THE ORIGINS OF PRIMARY EDUCATION REGIMES

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The emergence of publicly funded primary education systems in most of the world's independent states in the nineteenth century was a critical event in the development of the modern state, preceding the introduction of social insurance systems by several decades, and creating, for the first time, a direct relationship between the state and the masses. However, the institutions through which states exercised political control over primary education varied greatly, both across countries and over time. Surprisingly, social scientists know little about the causes of this variation. There is a rich comparative-historical literature on the introduction of compulsory education (Soysal and Strang 1989), the development of curricula (Benavot et al. 1991), and the expansion of enrollment and public education spending (Benavot and Riddle 1988; Meyer, Ramirez, and Soysal 1992; Lindert 2004, chapter 5), but what we know about patterns of authority and responsibility is largely based on historical case studies, few of which are explicitly comparative.

Aiming to fill this gap in current knowledge, this paper examines the comparative institutional development of primary education systems in Western Europe, North America, Oceania, and Japan between 1870 and 1939. Identifying three key sources of institutional variation – centralization, secularization, and subsidization – we address three basic questions: Why did some states create centralized primary education

systems, when others were content to leave schools to municipalities or parishes? Why were some school systems dominated by religious institutions, when others were entirely secular? And why did some states, but not others, provide public funding for private schools?

To answer these questions, we have compiled a new database of primary education regimes, permitting us to conduct a systematic analysis of why they varied between countries, and why these regimes changed over time. Some of our findings confirm long-held beliefs about the development of primary schooling. Others provide new insights into the history of this important social institution. Our main argument is that once we turn from enrollment and spending to institutional variables such as centralization and secularization, the macro-economic and macro-sociological explanations that scholars of primary education have so far relied on become significantly less convincing. Politics mattered greatly when mass education systems were established: liberals, Catholics, conservatives, and socialists fought with uncommon intensity and bitterness over the governance of primary education in the late nineteenth and early twentieth centuries, and these struggles, as we will show, shaped national education regimes.

We find that there were two paths to centralization (all primary education systems were originally governed locally): schooling was centralized either by liberal and social democratic parties in democracies or by authoritarian parties in autocracies. Secularization was less likely in countries with established churches, but more likely in countries with liberal and socialist governments. When it comes to the subsidization of

private schools, finally, we demonstrate that Lijphart's (1968) analysis of the Netherlands – where the provision of public funding for private schools is treated as a solution to the problem of endemic religious conflict – can be generalized to other countries: with the single exception of Denmark, private schools only received public funding in countries where Catholicism was a significant but not entirely dominant religion.

The paper begins, in Section 1, with a discussion of our theoretical expectations regarding the politics of primary education, focusing on the three key dimensions of centralization, secularization, and subsidization. Section 2 describes our measurement of these institutions, and of the explanatory variables that are included in our empirical analyses. Section 3 provides a brief descriptive account of how countries configure across the three dimensions, revealing the existence of five principal primary education regimes in the late nineteenth and early twentieth centuries. Section 4 employs a series of panel data models to estimate the effects of economic, political, and demographic variables on centralization, secularization, and subsidization. Section 5 concludes with a discussion of the implications of our argument for the study of education and for the role of historical analysis in the study of social policy.

1. Institutions, Parties, and Churches

The Politics of Primary Education. In the past two decades, scholars of comparative politics have taken great interest in the development of national education systems. In particular, comparative political

economists have taken seriously the comparative historical development of country-level "skills regimes" (Thelen 2004), providing clear and persuasive accounts of the origins of the education systems that underpin national economic strategies (Hall and Soskice 2001) and welfare regimes (Estevez-Abe, Iversen, and Soskice 2001; Iversen and Stephens 2008). So far, however, this emerging literature has mainly been concerned with secondary education, tertiary education, and vocational training (and therefore with the connection between the education system and the labor market), not with primary education. Yet, primary education is a uniquely important social institution. In the period that concerns us here – the late nineteenth and early twentieth centuries – post-primary enrollment was low in Western Europe, North America, and Oceania (even in the rich democracies, few citizens received post-primary education until quite recently, most of the expansion occurring after the Second World War), but primary school enrollment was already high.

Economists and sociologists have had more to say about the development of mass education systems in the late nineteenth and early twentieth centuries, but they have typically been concerned with enrollment or public spending, not institutions. They have therefore, in most cases, adopted functionalist and apolitical explanations. Ernst Gellner (1964, chapter 7; 1983, chapter 3), for example, famously argued that national primary education systems emerged to provide industrializing, capitalist states with a mobile and flexible labor force. Meyer, Ramirez, and Soysal's well-known study of the expansion of

mass education (1992), on the other hand, attributed the same outcome to institutional isomorphism in the international system: in their analysis, countries adopted compulsory primary education since they wished to mimic other countries that were seen as exemplars of modern nation states. More recently, Lindert (2004) did take political regimes into account, but the empirical focus in his study is on aggregate indicators of total spending, and the only political variable that enters the equation is a simple dichotomy between autocratic and democratic states: organized political actors, such as parties and religious groups, are only implicitly a part of the analysis.

Since the existing literature about the development of primary education systems is mainly concerned with socioeconomic factors and macropolitical modernization, it does not examine the relationship between political cleavages on the one hand and patterns of authority and responsibility on the other. This is regrettable, for the most divisive political conflicts over public schooling in the late nineteenth and early twentieth centuries – such as the Dutch *schoolstrijd* and the Belgian and French *guerres scolaires* – were in fact struggles over institutions. They resulted in enduring patterns of authority and responsibility. Their aftershocks are still felt.

Accordingly, our analysis focuses on political cleavages and their impact on institutional design, as opposed to recounting a linear process of modernization. In choosing to examine the structure of institutions rather than spending or enrollment, we follow the lead of Esping-Andersen (1990), who showed that data on public spending tend to

give an incomplete and distorted picture of how social policies vary between countries.[1] In choosing to consider the role not just of economic conflict but but also of cleavages such as geography and religion, we follow the lead of Lipset and Rokkan (1967) and Rokkan (1973), who showed that an analysis of the politics of mass education must move beyond the economic dimension, since many of the most important political conflicts over the organization, funding, and governance of primary education in the late nineteenth and early twentieth centuries centered on non-economic issues such as the conflict between religious education and secularism and the conflict between core modernizing elites and traditional and peripheral cultures.

Actors, Interests, and Institutions. In order to understand political conflicts over education, we must first examine the preferences that influential political and social actors had over different ways of structuring mass education systems, taking into account whether these actors were helped or hindered by established institutions.

In most countries, the starting point for late nineteenth century governments seeking to reform primary education was a piecemeal, decentralized system of schools that were largely controlled by local religious elites and funded through a ramshackle mix of direct contributions,

[1]This paper also follows Esping-Andersen's lead in two other important ways: we show how institutions cluster in regimes, and we provide a systematic comparative analysis of phenomena that have hitherto been examined only in case studies.

property taxes ("rates"), and church contributions. National governments that sought to develop a more uniform and universal primary education system had to make crucial decisions about the allocation of authority and responsibility within it.

