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Globalization and the Rise of Mass Education

Edited by
David Mitch · Gabriele Cappelli



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1

Globalization and the Rise of Mass Education—Introduction

Gabriele Cappelli and David Mitch

Abstract This chapter outlines the relationship between globalization and education by presenting several potential factors linking the two aspects. First, existing evidence on the evolution of national school systems is presented. Secondly, an interpretative framework to connect global socioeconomic and political forces with local and national educational developments is discussed, based on migrations, trade, evolving institutions, colonialism and the activity of missions. Next, this framework is used to present the individual chapters of the book, with a broad geographical scope including countries in the Southern and Northern European periphery, North America and Latin America,

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Sub-Saharan Africa and Asia. The last section sums up the main results and briefly presents remaining gaps that future research should fill.

Keywords Globalization · Global forces · Local conditions · Human capital · Education · Mass schooling · Migration · Integration · Diversity · Literacy · Numeracy · Enrollment · Trade · Returns to schooling · Incentives · Missions · Colonial · Elites

1.1 Education and Globalization in the Long Run

Today, human capital is recognized as one of the core determinants of economic growth, and a component of human development and well-being (Hanushek and Woessmann 2012; United Nations Development Programme 2016). Human capital is broadly defined as the skills and abilities possessed by individuals (Goldin 2016) and can be measured by numeracy, literacy and standardized test scores capturing cognitive capabilities. Although human capital can be acquired through channels that are independent from formal education, like experience and learning-by-doing in the workplace, the two concepts are almost seen as synonyms in modern society—even though they are not the same thing.

Mass schooling, as measured by primary school enrollments and school expenditures, has risen dramatically in the last two centuries. This evolution was mirrored by a decided growth in the extent of globalization: apart from a setback between World War I and World War II, international flows of goods and services, capital and people have intensified, a phenomenon prompted by technological progress and falling transport costs, as well as improvements in communications, leading to both commodity and factor price convergence.

This generalized path of global human capital accumulation hides remarkable national and regional disparities. Researchers have relied on age-heaping as a proxy for numeracy in the past (A'Hearn et al. 2009), showing that, at the beginning of the nineteenth century, almost the

whole population of North-Western European countries possessed some basic numerical abilities (Crayen and Baten 2010). Despite this, in 1870, the only areas of Western Europe where literacy had spread substantially were the France, Germany and Great Britain (Pamuk and van Zanden 2010). However, throughout much of the rest of the World in the late nineteenth and early twentieth century, exposure to primary education was still uncommon. Primary school enrollment rates in most of Latin America ranged between 15 and 45 percent in 1900 (Frankema 2009; Chaudhary et al. 2012); according to Benavot and Riddle (1988), in the same year, primary enrollment rates stood at below 20 percent in most Asian countries, with the exception of Japan (c. 50 percent); according to Frankema (2012), in 1938, average school enrollment rates in sub-Saharan Africa still ranged from 5 to 20 percent. Today, average world primary school enrollments fluctuate around 100 percent. World adult literacy rates are approaching 90 percent (they stood at 86 percent in 2016), but average adult literacy rates within sub-Saharan Africa are still as low as 64 percent, being around 57 percent for women.¹

A substantial increase in globalization—which we define as the integration of labor, goods and capital markets on a global scale—is also suggested by various measures. For example, during a first wave of globalization (1820–1914), substantial commodity-price convergence between countries has been documented (Neal 2015, p. 212, Fig. 10.2), together with the convergence of government-bond yields across industrial-core nations (Neal 2015, p. 188, Fig. 8.2) and falling trans-oceanic transport costs (Hatton and Williamson 2005, p. 38, Fig. 3.1, p. 41, Table 3.3). Most importantly for the growth of schooling and human-capital flows, gross migration has increased remarkably in the second half of the nineteenth century and until World War I (Hatton and Williamson 2005, Chapter 2, pp. 73, 75; Bandiera et al. 2013), prompting falling international wage dispersion by amplifying the mechanism of factor price convergence (Hatton and Williamson 2005, Chapter 6). Openness began to decline with a globalization backlash starting in the late nineteenth century, coming abruptly to an end with World War I.

¹Data come from the World Bank: <https://data.worldbank.org/> (accessed June 12, 2019).

The interwar period saw the attempt at restoring international cooperation—as shown by the willingness to resume the gold standard—which failed in the face of the 1929 crisis and growing nationalism.

After the disruptions created by World War II, integration and cooperation was achieved in the postwar period through Bretton Woods and other important institutional agreements, with further liberalization and capital-market integration starting in the 1980s (Eichengreen 2008). Indeed, figures on long-term trade and openness have underlined several similarities, and some differences, between a first (1820–1914) and second (post-1970) globalizations; likewise, while aggregate measures of the extent of financial integration and migration show a high integration of international markets during the late nineteenth century as well as today, specific features of capital and labor flows—directions, participating countries, etc.—differ substantially (Schularick 2006; Gibson and Jung 2006).

Both the striking increase in mass education and the growing extent of global market integration have been studied extensively; yet, the two aspects have never been explicitly linked in a comprehensive analysis of the spread of schooling worldwide, particularly in the very long run. The analysis of schooling and education policy in a long-term perspective remains mostly linked to the investigation of national case studies and national school acts, although important attempts at understanding how national school legislation interacts with local socioeconomic, cultural and institutional conditions to determine education through a genuine comparative perspective have been made (Westberg et al. 2019). Alternatively, studies based on a global and transnational perspective have tried to connect globalization and education but have remained mostly focused on the last few decades. Finally, one aspect that is crucial but neglected by several analyses of the issue is diversity across world regions and countries, such as cultural diversity and varying power structures—the latter referring to, e.g., different colonial education projects aimed to train colonial elites serving the metropole (Jackson 2016). Likewise, changes in economic incentives due to globalization, like returns to education, opportunity costs and employment opportunities, should be addressed by analyses linking globalization and human capital accumulation.

1.2 Globalization and Education: Toward an Interpretative Framework

Several studies in economics and economic history have aimed at shedding light on the relationship between national education policy and national, regional and local conditions—such as the demand for education given employment opportunities, skill premia and the opportunity cost of schooling; yet, they have done so mostly neglecting the role of global forces as important determinants of education.

Within this line of research, a link between the empowerment of the masses and the development of publicly funded schooling has been highlighted (see Mitch 2013 for an extensive overview): In the case of nineteenth-century Prussia, Cinnirella and Hornung (2016) show that high landownership inequality hampered the diffusion of schooling; a similar argument is advanced by Beltrán Tapia and Martínez-Galarraga (2018) concerning pre-industrial, nineteenth-century Spain. Both articles are consistent with the hypothesis elaborated by Lindert (2004) and tested for the mid-nineteenth-century USA by Go and Lindert (2010). The authors find that more extended electoral franchise did result in increased school financing for publicly funded schools, although the final outcome was conditional on the concentration of decision-making power in the hand of elites—i.e., the existence of more or less restricted ruling classes. More mixed results are found for other countries. For example, in both Sweden and Austria in the long nineteenth century, there seems to be no quantitative evidence of a negative relationship between the strength of elites and schooling. Cvrcek and Zajicek (2019) explore a school reform undertaken in Imperial Austria in 1869. According to their analysis, large landowners were (mildly) in favor of school modernization, while urban and business interests supported public schooling. They find that the strongest opposition to promoting mass education came from rural areas, where the suffrage was most numerous. Similarly, Andersson and Berger (2018) support a traditional thesis in the historiography of Sweden's development, arguing that landed elites advanced mass schooling as part of their historical role as patrons of the local community and as a response to the

increasing proletarianization of the rural population. Land and income inequality—linked to capture by local elites—has been discussed as a main source of educational divergence between Latin America and the West by Lindert (2010), while inequality in the control over local institutions and decision making is found to have been a determinant of low comparative enrollment rates across BRICs economies in the early twentieth century (Chaudhary et al. 2012).

The evolving and varying nature of national school systems, as well as the impact of school reforms, also feature prominently in the literature. Although school acts in the nineteenth century aimed at establishing national rules concerning the organization of primary, often publicly funded mass education, local school autonomy was the norm until the last quarter of the century (Westberg et al. 2019); however, with the increasing strength of the nation-state, with more demand for education and with the growing role that human capital accumulation played in fostering technological progress, governments started to centralize education systems, resulting in larger state funding and a more direct management of schooling by central authorities. For example, Cinnirella and Schueler (2018) argue that federal-state spending consolidated the process of nation-building in Imperial Germany; Cappelli and Vasta (2019) show that the centralization of Liberal Italy's primary school system improved the diffusion of literacy; similarly, Gomes and Cardoso-Marta Pinto-Machado (2019) argue that the massive construction of schools during part of the *Estado Novo* proved to be instrumental for the increase in literacy during the 1950s and early 1960s. By contrast, Peres-Cajías (2017) maintains that increased school spending in Bolivia following the 1952 revolution was not sustainable and did not translate into a more rapid pace of human capital accumulation. Cogneau and Moradi (2014) and Dupraz (forthcoming) focus on institutional shocks and their impact on education. They analyze, respectively, the partition of German Togo and Cameroon into British and French territories, to investigate whether diverging colonial school policies affected human capital accumulation. Both contributions find a positive premium related to British education policies across African territories. The topic is further discussed by Meier zu Selhausen in this book, who argues that the stance toward missionary schooling might

be crucial to explain such a difference in educational outcomes across African countries before independence; however, the response by the African populations—in other words, African agency, affecting both the demand and supply of schooling—was a crucial determinant of educational outcomes.

Trade and export opportunities linked to openness and globalization, such as cash crop exports, are being studied as important determinants of education worldwide, increasing the incentive to acquire numerical and alphabetical skills, as well as improving the availability of school funding through increased public revenues. Chaudhary et al. (2012) discuss a positive correlation between cash crop trade and schooling in Brazil around 1900, while Cappelli and Baten (2017) argue that the regions of today's Senegal that engaged more with peanut trade in the nineteenth century saw the most impressive growth of numeracy in the same period.

This literature embodies the potential of exploring the interaction between global and local forces in shaping education; yet, it also shows that most research on the historical drivers of schooling are still studied in a national or regional (mostly within-country) perspective. Despite the indisputable relevance of national school acts and local factors, a comprehensive overview of the global forces that affected national and local educational trends beyond the national perspective, particularly during phases of intense openness and integration, is still lacking.

Indeed, although mass schooling and globalization have not so clearly co-moved during specific historical phases—e.g., 1914–1945, when schooling kept rising despite crumbling international cooperation and economic integration—the link between globalization and education played a crucial role in shaping regional and national trends in human capital accumulation at times, through several possible channels.

The economic consequences of globalization are certainly important to this analysis: Insofar as globalization has promoted economic opportunity with rising living standards and has been associated with forces of modernization, one would expect its impact on popular education to have been positive. For example, the growing demand for skilled labor in the Americas and the ensuing mass migration from Europe might have prompted schooling and the acquisition of literacy skills; yet, insofar as globalization has been associated with economic divergence and

with unequal socioeconomic power structures, it may have held back the diffusion of schooling, literacy and numeracy. Here, again, mass migration provides a good counterexample: Although the prospects of migrating abroad exerted a positive impact on the incentives to get schooled, some of the people leaving might have had human capital that was higher than what the average population possessed, thus resulting in a brain drain for the sending countries.

Global forces affecting education could include those arising from core regions or imperial agency in influencing the spread of schooling in the periphery. Such agency includes direct colonial rule and the impact of religious missionaries—even though recent analyses of colonial economic history attach growing importance to the choices made by native populations, who responded rapidly to changing conditions and opportunities. A related contrast is between centralized versus decentralized policies in facilitating universal access to schooling. Processes of modernization associated with globalization can be seen as influencing top-down, centralized campaigns to promote universal schooling. Today, the Millennial and Sustainable Development Goals aim to strengthen education across the world; more generally, processes of modernization can be seen as providing demonstration and guidelines for more educationally disadvantaged regions of the world. Likewise, the transnational circulation of ideas and studies on education, which characterized the late nineteenth century as much as the post-World War II period, certainly influenced schooling practices in peripheral economies.

Global forces strongly shape the response of each school system to the incentive provided by public intervention and can also shape variation in local responses with respect to choices made at the national level. For example, much has been made in the recent literature of the impact of landownership distribution and the concentration of power in the hand of restricted elites on school provision. Globalization has almost surely been associated with changes in the distribution of *de jure* and the *facto* power, which in turn has likely had implications for local public school finance and the supply of education.

Finally, it is worth noting that mutual interactions between globalization and education are likely to have been present. Globalization can affect incentives and resources and population redistribution

influencing education levels, aggregate and in relative terms both positively and negatively; yet, clearly, rising education levels in turn can affect tendencies toward globalization by influencing migration flows and other flows of resources, as well as openness to economic change.

1.3 Exploring the Link Between Globalization and Mass Education: An Overview of the Volume

The book constitutes a first step toward a systematic, bird-eye analysis of the relationship between globalization and mass education in the very long run. The project is the result of several panels, conferences and meetings among economists, economic historians and historians investigating the determinants of schooling and human capital accumulation, particularly the Barcelona FRESH Meeting (2015), the “School Acts, the Rise of Mass Schooling and the Emerging Nation States during the Long Nineteenth Century” in Uppsala (2017), and the Stellenbosch (2012), Kyoto (2015) and Boston (2018) World Economic History Congresses.

The discussions and evidence generated by such meetings have been central in framing the common themes of the book, where each section addresses specific forces that affected mass education and human capital through openness and international flows of people, goods, capital, knowledge and ideas. The book relies on the experience and knowledge of several scholars who have worked on the topic of human skills and education over time and across world regions. The geographic focus of the project is, indeed, truly global. A lot of emphasis is placed on countries that do not belong to the group of the more advanced Western economies, which have been characterized by different paths of development throughout time: while addressing the main global forces driving education, several chapters focus on countries in the Southern and Northern European periphery, Latin America, sub-Saharan Africa and Asia. Such broad set of countries has never been addressed by systematic accounts of the link between globalization and the rise of mass education.

The different sections of the volume address different broad questions, while the chapters included in each section delve more into the forces and factors prompting the diffusion of schooling and human capital formation that relate to such broad themes, mainly by relying on case studies.

The first section deals with the role played by global religious activity in the expansion of schooling. The literature has long emphasized the importance of colonial rule and postcolonial investments in education; yet, recent analyses have stressed the impact, as well as the long-lasting effects, of missionary activity and missionary schooling in rising enrollments and human capital. Although global waves of missionary expansion happened at different points in time depending on the world region, there is now a growing consensus on the fact that global religious activity led to persistent disparities in education across countries and within them, which are still discernible in the present day.

In Chapter 2, Felix Meier zu Selhausen discusses the most recent evidence on the link between colonial expansion and the spread of Christian missions in sub-Saharan Africa, exploring schooling disparities across African countries and gender educational inequality. Furthermore, following recent quantitative evidence, the chapter discusses the determinants of the location of missions in the region. Meier zu Selhausen underlines the importance of African agency in the rise of mass education, since the success of missionary schooling depended, more than on the supply of European missionaries, on the local demand for formal education and on the presence of African teachers—who represented the vast majority of teachers in the colonies. By doing so, Meier zu Selhausen provides a reassessment of missionary historical legacies on present-day African education and social mobility, underlining the crucial role played by African agency.

In Chapter 3, Felipe Valencia Caicedo discusses the long-term impact of missions in Latin America and Asia, with a specific focus on Mexico and South America. According to Valencia Caicedo, Catholic missionaries clearly constituted a first wave of global mass education. Missions belonging to different orders, particularly those who aimed at educating and forming the creole elites and the indigenous populations and covered a large share of the colonized territory—like the Guarani Jesuits

in the seventeenth and eighteenth centuries—caused an acceleration in human capital accumulation. By relying on new evidence and sources, Valencia Caicedo claims that, nowadays, the regions that experienced more intense missionary activity by the Guarani Jesuits are characterized by higher incomes and schooling compared to areas where the Jesuits did not operate. Similar results are discussed for the case of Mexico, and a comparison is also made between Latin America and Asia.

As such, both chapters in this section highlight the crucial role played by global educational waves in Africa, Latin America and Asia. Independently of the period that is analyzed, the diffusion of religious proselytism was accompanied by a global diffusion of schooling and education. The regional and international disparities that this global educational wave generated in the past are still visible in the present day.

The second section deals with the impact that colonial rule and local elites had on schooling. This section highlights that global forces can bring about contrasting impacts on schooling and human capital accumulation. Although a global force can prompt change in schooling and education, the eventual outcome will crucially depend on local conditions. Such interactions between global and local forces are shown to generate social and economic disparities across countries and regions within them.

In Chapter 4, Sun Go and Ki-Joo Park rely on this framework to discuss the rise of universal schooling in colonial Korea and Taiwan. Interestingly, although the Japanese colonial administrations implemented similar rules concerning education in Korea and Taiwan, the two school systems developed quite unevenly. In general, the diffusion of mass education was more successful in Taiwan. While previous literature has explained the Taiwanese lead in colonial education based on the relatively more collaborative attitude of the Taiwanese people and the relative and persistent importance of more traditional schooling in Korea, Go and Park show that the system of school funding played a crucial role. School funding in Taiwan was provided by different levels of government beyond the very local authorities, while in Korea the responsibility to fund education lay in the hands of the counties, which often lacked sufficient resources to be invested in education, allowing local elites who did not support schooling to hamper its funding.

Similarly, in Chapter 5, Irina España-Eljaiek focuses on the case of Colombia to explore how global trade influenced the rise of mass education in Latin America. Colombian education experienced a slow but consistent rise after the second half of the nineteenth century and through the mid-twentieth century; yet, subnational disparities in schooling tended to increase during this period. Using quantitative and qualitative evidence, España-Eljaiek convincingly argues that the export boom had a differential impact on subnational education due to the reproduction of racism. Specifically, in those regions with a larger proportion of non-white population, national and subnational elites implemented racist educational projects that did not favor the rise of social and school expenditure that could benefit the education of the non-white majority.

The third section explores several links between global migrations and human capital accumulation, particularly addressing the issue of whether migration brings about brain drain, or brain gain, in the receiving and sending countries. Brain gain, like brain drain, relates to various mechanisms. The migrants bring their human capital with them, a fact that will affect both the receiving and the sending countries—depending on how the migrants compare to the sending and receiving populations. Furthermore, the prospect of migrating at some point in time may increase the incentives to receive schooling and being literate and numerate, even though an individual may eventually decide against migrating abroad. Finally, large migration flows are associated with remittances, which can be used to pay school fees and, even in the presence of publicly provided schools, push down the opportunity cost of education.

In Chapter 6, Matteo Gomellini and Cormac Ó Gráda discuss the evidence on migration and human capital by studying Italy and Ireland in the nineteenth and early twentieth centuries, during the age of mass emigration from Europe to the Americas. Certainly, the authors argue, emigration improved the living standards of those who stayed behind. However, Gomellini and Ó Gráda focus mainly on the aggregate effect of emigration on education and human capital, addressing the question of whether mass migration prompted a brain gain or a brain drain in

the sending countries. Contrary to the opinions expressed by coeval observers and policymakers, the analysis performed by Gomellini and Ó Gráda points to the likelihood of some mitigating brain gains through the impact of emigration and return migration on the stock of human capital of the two sending countries.

In Chapter 7, Johannes Westberg provides insights into the relationships between schooling, emigration and economic development in the peculiar case of Sweden in the age of mass migration—a country marked by sustained economic growth, high rates of emigration, and high school enrollments and literacy. Westberg argues that, since literacy was widespread at that time, substantial emigration did not affect the endowment of human capital. Instead, provided that outward migrants came from rural areas, they lacked academic or vocational education that was more likely to benefit economic growth. Furthermore, Westberg finds evidence of skilled return migration, that is, migrants that improved their human capital abroad and came back to Sweden, contributing to important sectors of the economy: more than 70 percent of the technical engineers who had migrated returned to Sweden. Finally, an indirect positive effect of mass emigration relates to rising wages, which prompted structural changes and reforms in both the agrarian and industrial sectors.

In Chapter 8, Bruno Witzel de Souza explores how German schools affected educational performance amidst Brazilian coffee plantations, from 1840 to 1940. While the literature has emphasized the long-lasting positive impact of immigration of human capital formation in Brazil, little is known about the actual mechanism through which migrant schools influenced local schooling. To deal with this issue, Witzel de Souza investigates the educational strategies adopted by German-speaking immigrants in the state of São Paulo. He argues that the Germans were a minority that, nonetheless, strongly influenced local developments in schooling in a positive way.

These three chapters, together, highlight the crucial role that migration played in human capital formation during the age of mass migration. The mobility of people, and the ensuing flows between the mid-nineteenth century and World War I, influenced the

receiving and sending countries directly through the gain or loss of skills possessed by the migrants. Furthermore, the set of incentives and opportunities in specific regions of the Atlantic economy were heavily affected by the contact and mixing of various populations, as the case of German migrant schools in San Paulo, Brazil, clearly demonstrates.

The fourth and final section of the book deals with the global flows of ideas and views concerning education and school systems. Western-style education influenced the diffusion of mass schooling in countries that were either subject to foreign rule or that strived to compete in the global economic arena, where human capital was recognized to be growingly important.

In Chapter 9, Nancy Beadie argues that, after the Civil War, political leaders in the USA promoted a national policy of mass education as a strategy of economic development for the impoverished and defeated agricultural South, and as a means of economic and political integration for the nation as a whole. National leaders came to see education in global terms, as a system that could be exported to colonial territories. By 1900, Beadie argues, some of the same federal officials who promoted a national system of education in the USA in the 1870s and 1880s were busy “spreading the empire of free education” in Puerto Rico, Cuba and the Philippines. Therefore, education represented a crucial aspect of public policy that served to consolidate the US rule domestically and abroad.

In Chapter 10, Gao shows how Western ideas and institutions conditioned China’s path to formal mass education—the transformation from traditional Confucius teaching to modern national education at the dawn of the twentieth century. Interestingly, Gao argues that, contrary to the conventional wisdom, China’s new education system did not rise from a strong state; it did so, instead, from political chaos. The withering of an old regime and the ongoing process of state formation provided local elites some windows of opportunity that they could exploit to consolidate their social and political role—which was done by funding and supporting the new school system.

In Chapter 11, David Mitch discusses the achievement of nearly universal literacy in Iran. According to Mitch, global ideas inspired the aims of secularization and Westernization that led Iran's leaders, Reza Pahlavi and his son, Mohammad, to see education as a means of nation-building and securing popular support for their regimes. The surprising continuity in the spread of literacy and primary schooling after the 1979 Islamic Revolution can be attributed to Ayatollah Khomeini's perception that an education based on Islamic values was the appropriate response and antidote to the decadence of Iranian society, which he attributed to Western and global secular influences.

The cases of the USA, China and Iran suggest that immaterial factors linked to the form and functioning of education and the organization of the school system, like ideas and views concerning education policy, proved relevant in more than one instance, interacting with local conditions to determine school outcomes in the long run. Both chapters underline the role that education played as a policy tool, more than as an objective of public decision making itself, and how it was used to pursue political goals globally—by US governments—and locally, by the Chinese elite emerging during the early twentieth-century process of state formation, as well as Iran's leaders in the attempt to consolidate their political power.

1.4 Summary: A Global Perspective on the Rise of Mass Education

What emerges from the various contributions included in the volume is a prominent role of globalization in the rise of mass schooling, which played out at different times in history. The key element, common to most chapters of this book, is the centrality of the interaction between global forces and local conditions in determining educational outcomes and long-term human capital accumulation. While school acts and national factors are central to understand the evolution of school systems, education and human capital accumulation, the

globalization-education nexus integrates previous analyses by taking transnational and global determinants of schooling into account.

Workers brought whatever human capital they possessed from Europe to the Americas in the age of mass migration, and the prospect of migrating in the future influenced school-related decisions in the origin countries, mitigating a potential brain drain—which was thought to brought about dire consequences for society and the economy at home. This is a result that is common to the analyses of Ireland, Italy and Sweden in the second half of the nineteenth century and up to World War I. The results concerning German-speaking migrants moving to Brazil also highlight a positive impact of incoming migration on the schooling and human capital of the receiving countries.

At the same time, religious orders spread schooling and literacy as means to convert colonized populations to Christianity—in the Americas, in Asia and in Africa; missionary activity had a large impact on the receiving populations, in a context characterized by immense human and economic costs for the subject communities. The impact on long-term human capital accumulation is found to be positive, at least in the contexts of Latin America and Asia. Evidence on the impact of religious missions in Africa is more mixed: The literature and original findings presented in this book highlight the central role of African populations, who provided the bulk of the human—and often economic—resources to support the diffusion of Western-style schooling across the continent. Local conditions and agency were crucial toward the expansion of schooling.

The importance of local conditions is also highlighted by the history of education in colonial Taiwan and Korea, as well as Colombia. Colonial administrations aimed to consolidate their control over annexed territories by increasing educational supply. However, the two case studies analyzed in this book show that the success of this strategy depended on views concerning society and education, as well as specific institutional features. Schooling and education were improving in Colombia, but regions that were racially more segregated from the rest of the country lagged behind. There, missionaries seem to have adapted to this policy and vision of schooling, a choice that did not bring about positive improvements in human capital accumulation.

Likewise, the school system imposed by Japanese colonization in Korea failed to bring about more rapid human capital accumulation, due to capture by local elites reinforced by the traditional reliance on local counties for school funding; instead, funding by different government levels in Taiwan was associated with a more remarkable improvement in the financing of public schools, fostering the diffusion of education.

The global–local interaction is a feature that links twentieth-century China with colonial Korea and Taiwan. Western-style education, mirrored by Japan's Meiji reforms, influenced the changes that brought about modern public schooling across areas of the country. However, local elites played a role in this process of change: They sought to strengthen schooling as a way to assert their prestige and power in the eye of the public, in a phase characterized by the decline of former, traditional structures of governance. Thus, the global flows of ideas on what modern education was set to become in the twentieth century and the very local dynamics that characterized China's society, politics and economy were strongly linked. The case of Iran highlights similar interactions between Western ideas concerning education and the local attempt by the country's leaders to consolidate their regimes—both before and after the Islamic Revolution of 1979.

The findings on US education policy following the Civil War highlight another important, often neglected, aspect of schooling-related bills and public discourses, that is, their importance as a tool fostering political convergence and mediation over issues concerning society and the economy. In late nineteenth-century USA, federal policies serving capital interests were justified by the social benefits that resulting funds could confer on education. At the turn of the twentieth century, the USA extended this logic into colonial contexts, with more success at establishing federal education abroad than it experienced at home. However, while the continental USA failed to pass a federal education system, as long as the possibility existed that funds realized from public land sales, resource extraction and tariff duties could be directed to support education, that possibility helped sustain the convergence of interests necessary to keep domestic and colonial economic policies in place.

Future research, we hope, will depart from these preliminary and stimulating results, to explore the relationship between globalization

and education more systematically. The systematic analysis of selection into migration and the resulting brain gains or drain still has a long way to go, while studies aimed at measuring the impact of missions and colonial administrations on schooling should aim at incorporating local agency and the role of communities that were subject to foreign rule and influences. More generally, the global forces resulting from labor, capital and goods market integration represent a fruitful ground to explore the relationship between international and transnational determinants of education and the local forces that tried to shape its evolution more directly and explicitly through public policy.

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Part I

Global Religious Activity and Schooling



2

Missions, Education and Conversion in Colonial Africa

Felix Meier zu Selhausen

Abstract This chapter traces the origins and long-term development of African mass education in colonial sub-Saharan Africa. Specifically, it addresses the unique role of Christian missions in prompting a genuine schooling revolution and explores the comparative educational expansion across colonies and between genders. While the initial expansion of missions was motivated by a *global* competition for new church members, the development of African mass education essentially depended on *local* conditions. It highlights the importance of *African agency* in the process toward mass education that depended on local *demand* for formal education and the *supply* of African teachers who provided the bulk of mission schooling. The chapter also assesses potential pitfalls when those realities are not considered by studies, investigating historical missionary legacies on present-day African education and social mobility.

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Keywords Christian missionaries · Education · Africa · African agency · School enrollment · Gender · Colonialism · Religion · Conversion · Human capital

2.1 Introduction

Christianity has evolved from a religion largely defined by the culture and politics of Europe to one that has expanded to a major religious force worldwide. In 1900, numerical expansion of Christianity was relatively low outside Europe and the Americas (Table 2.1).¹ Table 2.1 documents the rise of Christianity in the global south, over the long twentieth century, due to an unprecedented wave of global missionary efforts that resulted in the fundamental shift of the center of gravity of world Christianity to Africa. In 2018, one in four Christians worldwide were African and the 2050 projections forecast further Christian growth.²

Figure 2.1 shows that by the end of the nineteenth century, most Africans were following various traditional religions and the Islam. During the twentieth century, Christianity expanded rapidly in Africa at the expense of traditional religions, leading to one of the most spectacular cultural transformations in the continent's modern history (Hastings 1994; Sundkler and Steed 2000, 906). The unique historical process of African mass conversion during the long twentieth century was facilitated by vast Christian missionary efforts. Formal education was a key aspect in missionary conversion strategies, and thus, education became firmly connected to Christian missions. A high proportion of those who attended mission schools converted and helped spread the gospel of Jesus Christ in their local languages (Berman 1974; Frankema 2012). The school thus became, in the words of Ajayi (1965, 134) “the nursery

¹See the companion chapter by Felipe Valencia Caicedo in this volume on the spread of Christian missions across Latin America and Asia.

²Worldwide, by 2018 Africa is the home to most Christians: 599 million vs. 597 million in Latin America and 550 million in Europe (Johnson et al. 2018).

Table 2.1 Global share (%) of Christians, 1900–2050

	1900	1970	2000	2018	2025	2050
Africa	2	10	19	25	28	38
Asia	4	8	14	17	18	18
Europe	71	42	29	23	21	15
Latin America	12	24	26	25	24	21
North America	11	15	11	10	9	8
Oceania	1	1	1	1	1	1

Source Derived from Johnson et al. (2018)

Notes Figures may not add up due to rounding. Figures for the years 2025 and 2050 are future projections

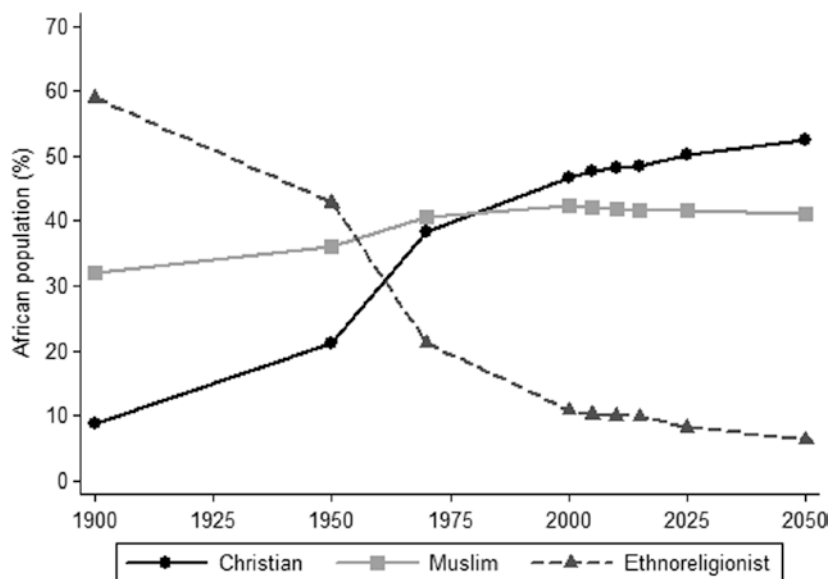


Fig. 2.1 Religious shares (%) in Africa, 1900–2050 (Source Calculated from Todd M. Johnson and Brian J. Grim, eds. *World Religion Database*, Leiden and Boston: Brill, 2008. Notes 2025–2050 are future projections)

of the infant Church.” In the absence of major investments in African education by European colonial states, mission schools provided the bulk of education for most of the colonial era (c. 1880–1960). Missions did not just provide education where the colonial state did not invest in

it, but the supply of mission schools primarily relieved colonial governments from financing public education (De Haas and Frankema 2018). Christian missionaries thus played a crucial role in the development of formal mass education in most of colonial Africa, which was intrinsically linked to mass conversion.

Toward the end of the colonial era, mission schools were replaced by state schools. As the continued expansion of Christianity shown in Fig. 2.1 suggests, the secularization of education did not hinder Christianity's expansion into the twenty-first century. In 2018, more than one in two Africans self-identified as Christian. The average years spent in education in sub-Saharan Africa increased between 1950 and 2010 from 1.2 to 5.3 (Barro and Lee 2013), suggesting that, while mission schools were responsible for the initial rise in mass education, most educational progress was achieved by the modern African state. Yet, early colonial missionary investments have been shown to continue to carry long-lasting impacts. A growing literature in economic history has found a positive association between historical Western missionary activities and African educational and occupational outcomes today (e.g., Gallego and Woodberry 2010; Nunn 2014; Wantchekon et al. 2015; Alesina et al. 2019).

This chapter traces the origins and long-term development of African mass education in colonial Africa. More specifically, it addresses the unique role of Christian missions in the development of formal education and explores the comparative educational expansion across colonies and between men and women. While the initial expansion of missions was motivated by a *global* competition for new church members, the development of African mass education essentially depended on *local* conditions. The chapter highlights the importance of *African agency* in the process toward mass education that depended on local *demand* for formal education and the *supply* of African teachers who provided the bulk of mission schooling. Potential mismeasurements are then assessed when those historical realities are not taken more carefully into account by studies, investigating historical missionary legacies on present-day African education and socioeconomic outcomes.

