizing primary education in hopes of stimulating enthusiasm among the intellectual elite and public at large.[87]

During this same period liberals began forming associations to promote popular education. In reaction to the dismal statistics on literacy and primary schooling reported in the 1853 *Memoria* published by the Ministry of Public Instruction, a group of notable liberals formed the *Sociedad de Instrucción Primaria de Santiago* in 1856. The Society quickly spread from Santiago to Valparaiso, Concepción, and smaller cities.[88] As Lastarria recounts in his memoirs, the Society began to establish an independently funded and administered network of primary schools serving poor students in major cities across the republic, only to be co-opted by the Conservative state: "But the tyrannical policies of the *pelucón* government, fearing fallout from this independent movement because of its absolute domination, hastened to take control of it in the provinces, initiating the formation of analogous societies [sanctioned by the state]."[89] The sense of urgency around the stagnation in mass education was not confined to liberal societies. In the 1853 *Memoria* Minister of Public Instruction Silvestre Ochagavía laments that the overwhelming majority of the population reaches working age "without having acquired any kind of knowledge, any germ of civilization" in a not-so-subtle challenge to the public resistance to educating the poor masses.[90] This was followed up by an 1856 Ministry of Public Instruction memorandum on primary education to the University of Chile comparing material progress in Chile unfavorably with the United States: "[It is] not the race, but education, that produces the admirable industrial aptitude of certain peoples in the other hemisphere."[91]

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87. Campos Harriet, *Desarrollo educacional*, 24-25.

88. Ibid., 25.

89. Lastarria, Washbourne, and Nunn, *Literary Memoirs*, 224.

90. Collier and Collier, *Chile*, 114.

91. *Memoria presentada por el Ministro de Justicia, Culto e Instrucción Publica al Congreso Nacional.*, 34-36 cited in Collier and Collier, *Chile*, 113.

By 1859, there was sufficient momentum for comprehensive legislative action on primary education to finally make good on Article 153 of the 1833 Constitution that charged Congress with organizing education. President Montt hoped to rectify his failed attempt to pass a popular education plan a decade earlier. Despite the divide over *how much* to expand primary schooling, ruling elites rarely questioned the authority of the central state in educational matters. As Collier notes: "[There] was a remarkable degree of consensus within the political class over both the *control* and the *content* of education [. . .] The consensus would only break down in the 1870s, when education became a divisive political issue for the first time. This emphatically does not mean that there were no criticisms of the state of education."[92] Public sentiment in favor of popular education to this point has justified greater state intervention in terms of economic progress, national identity and civic virtue, and inculcating moral discipline. Between the official discourse from Bello and the Ministry of Public Instruction (still fused with the Justice and Worship ministry) and the liberal advocacy of the Society of Primary Instruction, on the one hand, and the further consolidation of the state's administrative capabilities, on the other, the time was ripe for Montt to once again promote a primary education law.

The question was whether such a law would not only substantially expand public primary education, but whether the state would impose compulsory schooling and fully centralize control of curriculum and administrative control. Montt never wavered from his commitment to the basic principles that he outlined in the plan he submitted to the Chamber of Deputies over a decade before in October 1849: "the right the inhabitants of the State have to be given free primary education, and the consequential duty of the State to give them that education."[93] Recall that the major point of contention with Montt's earlier 1849 law was the risk of weakening the Portalian state with permanent fund for schools based on a decentralized system of local taxation and disagreement over the merits of investment in popular education for the disinterested and poor masses. In the 1856 report *De la instruccion primaria en*

92. Collier and Collier, *Chile*, 114-115.

93. Ibid., 114.

Chile submitted to the University of Chile as part of Montt's contest, José A. Diaz Prado recommended special property tax and obligatory schooling to fund primary education and induce participation.[94] Likewise, Miguel Luis Amunátegui, a prominent liberal intellectual of Generation 1842 and founder of the Santiago Society of Public Instruction, submitted a report recommending free and compulsory primary education based on the ideas of Sarmiento and former public instruction minister Ochagavía.[95]

On November 24, 1860, *Ley General de Instrucción Primaria de Educación* (General Law of Primary Instruction) was signed into law by President Montt and his Minister of Public Instruction, Rafael Sotomayor.[96] The law was nearly identical to the Montt's 1849 legislation, except that any element of decentralized funding was abandoned. First and foremost, the law guaranteed that the State would make primary education free for boys and girls "who are able to receive it."[97] Second, the law required a primary and secondary school each for boys and girls for every 2,000 inhabitants in a department (the highest sub-provincial unit). Third, the law also set a basic elementary curriculum of reading, writing, arithmetic, and moral instruction and Christian doctrine, but only required civics subjects at the secondary level. Fourth, the law transferred the duties of the University of Chile to the Ministry of Justice, Worship, and Public Instruction in overseeing inspections and administration of primary education.[98] The law did not, however, make primary schooling compulsory despite the intellectual momentum generated by Montt's contest. Nor did it set up a permanent tax to create a stable source of funding for primary education, leaving the guarantee of free education to the vicissitudes of the national budget.

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94. Collier and Collier, *Chile*, 115. See Prado, *De la instruccion primaria en Chile*.

95. Amunátegui and Víctor, *De la instrucción primaria en Chile* cited in Campos Harriet, *Desarrollo educacional*, 24-25. Sarmiento, well-known at this point for being a sophisticated pedagogue and major thinker on popular education, also submitted a plan entitled *La educación popular* that inspired much of the architecture of Amunátegui's report. See Sarmiento, *Memoria sobre educacion comun*. Bello nevertheless decided not to give the award to his long-time intellectual rival.

96. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 28.

97. Campos Harriet, *Desarrollo educacional*, 26.

98. Ibid., 26-27.

That said, Montt's government did achieve significant gains in the expansion of public primary education. For example, between 1851 and 1861 the number municipal and fiscal (e.g., state) schools combined grew from 571 to 911, while the number of students increased from 23,131 to 43,314 (13,850 of which were girls). Meanwhile, there were 316 private primary schools (176 for boys, 140 for girls) as of 1861.[99] At the end of Montt's government, private secondary schools still outnumbered public secondary schools at 25 and 18, respectively, but public institutions enrolled a larger share of secondary students with 2,567 students compared to 1,810 students in private institutions.[100] Likewise, the public education budget as a percentage of the national education budget increased from 3.8 percent in 1851 to 7.2 percent in 1861 while public education only hovered between 3.4 and 5 percent of the national budget between 1845 and 1850. The Instituto Nacional and University of Chile still continued to dominate the share of the earmarked portions of the national education budget, whereas primary education shared the remainder with secondary and higher education, as well as libraries and specialty schools.[101]

The 1860 law, in practice, established the "principle" of free primary education. On the one hand, the law centralized and codified the mandate of the central state in inspecting and regulating primary education. On the other hand, it stopped short of creating the sort of obligatory system of mass education over which to exert that centralized mandate. The law also left in place the indirect control over private and religious schools, requiring only inspections to ensure proper teaching of "morality and order" rather than the entirety of required subjects and curriculum.[102] Whatever consensus existed in support of giving the state a direct and active role in public primary education, and whatever momentum the Montt government and popular education societies had helped generate, not much had changed since the prior decade in terms of the politics of primary education. There were still strong

99. Campos Harriet, *Desarrollo educacional*, 26.

100. Jaksic and Serrano, "In the Service of the Nation," 158.

101. These data are sourced from Table I: Educational Budgets, 1845-1879 in ibid., originally adapted from *Ley de presupuestos para los gastos generales de la administración pública (Santiago, 1845-79).*

102. Inzunza, *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*, 29-29.

elements of Conservative party thinking, including that of Interior Minister Antonio Varas, that viewed the spirit of the 1860 law—free primary education as a right—of starting down the road to socialism. Similarly, there was disagreement over the content of education. Some felt that if education was needed to stimulate economic progress, then technical education should be the priority.[103] This sentiment was bolstered by an elite consensus that emerged by 1856 that European immigration was the key to 'civilizing' the country.[104]

Notably, what was missing from the elite discourse around education was a synthesis of Chilean nationalism and the necessity for primary education as a central component of the Portalian state project. While Montt was able to pass the 1860 law with little controversy, many of the recommendations from Sarmiento, Amunátegui, Prado, and other liberals advocating for a comprehensive and national system of obligatory primary education did not make it into the draft. Religious instruction, with Catholicism as the official state religion, remained in place, while the quasi-system of co-determination in educational matters between the Church and the state was not viewed as a threat to the political order. Given the lack of elite consensus behind compulsory education, the active role of the Church in civic life was likely the preferred source of moral order and social discipline for the unruly *rotos* than mass education. The breakdown of the liberal-conservative educational (and political) consensus would not occur until over a decade later, leading to the further transformation and consolidation of Chile's party system.

As the relationship between the Conservative party and the church grew closer in the 1860s during the government of José Joaquín Pérez Mascayano, the issue of secular education gained salience for Liberals. In particular, Liberals became concerned about the growing influence of the church in secondary education, and the eagerness of the Conservative government to accommodate pro-clerical reforms. In January 1872, for example, the Conservative education minister Abdón Cifuentes issued a decree that would transfer supervision over exams from the University of Chile and Instituto Nacional to an ecclesiastical

103. Collier and Collier, *Chile*, 114-115.
104. Ibid., 115-116.

body. Since 1863, the IN had been under the rectorship of the liberal Diego Barros Arana setting up a political standoff between supporters of the secular and scientific tradition of the Instituto's curriculum and pro-clerical politicians and UCH theology faculty. The death of devout Catholic Andrés Bello in 1865 symbolized the end of a relatively depoliticized and co-operative relationship between church and state in the realm of education.[105] The Cifuentes decree polarized the Liberals, Nationals, and Radicals into one camp, and the Conservatives into the other. While the government retreated on this issue, political showdowns between Conservatives and Liberals would become more frequent with other legal reforms seeking Vatican approval, such as the 1874 Penal Code.[106] However, there was little in the way of a coherent intellectual and political movement around education until the 1890s.[107] Thus, the 1860 law remained the framework for the governance of primary education until the Law of Obligatory Primary Instruction replaced it in 1920.