The first question they faced was whether the central state should be able to exercise direct control over schools and teachers, or whether such authority should remain at the local level. This question separated groups representing local religious and economic elites of early modern Europe and its colonies from reformist groups – whether from the left or from the right – who wished to use the mass education system to change the social order that these elites represented. This separation thus amounted to a cleavage between the proponents of an organic, local structure of authority on the one hand and the proponents of an interventionist central government on the other. The parties that defended the old order typically identified as conservative or Catholic. The advocates of interventionist central government identified as liberal or socialist (on the center-left) or, later, as fascist (on the far right) (cf. Berman 2006).

The second question they faced concerned the role of the majority church in running and funding schools (*vis-à-vis* secularists and nonconformists). Given that for centuries, education had been the domain of the church, developing a more uniform and universal primary education system meant confronting difficult questions about the role of religious authorities – questions that had previously been resolved

on a piecemeal basis, locality by locality. The religious cleavage separated actors that represented the majority religion – either directly (the church) or indirectly (conservative and Catholic political parties) – from secularist parties and religious nonconformists.

An analysis of the relative political dominance of traditionalist and reformist political parties and the relative size and influence of religious groups provides only a partial account of educational reforms, however, for all these actors were either helped or hindered by established political institutions. We identify three crucial institutions in the period that concerns us here: regime type, federalism, and church establishment. Democracy facilitated or impeded the ability of liberal and socialist reformists to gain office and to achieve their aims of wrestling control from local elites and promoting secular education. Federalism, by contrast, served to protect the political interests of local actors from centralizing forces. Finally, church establishment meant that the church was fused with the state bureaucracy, which changed the dynamic of religious conflict and – given importance of the parishes in local communities – provided the majority church with institutionalized authority over local service provision, including education. The ability of political actors to achieve their preferred goals was conditional on the relative advantage or disadvantage bequeathed to them by these institutions.

Explaining Patterns of Authority and Responsibility. Primary education systems varied (indeed, they still vary) in the manner in which they assign authority and responsibility across actors, be they national

or local, secular or religious. These patterns of authority and responsibility can be condensed into three key dimensions.

The first dimension is *centralization*: the distribution of authority over the education system between nation states, regions (sub-national governments), and municipalities. In the middle of the nineteenth century, primary schooling was a local affair in all countries. Schools were either controlled by municipal governments or by the parishes of the majority church. Beginning in the 1870s, however, national governments sought to increase their influence over primary education. All countries took some steps in this direction, but in the late nineteenth century and the first third of the twentieth, considerable cross-country variation emerged: some countries established highly centralized school systems; others kept schools under predominantly local control.

The second dimension is *secularization*: the extent to which the public school system was operated by secular authorities rather than parishes or religious orders. As Lipset and Rokkan noted, schooling and religious instruction had for centuries been the prerogative of churches. As the idea of mass education spread across the world in the nineteenth century, the balance between temporal and religious authorities within school systems developed into a political issue of critical importance (Kalyvas 1996).

The third dimension is *subsidization*: the provision of public funding for private schools. In some countries, all public education spending went to public schools, which meant that private schools were few and

expensive, only educating the children of a small elite. In other countries, private schools – which, in this period, almost always meant religious schools – received enough public funding to make them a viable alternative to public education for significant parts of the population.

There are several ways for authority and responsibility to be distributed within school systems, leading to different combinations of centralization, secularization, and subsidization. It is therefore entirely possible for school systems with similar levels of enrollment and spending to privilege different social groups, just as different welfare regimes are associated with different systems of social stratification and (consequently) supported by different political coalitions (Esping-Andersen 1990; see also van Kersbergen and Manow 2009). In the remainder of this section, we return to discussing the preferences that leading political interest groups had over centralization, secularization, and subsidization in the period from 1870 to 1939, and derive the hypotheses that will guide the empirical analyses.

In doing so, we take into account that the late nineteenth and early twentieth centuries was a period of intense social and political change. Three changes are particularly relevant for our argument. First of all, this was when the "first wave" of democratization occurred (Huntington 1991).[2] Second, this was when national party systems formed

[2]In 1870, the mean Polity score in the countries in our sample was 0 on a scale from −10 to 10 (Marshall and Jaggers 2011). In 1939, by contrast, the mean Polity score in this group of countries was 6.2, with most countries having the maximum value of 10 (the exceptions

and were consolidated (Caramani 2004; Lipset and Rokkan 1967) and new political parties gained prominence – notably liberals, socialists, and fascists.[3] Third, and finally, this was when Christian churches lost much of their once-overwhelming influence, through the combined forces of religious nonconformism, secularization, and the rise of the modern professional class (McLeod 2007, 20–28; cf. McLeod 1997).

We begin with centralization. Why, in the last third of the nineteenth century and the first third of the twentieth, did some countries establish centralized control over their school systems? Our answer is that there were two radically different paths to centralization: primary education was either centralized by liberal and social democratic governments in democracies or in right-wing dictatorships.[4]

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being Finland, Japan, and the fascist states in continental and southern Europe).

[3]In the 1870s, 14 percent of all heads of government in the countries that we examine in the paper could be categorized as liberals or socialists. Over the following decades, this proportion grew markedly, reaching approximately 45 percent in the first two decades of the twentieth century (only to decline again to 30–40 percent in the 1920s and 1930s). We provide more detail on our data on prime ministers in section 2.

[4]Liberals and socialists obviously had very different economic interests and political programs, but in the domain of education, in the period that concerns us here, their preferences was more closely aligned.

These were all anti-conservative movements, but for very different reasons (cf. Berman 2006). Liberals and social democrats, empowered by democratization, sought to nationalize education since they saw the creation of a national education system, staffed by a cadre of professional teachers, as a way to break down the old social order, with its patchwork of parochial schools. In its place, liberals and social democrats wished to mobilize the resources of the state in order to break down old privileges and hierarchies. Moreover, as we will show in section 3, all countries that nationalized education went on to reduce the influence of the church. It is likely that centralization was viewed by at least some liberal and socialist governments as a means to secularization. For fascists, on the other hand, the centralization of education was motivated by the ideology of transcendent nationalism that defined fascism (Mann 2004): by controlling schooling, fascist parties sought to reshape society in their own image and promote a new national consciousness.

For these reasons, we expect centralization to be more common in autocracies and democratic systems with liberal and social democratic governments than in partly democratized countries and democratic countries dominated by conservative and Catholic parties.

Whereas we expect *centralization* to be driven by partisan politics and political institutions, we expect religion and religious institutions

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We therefore base the analyses in the paper on a simple distinction between liberal and social democratic governments on the one hand and all other governments on the other.

to matter more to *secularization*. Specifically, we believe that secularization is least common in countries with established churches. As Lipset and Rokkan (1967, 15) noted, there was little controversy about the role of established national churches in the education systems of Protestant countries in the nineteenth century: on the one hand, it was natural for these states to leave primary education to the church since the parishes had the necessary organizational capacity; on the other hand, the church was an agent of the state, so the church-state conflict was less pronounced (Rokkan 1973, 81–83). In Catholic countries without state churches, however, the creation of national school systems was a challenge to the authority of the church (Morgan 2002).