2.2 Christian Missionary Expansion

High European mortality in tropical Africa severely restricted missionary efforts. Prior to 1850, three in four European missionaries had died before their third year of service at the West African coast (Jedwab et al. 2018).³ In fact, by the mid-nineteenth century, European missionary societies⁴ were close to abandoning sub-Saharan Africa as viable mission field due to its hostile disease ecology and unsuccessful conversion efforts (Agbeti 1986, 3–10). The comparative absence of tropical diseases in the southern zones of sub-Saharan Africa was the major reason why early initiatives in the south were more successful than early attempts to enter the interior of West or Central Africa (Johnson 1967). Malaria did not only represent the principal barrier to European missionary expansion in tropical Africa but also for European imperial expansion. Africa remained “the white man’s grave” (Curtin 1961) until quinine became the standard therapy for malaria (and other intermittent fever) in the second half of the nineteenth century (Meshnick and Dobson 2001). Quinine extended European survival in the tropics significantly encouraging increasing numbers of European missionaries to volunteer to spread the Christian faith in tropical Africa post-1850 (Jedwab et al. 2018). The advent of quinine thus set the timing for both Christian missionary expansion and the later scramble for Africa.

Missionary efforts often preceded European colonization. Protestant missions spread significantly earlier, since the early nineteenth century.⁵ Global competition for new church members intensified during the mid- to late nineteenth century when the Catholic missions

³Similarly, between 1804 and 1825, 54 out of 89 Western missionaries died in Sierra Leone (Curtin 1998, 4). In Liberia, among male missionaries of the Episcopal Church 50% died in service 1835–1886, surviving on average 5 years (own calculations from Dunn 1992).

⁴The most important Protestant missionary societies included: Africa Inland Mission, Baptist Missionary Society, Basel Mission, Church Mission Society, London Missionary Society, United Free Church of Scotland, Wesleyan Methodist, Methodist Episcopal and Universities’ Mission to Central Africa. Main societies of the Roman Catholic Church comprised: Holy Ghost Fathers, White Fathers, Society of African Missions and Society of the Divine Word.

⁵Protestant missions already had expanded during the early mid-nineteenth century in Sierra Leone, South Africa, Ghana and Madagascar.

had recovered from its almost total collapse of its missionary orders (Neill 1964, 397–401; Isichei 1995, 84–86) during the crisis of the Napoleonic era (c. 1800–1815). In Ghana, missions strategically weighted costs and benefits when choosing where to establish their churches and schools. During the first half of the nineteenth century, they targeted healthier places, with relatively lower malaria risk, where European missionaries could survive and train local African missionaries and teachers (Jedwab et al. 2018). African demand for Christian teachings initially developed among African populations near coastal European trading communities. Missions diffused along pre-colonial trade routes, avoided African kingdoms hostile to Christian teachings and typically settled in proximity to their point of entry at the coast. This is consistent with the observations by Johnson (1967) and Maxwell (2015) that early converts were often ex-slaves and social outcasts.

The expansion of Christianity in Africa increased with the onset of European colonial rule during the late nineteenth century. Colonial pacification permitted missions to safely enter previously hostile regions: the cross followed the flag.⁶ Equally, colonial investment into transport infrastructure, such as railroads and roads that lowered transport costs, attracted not only African cash crop growing farmers and exporting merchants but also missionary activity (Jedwab and Moradi 2016; Jedwab et al. 2018). Also, in areas with comparatively high(er) African incomes from cash crop cultivation (i.e., cocoa, palm oil) and mining activity, there was greater demand for Western education (Frankema 2012; Jedwab et al. 2018; Juif 2019). Once the urban demand was satisfied, missions diffused among rural populations. Muslim areas were mostly avoided.

Missionaries' primary intention was to convert Africans to Christianity. Mission societies viewed the provision of formal education as the most effective way of attracting new Christians; thus, much of their efforts went into establishing schools (Berman 1974).⁷ Mission

⁶This excludes regions of Muslim dominance.

⁷Additional mission conversion strategies encompassed the provision of healthcare to Africans (Doyle et al. 2019; Cagé and Rueda 2019).

schools taught basic literacy, catechizing its students throughout the week. The British colonial administration, strongly interested in keeping costs low in its African colonies, adopted an open-door policy, “welcoming” missions from all denominations with the goal to “outsource” the supply of formal education to Christian missionary societies. This fostered competition between mission denominations. The British colonial state nevertheless kept some influence by subsidizing those mission schools through grants-in-aid (from African tax money) that satisfied colonial government (quality) standards, including building, equipment, number of pupils and teacher qualifications and curriculum content, laid out by the colonial administration. However, the bulk of financing and building of mission schools came from African congregations who paid fees or donated their labor and resources, sometimes in conjunction with local chiefs (Williamson 1952; Summers 2016, 322). For example, in Uganda, the Phelps-Stokes report in 1924 noted that fees and financing through collections made at local churches amounted to twice the colonial governments’ grants-in-aid (Hanson 2010, 160). As a result, no clear link was observed between colonial government expenditures and enrollment rates in 11 British African colonies before 1940 (Frankema 2012). For example, although Ghana’s educational budget was five times higher than Malawi’s in 1938, primary school enrollment in Malawi was five times higher than in Ghana.

In contrast, France opted for public schools financed by the colonial government. While France subsidized the operation of some Catholic mission schools, the vast majority of African students attended state-run schools. By 1900, in French West Africa there were 70 schools with an enrollment of some 2500 pupils—85% state-run (Hailey 1945, 1260–1261).⁸ France thus kept a much tighter grip on the development of educational systems in its colonies than the British. The colonial state placed more emphasis on the quality of education for a small segment of the population for the training of an administrative class in

⁸Colonial Madagascar and Benin presented early exceptions to the rule, where there was a significant number of mission schools, as local demand for education could not keep up with public supply (Huillery 2009).

the colonial civil service (Cogneau and Moradi 2014; Dupraz 2019). Consistent with the French imperial ideology of *assimilation*, colonial governments, insisted on French as language of instruction, regulated teachers' qualifications and schools' curricula and determined enrollment capacity (White 1996). Mission schools often neglected the metropolitan language rules by teaching in the vernacular, given that their primary interest was Christian conversion in the global competition for new church members (Frankema 2012).

Unlike British colonies, Portuguese and Belgian African colonies had a more explicit bias toward the Catholic Church's involvement in education. Interested in a widespread of elementary schooling to the masses, the colonial administration in Belgian Africa pursued a strategy of granting free entry to Catholic and Protestant missionaries who set up extensive networks of schools. But only Catholic mission schools were subsidized until the Belgian government claimed entire responsibility over educational affairs in the 1950s and increase of educational investment (Frankema 2013; Juif 2019). Provinces with intensive mining (e.g., Katanga) benefitted from significant investment by mining companies into schooling for their mining workers and their children to save expenses on recruitment and European labor (Juif 2019). Similarly, Portuguese colonial policies favored the Catholic Church explicitly, granting Catholic missionaries the educational monopoly (Gallego and Woodberry 2010). Colonial state-run schools, which taught in Portuguese, were reserved for Portuguese and "assimilados" (i.e., Africans who spoke Portuguese and had adopted Christianity and Portuguese ideals).

2.3 Educational Supply and Demand in Colonial Africa

The beginnings of literate education in much of nineteenth-century Africa built upon long-established African literary cultures. The Arabic manuscripts contained in the ancient libraries of Timbuktu (Mali), the series of sixteenth and seventeenth centuries' correspondence of

Christian Kongo kings, with the Portuguese court, as well as the scriptures written in Ge'ez by the Ethiopian Orthodox Church represent important symbols of pre-colonial African literary heritage. However, literary knowledge was extremely localized and mainly confined to the intellectual/religious elite that did not prompt mass education. Knowledge transfer and intellectual activity was of course possible without literacy. Traditional African knowledge systems included practices of social learning and vocational training that transferred prescriptive knowledge (i.e., how to use techniques, tools or natural resources). As girls learnt from their mothers and other older female relatives, boys received instruction from fathers, siblings and elders in agricultural production systems, arts, trade, warfare and politics (Anderson 1970, 1). The emergence of formal education in the context of the encounter with European missionaries and colonial states distinguished itself from African educational systems by grouping children into classrooms for regular daily lessons with emphasis on the importance of reading and writing that required the navigation of stages, pass examinations and gain certificates (Peterson 2016).

While the *supply* of formal education was essentially determined by the colonial state and missionary societies, African *demand* for education depended on a careful cost–benefit analysis in which African families and political leaders weighed the opportunity costs and returns to education (Cogneau and Moradi 2014). The new set of socioeconomic and political institutions implemented by European colonial regimes affected African perceptions of the benefits associated with formal education and adherence to the Christian church (Frankema 2012). Mission schooling, especially by males, became seen as one method of adjusting to the new colonial realities in which literacy skills and Christian adherence offered visible social advantages (Ekechi 1971). Formal education was not only linked to new employment opportunities and social mobility (Wantchekon et al. 2015) but also promised a significant skill premium for African men in the colonial wage economy (Frankema and Van Waijenburg 2012). Especially in the major cities, where white-collar work for the colonial administration, commercial enterprises and mission schools and hospitals concentrated, the socioeconomic benefits attached to mission schooling and command of

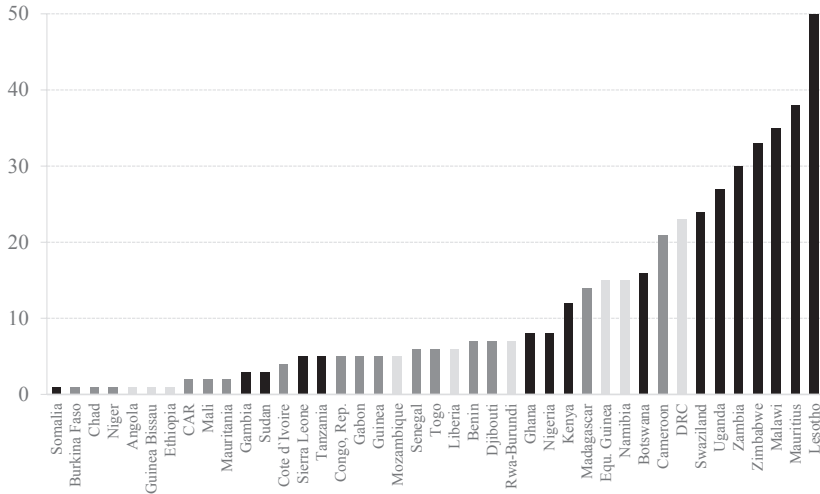


Fig. 2.2 Gross primary school enrollment rates (age 5–14), 1938 (*Source* Derived from Frankema [2012]. *Notes* Enrollment rates subdivided in British [black], French [dark grey] and other [light grey] African colonies)

the colonial masters' language and religion were substantial (Meier zu Selhausen et al. 2018).

Figure 2.2 illustrates the primary school enrollment rates, carefully reconstructed by Frankema (2012), of 41 African countries in 1938, subdivided into British (black), French (dark grey) and other-ruled African territories⁹ (light grey). It shows that British colonies had comparatively higher enrollment rates than recorded in the French and other colonial territories. Seven out of the nine colonies with enrollment rates larger than 20% were under British mandate, while among colonies with enrollment rates below 10% the majority was French, Portuguese or Belgian-ruled. The average unweighted enrollment rate of 19% in British Africa was close to the 15% in the Belgian

⁹Includes independent Liberia and Ethiopia.

colonial empire¹⁰ but markedly higher than in the French (6%), or the Portuguese (2%).

Those different policies toward missionary schools in British versus French-mandated Africa also affected long-run educational and religious outcomes. Cogneau and Moradi (2014) exploit the partition of German Togoland after World War I, as natural experiment, to test the impact of British and French educational policies. When the French on their side of the new colonial border restricted missionary schools, literacy and Christian beliefs started to diverge at the border between the parts of Togoland under British and French control as early as in the 1920s. In a similar vein, Dupraz (2019) exploits the partition of German Cameroon post-World War I between France and Britain, as well as its post-independence reunification, to investigate the causal effect of French vs. British educational policies. Using border discontinuity analysis, he finds that having been colonized by the British rather than the French had a positive effect on the education of cohorts that reached school age after partition. Does this prove that the British “outsourcing” of education to missionary schools was a much more effective policy to develop mass education?

Frankema (2012) and Cogneau and Moradi (2014) caution that attributing differences in educational development to the identity of the colonizer alone is misleading, as it neglects the existence of local (geographical, institutional, ecological) conditions and African agency in the educational diffusion process. School enrollment, after all, was the outcome of *supply* and *demand* for education. Britain, France, Portugal and Belgium colonized African territories with different social and economic conditions, which in turn affected both local educational *supply* and *demand*. In this respect, Britain had acquired territories that had much more favorable conditions (Frankema 2012). In other words, we face “a problem of sample selection” (Dupraz 2019).

¹⁰There were stark differences within Belgian territories. While gross primary school enrolment rates in Belgian Congo (DRC) at 23%, much higher than the average British African enrollment, in Ruanda-Urundi enrolment was only 7% in 1938.

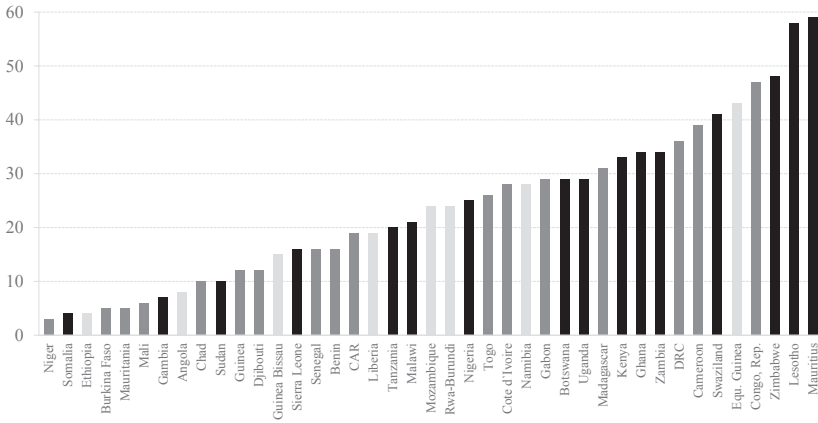


Fig. 2.3 Gross primary school enrollment rates (age 5–14), 1960 (Source Derived from Frankema [2012]). Notes Enrollment rates subdivided in British [black], French [dark grey] and other [light grey] African colonies

For example, regions colonized by Britain were on average richer and mostly lay outside the Muslim heartlands that rejected Christian/Western teachings (Frankema 2012). The bottom-ten countries in terms of enrollment, both in 1938 (Fig. 2.2) and 1960 (Fig. 2.3), all had sizeable Muslim populations. In the 14 Islamic core countries, including Nigeria, the average primary school enrollment rate was about 3% in 1938 versus 10% in colonies without substantial Muslim populations. The French just happened to control most Muslim core countries. Conversely, French colonies *outside* the Muslim core areas, such as Madagascar and Cameroon with extensive missionary investment (Fig. 2.7), achieved enrollment rates comparable to British East Africa (Fig. 2.2). Within West Africa, Britain faced similar regional constraints to mass education as France. The 4 British West African colonies with average enrollment of less than 6% did not produce higher rates than the 14 French West African colonies (5%) in 1938. Also, outside the overwhelmingly Christian Colony of Freetown, with the highest level of African school enrollment for most of the nineteenth century, mission schooling did not make any headway into the Muslim-dominated hinterlands of Sierra Leone.

Muslim hostility toward Christian proselytization and education affected colonial policies and restricted those to the southern/coastal areas, outside the Muslim heartlands. In Northern Nigeria and Northern Ghana, with sizeable Muslim populations, British governors prohibited the expansion of missionary schooling for a long time, fearing the destabilization of indirect rule through Muslim chiefs (Ayandele 1966; Cogneau and Moradi 2014). Quranic schools catered mainly for spiritual purposes of offspring from parents of higher social standing, focusing on reciting the Quran in Arabic, not with the intention of acquiring literacy skills and knowledge of the metropolitan language (Reichmuth 1993). Quranic schools thus lacked the comparative social benefits associated with Christian or secular schools and were mostly not government-subsidized, therefore spreading significantly slower. In Uganda, for example, Muslim education did not qualify for government posts, and thus, Muslims became to dominate trade instead (Summers 2016, 321). Also, Ethiopia proved no “fertile” ground for the expansion of mission schools because of the population’s widespread local adherence to the ancient Coptic Church and the Islam, which severely limited local demand for Christian/Western education (Johnson 1967).

Overall, British Africa appeared to possess more favorable conditions for the expansion of mass education than non-British Africa. Frankema (2012) has shown that British Africa was facing comparatively less severe malaria ecologies, which allowed European missionaries to survive and increasingly train native missionaries and teachers (Jedwab et al. 2018). British Africa also on average had higher indigenous population densities and controlled those regions with higher potential for trade and agricultural commercialization where the demand and resources for formal schooling were higher. Jedwab et al. (2018) confirm that regions with higher African incomes, proxied by cash crop production, mining activities and urbanization, witnessed relatively more missionary expansion in colonial Ghana.

Post-World War II, state schools replaced mission schools in British Africa. The French colonial state increased its educational spending and increasingly recruited African teachers (Dupraz 2019), partly due to growing African demands for higher quality education and partly in preparation for decolonization (White 1996). Equally, the colonial

government in Belgian Africa increased its education budget and included also Protestant mission schools from 1954 onward (Frankema 2013; Juif 2019). Consequently, school enrollment in French colonies converged toward British African levels. Dupraz (2019) shows that the British advantage disappeared in Cameroon once the French side increased its educational investments. Figure 2.3 shows that in 1960, on the eve of independence, African primary school enrollment had doubled on average relative to 1938 (Fig. 2.2). Despite considerable convergence of primary school enrollment between British and non-British African territories, the British head start did not disappear entirely: 29% vs. 19% in the French former colonies, 16% in Portuguese Africa. Only the two Belgian dependencies had achieved an average comparable British rate of 30%. The primary school enrollment gap between Muslim vs non-Muslim core countries, however, widened to 10% versus 31% (Fig. 2.3).

Secondary school enrollment, despite increased African demand, was only 1–2% in tropical colonies (Ilfte 2007, 230). Colonial reluctance to build a well-educated African elite meant that (mission) schools rarely taught curricula beyond basic levels. Secondary schools were thus only open to a narrow elite who then accessed occupations within the colonial bureaucracy and missionary movement (Meier zu Selhausen et al. 2018).

2.4 Mission Education and Gender Inequality

Access to education was not only unevenly distributed between and within African colonies but also became increasingly gender unequal in both levels and nature. One way to trace gender-specific literacy attainment over the course of the colonial era is to backcast men's and women's literacy by their year of birth from post-colonial censuses (De Haas and Frankema 2018; Baten et al. 2019). Figure 2.4 charts the literacy gap between adult men and women born over the colonial era in five selected African countries, drawn from modern population censuses. The literacy gender gap is the difference between the share of literate males and females by birth year (i.e., 5-year aggregate).

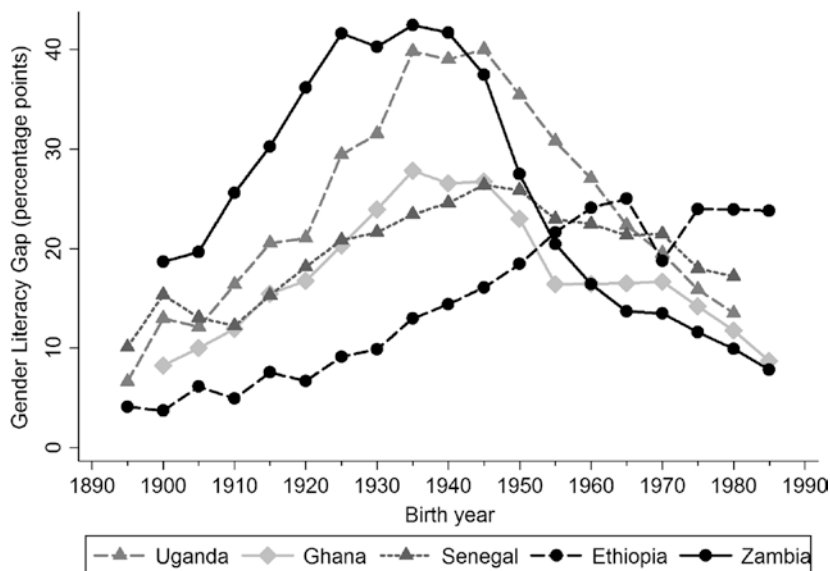


Fig. 2.4 Gender literacy gap, 1895–1965 birth cohorts (*Source* Merged population censuses from Ethiopia [1984, 1994, 2007], Ghana [1984], Senegal [1988, 2002], Uganda [1991, 2002] and Zambia [1990, 2000], accessed via IPUMS. *Notes* Backward extrapolation of census data by 5-year birth cohort measures individuals' literacy at the time of census-taking based on their year of birth. Although literacy can be acquired later in life, it is assumed that people attained literacy early in life through formal education. Backcasting may overstate schooling for the early period due to survivorship bias and age exaggeration by the elder generations. The sample includes men and women of age 20–99)

Figure 2.4 shows that women's access to formal (mission) schooling in those countries, relative to men, became increasingly uneven for those born during the colonial era. The gender gap in literacy attainment increased over the colonial era, peaking in the 1940s. Thus, during the era of missionary school expansion women's education attainment fell behind men. Subsequently, the post-1950s birth cohorts show major gains toward gender equality in literacy, which coincided with the shift toward public education provided by late colonial states in preparation for independence and especially by modern African states, taking over from mission schools. The declining literacy gap attests that women's education benefitted from this institutional change.

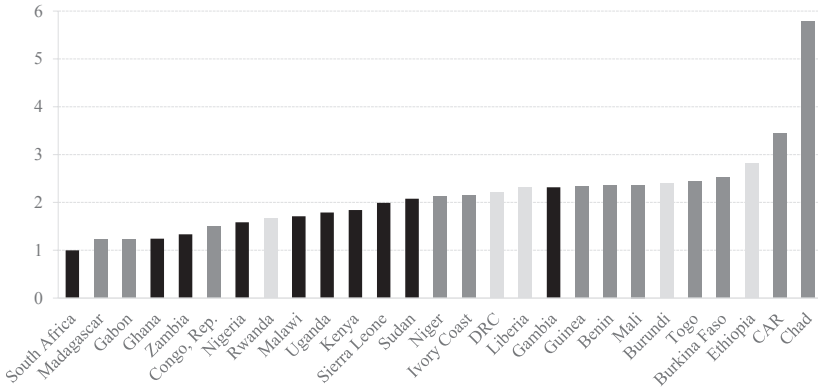


Fig. 2.5 Male to female primary school enrollment ratio, c. 1963 (Source UNESCO [1966], 434–435. Notes Enrollment rates subdivided in former British [black], French [dark grey] and other-ruled [light grey] colonies. Estimates vary in their year of reporting between 1960 and 1964. 1 = equal enrollment between the sexes)

In Ethiopia, never colonized (for extended periods) and with ancient roots in Christian Orthodoxy male and female demand for Christian/Western education was limited (see Fig. 2.2). Hence, the Ethiopian educational gender gap remained comparatively modest during the first half of the twentieth century. Also, Baten et al. (2019) using years of education from available censuses across Africa show that during the first half of the twentieth century for every year of (mission) education gained by the total adult population, the male–female gap grew by one additional year of schooling. This pattern, like the literacy gender gap shown, then breaks down toward the late colonial era with the rapid expansion and secularization of education, through the colonial government and especially through the modern African state (Simson 2018). From a historical perspective, it is therefore surprising that early twentieth Protestant missions have been related to positive long-term effects on African women’s educational attainment in the year 2005 (Nunn 2014).

Unequal access to primary education over the colonial era, along lines of gender, consequently resulted in unequal levels of human capital between men and women. Figure 2.5 displays the male-to-female ratio in primary school enrollment across 27 African countries during

the early 1960s, on the eve of independence. It shows that South Africa was the only country where an equal number of girls and boys attended primary schools, while in three out of five countries, boys remained at least twice as often represented than girls in primary schools. Among those, 11 countries with gender ratios below two, the majority used to be British-ruled, located outside the Muslim heartlands.¹¹ Figures 2.2 and 2.3 already revealed that primary school enrollment was generally higher in those countries. According to Fig. 2.5, enrollment was then more equally shared between the sexes in former British-ruled colonies. Also, the enrollment of girls in Islamic schools remained extremely low (Reichmuth 1993). However, linking the practice of Islam to girls' particularly unequal access in primary education hides the fact that among those 16 African countries in which boys were at least twice as likely to receive primary education relative to girls (i.e., ratio of 2–6), half of them had sizeable Christian populations. An alternative explanation may rather lie in the larger Protestant mission presence in British Africa that was restricted in French, Portuguese and Belgian colonies. Protestant missions followed the belief that personal salvation came from being able to read the Bible (i.e., *sola scriptura*), thus increasing incentives for both male and female basic education for baptism. Although Catholics also sought converts through education, compared to Protestant translations, the Catholic missions placed a lower priority on the production of vernacular scriptures (Stanley 2018, 59).¹² This is corroborated by Nunn (2014), who finds that Protestant main mission presence during the early colonial era is especially beneficial for present-day education of women relative to men. In contrast, he documents that exposure to Catholic missions has no long-run impact on female education but a large positive impact on male education today. In a similar vein, Montgomery (2017) finds that the historical presence of Catholic missions in early colonial Tanzania negatively affects the gender gap in education today.

¹¹Except for Northern Nigeria.

¹²By the 1850s, some parts of the Bible had been translated into 27 African languages. In 1904, full or partial biblical printed translations existed in 112 African languages (Johnson 1969).

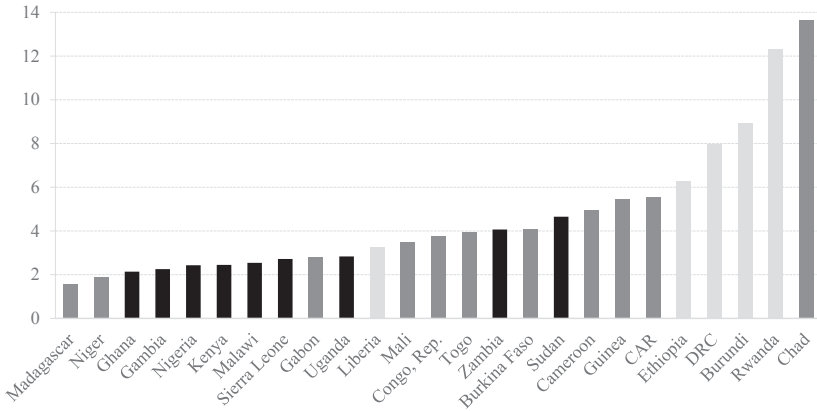


Fig. 2.6 Male to female secondary school enrollment ratio, c. 1963 (Source UNESCO [1966, 438–439]. Notes Enrollment rates subdivided in former British [black], French [dark grey] and other-ruled [light grey] colonies. Estimates vary in their year of reporting between 1962 and 1964. 1 = equal enrollment between the sexes)

Secondary schools catered mainly to boys. In 1942, only 13% of the 11,500 enrolled in the 43 colonial-recognized secondary schools in British West Africa were girls (O'Connor 1964). Similarly, in 1946, the share of girls in the Belgian Congo (DRC) was 9% and at independence; no woman was among the hundreds of Congolese with secondary school diplomas (Juif 2019). Figure 2.6 shows that on the eve of independence secondary school enrollment was even more skewed toward men. Whereas males were on average twice (2.1) as often represented in primary schools (Fig. 2.5) in 1963, an average male-to-female ratio of 4.6 in secondary education indicates that only one in five students were in fact female. While seven out of the least unequal countries were former British colonies, ratios appear particularly uneven in the three previously Belgian and French West African dependencies. Gender unequal access to tertiary education was even more pronounced with about one in 10 students enrolled being female in 1963.

Not only was access to education unequally shared between the sexes but also the nature of the school curriculum was markedly different for boys and girls (Musisi 1992; Leach 2008). Missionaries disapproved

of coeducational schools. Boys, in addition to literacy, arithmetic and Bible study, learned vocational skills such as carpentry and masonry that prepared them better for wage employment (Meier zu Selhausen and Weisdorf 2019). In contrast, girls' mission schools, besides basic literacy and numeracy, emphasized domestic skills with the goal of marriage and motherhood that inclined African gender roles to imitate late Victorian concepts of masculinity and femininity (Musisi 1992). This often resulted in much smaller social roles than women had held in pre-colonial African societies. Africans actively expressed their frustration of the gender imbalance in the quality of schooling to the mission and the colonial government (Hanson 2010, 161–162; De Haas and Frankema 2018).¹³

Consequently, women became practically excluded from employment in the colonial wage labor market, which in turn affected parents' demand for their daughters' education in the absence of any visible social and economic advantages. Even among the upper layer of Christian-educated Africans, women were largely barred from formal participation in the urban colonial economy of British Africa (Meier zu Selhausen 2014; Meier zu Selhausen and Weisdorf 2019). As a result, women's work remained mainly domestic or informal. Meier zu Selhausen and Weisdorf (2016, 2019) have shown that on average less than one in ten women who married in Anglican churches were employed in the formal colonial economy by 1930, compared to two in three of their husbands. In the absence of opportunities for women's formal work outside the home during the early colonial era, it appears that literacy, creating some male social mobility (Wantchekon et al. 2015; Meier zu Selhausen et al. 2018), rather functioned as a means of women's marriage mobility. Meier zu Selhausen and Weisdorf (2019) have found that in the capital cities of Sierra Leone, Nigeria and Uganda, literate Anglican female converts had a greater likelihood to marry Anglican elite men prior to 1920s. Ambiguously, although

¹³Africans also voiced their frustration with the quality of mission schools that placed religious instruction at the forefront rather than imparting formal skills that would have qualified for work in the formal colonial economy (Berman 1974).

the domestic focus of mission schools' curriculum did its best to keep women outside the colonial wage economy, mission schools and hospitals became the first and exclusive niches for women's formal employment as teachers and nurses/midwives, until the late 1940s when the civil service became increasingly feminized (Meier zu Selhausen 2014; Meier zu Selhausen and Weisdorf 2019).

2.5 The Africanization of the Mission

The term "missionaries" may evoke the image of an organization run by European clergymen serving in remote tropical Africa. Impressions nurtured by the inspiring missionary rhetoric and hyperbolic biographies of European missionaries in nineteenth- and early twentieth-century Africa. These sensationalized images were often purposefully generated, motivated by mission committees need for propagandist accounts to elicit funding from their metropolitan readers (Pietz 1999; Maxwell 2015) as well as to distract from the distressing European mortality rates across nineteenth-century equatorial Africa (Öberg and Rönnbäck 2016; Jedwab et al. 2018). Missionary expansion can also be more easily traced with reference to Western efforts because of their general, superior documentation in mission atlases and missionary biographies (Fahs 1925; Jedwab et al. 2018). The use of geographic locations of Western residence mission stations (Nunn 2010, 2014; Cagé and Rueda 2016, 2019) or the number of Western missionaries (Gallego and Woodberry 2010; Woodberry 2012; Acemoglu et al. 2014), as key measures of missionary influence by studies investigating missions' long-term effects on present-day African education (see Sect. 2.6), continues to foster the widespread impression of the beneficial impact of Western missionaries.

Western missionaries were undoubtedly crucial for initial conversion efforts, strategy and setup of formal education in early colonial Africa. However, it's hard to imagine how a few thousand Western missionaries could have evangelized 140 million (38%) Africans by 1970. In reality, the principal agents of Christian and educational expansion were African missionaries and teachers. While spreading the gospel as catechists, clergymen and teachers in schools and churches, as well as

medical assistants and nurses in mission hospitals, Africans also conceived the missionary movement as a vehicle of their own occupational mobility (Meier zu Selhausen et al. 2018). Western missionaries were typically responsible for exploring and mapping the territories they were sent to, performing translation work, learning the new language(s) from indigenous teachers, organizing the construction of mission churches and schools, as well as the training of African missionaries and teachers (Maxwell 2016, 268). There were various strategic motivations for this.

Firstly, Africans naturally acquired immunity to malaria (as children) and thus suffered much lower mortality (as adults) in tropical Africa compared to European missionaries (Jedwab et al. 2018). The investment into the training of African missionaries and teachers thus reduced the (sunk) costs (i.e., training and travel costs) resulting from high European mortality in the tropics. The introduction of quinine therapy then extended European survival significantly, which further accelerated the training of a native African clergy.

Secondly, given the limited financial capacity of missionary societies, the contribution of African teachers and missionaries was a requirement for the expansion of missionary education as financially it was too expensive to employ more European missionaries and teachers. European teacher salaries consumed most of mission societies' education budgets (Frankema 2012) and their training, travel costs to Africa, as well as medical and equipment needs, further added to their costs (Jedwab et al. 2018). African missionaries and teachers were comparatively more cost-efficient and mostly paid through local contributions (Frankema 2012). Their lower malaria-mortality meant that the investment into their training did not represent a sunk cost.

Thirdly, African staff were more effective in their conversion efforts through communicating the gospel in African vernacular languages (Pirouet 1974; Frankema 2012). African missionaries were intimately involved in making Christian scriptures, hymn books and catechisms more widely accessible for the masses through their translation into African languages. Western missionaries quickly realized that African expertise was crucial to ensure that the Christian concepts were properly conveyed in local terms (Maxwell 2016, 275–276). Equipped with vernacular catechism or the Bible and hymnbooks in local language,

Table 2.2 Foreign and local missionary staff in Africa, c. 1908

	Ordained missionaries			Un-ordained mission staff			Mission stations
	Western	African	Ratio	Western	African	Ratio	Main and out-stations
Protestant (1908)	1566	1552	0.99	2987	24,933	8.35	12,246
Protestant (1908) ^a	917	1151	1.26	2964	16,654	5.62	7048
Catholic (1911)	2078	94	0.05	3339	8595	2.52	2957
Catholic (1911) ^b	1691	90	0.05	1307	8196	6.27	2383

Source Calculated from Dennis et al. (1911, 93–96), *World Atlas of Christian Missions*, New York: Student Volunteer Movement for Foreign Missions. Streit (1913, 101–102), *Atlas Hierarchicus*, Paderbornae: Sumptibus Typographiae Bonifacianae

Notes ^aExcluding South Africa. ^bExcluding Southern Africa

African missionaries were arguably also less perceived by the local population as spearheads of colonialism. Therefore, the *Africanization* of the mission became a prerequisite for rising enrollment rates (Spitz 1924, 372).