5.4 Conclusion and Analysis

What accounts for only the partial implementation a national system of mass education in Chile during the 19th century given the early support of intellectual and state elites for state education? Why did a stable, unitary republic that emerged as a regional leader in the development of a centralized administrative state fall short of its federalist and disorderly neighbor, Argentina, in establishing a national education system? The theoretical argument of this study hypothesizes that during the process of state formation a critical juncture for education centralization emerges when permissive conditions—e.g., a crisis or regime change loosening political constraints for central elites—combines with the productive conditions of the territorial expansion of information capacity *and* a coherent educational ideology. In the case of Chile following independence, the historical evidence suggests that the Conservative settlement and Portalian consensus between liberal and conservative elites built on

105. Jaksic and Serrano, "In the Service of the Nation," 158.
106. Collier and Sater, *A History of Chile, 1808-2002*, 121.
107. Barr-Melej, *Reforming Chile*.

the educational ideas that revolutionary figures such as Juan Egaña and Bernardo O'Higgins and legacy of the Instituto Nacional (e.g., critical antecedents). Diego Portales' defeat of liberals and consolidation of the republic under the 1833 Constitution generated a period of growth and stability that enabled the state to engage in a variety of state-building projects, including the rapid institution of official statistics and a national census. However, the locus of Chilean educational thought was largely centered on the importance of elite education for producing a generation of leaders capable of governing the republic. The central intellectual and political figure, both in drafting the constitution and setting the educational agenda, was the Venezuelan-Chilean scholar and statesman Andrés Bello.

The aristocratic, religious, and traditionalist sympathies of Bello endeared him to the ruling elite as the Portalian state's leading intellectual. In particular, Bello's belief in the naturalness of social inequality and hierarchy informed his deep skepticism of a uniform and obligatory system of popular education. At the same time, Bello's prolific reputation as a writer and thinker, and his promotion of institutions such as Instituto Nacional and literary societies, also proved attractive to young liberals of Chile's Generation 1842 and political exiles of Argentina's Generation 1837. The political stability and relatively inclusive intellectual environment of IN and University of Chile fomented both consensus and conflict around a range of issues between Bello and his proteges. Lastarria and Sarmiento represented a growing movement of literary nationalists and romanticists that clashed with Bello's classicism and muted support for universal primary education.

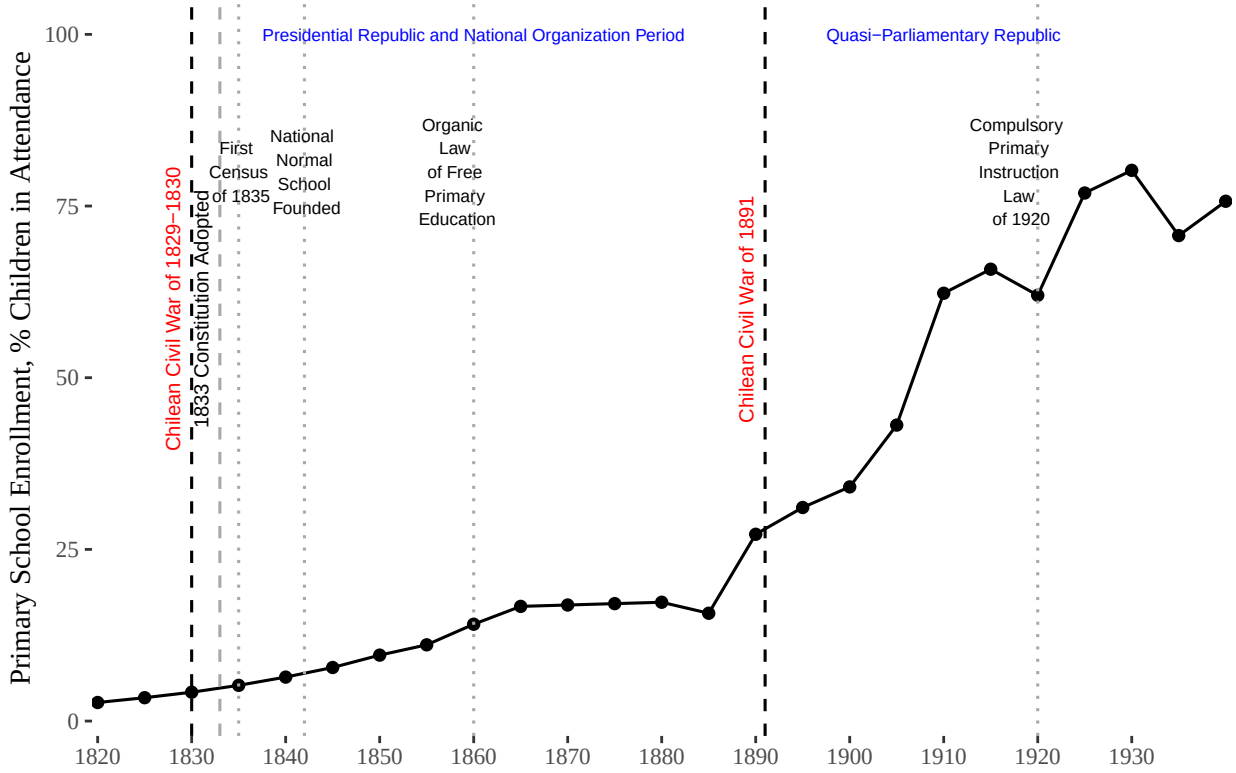
The rise of Manuel Montt, an acolyte of Diego Portales, as a somewhat more populist and liberal educational thinker among Conservatives presented an opportunity to leverage the power and sweeping mandate of the central state to organize national education. During Montt's government, numerous statistical reports by Bello's Council of Public Instruction generated a renewed sense of urgency for the president and his Minister of Justice, Worship, and Public Instruction, Silvestre Ochagavía. The Montt government ramped up the early momentum of the Bulnes government in primary education—most critically, the founding in 1842 of the University of Chile and the Normal School of Preceptors—and built on efforts by

Lastarria in 1843 and himself in 1849 to introduce primary education legislation. In response to Montt's 1853 decree on planning primary education, prominent intellectuals submitted plans that included compulsory state primary education and more secular control, but the landmark 1860 Law of Primary Instruction ended up more limited in scope. It further codified that primary education would be organized at the direction of the state, but in practice it established the principle of free primary education on a voluntary basis. For the Portalian state's emphasis on order and progress, and the elite consensus in support of centralized rule, public primary education remained relegated to a secondary role in generating state legitimacy and social order in the mid-19th century. While the denigration of the Chilean masses, or *rotos*, shares much with the anti-populist fervor of Argentine liberals against *gaucho* culture in the rural periphery.

The key difference is that dominant elite ideology in Chile failed to articulate a nationalism in which universal state-sponsored education was an urgent and necessary tool for incorporating the 'backward' rural masses into the Chilean nation-state project. Bello was the driving force in the early development of the national education system and also operated as an intellectual gatekeeper of Generation 1842 liberals seeking to promote popular education. In much the same way that Sarmiento was the most important institutional entrepreneur of educational development in Argentina, Bello was a first-mover and agenda-setter in his own right. No opposing political movement promoting an educational nationalism of the sort that Sarmiento pioneered mobilized political elites around a coherent program for mass education until the near the end of the century. In 1888, socialist Radical, member of parliament, and former rector of the Pedagogical Institute, Valentin Letelier, led the call for free, compulsory, and secular state primary education.[108] By that point, the presidentialist Portalian order gave way to a parliamentary republic and multi-party system contending with broader-based social demands along class lines. Letelier and the Radicals looked to German Chacellor Otto von Bismarck's welfare state and the Prussian school system as a model to be replicated in Chile.

108. Barr-Melej, *Reforming Chile*, 29.

Figure 5.1: Primary School Enrollment and Educational Development in the Republic of Chile, 1830-1920



Notes: Data on enrollment based on estimates constructed by Lee and Lee.[109] Dotted lines indicate educational events of note while dashed lines indicate regime transitions. Black dashed lines represent critical junctures for Chilean educational development.

The 1860 Law of Primary Instruction nevertheless remained in place until primary education was finally rendered free and compulsory three decades after Letelier and the Radicals made it a central issue in Chilean politics.[110] One could make the argument that the 1891 Chilean Civil War, the first major internal crisis of national scale, generated the permissive conditions that paved the way for increasing elite consensus on the need for a more expansive national primary education system leading to the 1920.[111] Indeed, the uptick in school enrollment following the Civil War indicates the jump in public investment in primary education, even as compulsory attendance had yet been introduced (see Figure 5.1). The historical evidence suggests that the permissive and productive conditions for education centralization emerged early in Chile, granting sweeping authority for the Portalian state under the constitution following the defeat of liberals in the 1830s.

During, the first Portales government of the Prieto presidency, there is little doubt that the state quickly moved to centralize and organize public education at the secondary and university level. To the extent that an elite ideological consensus emerged around state education as the Portalian state expanded the territorial reach of its bureaucratic and military infrastructure, including information capacity, the lack of a sustained period of educational entrepreneurship behind a nationalist vision of popular education is also apparent. Whereas Sarmiento spent decades within and without Argentina articulating and disseminating his ideas among influential political elites whilst creating a national pedagogical community, no such process unfolded in time for the early organization of the Chilean state. Rather, Bello's conservative approach to state education coupled with a weak and less than coherent liberal consensus around popular education resulted in only partial centralization by the end of the nineteenth century.

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110. Barr-Melej, *Reforming Chile*, 28.

111. See Paglayan, "Civil War, State Consolidation, and the Spread of Mass Education." Paglayan makes a convincing case for a positive relationship between civil war and expansion of primary education through public investment.

References

Amunátegui, Miguel Luis, and Gregorio Víctor. *De la instrucción primaria en Chile : lo que es, lo que debería ser*. Santiago de Chile: Imprenta del Ferrocarril, 1856. Accessed July 19, 2019.

Barr-Melej, Patrick M. *Reforming Chile: Cultural Politics, Nationalism, and the Rise of the Middle Class*. Univ of North Carolina Press, November 2002.

Bello, Andrés. *Selected Writings of Andrés Bello*. Edited by Ivan Jaksic. Translated by Frances López-Morillas. Library of Latin America. Oxford, New York: Oxford University Press, 1998. ISBN: 978-0-19-510546-9.

Bethell, Leslie. *Chile Since Independence*. Cambridge University Press, March 1993.

Caldera, Rafael. *Andrés Bello: Philosopher, Poet, Philologist, Educator, Legislator, Statesman*. Translated by John Street. George Allen & Unwin, 1977.

Campos Harriet, Fernando. *Desarrollo educacional: 1810-1960*. Editorial Andres Bello, 1960.