Although we expect religious factors to be most important for secularization, we also expect liberal and social democratic governments to be associated with a higher likelihood of secularization, since these parties typically sought to reduce the political and social influence of the church.

With respect to the third dimension – subsidization – it is important to remember that, as Lijphart (1979) pointed out, there is not one religious dimension, but two: on the one hand, the conflict between religion and secular anticlericalism (this is what Lijphart 1979, 446 called "Religious Dimension II"); on the other hand, the conflict between denominations – most importantly the conflict between Protestantism and Catholicism ("Religious Dimension I" in Lijphart's terminology). Religious minorities thus faced two threats. On the one hand, they

were threatened by the ambitions of secular liberals and socialists; on the other hand, they were threatened by majority religions.

One solution to this problem, from the point of view of minorities, was to allow them to operate their own publicly funded but autonomous schools. Where religious minorities were sufficiently large and powerful to push for public funding to private schools, we therefore expect them to do so. In other words, we expect the subsidization of private schools to be most likely in religiously heterogeneous societies, particularly where the Catholics are a significant group, but not the majority population. The inspiration for this argument is of course Arend Lijphart's work on the establishment of the pillarized political structure of the Netherlands, where one element of the 1917 political agreement that established full democracy in the Netherlands was equal funding for Catholic, Reformed Protestant, and Secular Schools (see also Knippenberg and van der Wusten 1984, 178). We argue that the "Dutch solution" can be generalized to a larger sample of countries: the provision of public funding for private schools was used, we will show, as a solution to the problem of religious conflict in many parts of the world.

2. Research Design and Data

In order to test the hypotheses that we discussed in the previous section, we have developed a database that describes the development of primary education systems in Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States from 1870 to 1939. We concentrate on

these particular countries since we wish to compare the development of primary schooling to that of social policy, and much of the comparative literature on the welfare state is concerned with these eighteen states. We begin in 1870 since the political systems of many of the countries in our sample underwent important changes around that time (for example, Germany and Italy were unified, the Third Republic was established in France, the Second Reform Act was implemented in Britain, the Tokugawa Shogunate ended in Japan, and the Civil War ended in the United States). Our coding of school systems is based on a wide range of country-specific secondary sources, which are detailed in [author reference removed].[5]

Concerning centralization, the first institutional dimension, it is important to keep in mind that governments had many different instruments at their disposal if they wished to increase national control over

[5]Our main sources are Wilkinson et al. (2006) (Australia), Scheipl and Seel (1985) (Austria), Mallinson (1963) (Belgium), Johnson (1968) (Canada), Korsgaard (2004) (Denmark), Kivinen and Rinne (1994) (Finland), Grew and Harrigan (1991) (France), Herrlitz et al. (2005) (Germany), Akenson (1970) (Ireland), Tannenbaum (1974) (Italy), Shibata (2004) (Japan), Knippenberg and van der Wusten (1984) (the Netherlands), Berrien (1964) (New Zealand), Tveiten (1994) (Norway), Jägerskiöld (1959) (Sweden), Guyer (1936) (Switzerland), Murphy (1968) (the United Kingdom), and Butts and Cremin (1959) (the United States), but we also rely on a large number of additional sources, which are listed in [author reference].

primary education, including examinations, curricula, grading standards, earmarked grants, teacher training, school inspectorates, and central regulation of teacher salaries and employment conditions. We rely primarily on evidence of whether teachers were state, regional, or municipal employees, and on the influence that national school inspectors and other national agencies had over hiring, promotions, and salaries – the idea being that the loyalties of teachers was a crucial factor in the distribution of authority in the education system. It is possible to distinguish between the local, regional, and national levels, but in order to simplify the analysis, we rely on a binary variable that identifies highly centralized national education systems.

With respect to the secularization of public primary education, we distinguish between countries with fully secular education systems and countries where the church was involved in operating public schools (as in the Scandinavian countries before the secularization of their education systems, with primary schools operated by the established church, or in Belgium, where municipalities were allowed to "adopt" previously existing Catholic schools). There were religious schools in all countries, but where these schools were severed from the public system (although they sometimes received government funding, which is captured by the privatization variable below), we code the system as secular. Some systems had a mixed character; we code those as non-secular.

When it comes to subsidization, finally, we are able to distinguish between different levels of funding for private schools, but in order to simplify the discussion and the analysis, we identify all systems

where private schools received some funding as subsidization systems. We should note that while we code this dimension for the majority of private/confessional schools, there were important distinctions within the private sector. In nineteenth century England, for example, most private school students attended private confessional schools, which did receive public funding. However, a small elite also attended "public schools," which were fees-based schools for the elite, such as Eton, Harrow, and Westminster. Such schools existed in small numbers in most of the countries under analysis, but although they were important institutions for elite training, they only represented a small proportion of overall enrollments. We therefore concentrate on the more common private confessional schools.

Our main hypotheses involve four explanatory variables (see section 1): democracy, the ideological orientation of the incumbent government, religious heterogeneity (measured here as the proportion of Catholics in the population), and church establishment. For our measure of democracy, we rely on data from the Polity project (Marshall and Jaggers 2011), using the combined Polity Score – which ranges from -10 to 10 – as our indicator. -10 represents a fully authoritarian government, 10 a fully democratic one. Remarkably, given the wealth of data available for the post-war era, we are not aware of any machine-readable datasets that cover the ideological orientation of governments in the pre-Second World War period. We have therefore created our own dataset of the ideological orientation of heads of government (prime ministers, chancellors, and presidents). The underlying dataset distinguishes between

six ideological categories (conservative or monarchist, liberal – including republican, social liberal, and agrarian – social democratic or socialist, Catholic or Christian democratic, fascist, and non-party affiliated, including caretaker governments), but in the paper, we rely on a simple binary variable that distinguishes between liberal and social democratic prime ministers on the one hand and all other categories on the other. Concerning the proportion of Catholics in the population, we rely on data from Lindert (2004), but Lindert does not have data on the Catholic population in Ireland, so for Ireland we use census data from Kennedy (1973, 112). Finally, we have created our own indicator of established churches. The countries with established churches in our sample are Denmark, Finland (until independence from Russia in 1918, when the Evangelical Lutheran Church of Finland was disestablished), Germany (until the abdication of the Emperor in 1918), Norway, Sweden, and the United Kingdom (England).