Table 2.2 reports the number of European and African ordained and un-ordained staff of Protestant and Catholic missionary societies present in Africa at the beginning of the twentieth century. It shows that while Protestant missionary societies ordained an equal number of European and African missionaries as early as 1908,¹⁴ Catholic ratios were much more skewed, following a stricter racial hierarchy (Column 3). Africans made up only one out of 20 Catholic ordained recruitments in 1911. Catholic celibacy possibly enabled more young European priests to run Catholic mission stations and schools in rural areas compared to Protestant missionaries who often traveled with their wives and families (Oliver 1952, 242), which increased costs. The significantly higher

¹⁴Outside South Africa (Row 2), with a larger European presence, Protestant African ordained staff even outnumbered European.

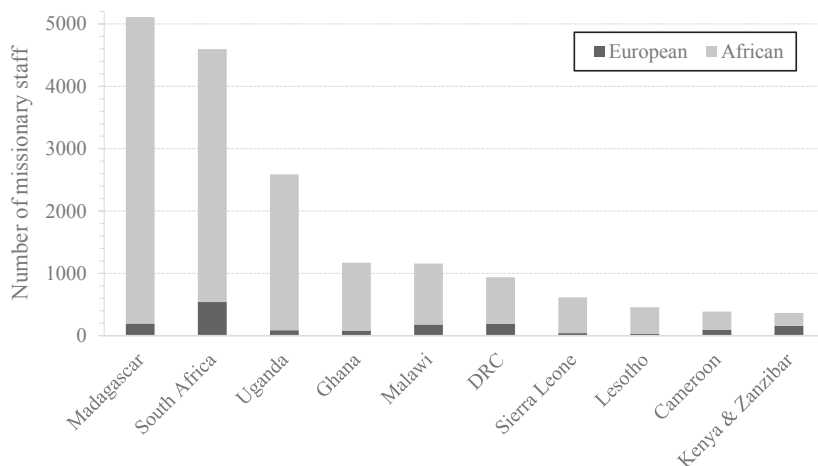


Fig. 2.7 European and African Protestant missionary staff, 1904 (Source Calculated from Dwight [1905]. Catholic missions have reported missionary staff per regions, not on the country level [Krose 1908])

Protestant Western-to-African ratio may also reflect Protestant missions' earlier nineteenth-century expansion on the African continent. The Roman Catholic Church, backed by the Vatican, only renewed their missionary efforts post-1860s. Thus, by 1908 Protestant missionaries were at the forefront and had established four times as many missions in Africa as their Catholic contenders (Column 7).

Table 2.2 also shows that for every Protestant Western un-ordained mission worker (e.g., teachers, evangelists, catechists) there were around eight Africans, compared to a Catholic African-to-European ratio of 2.5 (Column 6). Outside southern Africa, Catholic missions, however, relied more on African staff (Row 4). Although Catholic mission societies relied significantly more on European missionaries than their Protestant competitors, the lion's share of total (ordained plus un-ordained) missionary agents remained nevertheless African. Table 2.2 makes it clear: Already during the early colonial era, the numbers of indigenous workers, including teachers, had already grown to vastly outnumber European workers.

Figure 2.7 shows the number of African versus Western mission staff in the ten most important Protestant mission fields in Africa in 1904. Madagascar, the most active Protestant mission field at that time, was one of the exceptions in which the French permitted missionary infiltration (Isichei 1995, 150–151; Wietzke 2015).¹⁵ It becomes clear that the great majority of mission staff were African. In Uganda for instance, 2500 African teachers and evangelists ran 170 Protestant mission schools and 162 mission stations as early as 1904, whereas European missionaries and teachers constituted barely 3% of the total mission workforce (Meier zu Selhausen et al. 2018).¹⁶ Furthermore, in the Belgian Congo, with allegedly the highest numbers of European missionaries in tropical Africa,¹⁷ Frankema (2013) has shown that between 1908 and 1957 the number of Western missionaries increased by a factor of 14, while primary school enrollment simultaneously rose by a factor of 37. Such a remarkable increase was only possible due to the rapidly growing involvement of Congolese missionaries and teachers.

Africa's Christianization and development of mass education has thus commonly been narrated from a Eurocentric perspective that ascribes undue agency to Western missionary efforts, overshadowing the vital contribution of native Africans in pushing the Christian and educational frontier (Maxwell 2016, 263). The widespread view that mission Christianity and formal education in colonial Africa was diffused from an (imperial) European center into a passive Africa appears to be grossly misleading. The presence of foreign missionaries was never a sufficient condition for mass conversion, nor education (Hastings 1994, 463). Instead, "Africans had to embrace the missionary zeal and make it theirs" (Frankema 2012, 352).

¹⁵Also, Cameroon and Benin received missions.

¹⁶This ratio remained relatively stable. Frankema (2012) counted that in 1938 of the 8456 primary school teachers in Uganda, only 3% (285) were Europeans.

¹⁷Frankema (2013) counts for the Belgian Congo 500 foreign missionaries in 1908, while by 1938 and 1950 the number of foreign missionaries had rapidly grown to 3732 and 5336, respectively.

2.6 Historical Missionary Legacies

Do historical missionary activities and associated human capital investments continue to affect African development outcomes one century later? A recent, yet striking surge of studies in economics and economic history has set out to investigate the long-term effects of early twentieth-century European missionary activities on present-day African development. Since 2010, there are close to 50 studies that link the location of Western residence mission stations in Africa, reported in mission atlases and maps in one particular year, to contemporary African development outcomes.¹⁸ Education is the most common and most plausible outcome studied. Other studies link a density measure based on the number of Western missionaries per area or population to present-day Africa development.

This literature finds a strong path dependency. Historical exposure to European main mission stations and European missionaries one century ago has been positively associated with long-term educational outcomes by several studies (e.g., Acemoglu et al. 2014; Nunn 2014; Cagé and Rueda 2016; Baten and Cappelli 2016; Alesina et al. 2019).¹⁹ Exposure to religious competition between Protestant and Catholic missionaries generated particularly positive long-term effects on African human capital (Gallego and Woodberry 2010; Larreguy and Schmidt-Padilla 2017). However, did early mission education indeed pave the way for contemporary generations to attain higher years of schooling, social mobility and incomes, or are there unobservables that could partly explain those long-term correlations?

The partial availability of locations of only European-run main missions from maps and missionary atlases can create a pitfall for researchers in the absence of detailed source critique. Firstly, what do we learn from purely Western missionary long-term effects, representing the

¹⁸See Jedwab et al. (2018) for a meta-analysis of this extensive literature.

¹⁹One exception represents Wietzke (2015) who finds no statistically significant long-term effect of early-colonial missions in Madagascar on contemporary education and economic development outcomes.

minority of total missionaries in Africa (see Sect. 2.5)? Jedwab et al. (2018) have uncovered that official mission atlases and maps, commonly used by most persistence studies, essentially omit the vast majority (ca. 90%) of total missions. Fahs (1925) already criticized that mission atlases and maps only report missions of European residency but ignore the lions' share of missions and schools run by African missionaries and teachers. The data contained in mission atlases thus reflect the implicit data priorities of European missionary societies.

Secondly, this measurement bias is further accentuated by the fact that European (and main) mission locations were the earliest missions that opened in the most developed and connected areas (Jedwab et al. 2018). Thus, missionaries did not assign themselves randomly across the continent but systematically chose conducive fields. Based on ecclesiastical censuses contained in the British Blue Books, Jedwab et al. (2018) carefully reconstruct *all* missions (i.e., main and outstations, with and without school) in Ghana for the period 1751–1932. They show that for the various mission denominations in Ghana costs and benefits mattered for choosing where to establish their churches and schools. Locational determinants were not constant over time but *dynamic*. They interacted with local conditions (i.e., geography, institutions), African incomes, global medical innovations (e.g., quinine), investments into transport infrastructure (railroad, roads) and the timing of colonial conquest. Economically more developed localities (e.g., mining towns and cash crop production areas) with potentially greater demand for mission schooling subsequently adopted Christianity at an earlier date. For both Ghana and Africa, Jedwab et al. (2018) demonstrate that the use of relevant and properly timed historical controls is crucial to reduce endogeneity bias from (main) mission locational choices.²⁰ They also show that missionary long-term effects on human capital, culture and economic development outcomes become considerably weaker when controlling for factors that explain mission locational choices over time. In a similar

²⁰For instance, despite overwhelming evidence of Muslim resistance against Christian schooling efforts (Frankema 2012), most mission legacy studies entirely neglect the role of Islam in their choice of control variables. Other studies control for railroads networks, although they had not even been built by the time of nineteenth-century European mission settlement.

vein, Fourie and Swanepoel (2015) show that indigenous residents of districts with Christian missions in 1849 have on average higher educational attainment about 150 years later. But, educational persistence disappears once they account for early selection into mission locations. This suggests that location-specific omitted variables may affect both the choice of missionary placement and long-term effects.

What is clear is that paying attention to the *dynamic* determinants and *African agency* in the expansion of Christian missions (i.e., the inclusion of both main and outstations) is critical. This will minimize the risk of grossly overestimating missions' long-term effects, which otherwise may lead to overly optimistic conclusions of the legacy of missions on current African education. More work is also required not only to document potential legacies but also to better understand the actual benefits of mission schooling *during* the colonial era as well as the *mechanisms* through which missionary activity then persisted over time.

Early mission schooling did not only influence human capital formation but also affected long-term African intergenerational social mobility and health outcomes. Wantchekon et al. (2015), based on retrospective interviews from the descendants of those whose (grand) parents attended the first regional schools in colonial Benin, investigate the long-term effects of education on the social mobility and living standards across generations and compares those to nearby control groups where no schools had yet been set up. They document significant higher levels of political activism and social mobility for the first generation of students of mission schools, as well as their descendants. Also, Alesina et al. (2019) show that the main missions in colonial Africa correlate strongly with contemporary intergenerational mobility in educational attainment. For colonial Uganda, Meier zu Selhausen et al. (2018) document that contrary to the widespread belief that indirect rule perpetuated the power of African political elites (Mamdani 1996), a remarkably fluid, colonial labor economy undermined chiefs' previous social advantages. Sons of chiefs gradually lost their previous high social-status monopoly to an upwardly mobile, commercially orientated and mission-educated class of Protestant Ugandans (e.g., clerks, interpreters, teachers). On that path, the colonial administration as well

as mission schools and churches functioned as key steps on the ladder to social mobility.

Missionary educational investments in colonial Africa have also been shown to persistently affect post-independence political elite-formation. Ricart-Huguet (2019) shows that the uneven supply of primary education across colonial African districts explains why some districts are more represented among modern African governments than others. Post-independence political elites were more likely to forge later ministerial careers through public education in French colonies compared to mission education in British colonies. Again, through retrospective interviews, Wantchekon (2016) follows the first generation of students and their unschooled counterparts, as well as their descendants for two generations, after the establishment of colonial and missionary schools in Benin. He finds evidence of upward mobility across generations on education. However, the evidence suggests that while the second generation moved up, the third generation moved down from their parents' income levels, possibly highlighting decreasing returns to education during the post-colonial era. This chimes with the observation made by Pritchett (2001) who did not find any effect of post-independence major expansion of education on GDP per capita, which largely stagnated or declined in Africa between 1970s and 1990s, tempting him to wonder, "where has all the education gone?"

For French West Africa, Huillery (2009) examines the long-term impact of colonial public investments in schools and health clinics. Due to the limited number of Christian missions in French West Africa, she studies the role of investments into education and health by the colonial state during the early colonial era (1910–1928). She uncovers a sizable legacy of colonial human capital investments on long-term African schooling and health outcomes. The addition of one more teacher (doctor) per 100,000 inhabitants during the colonial era translates to one additional percentage point of school enrollment and dropping children's stunting to about 0.5 points in the 1990s. The evidence on the benefits of education for health outcomes is less clear. Using 18,000 patient admissions from one of the earliest mission hospitals in East

Africa, Doyle et al. (2019) find that Christian conversion was associated with superior health outcomes and lower incidence of skin and sexually transmitted disease diagnoses, but numeracy per se, one proxy for education, did not predict better health outcomes. In a similar vein, Cagé and Rueda (2019) uncover that despite an overall positive impact of colonial missionary exposure on HIV infections in Africa, proximity to historical missionary health facilities decreases the likelihood of HIV due to allegedly safer sexual behavior.

2.7 Conclusion

This chapter has offered a comparative analysis of the evolution and nature of mass education in colonial Africa. It has emphasized the importance of different *local* social and economic conditions—not colonial policies toward schooling per se—that deeply affected both supply and (gendered) African demand for formal education. The chapter has highlighted the unique role of Christian missions in the development of African systems of mass education. For missions to expand beyond their limited financial and personnel capacity, the *Africanization* of the mission and local African contributions (i.e., school fees and taxes) were key. Recent studies that assess missionary’s impacts on African long-term development that place their main focus on measures of foreign missions and personnel have overlooked those historical realities. Although Western missionary efforts in Africa were driven by global competition for new church members, their success clearly depended on *local conditions* and *agency*.

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3

Missionaries in Latin America and Asia: A First Global Mass Education Wave

Felipe Valencia Caicedo

Abstract This chapter surveys the literature on the long-term impact of Christian missionaries in Latin America and Asia. It focuses on human capital, making the argument that religious missionaries constituted a “first wave” of global mass education. The chapter is centered on the academic contributions by Maria Waldinger (*Journal of Development Economics* 127:355–378, 2017) and Felipe Valencia Caicedo (*The Quarterly Journal of Economics* 134:507–556, 2019), on the long-lasting educational impact of Catholic missionaries in Mexico and South America, respectively. It relates these findings to the literature on the indirect effects of religion and the economics of education. It also draws parallels and contrasts with other missionary experiences in Latin America, Africa and, primarily, Asia. It concludes by offering tentative directions for future research on the socio-economic and cultural legacies of missions in the Americas and beyond.

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Keywords Missions · Latin America · Asia · Human capital · Education · Health

3.1 Introduction

Christian missions were founded—through colonial enterprises—in developing countries worldwide.¹ Europeans colonized large swaths of the Americas, Africa and Asia, often taking priests, nuns and missionaries with them. Religious proselytizing aside, missionaries brought new sets of skills, technologies and values that could have been transferred to the local populations. Although their main aim was to convert souls to Christianity, missionaries also instructed indigenous inhabitants in basic arithmetic, reading, writing and various crafts. Under the aegis of the Spanish and Portuguese crowns, and the Vatican's encouragement, Latin America developed an intense and rich missionary presence. Franciscans, Dominicans, Augustinians, Mercedarians and Jesuit friars set up missions from Northern California, in current USA territory, to Southern Chile, among the Mapuches. The long-term economic impact of these interventions is only now beginning to be understood through a series of academic studies. Did different missionaries leave an imprint in the local populations they evangelized, long after they were gone? If so, through which specific channels? Ultimately, what can we learn today about the impacts of this very first wave of global mass education?

Religion constitutes a fundamental aspect of culture and has a long pedigree of academic scholarship. Cultural explanations of economic performance date back to Max Weber's Protestant work ethic hypothesis (Weber 2011). French sociologist Émile Durkheim studied the topic in his book *The Elementary Forms of the Religious Life* (1912), famously concluding that religion and society are one. A first wave of studies in economics looked at the direct effect of religion and religiosity on economic performance worldwide. Seminal papers on this topic include

¹See the accompanying chapter in this book by Feliz Meier zu Selhausen, where he provides a revisionist historical interpretation of African missions, emphasizing the role of local agency.

Iannaccone (1990), McCleary and Barro (2003, 2006), and Glaeser and Sacerdote (2008). A recent wave of scholarship now stresses the more indirect economic, educational and cultural impacts of religion rather than its direct effect.² Following this new literature, this chapter will focus on the educational and economic impact of religious missions.

The economic and educational influence of missions was first studied in the African context and has gradually expanded to other continents. Across countries, Woodberry (2004, 2012), and Lankina and Getachew (2012) find a positive effect of Protestant missions on democracy. Subnationally, Nunn (2010) documents that missions resulted in higher religiosity, Gallego and Woodberry (2010) and Nunn (2014) show a positive effect on educational attainment, and Cagé and Rueda (2016) on newspaper readership. Wantchekon, Klačnja and Novita (2015) find positive human capital effects from religious schools in Benin. Outside Africa, Calvi et al. (2018) and Castelló-Climent et al. (2017) report a positive effect of missions on Indian literacy and tertiary education, and Chen et al. (2013) and Bai and Kung (2015) on Chinese economic development. In Latin America, Waldinger (2017) and Valencia Caicedo (2019) have mainly documented the important effects of missionaries on education, which will be the focus of this chapter. This continent is important to shed light on this issue, given its rich history of colonization and missionary presence. Still, I provide important parallels to missions in other regions.

Because of their global coverage and strong emphasis on education, missions can be understood as constituting a first global mass education wave. Missions are also interesting historical entities, as instruction in these entities was essentially mandatory. In Spanish, missions were known as *reducciones*, meaning where indigenous people were reduced, or gathered. If indigenous people fell in a certain geographic area, they were essentially forced to attend a mission, constituting the first mandatory schools. The literature on missions is then related to the

²On these indirect effects, see, among others, Becker and Woessmann (2008, 2009) and Botticini and Eckstein (2012).

well-established literature on compulsory schooling.³ As a case in point, Acemoglu et al. (2014) use Protestant missions as instruments for education to estimate economic returns to this productive factor. Furthermore, Psacharopoulos and Patrinos (2004) provide country-specific returns, which are consistent with the estimates found for missionary areas.

In the Latin American context, several papers have examined the historical determinants of schooling. Gallego (2010) argues for the importance of democracy and political decentralization. Rocha et al. (2017) focus on the role of European settlement communities in the state of São Paulo and Droller (2018) in the Argentinean Pampas.⁴ Complementary evidence is presented by Summerhill (2010) and de Carvalho Filho and Monasterio (2012), who stress the role of slavery and historical inequality in Brazil. Musacchio et al. (2014) instead emphasize the interaction between processes of political decentralization and commodity booms during the nineteenth century.

The rest of this chapter is organized as follows. First, I provide a short historical background of Catholic orders and missionaries in the Americas. I then zoom into the cases of Mendicant orders in Mexico and Jesuit missionaries in South America. Then, I compare these emblematic cases with other missionary experiences in the Americas and beyond, touching upon Africa and delving into Asia. I conclude by providing some avenues for future research in the economics and related social sciences on the aftereffects of missions worldwide.

3.2 Human Capital and Economic Persistence in Latin America

3.2.1 Historical Background

Religion was—along with profit making and a desire for adventure—one of the main reasons for embarking to the New World. Catholic priests accompanied Columbus in his second voyage as well as during

³I thank Karthik Muralidharan for suggesting this particular angle.

⁴See also Bruno Witzel's chapter in this book.

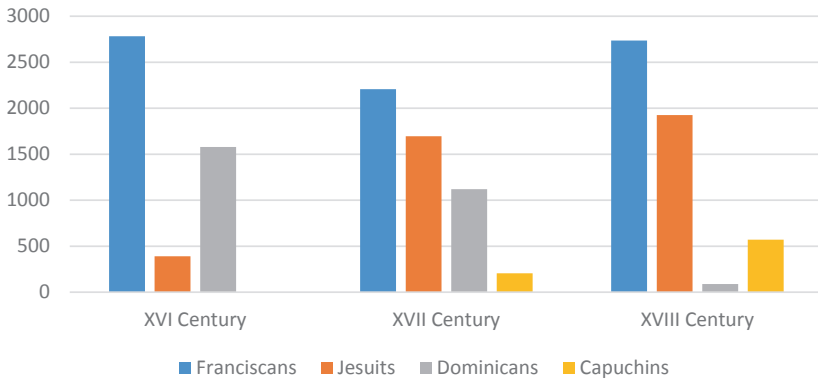


Fig. 3.1 Religious orders in the evangelization of Latin America: 1566–1767 (Note Number of ecclesiastics. Author’s calculations. Data from Galán García [1995])

the colonization campaigns of Hernan Cortes in Mexico and Francisco Pizarro in Peru. Dominican friars and Mercedarian priests arrived in 1510 to the Island of Hispaniola, modern-day Dominican Republic and Haiti. Franciscans arrived as early as 1524 to New Spain, modern-day Mexico, founding a convent in Mexico City. By 1551, Dominican friars founded the University of San Marcos in Lima, which survives to this day. Other important orders during colonial times include the Augustinian Recollects (which played a key role in the evangelization of the Philippines) and the enclosed order of the Hieronymites.

Figure 3.1 depicts the distribution of religious orders in the evangelization of the Americas from 1566 to 1767, a few decades before independence. As early as the sixteenth century, Franciscans dominated the scene. Dominicans were very important early on, but declined in numbers in the passing centuries. Jesuits started from a lower base and quickly grew to become the second most important in the Americas. Capuchins had a late start as well, but also a smaller presence, relative to the Jesuits. Other orders such as the Augustinians and Mercedarians (not shown) were of some importance early on, but largely declined during the seventeenth and eighteenth centuries. Due to their relative importance in the evangelization of the Americas, it is natural for this chapter to focus on the Franciscan and Jesuit orders. In particular,

I revisit the role of the Mendicant orders (which include the Franciscan, Dominican and Augustinian orders) in Mexico and the Guarani Jesuit missions in South America.

There was also an important, and largely unstudied, presence of female religious orders during colonial times. Some of these orders, such as the Poor Clares, were the female counterparts of the male orders—in this case the Franciscans. Burns (1999) and Lavrin (2008) provide detailed historical narratives of the religious and economic roles of nun convents in Peru and Mexico, respectively. Nuns played an important role in the education of creole (American-born Spanish) girls in the major colonial capitals, but also of young indigenous females elsewhere. Still, no empirical studies have examined this important facet of colonial religious life. I come back to this point at the end, when suggesting avenues for future research.

3.2.2 Mendicant Orders in Mexico

Waldinger (2017) provides a thorough and careful study of the long-term impact of Catholic missionaries in Mexico. As has been described above, Catholic missionaries were part and parcel of the colonization experience in the New World. In colonial Mexico, one of the most important Spanish colonies, missionaries from the Franciscan, Dominican, Augustinian and Jesuit orders were instrumental in the colonization process.⁵ The first three belonged to the so-called Mendicant orders, in stark contrast to the last one. The Mendicant orders shared a strong commitment toward poverty, poverty alleviation and the reduction in inequality, following the precepts of their founders.⁶ The Jesuit order was founded later, as part of the European Counter Reformation movement. Jesuits did not shy away from more entrepreneurial and profitable activities.

⁵As shown in Fig. 3.1, Franciscans were the most numerous order from the outset.

⁶For a detailed historical study of the Mendicant orders in Mexico, see Ricard (1966). The next section covers the Jesuit missions in South America.

In her research, Maria Waldinger retraces the location of 1145 Catholic missions, essentially the universe of these religious institutions. The author matches this historical information with modern-day educational outcomes and a large set of geographic, meteorological and historical variables. First, she finds that places where missions operated most intensely present significantly higher educational outcomes today (including years of schooling, literacy, secondary education and higher education). This main effect then appears concentrated among the Mendicant as opposed to the Jesuit missions, even when taking into account time-invariant characteristics of the municipalities they settled in. A further breakdown of the results reveals an important impact for the Franciscan missions and a weaker one for Dominican and Augustinian missions. The findings also appear consistent with those for an intermediate historical time period, using the 1895 Mexican Census. They do not seem to be driven by pre-colonial political, institutional and cultural characteristics, or simply by length of missionary stay.

Despite considering a large set of local characteristics, the actual selection of places by different orders can still be endogenous, raising questions as to whether it was the missions that brought about better educational outcomes that persisted to the present day, or they just settled in places that were developing more rapidly to begin with. For example, Mendicant missionaries could have had first pick, relative to Jesuits, settling in more favorable places or evangelizing tribes that were more open to European colonists in general. To deal with this potential problem, Waldinger employs the directions taken by different missionaries when they first departed from Mexico City.⁷ This first wave of expansion determined, for instance, a southern direction for the Dominicans and a northwestern for the Jesuits. Using this type of variation, Waldinger finds substantial predictive power for eventual Mendicant and Jesuit missionary areas of colonization: Thus, she argues,

⁷Namely, she uses an instrumental variable identification strategy. The idea there is to find “exogenous” variation that affects the treatment, in this case missionary placement that does not have a direct effect on the outcome of interest, in this case schooling.

it was the location of the missions that determined education and development, not the other way around.⁸

In terms of mechanisms, Waldinger stresses educational values and access to education. In areas that had Mendicant order missions, inhabitants report reading more and have a larger number of teachers. However, there seem to be no differential returns to education between the different missionary areas. Overall, Waldinger's research points toward the long-lasting economic benefits of investing in education and schooling, emerging from colonial missionary activities.

3.2.3 Jesuit Missions in South America

The case of the Jesuit missions in South America provides a counterpoint to the Mendicant missions in Mexico. From the outset, the order stressed education and papal obedience. The first Jesuits arrived in South America at Salvador de Bahia, modern-day Brazil, in 1549 (Alden 1996; Bethell 1984). The Jesuit order followed a two-pronged strategy: educating the creole elites in the major colonial capitals (of Mexico City, Lima, Bogotá, Buenos Aires and Quito) while developing indigenous missions in some of the most remote areas of the Spanish and Portuguese Empires (Bethell 1984). To get a sense of the colossal geographic coverage of this enterprise, see Map 3.1. The first South American Jesuit indigenous mission was established in 1565 in Juli, modern-day Puno, at the border of Bolivia and Peru. Jesuits also started missions in Mainas (Peru), Moxos and Chiquitos (Bolivia), Casanare and Orinoco (Colombia and Venezuela), Baja California (Mexico) and Alta California (USA).⁹

Figure 3.2 shows the Jesuit province of destination for the missionaries of the Jesuit order, giving a sense of this global enterprise. Rio

⁸The difference between the statistical effect in general versus trying to get at the causal effect, as in the previous footnote. Technically, her instrumental variable (IV) estimates are slightly weaker, but largely confirm the ordinary least square (OLS) findings for the two types of missions.

⁹Outside the Americas, the Jesuits established missions in China, India and Japan during the sixteenth and seventeenth centuries. I cover these cases later on in the chapter.



Map 3.1 Jesuit missions in South America. Red circles denote the approximate location of the missions of Orinoco, Moxos, Maynas, Chiquitos and the Guarani Jesuit Missions. Author's rendering

de la Plata, which managed the Guarani missions in South America, clearly dominates with 22% of the flows. Jesuits also had an important presence in Mexico with almost 20%, as previously discussed. They were also important in the Philippines, New Granada (modern-day Colombia), Peru, Chile and Ecuador.

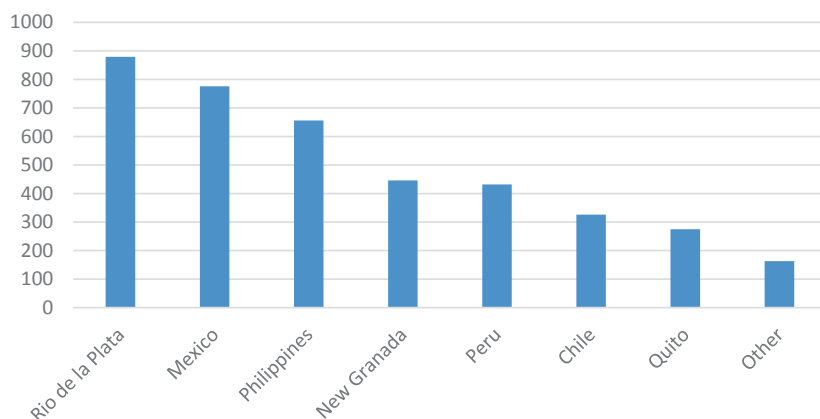


Fig. 3.2 Jesuit missionaries: province of destination (1566–1767) (Note Number of missionaries. Author's calculations. Data from Galán García [1995])

By all means, the Guarani missions constituted the heart of the Jesuit missionary efforts (see Map 3.2). Jesuits arrived in Asunción, Paraguay, on August 11, 1588 (Ganson 2003). From Asunción, they explored the surrounding area and established the first Guarani Jesuit mission in 1609. Jesuit missions remained isolated from the colonial capital of Asunción and were only allowed to barter restrictively. The initial Jesuit foundation was followed by a period of exploration that lasted around 50 years, until 1659. Jesuits founded a total of 30 missions or *reducciones* (reductions) in the modern-day territories of Argentina, Brazil and Paraguay: 15 of them in Argentina, 8 in Paraguay and the notable *sete povos* (7 missions) in Brazil. At their peak, the Guarani Jesuit missions contained more than 120,000 inhabitants, four times the population of Buenos Aires in 1779 (Fig. 3.3).

In Valencia Caicedo (2019), I demonstrate the important long-term educational and economic benefits of Guarani Jesuit missions. While religious conversion was the primary aim of these Catholic missions, they also furthered human capital formation by schooling children and training adults in various crafts.¹⁰ The setup is unique in that Jesuits

¹⁰In this paper, I focus on formal education, though technically human capital is a bundle of goods, which also include health investments. Under this broader umbrella, I look at health interventions resulting from the missionary activities elsewhere later in the chapter.

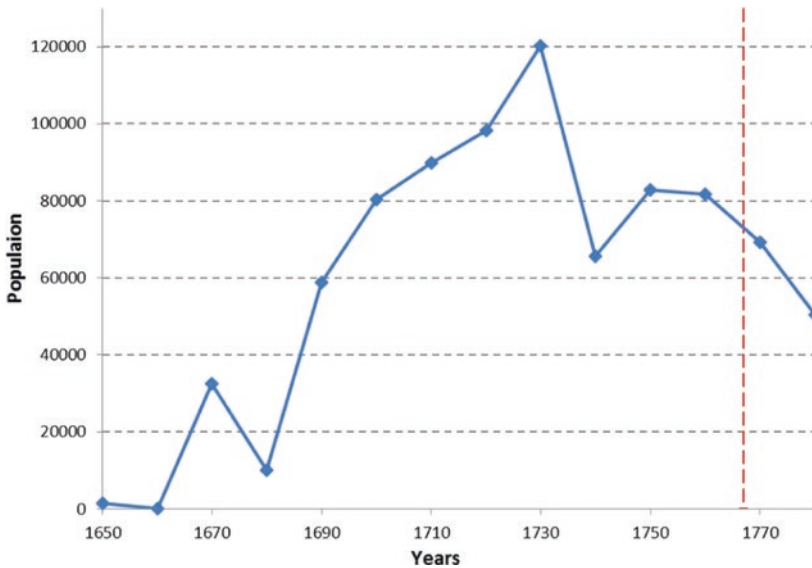
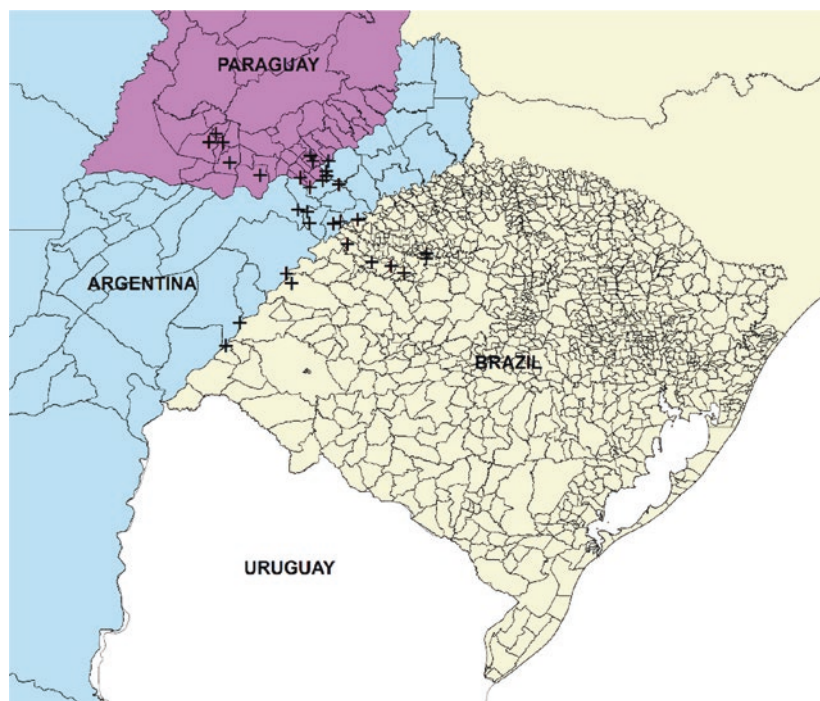


Fig. 3.3 Total contemporaneous Guarani Jesuits missions population counts from surviving records. Author's calculations. The dashed line represents 1767, which corresponds to the expulsion of the Jesuits from Latin America

were expelled from the Americas in 1767 and never returned to the Guarani area, thus precluding any direct continuation effect. To disentangle the national, cultural and institutional effects from the human capital shock Jesuit missions provided, I use *within* country variation of missionary activity in three different countries. Hence, I employ municipal-level data for five states (Corrientes and Misiones in Argentina, Rio Grande do Sul in Brazil, and Itapua and Misiones in Paraguay). Map 3.2 shows the location of the thirty Guarani Jesuit missions in Northern Argentina, Southern Brazil and Paraguay. The area under consideration was populated by a single semi-nomadic indigenous tribe, and it is possible to abstract from the direct effect of different pre-colonial ethnicities. The early stage of development of the indigenous inhabitants at the time of contact also makes the setting unique. The Guarani area possesses similar geographic and weather characteristics, though I still take these variables into account in the empirical analysis.