Censo Jeneral de la República de Chile : levantado el 19 de abril de 1865 -. Vol. IV. Santiago de Chile: Imprenta Nacional, 1866.

Censo Nacional de Chile. Vol. I. Santiago de Chile: Imprenta Araucaña, 1835.

Collier, Simon. *Ideas and politics of Chilean independence 1808-1833*. Cambridge U.P., 1967.

Collier, Simon, and Professor of History Simon Collier. *Chile: The Making of a Republic, 1830-1865: Politics and Ideas*. Cambridge University Press, June 2003.

Collier, Simon, and William F. Sater. *A History of Chile, 1808-2002*. Cambridge University Press, October 2004.

Couyoumdjian, Juan Pablo. "Primary Education and Fiscal Policy in Mid-19th Century Chile: In Search of a Balance." *Revista de Historia Economica - Journal of Iberian and Latin American Economic History*, January 2008.

Estadisticas, Instituto Nacional de. *Los Censos de población en Chile y su evolución histórica hacia el Bicentenario: retratos de nuestra identidad*. Santiago de Chile: Impresión FEYSER Ltda., 2009.

Inzunza, Jorge. *La Construcción del Derecho a la Educación y la Institucionalidad Educativa en Chile: Antecedentes para una polémica de 200 años*. Santiago de Chile: Observatorio Chileno de Políticas Educativas (OPECH), 2009.

Jaksic, Ivan. *Andrés Bello: Scholarship and Nation-Building in Nineteenth-Century Latin America*. Cambridge University Press, June 2001.

———. "Ideological Pragmatism and Nonpartisan Expertise in Nineteenth-Century Chile." In *State and Nation Making in Latin America and Spain: Republics of the Possible*, edited by Miguel A. Centeno and Agustin E. Ferraro, 183–202. Cambridge University Press, 2013.

Jaksic, Ivan, and Sol Serrano. "In the Service of the Nation: The Establishment and Consolidation of the Universidad de Chile, 1842-79." *The Hispanic American Historical Review* 70, no. 1 (1990): 139–171. doi:10.2307/2516370.

Kilgore, W. J. "Notes on the Philosophy of Education of Andres Bello." *Journal of the History of Ideas* 22, no. 4 (1961): 555–560. doi:10.2307/2708031.

Korkatsch-Groszko, Maria. "Domingo Faustino Sarmiento, His Educational Work, Ideas and Contributions." PhD diss., Loyola University Chicago, 1981.

Lastarria, José Victorino. *Recuerdos literarios*. la Republica de J. Nuñez, 1878.

Lastarria, Jose Victorino, R. Kelly Washbourne, and Frederick M. Nunn. *Literary Memoirs: Memoirs of a Man of Action*. Cary, UNITED STATES: Oxford University Press USA - OSO, 2003.

Lee, Jong-Wha, and Hanol Lee. "Human capital in the long run." *Journal of Development Economics* 122 (September 2016): 147–169.

Loveman, Mara. *National Colors: Racial Classification and the State in Latin America*. Oxford University Press, 2014.

Memoria presentada por el Ministro de Justicia, Culto e Instrucción Publica al Congreso Nacional. Technical report. Santiago de Chile: Ministro de Justicia, Culto e Instrucción Publica, 1856.

Paglayan, Agustina. "Civil War, State Consolidation, and the Spread of Mass Education." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2017.

Prado, José A. Diaz. *De la instruccion primaria en Chile*. Santiago de Chile: Imprenta del Ferrocarril, 1856.

Ruz, Andrés Baeza1. "Enlightenment, education, and the republican project: Chile's Instituto Nacional (1810-1830)." *Paedagogica Historica* 46, no. 4 (August 2010): 479–493. doi:10.1080/00309230.2010.495077.

Sarmiento, Domingo Faustino. *Memoria sobre educacion comun: presentada al Consejo Universitario de Chile sobre estas cuestiones ...* 1856.

Shumway, Nicolas. *The Invention of Argentina*. University of California Press, March 1993.

Weinberg, Gregorio. "Andrés Bello (1781-1865)." *Prospects: The Quarterly Review of Comparative Education* 23, nos. 1/2 (1993): 71–83.

Wood, James A. "The republic regenerated." *Atlantic Studies* 3, no. 1 (April 2006): 7–23. doi:10.1080/14788810500525531.

Chapter 6
CONCLUSION

In Argentina today, Domingo F. Sarmiento is regarded as a founder of the modern Argentine nation. Above all, the great teacher-president's legacy is the passage of Law 1420, still celebrated as the crowning achievement of Argentina's political development.[1] That legacy is physically visible in the federal capital of Buenos Aires where Sarmiento's bust and portrait can be found at the entrance to the Ministry of Education and the nation's archival education library Biblioteca Nacional de Maestros, both co-located in the grand Palacio Sarmiento historical monument. In Chile, Andrés Bello remains a similarly exalted part of founding myths on Chilean educational progress. No such singular monument or comparable celebratory discourse on mass education is as readily apparent in modern Santiago. The University of Chile remains one of the most elite universities in Latin America and, more than any other state institution, defines the historical memory of the education system. The contrast is an apt analogy for the divergent paths of two of Latin America's earliest and most centralized national education systems.

This study examined why some states centralize education more than others, and what accounts for variation between ostensibly nationalized education systems under strong central states. Building on historical institutionalist and macrosociological theories of state formation, I posited that scholars should disaggregate and differentiate between sources of state capacity (or infrastructural power) and ideological frames that drive centralization in some institutional arenas and not others.[2] Specifically, I explore the influence of official statistics

1. Argentine newspapers published glowing editorials the summer of 2014 celebrating the 130 year anniversary of the law, regardless of reforms since the 1980s that have eroded the law's centralized mandate.

2. Soifer, *State Building in Latin America*; Ziblatt, *Structuring the State*.

and the central state's information capacity that scholars from Pierre Bourdieu to James C. Scott have long posited as a key mechanism of rationalizing and delimiting the population in the construction of the nation-state.[3] I document evidence that the capacity of the state to collect, process, and disseminate complex data about the population within its territory predicts the centralization of education over time. As ruling elites seek to exert greater state control over education in service of their national projects for the post-*ancien régime* political order, information capacity mitigates uncertainty over whether the central government can impose and regulate an institution as a national system of compulsory public schooling.

At the same time, the state is not a value-free field of power. The ideological terrain of state formation and the political dynamics therein is fraught, complex, and oftentimes contradictory and incoherent on a number of issues. Given the implications for collective identity formation (e.g., the nation), the construction of citizenship, and the distribution of cultural capital in society, I make the case that education systems are important arenas of ideological competition during state-building. Over the course of the long nineteenth century, the deeper and more accelerated path toward direct rule in the imposition of mass education under the auspices of a secular state authority in Argentina, a federalist government plagued by internal disorder, compared to Chile, a politically stable and unitary government, presents an important empirical puzzle. In this study, I documented econometric evidence showing that the state's accumulation of information capacity in the form of population censuses corresponds to greater education centralization across Europe and the Americas. However, the cases of Argentina and Chile highlighted important ideological dimensions that the statistical findings do not. I argued that the dominant ideological configurations competing over control of the nation-state, such as liberalism and conservatism, are porous and often internally incoherent on questions ranging from church-state relations, suffrage, minority incorporation, to fiscal and legal codes.

During state development, elites emerge from the intellectual and political classes that on

3. Bourdieu, *On the State*; Lee and Zhang, "Legibility and the Informational Foundations of State Capacity"; Loveman, *National Colors*; Scott, *Seeing Like a State*.

occasion succeed in articulating a coherent political program that specifies the central role of particular institutions to the formation of national identity and political order. Where such a program centers mass education, as it did Argentina, I expect the penetration of the central state into education to be more encompassing than where such a program relegates primary schooling to a secondary role in the state-building project, as it did in Chile. Thus, while Chile leapfrogged Argentina in the early development of state capacity and the centralization of educational control, Argentina not only caught up to but surpassed Chile in consolidating a national education system. The divergent institutional paths of Argentina and Chile, I show, were in large part a consequence of the greater degree of political uncertainty in the former and the successful institutional entrepreneurship of Sarmiento's liberal "educational nationalism" over the moderate and traditional educational elitism of Bello.

Despite the growing scholarly interest in the political dynamics of two virtually universal state institutions—census enumeration and mass education—to date we lack a comparative historical analysis of the consequences of information capacity for education governance. To help remedy this gap, this study made several theoretical and empirical contributions along two themes. First, this project contributes to the "informational turn" in the study of state capacity. Like this growing body of scholarship, this project demonstrates the limitations of fiscal-military accounts for understanding the contours of nation-state formation.[4] This body of literature strongly suggests that the enumerative capabilities of the state, e.g., information capacity, is an important dimension of state development and centralized governance. For example, Brambor and colleagues convincingly argue that the quality and amount of information a state is able to process about the population living within its territory is a key resource of modern state capacity.[5] Population censuses also serve a nation-making function alongside its role in expanding the state's legibility. In particular, Mara Loveman's sweeping research on census enumeration in Latin America documents how the state uses ethnoracial

4. Tilly, *Coercion, Capital and European States*.

5. Brambor et al., "The Lay of the Land." Similarly, Lee and Zhang argue that information-based state capacity helps states overcome free-rider problems and find a positive effect of population censuses on tax-funded public goods. Lee and Zhang, "Legibility and the Informational Foundations of State Capacity."

classification to shape (and reshape) national identities while "erasing" groups that pose a challenge to ruling elites' national political project.[6] In this study, I offer new evidence that in the context of state-building there is a more direct relationship between the state's information capacity and the centralization of education, as opposed to other sources of state power.

Second, I contribute to the growing comparative literature on the political causes and consequences of mass education. For instance, Ansell and Lindvall observe that ideological conflict, channeled through party system formation, helps explain cross-national variation in governance over primary schooling across Europe between 1870 and 1930.[7] Paglayan, on the other hand, challenges the long-held assumption that democratization drives educational provision and shows that state expansion of primary education in many cases occur prior to any meaningful transition toward democratic rule.[8] Whether the state introduces education under autocratic or democratic auspices, education provision has important historical and contemporary political implications. Uslaner and Rothstein, for instance, show how the early introduction of universal education impacts long-term patterns of corruption.[9] By looking at infrastructural power and ideological discourses on education prior to the extension of universal male suffrage and broad-based democracy, I establish that the sources of education centralization are more often than not ex ante democratization and party-system consolidation.