We also include a series of control variables. Scholars of the political sociology of the late nineteenth and early twentieth centuries have long emphasized the crucial role of urbanization in generating not only the urban–rural cleavage but also in influencing the center–periphery and class cleavages. Urbanization was also closely related to industrialization, which, as we discussed earlier, is widely seen as a driver of the expansion of mass education systems. For this variable, we rely

on data on the percentage of population living in cities with a population of more than 50,000 from Lindert (2004).[6] A further longstanding claim is that the early development of social policy systems was functionally related to per capita national income (Wilensky 1974). Our data on GDP per capita, in thousands of dollars, are also from Lindert (2004). Finally, the administrative structure of government varied substantially across the countries in our sample. We focus, in particular, on the presence of federalism. We code Australia, Canada, Switzerland, and the United States as federal for the entire period. We code Germany as federal from 1871 to 1932, following Confino (2002) and Noakes (1980).

3. The Five Main Regimes

In this section, we describe the most common configurations of centralization, secularization, and subsidization in the countries in our dataset between 1870 and 1939. Here, we simply describe the general patterns that emerge and provide a preliminary interpretation of these patterns. We leave the statistical analysis to section 4.

In the period that concerns us here, only six of the eight possible combinations of our dependent variables ever existed in the eighteen countries in our sample, and one of these "regimes" only existed for a few years, for with the exception of Sweden in the mid-1910s and 1920s,

[6]We lack urbanization data, but have GDP per capita data, for Ireland.

TABLE 1. Primary Education Regimes, 1870–1939

	Centralized Systems		Decentralized Systems	
	No Funding for Private Ed.	Funding for Private Ed.	No Funding for Private Ed.	Funding for Private Ed.
Secular	*Regime One (211 observations)* Austria (2), 1934–1938 Belgium (2), 1879–1884 France (2), 1880–1939 Germany (2), 1934–1939 Italy (2), 1923–1939 Japan (2), 1871–1939 New Zealand (2), 1901–1939 Sweden (3), 1930–1939		*Regime Two (470 observations)* Australia 1901-1939 Austria (1), 1870–1933 Finland 1870-1939 Germany (2), 1919–1933 Italy (1), 1870–1922 Netherlands (1), 1870–1889 New Zealand (1), 1877–1900 Norway (2), 1889–1939 Switzerland 1870–1939 United States (2), 1876–1939	*Regime Three (132 observations)* Canada 1870-1939 Denmark (2), 1934–1939 Netherlands (2), 1890–1939 United States (1), 1870–1875
Religious	*Regime Four (16 observations)* Sweden (2), 1914–1929		*Regime Five (187 observations)* Belgium (1), 1870–1878 Belgium (3), 1885–1939 France (1), 1870–1879 Germany (1), 1870–1918 Japan (1), 1870 Norway (1), 1870–1888 Sweden (1), 1870–1913	*Regime Six (152 observations)* Denmark (1), 1870–1933 Ireland, 1922–1939 United Kingdom 1870–1939

all centralized school systems were secular and provided no public funding for private schools (see Table 1). The fact that where political control of primary education was centralized, it was also secular (excepting 1910s and 1920s Sweden), with no public funding for private schools, is the most striking pattern in Table 1. Also striking is the fact that all countries initially had primary education under local control.

The list of countries in Regime One in the upper left-hand corner of the table gives an early indication of the two "paths" to centralization that we will document in the next section: centralizing reforms were adopted by authoritarian governments in autocracies (Japan in the 1870s, Italy in the 1920s, Austria and Nazi Germany in the 1930s) or by liberal or social democratic governments in democracies (Belgium in the 1870s, France in the 1880s, New Zealand in the 1900s, Sweden in the 1930s).

Among decentralized educational systems, there is more institutional variation. The most common regime in our sample is one where secular local authorities control education, with no funding for private schools (called Regime Two in the table). Below this regime, we find one where education is controlled by parishes or religious orders, also with no funding for private schools (called Regime Five in the table). Interestingly, this is the least stable regime, for only Belgium remains at the end of the period we consider, and Belgium briefly had another regime in the 1870s and 1880s.

The second least common regime in our sample, Regime Three, is identical to Regime Two except for the fact that private (mainly confessional) schools received some measure of public funding. That is a trait that this regime shares with Regime Six, where parishes or religious orders control education but operate side by side with private, publicly funded schools. It is immediately apparent that with the exception of Denmark, the countries in the fifth column – that is, countries where private schools received public subsidized – are religiously mixed societies where Catholics were a significant but not entirely dominant group, just as we hypothesized in Section 1.

4. Statistical Analysis

In this section we turn to time-series cross-sectional statistical analysis to assess the relative roles of political, economic, and demographic variables in underpinning the choices that governments made about centralization, secularization, and subsidization.

Given that the number of changes in educational systems are relatively few, whereas the number of potential years under analysis is very large (1870 to 1939 for most of the eighteen countries that we examine), we collapse the data from Table 1 into decade averages. The way we generate the country-decade data depends on the variable under analysis. For continuous variables – such as democracy, partisanship, the proportion of Catholics in the population, urbanization, and growth – we take the country average for each decade. For the dependent variables, which are categorical in nature, this process does not make sense – for one thing, there is no score of say 0.5 on the centralization

dimension – and since these are outcome variables we want to make sure that we are not predicting, for example, the position in the centralization dimension in 1871 with effects of democracy that occur in 1879. Accordingly, for the dependent variables, we take each country's score in the last year of each decade (1879, 1889, ..., 1939).[7] We do the same for the established church variable and federalism.

We run a series of binary probit estimations, with country-clustered standard errors, where the dependent variables are, in turn, centralization, secularization, and subsidization. In each case we present the following series of models: (1) a baseline analysis with core independent variables and urbanization; (2) the same replacing urbanization with GDP per capita; (3) an extended analysis with further controls and urbanization; (4) an extended analysis with further controls and GDP per capita; (5) the extended analysis with decade dummies and urbanization; and finally, (6) the extended analysis with decade dummies and GDP per capita.[8]

[7]For Austria, we use data from 1938 instead of 1939.

[8]The regime analysis above suggests that choices along the dimensions may not be entirely independent from one another. Pairwise analysis of seemingly unrelated bivariate probit models and of a multinomial logit choosing among the five main regimes (excluding Regime Four which has too few data points) produce very similar results, albeit at the cost of greater difficulty in interpreting substantive effects. Moreover, the multinomial logic technique assumes that countries are choosing from a series of unordered *regimes*, which perhaps imposes more freedom on countries than is warranted.

For each estimation, while we present tables of coefficients, we focus our attention on the substantive effects of political and religious variables by examining predicted probabilities.[9]

Centralization. We begin by examining Table 2, where centralization is the dependent variable. A few quick points are worth making before we move to examining predicted probabilities. First, there appears to be a positive interactive effect of democracy and partisanship, statistically significant across all the models. Moreover, where countries have a Polity score of zero ("anocracies"), liberalism appears to be associated with *reduced* centralization. Precisely how this interaction fits together we shall explore presently. We also find the expected negative impact of federalism on centralization in all the models, as well as a significant negative effect of church establishment on centralization. Somewhat surprisingly, we find no indication that either urbanization or GDP per capita had an effect on centralization, at least when controlling for political and religious variables. This implies that a simple functionalist story of centralization that ignores political and religious cleavages is unlikely to provide a satisfactory account of the growth in the educational authority of the nation state.