Map 3.2 The map shows the exact location of the Guarani Jesuit Missions, along with municipal-level boundaries for the states of Corrientes and Misiones (Argentina), Itapua and Misiones (Paraguay) and Rio Grande do Sul (Brazil), and state boundaries for other states in Argentina, Brazil and Paraguay. Author's calculations. Based on Valencia Caicedo (2019)

I find substantial positive effects of Jesuit missions on modern-day human capital and income measures, 250 years after the missionaries were expelled. In municipalities where Jesuits carried out their apostolic and educational efforts, median years of schooling and literacy levels remain higher by 10–15%. An illustration of this main finding can be seen in Fig. 3.4 which plots literacy rates in 2010 on distance to the nearest mission. These differences in attainment have also translated into higher modern *per capita* incomes (or lower poverty rates) of nearly 10%. Figure 3.5 provides an illustration of this finding using nighttime

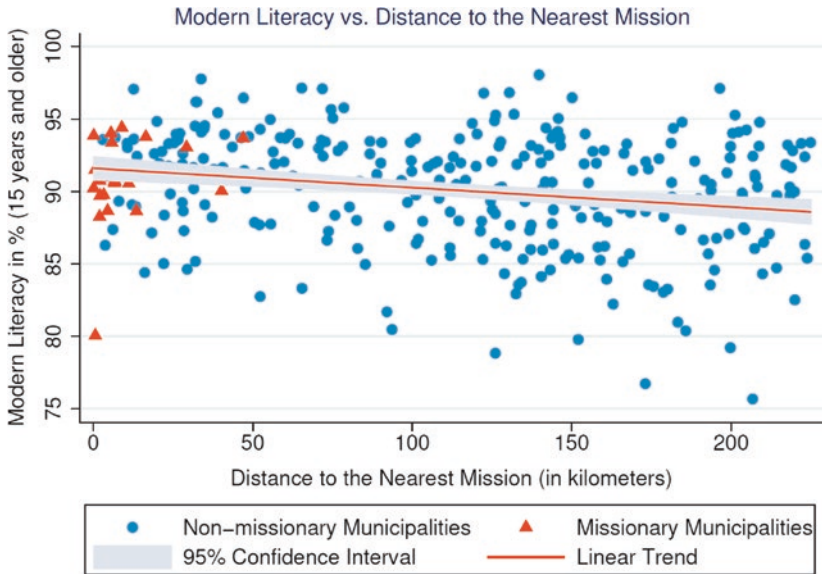


Fig. 3.4 Figure is an unconditional plot of 2000 literacy in percentages for people aged 15 and older in Argentina, Brazil and Paraguay versus distance of the municipality centroid in kilometers to the nearest Jesuit mission. Orange triangles represent missionary municipalities and blue dots non-missionary ones. The red line is a linear trend. The sample is restricted to a 225-kilometer distance threshold. Note that distances for missionary districts are not necessarily zero, as they are measured from the municipality's centroid. Author's calculations. Based on Valencia Caicedo (2019)

satellite data.¹¹ There we can observe that municipalities with historical missionary presence appear lit (richer) at night. In order to rationalize these enduring educational and income differences, I examine later occupational, cultural and behavioral channels of transmission.

As discussed with reference to Waldinger's study, Jesuit missionaries might have chosen favorable locations, beyond observable factors. Hence, the positive effects encountered might be due to this initial

¹¹Economists have used these measures from satellite missions, to proxy for income, especially in places that lack proper income and production statistics, as in sub-Saharan Africa; for more details, see Henderson et al. (2012).

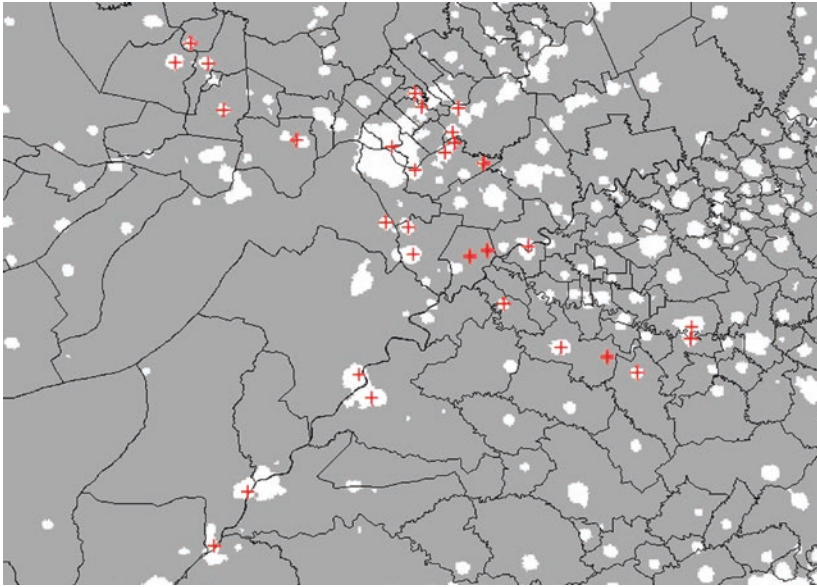


Fig. 3.5 Map depicts the nighttime satellite images of the Guarani Jesuit missionary area along with municipal-level boundaries for the states of Corrientes and Misiones (Argentina), Itapua and Misiones (Paraguay) and Rio Grande do Sul (Brazil). Red crosses denote the location of the Guarani Jesuit Missions. Author’s calculations. Based on Valencia Caicedo (2019)

choice and not to the missionary activity per se. To address then this potential endogeneity of missionary placement, I conduct two empirical tests. The first one is a placebo-type test that looks at missions that were initially founded by the Jesuits but were abandoned early on (before 1659). I can thereby compare places that were initially picked by missionaries with those that actually received the “full” missionary treatment. The idea is to see whether missionaries were simply picking winners historically. I find no effect for missions that were abandoned early on, which suggests that what mattered in the long run are the activities the missionaries carried out for generations and not where they first settled.

Since abandonment itself might have been a voluntary choice, I also conduct a comparison with the equally successful missions established

by the Franciscan order.¹² Intuitively, we want to make sure that Jesuits did not simply concentrate on the most successful areas. These neighboring Guarani Franciscan missions were founded slightly earlier from 1580 to 1615 (Durán Estragó 1987). The comparison is relevant in that both orders were Catholic and employed European evangelists who wanted to convert souls to Christianity. Nevertheless, Jesuits emphasized schooling and technical training in their conversion relative to the Franciscan Mendicant order, which mainly tended to the poor and the sick (as discussed previously). Contrary to the Jesuit case, I find no positive long-term impact on either education or income for Franciscan Guarani missions. I discuss further these results in the next section. Overall, they suggest that the long-term income differences I estimate in the Guarani area are likely to be driven by the Jesuit's emphasis on education.

As in the Mexican case, using historical censuses I am able to trace the educational effect through the intervening period between the missionary era and today. I use data from the 1895 Census of Argentina, the 1920 Census of Brazil and the 1950 Census of Paraguay. I find that Jesuit missions had an even larger effect on literacy and median years of schooling during intermediate historical periods, and that these effects are larger for females and concentrated on local inhabitants rather than foreigners, as expected. The remarkable degree of persistence in education from these intermediate historical times to the present day can be observed in Fig. 3.6. Additional results for the postwar era show how the effect of Jesuit missions has decreased over time but is still significant, even today.

I also provide potential transmission mechanisms or specific channels through which the main effect could have been propagated. For instance, to sustain the long-run persistence results observed, people might transmit knowledge inter-generationally. I find that municipalities closer to historic missions have changed the sectoral composition of employment, moving away from agriculture and toward manufacturing

¹²There were no religious missionaries from other Catholic or Protestant orders in the Guarani area.

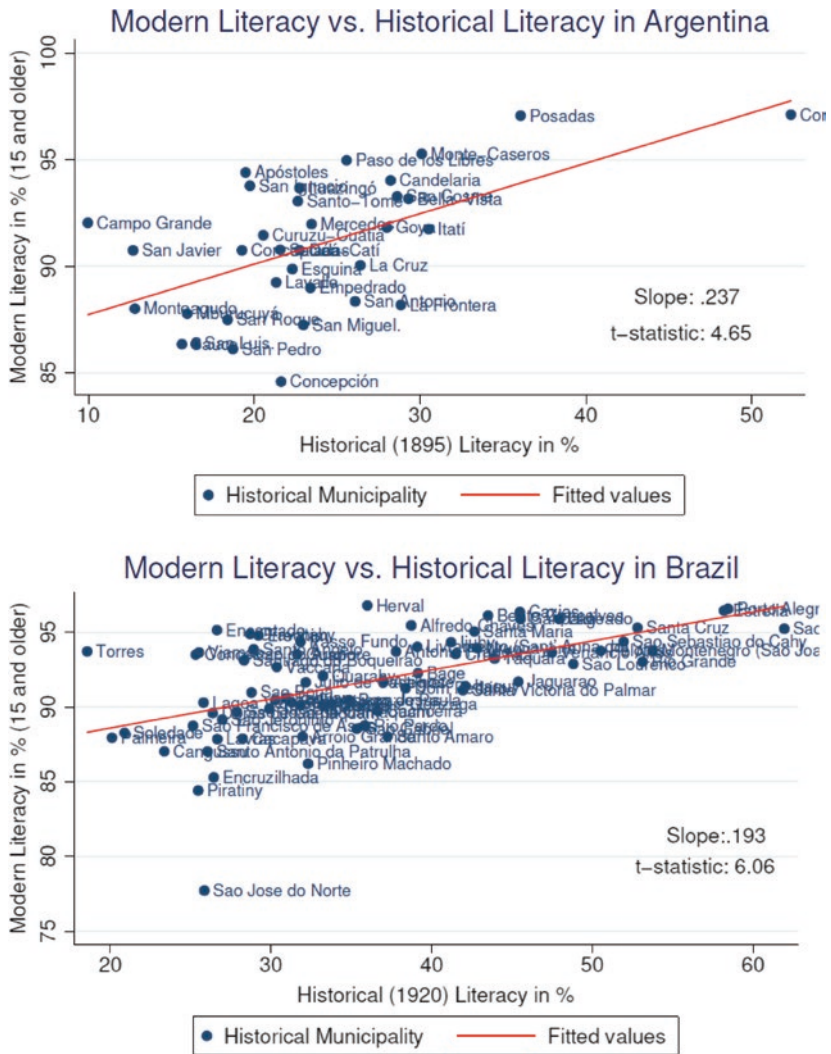


Fig. 3.6 Unconditional plots of 2000 literacy in percentages for people aged 15 years and older in Argentina, Brazil and Paraguay on 1895 literacy in percentages in Argentina, 1920 in Brazil and 1950 in Paraguay, respectively. Dots represent municipalities with historical names and linear trends. Author's calculations. Based on Valencia Caicedo (2019)

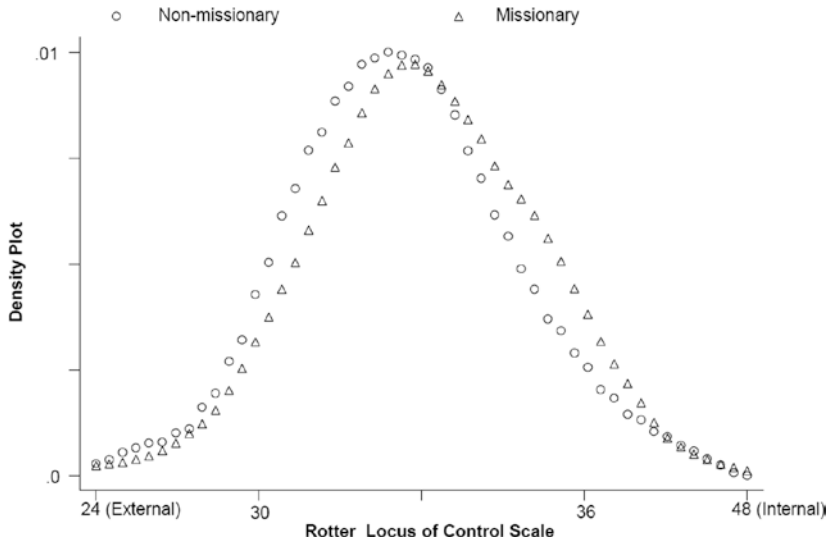


Fig. 3.7 Figure depicts a density plot of the Rotter Locus of Control Scale (going from low values of external control to high values of internal control), separating between non-missionary areas (in circles) and missionary areas (in triangles). Author's calculations. Based on Valencia and Voth (in progress)

(Heckman et al. 2006).¹³ This means not just looking at cognitive abilities (such as literacy and numeracy) but other, equally important, measures of academic (and professional success) such as determination, motivation, punctuality and resilience. Using well-known games from the experimental and behavioral literatures, we find that respondents in missionary areas exhibit greater altruism, more positive reciprocity, are less risk seeking and behave more honestly.¹⁴ Clear differences emerge with respect to respondents in former Franciscan missionary areas.

We use priming techniques from experimental psychology to investigate whether the effects observed are the result of greater religiosity

¹³The Rotter Locus of control measures how much people think they are in control of their lives, ranging from everything is predetermined (low score) to one is the captain of one's destiny (high).

¹⁴For instance, the dictator, ultimatum and trust games.

(Norenzayan 2013), which appears not to be the case.¹⁵ The persistent cultural results are consistent instead with cultural transmission mechanisms of occupational persistence and inter-generational (vertical) knowledge transmission.¹⁶ For instance, respondents in former missionary areas report doing more embroidery (a European import) and possessing more knowledge of folktales, traditional medicine and technical trades. The empirical findings do not seem driven by religion per se, as evidenced by a religious priming experiment.¹⁷ They also seem distinct from standard trust and institutional measurements. Rather, the findings underscore the importance of human capital formation, beyond formal education, distinguishing the schooling treatment from the transmission of value systems.

3.2.4 Discussion and Other Missionary Experiences in Latin America

There are important differences between the Mexican and the South American case, which can explain the varying results observed. There are obvious geographic and weather differences that have already been discussed. Other differences concern the order of arrival of the orders, as described in the historical background. Missionaries also had a distinct geographic focus on the capital versus the provinces. In Paraguay, Asunción was a small outpost with 6451 people in 1761 and the missions took the brunt of their apostolic efforts. Missionaries in Mexico interacted with a large set of tribes, whereas I focus on the Guarani in South America. The role of these indigenous tribes and predisposition toward outsiders could have been proven determinant for the eventual success or not of the missions. The role of pre-colonial

¹⁵In psychology, scholars have posited that religion can lead to prosocial behavior and cooperation in complex societies (Shariff and Norenzayan 2007; Norenzayan 2013).

¹⁶In particular, following the oblique/horizontal cultural transmission from the Jesuits, there is evidence of vertical knowledge transmission sustaining these imported practices.

¹⁷In this well-known technique from psychology, respondents are “primed” to think about a given issue, such as politics or religion, using subliminal cues.



Fig. 3.8 Graph plots average indigenous population for Jesuit (in blue diamonds) and Franciscan (in red dots) missions from 1640 to 1760. Author's calculations. Based on Valencia Caicedo (2019)

characteristics and the agency of the different indigenous tribes has been largely ignored in the literature.¹⁸ Differences aside, the Christian missionary experiences in Mexico and South America reveal important economic and educational impacts in the long term.

The Guarani area provides an appropriate set up to compare missions from the Jesuit and Franciscan orders. Even when they were devoted to similar activities (cattle raising and *yerba mate* cultivation), the Jesuits proved more effective (Maeder 1995). Figure 3.8 shows the mean population in both sets of missions from 1640 to 1760. Though the data series is incomplete, the divergence between Jesuit and Franciscan missions is apparent. The Jesuits were also expelled in 1767, whereas the other orders continued their missionary efforts. As a matter of fact, the Franciscans took over the Jesuit missions, not only in South America, but also in the USA (as discussed later in this chapter). In 1773, Clement XIV proceeded to dissolve the Society of Jesus, and priests were exiled in Frederick the Great's Prussia and Catherine the Great's

¹⁸For the Americas, see Díaz-Cayeros and Jha (2012) and Maloney and Valencia Caicedo (2016).

Russia. The Jesuit order was only restored in 1814 by Pope Pius VII. In Paraguay, Dictator Francia eventually abolished all religious orders in 1815.

Work from other Latin American countries also helps to put the results discussed in context. In a previous study, Waldinger (2014) examines the long-term impact of religious missionaries in modern-day Venezuela. This case is interesting, since little to nothing remains in terms of physical infrastructure from these missions. In contrast to her findings for Mexico, in Venezuela she finds a negative and significant impact on education for the Franciscans and a positive and significant one for Augustinian missionaries. She attributes the former to the *encomienda* colonial system and the latter to the Augustinian order's approach to education and indigenous relations. In her specifications, Waldinger controls for time-invariant effects, geographic and ethno-cultural variables. As a source of additional variation, she uses the colonial settlement patterns of Venezuela, whereby land was partitioned among the different Catholic orders. These causal estimates largely confirm the baseline results.

Gómez-i-Aznar (2018) revisits the case of the Guarani Jesuit missions, focusing on numeracy instead of literacy. To this end, he uses the extant records from the eighteenth century. To analyze them, he uses the age-heaping methodology, which exploits variations in the prevalence of rounding numbers. When asked about their age, for instance, people could round to multiples of 5 or 10. The prevalence of this practice indicates low levels of numeracy. To use this method effectively, he collects a large number of individual-level observations.¹⁹ He finds that the levels of numeracy in Jesuit missions are extraordinarily high, of above 95%. These estimates are high not only for Latin American, but even for European standards at the time. They are higher than regions in Spain and only comparable with Denmark. This remarkable finding, using historical primary sources, complements the results discussed earlier for literacy.

¹⁹In part, the work is possible thanks to the very detailed registers of indigenous people, also known as *padrones*, studied by Takeda (2016).

A very interesting, contrasting, case is offered by the Protestant conversion in Guatemala during the twentieth century, studied at length by McCleary (2017) and McCleary and Pesina (2011). In a context of very low literacy levels, Protestant missionaries took a different strategy from the usual literacy campaigns. Instead, they focused on evangelizing through radio stations, broadcasting religious programs in Spanish and indigenous local languages. Even though this proved to be a very successful conversion strategy, this led to *no* noticeable impact on formal education. These studies emphasize the importance of educational investments rather than just the presence of missionaries. It seems that it is not the selection of places or the presence of white Europeans what matters in the long term, but the specific investments that these religious missionaries carried out. The role of local agency is also important. Missions were a two-way process where both Europeans and local indigenous people were protagonists. I discuss this issue further when I refer to African missions, where this was particularly relevant. Though extreme, the Guatemalan case is similar to the aforementioned comparison between Jesuits and Franciscans in Paraguay, where the focus on human capital investments proved determinant in the long run.

3.3 Missions in Other World Regions: Africa and Asia

The findings on the educational and economic impact of missions discussed so far for Latin America extend beyond the continent. Researchers have found an impact of missions on educational attainment, religiosity, political participation and health outcomes in many areas of Africa and Asia.

3.3.1 African Missions

The literature on the impact of missionaries on African long-term development is vast, so I only provide a very brief sketch and refer instead to the companion chapter in this volume by Felix Meier zu Selhausen.

Suffice it to say that some of the very first papers in economics by Nunn (2010, 2014) focused on the African continent, taking advantage of a detailed map constructed by William Roome in 1924. In line with the results for Latin America, Wantchekon, Klašnja and Novita (2015) find positive human capital effects from religious schools in Benin. Okoye and Pongou (2014) and Wietzke (2015) relate missions to school provision in Nigeria and Madagascar, respectively. One of the most interesting and comprehensive studies by Cagé and Rueda (2016) show how missions were instrumental in the diffusion and usage of the printing press in Africa. This led to higher newspaper readership and increased political participation. Jedwab et al. (2018) look more closely at the determinants of missionary expansion, in Ghana and the African continent at large. In a sense, this last work results from the development of the missionary literature. Acknowledging that missions were an important religious institution with important economic and educational impacts, we are now posed to understand better how these entities emerged. One particularly appealing angle in this research agenda is the role of local, indigenous agency discussed in the companion chapter for Africa.

3.3.2 Human Capital in India

In a major work, Calvi et al. (2018) examine the long-term impact of Protestant missions on literacy in India.²⁰ They follow the literature on the human capital legacies of Protestantism (Becker and Woessman 2009) and in particular the impact on female education (Becker and Woessman 2008). The principle of *Sola Scriptura* essentially promoted universal literacy so that individuals could read the Bible. Reading is, of course, a non-excludable technology.²¹ In India, women were often sent to the Zenanas (women's quarters) to teach. The authors test their

²⁰For an excellent historical overview of British missions, with a special focus on the British Empire in India, see Etherington (2005).

²¹Meaning that once one is able to read the Bible, one is capable of reading essentially any other text.

theory using detailed information on the distribution of Protestant missions during the nineteenth century and modern census data on literacy (see Map 3.3). In all their specifications, they find a positive and significant effect of Protestant missions on literacy. The effects are especially strong for females, though still significant for males, which is an important new finding. The effects appear concentrated on Protestant as opposed to Catholic missions.²² Results are robust to testing for unobservable characteristics and using neighbors to test for spillovers. The effects do not seem driven by religion or religiosity per se, but missions rather seem to have had an impact on urbanization at large, a possibility discussed later for China.

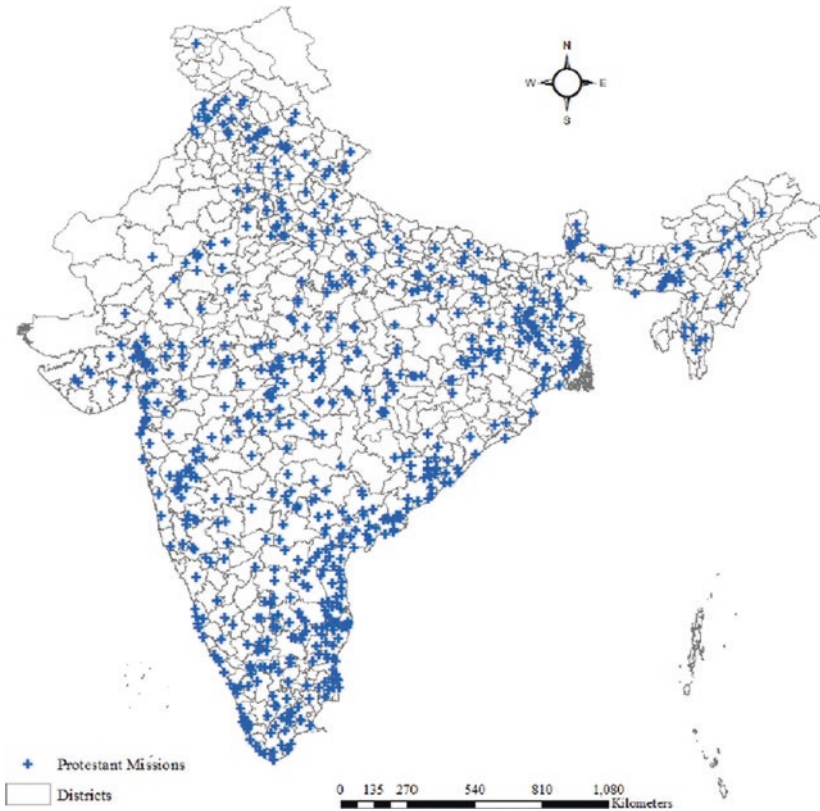
Castelló-Climent et al. (2017) take a different approach in their article on higher education in India. Instead of looking directly at the effect of Indian missions on education, they test if the location of Catholic missions in 1911 can account for higher levels of tertiary education today.²³ In a second stage, they then estimate if there exists a causal link between tertiary education and economic development, proxied by nighttime satellite data at the district level (as shown for South America). In their paper, they find a very significant positive first stage and then a positive and economically significant effect of higher education on night lights, providing a credible and specific channel of economic influence.

Calvi and Mantovanelli (2018) look further at the long-term impact of Indian missions on health outcomes.²⁴ This approach is consistent with the view of health as a complementary input with education in the human capital production function. They focus on Protestant missions and document a positive and robust association between these religious institutions on key health outcomes such as Body Mass Index

²²These findings appear at odds with the work by Castelló-Climent et al. (2017), discussed later in this chapter.

²³Technically, they focus on what in econometrics is known as the second stage, instead of the first. The approach is similar to the one taken by Acemoglu et al. (2014).

²⁴These results are also consistent with those in Valencia Caicedo (2019) for South America. Menon and McQueeney (2015) use historical missions in India as an instrument for height.



Map 3.3 Historical protestant missions in India in 1908. Map taken from Calvi et al. (2018)

(BMI) and self-reported health status. They also find important historical effects in the intervening time period from 1891 to 1941. As a clever source of additional variation, they use the share of missions that have medical activities *outside* of India. In terms of mechanisms, rather than persistence of health infrastructure, the authors find effects on nutrition, hygiene and other health habits.

Lastly, a very interesting case is studied by Alexander Lehner (2018) in the Indian state of Goa. As in Latin America, different missionaries went to this Portuguese colony in India. Francisco Xavier—a famous Jesuit—visited the colony twice in an effort to convert and educate

the local population. Using sophisticated econometric techniques, in a completely different setting, Lehner finds results that echo the ones described previously for South America. Namely, he finds important effects of Catholic missionary outposts on literacy today, especially for females. The results are concentrated among Jesuit, as opposed to Franciscan missionaries, even though the places are nearly identical in terms of geographic and weather characteristics. The parallels with South America are striking.

3.3.3 Economic Development in China

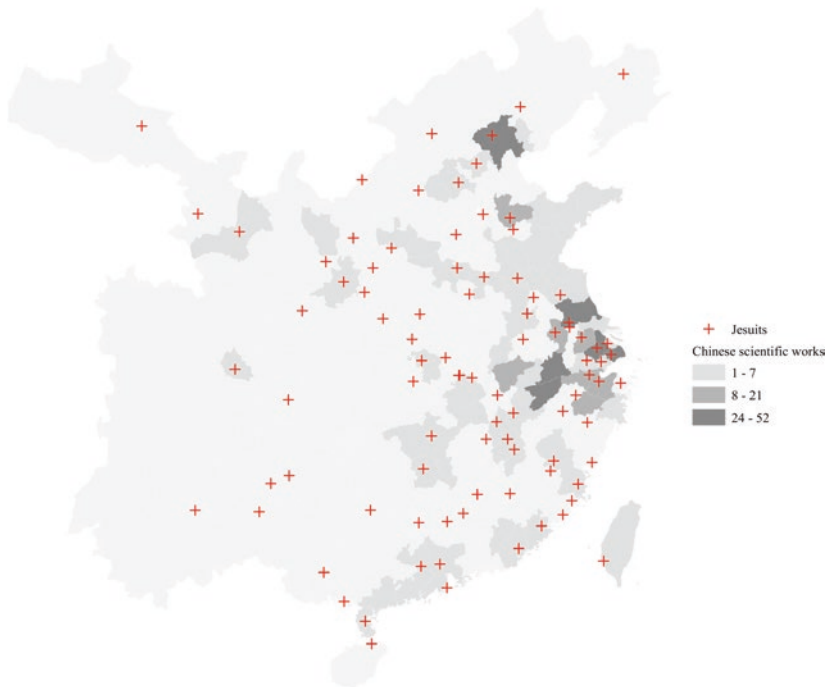
Bai and Kung (2015) wrote a prominent paper about the role of Protestant missionaries in China.²⁵ The setting is compelling because, different from the setting in the other papers analyzed, Protestants constitute a very minor proportion of the Chinese population. Nevertheless, the authors find sizable long-term effects. First, they find a positive and economically significant effect of Protestantism on urbanization. They link the spread of this religion with the establishment of industrial firms. To deal with the potentially endogenous spread of Protestantism, they exploit variation coming from the Boxer Uprising (1899–1901). These results are broadly in line with the baseline estimates. In terms of mechanisms, the authors point toward the establishment of modern industrial firms and the diffusion of knowledge. Of particular importance were the schools and hospitals built by the missionaries.

In a similar paper, Chen et al. (2013) revisit the role of the Christian missions in China. Using a county-level dataset of Christian missions in the nineteenth century and socioeconomic indicators from the year 2000, they reach similar conclusions as previous—namely, a robust relationship between early missionary presence and modern economic performance. In this case, they focus on human capital (both education and health), foreign direct investment and more general openness. In

²⁵For the history of Jesuits in China, see Matthew (2007), and for knowledge diffusion by this same order in this context, see Benjamin (2005).

their paper, they study the very interesting relationship between historical flood and drought data and the flourishing of missionary activity. They also examine the interaction with treaty ports, a crucial aspect of Chinese history in its relation with the West. The results are very much in line with those by Bai and Kung (2015).

In a follow-up paper, Ma (2018) expands on transmission mechanisms by examining the relationship between Jesuits and Chinese science. Map 3.4 provides a visual representation of Jesuits and the concentration of Chinese scientific works. The author details how Jesuits were instrumental in introducing Western science to the Chinese cultural elites (the Confucian literati). This reoriented their efforts and eventually augmented their productive efforts in these Western fields, but not on more traditional Chinese Confucian scientific production.



Map 3.4 Distribution of Jesuits and Chinese scientific works, 1560–1820. Map taken from Ma (2018)

Crucially, he also finds that the results are concentrated on Jesuit scientists more than Jesuit priests. This careful study is important in providing a credible mechanism of knowledge and technological transmission. Though in a very different setting, Ma (2018) along with the other studies covered in this section confirms for Asia the main lessons emerging for Latin America—namely, the long-lasting impact of religious missions, the role of human capital as main channel of transmission and the importance of knowledge diffusion as an intervening mechanism.

3.4 Avenues for Future Research

Despite the recent wave of articles on the impact of missions' legacies worldwide, there are still several unexplored and important areas of empirical research, in economics and other social sciences. This is largely due to the long and rich history of missions, which extends for centuries and spans the five continents.

As mentioned before, close to nothing is known about the impact of female religious orders. In a notable exception, Frigo and Roca (2018) look at the very interesting case of beguines in Belgium.²⁶ These female-only medieval communities are strongly correlated with higher levels of gender equality during the nineteenth century. This work is important, as it pushes the literature beyond economic outcomes and into social attitudes and culture (see Alesina and Giuliano 2015). As with the article on India, gender is an important and somewhat underexplored research angle in the missionary literature.

Next, I cover other unique historical episodes, occurring in the Americas and Asia. One fascinating case worth studying is provided by the Jesuit missions in the Chiquitania region of Bolivia. As with other missions in Latin America, the Chiquitos missions were founded during the late seventeenth and early eighteenth centuries. Different from almost all other cases, however, Jesuits *returned* to this missionary area as there was an important official effort in restoring the missions to their

²⁶The role of (male) Cistercian monasteries had been already examined by Andersen et al. (2017).

former historical glory. This restoration labor was carried on during the 1970s and was led by Swiss architect Hans Roth Merz, following the original plans of the (also Swiss) Jesuit missionary Martin Schmid (1694–1772). Today, the missions remain an important touristic site in Eastern Bolivia. The missions host a major biannual baroque and renaissance music festival, following the legacy of the first missionaries. The art, architecture and music produced in the Moxos/Chiquitos missions of Bolivia have been studied extensively by historians such as Limpías Ortiz (2008). Still, no paper in economics has scrutinized this fascinating case.

Another potentially compelling case of study historically is the *estancias* set by Jesuit missionaries in the Viceroyalty of Rio de la Plata in modern-day Argentina, Paraguay and Uruguay. Practically, the entire country of Uruguay was, at some point, a Jesuit *estancia* (Morales 2008). These cattle-raising, agricultural farms were established throughout the region and played an essential role in the development of flagship products, such as wine. Today, the regions of Cordoba and Mendoza in Argentina produce one of the best Malbec wines in the world—traces of which can be found in the rudimentary Jesuit industries. Some historians have documented this fact (Carbonari 2008). Yet again, there is very little scholarship examining this unique and important economic development.

Perhaps a harder case to trace historically is the missions built with less long-lasting materials in frontier areas such as the Casanare and Orinoco in the border area between Colombia and Venezuela (Mora 2004). Although almost nothing remains physically of the former missions, this does not mean that the culture brought by the missionaries was not passed along to the local population. As a matter of fact, many important cultural traditions such as music appear to have an important Jesuit influence. It is hard to explain the origin and persistence of the European harp in the local (*llanero joropo*) music without the Jesuit influence. Similarly, the Jesuit missions in the Araucania and Chiloe areas of Chile constituted important colonial frontier institutions (Uribe and Pinto 1986). Though they met with significant resistance from the local indigenous population, it is hard to think that nothing was transferred culturally from the European missionaries. Documenting

potential transfer, or lack thereof, seems complex, but promising for future research.

Outside Latin America, Jesuits and Franciscans established missions throughout the Spanish Empire, in areas that were later conquered by other foreign powers. There is, perhaps, no better example of this than the missions in California, Texas, Arizona and New Mexico in the current US territory. For instance, Bolton (1917) describes missions as “frontier institutions” in Spanish American colonies. Although the Spanish Empire is long gone from these areas, could there have been a long-lasting impact of these institutions in terms of urban structures, agricultural practices and cultural attitudes? These are questions we are currently studying along with coauthors. A very similar case is the one experienced during the evangelization of New France, nowadays in Canada. Only the role of reservations has been carefully documented in the literature (Feir 2016). Such important questions remain relatively understudied in the economics discipline.

Farther afield, but given the previous parallel with Asia, there exists a dearth of studies about the role of Jesuit missionaries in Japan. The stories of such missionaries have been depicted in literature and film in works such as “Silence.” As in China, historians have suggested the role missionaries had in transferring European technology to the country (Abé 2011; Ishizu et al. 2012). This case is intriguing, since Japan is now one of the most economically advanced nations in the world. Still, there is essentially no scholarship on this issue in economics. Could the efforts of the missionaries transcend their times? The case of conversion in the Philippines is also important, given the country’s former Spanish-colonial past and the rich presence of Jesuit missionaries. Some promising inroads have been made in Political Science by Dulay (in progress) in linking Catholic missions to state capacity and economic development. One last unique historical case study is the visits by the Jesuits to the Marianas and Marshall Islands in Micronesia (described historically by De la Rosa 2010). All of these cases attest to the true global nature of the missionary enterprises. Despite the recent wave of articles on the multifaceted impact of missions worldwide, there are still promising avenues for future research.