Finally, I developed a new comparative dataset of major national laws and education institutions to better measure education centralization and lay the groundwork for expand-

6. Loveman, *National Colors*. As a corollary, Lieberman and Singh demonstrate how ethnoracial categories in censuses also work to define, publicize, and activate the political salience of these categories, thus increasing the likelihood of group-based political violence. Lieberman and Singh, "Census Enumeration and Group Conflict."

7. Ansell and Lindvall, "The Political Origins of Primary Education Systems."

8. Paglayan, "Democracy and Educational Expansion" Evidence from 200 Years."

9. Uslaner and Rothstein, "The Historical Roots of Corruption." Education also has more contemporary implications for post-colonial political development in the global south. For example, Nwachukwu and Asongu document econometric evidence that higher levels of primary through tertiary educational attainment, through social cohesion effects, promotes political stability and non-violence in contemporary Africa. Nwachukwu and Asongu, "The role of lifelong learning on political stability and non violence."

ing the temporal scope and country coverage of these data for future studies. I also used comparative historical case methods and show that the timing and sequencing of educational development highlights the autocratic and elite foundations of national education systems in Argentina and Chile. This project shows that complex and big questions on the political, social, and economic dimensions of the state require engaging with a range of epistemological and methodological choices. Through qualitative multi-method research (QMMR), and a theoretical approach that bridges macro-level and structuralist assumptions with the micro-level logic of methodological individualism, this study highlights the importance of both descriptive and causal inference to how we understand the institutional development of state education.

Given the complexity of the phenomenon under investigation and the difficulty in completely ruling out endogeneity, a future extension of this project would include case studies of Peru and Mexico as a pair of cases with comparable colonial and demographic legacies that serve as counterfactuals to the founding political conditions of post-independence Argentina and Chile. Similarly, future research should also test the generalizability of the argument beyond the scope conditions of 19th century state formation. In particular, further analysis should be based on expanding the dataset to include a sample of post-colonial developing states from the Middle East/North Africa, Sub-Saharan Africa, and Asia that gained independence in the early to mid-20th century.

The goals of the study are largely theoretical, but there are a number of policy implications suggested by the findings. For one, the cases of Argentina and Chile show that there is a weak relationship at best between direct rule in terms of state penetration of education (e.g., institutions) and in terms of the scope of the state in education (e.g., public investment, number of schools, enrollment, etc.). In terms of achieving higher and more equitable levels of literacy, scope is a more important determinant that penetration. In other words, whether the central state creates the legal and institutional infrastructure to govern education from the center does not uniformly correlate to educational outcomes across the population. Instead, it appears that the resolution of the fiscal obstacles and state investment in response

to the growing demand for schooling contributed to the increased scope of the state in the late 19th and early 20th century in both countries.

To be clear, there is some cursory evidence in the cases of Argentina and France's Third Republic that a robust institutional foundation for national school inspectors and state-sponsored teacher training can also be deployed to induce voluntary compliance with compulsory schooling that is otherwise difficult to enforce. In other words, the government can deploy agents of the state to act as proselytizing forces for public education to help stir demand in far flung areas where schooling is new.[10] Thus, governments in developing countries hoping to increase school attendance should not only invest in tuition-free schools, but also hire and train a professionalized corps of school inspectors who also serve as "civic educators" in the promotion of basic education. Likewise, as governments in lower-income countries with young institutions adjudicate between state-building projects, the capacity to collect, disseminate, and interpret accurate population statistics throughout the territory is, at a minimum, a necessary pre-condition of a comprehensive public education system. Beyond that, the question is whether the ideological terrain and political incentives allow political leaders to arrive at a moment of education consensus and whether the government will use that moment to leverage the state's informational capital toward a common vision for national education.

References

Ansell, Ben, and Johannes Lindvall. "The Political Origins of Primary Education Systems: Ideology, Institutions, and Interdenominational Conflict in an Era of Nation-Building." *American Political Science Review* 107, no. 03 (2013): 505–522.

Bourdieu, Pierre. *On the State: Lectures at the Collège de France, 1989 - 1992*. John Wiley & Sons, 2014.

10. Weber, *Peasants Into Frenchmen*.

Brambor, Thomas, Agustın Goenaga, Johannes Lindvall, and Jan Teorell. "The Lay of the Land: Information Capacity and the Modern State." *STANCE Working Paper Series* 2016, no. 2 (2016).

Lee, Melissa M., and Nan Zhang. "Legibility and the Informational Foundations of State Capacity." *The Journal of Politics* 79, no. 1 (October 2016): 118–132.

Lieberman, Evan S., and Prerna Singh. "Census Enumeration and Group Conflict: A Global Analysis of the Consequences of Counting." *World Politics* 69, no. 1 (January 2017): 1–53.

Loveman, Mara. *National Colors: Racial Classification and the State in Latin America*. Oxford University Press, 2014.

Nwachukwu, Jacinta C., and Simplice A. Asongu. "The role of lifelong learning on political stability and non violence: evidence from Africa." *Journal of Economic Studies* 43, no. 1 (December 2015): 141–164.

Paglayan, Agustina. "Democracy and Educational Expansion" Evidence from 200 Years." In *American Political Science Association Annual Meeting*. San Francisco, CA, 2018.

Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press, 1998.

Soifer, Hillel David. *State Building in Latin America*. Cambridge University Press, June 2015.

Tilly, Charles. *Coercion, Capital and European States: AD 990 - 1992*. Wiley, 1992.

Uslaner, Eric M., and Bo Rothstein. "The Historical Roots of Corruption: State Building, Economic Inequality, and Mass Education." *Comparative Politics* 48, no. 2 (January 2016): 227–248.

Weber, Eugen. *Peasants Into Frenchmen: The Modernization of Rural France, 1870-1914*. Stanford University Press, 1976.

Ziblatt, Daniel. *Structuring the State: The Formation of Italy and Germany and the Puzzle of Federalism*. Princeton University Press, 2006.

APPENDIX

Appendix A: Comparative History of Educational Development Dataset

In order to examine historical variation in education regimes, I created an original categorical dataset that codes education systems from 1800–1970 by the timing and scope of laws and institutions governing primary schooling introduced at the national level. The data consist of forty-five countries in Europe and the Americas, as well as Australia, New Zealand, Turkey, and Japan. The selected cases are within the theoretical scope conditions as countries that emerged as independent states by 1945, though not all cases remained independent states throughout the historical period examined. Taken together, the temporal and geographic range of the data serve several theoretical and empirical purposes. First, the data covers the "long nineteenth century" in which the majority of mainly Western nation-states consolidated, as well as the post-WWII "golden age" of welfare state development. Second, the cases vary regionally and historically according to time of independence and status as a colonial/imperial territory or metropole. Thus, the analysis can examine long-run educational development across a range of political, economic, and technological conditions generally associated with the expansion (or underdevelopment) of mass schooling.[11]

The coding strategy follows the conventions of historical event data in which the outcome of interest is the year in which a particular event happened. Each event is therefore measured as a binary outcome. For example, I code a country-year observation for a particular event occuring as =1 for all country-year observations that follow.[12] The data include the following variables: 1) *Local Law* refers to the introduction of a national law that mandates that local/provincial authorities are responsible for providing elementary education;

11. Brockliss and Sheldon, *Mass Education and the Limits of State Building, c.1870-1930*.

12. Specifically, I code an event, $y_{it} = 1$ for all y_{it+n}, where country-year observations are indexed as it.

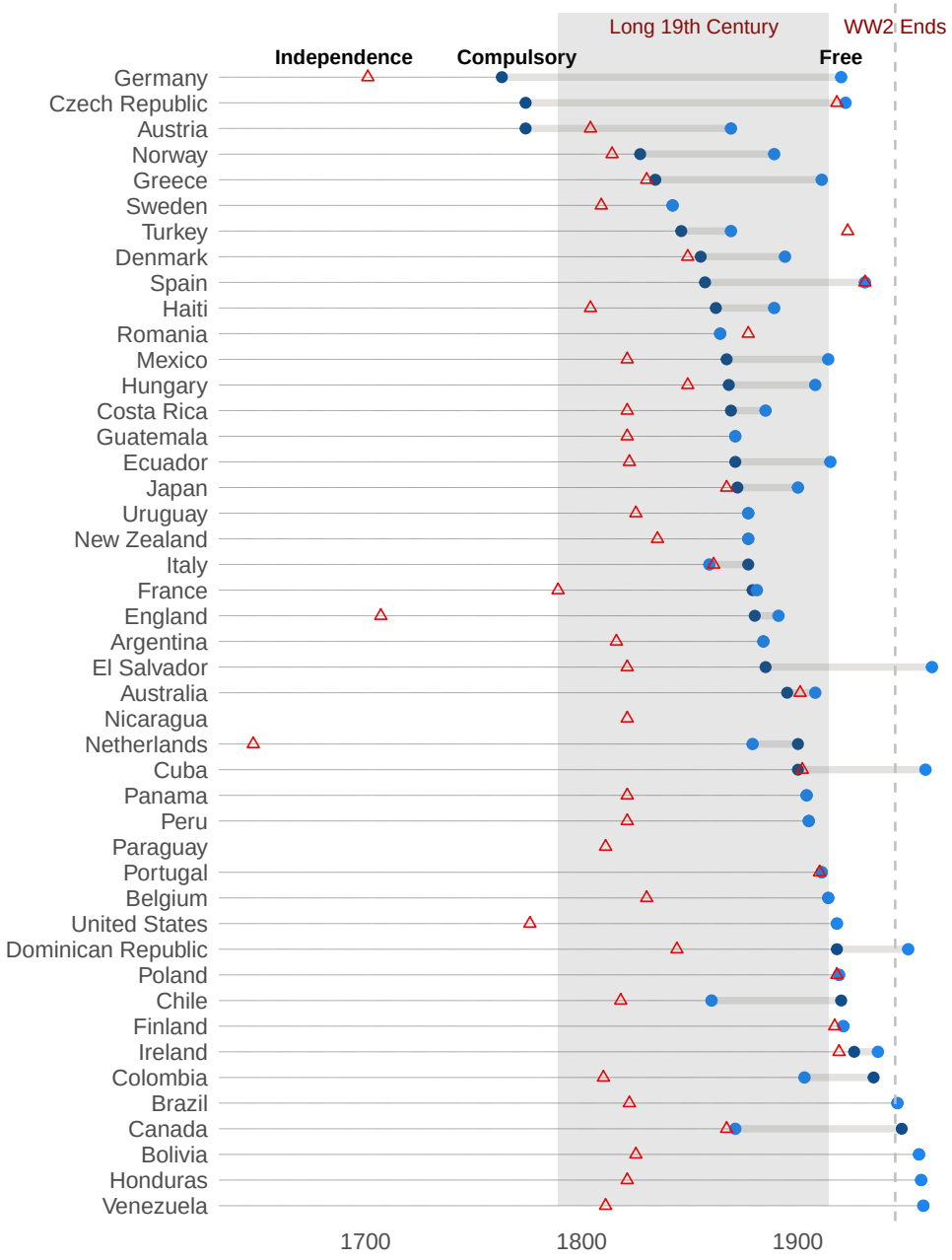
2) *Compulsory Primary* refers to the establishment of a national law that mandates compulsory attendance for a certain number of years of primary school; 3) *Free Primary* refers to a national guarantee of free primary education, either through the removal of tuition fees or government subsidy of those fees; 4) *Centralized Curriculum* refers to the centralized regulation of the primary curriculum, including subject requirements, the exclusion of religious authorities from curricular control, the adoption of a "national curriculum," or the regulation of textbooks; and 5) *Secularized Curriculum* that measures if and when primary curricula is secularized. While virtually all these countries introduced a law mandating local provision of elementary education earlier than other education laws, not all countries converged on universal education by the end of the nineteenth century. In addition, the dataset includes three institutional outcomes that capture other important dimensions of education development: 6) *Unified Education* which codes the year in which a comprehensive, or "unified" primary and lower-secondary public education system is established; 7) *Ministry of Education* which codes the year that a centralized education ministry is established; and 8) *Normal School* which codes the year that the state establishes the first government-run normal school for training elementary teachers.[13]