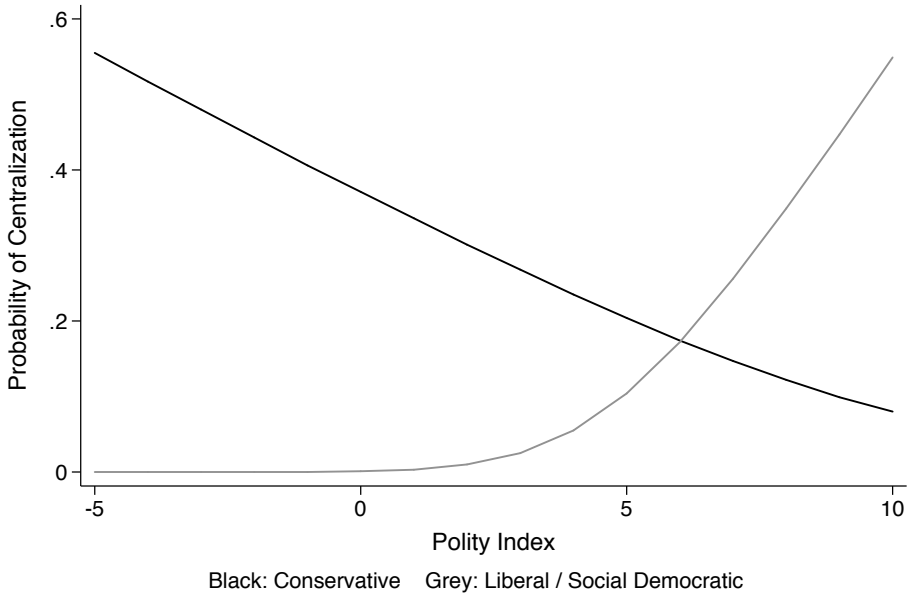
To interpret the substantive meanings of these coefficients, we now turn to a discussion of predicted probabilities. Figure 1 shows the

[9]The predicted probabilities were calculated using Stata 12's `margins` command.

TABLE 2. The Centralization of Primary Education, 1870–1939

	(1)	(2)	(3)	(4)	(5)	(6)
Lib. / Soc.	−2.083*	−1.987*	−3.799**	−3.505**	−3.941**	−3.671**
	(1.199)	(1.116)	(1.774)	(1.572)	(1.864)	(1.650)
Polity	−0.065	−0.055	−0.168	−0.156	−0.196*	−0.182*
	(0.060)	(0.062)	(0.114)	(0.101)	(0.109)	(0.102)
Lib/Soc * Polity 2	0.294**	0.295***	0.613**	0.582***	0.632**	0.610***
	(0.118)	(0.112)	(0.254)	(0.216)	(0.266)	(0.222)
Federalism	−1.523**	−1.397**	−2.260***	−1.961***	−2.356***	−2.133***
	(0.599)	(0.582)	(0.661)	(0.596)	(0.717)	(0.622)
Urbanization	0.589		2.123		0.189	
	(2.443)		(2.820)		(4.401)	
GDP per capita		−0.105		−0.021		−0.145
		(0.303)		(0.242)		(0.321)
Catholic			−0.128	−0.135	0.056	−0.021
			(0.722)	(0.651)	(0.807)	(0.740)
Established Ch.			−2.132**	−2.080**	−2.197**	−2.150**
			(0.980)	(0.938)	(1.055)	(1.018)
Constant	−0.259	0.061	0.485	0.783	0.454	0.694
	(0.643)	(0.974)	(0.723)	(0.939)	(1.002)	(1.115)
Observations	107	110	107	110	107	110

FIGURE 1. Democracy, Partisanship, and Centralization



predicted probabilities for having centralized education for liberal versus conservative governments across the within-sample range on the Polity index (apart from a single observation of a country that was fully authoritarian during an entire decade: Fascist Italy in the 1930s), using the coefficients from Model 4 of Table 2. We noted in Section 3 that centralizing reforms appeared to occur either under dictatorship or under democratic liberalism. This pattern is immediately apparent in Figure 1. In authoritarian regimes run by right-wing governments, the predicted probability of centralization is 0.56. For democracies run by liberal governments, the associated predicted probability is an almost identical 0.55. However, for fully democratic regimes that are run by conservatives or for partially democratic regimes run by liberals the probabilities are substantially lower. For the former, the predicted

probability of centralization is just 0.08 and for the latter (at a Polity score of five) the predicted probability of centralization is 0.10. These differences are statistically significant: the difference between liberal-run partial democracies and liberal-run full democracies is significant at the $p < 0.001$ level and that between conservative-run and liberal-run full democracies at the $p < 0.02$ level, and that between conservative run autocracies and conservative run democracies at the $p < 0.07$ level. By contrast, the difference between a conservative autocracy and a liberal democracy is negligible.

Accordingly we see two paths to centralization. The first path to centralization is observable among dictatorships and the second path among liberal democracies. By contrast, conservative governments were very unlikely to centralize education in democratic countries.

It is worth noting that the effects of political institutions emerge *even as* federalism is controlled for – that is, they are not epiphenomenal to the underlying state structure. The effect of federalism is indeed substantial – whereas unitary states had a 0.33 predicted probability of centralizing their primary education systems, this reduces to 0.03 predicted probability for federal states. It is noteworthy that the interactive effect of democracy and government partisanship is slightly larger in substantive magnitude than the direct effect of federalism.[10]

[10]The effects of regime type and of federalism are robust to the exclusion of the other – indeed, the negative effect of democracy on centralization for conservative governments becomes somewhat more statistically significant

Having an established church is also associated with a sizable decrease in the predicted probability of having a centralized primary education system: countries without established churches had a predicted probability of 0.38 of centralizing, whereas those with established churches had a predicted probability of just 0.05. We argue that this effect results from the trust that central governments had in long-standing traditions of church control of schools in countries where the church was fused with the state. Accordingly, demand for nationalizing the primary education system as a means of countervailing church and local power was minimized.

Secularization. We now move in Table 3 to examining whether states permitted religious authorities to operate public schools or only permitted secular bureaucracies to do so – the *secularization* dimension. Here we find that our hypothesized forces of liberalism and established churches are indeed the key explanatory factors. Figure 2 demonstrates the effects of both forces. The effect of church establishment can be seen in the large gap between the grey line (countries with established churches) and the black line (countries without established churches), at both low levels of liberalism (0.01 predicted probability versus 0.85) and high levels of liberalism (0.48 versus 1.00 predicted probability). Liberalism has a positive effect on the predicted probability of secularization both in the existence and absence of an established church but the substantive effect is clearly much higher in the former.[11]

[11]The differences between all four of these scenarios are statistically significant at the $p < 0.001$ level.