3.5 Conclusion

Religious missions were an important part of colonial enterprises worldwide. This chapter focuses on Latin America, a continent with one of the earliest and most extensive Catholic missionary presences. A burgeoning literature in economics has attempted to examine the possible long-lasting effects from these religious entities, focusing on their human capital and educational effects. As such, given their mandatory nature, missions can be understood as a primeval example of compulsory schooling. I stress here two emblematic cases, the first one by Mendicant orders in Mexico and the second by Jesuit missionaries in South America. These sets of missions constituted the most important evangelization enterprises in the continent. Differences aside, both cases reveal statistically significant and economically important impacts on education in the long run. In the latter case, the benefits extend from cognitive to non-cognitive skills and from literacy to numeracy. Other cases in Guatemala and Venezuela confirm the centrality of literacy investments for generating long-lasting effects.

The findings in Asia echo the results for Latin America. Missions had a significant impact on human capital, broadly understood, improving educational and health outcomes in India. They were also instrumental in the urban and economic development of China, through the establishment of new industrial firms and the diffusion of knowledge from Western to Confucian elites. An important attribute of this literature has been the focus on specific and credible mechanisms of transmission. Though not the focus of this chapter, the findings for Latin America and Asia resonate with the scholarship on African missions, discussed in detail in this book by Meier zu Selhausen. Overall, they point toward the importance of human capital investments for long-term economic development.

Encouragingly, despite the overwhelming body of evidence, there is still scope for further research in the missionary literature. There are unexplored cases in Latin America and North America, as well as the farthest reaches of the colonial empires in the South Pacific. Fairly little is known about the impact, or lack thereof, of convents and nuns—if

the effects observed for developing countries are also present in more advanced regions; or the role of local indigenous agency and resistance to colonial enterprises. These and other questions about the lessons for missions in economics and related social sciences could engage researchers in the coming future, guaranteeing that this literature remains a vibrant area of research.

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Part II

Colonial Legacies, Local Elites and Schooling



4

Universal Public Schooling in Colonial Korea and Taiwan

Sun Go and Ki-Joo Park

Abstract Japan colonized Taiwan in 1895, and Korea in 1905. After the Meiji Restoration of 1868, Japan had already provided compulsory elementary education following the American model of common schools. The colonial rulers also planted a similar system in Taiwan and Korea, but the universal spread of public schooling was retarded and sluggish in the colonies. The colonial public schools were mostly restricted to the elementary level, biased toward males, segregated by ethnicity and charged tuition fees. The development of universal public schooling was not identical in the two colonies. The growth and spread of public elementary schools happened earlier and faster in colonial

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Taiwan than in colonial Korea. The institutional difference in school finance was key to the differential development of mass schooling in the colonies.

Keywords Japanese colonialism · Korea · Taiwan · Public education · Common schools · Elite bias

JEL Classification Code N35 · O15 · I22 · I28

4.1 Introduction

Three small countries in Northeast Asia—Korea, Japan and Taiwan—are well known today for their advanced public education systems. A success in mass public education at the primary, secondary and tertiary levels was a key factor in the rapid economic growth of these three countries in the late twentieth century (Ranis 1995; Booth 1999). However, in the middle of the nineteenth century, when many countries in North America and Europe had already begun to develop mass public elementary education, the three countries lacked a system to educate all the children of school age. There were traditional schools, but they were mostly for children in the noble class. Though statistical evidence is limited, most ordinary people in the three countries were illiterate and had no schooling.

Japan was the first country among the ones that we consider to build a nationwide public education system, leading to social modernization and industrialization. After the Meiji Restoration of 1868, an American-style common school system (public education funded by local taxes) was imported and adapted to local conditions. The Japanese system grew fast and became de facto universal free public education. Japan launched compulsory elementary education at the turn of the century and continued to develop the secondary and higher education systems through the twentieth century (Duke 2008).

The situation in Korea and Taiwan was different. Though traditional schools had existed for a long time in both countries, and several

pioneers had established modern elementary and secondary schools even before the colonization of Taiwan in 1895 and Korea in 1905,¹ the beginning of the systemic expansion of mass schooling was delayed until the colonial period. Although the Japanese colonial administrations in Korea and Taiwan were quite similar to each other (Chen 1970), the two public schooling systems developed unevenly. In general, the development of mass public education was relatively more successful in Taiwan than in Korea. For example, the elementary-level enrollment rate rose earlier and faster in Taiwan.

In this chapter, we try to explain why colonial Taiwan had an advantage over colonial Korea in mass public schooling before 1945, when Japanese colonialism collapsed. We will first present a comparative overview of the growth of public education in colonial Korea and Taiwan. Then, we will discuss the factors that might have affected the differential development of public schooling in the colonies. We find that, among others, the school finance system stands out in explaining the uneven rise of public schooling in the two colonies. Taiwan had a fragmented system (meaning that schooling was funded by different levels of government) that was more effective for financing school costs, especially teachers' salaries. The Korean system was more dependent on local resources, which led to insufficient funding and the capture of common schooling by local elites.

4.2 The Rise of Public Elementary Schooling in Colonial Korea and Taiwan

4.2.1 The Beginning of Colonial Education in Korea and Taiwan

Various educational institutions existed in pre-colonial Korea and Taiwan. Many traditional schools, called *Sōdang* in Korea and *Shobō* in Taiwan, taught the Chinese classics to children from local elite families. Some of the graduates from the traditional schools went to upper-level

¹Korea became a protectorate of Japan in 1905 and was officially annexed into Japan in 1910.

institutions, mostly operated by the state, sometimes to prepare for the government official recruiting examination or to study classical literature at the advanced level. However, traditional education had long been limited to the children of the noble class and had never been expanded to the masses.

After their seaports were opened to international trade, Western missionaries built their own modern elementary, secondary and medical schools. Mission schools, located mostly in cities, introduced Western-style education to both pre-colonial Korea and Taiwan. Some indigenous elites also established modern independent schools as a part of the nationalistic empowerment movement before the colonial period. However, none of these early institutions came even close to the universal education of young children. Children from non-elite families barely attended these institutions.² They were operated independently and heavily dependent on revenue from tuition fees (Arnold 1908; Ion 1990, 1993).

The onset of mass public schooling came during the colonial period. It is worth noting that colonial education for indigenous children was mostly limited to the elementary level although Japan, the colonial ruler, was already expanding education at the secondary and tertiary levels within its borders. Secondary schooling in the colonies was not entirely unavailable, but mostly restricted to vocational education at a limited number of technical, agricultural and business middle schools. There were also some academic secondary and tertiary institutions for the Japanese immigrants in the colonies, but these schools accepted very few Koreans and Taiwanese.

At the elementary level, colonial public education for local children grew slowly but remarkably under Japanese rule. Universal public elementary schooling was only achieved toward the end of the colonial period in Taiwan, yet it was not achieved in Korea before independence.

²Modern schools established by missionaries and indigenous elites continued through the colonial period, and many of them are still in operation today. During the colonial period, these independent private schools played a significant role in educating Korean and Taiwanese people in the secondary and tertiary levels, where the provision of colonial public education was extremely limited. However, elementary education was overwhelmed by mass public schooling later in the colonial period.

Beyond the elementary level, Korean and Taiwanese children sometimes went to Japan to attend academic high schools and colleges that admitted colonial boys and girls who passed the entrance exam and who could afford the high cost of living in Japanese cities such as Tokyo or Kyoto.

Colonial public education was ethnically segregated. Children from Japanese immigrant families in the colonies enjoyed the full provision of elementary, secondary and higher education equivalent to what they would be able to receive in Japan. Public school for Taiwanese and Korean children was mostly limited to elementary education, and they attended different schools than Japanese students. At the elementary level, Japanese children were educated in the primary schools, while Korean and Taiwanese children were educated at the common schools. In both colonies, primary schools for the Japanese children were called *shōgakkō*. Common schools were called *kogakkō* in Taiwan, and *po'ong-hakkyo* in Korea. Later, the name of colonial common schools was changed to be the same as that of primary schools for Japanese children, *shōgakkō*, although education at the elementary and secondary level continued to be segregated between Japanese and indigenous children. In the late colonial period, during World War II, the name of primary schools changed again to *kungminhakkyo* in Korea and *kokumingakkō* in Taiwan, meaning “national schools.” During the colonial period, Taiwanese and Korean students fluent in Japanese were allowed to attend primary schools, but the actual numbers of Korean or Taiwanese pupils in primary schools were negligible.³ Schools for the Japanese had better facilities, better equipment and more highly qualified teachers.

At least at the elementary level, the Japanese colonizers wanted to install their own system, which had successfully developed since the Meiji Restoration of 1868. The original Japanese system was an adaptation of American common schooling, managed and financed locally and educating all the children of school age. However, the top-down installation of the localized system in the colonies was not as successful

³For convenience, we call the elementary schools for the Japanese children “primary schools,” and schools for Korean and Taiwanese children “common schools.”

as it had been in Meiji Japan, especially during the early colonial period. What it lacked most was funding.

4.2.2 The Rise of Common School Enrollment

The rise of common school enrollment rate in Korea and Taiwan in the colonial period is shown by the pattern depicted in Fig. 4.1. The initial growth was slow, but there were two takeoffs. The expansion of public schooling was paused for a while between the two takeoffs. The enrollment rates are calculated excluding Japanese children in the colonies attending primary schools. For the sake of the international comparison, enrollments were divided by the number of children aged 5–14. Taiwanese children entered common school at the age of 7 and were enrolled for six years. Korean children, at first, entered common school at the age of 8 and then at the age of 6 after 1922. The usual duration of common schooling in Korea was four years, although after

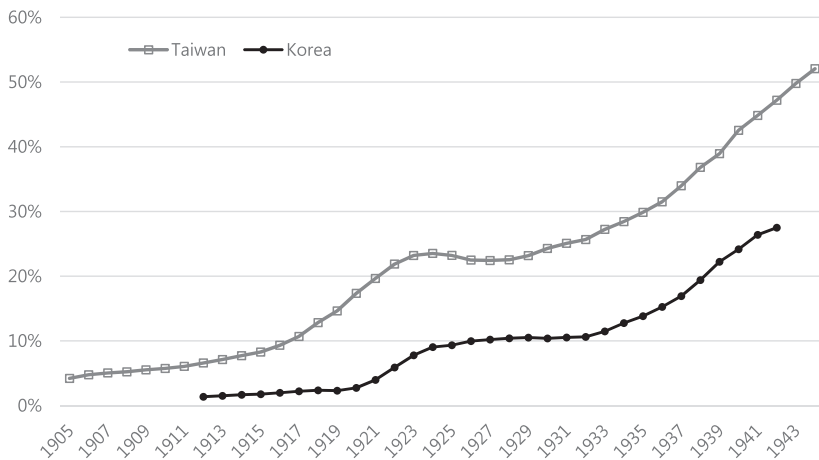


Fig. 4.1 Common school enrollment rates in Japanese colonies (Source The number of common school pupils is from *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*. The population statistics are from *Chōsen Sōtokufu Tōkei Nenpō* and *Taiwan Sōtokufu Tōkeisho*. Note The enrollment rates are the number of common school pupils divided by the number of Korean or Taiwanese children aged 5–14)

1922 some schools taught pupils for six years. Hence, the enrollment rates reported here are lower than the official colonial statistics using the exact size of the school population as a denominator.

The enrollment rate of Taiwan was always higher than that of Korea during the colonial period. A gap of about ten percentage points persisted between the two colonies from the early 1920s to the end of colonial rule in 1945. The two enrollment rates mostly increased during the two takeoff periods, one in the early 1920s and another in the mid-1930s. The timing of the takeoff is not well explained by any education-related legislation. The Taiwanese enrollment rate began to grow in the mid-1910s, while the first legislation related to public education was in 1895. The next legislation was in 1919 and was significantly revised in 1922 and 1941. The first education legislation in colonial Korea was in 1911, followed by reforms in 1920, 1938, 1941, and 1943. The first takeoff of common schooling in Korea in the early 1920s was accompanied by the education reform of 1920. Both the first reform and expansion of schooling were direct consequences of the March 1st Movement of 1919, a nationwide rally that lasted about three months demanding the independence of Korea from Japanese rule. The peaceful rally did not lead to independence, but was effective in diverting Japanese colonial rule from the military dominance to more delicate governance emphasizing assimilation and Japanization.

Colonial public education heavily favored boys. The two booms of colonial schooling, as well as the short pause between them, were mostly driven by male schooling. Figure 4.2 reports the enrollment rates by gender. The pattern of growth of male enrollment rates in both colonies looks identical to the aggregate enrollment rate movement in Fig. 4.1. Taiwan's male enrollment rate in common schools reached 60% in the late colonial period, as high as in Japan. Korea's common-school male enrollment rate rose significantly during the two takeoff periods and increased to almost 40% in the 1940s. However, the expansion of female schooling was much slower and linear compared to that of male children. The gap between male and female enrollment rates was consistently large in both colonies during the entire colonial period. Girls' schooling also expanded later, but the enrollment-rate difference between male and female was still significant in the 1940s. In

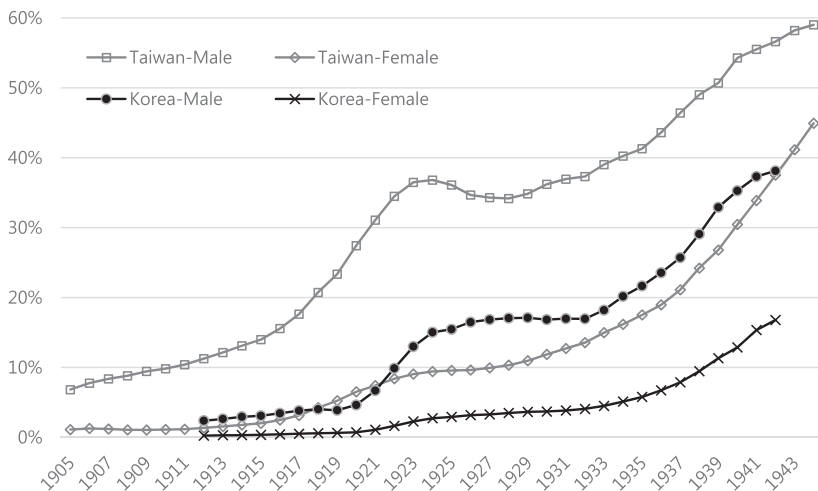


Fig. 4.2 Common school enrollment rates by gender (Source The number of common school pupils is from *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*. Population statistics are from *Chōsen Sōtokufu Tōkei Nenpō* and *Taiwan Sōtokufu Tōkeisho*. Note Enrollment rates are the number of common school pupils divided by the number of Korean or Taiwanese children aged 5–14)

Taiwan, girls’ common schooling began to rise in the late 1920s. The growth of female schooling was more delayed in Korea, until the late 1930s. The gender gap in the colonies was based on the strong tradition of Confucianism that discouraged women’s education and employment.

Although Taiwan was colonized by Japan at least ten years earlier than Korea, this ten-year gap is not sufficient to account for Korea’s lag behind Taiwan in the expansion of public elementary education.⁴ The rise of common schooling in Korea since the year of colonization was retarded compared with that of Taiwan. In the early colonial period, Korean enrollment rates were lower than Taiwanese ones. Comparing enrollment rates at the n-th year following colonization is informative: the Korean rates slightly exceed the Taiwanese rates in the nineteenth year after colonization (1914 for Taiwan and 1924 for Korea), as Korea’s

⁴The annexation of Korea into Japan was in 1910, but here, we count the years since colonization in Korea from 1905, when Korea became Japan’s protectorate. Japan colonized Taiwan in 1895.

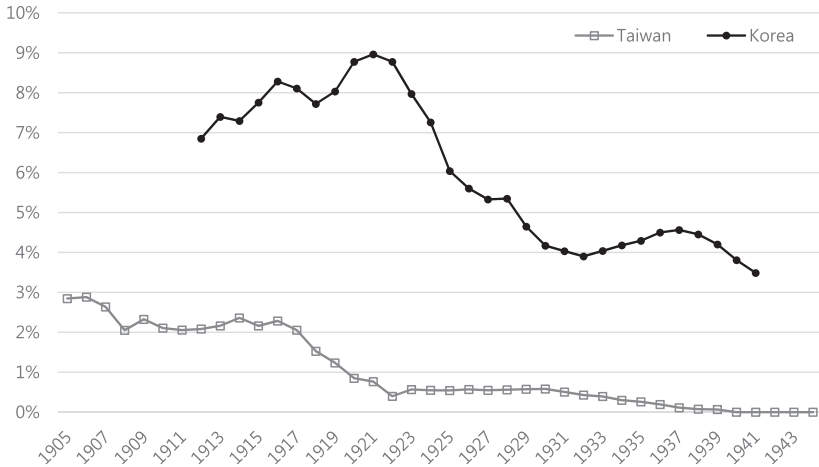


Fig. 4.3 Private school enrollment rates (Source The pupils are from *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*. The population statistics are from *Chōsen Sōtokufu Tōkei Nenpō* and *Taiwan Sōtokufu Tōkeisho*. Note The private school enrollment rates are the number of *Sōdang* (or *Shobō* in Taiwan) pupils divided by the number of Korean or Taiwanese children aged 5–14. There were also several independent or private missionary schools, but the overall enrollments in such schools were negligibly small)

first enrollment takeoff happened earlier than that of Taiwan. The common school enrollment began to grow fast in Taiwan after about twenty years since colonization. The takeoff period in Taiwan lasted longer than that of Korea, and the gap between the common school enrollment rates of the two colonies widened until Korea's second takeoff began in the 1930s. The lag in attaining a 30% enrollment rate increased to 17 years (1939 in Korea versus 1922 in Taiwan). In the post-colonial period, Korea finally caught up with Taiwan in the common school enrollment rate. But it is still interesting to explore why this catching up did not happen earlier.

Private schooling was more popular in Korea than in Taiwan during the early colonial period. Private school enrollment rates in Korea and Taiwan are depicted in Fig. 4.3. Private schools in Korea included both traditional schools called *Sōdang* and modern independent institutions operated by Western missionaries or Korean elites, though the

enrollment rate of non-traditional schools was only about 1% of the population aged 5–14. This was similar in Taiwan. Taiwanese statistics only include the Taiwanese traditional schools called *Shobō*, as the share of other private or independent schools was negligible. In 1910, when Korea was officially annexed by Japan, the private school enrollment rate was about 7% of children aged 5–14. The private school enrollment rate in Korea increased to almost 9% in 1921 and then decreased to less than 5%. Most private school pupils, especially in traditional schools like *Sōdang* and *Shobō*, were male, except a few modern-type schools for girls. Traditional schools were a nationalistic substitute for colonial common schools in the early colonial period. However, traditional private schools such as *Sōdang* and *Shobō* became a supplement to official common schools later. The traditional private schools taught Chinese classics that were not included in the common school curriculum. Teaching Chinese classics could help colonial rule, as they emphasized allegiance to the ruler. Many boys from the upper class attended both public common schools and local traditional schools.⁵

4.2.3 School Quality

Public elementary schooling in the two colonies was expanded at the cost of reducing quality. A fast rise in the enrollment rate had always accompanied a fast increase in the average school and class size. Figures 4.4 and 4.5 show the number of common school pupils per school and per class, respectively. In both colonies, the number of common school pupils per school continued to increase except in the 1920s. Similarly, in Taiwan as well as Korea, the colonial government actively

⁵Hence, the aggregation of the private school and public school enrollment rates does not show a correct nationwide enrollment rate, as it double-counts pupils who attended both. Furthermore, the private school enrollment rate of colonial Korea was at most 9% at its peak. Before 1920, when traditional school might have been a substitute for public elementary education, the sum of private school and public school enrollment rates was around 10%, which was still lower than the common school enrollment rate of Taiwan in the late 1910s. The private school enrollment rate in Korea precipitated in the 1920s, but the rise of the common school enrollment rate stagnated after 1925. *Sōdang* in Korea, and also *Shobō* in Taiwan, was an elite institution in nature. Thus, their role in explaining the universal spread of public education is limited.

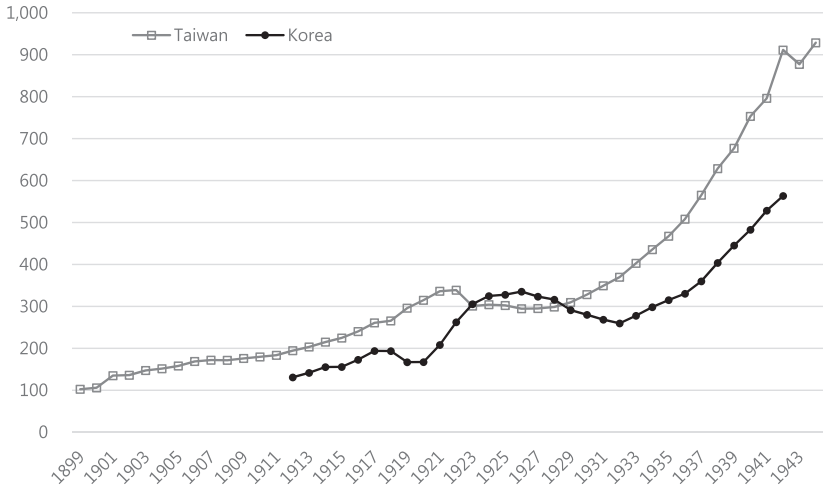


Fig. 4.4 The number of common school pupils per school (Source *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*)

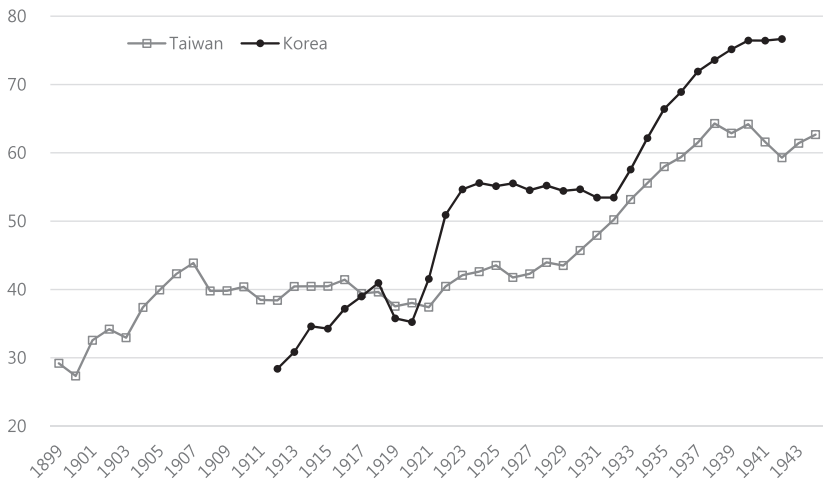


Fig. 4.5 The number of common school pupils per teacher (Source *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*)

expanded common schooling by establishing new common schools in rural areas. In Taiwan, local administration, such as cities or districts, had the authority to build a common school, and the colonial government supported the local governments by providing financial support. In Korea, the county was the basic unit of common school administration. In the 1920s, the colonial government of Korea started a campaign to build one common school for every three districts. Later, this was further developed into a campaign to have at least one school in every district. After the end of the active school building campaigns, the size of schools increased fast. Common schools in Taiwan were more crowded in the 1930s and 1940s, where the enrollment rate was also higher.

The change in the average class size over time in Fig. 4.5 also shows a trend similar to that of school size. Except for the early rise, the number of common school pupils per teacher was constant at around 40 in Taiwan, and 54 in Korea; yet, since the 1920s, in Taiwan, and the 1930s in Korea, the average class size increased rapidly. In the late colonial period, a common school teacher taught more than 60 students in Taiwan and 75 students in Korea. The average school size was greater in Taiwan, but the average size of the common school class was larger in Korea.

Another issue worth addressing is expenditure. The following figures are in nominal terms, i.e., not adjusted for inflation. The expenditure per pupil related to colonial elementary public education decreased in both colonies during the period that we study. The decline in per pupil expenditure was not only limited to common schools, but also happened in primary schools. In 1922 Taiwan, the primary school expenditure per pupil was 75.84 yen, and the common school expenditure per pupil was 33.04 yen. They fell to 41.69 yen and 19.87 yen by 1937, respectively. During the same period, in Korea, the primary school expenditure per pupil fell from 71.75 yen to 54.49 yen, and the common school expenditure per pupil fell from 57.60 yen to 24.58 yen. There, statistics only include current expenditures, excluding temporary spending for school building construction. The overall expenditure level had been always higher in Korea than in Taiwan, without considering possible differences in the price levels. Primary school expenditure per pupil was consistently higher in Korea than in Taiwan, but common

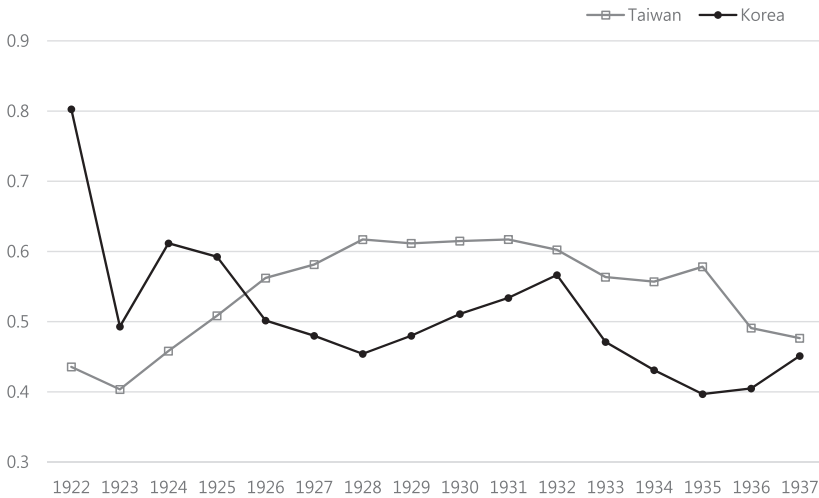


Fig. 4.6 The ratio between common and primary school expenditure per pupil (Source *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*)

school expenditures per pupil in the colonies converged to around 20–25 yen through the 1930s. The remarkable drop in the early growing period could have been a result of enrollment expansion, not necessarily accompanying the decline of school quality. The economies of scale could have reduced per pupil expenditure as more children entered public schools.

The limitations on the supply of common schooling, already implicit in the figures showing schools and teachers per pupil, are underlined by the low expenditures per pupil in common schools relative to the expenditures in public schools attended by Japanese children. In 1923 Taiwan, as shown in Fig. 4.6, the common school expenditure per pupil was about 40% of the primary school expenditure per pupil, but continued to increase reaching 60% in 1928. The relative size of per pupil expenditure in Taiwanese common schools continued to be around 60% of that of Japanese elementary schools up to the mid-1930s, though the common school enrollment rate was increasing at the same time. In Korea, in the early 1920s, the ratio between common school expenditure per pupil and public school expenditure per pupil was greater than

50%, higher than that of Taiwan. However, after 1926, the Korean ratio continued to fluctuate around 50%. This is consistent with the fact that the overall expenditure level had been always higher in Korea than in Taiwan, and that the common school expenditures of Korea and Taiwan converged toward each other through the colonial period.

4.2.4 The Supply of Common Schooling

The combination of a limited rise in common school enrollment rates with the trends in inputs per pupil implies that the supply of schools and teachers per child of prime school age (5–14) did not increase much during the period under study. Granted, in both Korea and Taiwan, the number of common schools per 1000 school-age children increased in the early colonial period. Yet, in Taiwan, after reaching about 0.78 common schools per 1000 school-age children, the expansion of common school supply stopped. The number of common schools per school-age children decreased slowly through the 1920s and 1930s. The situation in Korea was different. The supply of common schools, divided by the school-age population, consistently increased during the colonial period. There were at least two reasons for the differential trend in common school supply between the two colonies. First, the area of Taiwan (36,193 km²) was only 16.5% of the area covered by colonial Korea, including both South and North Korea today (219,155 km²). Thus, the spread of common schools to all the rural areas could have been achieved earlier in relatively small Taiwan than in large Korea. Second, the overall level of school supply was still relatively low in Korea, even in the late colonial period. In the late 1930s, the supply of common schools in Korea led to around 0.5 schools per 1000 school-age children, which had already been achieved by Taiwan twenty years earlier in the late 1910s.

The overtime trends of the number of common school teachers in the two colonies were similar to each other, although the Korean level was much lower than that of Taiwan. The supply of teachers divided by school-age population first increased to the early 1920s, staggered around till the mid-1930s and resumed to grow again after then.

The overall level of teacher supply was far greater in Taiwan than in Korea. The teacher supply per school-age child in Taiwan dramatically increased in the late 1910s and late 1930s, when the common school enrollment rate also increased fast. The increase in teacher supply in Korea was much slower. In 1939, there were three common school teachers per 1000 school-age children in Korea, which Taiwan had already achieved more than twenty years earlier.

4.2.5 School Finance

The systems of common school finance in Taiwan and Korea differed from each other somewhat, even though both systems were installed by the colonial government. Similarly to their own country, the Japanese colonizers wanted to build a locally financed common school system. However, unlike the Japanese localities allegiant to the central government, the local communities in Korea and Taiwan were poor and uncooperative with the colonial rulers at the beginning of colonization. Local tax revenue for common schools was insufficient, so common schools depended heavily on the subsidies from provincial or central government, as well as tuition fees paid by the parents.

In colonial Korea, common school revenue and expenditures were managed by the school expenditure account of each county, called *kun*.⁶ Each county consisted of several districts called *myŏn*, but the district government did not have the financial authority to manage and operate local schools independently. Before 1919, few rural districts had a common school, and it was not until the 1930s that every district had at least one common school in their town, after the success of the colonial government's campaign of "One school per district." On average, about 35.5% of the school expenditure account revenue came from subsidies from the provincial government called *to*, 26.7% from county taxes, 14.7% from tuition fees and 7.3% from local

⁶The county school expense account was only for the finance of common schools in the county. Primary schools for Japanese children in Korea were financed by the association of primary schools, which was subsidized by the government.

donations. The remaining 15.8% of revenue was the subsidy from the central colonial government, financed by the school-purpose surtax on the land tax, which was originally a county tax. The tax and subsidy revenue was spent for current expenditure related to common schools, the majority of which was salary of teachers and staff. Local donations were mostly used to construct a new school building and frequently demanded from local residents by the government. The Korean counties during the colonial period were allowed to determine their own county school tax rate, which was a surtax on the county household tax. The determination of the school county tax rate required a review of the county school committee, whose members were typically large landowners representing each district in the county. Thus, in colonial Korea, local elites somewhat controlled the common school system. Go and Park (2015) argue that local Korean elites made common schools become an elite institution. Instead of paying sufficient taxes to educate all the local school-age children, Korean local elites charged tuition fees to the parents of pupils, which prevented poor children from attending school. Moreover, Korean common schools in the colonial period reviewed and interviewed applicants for the admission to the school. Not all applicants passed the review process, and only a portion of applicants was admitted.

The Taiwanese school finance system was different from that of Korea. Rather than establishing a special school account at the local level, school expenditure was split. Each level of the government took charge of part of it. In the case of common schools, the province (*shu* or *cho*) paid teachers' salaries, and other costs of operation were the responsibility of the district (*shi*, *gai*, and *jo*). The cost of constructing a new school building was also the responsibility of the district, which had the authority to establish a local common school contingent on provincial approval. The central government barely paid any direct costs of common schools. Because the majority of the current expenditure of common schools was the salary of teachers, the share of the province in common school finance was relatively important in Taiwan. In 1922, about 60% of the common school current expenditure was paid by the provincial governments. This increased to 75% in 1937.

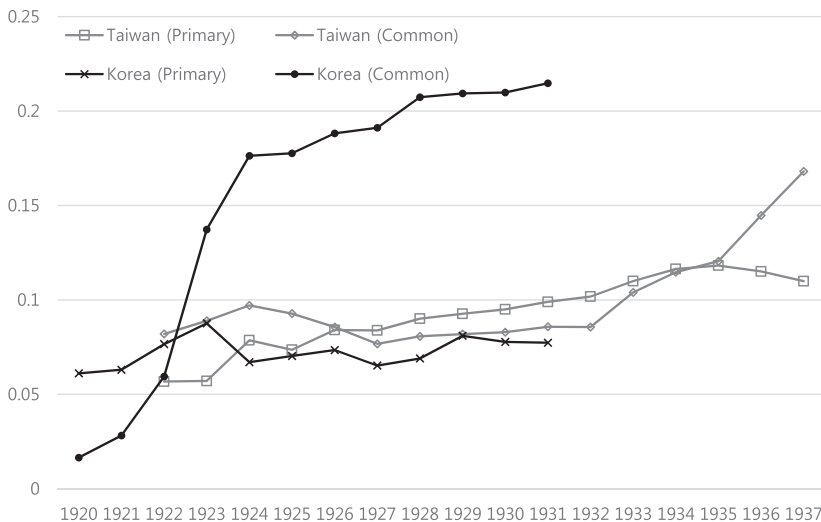


Fig. 4.7 Shares of tuition fees in total school expenditure (Source *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*)

The dependence on tuition fees in common school finance also differed between Korea and Taiwan. The Korean system of a unified school expenditure account lacked tax and subsidy revenue compared to the fragmented school finance system in Taiwan. An immediate consequence of more limited public resources was a greater reliance on tuition fees. In Korea, the average level of common school tuition fees was far above that of Taiwan. In 1930, the common school tuition fee per pupil was equal to 6.83 yen, although it was only 2.19 yen in Taiwan. The Korean tuition fee per pupil in common schools was 40% of that being paid in primary schools by Japanese students. In Taiwan, common school tuition fees were 40% lower than primary school tuition fees. Tuition fees were held almost constant after 1925.

The share of tuition fees in school funding was larger in the Korean common school education system, as shown in Fig. 4.7. During the 1920s and 1930s, around 20% of total expenditure was financed

by tuition revenues. This was almost twice the same share in Taiwan, though the latter grew after 1935. The share of tuition fees in total funding for Japanese primary school students was similar to that of the Taiwanese common schools.

A high level of tuition fees for primary schools was related to both the high quality of education in those schools and the greater affluence of Japanese parents. But the share of tuition fees in total school funding in primary schools, both in Korea and Taiwan, was not larger than in common schools, as the financial support of the government to the primary schools was greater than common schools received. Though Korean common schools depended on tuition fees more than Taiwanese common schools, the available revenue from tuition fees did not lead to better education. During the colonial period, the average class size of Korean common schools was larger than that of Taiwanese common schools, as we found earlier in Fig. 4.5, at least after 1920.