13. This dataset departs from the coding strategy in Ansell and Lindvall, "The Political Origins of Primary Education Systems" who code centralization as the regulation of teacher education rather than regulation of curriculum and textbooks. The final codebook with sources is under construction and unavailable at this time. Though the coding is done with some confidence of the accuracy of the sources, I have yet to cross-reference coding choices with additional secondary sources to increase confidence in reliability. All errors are mine.

Table 1: Comparative History of Educational Development Dataset, Event Years

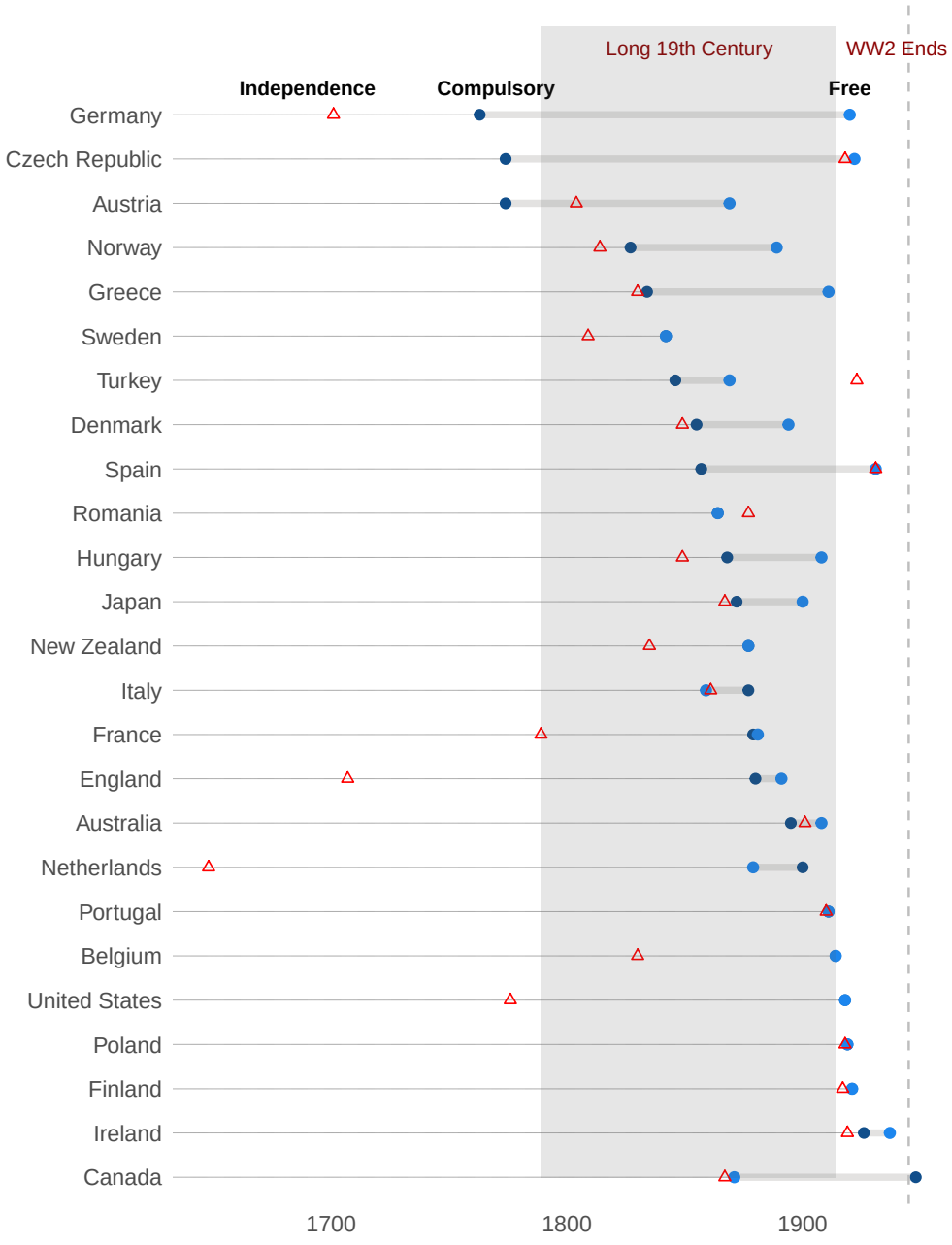
Country	Local Law	Centralized Curriculum	Secularized Curriculum	Compulsory Primary	Free Primary	Unified Education	Normal School	Ministry of Education
Anglophone								
Australia	1872	1880	1895	1895	1908		1850	1963
Canada	1867			1948	1871		1847	
England	1870	1988	1902	1880	1891		1846	1899
Ireland	1831	1922		1926	1937		1844	1921
New Zealand	1852	1904	1877	1877	1877	1936	1878	1877
United States	1900			1918	1918		1916	1953
Europe								
Austria	1774	1774	1867	1774	1869	1869	1771	1848
Belgium	1842	1842		1914	1914		1842	
Czech Republic	1774	1869	1948	1774	1922	1948	1776	1848
Denmark	1814	1855		1855	1894	1903	1747	1916
Finland	1858	1866	1869	1921	1921	1972	1864	1869
France	1879	1882	1905	1879	1881	1959	1810	1828
Germany	1763	1854	1872	1763	1920	1920	1852	1817
Greece	1834	1837		1834	1911	1834	1834	1833
Hungary	1868	1853	1945	1868	1908	1945	1853	1848
Italy	1859	1859	1888	1877	1859	1933	1859	1861
Netherlands	1806	1813		1900	1879		1879	1918
Norway	1827	1889		1827	1889	1959	1938	1814
Poland	1795	1775	1945	1919	1919	1945	1919	1773
Portugal	1844	1932		1911	1911		1918	1870
Romania	1800	1898		1864	1864	1948	1919	1862
Spain	1857	1931	1931	1857	1931		1839	1900
Sweden	1842	1919	1958	1842	1842	1858	1904	1962
Latin America and others								
Argentina	1853	1884	1884	1884	1884	1884	1870	1854
Bolivia	1851	1871		1956	1956	1956	1909	1903
Brazil	1834	1946	1889	1946	1946		1835	1930
Chile	1833	1899		1920	1860		1842	1837
Colombia	1820			1935	1903		1872	1880
Costa Rica	1849	1885	1881	1869	1885	1886	1914	1886
Cuba	1880	1959	1959	1900	1959	1959	1915	1959
Dominican Republic	1884	1951		1918	1951		1880	1934
Ecuador	1835	1871	1895	1871	1915		1897	1884
El Salvador	1832	1880		1885	1962	1971	1885	1885
Guatemala	1830	1871		1871	1871		1875	1872
Haiti	1807	1848		1862	1889		1947	1843
Honduras			1880	1957	1957		1875	1889
Mexico	1857	1857		1867	1914	1917	1887	1921
Nicaragua	1900	1836		1900			1938	1858
Panama	1877	1915	1904	1904	1904	1941	1878	1941
Paraguay	1900			1909				
Peru	1873	1941		1905	1905		1905	1935
Uruguay	1847	1877	1877	1877	1877	1877	1866	1883
Venezuela	1870	1924	1963	1958	1958		1876	1881
Japan	1872	1872	1872	1872	1900	1872	1872	1871
Turkey	1856	1924	1924	1846	1869	1924	1848	1923