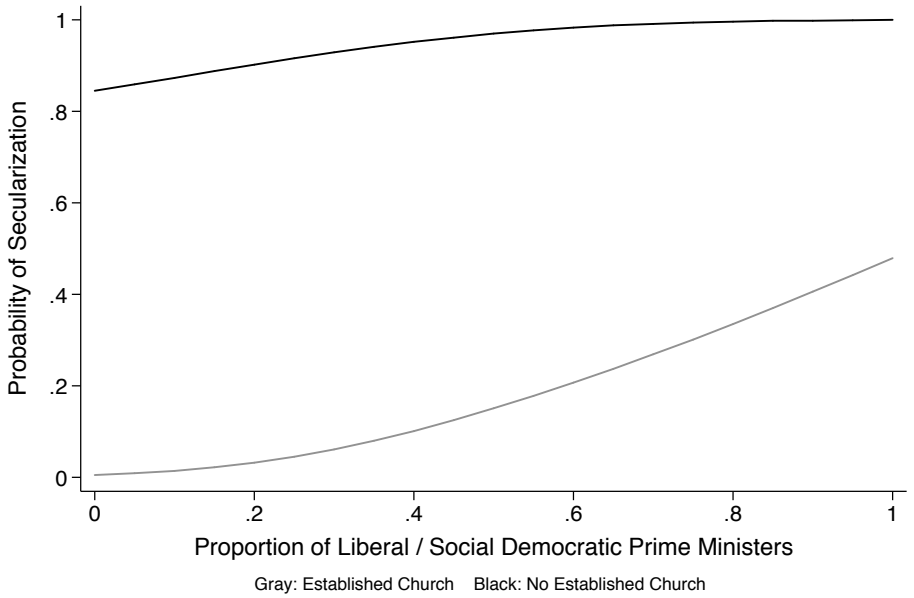
Why is church establishment so crucial to secularization? And in particular, why did regimes without an established church almost always secularize their schools? In our analysis, this occurs for two reasons. First, Catholic majority countries lacked official fusion between schools and the church. In many of these cases a conflict emerged between secularists and the church, as in France in the late nineteenth century, that was resolved by the state taking over responsibility for schooling. Second, in multi-denominational states such as Canada, the Netherlands, Switzerland, and the United States, competition among religious groups meant that religious control of expressly public schools was deeply controversial (by contrast, as we shall see shortly, subsidization of confessional private schools did occur in these countries).

Why did liberalism matter more in countries with an established church than in those without? Here we argue that only where the church already had control over public schooling did partisanship play a major role. In states without established churches, church control of schooling was already largely anathema. In countries with established churches, liberals were facing a more uphill battle to extract the church from such control, since the legitimacy of uni-denominational control of public schooling was strong. Such battles between church and liberals were fought at a later point than the late nineteenth century *guerres scolaires* in Catholic states. Sweden and Denmark, for example, made this shift only in the 1930s.

Finally we note that religious demographics and the presence of federalism also appear to have affected secularization. Holding church

establishment constant, an increase in the number of Catholics in the population from ten to twenty percent would reduce the predicted probability of secularization by around ten percentage points. As for federalism, its existence appears to increase the predicted probability of secularization by twenty percentage points. Both effects, however, only appear in the context of having an established church.

FIGURE 2. State Churches, Partisanship, and Secularization



Subsidization. We conclude with an empirical analysis of the state subsidization of private schools, which for the most part meant private *confessional* schools. As we noted in Section 1, we believe that this choice should be related to Lijphart's first dimension of religious politics – that between denominations. Accordingly, in Table 4, we include a quadratic term for the percentage of Catholics in the population. We

TABLE 3. The Secularization of Primary Education, 1870–1939

	(1)	(2)	(3)	(4)	(5)	(6)
Lib. / Soc.	3.702***	4.403***	4.237***	4.891***	6.016***	10.209***
	(0.978)	(1.093)	(1.095)	(1.263)	(1.210)	(1.911)
Established Ch.	−9.943**	−9.944***	−8.931***	−9.381***	−12.969***	−16.046***
	(4.118)	(1.832)	(1.842)	(1.778)	(3.419)	(3.569)
Polity	−0.127**	−0.099	−0.126**	−0.107	−0.143**	−0.153***
	(0.054)	(0.062)	(0.062)	(0.073)	(0.062)	(0.059)
Catholic	−8.506**	−8.064***	−7.329***	−7.585***	−10.255***	−12.524***
	(4.323)	(1.771)	(1.903)	(1.727)	(2.990)	(3.429)
Urbanization	1.816		−2.595		−18.700	
	(3.687)		(2.791)		(12.961)	
GDP per capita		−0.494		−0.615		−2.027***
		(0.349)		(0.382)		(0.696)
Federalism			2.524***	2.626***	4.497***	5.216***
			(0.674)	(0.569)	(1.419)	(1.007)
Constant	7.726*	8.902***	7.044***	8.402***	11.529***	15.821***
	(4.054)	(2.452)	(2.086)	(2.380)	(4.302)	(4.859)
Observations	107	110	107	110	107	110

expect that at intermediate levels of this variable, the pressure will be greatest to resolve religious conflict through the "Dutch solution" of channeling public funds to all private denominations.

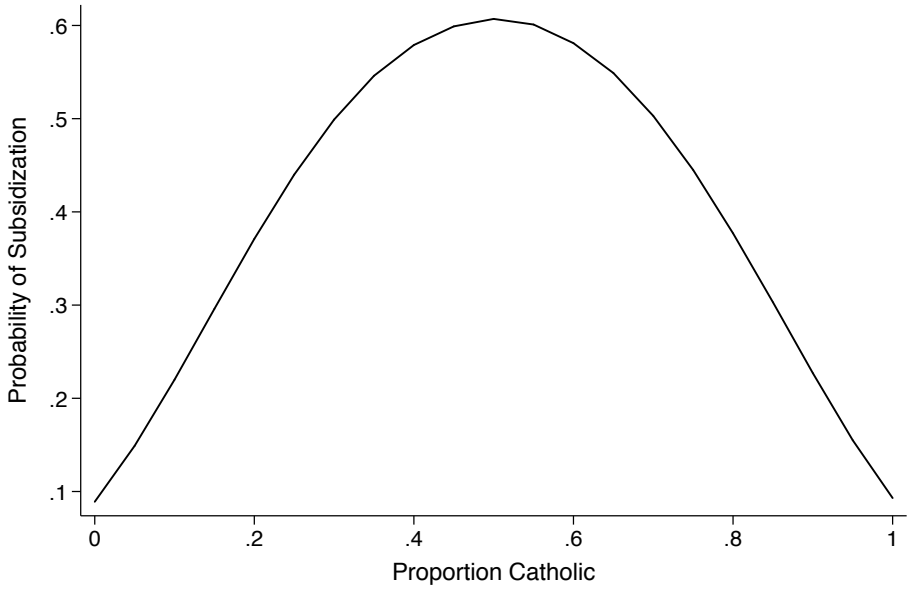
Table 4 begins in Models 1 and 2 with only the direct effect of Catholic population – that is, *without* the quadratic term. In these models, religious demographics appear to have no statistically significant effect on subsidization. Indeed, only the level of political liberalism of the prime minister appears to be an important predictor of subsidization – with fully liberal or social democratic governments associated with a greater likelihood of subsidization. Models 3 through 6 introduce the quadratic Catholic population term (as well as a control for federalism). Here we do see strong evidence for the conjecture of a hump-shaped relationship – the coefficient on the linear term is positive and that on the quadratic term is negative. In these models, liberalism is still associated with an increased predicted probability of subsidization, as is church establishment.