Overall, the countrywide investment in common schooling was relatively more extensive in Taiwan than in Korea. Figure 4.8 depicts the common school support ratios of colonial Korea and Taiwan during the 1920s and 1930s. The support ratio, here defined by the ratio of common school expenditure per school-age child to GDP per capita,⁷ shows how much of the entire available public and private resources were spent on educating school-age children. During the 1920s and 1930s, the support ratio of Taiwanese common schools fluctuated around 4%, without a trend. The Korean support ratio also showed a trendless movement around 3.5% during the same period. This is a level similar to that of Bangladesh, India and Pakistan in the mid-1980s.⁸

⁷The school age in each colony was assumed to be 5–14.

⁸In the mid-1980s, the support ratio was 0.034 in Bangladesh, 0.04 in Pakistan and 0.054 in India. In the same period, the Korean support ratio was 12.7, and the OECD average of 1988 was 17.3 (Lindert 2003, 335).

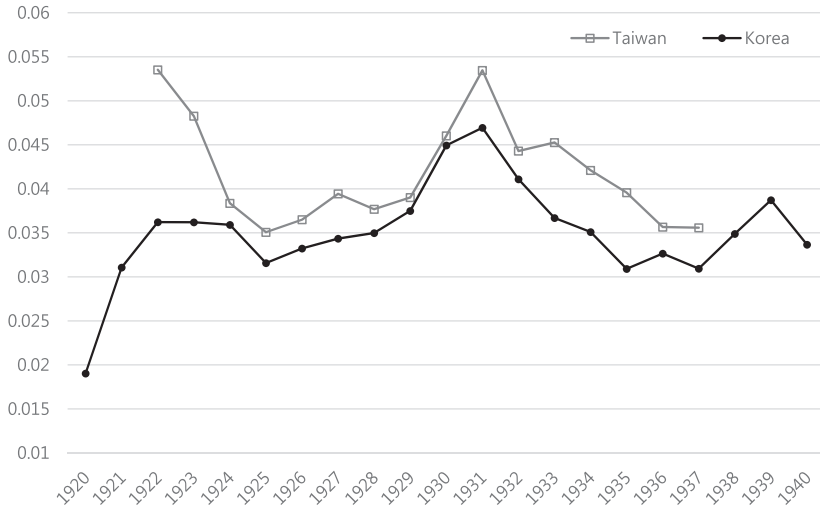


Fig. 4.8 Common school support ratios (Source School expenditure statistics are from *Chōsen Shogakkō Ichiran* and *Taiwan Sōtokufu Gakuji Nenpō*. The population statistics are from *Chōsen Sōtokufu Tōkei Nenpō* and *Taiwan Sōtokufu Tōkeisho*. GDP estimates are from Kim et al. [2018] and Mizoguchi [2008]. Note The support ratio is calculated by dividing common school expenditure per Korean or Taiwanese children aged 5–14 by GDP per capita)

4.3 How Did Taiwan Outperform Korea in Colonial Public Elementary Education?

Then, how could colonial Taiwan do better in educating their children through common schools than colonial Korea? In general, the overall governance structures of the two colonies by Japan were quite similar. The timings of education-related legislation in two colonies were parallel. Sometimes, legislation in Taiwan was even introduced later than in Korea. Education-related legislation was not critical to the difference in the development of common schooling in the colonies.

Scholarly literature has tried to explain Taiwan's lead in colonial education by citing the social conditions favorable for importing the Japanese system (Oh 2000, 2006). One important aspect in both colonies was the spread of traditional schooling. Traditional schooling

in Korean *sōdang* and Taiwanese *shobō* had never been universal, but was generally more popular in Korea than in Taiwan. As shown in Fig. 4.3, right after being colonized, less than 3% of children aged 5–14 enrolled in traditional school in Taiwan, in contrast to 7% in Korea. Traditional schooling survived in Korea until the end of the colonial period, although it had almost disappeared in Taiwan in the 1920s. Despite their small share in total enrollment, traditional schools somewhat competed with modern common schools at the beginning of the period under study, allowing the children of elite families to avoid attending common school. However, the curriculum of the traditional schools was confined to the Confucian classics, which was not providing the skills and knowledge demanded by the growing modern economy. At the same time, the colonial government found that teaching Confucian values, such as allegiance and obedience, could be beneficial for colonial governance. Thus, especially in Korea, the colonial government made traditional schools a supplement to modern-type common schools rather than eradicating them. In the middle of the colonial period, many students of the traditional schools in colonial Korea also attended modern common schools.

Hence, the difference in the popularity of traditional education between the colonies is not enough to explain the differential growth of common schools in Korea and Taiwan. Then, why did traditional schools persist longer in colonial Korea? One reason was that the land area of Korea was far greater than that of Taiwan, so it took more time for the Koreans to build modern-type common schools in each of the rural towns. The greater persistence of traditional schools was possibly a result of the slower expansion of modern public education, rather than a cause of it.

Another frequently noted difference between colonial Korea and Taiwan was the overall degree of subordination (Tsurumi 1977). Historians have long argued that, in general, the Taiwanese people were more collaborative with Japanese colonial rule than the Koreans. Before colonization Korea had been an independent country. Taiwanese history was different. After a long aboriginal history, Taiwan was first

occupied by the Dutch East India Company in 1624, to become a prefecture of the Fujian province of the Qing Empire in 1683. Thereafter, many Chinese people migrated into Taiwan and became the majority of the population. When Taiwan became a Japanese colony in 1895, the Chinese residents could choose whether to stay in Taiwan or move to Mainland China. These different historical backgrounds became the ground for the unequal attitudes of the Koreans and the Taiwanese toward Japanese colonial rule. This view is connected to the discriminatory response of the Japanese colonial government, which was more oppressive to the Koreans and more benign to the Taiwanese.

Given this view of Japanese colonial rule as being less discriminatory against Taiwan than Korea, the link from the overall tone of colonial rule to education policy does not look implausible. Public education was never a gift from colonial rulers to the docile population. Public school programs were designed to help colonial rule, teaching pupils to be second-class citizens of the Japanese empire. Thus, a reasonable response to more hostile colonized populations was a more active expansion of the colonial education system. This was, at least partly, true. The nationwide independence movement in 1919 made the colonial government campaign of public education more active. Moreover, the cost of public education was paid by local tax revenues and tuition fees. The colonial government was only interested in expanding elementary-level public education, which was critical for an ideological apparatus. Secondary and tertiary education barely grew in either colony. It should be also noted that the Taiwanese also fought for their independence. In the early colonial period in Taiwan, the resistance movement was frequent and active. Similarly, in Korea, most of the independence movement had moved outside of Korea since the 1920s, and the colonial rule developed under at least some collaboration of the Koreans.

On the demand side, it is also challenging to find a clear systemic difference between the colonies. The most important sector in both colonial Korea and Taiwan was agriculture. The business and service industries rose mostly in the cities, but urbanization had been limited

to the colonial capitals, Seoul and Taipei, and other major ports.⁹ In Korea, the manufacturing industry grew in the Northern area, but it happened only during the late colonial period. The economic growth since the early colonial period in the colonies was also quite similar to each other, implying that the Taiwanese lead in colonial common schooling was not a result of faster economic growth. Neither the trend of real nor nominal GDP per capita resembled the changes in the common school enrollment rate. The unskilled wage rates in the two colonies were also similar, representing little difference in the affordability of mass schooling. From the 1910s to the 1940s, the average daily wages of agricultural workers in Taiwan and of the unskilled labor in the North and South Korea were almost identical, moving together over time. There was almost no difference between the purchasing powers of the Korean and Taiwanese commoners (Mizoguchi 2008; Kim et al. 2018).

A remaining candidate to explain the differential growth of public elementary education is the system of school finance. The Korean and Taiwanese systems of common school finance had both similarities and differences. The two systems were similar in that local funding was significant for the construction of school buildings. Local government budgets were generally not enough to cover construction costs, especially in rural areas, and a significant portion of the cost was financed by the donations of local indigenous elites. Existing literature has noticed this as an active engagement and contribution made by traditional local elites, who were usually descendants of pre-colonial landowners in the upper class (Oh 2000; Hong and Paik 2018).

A clear difference between the two school finance systems is the revenue structure for the regular school expenditure, especially teachers' salaries. The Korean system was based on the unified school expenditure account at the county level. The Taiwanese system was more fragmented.

⁹Taiwan was slightly more urbanized in the early colonial period, probably due to the smaller size. However, the overall progress of urbanization was moderate, and the urbanization rates were similar to each other in the late colonial period. In 1940, the share of population in cities was mere 10.8% in colonial Korea (Chōsen Sōtokufu Tōkei Nenpō) and 12.8% in Taiwan (Spear 1974).

Teachers' salaries were covered by the province, and other expenses were covered by the district budget. Moreover, the Korean and Taiwanese systems differed in their reliance on tuition fees. The share of tuition fees income in common school expenditure was more than twice in Korea with respect to Taiwan. Instead of tuition fees, Taiwanese districts received better financial support from the provincial government, which became almost three-fourth of the entire school budget in the late colonial period. In Korea, the subsidy from the provincial and central government to the common school account was less than 50%.

The Taiwanese system seemingly helped supply schools and teachers more effectively than Korea. Nonetheless, the systemic difference in school finance also led to different roles of local elites in the operation of local common schools. In Korea, local elites were more closely engaged with school finances through the county school committees, which reviewed and advised the county school tax rate. Korean local elites altered their common schools into elite institutions charging heavy tuition fees. Also, they introduced a screening process for the common school admissions, and only those who passed the review of the admission committee were admitted to the common schools (Go and Park 2015). But there was no such process for entering common schools in Taiwan. Under the fragmented system, Taiwanese elites did not have an effective way to dominate local common schools.

4.4 Conclusions

During the colonial period under Japanese rule, both Korea and Taiwan experienced a remarkable change in their economies, societies and cultures. The rise of mass public schooling at the elementary level in the two Japanese colonies was notable, compared with the experience of other colonies in Southeast Asia, South Asia and Africa (Chaudhary 2009; Frankema 2012, 2013; Chaudhary and Garg 2015). The development of public education in Korea and Taiwan continued after independence, contributing to the dramatic economic growth that the countries experienced in the late twentieth century.

However, universal public schooling was never achieved rapidly during colonization. Colonial education was ethnically segregated, gender biased and limited to the elementary level through the common schools. The spread of the latter was slow and sporadic and was not as fast as it had been in Meiji Japan. Among the Japanese colonies, Taiwan was better than the others in the development of mass public schooling. In the late colonial period, Taiwan achieved almost full enrollment at the elementary level, at least for boys of school age. Consequently, the compulsory elementary schooling of children aged 6–12 was officially implemented in 1943. At the same time, colonial Korea fell behind Taiwan in common schooling. The public school enrollment rate at the elementary level in Korea during the 1940s was still around 30% of children aged 5–14. Compulsory schooling had never been introduced in Korea before the independence achieved in 1945. The rise of secondary and higher education was also delayed until the post-colonial period, in both Korea and Taiwan.

Previous literature has explained the Taiwanese lead in colonial education over Korea by referring to the relatively more collaborative attitude of the Taiwanese people or to the relatively higher popularity of traditional schooling in Korea. Besides these factors, we propose that the institutional difference in common school finance was key to the differential growth of mass schooling in the two colonies. The fragmented system of school finance in Taiwan was effective in raising sufficient revenue, and common schools could expand the colony as the responsibility of paying teachers' salaries was taken by more affluent provincial governments rather than district governments. The Korean system was based on the unified school expenditure account at the county level, and the school account consistently lacked tax and subsidy revenues. Thus, common school funding became more dependent on tuition fees in colonial Korea. Also, in the localized school finance system, local elites were allowed to be actively engaged in local school finance and administration. In such situation, Korean local elites reduced their own tax payments for local schools and diverted common schools into local elite institutions that charged a significant level of tuition fees. In Korea, even if both the colonial rulers and nationalists wanted to develop universal public education, the institutional settings allowed local elitism to fetter the growth of mass schooling.

In South Korea, independence brought significant changes in the supply of and demand for public education. The Japanese left Korea, and many schools previously provided for the Japanese children in the colony became schools for Korean children. The shortage of teachers led to the introduction of short-term teacher training programs. On the demand side, the land reform reduced inequality and raised the income level of peasant households. More important were the school finance reforms that abolished tuition fees for public elementary schooling and made the central government take over the responsibility of paying teachers' salaries (McGinn et al. 1980). Universal elementary schooling in South Korea was finally achieved in the late 1950s, after the reforms.

Had Korea and Taiwan not been colonized, would they have achieved a progress in public elementary schooling similar to, or better than, what they experienced under colonial rule? The little progress before the colonial period and the fast growth after independence implies that a significant progress may have been achieved even without colonization, conditional on both countries passing reforms concerning their social structures, land distribution and school finance systems. Had the colonial rule been absent, would Taiwan still have outperformed Korea in the early expansion of public elementary education? A possible answer to this question depends on the roots of the institutional difference in the two colonies' public school finance systems. Was the difference caused by colonial rule? Was it rooted in the natural, social or economic differences between Taiwan and Korea? Or was it just triggered by a random event? Identifying the root of the difference in school finance systems remains an aim of future research.

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5

Development for the Center and Civilization for the Periphery: The First Globalization, Racial Exclusion and Regional School Development in Colombia

Irina España-Eljaiek

Abstract This chapter shows how the persistence of racism prevented some Colombian regions from transferring the benefits of the first globalization to better performance in education. Colombian education realized a slow but consistent rise after the second half of the nineteenth century and through the mid-twentieth century. However, subnational differences in education performance tended to increase during this period. Using quantitative and qualitative evidence, the chapter shows that the export boom had a differential impact on subnational education because of the reproduction of racism. Specifically, in those regions with a larger proportion of non-white population, national and subnational elites implemented racist educational projects that did not favor the transfer of the benefits of the first globalization to better levels of education for the non-white majority.

Keywords Racial exclusion · First globalization · Tropical periphery · Extractivism

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5.1 Introduction

The Latin American continent experienced a series of political, social and economic changes during the nineteenth century, the consequences of which are still felt to the present day. Free of the colonial powers, the new republics looked for progress in a global setting of liberalism, greater industrial production and international trade.

As representative of a new Latin American republic, Colombia was in search of this progress. Although with more setbacks than advances, this country showed a relative expansion particularly evident in the diversification of exports. For the first time in Colombian history, gold ceased to be the main export commodity, being replaced by tobacco (1865–1870), cinchona bark (1879–1883) and coffee (after 1888).¹

This export-led growth also coincided with the rise of clear regional gaps in education. Ramírez and Salazar (2010) and Helg (1987) show that the regional gaps in education were not significant among the different Colombian departments during the first half of the nineteenth century. Nonetheless, this pattern would change after 1850 when the gaps emerged and intensified as the century went on. Departments such as Antioquia, Valle and Caldas demonstrated development while departments such as Bolívar and Magdalena began a slower evolution (see Illustration 5.1 for an overview of Colombian departments).

The historiography explains these regional differences as the outcome of subnational disparities in resources (e.g., Fuentes-Vásquez 2019; Ramírez and Salazar 2010; Helg 1987). That is, more economic income favored the educational performance of some regions over others. The export sector was an important source of income for different Colombian regions after 1850. Therefore, the greater levels of external trade might improve economic growth and the quality of life in export-based areas (Ocampo 2010). Alternative explanations distance themselves from this economic argument; somehow, regions with better socioeconomic performance implemented economic institutions oriented to investment and development (García-Jimeno and Robinson 2010).

¹New zones of export production also emerged (Ocampo and Colmenares 2017; Ocampo 2010).

However, the different explanations cannot fully elucidate the gaps in regional education. Literature in economic history has hidden a historical reality of the new Latin American nations with impact on subnational socioeconomic performance: the racialization of their territories during the consolidation of the republican period. This racialization consisted of implementing implicit racial orders in favor of whiter elites² by relating race and territories (Appelbaum 2017). Such particularity is a Spanish-colonial legacy; however, between 1850 and 1930, the Latin American elite adapted racial exclusion to the new republican context. For example, the elite used international scientific discourses about phenotypical characteristics of people, climate, and landscape to socially construct the regions and implement geo-racial determinism (McGraw 2007; Orlove 1993).

Colombia exemplifies this phenomenon. Throughout the nineteenth century, geography, economy and race were criteria for organizing and governing the new republic, which led to the creation of new regional identities, stereotypes, problems, solutions and consequences (Appelbaum 2017). In this racial order, the central Andean-white elites dominated, designed and implemented their project of nation. They assumed this role of nation designers because they were culturally related to whiteness, civilization and progress. In contrast, the regions of Caribe, Pacific, and the National Territories³ fell into the category of peripheral tropical areas (Múnera 2005; Wade 1991). Historically, peripheral areas are inhabited by indigenous tribes and the descendants of formerly enslaved population. In the implicit republican geo-racial order, they received the stereotypes of being backward, lazy, savage people, who should be civilized and integrated into the nation via whitening-civilizing processes (Pohl-Valero 2016; Leal and Langebaek 2010; Wade 1991; Gutierrez de Pineda 1975) (Illustration 5.1).

Geo-racial determinism had consequences on the socioeconomic performance of regions (España Eljaiek 2017; Wade 1991). Central-Andean areas demonstrate better performance than the peripheral

²That is, white people or predominantly white in descent.

³The National Territories were mainly tropical-isolated areas (see Illustration 5.1).

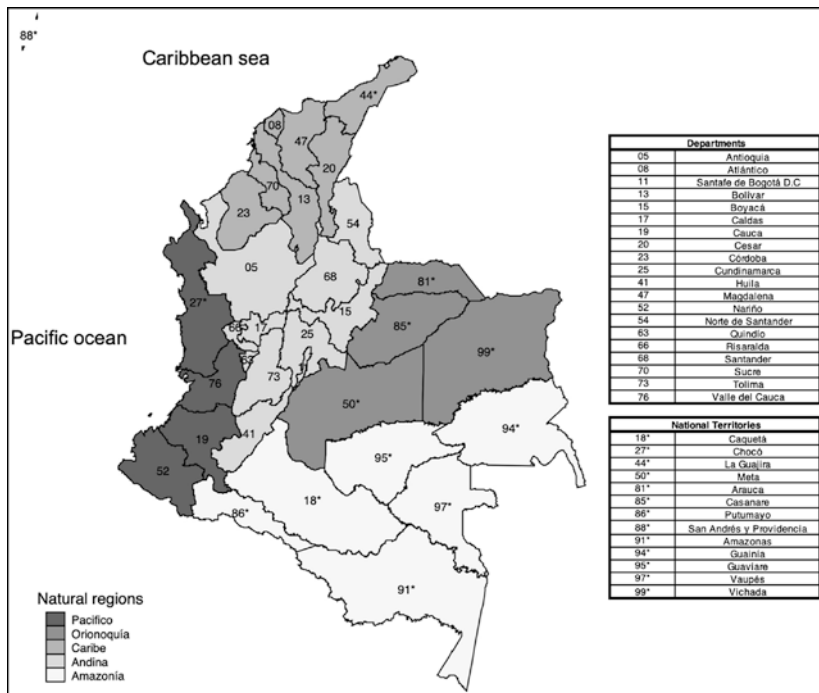


Illustration 5.1 Colombian Regions, Departments and National Territories

non-white areas (Cepeda and Meisel 2014). Moreover, the whiter central departments were those that most benefited during the rise of regional gaps in education after 1850. Indeed, digging within the Colombian geo-racial order and export-led growth, we see complex stories emerge. The export production was present in central-Andean and peripheral-tropical territories. Nonetheless, not all the producers' areas of exportable goods showed similar development.

In this context, how were race relations in Colombia, the first globalization, and the regional gaps in education related? This question has been overlooked in the literature. At best, the issue is mentioned without further systematic analysis. Bértola and Ocampo (2013), Engerman et al. (2009) and Helg (1987) comment, for instance, that Latin American societies that had greater levels of European phenotypical

components could achieve better educational outcomes (e.g., Argentina, Uruguay, or Antioquia in Colombia). However, the authors do not connect the racial context, export-led growth, and the rise of subnational gaps.

This chapter uncovers this overlooked relationship connecting the rise of regional education gaps with the regional export development between 1850 and 1930. Specifically, it shows how the persistence of racist models of development prevented some Colombian regions from transferring the benefits of the export boom to better performance in education during the analyzed period.

5.2 Constructing and Ruling a Republican Nation: Two Models of Subnational Development

The historical epoch from 1850 to 1930 is more than a period of marginal export development and deepening regional differences education across Colombia. This period also saw the construction of an ambiguous republican society, in which geo-racialized models of development would affect subnational socioeconomic performance.

This fact corresponds with the nature of the Colombian independence, the rise of this nation as a republic and a context in which the non-white population outnumbered a minority but dominant white elite (Lasso 2013). Specifically, after centuries of colonialism, the struggle for independence from Spain dominated the early nineteenth century. To get the support of the majority of the non-white population, the white independence leaders promoted slavery abolition and racial democracy (Lasso 2013). However, with the Creole victory, things changed. History shows that although the end of colonialism dates to 1820 and independence leaders promised the abolition of slavery, Afro-descendant people had to wait for unconditional manumission.⁴

⁴The republican elite deliberately put conditions on full access to freedom. For example, the first laws granted freedom only to the offspring of enslaved people born after 1821 or established training requirements (Tovar 2010).

Such delay is not random. Authors argue how contradictory the consolidation of Colombia as a new republic was in racial terms (e.g., Martínez 2011; D'Allemand 2007). Helg (2012) and Lasso (2003) indeed show that these inconsistencies were found in the most prominent white ex-independence leaders concerned with the potential rise of non-white political challengers. Simón Bolívar for instance promoted the end of slavery, while at the same time working to keep power exclusively with the white elite; he considered Afro-descendant people “a danger” for the new republican order (Helg 2012, p. 22).

Unconditional manumission became official as of January 1, 1852. A new post-emancipated society emerged where republican citizens had to acclimate to a new reality. This new institutional reality came with racial challenges; while Afro-descendant people experienced their full freedom, white people saw their better location in the socio-racial hierarchies threatened (Leal 2018).

Faced with such challenge, someone had to guarantee republican order, and this role corresponded to the self-proclaimed intellectual white elite (Múnera 2005). They designed a contradictory republican order combining racial equality with the pseudo-scientific ideas of European and American intellectuals⁵ rationalizing prejudices, justifying implicit racial hierarchies and excluding the majority from access to political and economic power (Villegas 2012; Martínez 2011; Hering-Torres 2007; Lasso 2003). The republican order then established two different classes of citizens. First, the minority white elite casts as progressive, modern, educated, and therefore destined to conquer the racialized inferior races. Second, non-white citizens seen as physically inferior, morally weak and incapable of self-government (Helg 2012; Hering-Torres 2007).

The racial determinism went beyond the individual level, taking on spatial-geographical connotations. In Colombia, since colonial times, the whiter population had preferred settlements around the mild and healthier Andean region, while non-whites were culturally associated with the coastal and tropical areas (Appelbaum 1999; McFarlane 1993).

⁵For example, Herbert Spencer, Jean-Baptiste Lamarck or Samuel Morton.

Aware of this particularity, the intellectual elite applied pseudo-scientific reasonings to reinforce geo-social differences, i.e., they used race as a category for organizing the new republic in racialized regions (Villegas 2012; Hering-Torres 2007; Appelbaum 2003).

In this republican geo-racialized order, the Andean-center corresponds to the social stereotype as the place of white, progressive and beautiful people. Conversely, the tropical-periphery acquired the social construction of backwardness, sickness and/or danger (Wade 1991). In other words, it was between 1850 and 1930 when racial exclusion took on its most informal, pseudo-scientific and geo-spatial character. The social topography categorizes Colombian territories in the dichotomy of white/non-white, civilization/barbarism, progress/backwardness, highland/forest and central-Andes/tropical-periphery (Leal 2018).

This geo-racial determinism legitimizes what Pohl-Valero (2016) denominates a geographical model of civilization. The republican elites saw non-white peripheries and their inhabitants as an obstacle to national progress, for which they needed to create a solution (Harguindeguy 2010). Naturally, racialized regions entailed racialized problems, and consequently, racialized solutions (Leal 2018; Appelbaum 2017). Hence, the solutions to peripheral backwardness were racialized projects of governance. Since geo-racial determinism promoted the superiority of white-highland inhabitants, this group had the ability to impose its exclusionary model of civilization, while the tropical-periphery needed to pursue central-Andean ideals (Múnera 2005).

The model of civilization then imposed differential treatments on the racialized Colombian regions. Between 1850 and 1930, the republican elite created legislation and policies intended to eliminate the supposed cultural and biological inferiority of the non-white periphery. The Caribbean and Pacific regions for instance were problematic areas because of their “racial instability,” and consequently special health and sanitation policies were intended to correct their socio-physical contamination (McGraw 2007, p. 62). Similarly, legislation established differential treatments for the racialized National Territories limiting their subnational autonomy. Article 78 of the 1863 Constitution included special rules to bring “civilization” to these non-white territories.

The 1886 Constitution also set in motion regulations to “civilize” “savage” indigenous, e.g., the Concordant of 1887, Law 35 of 1888, Law 72 of 1892 or Decree 491 of 1904. Indeed, Law 89 of 1890 explicitly states that the republican legislation does not apply to the “savages” who become “civilized”, as if the racial stain remained after the “civilization” process.

The republican institutional framework differentiated between civilized territories, which should be ruled by republican laws, and “savage” territories and people, which should be ruled by legislation meant to civilize and colonize (Harguindeguy 2010). Hence, while the elite implemented democratic institutions for central-Andean regions, institutional design supported processes of colonization in the peripheral territories (Appelbaum 2017, p. 103). The political economy was then geo-deterministic in prejudice towards the racialized periphery. “Whitening” projects tried to correct the “biological tragedy” of the non-white territories with “economic and genetic integration” (Pohl-Valero 2016, p. 12).

Most of this racialized periphery was devoted to export initiatives. The peripheral non-white territories did not have the levels of exportable production of some Andean (whiter) regions—particularly coffee areas after 1888. Despite this, between 1850 and 1930, their export and investment expanded (Leal 2018). Leal (2018), Correa (1996) and Ocampo (1984) indeed describe processes of diversification of exports, e.g., platinum, tobacco, forest goods and bananas.

The natural conditions of this periphery were an advantage for export-led growth. For example, the vast tropical forest was a natural advantage for the extraction of rubber, cinchona bark or ivory nut. Chocó’s rich platinum deposits led this western Colombian region to be the first global producer of platinum during World War I (Leal 2018; Urrego 2010; Bonet-Morón 2008; Martínez 1927). These rich natural resources certainly attracted foreign companies such as the Chocó Pacific Company, the British Platinum and Gold Corporation and the United Fruit Company. They profited from the successful business of metal and banana exports in Chocó and in the Caribbean department of Magdalena (Correa 1996; Martínez 1927). Other important export products were

tobacco and coffee. Although these products were typical of the central-Andean areas, Caribbean departments as Bolívar and Magdalena presented favorable geophysical conditions for export production.

It might be expected that export-led activities were an important source of resources for Colombian producer regions. In turn, such export development might be an important source of financing for social prosperity and welfare such as greater educational development. National regulations established a high fiscal responsibility for subnational entities in education. According to Law 39 of 1903, for instance, departments and municipalities had to finance primary schools, construct educational infrastructure and pay teachers' salaries. Export-led development was indeed a steady source of financing for educational development in some areas in the Andean region producing coffee and gold for export. The department of Antioquia is the most representative example, where increasing production for foreign markets was accompanied by improving literacy and enrollment rates after the second half of the nineteenth century (Ramírez and Salazar 2010; Helg 1987).

Nonetheless, neither geographical attributes nor the international export boom seem to have translated into subnational social development in the non-white periphery. The non-white regions demonstrated the lowest performance in education, and this outcome relates to geo-racialized projects in export-led peripheral territories. As described, the non-white regions had "civilization" projects in contrast to development projects in Andean territories. For the non-white territories, civilization did not mean better policies for educational development, but this "civilizing" form of governing meant extractivism, colonization and exploitation by the self-considered modern and more intelligent white elite (Appelbaum 2017; Harguindeguy 2010).

The most evident example is the main educational policies for racialized regions such as the National Territories, i.e., the Catholic missions. To their credit, the Catholic missions set up schools and defended indigenous against the abuses of white settlers in isolated areas (Kuan-Bahamón 2015). Missionaries throughout the National Territories were teaching Spanish, patriotic values and Catholic principles as a "*unique remedy to bring civilization to these rich territories*" (Education report

1912, p. 11 and 1916). The outcome was certainly the expansion of students and schools in such territories (Helg 1987).

However, despite the greater number of students and schools, this policy evidences a racial exclusionary component of the Colombian political economy of education. Relative to the educational model implemented in central regions, the Catholic missions were expensive, limited the subnational autonomy and had little impact on education (Ullán 2004; Helg 1987). According to Helg (1987, p. 187), the budget for Catholic missions was high, on average from 10 to 14 percent of the national educational budget. Indeed, data from 1912 show that while the national government allocated 80.2 Colombian pesos per 100 students in Antioquia, the National Territories received 1059 per 100 students. An important caveat is that, according to the law, even though the Catholic missions controlled education in the National Territories, it was the Colombian national government that had to fund total spending in the region. In contrast, departments such as Antioquia had more autonomy, hence they had to finance teachers' salaries and establishments with subnational resources (Helg 1987). As a result, total educational spending in Antioquia was 1033 pesos per 100 students. Although overall expenditure figures per student were similar, enrollment values differed greatly: while the National Territories enrolled 1.82 students per 100 inhabitants, Antioquia enrolled 7.32.⁶

The most problematic issue with Catholic missions is that they promoted racialized colonialism in republican times. The literature and archival material illustrate that they promoted white immigration and vanished indigenous culture, language and values as a way to "civilize savage tribes." Indeed, they sometimes "civilized" by using force. The 1912 education report (p. 115) mentions that "*reprehensible incidents certainly occur: But who is perfect?*"; certainly, these incidents "*have justifications (because)... an indigenous person is naturally (a) thief and lazy.*" The historiography also argues that Catholic missions were the institutionalization of a theology of power (Torrado 2018; Bonilla 1968).

⁶Education report (1912, pp. 19, 22, 24, 266 and 267).

Bonilla (1968, p. 128) illustrates how the Cappuccino missionaries appropriated indigenous land and implemented physical punishment and forced labor as “beneficial” in the Putumayo region. Similarly, Leal (2018) and Helg (1987) describe that this educational policy for the periphery consisted of coercive measures to support the colonization and extraction of natural resources for external markets. The Catholic missions educated, but they also Christianized, colonized and controlled “barbarian” territories that were—incidentally—rich in exportable goods.

The republican geo-racial determinism therefore affected the socio-economic milieu of Colombian regions during the era of export development. As the export expansion occurred, the demand and pressure on resources also increased (Bértola and Williamson 2006), and this situation reduced the developmental strategies possible for the non-white population.

5.3 Subnational Export Development, Racial Exclusion and Educational Evolution

The subnational data show that the agrarian export processes were concentrated in the Andean departments of Valle del Cauca, Tolima, Santander, Norte de Santander, Antioquia, Nariño and, to some extent, Huila.⁷ Moreover, extractive mining activities seem intensive in the Andean territory, especially in the department of Antioquia. Antioquia is indeed a particular case. This department had a remarkable amount of agrarian exports and the greatest concentration of metal mines in Colombia (see Table 5.1). Indeed, this department was one of the

⁷This part of the analysis uses information from the Quarterly Bulletin of National Statistics (QBNS) 1893 and 1894, the censuses of population and reports of different official dependencies. The QBNS presents data at the municipal level on agrarian export products (see Table 5.1). Unfortunately, it did not offer data on exportable forest goods, activity mainly located in non-white isolated regions. Nonetheless, it provides information on numbers of metal mines and taxation paid for these mines. Metal extraction is a typical activity in tropical territories for external markets. Hence, it might shed light on subnational extraction of exportable natural resources.

Table 5.1 Agrarian exportable goods and mining activity 1891

Department	Tobacco %	Coffee %	Cacao %	Honey %	Sugar %	Banana %	Mines %
Antioquia	8.2	6.3	6.1	10.7	37.3	3.7	73.4
Bogotá D.C.	-	4.9	-	1.7	0.9	0.1	-
Bolívar	22.6	1.0	-	0.8	1.3	0.7	0.2
Boyacá	-	0.5	0.3	32.5	2.9	0.6	1.1
Caldas	2.4	1.0	0.2	0.1	4.8	0.5	8.9
Casanare	-	0.1	-	-	-	0.0	-
Cauca	1.6	0.7	0.7	2.5	1.4	2.8	2.9
Cesar	-	0.2	0.3	0.1	0.2	0.1	-
Chocó	-	0.0	-	-	0.0	0.2	0.9
Córdoba	-	0.1	-	0.1	0.1	0.1	0.1
Cundinamarca	0.2	10.4	0.1	10.1	1.9	0.6	0.3
Huila	0.7	1.1	25.4	2.8	1.3	1.0	0.6
Magdalena	0.7	0.1	0.1	0.2	0.0	0.1	-
Nariño	0.1	0.4	0.0	1.9	1.8	0.5	0.3
Norte de Santander	0.0	33.6	2.9	0.0	11.6	4.2	-
Quindío	0.7	0.0	-	-	0.1	0.9	0.4
Risaralda	0.4	0.1	-	-	0.1	0.1	-
Santander	13.4	19.1	17.4	25.7	25.8	2.7	1
Sucre	0.7	0.1	0.1	-	0.3	0.0	-
Tolima	20.2	12.4	3.7	6.1	6.3	8.4	8.8
Valle del Cauca	28.0	8.1	42.8	4.8	1.4	72.8	1
Total	100	100	100	100	100	100	100

Source QBNS N° 4 (1893 and 1894)

leading coffee-growing areas during the boom of the export coffee economy (Bejarano 2015).