Figure 1: Independence and Onset of Compulsory and Free Primary



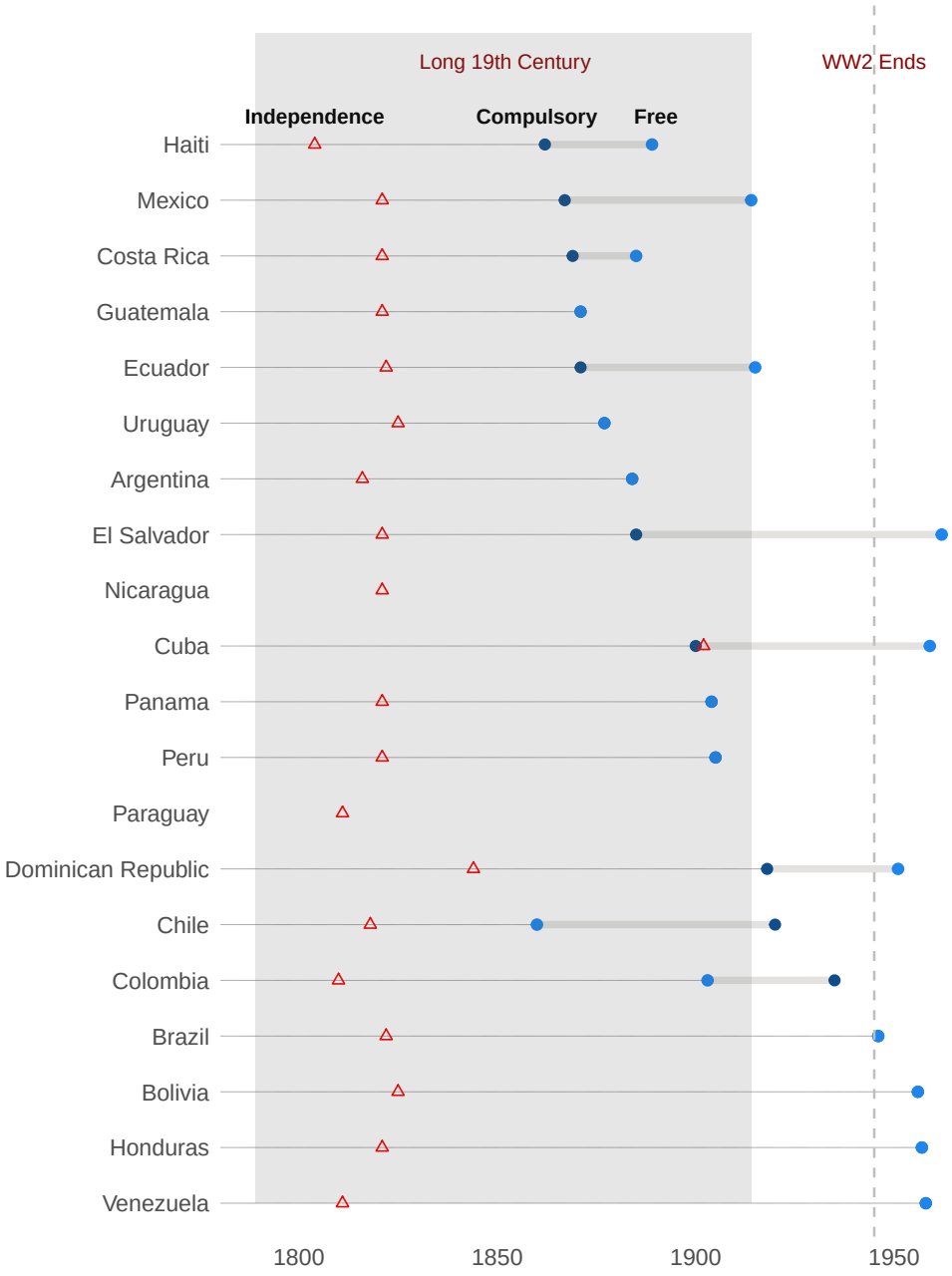
Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 2: Independence and Onset of Compulsory and Free Primary, Europe



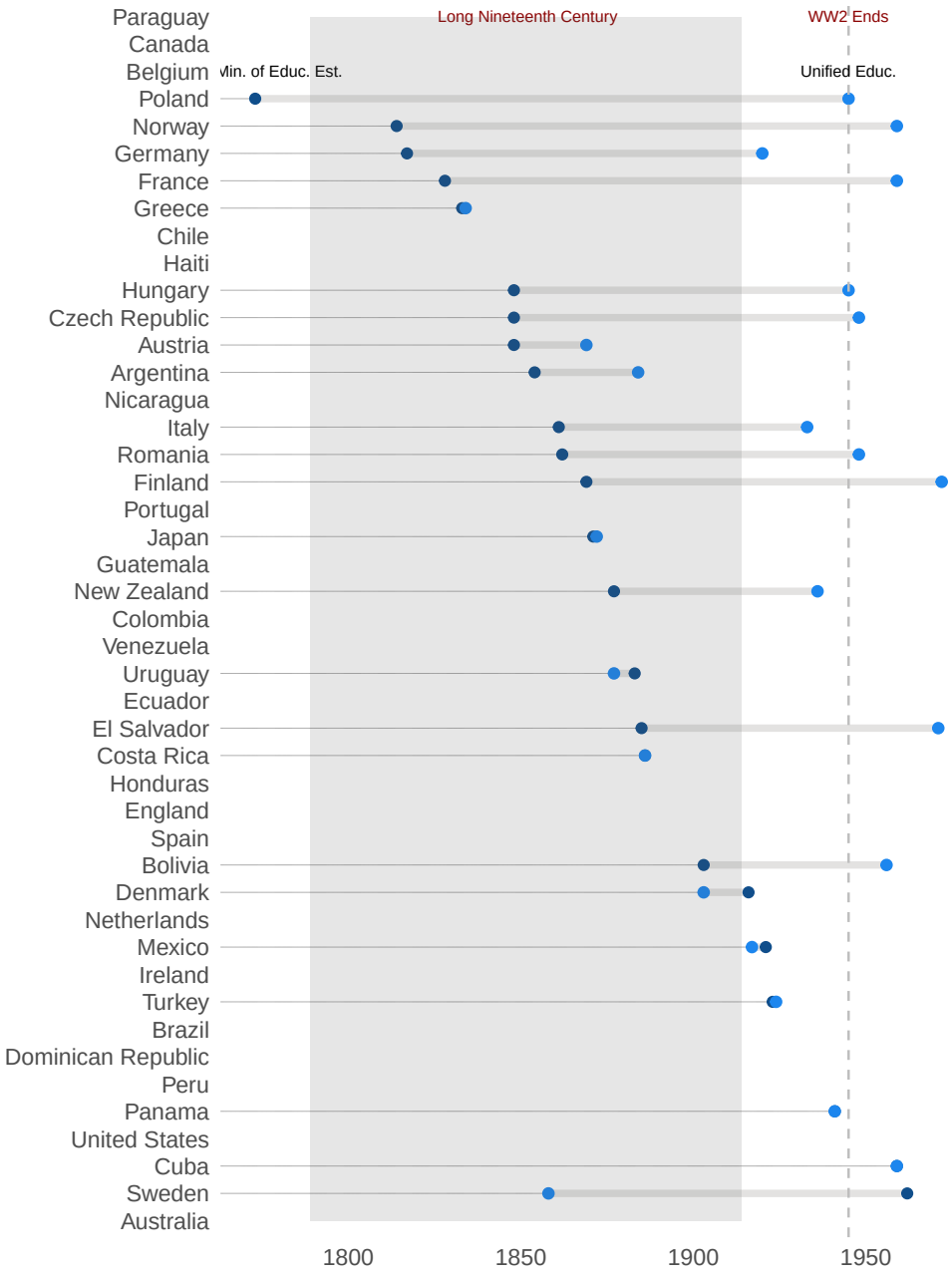
Notes: Includes Australia, Canada, New Zealand, Japan, and United States

Figure 3: Independence and Onset of Compulsory and Free Primary, Latin America



Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 4: Establishment of Ministry of Education and a Unified Public Primary and Lower-Secondary School System



Notes: Comparative History of Educational Development Dataset, v1.0.

Appendix B: Diagnostics and Control Variables

Table 2: Correlation Matrix of Main Covariates of Interest

Variable	Central. (DV)	Nat. Census	Postal Density	Rail Density	Fiscal Capacity	Military Density	Terrain Roughness	Urban Pop.	Dem.	GDP PC
Centralization (DV)	1.00									
National Census	**0.64**	1.00								
Postal Density	0.09	**0.57**	1.00							
Rail Density	0.39	0.41	**0.55**	1.00						
Fiscal Capacity	**0.51**	0.32	0.14	0.06	1.00					
Military Density	0.16	0.30	0.01	0.19	0.21	1.00				
Terrain Roughness	0.07	-0.05	-0.21	0.09	-0.07	-0.14	1.00			
Urban Pop.	**0.52**	**0.54**	0.41	**0.56**	0.46	0.18	-0.19	1.00		
Democracy	0.35	0.43	0.27	0.28	0.38	-0.03	-0.06	0.45	1.00	
GDP PC	0.42	0.45	0.41	**0.71**	**0.52**	0.19	-0.13	**0.81**	**0.59**	1.00

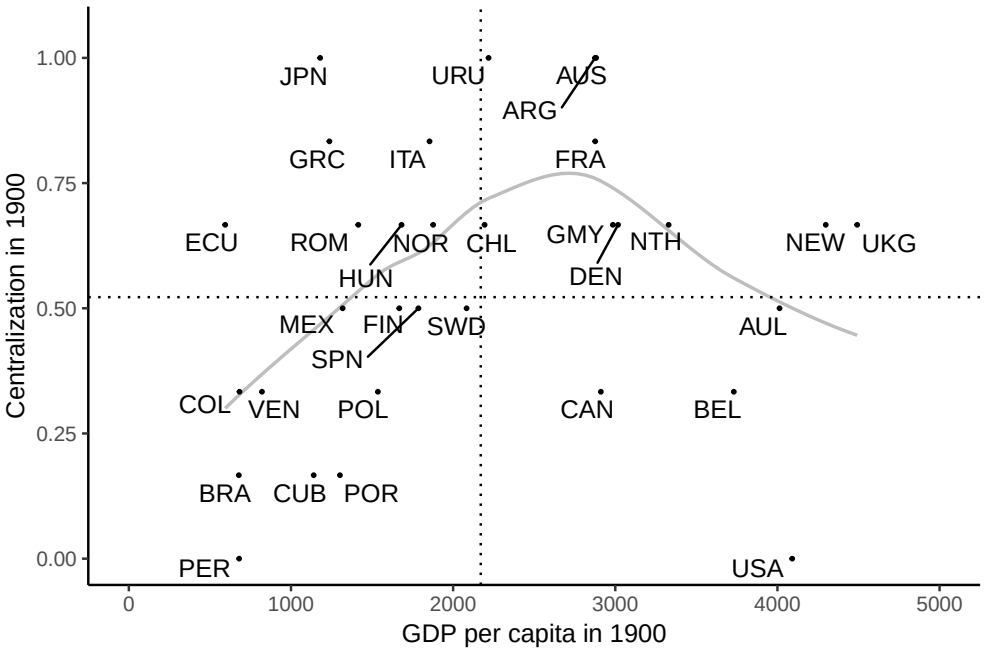
Notes: Pairwise correlation matrix with Spearman's rank correlation coefficients; all coefficients statistically significant at $\alpha = 0.5$. Correlations larger than 0.50 in bold.