As before, we interpret these coefficients graphically and through predicted probabilities. Figure 3 demonstrates the pronounced hump-shaped pattern for the effects of Catholic population. When the Catholic population is negligible, state subsidization of private schools appears relatively unlikely – a predicted probability of only 0.08. As the proportion of Catholics in the population rises to twenty-five percent, however, the predicted probability of subsidization increases to 0.44, reaching a maximum of 0.61 at fifty percent enrollment, before falling once more

TABLE 4. Subsidization of Private Primary Education, 1870–1939

	(1)	(2)	(3)	(4)	(5)	(6)
Catholic	−0.733	−0.017	11.217**	9.496**	10.475*	10.436*
	(0.704)	(0.863)	(5.212)	(4.486)	(6.091)	(5.664)
Catholic Sq			−13.937**	−9.456**	−13.192**	−10.508*
			(5.751)	(4.140)	(6.535)	(5.441)
Lib. / Soc.	0.644**	0.253	0.918**	0.144	1.027*	0.142
	(0.316)	(0.395)	(0.452)	(0.603)	(0.561)	(0.634)
Polity	−0.018	0.001	−0.001	0.037	0.005	0.029
	(0.047)	(0.055)	(0.054)	(0.055)	(0.053)	(0.056)
Established Ch.	0.589	0.830	1.373**	1.488**	1.316*	1.523**
	(0.710)	(0.805)	(0.652)	(0.720)	(0.705)	(0.724)
Urbanization	4.339		1.220		2.333	
	(3.409)		(2.820)		(4.158)	
GDP per capita		0.245		0.003		−0.114
		(0.267)		(0.245)		(0.402)
Federalism			−1.027	−1.240	−0.972	−1.283
			(0.765)	(0.865)	(0.789)	(0.865)
Constant	−1.741*	−1.857*	−2.615***	−2.249**	−2.528**	−2.202**
	(0.937)	(0.995)	(0.968)	(0.883)	(1.015)	(0.859)
Catholic						
Observations	107	110	107	110	107	110

FIGURE 3. Religious Heterogeneity and Subsidization



to a predicted probability of subsidization of 0.44 at seventy-five percent Catholic, and essentially .09 for fully Catholic countries. These changes are all statistically significant at the ten percent level and the difference between zero and twenty-five percent, and seventy-five and one hundred percent, are significant at the one percent level. By contrast, there is no statistically significant difference in the predicted probability of subsidization between countries without Catholics and those that are uniformly Catholic (hence, the linear term when entered on its own in Models 1 and 2 was insignificant).

What are the implications of this nonlinear finding? We argue, following Section 1, that only in countries where the inter-religious cleavage is important – that is, in religiously heterogenous countries – will there both be a general absence of trust in the public school system

among religious minorities *and* religious minorities politically powerful enough to demand and receive state subsidization of their privately-run schools. This "Dutch solution" is not limited to the Netherlands. Its importance can also be seen in countries as diverse as Canada, Denmark, and the United Kingdom – that is, both in countries where religious authorities were prohibited from running schools and where they were permitted to do so (in other words, at both ends of the secularization dimension).[12]

The other control variable that appears to be positively related to subsidization at statistically significant levels is church establishment – the average predicted probability of subsidization increases from 0.15 to 0.56 when we move form a state without an established church to one with one. This effect may appear ostensibly surprising, but we argue that in countries with sizable Catholic populations but an established Church, such as the United Kingdom, granting subsidization to religious minorities may be less threatening to majority groups, given the legal and political dominance of the established church within the public school system (as we saw in the earlier empirical analyses). However, we should be cautious about drawing further conclusions given the relatively limited variation under analysis – no country with an established church had more than forty percent Catholics.

[12]Indeed, the quadratic relationship remains, albeit at reduced levels of significance, even when the Netherlands is removed from the analysis.

5. Conclusions

To conclude, we would like to remind of the three key findings from the analyses in the previous sections. First, there appear to have been "two paths" to centralization. On the one hand, liberal parties in democratic systems were associated with higher centralization, but on the other hand, so too were the fascist parties of authoritarian states. Second, the existence of an established church had, as expected, an important role in structuring whether religious authorities were permitted to run schools (countries with established churches almost always permitted religious control of schools, essentially a state-sanctioned form of "subsidiarity"), but the ideological orientation of governments also mattered, with liberal and socialist governments more likely to secularize. Finally, we found that in states with high levels of religious heterogeneity, the "Dutch solution" of state-subsidized private schools dominated (both in secular and nonsecular systems). By contrast, where the Catholic population was either very small or very large, we do not find a high likelihood of state subsidization of private schools, since the inter-religious cleavage was less pronounced. In other words, dominant religions meant that confessional schools would be taken under public control whereas a mixed religious population was associated with the retention of private status for such schools.

It is worth concluding by noting that this paper's broadest contribution is to remind us that social policy "regimes" are not solely products of the growth of the modern welfare state but in fact predate it

by several decades. Arguably, save for the development of the modern military, the expansion of primary education in the late nineteenth century marked the first profound extension of the state's powers to the mass of civilians. Yet, even at this early stage, considerable variation in how institutions were structured existed. As we have seen above, that variation was in large part a product of the political and religious cleavages that existed at the end of the nineteenth century. Moreover, these structures in many cases remain extant today. Modern primary education systems – like cross-national patterns of redistribution (Iversen and Soskice 2009) and systems of corporate governance (Martin and Swank 2011) – remain shrouded in the shadows of the nineteenth century.

References

Akenson, Donald H. 1970. *The Irish Education Experiment*. London: Routledge and Kegan Paul.

Benavot, Aaron, Yun-Kyung Cha, David Kamens, John W. Meyer, and Suk-Ying Wong. 1991. "Knowledge for the Masses: World Models and National Curricula." *American Sociological Review* 56 (1):85–100.

Benavot, Aaron and Phyllis Riddle. 1988. "The Expansion of Primary Education, 1870–1940: Trends and Issues." *Sociology of Education* 61 (3):191–210.

Berman, Sheri. 2006. *The Primacy of Politics*. Cambridge: Cambridge University Press.

Berrien, Marcia T. 1964. *Education in New Zealand*. Washington: U.S. Department of Health, Education and Welfare, Office of Education.

Butts, R. Freeman and Lawrence A. Cremin. 1959. *A History of Education in American Culture*. New York: Henry Holt & Co.