Nevertheless, as previously mentioned, the export-led production was not limited to central-Andean regions. During the second half of the nineteenth century, the department of Bolívar had significant tobacco production for external markets. Certainly, the 1875 Colombian annual book shows that by 1874 Bolívar was producing 38 percent of the national tobacco. This year is particularly relevant because tobacco produced in Bolívar reached leading levels in the main international markets of Bremen and Hamburg (Colmenares 2017). By 1891, despite a gradual reduction in market share, Bolívar still had a considerable segment in tobacco export production (22.6 percent, see Table 5.1).

Banana was the other agrarian product for external markets. It was typical of Colombian tropical areas, with significant intensive production during the first decades of the twentieth century. Although banana exports did not reach the levels of national relevance of the coffee economy, this sector saw big-scale production, particularly between 1900 and 1929, around the Caribbean zone of Magdalena. This department saw exports grow from 74,915 banana bunches in 1891 to about 11 million bunches in 1930 (Meisel 2004). Martínez (1927) calculates that this area had more than 20,000 thousand hectares of banana in 1927. The banana sector was so relevant that it was the second most significant agrarian export product after coffee, with 16 percent of the total exported weight and value in 1918 (Bell 1921). Moreover, by 1932 Colombian exports contributed 9 percent of the total Latin American production, mainly destined for the US market (Brungardt 1995).

Export-led development was also based on the extraction of natural resources in peripheral regions. The Amazon provided 60 percent of the global production of rubber by 1900 (Villegas 2012). Chocó was so rich in gold and platinum that, between 1909 and 1914, an average of 128 mines per year was registered (Leal 2009). This number grew over time; for instance, in 1916, the number of new mines was 270 (Libro Azul, 1918). Among the extracted metals, platinum represented a significant source of income for foreign mining companies in the Pacific territories (Martínez 1927). Foreign companies such as the Chocó Pacific Company were the main beneficiaries of the

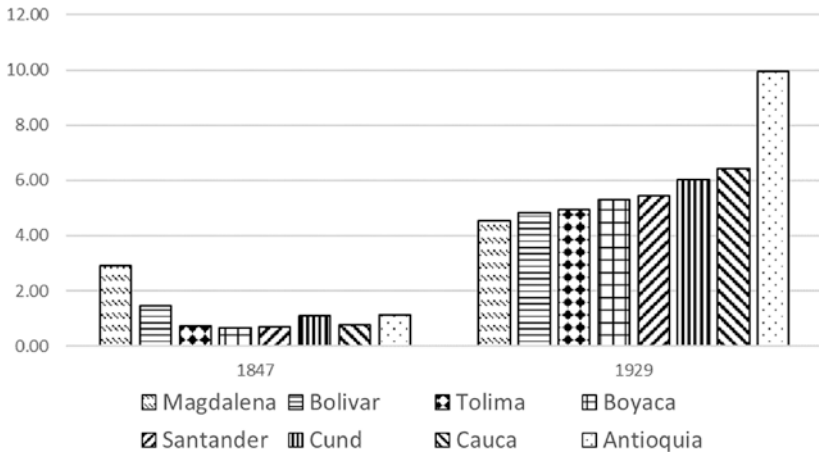
international boom in platinum markets and they controlled the majority of extraction, which reached 1586 kilograms in 1921 (Leal 2009). Similarly, Nariño, Tolima and Cauca were also rich in gold that was extracted in the districts of Barbacoas, Timbiquí and along the Iscuandé River. The Timbiquí Gold Mines Ltda and Tolima Mining Co., for instance, were two of the main foreign companies with control over gold extraction for external markets.

Ocampo and Colmenares (2017) argue that the export development was a regional phenomenon with effects limited to the producer regions.⁸ Under this logic, the discussed data would then indicate that departments such as Bolívar, Antioquia, Magdalena or Chocó had more economic activity and consequently more economic resources for financing development. Similarly, authors argue that coffee and gold exports were relevant for the accumulation of capital in the department of Antioquia (Tirado 1971; Brew 1977), while tobacco producers and traders also saw improvements in their living standards during the prosperous times of tobacco trade in Bolívar (Colmenares 2017; Meza 2014). The literature also corroborates that the national economy performed relatively better during the first globalization and this fact is related to the export sector (Kalmanovitz and López 2010). Hence, export production would supposedly improve the standard of living of Colombian inhabitants.

This proposition nonetheless does not seem correct when analyzing the subnational evolution of education. While Colombia experienced a relative export boom from 1850 to 1930, education realized a slow but consistent rise with substantial regional differences.⁹ Graph 5.1 for instance shows the percentage of students in primary education in different Colombian departments (as a percentage of the total population of the department). The graph illustrates that before the export-led

⁸Until the early twentieth century when coffee production had national impact.

⁹Educational development was evident only after 1950, when Colombia experienced significant socioeconomic changes (Ramírez and Tellez 2007). However, this characteristic did not prevent the rise of education during the first globalization, particularly in some Colombian departments that showed greater educational outcomes.

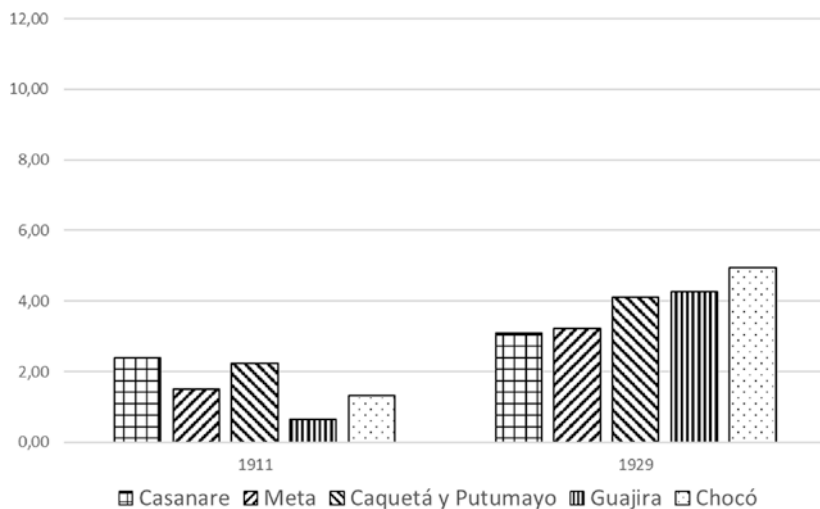


Graph 5.1 Students in public primary schools (percentage of population) (Source Own construction based on education reports and population censuses)

boom, the rates of students in primary education were similar among the Colombian departments with the exemption of Magdalena. However, after this period, Antioquia had the greatest rates of students per capita. In contrast, departments in the tropical periphery such as Magdalena or Bolivar had much lower rates.

Graph 5.2 shows the number of students in primary education for the rich-in-natural-resources National Territories. The graph illustrates that the rates of students per capita were lower in these peripheral regions than in the central-Andean territories of Antioquia or Cundinamarca. This pattern is also evident in the reports of the Ministry of Education, which frequently complain that regions such as the Pacific lowlands show poor performance in education.¹⁰ Illustration 5.2 also indicates that the peripheral Caribbean region and the National Territories had lower rates in primary education in 1890, while the central-Andean region of Antioquia and Caldas showed a much better performance.

¹⁰See education reports (1874, p. 120; 1882, p. 83; 1912, p. 17).



Graph 5.2 Students in public primary schools, National Territories (percentage of population) (*Source* Own construction based on education reports and population censuses)

This information therefore might indicate that the benefits of the export boom were not equally distributed through the Colombian regions. It looks like not all the producers' areas of exportable goods showed similar development in socioeconomic variables. Specifically, despite the presence of export-led activities, people of the tropical peripheries were not the main beneficiaries of the export boom. In fact, the literature also indicates that the export-led period did not have equal effects in the producer areas or, when some effects did emerge, they did not last in the long run (Colmenares 2017; Ocampo and Colmenares 2017).

As previously discussed, under the geo-racialized model of development, non-white peripheral regions had to face formal and informal barriers to achieving their own prosperity. Article 40 of Law 89 of 1890 classified indigenous people as having the legal status of minors, i.e., as having the status of someone underage. This law also determines that the national government and the Catholic orders had the authority to determine the way these communities should be governed. It is in that

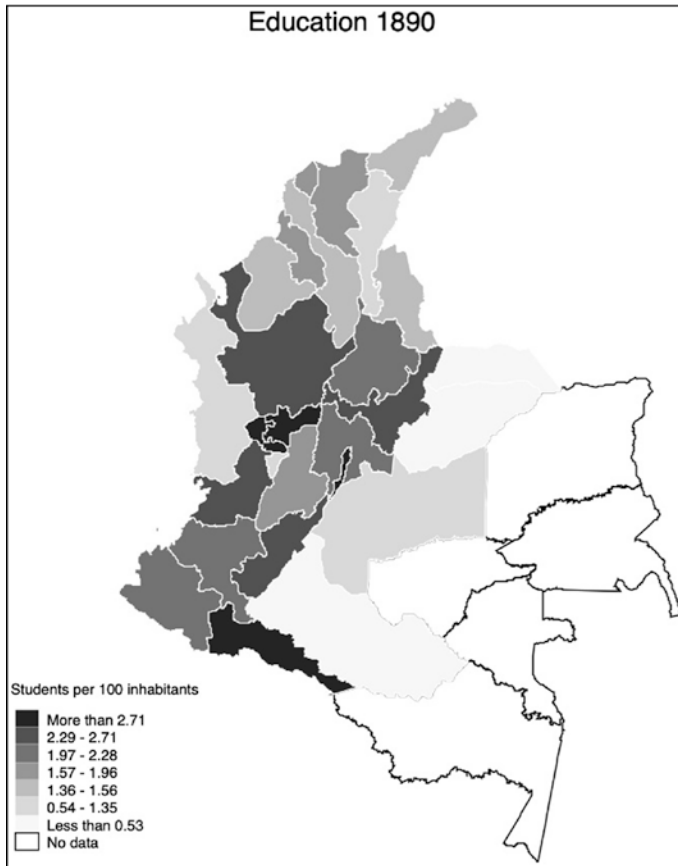


Illustration 5.2 Enrolled students circa 1890 in Colombian departments (*Source* Own construction based on education report circa 1890)

sense that in peripheral regions like Casanare, Caquetá, Guajira and Chocó, education policy relied on Catholic missions. This model of education did not seek to actually provide education to the inhabitants of the tropical peripheries, but rather to “civilize” them, which entailed control of people, evangelization, cultural homogenization and extractives-economic practices (Villegas 2012).

Based on historical archives, it was evident that the Catholic missions were part of imperative strategies for controlling peripheral regions with

commercial and political relevance. The report of 1910 for instance states that one of the main recommendations of the (Catholic) missions were “to promote the immigration...to assure for the nation that immense and rich region”.¹¹ Similarly, the president in 1914 issued a call to “support the colonization... (and) promote the exploitation of the immense richness in these region”; according to the president, it had had important outcomes for the rubber companies.¹²

These recommendations imply three main facts about the implementation of the geo-racialized model of development. First, it makes the original settlers of the tropical peripheries invisible. The Red Book Report in 1914 (pp. 9–10) indeed refers to these areas as “practically a no-man’s land, laying remote from any restraining authority or civilizing influence.” Second, it recommends immigration, which would bring the Andean white modernization and progress (Pohl-Valero 2016; Appelbaum 2006). Finally, it shows the concern of reserving tropical resources for the interest of certain people. What remains for locals then was neo-colonization and marginality under the geo-racialized project of nation (Villegas 2012; Harguindeguy 2010; Appelbaum 2006).

It might be said that this racialized model of development only affected regions with the natural advantage of providing forest and metal resources for external trade. In contrast to agrarian activities, such extractive activities were mainly located in the National Territories, areas that were, incidentally, subject to the educational Catholic missions. However, agrarian export activities in non-white departments also showed a racialized political economy of development. The banana regions for instance had a different production structure to the Andean coffee economy. While the coffee economy was based on national initiatives and democratic forms of production (Bejarano 2015), the banana economy was based on foreign investment and structures of enclaves. According to LeGrand (2006), the mentality of the national elites was that foreign investment would bring the progress that the national government was unable to deliver; however, progress meant abandonment

¹¹Education report (1910, p. XXXIX).

¹²Report President of Colombia (1914, pp. 58–61).

of the national government to international companies, which in turn implemented policies for exploiting people and resources (LeGrand 2006, p. 145). In the Caribbean region, the United Fruit Company was the most relevant foreign company implementing this model of development. This company achieved 90 percent control of the banana exports in Magdalena with significant profits (Brungardt 1995). However, this economic prosperity was based on concentration of land, coercion, monopolies, and the absence of social prosperity for local inhabitants of Magdalena (Meisel 2004; Brungardt 1995). Brungardt (1995), for instance, shows that this company accumulated lands to displace competitors and force landless peasants to work under unpleasant conditions.

Similarly, the racialized model of civilization determined that the natural richness of gold and platinum needed high levels of investment that only multinational companies could afford. The Chocó Pacific Company was the most important. This company extracted 50 percent of the platinum during the period in which Colombia was the main global producer; however, the Chocó Pacific Company did not pay royalties for the extraction of this resource evidencing a weak state capacity and consolidating the local power of the foreign company (Leal 2009).

The analysis of subnational statistics also corroborates the lack of interest for models of development in non-white regions. Table 5.2, for instance, shows public expenses on education as a share of the population for the departments during the late nineteenth century. The table shows that departments in the central-Andean region such as Antioquia and Cundinamarca allocated significant resources to primary education compared with other territories. Magdalena is a notable exception. Nonetheless, upon closer inspection of other educational variables, it is clear that, according to the reports of education, in 1887 Magdalena only had 0.53 students per capita while Antioquia had 3.35 and Cundinamarca 2.76. Similarly, in 1891, the student population ratio in Magdalena was 2.88, while in Antioquia it was 5.41 and Cundinamarca 2.92.

Archival sources and data from 1918 to 1928 also corroborate the discussed observations. While Antioquia devoted greater levels of resources to education, the National Territories allocated percentages

Table 5.2 Public expenditures on education (per-capita, COP\$)

Year	Antioquia	Bolívar	Boyacá	Cundinamarca	Cauca	Magdalena	Santander	Tolima
1873–1874	0.08	0.14	0.02	0.14	0.05	0.23	0.19	
1884	0.26			0.24		0.47		
1887	0.37	0.17	0.23	0.20	0.17	0.59	0.23	0.27
1889	0.21	0.21	0.13	0.27	0.49	0.82	0.29	0.39
1891	0.47	0.33	0.16	0.25	0.37	0.84	0.32	0.46

Source Own construction based on education report

Table 5.3 Public education as percentage of total expenses

	1918–1923	1923–1928
<i>Departments</i>		
Antioquia	32.6	25.6
Atlántico	20.6	24.2
Bolívar	26.1	24.9
Boyacá	4.6	8.5
Caldas	21.1	13.9
Cauca	22.6	21.7
Cundinamarca	24.3	17.3
Hulla	28.7	24.0
Magdalena	28.9	24.8
Nariño	23.4	26.8
Norte de Santander	30.7	34.0
Santander	24.6	13.8
Tolima	26.3	22.0
Valle	12.9	12.9
<i>National Territories</i>		
Chocó	20.0	12.2
Meta		2.0
San Andrés y Providencia	21.7	14.0
Arauca		4.8
Caquetá.		1.2
La Goajira		
Putumayo		2.2
Vaupés		
Vichada.		
Average	23.1	18.9

Source Own construction based on Annual Books 1918–1928

significantly lower than the national average (see Table 5.3). The education reports also emphasize the lack of support for education by the local authorities in Magdalena. There, the education system lacked qualified teachers and performed poorly in regards to enrollment rates and school construction. Conversely, the reports for Antioquia describe local authorities interested in the provision of educational infrastructure.¹³

An important caveat is that racialized models of development were present in the racialized whiter Antioquia. Illustration 5.3 shows the

¹³For example, Education reports (1881, 1876, 1914 and 1921).

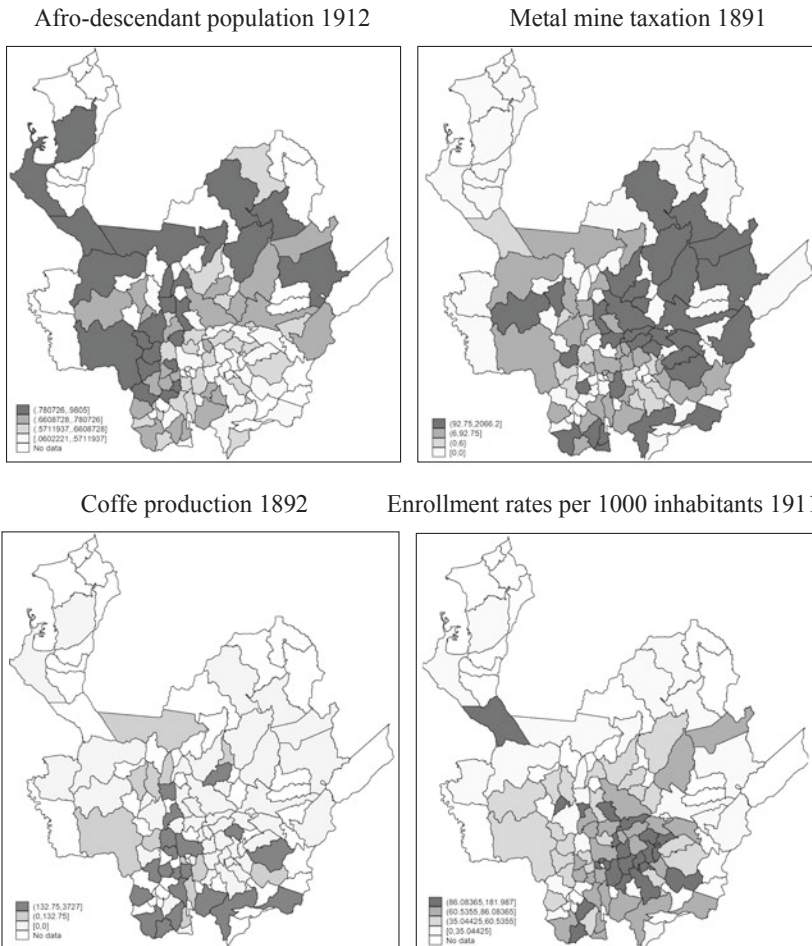


Illustration 5.3 Education, race and export development in Antioquia (Source: population census, education report, QBNS)

performance of Antioquia for export production, education and race. By analyzing coffee and metals, these activities tended to be concentrated in the southern and northeastern part of the department. Nonetheless, variables such as enrollment rates do not fully match with this export development. This variable shows that the largest student enrollment rates are concentrated in the central part of the department.

Table 5.4 Correlation race, coffee and education in Antioquia

	Afro- descendant population 1912	Enrollment rates per 1000 inhab- itants 1890	Enrollment rates per 1000 inhab- itants 1911	Metal mine taxation 1891	Coffe production 1891
Afro- descendant population 1912	1.000				
Enrollment rates per 1000 inhabitants 1890	-0.5024 (0.0000)	1.000			
Enrollment rates per 1000 inhab- itants 1911	-0.5104 (0.0000)	0.4142 (0.0000)	1.000		
Metal mine taxation 1891	0.1354 (0.1956)	-0.0494 (0.6362)	-0.0958 (0.3583)	1.000	
Coffe pro- duction 1891	0.0732 (0.5439)	-0.1392 (0.2468)	-0.0850 (0.4807)	-0.0577 (0.6325)	1.000

In doing this analysis, a more interesting fact emerges. Regardless of whether export production is present, the municipalities with the greater levels of Afro-descendant populations show lower rates of education. That is, despite Antioquia being a racialized whiter department, an export-led region, and historically more educated, it includes georacialized municipalities with educational performance lower than the departmental average. Table 5.4 shows the correlation between the variables illustrating this: more than income provided for export-led activities, the racial composition of the population might explain the municipal differences in education. Particularly, export economic activities do not seem to explain enrollment rates in Antioquia. Incidentally, the historical sources show how export activities such as gold extraction displaced Antioqueño children from schools (Education Report 1890, p. 10).

Roldán (2003) observes a similar pattern by analyzing levels of violence during the civil conflict of 1946–1953. The author concludes that municipalities in the non-white periphery of Antioquia showed greater levels of violence, as well as patterns of production, land ownership and settlement different to racialized whiter municipalities in the center. These non-white territories represent the opposite to the geo-racialized construction of the Antioqueña race (Roldán 2003). Specifically, they have a tropical landscape and a greater (socio-phenotypically) non-white component. Moreover, these areas are rich in natural resources for external markets. Such a combination of factors forced oppressive relations between subnational elites and local inhabitants. Regarding this, Roldán (2003) suggests that since local elites were racially different to the majority of peripheral inhabitants, they considered themselves more civilized. In contrast, they viewed with disdain inhabitants of the local peripheries, who they considered savage, lazy and malicious (Roldán 2003, p. 60). The model of civilization for these Antioqueño territories entailed “civilization” (e.g., the Catholic mission of Urabá), the goal of which was not to educate but to control.

5.4 Discussion and Last Remarks

Aline Helg summarizes the rise of Colombian mass education as a historical process that reinforced inequalities. According to Helg, Colombia implemented elitist and differential educational policies intended to “civilize” the majorities of poor Colombians and “educate” the elites (“*Civiliser le peuple et former les élites*”).

This argument seems to apply to the relation between the rise of regional gaps in education, a geo-racialized model of development and the first globalization. The Latin American republican projects created ambivalent nations in which racial equality coexisted with scientific racism, exclusion and, more importantly, geo-racial determinism (Appelbaum 2017; Lasso 2003; Pohl-Valero 2016). In this context, Colombian whiter elites designed and implemented geo-racial models of export development, which prevented racialized non-white regions

from transferring the benefits of export-led growth to a more rapid accumulation of human capital. Consequently, these areas showed lower enrollment rates, educational resources and numbers of students and schools.

The historical archives and literature show that, from the late nineteenth century to 1930, international commodity booms brought in a contingent of whiter actors, i.e., whiter settlers, merchants and missionaries, to regions rich in natural resources. Once there, whiter actors used the implicit racial hierarchies to control commodity extraction and the majoritarian non-white people. Ullán (2004) and Bonilla (1968) argue that, in Putumayo and Caquetá, the rubber boom stimulated immigration of whiter “rubber barons.” They manipulated the racialized Colombian regulations, which equated indigenous natives to “savages” or “minors,” to enslave indigenous people with the glaring omission of the state (Ullán 2004).¹⁴ Different historical reports also indicate this relation between racialized regions, export development and social performance. The report of the apostolic prefect of Chocó mentions that the platinum boom brought in whiter nationals and foreigners who swept away rivers, spread crime and subjected local Afro-descendants to abuses and usury.

Whiter actors controlled more than people and commodity extraction. They were mayors, “Indian controllers,” intendants, congressmen, etc., i.e., they controlled the subnational government and their decisions had a particular effect on the subnational political economy of education (España Eljaiek 2017). However, their decisions were far from promoting prosperity for the majority. For instance, although the national policy of education for non-white territories (i.e., Catholic missions) was a geo-racialized policy, whiter local elites tried to block it (Kuan-Bahamón 2015; Bonilla 1968). Indigenous people meant a slave-labor force; therefore, this policy, despite being racialized, conflicted with the extractive interests of exploiting people and resources to

¹⁴Bonilla (1968, p. 95) describes that in *order* to “send to Europe much rubber,” physical punishment was imperative to the extent that sometimes it was most “*humanitarian*” to kill the punished indigenous because of the injuries.

export commodities. Leal (2018) describes how the export merchants in the Pacific lowland prevented the majoritarian Afro-descendant people from accessing education, so that the merchant class could maintain control of the benefits of the export trade. Forest collectors and miners were mainly the descendants of formerly enslaved people who settled in villages around the mining and forest districts. According to Leal (2018), more education would give them a precise idea of the state of exploitation in the external trade business. Similarly, the report in 1912 (p. 14) states that parents avoided sending girls to school out of fears that whites promoted “*abuse of the innocent*” indigenous people.

Geo-racialized models of development were present in Colombian regions. They were evident in the export-economy of metals and forest resources in Chocó, and rubber in Caquetá, Amazon and Putumayo. Indeed, they were in racialized territories such as Magdalena and the non-white municipalities of Antioquia. In Magdalena, agrarian exportable production performed as an enclave while in Antioquia the same racialization at the national level was present within the department. Whiter actors saw indigenous and Afro-Colombian descendants as a cheap and abundant source of labor (Ullán 2004). As subnational policy makers or elites, whiter actors were not therefore interested in the educational development of non-white suppliers. At best, subnational elites accepted the educational policies of “civilization” (Catholic missions), even though these policies also represented geo-racialized treatments for the non-white Colombians.

The racial order, therefore, needs to be a research agenda in economic history. With better knowledge of historical social constructions such as race relations, we can probably better explain paradoxes such as the presence of historical global forces of development and unequal subnational performance. That is, by studying these social constructions, we might improve our understanding of why the era of the Latin American nations’ debut as republics and the first globalization is far from being a period of equality for the new free nations in the most unequal continent of the world.

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Part III

Global Migrations and Human Capital Accumulation



6

Brain Drain and Brain Gain in Italy and Ireland in the Age of Mass Migration

Matteo Gomellini and Cormac Ó Gráda

Abstract Emigrants from Italy and Ireland contributed disproportionately to the age of mass migration. That their departure improved the living standards of those they left behind is hardly in doubt. Nevertheless, a voluminous literature on the selectivity of migrant flows—from both sending and receiving country perspectives—has given rise to claims that migration generates both “brain drains” and “brain gains.” On the one hand, positive or negative selection among emigrants may affect the level of human capital in sending countries. On the other hand, the prospect of emigration and return migration may both spur investment in schooling in source countries. This essay describes the history of emigration from Italy and Ireland during the age of mass migration from these perspectives.

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Keywords Migration · Brain drain · Brain gain · Human capital · Italy · Ireland

JEL F22 · J61 · F22 · J61 · N33 · O15

6.1 Introduction

Mass migration from Europe to the New World took off in the 1840s. In the early decades, it was mainly confined to migrants from north-western Europe, notably from Ireland, whence over five million men, women and children crossed the Atlantic between the Great Famine and the Great War. Mass migration from Italy began later, with its emigration rate soaring from 5 per thousand (of population) in 1876 to nearly 25 per thousand in 1913. In the century between 1876 (when data first became available)¹ and 1975, 26 million Italians emigrated. More than half headed for destinations elsewhere in Europe; about 6.4 million reached the USA and Canada; and 4.5 million chose Argentina and Brazil. The outflow was disproportionately a pre-World War I phenomenon; between 1900 and 1913 alone, nine million left.

In terms of their human capital, migrants are never a random sample of the populations of either sending or receiving countries. The literature on losses due to “*brain drains*” from emigration is vast; in recent years, there is also a burgeoning literature on “*brain gains*.” One plausible source of the latter is the uncertainty surrounding who will migrate. When the anticipated gains from migration are considerable, this uncertainty prompts would-be migrants who in the end, for one reason or another, remain at home, to add to their human capital in case the opportunity to leave might arise. This could mean acquiring literacy,

¹The number of studies on Italian emigration, in particular by Italian scholars, is endless. Just to refer to the more complete and exhaustive works: Rosoli (1978), Sori (1979), Bevilacqua et al. (2002), Corti and Sanfilippo (2009). Rosoli and Ostuni (1978) present an extremely rich bibliographic essay that reports the sources of data on Italian emigration. International migration within Europe was also limited before the 1880s.

numeracy or a foreign language. The ensuing indirect gains to the home economy result in what is referred to in the literature as a “*brain gain*.” An analogous outcome is possible in the receiving country, if relatively unskilled native workers respond to the threat of foreign competition by increasing their skill levels. Return migration, by fueling a rise in school attendance via monetary and non-monetary channels, and remittances, by helping to relax the budget constraint that prevented people from investing in education, are other potential sources of such brain gains (Williamson 2006; Hunt 2012; Giffoni and Gomellini 2015).² There is no consensus in the literature as to the size of such gains in human capital. Although Schiff (2005) reckons that the brain gain effect is small, several recent studies claim the opposite (see, e.g., Batista et al. 2011; Shreshta 2017). This chapter links the brain drain/brain gain hypotheses and emigration from Italy and Ireland.

6.2 Italy and Ireland: Trends in Migration

At the end of the nineteenth century, Italian migrants headed mainly for Europe and Latin America. Thereafter, due both to the dynamism of the US economy and to the ongoing transport revolution that made overseas trips safer and cheaper, there was a big surge of emigration to the USA that lasted until World War I. After a temporary halt, emigration resumed, showing a progressive shift from overseas to continental destinations, mainly due to the restrictive laws on immigration passed in the USA (see Timmer and Williamson 1998). In 1927, the Fascist regime, in turn, enacted legislation restricting emigration from Italy. Due to a combination of these restrictions and the Great Depression, only 2.5 percent of the population emigrated in the following decade and the ratio of return migration to gross emigration fluctuated between 60 and 80 percent. The post-World War II emigration was mainly

²The first mechanism emphasizes the fact that potential migrants base their decision to leave on the comparison between future expected incomes abroad and at home (among other push and pull factors). See Hattton for a survey on the cliometrics of international migration and Gomellini and Ó Gráda (2013) for a model of the determinants of emigration.

European: The overseas share of emigration dropped to an average of one-tenth of the total. Nonetheless, 8.5 million people emigrated in this period, 7.3 million of them before 1975.

Though a majority of migrants remained abroad for good, a significant but varying proportion always returned. Their reasons for returning varied: Some reacted to a change in the political situation at home, while others returned because they reached or failed to reach their goals abroad. The returnees had a significant impact on the societies they returned to (Cinel 1991: 2).

Unfortunately, data on return migration to Italy are only available from 1905 on.³ In 1905–1914, return migration, as a ratio between returnees and emigrants, averaged almost 30 percent and remained at this level up to 1921 (except in 1915 when, due to the outbreak of World War I and military conscription, returnees exceeded outflows). In the interwar period when emigration was severely limited, returnees accounted for two-thirds of total emigration, while in the postwar period up to 1963 the annual return rate was half. At that point, the average ratio of returnees to emigrants' ratio increased to 0.8, rising further to values higher than one after 1973.

A sense of the relative importance of return migration can be obtained by comparing gross migration flows and the numbers of Italian-born residents as recorded in the census in the USA and Argentina. A gross migration of over 0.6 million Italians during the 1890s led to an increase in the number of Italian-born of only 0.3 million in the USA between 1890 and 1900, while a gross outflow of 1.2 million in the 1910s increased the number of Italian-born by less than 0.3 million between 1910 and 1920. In Argentina, by comparison, gross outflows of 0.6 million in 1876–1895 and 1.2 million in 1896–1914 yielded increases in the numbers of Italian-born of 0.4 million in 1869–1895 and over 0.4 million in 1896–1914.⁴ Note too that

³Available official data on return migration (lacking until 1905) imply that the ratio of return to gross emigration cannot have exceeded half in the pre-1914 period. Compare Bandiera et al. (2013).

⁴The correlation across regions between the proportion of all emigrants returning in 1905–1920 and the proportion choosing the USA in 1876–1910 is 0.67.

despite considerable publicity about poor conditions enjoyed by Italian immigrants in Brazil, culminating in 1902 in the Prinetti Decree (which prohibited landowners from subsidizing immigration), the number of Italian-born residents in Brazil in 1920 was an impressive 558,405 relative to an aggregate inflow of 1,243,633 between 1876 and 1920.

From the outset, Italian migrants spread themselves widely over a range of destinations. This was not by accident; the Australian immigrant who declared that it had never occurred to her “that Australia was not in America” (Choate 2008: 23) was atypical. Before 1914, swings between destinations reflected shifting relative prospects in the different receiving countries, although the sharpness of such swings was attenuated by the size of pre-existing migrant stocks. Migration to Brazil totaled about one million between the early 1880s and the early 1900s, but declined rapidly thereafter, while 0.7 million migrated to Argentina in the 1900s. The increasing preference for Argentina (where in 1914 one inhabitant in nine was Italian-born and where over half the population today can claim some Italian ancestry) over Brazil is accounted for by the relative decline of the latter’s economy. After 1914, war and immigration policy mattered: With access to the USA severely limited, Europe would become the most important destination of Italian migrants.

Over the past two centuries, emigration defined the demographic contours of Ireland. Massive in relative terms, it was associated with dramatic social and economic changes. It has been linked to rising living standards, rising expectations, agricultural transformation and political mobilization. While usually seen as a symptom of economic backwardness, it is sometimes also blamed for delaying economic development.⁵

Although high by international standards at the time, emigration before the Great Famine [1846–1850] was constrained by location and class, and it was modest in size relative to the post-famine outflow. Out-migration was heaviest from the east and the north and particularly low

⁵The literature is voluminous. See, e.g., Fitzpatrick (1984), Ó Gráda (1994: 74–80, 224–33), Ó Gráda and Walsh (1994), Delany (2002), Sexton et al. (1991).

from poorer counties in the west. In the pre-famine era, county wage levels were poor predictors of county emigration rates (Ó Gráda and O'Rourke 1997). The Great Famine caused about one million people to leave Ireland for good. Had emigration not acted as a safety valve, excess mortality would have been even higher than it was. It was widely remarked on at the time that those who fled to America were poorer than those who had preceded them. Yet because emigration was largely self-financed, it failed to relieve many of those who needed help most: Indeed, emigrants to the USA at the height of the crisis tended to be more skilled than those who would follow in their wake (Ó Gráda 2019).

The Famine spurred an exodus that has ebbed and flowed since, with peaks in the 1880s, the 1950s and the 1970s. In all, nearly ten million left between the early nineteenth and late twentieth centuries. The motivation for leaving was always overwhelmingly economic. While emigration before the Famine was heavily young and male, post-famine emigration was as likely to be young and female.

Irish emigrants were “waked” on departure, a sure sign that their leaving was likely to be permanent. Statistical evidence on returnees is thin. Although falling fares increasingly facilitated visits home, it seems that not more than one-in-ten of those who had crossed the “briny ocean” returned permanently (Gould 1980).