.0.1 Bivariate Relationships between Control Variables and Centralization

Looking to alternative factors that could explain variation in education centralization, the results are somewhat mixed. For ease of visual interpretation, I plot Figures 5 to 9 with linear fitted lines except GDP per capita, which shows a clearer curvilinear slope when fitted using loess. First, the bivariate results show several of these measures have the expected positive relationship with education centralization. As expected, urbanization (Figure 6) and military density (Figure 7) show a clear and positive relationship to the outcome. However, the distribution for military density is more tightly clustered around the fitted line. Once again, Japan and Argentina, as well as Uruguay, stand out as outliers in terms of high centralization and somewhat low military density. Similarly, there is an expected positive relationship between fiscal capacity and centralization (Figure 9), but the data points are less

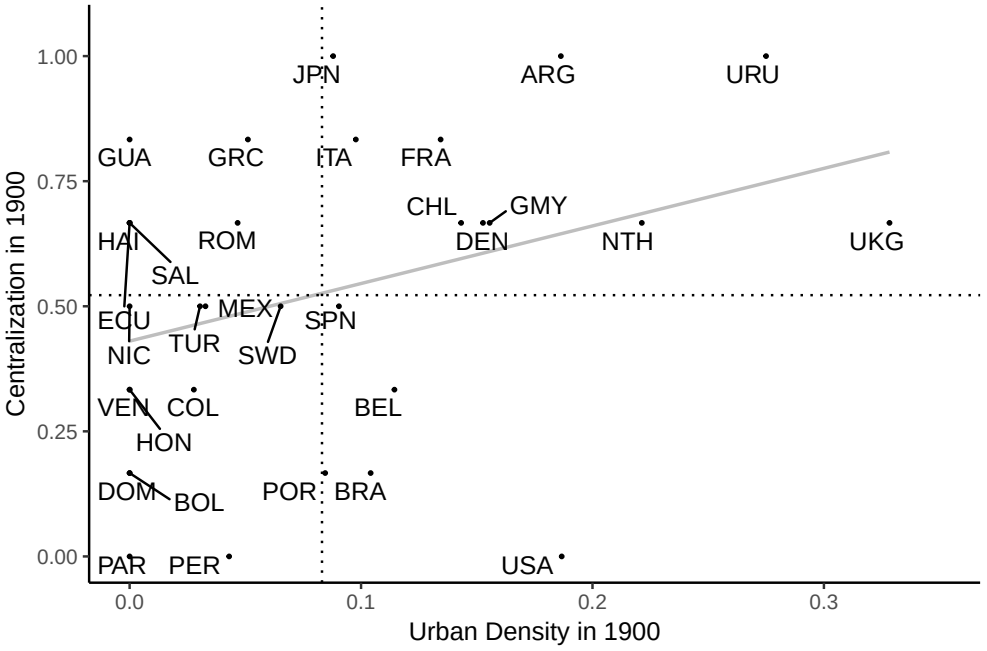
tightly distributed around the fitted line. Finally, regime type as measured by the lexical index of democracy plotted shows a relatively flat, if modestly positive relationship with education centralization (Figure 8), and interestingly economic development has a curvilinear relationship with centralization that peaks and then turns negative at levels above the mean (Figure 5). In sum, the bivariate evidence is mostly consistent with expectations, but few of the plots show that countries in the sample cluster along the fitted lines to draw a conclusion in support of the hypotheses without further econometric analyses.

Figure 5: Bivariate Relationship between Economic Development and Education Centralization



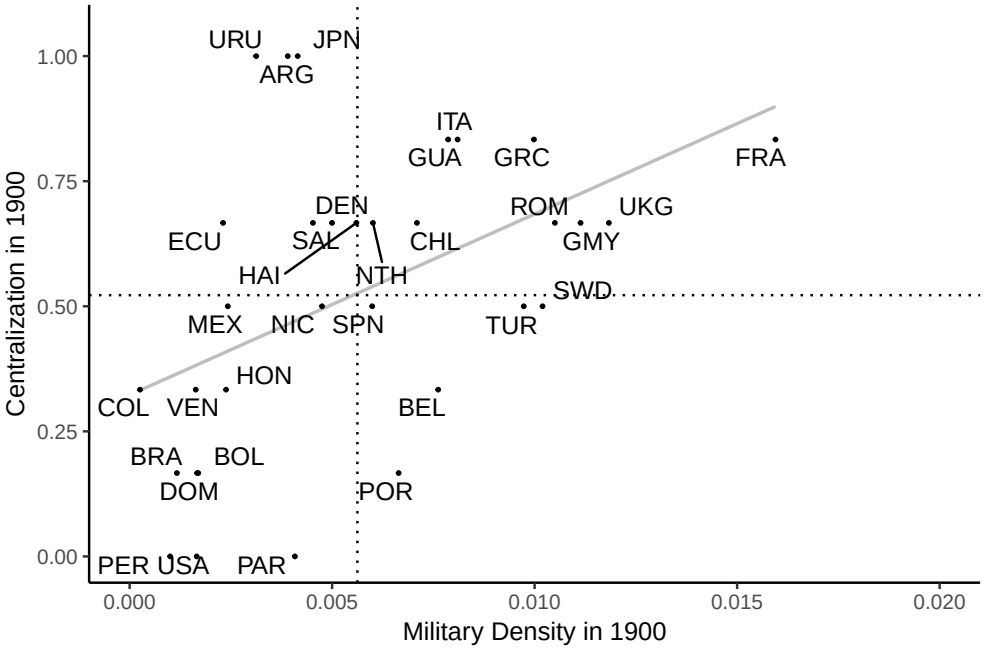
Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 6: Bivariate Relationship between Urbanization and Education Centralization



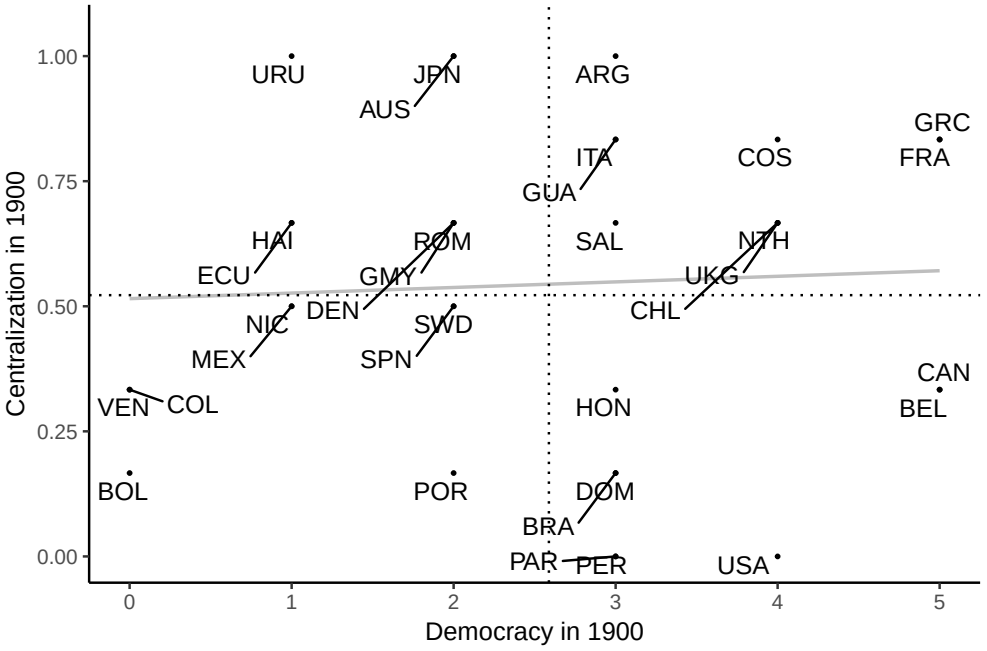
Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 7: Bivariate Relationship between Military Capacity and Education Centralization



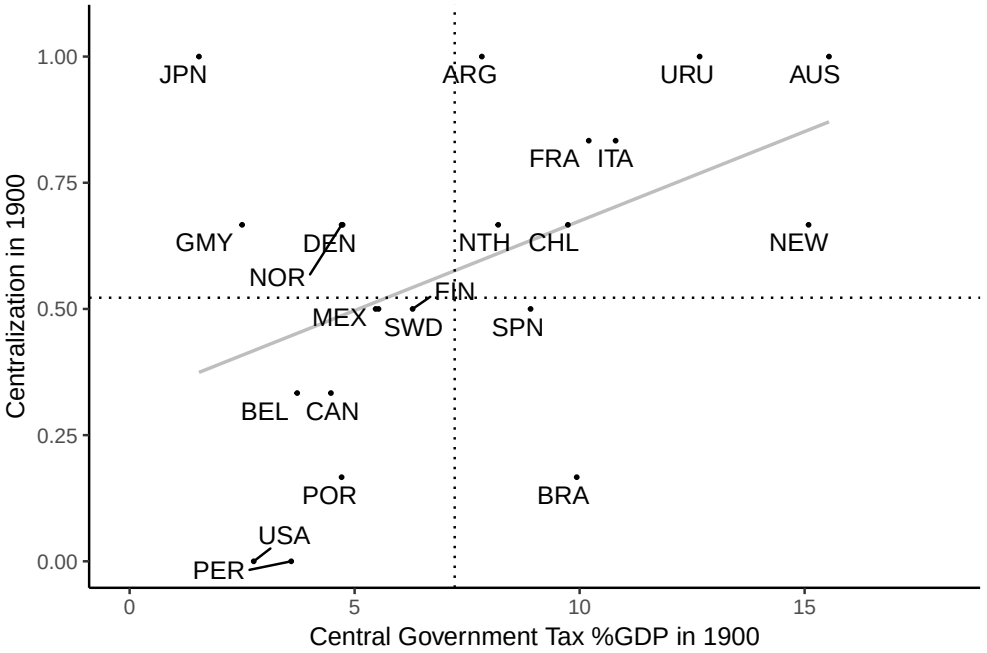
Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 8: Bivariate Relationship between Democracy and Education Centralization



Notes: Comparative History of Educational Development Dataset, v1.0.

Figure 9: Bivariate Relationship between Fiscal Capacity and Education Centralization



Notes: Comparative History of Educational Development Dataset, v1.0.