Caramani, Daniele. 2004. *The Nationalization of Politics: The Formation of National Electorates and Party Systems in Western Europe*. Cambridge: Cambridge University Press.

Confino, A. 2002. "Federalism and the Heimat Idea in Imperial Germany." In *German Federalism: Past, Present, Future*. Basingstoke: Palgrave, 70–90.

Esping-Andersen, Gøsta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University Press.

Estevez-Abe, Margarita, Torben Iversen, and David Soskice. 2001. "Social Protection and the Formation of Skills." In *Varieties of Capitalism*, edited by Peter A. Hall and David Soskice. Oxford: Oxford University Press.

Gellner, Ernest. 1964. *Thought and Change*. London: Weidenfeld and Nicolson.

———. 1983. *Nations and Nationalism*. Ithaca: Cornell University Press.

Grew, Raymond and Partick J. Harrigan. 1991. *School, State, and Society: The Growth of Elementary Schooling in Nineteenth-Century France*. Ann Arbor: The University of Michigan Press.

Guyer, Walter, editor. 1936. *Erziehungsgedanke und Bildungswesen in der Schweiz*. Leipzig: Huber & Co.

Hall, Peter A. and David Soskice. 2001. "An Introduction to Varieties of Capitalism." In *Varieties of Capitalism*, edited by Peter A. Hall and David Soskice. Oxford: Oxford University Press, 1–68.

Herrlitz, Hans-Georg, Wulf Hopf, Hartmut Titze, and Ernst Cloer. 2005. *Deutsche Schulgeschichte von 1800 bis zur Gegenwart: Eine Einführung*. Weinheim: Juventa.

Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman: University of Oklahoma Press.

Iversen, Torben and David Soskice. 2009. "Distribution and Redistribution: The Shadow of the Nineteenth Century." *World Politics* 61 (3):438–486.

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

Jägerskiöld, Stig. 1959. *Från prästskola till enhetsskola*. Stockholm: Almqvist & Wiksell.

Johnson, F. Henry. 1968. *A Brief History of Canadian Education*. Toronto: McGraw-Hill.

Kalyvas, Stathis N. 1996. *The Rise of Christian Democracy in Europe*. Ithaca: Cornell University Press.

Kennedy, Robert E. 1973. *The Irish: Emigration, Marriage, and Fertility*. University of California Press.

Kivinen, Osmo and Risto Rinne. 1994. "Offentlig och privat utbildning i Finland: Utbildningssystemets historiska förändring." In *Kampen om lärohusen: Studier kring statsmakt och föräldrarätt i nordisk skolutveckling*, edited by Håkan Andersson, Knut Jordheim, Ingrid Nilsson, and Vagn Skovgaard-Petersen. Stockholm: Almqvist & Wiksell, 39–52.

Knippenberg, H and H. van der Wusten. 1984. "The Primary School System in the Netherlands 1900–1980." *Tijdschrift voor Economische en Sociale Geografie* 73 (3):177–185.

Korsgaard, Ove. 2004. *Kampen om folket*. Copenhagen: Nordisk Forlag.

Lijphart, Arend. 1968. *The Politics of Accommodation*. Berkeley: University of California Press.

———. 1979. "Religious vs. Linguistic vs. Class Voting: The Crucial Experiment of Comparing Belgium, Canada, South Africa and Switzerland." *American Political Science Review* 73 (2):442–458.

Lindert, Peter H. 2004. *Growing Public*. Cambridge: Cambridge University Press.

Lipset, Seymour Martin and Stein Rokkan. 1967. *Party Systems and Voter Alignments*. New York: Free Press.

Mallinson, Vernon. 1963. *Power & Politics in Belgian Education: 1815 to 1961*. London: Heineman Education Books Ltd.

Mann, Michael. 2004. *Fascists*. Cambridge: Cambridge University Press.

Marshall, M. G. and K. Jaggers. 2011. "Polity IV Project: Political Regime Characteristics and Transitions, 1800–2009." Maryland: University of Maryland.

Martin, Cathie Jo and Duane Swank. 2011. "Gonna Party Like It's 1899: Party Systems and the Origins of Varieties of Coordination." *World Politics* 63 (1):78–114.

McLeod, Hugh. 1997. *Religion and the People of Western Europe 1789–1990*. Oxford: Oxford University Press.

———. 2007. *The Religious Crisis of the 1960s*. Oxford: Oxford University Press.

Meyer, John W., Francisco O. Ramirez, and Yasemin N. Soysal. 1992. "World Expansion of Mass Education, 1870–1980." *Sociology of Education* 65:128–149.

Morgan, Kimberly J. 2002. "Forging the Frontiers Between State, Church, and Family." *Politics & Society* 30 (1):113–148.

Murphy, James. 1968. "Religion, the State, and Education in England." *History of Education Quarterly* 8 (1):3–34.

Noakes, J. 1980. *Government, Party, and People in Nazi Germany*. 2. University of Exeter Press.

Rokkan, Stein. 1973. "Cities, States, and Nations." In *Building States and Nations*, vol. 1. Beverly Hills: Sage.

Scheipl, Josef and Helmut Seel. 1985. *Die Entwicklung des Österreichischen Schulwesens von 1750–1938*. Graz: Leykam Verlag.

Shibata, Masako. 2004. "Controlling National Identity and Reshaping the Role of Education: The Vision of State Formation in Meiji Japan and the German Kaiserreich." *History of Education* 33 (1):75–85.

Soysal, Yasemin N. and David Strang. 1989. "Construction of the First Mass Education Systems in Nineteenth Century Europe." *Sociology of Education* 62 (4):277–288.

Tannenbaum, Edward R. 1974. "Education." In *Modern Italy: A Topical History Since 1861*, edited by Edward R. Tannenbaum and Amiliana P. Noether. New York: New York University Press, 231–253.

Thelen, Kathleen. 2004. *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States and Japan*. Cambridge: Cambridge University Press.

Tveiten, Asbjørn. 1994. "Offentlig of privat i den norske allmenndannende skolen gjennom 250 år." In *Kampen om lärohusen:*

Studier kring statsmakt och föräldrarätt i nordisk skolutveckling, edited by Håkan Andersson, Knut Jordheim, Ingrid Nilsson, and Vagn Skovgaard-Petersen. Stockholm: Almqvist & Wiksell, 21–38.

van Kersbergen, Kees and Philip Manow. 2009. "Religion and the Western Welfare State: The Theoretical Context." In *Religion, Class Coalitions, and Welfare States*, edited by Kees van Kersbergen and Philip Manow. Cambridge: Cambridge Univ Press.

Wilensky, Harold L. 1974. *The Welfare State and Equality.* Berkeley: University of California Press.

Wilkinson, Ian R., Brian J. Caldwell, R. J. W. Selleck, Jessica Harris, and Pam Dettman. 2006. *A History of State Aid to Non-Government Schools in Australia.* Brighton: Educational Transformations.