Appendix C: Alternative Specifications

.0.2 Generalized Method of Moments Estimates

Table 3: Communications Infrastructure and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
Centralization $(t-1)$	0.28***	0.27***	0.25***	0.25***	0.26***
	(0.05)	(0.07)	(0.07)	(0.07)	(0.07)
Postal Density (log)	0.01	0.01	0.00	0.00	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)
GDP PC (log)		0.15***	0.08†	0.08*	0.08†
		(0.03)	(0.04)	(0.04)	(0.04)
Urban Pop.			0.86*	0.81*	0.78*
			(0.33)	(0.32)	(0.31)
Military Density				0.24	0.40†
				(0.19)	(0.24)
Democracy					0.00
					(0.00)
n	45	45	45	45	45
T	173	173	173	173	173
Num. obs.	7697	7697	7697	7697	7697
Num. obs. used	848	741	741	733	733
Sargan Test: chisq	34.61	32.43	30.67	29.29	29.39
Sargan Test: df	342.00	513.00	683.00	852.00	1020.00
Sargan Test: p-value	1.00	1.00	1.00	1.00	1.00
Wald Test Coefficients: chisq	37.84	73.10	56.49	49.70	53.37
Wald Test Coefficients: df	2	3	4	5	6
Wald Test Coefficients: p-value	0.00	0.00	0.00	0.00	0.00

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Table 4: Transportation Infrastructure and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
Centralization $(t-1)$	0.73^{***}	0.60^{***}	0.32^{***}	0.30^{***}	0.31^{***}
	(0.04)	(0.05)	(0.06)	(0.05)	(0.05)
Rail Density	0.15^{***}	0.13^{**}	-0.09	-0.08	-0.05
	(0.04)	(0.05)	(0.13)	(0.12)	(0.11)
GDP PC (log)		$0.09^{\dagger}$	0.24^{*}	0.25^{*}	0.25^{*}
		(0.06)	(0.11)	(0.11)	(0.11)
Urban Pop.			$1.79^{\dagger}$	$1.65^{\dagger}$	$1.52^{\dagger}$
			(1.02)	(0.95)	(0.91)
Military Density				-3.31	-3.08
				(3.69)	(3.92)
Democracy					-0.01^{**}
					(0.00)
n	45	45	45	45	45
T	173	173	173	173	173
Num. obs.	7697	7697	7697	7697	7697
Num. obs. used	479	322	310	307	307
Sargan Test: chisq	18.00	9.00	9.00	9.00	9.00
Sargan Test: df	342.00	513.00	683.00	852.00	1020.00
Sargan Test: p-value	1.00	1.00	1.00	1.00	1.00
Wald Test Coefficients: chisq	924.47	424.61	72.48	178.91	266.36
Wald Test Coefficients: df	2	3	4	5	6
Wald Test Coefficients: p-value	0.00	0.00	0.00	0.00	0.00

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Notes: Estimated using GMM model with Arellano-Bond first-differences, two steps specification.

.0.3 *Pooled OLS Estimates*

Table 5: OLS Estimates of National Census and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
National Census	0.03^{***}	0.01^{***}	$-0.00^{\dagger}$	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Urban Pop.			0.02	0.01	-0.01
			(0.08)	(0.08)	(0.08)
Democracy				-0.01^{***}	-0.01^{***}
				(0.00)	(0.00)
Military Density					-0.29
					(0.48)
GDP PC (log)		0.27^{***}	0.31^{***}	0.33^{***}	0.33^{***}
		(0.01)	(0.01)	(0.02)	(0.02)
Constant	0.24^{***}	-1.54^{***}	-1.73^{***}	-1.83^{***}	-1.78^{***}
	(0.01)	(0.07)	(0.10)	(0.10)	(0.10)
R^2	0.37	0.42	0.44	0.45	0.43
Adj. R^2	0.37	0.42	0.44	0.44	0.43
Num. obs.	3606	2097	1797	1789	1710
RMSE	0.29	0.25	0.23	0.23	0.22

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Table 6: OLS Estimates of Post Offices Per Capita and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
Postal Density (log)	0.03**	−0.05***	−0.05***	−0.05***	−0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Urban Pop.			0.73***	0.77***	0.94***
			(0.12)	(0.12)	(0.12)
Democracy				0.01*	0.01*
				(0.01)	(0.01)
Military Density					6.75***
					(1.02)
GDP PC (log)		0.15***	0.07***	0.05*	0.02
		(0.01)	(0.02)	(0.02)	(0.02)
Constant	0.70***	−0.53***	−0.06	0.08	0.21
	(0.01)	(0.11)	(0.13)	(0.14)	(0.14)
R^2	0.01	0.10	0.13	0.13	0.17
Adj. R^2	0.01	0.10	0.13	0.13	0.16
Num. obs.	1299	1149	1149	1144	1121
RMSE	0.28	0.27	0.26	0.26	0.26

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Table 7: OLS Estimates of Railway Density and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
Rail Density	0.06^{***}	-0.04^{**}	-0.06^{***}	-0.06^{***}	-0.05^{***}
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Urban Pop.			0.81^{***}	0.83^{***}	0.79^{***}
			(0.23)	(0.23)	(0.23)
Democracy				-0.02^{*}	-0.03^{**}
				(0.01)	(0.01)
Military Density					$-8.36^{\dagger}$
					(4.35)
GDP PC (log)		0.39^{***}	0.37^{***}	0.38^{***}	0.40^{***}
		(0.02)	(0.03)	(0.03)	(0.04)
Constant	0.36^{***}	-2.35^{***}	-2.19^{***}	-2.21^{***}	-2.31^{***}
	(0.01)	(0.15)	(0.22)	(0.21)	(0.23)
R^2	0.02	0.49	0.62	0.63	0.63
Adj. R^2	0.02	0.48	0.61	0.62	0.62
Num. obs.	936	385	352	351	349
RMSE	0.30	0.23	0.20	0.20	0.20

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Table 8: OLS Estimates of Fiscal Capacity and Education Centralization

	Model 1	Model 2	Model 3	Model 4	Model 5
Fiscal Capacity	0.03***	0.01***	0.01***	0.01***	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Urban Prop.			0.95***	0.95***	0.93***
			(0.07)	(0.07)	(0.07)
Democracy				0.00	0.00
				(0.00)	(0.00)
Military Density					0.36
					(0.60)
GDP PC (log)		0.17***	0.07***	0.07***	0.06***
		(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.33***	−0.86***	−0.16†	−0.14	−0.10
	(0.01)	(0.07)	(0.08)	(0.09)	(0.09)
R^2	0.23	0.29	0.31	0.31	0.30
Adj. R^2	0.23	0.29	0.31	0.31	0.29
Num. obs.	2920	2708	2389	2387	2288
RMSE	0.29	0.26	0.26	0.26	0.26

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\dagger}p < 0.1$

Appendix D: Expansion of Normal Schools in Argentina

Table 9: Expansion of State Normal Schools in the Argentine Republic, 1870 - 1910

Year	Name of the School	Type
1871	Normal de Profesores de Paraná	Mixta
1873	Normal de Maestras de Uruguay	Mujeres
1874	Normal de Profesoras de la Capital	Mujeres
	Normal de Profesores de la Capital	Varones
1875	Normal de Maestros de Tucumán	Varones
1877	Normal de Maestras de Rosario	Mujeres
1878	Normal de Maestras de Mendoza	Mujeres
	Normal de Maestras de Catamarca	Mujeres
1879	Normal de Maestras de San Luis	Mujeres
	Normal de Maestras de San Juan	Mujeres
	Normal de Maestros de Mendoza	Varones
1881	Normal de Maestras de Santiago	Mujeres
	Normal de Maestros de Catamarca	Varones
1882	Normal de Maestras de Salta	Mujeres
1884	Normal de Maestras de Corrientes	Mujeres
	Normal de Maestras de Córdoba	Mujeres
	Normal de Maestras de La Rioja	Mujeres
	Normal de Maestras de Jujuy	Mujeres
1885	Normal de Profesores de Córdoba	Varones
1886	Normal de Maestros de Santa Fe	Varones
	Normal de Maestros de San Juan	Varones
	Normal de Maestros de La Rioja	Varones

Table 9 continued from previous page

Year	Name of the School	Type
	Normal de Maestros de Jujuy	Varones
1887	Normal de Maestras de Tucumán	Mujeres
	Normal de Maestros de Corrientes	Varones
1887	Normal de Maestros de San Luis	Varones
	Normal de Maestros de Santiago	Varones
	Normal de Maestros de Salta	Varones
	Normal Mixta de Azul	Mixta
	Normal Mixta de Mercedes	Mixta
1888	Normal Mixta de La Plata	Mixta
1888	Normal Mixta de San Nicolás	Mixta
	Normal Mixta de Dolores	Mixta
	Normal Mixta de Río Cuarto	Mixta
1894	Normal Mixta de Mercedes (San Luis)	Mixta
1895	Normal de Profesoras Nro. 2 de la Capital	Mujeres
1896	Normal de Profesoras de Kindergarten	Mujeres
	Normal de Maestras de Colonia Esperanza (Santa Fe)	Mujeres
1903	Normal Regional de Maestros de Corrientes	Mixta
	Normal Regional de Maestros de San Luis	Mixta
1906	Normal Mixta de Pergamino	Mixta
1907	Normal Mixta de Monteros	Mixta
1908	Normal Mixta de 25 de Mayo	Mixta
1910	Normal Mixta de San Pedro	Mixta
	Normal Mixta de Tandil	Mixta
	Normal Mixta de Concordia	Mixta
	Normal Mixta de Gualeguaychú	Mixta

Table 9 continued from previous page

Year	Name of the School	Type
	Normal Mixta de Goya	Mixta
	Normal Mixta de Santo Tomé (Misiones)	Mixta
	Normal Mixta de Esquina (Corrientes)	Mixta
	Normal Rural de San Justo (Santa Fe)	Mixta
	Normal Rural de Victoria (Entre Ríos)	Mixta
	Normal Rural de La Banda (Sgo. del Estero)	Mixta
	Normal Rural de Chilecito (La Rioja)	Mixta
1910	Normal Rural de Posadas (Misiones)	Mixta

Note: Year indicates year opened, not founded; Mixta indicates co-educational institutions, while Mujeres and Varones admit female and male students only, respectively. Some co-educational normal schools were originally established as gender-segregated institutions; Sources: Anexo I: Cuadros Estadísticos. Alliaud, Andrea. 2007. *Los Maestros Y Su Historia.* Ediciones Granica S.A.