6.3 Brain Drains, Brain Gains

Emigration's impact as an equilibrating force, fostering convergence between regions and countries and reducing the gaps between factor prices, is clear. In that sense, it was responsible for striking increases in the wages of the stay-at-homes in both Italy and Ireland during the age of mass migration and, indeed, more recently.⁶

⁶Gomellini and Ó Gráda (2013) calculate Italy's emigration-induced gains in the early twentieth century, via the reduction of labor oversupply and the resulting increase in real wages. These gains persist also under the hypothesis of positive self-selection of emigrants. On Ireland, see Ó Gráda and Walsh (1994).

Yet in commentary on the impact of migration on sending countries, in the past the stress was often put on losses through *brain drains*. More recently, a theoretical and empirical literature identifies the possibility of a *brain gain* induced by emigration. This literature dates at least as far back as Mountford (1997), who emphasized the “emigration prospects” transmission mechanism: The prospect of emigrating increases the expected return to schooling, spurring investments in human capital. Because many of those investing did not migrate in the end, a brain gain in the sending country accrued.⁷ A brain gain will emerge as long as the probability of migration is large enough to activate the channel and sufficiently low to avoid everybody leaving (Stark et al. 1997, 1998; Beine et al. 2011; Docquier and Rapoport 2003, 2010; Egger and Felbermayr 2009).⁸

Some of the economic literature treats migration as a permanent phenomenon, particularly if that of highly skilled individuals (Becker et al. 2004; Monteleone and Torrisi 2010; Biondo et al. 2012). But when migration is a transitory event, return migration can have a positive influence on sending regions (Borjas and Bratsberg 1996; Dustmann and Weiss 2007; Mayr and Peri 2008; Dustmann et al. 2011). Lalonde and Topel (1997) found that about one-third of immigrants to the USA between 1890 and 1957 returned home.

⁷Theoretically and from the point of view of the source country, if return to education is greater in the latter than in the host country, then negative selection might be the result; vice versa, the greater the return-to-skill gap between sending and receiving economies, the more likely is the hypothesis that the more skilled will leave. Economic theory suggests, moreover, that the higher the fixed costs of migration the more plausible the hypothesis of a selective migration because skilled individuals will be able to amortize costs more quickly. In the age of mass migration, the cost of voyage from Italy to USA, including the cost of reaching the port of embarkation, was affordable, though not negligible. See Commissariato Generale dell' Emigrazione (1926), Gomellini and Ó Gráda (2013) for a more detailed analysis.

⁸In Italy, the first laws on migration issued by the government of the Kingdom aimed at severely limiting departures (The Menabrea Law, 1868; The Lanza Law, 1873). These limitations were supported by the concerns of industrialists in the north and of landowners in the south: Significant emigration would increase real wages. Other restrictions were introduced later to avoid emigration as a means of escaping the conscription introduced immediately after unification (The Crispi Law, 1888). It was only with the 1901 law, backed by Luttazzi and Pantano (two Italian politicians), that emigration became finally a free choice of the individual. See Einaudi (2007) for more details.

Dustmann and Weiss (2007) and Mayr and Peri (2008) suggest that experience abroad increases the amount of individual human capital and therefore the level of productivity of the agents and that as a result, return migration can lead to a mitigation of the brain drain or even to a brain gain when returnees bring back enhanced skills.

Apart from the educational choices of those who stayed, migrants could be alternatively the most or the least educated, thereby affecting the overall level of human capital in sending countries (migrant selection).

Public opinion in the USA a century ago held that the post-1880 “new immigrants” from Italy and elsewhere in southern and eastern Europe were less skilled and less educated than their northwestern European predecessors. That conviction was partly responsible for the literacy test stipulated in the 1917 Immigration Act, harbinger of a series of restrictive measures seeking to screen newcomers. In sending economies, on the other hand, the worry was that the departures of their best and brightest could create a “brain drain” (for a survey of the literature, see Commander et al. 2004).

The nature and direction of selection bias in migrant populations remain highly controversial (e.g., Faini 2003; Belot and Hatton 2012; Abramitzky et al. 2012). A common trait is that each generation in the host country believes that the latest wave of immigrants is of poorer “quality”—slower to assimilate, more criminal, less industrious—than the preceding one. In one respect, the presence of selection bias is clear: Emigrants tended and tend to be disproportionately young and healthy. Moreover, particularly before the welfare state, sickly emigrants may have been more likely to return home to be with relatives—the so-called salmon bias. In the past, too, the gender bias toward males entailed a reduction in labor force productivity in the sending country. But those who left could be better schooled, more self-confident or less risk-averse than their peers. These aspects of human capital are less easily identified. Quantitative sources such as census data, shipping records and official inquiries, and also qualitative sources help identify some relevant migrant characteristic. Furthermore, two of the richest sources are the massive report of the Dillingham Immigration Commission (a by-product of nativist concerns about the social and economic impact of immigration into the USA) and the *Annuario statistico*

della emigrazione dal 1876 al 1925 (a by-product of Italian concern for emigrant welfare).

6.4 Italy: Migrant Selection and Brain Gain

Figures 6.1a–d describe the age and gender distributions of early twentieth-century Italian emigrants on the steamship SS. Roma, which made the crossing from Naples to New York several times a year between the early 1900s and the 1920s (data are collected from passenger lists). Here, we focus on the thirty thousand or so Italian migrants who made the crossing between 1902 and 1905. Several features of the migration are clear. First, males were much more likely to leave than females: In the period in question, over seven in ten emigrants were male. Second, over half the males were aged between 15 and 29 years, although the significant proportion of older males on board—over three in ten were aged 30 or above—is also striking. Third, the age distribution of female migrants did not vary much over the year, but that of males did. The preponderance of male travelers and the small proportion of young males early in the year are striking; clearly, family units were more likely to travel in the second half.

Passenger lists point to migrant selection by age and gender but are silent on other aspects of selection. Did the best and brightest leave? Using data on heights, Spitzer and Zimran (2018) suggest that the Italian migrants were negatively selected at the national level, but positively selected from poor regions, where average heights were shorter than elsewhere.

While opponents of migration everywhere lament the loss of accompanying human capital, opponents of immigration highlight the low human capital endowments of new arrivals. A priori, if the return to education and skills was greater in the sending than in the receiving country, then negative selection might be the result. On the other hand, it might be argued that the considerable fixed costs associated with the migration decision would lead to a bias toward migration by the more skilled. The higher those costs, the higher the probabilities that migrants were young and male and that the migration was long-term.

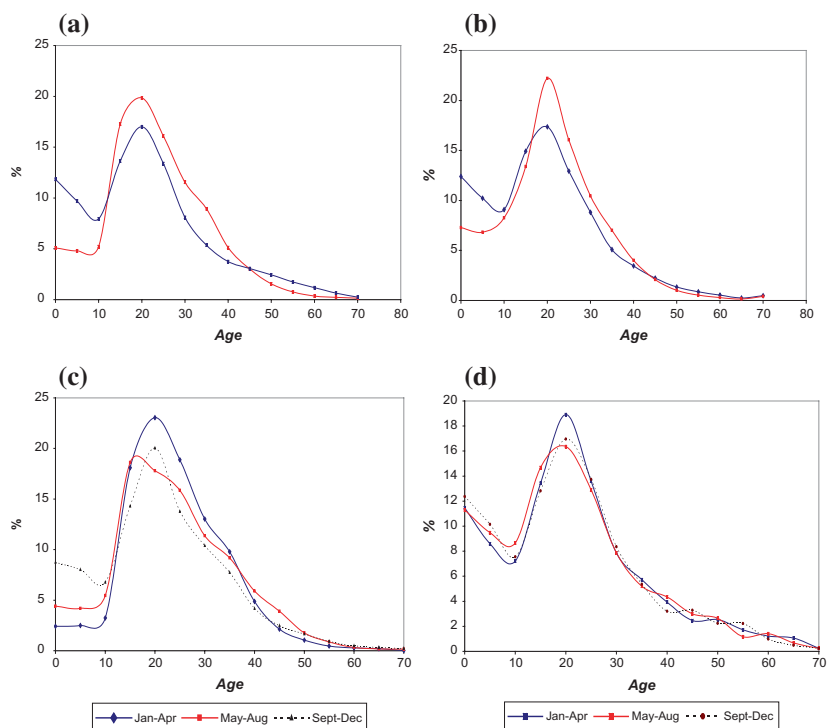


Fig. 6.1 (a) Age-distribution of “Roma” passengers, 1902–1905. (b) Age at arrival Italian-born US residents, 1900. (c) Male age-distribution: “Roma”, 1903–1905. (d) Female age-distribution: “Roma”, 1902–1905

As far as brain gain is concerned, a precious qualitative source is Coletti (1911),⁹ who argued that the migratory experience brought home how schooling led to higher salaries and a better quality of life. Analyzing the overall impact of migration on Italy’s development in the liberal age, he claimed that “migration is the best friend of literacy ... It is the experience of migration that testifies to the utility of primary education as a powerful tool of upward social mobility and it is undoubtedly the most persuasive deterrent to dropping out of primary school ... Migration is the main cause of the rise in school attendance.”

⁹Francesco Coletti (1866–1940) was an Italian statistician and economist. The quotations that follow are in his 1911 publication, from page 147 onward.

This theme was also stressed by Jarach (1909: 57)¹⁰ and Cipolla (1969), who claimed that, despite the countless constraints on schooling, literacy was crucial because of the emigrants' desire to relay news on health and material progress to families back home. In Sicily, enrollments in primary schools increased remarkably in the first decade of twentieth century. The enrollment rate rose from 54.5 per thousand inhabitants in 1902 to 73.5 in 1907. According to Coletti: "Since nothing else can explain the event, the reason must be sought in people's consciousness. Despite the hostility of the environment in which people live and their financial straits, individuals finally convince themselves that literacy may be an effective weapon against poverty. This firm conviction emerges thanks to emigration."¹¹ Lucania (or Basilicata) was at the time the region with the highest emigration rate. There, Coletti noted, "In most municipalities there is a new common sense among peasants. They have a keen desire to send their children to school. To this end and very frequently, emigrants exhorted their own relatives at home to go to school." And in Calabria, where outflows were soaring, "Mothers clean up their children, take them to school and ask the teacher for their children to learn as much as possible. This is because fathers write from the U.S. that their children must be educated. Only through the migratory experience do fathers realize the cost of illiteracy" (Coletti 1911). As regards northern Italy, Cipolla (1969), analyzing the high literacy rate of the population living in the Alpine areas bordering Austria, Switzerland and France,

¹⁰Cesare Jarach, a statistician, was commissioned by the Ministry of Agriculture, Industry and Business, to carry on an inquiry into the economic conditions of the Abruzzi, one of the Italian regions.

¹¹In this statement, Coletti clearly does not take fully into account other possible institutional and supply-side factors that most likely affected the enrollment rates. Nonetheless, Giffoni and Gomellini (2015: 12), who control for supply-side factors in their estimates argue that pre-1911 institutional changes as school reforms had little or no effects in fostering attendance rates. Bertola and Sestito (2013) have recently studied the topic in detail. Although various laws reformed the system in this period, all in all, the final judgment on the reforms implemented in the first five decades after Italy unification is pretty clear: Due to a range of factors, they had little or no impact on primary school attendance rates. In the same vein, more recently, Cappelli and Vasta (2019: 23), who study the post-1911 effect of the Danco-Credaro reform which centralized primary education. They state that between Italy's unification in 1861 and 1911, "the 50-year persistence of decentralized primary schooling hampered the accumulation of human capital and regional convergence in basic education."

argues that literacy was triggered off by emigration which forces potential migrants to become literate in order to keep in touch with relatives.

With respect to the second possible mechanism we mentioned, return migrants could be more capable of perceiving education as a tool to achieve success and prosperity. As a result, they may foster school attendance of their pupils. The returnee channel is well documented too and is well described by Coletti:

He who returns from America is a human being transformed and able to transform ... He embodies the old village-like soul which was renewed by the American economy and society, so that he can bring a new energy to the country to which he returns... Emigration is a great school; it embodies ... thousands of thousands of scholarships. It rids the mind of old rust, it inculcates ideas that otherwise would not be able to penetrate.

Life abroad left its mark on return migrants. Ease and fluency in their manner of speaking, style of dress, greater awareness of their own dignity and their rights, no awe of the old employers, the desire to deal with municipal affairs and a heightened political awareness all are just a few traits that describe returnees (Coletti 1911).¹²

The prospects of emigration incentivized both adults (parents) and children to attend school. Not that children were able to make decisions on their own: Parents, or somebody else, made decisions on their behalf. In what follows, we try to separate the impact of migration on children's and on adults' education by distinguishing between the effect of migration on attendance at public schools and enrollment in evening classes (public primary schools were purely for children while evening schools were attended mainly by adults). More important: Following the literature on brain gain, we argue that agent's conjecture to emigrate in the future relies on what he or she observes (and has observed), i.e., present

¹²Clearly, the effect of returnees on the sending country depends also on the investments they implement in the native country and on the amount of savings accumulated abroad. For example, Cerase (1967), in his research on returns from the USA, shows a discouraging scenario in the South. He finds out that 19 percent returned because their migratory project failed, 40 percent because their savings plans were reached, 26 percent for retirement and only 16 percent to invest in the area of origin. See Del Boca and Venturini (2003) and Bevilacqua et al. (2001).

(and past) outflows. A second likely channel for brain gain is through returnees. It assumes that they were richer than when they left, and so can afford the cost of sending (more) children to school. Returnees were also more “aware” (Coletti 1911) of the benefits of schooling.

Central to our analysis is the yearbook *Annuario Statistico delle Città Italiane*, 1906–1914, published every two years by the *Unione Statistica delle Città Italiane* and inspired by the *Yearbook of German Cities*. The *Annuario* collects records on the social, political and economic life of the largest municipalities (those with over 10,000 inhabitants). The cities are well distributed across the peninsula: Out of roughly 110 cities detected, 47 belong to the South and 63 to the North.¹³

Table 6.1 reports descriptive statistics of the variables we consider in our analysis with respect to education, migrations, income, public expenditure and transport costs. The section on education includes information on the number of schools (public, private and evening classes), teachers and pupils, as well as on attendance rates and learning outcomes. *Attendance rate* refers to the percentage of enrolled pupils not dropping out of primary school. Averaging about 81 percent, it was subject to considerable regional variation. Data on public spending on education are available too, and, most importantly for our study, there are data that allow us to measure foreign migration out of and into each municipality until 1914.¹⁴ *Migration and Returns* represent the outflows and foreign inflows respectively, obtained by dividing the flows by the population of the municipality and then multiplying by 1000. Table 6.1 shows that Southerners were much more likely to leave and less likely to return than Northerners.

Attendance rates depended on disposable income: Since yearly estimates of disposable income do not exist at city level, we use, as a proxy of income, a measure of *tax proceeds*, in particular the sum of the tax revenues accruing from a large variety of council taxes (compare Mortara

¹³The choice to sample more important municipalities was taken to guarantee the comparability among the Italian cities (and thus minimizes measurement errors).

¹⁴A necessary step when dealing with the education system would be to examine how it is structured. In Giffoni and Gomellini (2015), the authors analyze the structure and the evolution of Italy’s education system between 1861 and 1913.

Table 6.1 Italy: descriptive statistics, 1904–1911^a

	Variable	Mean	Std. Dev.	Min	Max
Sample	Attendance rate ^b	81.4	9.04	45.2	98.8
	Enrollment rate of evening schools ^c	9.37	7.39	0.00	35.3
	Literacy rate ^d	75.8	19.7	22.0	100
	Migration ^e	6.87	4.10	0.29	40.6
	Returns ^f	2.65	1.63	0.11	7.54
	Expenditure ^g	3.89	2.16	0.93	17.7
	Council taxes ^h	2.21	1.11	0.10	20.5
	Remittances ⁱ	13.6	8.20	0.30	41.5
	Transport costs ^j	186.7	34.3	157	227.2
South	Attendance rate	76.3	10.5	45.2	98.0
	Enrollment rate of evening schools	7.34	5.65	0.00	22.2
	Literacy rate	53.8	13.6	22.0	90.4
	Migration	11.2	9.50	0.29	40.6
	Returns	1.23	1.07	0.11	5.66
	Expenditure	2.60	1.20	0.93	7.30
	Council taxes	2.14	0.59	0.10	4.65
	Remittances	19.4	7.98	0.83	41.5
	Transport costs	185.0	36.3	157	216.3
North	Attendance rate	83.7	7.10	57.2	98.8
	Enrollment rate of evening schools	10.2	7.86	0.00	35.3
	Literacy rate	85.7	12.8	43.7	100
	Migration	4.82	4.26	1.01	25.0
	Returns	3.31	1.41	0.52	7.54
	Expenditure	4.48	2.26	1.18	17.8
	Council taxes	2.24	1.29	0.86	20.4
	Remittances	11.7	8.14	0.30	38.7
	Transport costs	187.4	34.9	157	227.2

^aDescriptive statistics on Italian municipalities are based on annual data on 84 cities for the years 1904, 1906, 1908 and 1911. Total number of observations is thus equal to 336. We split the sample into the cities belonging to the South and the North; ^bAttendance rate in public primary school; ^cEnrollment rate in evening classes; ^dLiteracy rate; ^eAbroad migration rate; ^fReturn migration rate; ^gPer-capita public expenditure on primary education; ^hPer-capita council taxes; ⁱPer-capita remittances; ^jTransportation costs (Source See text)

1913; Becker and Woessman 2009; Ciccarelli and De Fraja 2014).¹⁵ This wide range of taxes allows to avoid a possible skewness in the distribution of taxpayers going from the wealthiest households to the poorest ones so that we have a relative broad and representative basis. At the national level, the correlation coefficient between per capita GDP, as estimated in Baffigi (2013), and our measure of per capita tax proceeds is 0.98, statistically significant at the 5 percent level. *Expenditure* proxies the educational supply-side: It is per capita public spending in primary education at the municipality level. Finally, *Remittances* is a rough proxy. It is the ratio between consumption tax proceeds and income tax proceeds, with the idea that an important part of not officially traced remittances is used for consumption although does not appear in official income.

Thus, we used the data described above to estimate the relationship between different aspects of emigration and schooling. Using different econometric techniques, we measured the contribution of emigration to schooling along the three channels we have seen before. The results of the analysis are summarized in table/figure?

Leaving out technical aspects,¹⁶ a useful way to interpret the effect of migration on schooling is to translate the estimates we have got so far into numbers that express their magnitudes (Fig. 6.2). Turning the

¹⁵For further detail, see the *Annuario Statistico delle Città Italiane*, from 1906 to 1914 and Villani (2011).

¹⁶In more technical terms, we found evidence of a positive relationship between the emigration rate and the attendance rate for public primary schools: A 10 log point increase in the outflows (inflows) is associated with a 0.19 (0.37) log point increase in the attendance rate (the estimated association remains robust also adding a complete set of interaction terms between geographical dummy variables at macro-area level and time dummy variables). As far as evening school enrollment rate is concerned, the elasticity of the enrollment rate with respect to emigration (returnees) is 0.161 (0.300): weak evidence, perhaps, for the view that migration would have spurred adult education. Finally, many scholars emphasized the influence of remittances in alleviating the budget constraint that prevents people from investing in education. We tested this hypothesis, and we found that a 10 percent increase in remittances is associated with a 0.48 and a 0.38 percent increase in the attendance rate. In an exercise described in detail elsewhere (Giffoni and Gomellini 2015), we address potential concerns about reverse causality, omitted variables and measurement error biases by running instrumental variable (IV) regressions where IV is the combination of average costs of a third class rail travel from city i to the nearest embarkation port, and the averaged steerage cost from port k to the destination.

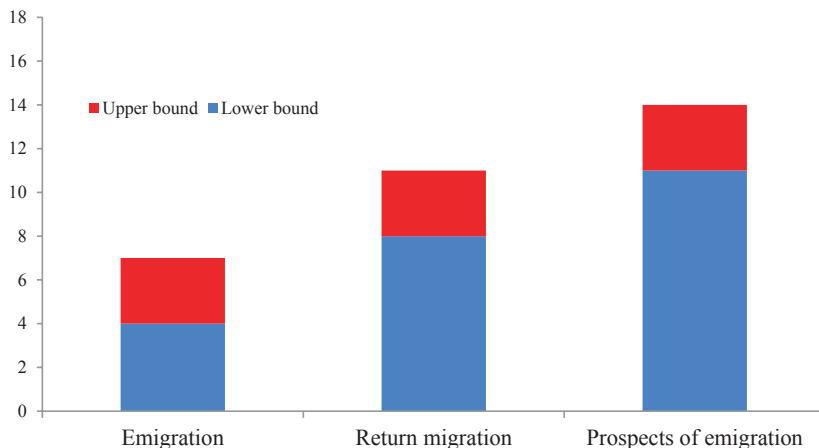


Fig. 6.2 Additional non-dropouts pupils due to emigration, return migration or prospects of emigration (*number of students every 100 migrants or returnees*)

estimated elasticities into numbers of pupils, we find that each additional 100 migrants arguably kept at school a number ranging from 4 to 7 students in the short term and from 3 to 5 in the long run. By the same token, each 100 additional returnees increased the number of pupils who did not drop out of school by from 8 to 11 at impact and by from 5 to 9 in the “steady state.” For evening schools (prospect of emigration channel), the elasticity of the enrollment rate to migration implies that an additional 100 migrants increased enrollment in evening schools by from 11 to 14 individuals both as impact and in steady state. This is a reassuring upshot since empirical studies which analyze the present are in line with these figures (e.g., Docquier and Rapoport 2010).

6.5 Brain Drain and Brain Gain in Ireland

If upward intergenerational mobility is a measure of immigrant achievement, then evidence that while the average occupational status of Irish male immigrants during the Great Famine to the USA lagged behind that of natives, their male children had converged strongly toward the

norm by 1880, is a measure of successful adaptation, albeit with a lag (Collins and Zimran 2018). The fates of two exceptional emigrant sub-groups, whose passage was state-assisted in whole or in part, are worth brief mention in this context. The first, consisting of four thousand or so fleeing the Lansdowne estate in the southwest of Ireland in the wake of the Famine, had their passages paid by a combination of public and private assistance. Many settled in the poorest of New York's slums in the early 1850s, and they can be traced in the archives of savings banks in New York, whose detailed records survive for the 1850s. Matching bank and census data suggests that the immigrants, although mainly unskilled and illiterate, had achieved a modest improvement in occupational status by 1860.¹⁷ The history of the second group, consisting of a similar number of workhouse inmates, all female teenagers and nearly all orphans, is very different, but it is also one of successful coping. Transported at public expense to Australia, they girls adapted well to the extent that the marital fertility and life expectancy of those who have been traced so far are consistent with relatively living long and healthy lives (Ó Gráda 2019).

Most of the sons and daughters of Irish laborers and smallholders who left in such vast numbers after the Famine were happy to leave, as they would have faced bleak futures at home. Yet as emigration persisted, commentary focused increasingly on the worry that it was healthiest and the brightest who left, resulting “a perpetual survival of the unfittest, a steady debasement of the currency” (Oldham 1914: 213–214). Sometimes the discourse turned more unpleasant, as when the impact of the outflow was likened to “what would occur if the best specimens of a herd of cattle were continually exported and herd replenished by breeding from the inferior stock that remained” (Lynn 1968). As noted earlier, common sense suggests some bias toward the more talented among the emigrants, but the literature on the issue remains stubbornly inconclusive (Ó Gráda 1994: 77–78, 229–230). An officially appointed inquiry in the 1950s (Commission on Emigration 1956:

¹⁷Note, however, that the authorities in Massachusetts deported a small number of the most destitute among them (Hirota 2017).

127; compare Sexton et al. 1991), referring to mid-twentieth-century outflows, downplayed the losses, noting that “the majority of emigrants came from agricultural occupations or else were unemployed and unskilled.” Indeed, it might be argued that by targeting such migrants, for the most part literate but with little schooling, consistently since the Famine, emigration “improved” Ireland’s occupational distribution. Connor’s (2019) finding, based on individual-level census data, that emigrants in the early twentieth century were mainly drawn from households headed by farmers and less literate males living in poorer parts of the country also squares poorly with claims that Ireland was losing the “best.” Selection, in other words, was not as positive, as feared by contemporary observers.

What of brain gains? The history of Irish schooling suggests one likely channel. Long before the creation of a national publicly funded elementary school system in Ireland in the 1830s, private schooling, usually secular although sometimes supervised or subsidized by the clergy, was widely available. In the late 1770s, touring agronomist Arthur Young found that “hedge schools [were] everywhere to be met with,” and Dickson (2000: 217) has described the “pool of anglophone literates” to be found throughout the countryside in the 1790s as the product of a rise in informal schooling in the wake of an upswing in rural incomes in mid-century. These schools—mostly small—seemingly catered to a widespread demand for basic literacy and numeracy in the English language. An official inquiry in the mid-1820s found that a hefty 44 percent of 6-13-year-old males and 26 percent of females were attending school (Ó Gráda 2013). Such relatively high rates find corroboration in the 1841 population census, which includes the earliest comprehensive survey of literacy in Ireland. The picture was one of improvement across the island, as the 1841 census commissioners were eager to emphasize. In the 1830s and thereafter, attendance was undoubtedly boosted by the establishment of a state-supported primary schooling system in 1834.

Given the limited employment prospects awaiting most young Irishmen and Irishwomen in the pre-famine era, the extent of the demand for schooling is rather remarkable. If we assume, following Mitch’s analysis of occupation and literacy in Victorian England (1992:

14–15, 213–214), that literacy was unlikely to have been of use to men and women working as spinners, farm laborers, domestic servants, carmen or laborers and porters, then in Ireland on the eve of the famine well over half of all males and three quarters of all females aged 15 years and above worked in jobs not requiring literacy. In Leinster, the percentages were 54.3 percent for males and 77.1 percent for females; in Connacht, they were 63.5 and 87.3 percent. These are broad categories; they exclude many less important occupations also unlikely to have required literacy.

It is tempting to consider Ireland's "surplus" literacy rates in this era as part of a "brain gain." True, there is evidence that those who emigrated were more likely to be literate than those who remained. For example, early Irish emigrants to Australia were much more likely to be literate than Irish people of the same age who remained at home (Richards 1999: 352–354). In a study of Australia-bound convicts, Oxley (1988: 93) found that whereas 52 percent of Irish-born females transported directly from Ireland were illiterate, only 34 percent of Irish-born females transported from England and 22 percent of those transported for crimes committed in Scotland were illiterate. But even before the Famine, the rise in emigration was also linked to an increased demand for schooling even in the poorest corners of Ireland. School attendance seems to have been strongest in the 1820s in counties where migration rates were highest in the immediate pre-famine period. Again, the big increase in school attendance after the Famine was due in part to rising living standards, but its timing and spatial spread suggests that it may also have been a response to emigration (Fitzpatrick 1986). The rise in emigration from the west coincided with big increases in literacy.

Evidence of the impact of migratory flows on the incentive to acquire education can be also found in the shift from the Irish language to English. In multilingual societies, the returns to proficiency in the elite language are considerable. Chiswick and Miller (1999) found that the earnings of legalized immigrants in the USA in the 1980s, who could both speak and read English, were "higher by about 8% for men and 17% for women ... compared to those lacking both skills." Several other studies corroborate such gains (e.g., Adsera and Pytlikova 2015; Bleakley and Chin 2010; Jain 2017).

In the late eighteenth century, about half of Ireland's population was Irish-speaking. Irish broadly held its own between the 1770s and the 1800s, but thereafter, however, its retreat was rapid (FitzGerald 2003). In the period between the Act of Union and the Great Famine, between one-fifth and two-fifths of the young people of nine of the thirty-two counties switched from Irish to English, and large tracts of the country became English-speaking. By the 1840s, Leinster and Ulster (excluding Donegal) were already overwhelmingly English-speaking. And of all the remaining counties with significant Irish populations in the 1860s, only Donegal and Galway still had significant communities of Irish speakers in the 1920s.

This switch from Irish to English represented one of the most dramatic cases of language shift on record. The attitude of most Irish speakers to what others might regard as a cultural tragedy was non-sentimental. They cast the old tongue aside as a mark of economic backwardness and isolation. As an inhabitant of one of the last monolingual redoubts told reminded a prominent language revivalist over a century ago, “*Is beag an mhaith í nuair a ghabhann tú thar an Teach Dóite* (It's of little use to you when get beyond Maam Cross)” (Wall 1968: 87). For post-Famine emigrants to America knowledge of the English language was human capital, gaining them access to employment closed to other immigrants. This was particularly so for women in domestic service and men in the police force. Since very few Irish immigrants arrived in the USA without English, the advantages of speaking English are not easily determined from US data. However, the gains from proficiency in English may be seen from data on Italian immigrants. Italians who arrived in childhood and thus learned English in US schools had a big advantage in terms of employment over those with no English, even after controlling for age, gender and literacy (Table 6.2).

As FitzGerald's data imply, before migration became significant in the pre-famine decades, the shift to English was modest. Within a few decades, with the increase in the demand for labor in England, America and long-anglicized eastern Ireland, the gains from proficiency in English grew significantly—and so did the demand for schooling. Later, even when emigration dominated, not everyone emigrated. But there was a high probability that everyone would, and so the demand for English became universal.

Table 6.2 Occupational status, language and literacy by age-group Irish and Italian Immigrants in the USA, 1900–1910

<i>Socio-Economic Index [SEI]</i>			
<i>IRISH 1900</i>	20–29	30–39	40–49
M (Lit)	19.8 (4898)	22.0 (7674)	23.1 (5991)
M (Illit)	10.2 (149)	11.9 (364)	12.3 (424)
F (Lit)	13.8 (4598)	17.0 (2058)	20.7 (1461)
F (Illit)	10.6 (114)	12.4 (109)	14.0 (177)
<i>ITALIANS 1910</i>			
M (Lit+English)	21.9 (1471)	25.4 (980)	27.1 (532)
M (Lit+No English)	12.0 (917)	14.0 (556)	16.4 (290)
M (Illit+No English)	11.0 (587)	12.4 (478)	12.3 (258)
<i>Education score [EDSCOR50]</i>			
<i>IRISH 1900</i>	20–29	30–39	40–49
M (Lit)	8.9 (4879)	9.0 (7642)	8.4 (5976)
M (Illit)	3.4 (149)	6.6 (362)	4.0 (423)
F (Lit)	6.5 (4576)	7.8 (2054)	10.1 (1454)
F (Illit)	3.9 (114)	3.7 (109)	4.7 (174)
<i>ITALIANS 1910</i>			
M (Lit+English)	11.1 (1471)	11.2 (980)	10.3 (532)
M (Lit+No English)	4.2 (900)	4.8 (553)	5.7 (281)
M (Illit+No English)	3.6 (587)	4.3 (478)	4.1 (256)
<i>Earnings score [ERSCOR50]</i>			
<i>IRISH 1900</i>			
M (Lit)	50.8 (4998)	53.3 (7674)	52.5 (5991)
M (Illit)	41.0 (149)	46.2 (364)	43.6 (424)
F (Lit)	13.7 (4598)	17.1 (2056)	20.4 (1461)
F (Illit)	12.4 (114)	15.3 (109)	13.9 (177)
<i>ITALIANS 1910</i>			
M (Lit+English)	51.6 (1471)	51.5 (980)	52.9 (532)
M (Lit+No English)	43.5 (900)	45.8 (553)	48.9 (281)
M (Illit+No English)	41.0 (587)	42.0 (478)	42.4 (256)

Source Extracted from IPUMS

Post-famine immigrants from Ireland to the USA had an edge over other immigrants, in that they could both speak and write English. Both private schooling and public schooling, which was conducted almost exclusively through English, played an important part in the language shift.

The proportion of Irish emigrants who returned was always too low to generate a significant brain gain. Little can be inferred about the character of the returnees. An analysis of a small cohort of returnees c. 1858–1865 (‘t Hart 1985) is consistent with some skill acquisition

while abroad, but the data may be biased by the overrepresentation of men evading conscription during the US Civil War. Note too that emigrant remittances may have boosted human capital at home by helping to fund the education of those who remained. In the absence of hard data during the age of mass migration, the flow of emigrant letters has been proposed as a proxy for remittances; later, Ireland's national accounts, exceptionally, included an estimate of emigrant remittances as factor income from abroad. Between the Famine and mid-1880s, official data on remittances from North America to the UK (and that meant mainly Ireland) averaged about £1 million annually or about one percent of Irish national income; in the mid-twentieth century, the percentage would peak at two percent (Schrier 1958: 104–105; Central Statistics Office data).¹⁸

Finally, Table 6.2 compares the occupational status of samples of Irish and Italian workers in the USA in 1900, controlling for age, gender and literacy and distinguishing between Italians who spoke English and those who could not. It uses three constructed measures of occupational status. The first [*Socio-Economic Index* or *SEI*] is “a measure of occupational status based upon the income level and educational attainment associated with each occupation in 1950.” The second [*EDSCOR50*] is a constructed variable based on the percentage of those in the respondent's occupational category who had completed one or more years of college. The third [*ERSCOR50*] is also a constructed variable that assigns an income to each occupation. All three measures paint similar pictures.¹⁹ Several differences stand out. The link between literacy and socioeconomic status is clear, as is the greater propensity of older Irishwomen to leave the labor force. Surprisingly, perhaps, English-speaking Italians scored higher than Irishmen and Irishwomen on all three measures.

¹⁸Even today these are high percentages by international standards: see World Bank, “Personal remittances, received (% of GDP),” available at <https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS>.

¹⁹For more on the codes, see <https://usa.ipums.org/usa-action/variables/group/occ>.

6.6 Concluding Remarks

Few sending countries were more affected by the age of mass migration in Italy and Ireland. Between the 1880s and World War I outward migration from Italy totaled about 13 million, while between the 1840s and World War I that from Ireland reached about 7 million. Given that Ireland's population at the outset was much smaller than Italy's and that fewer Irish emigrants returned for good, the impact was greatest in Ireland. That such massive outflows increased the incomes of those laborers and smallholders who did not travel is not in doubt. Econometric analysis of the impact of emigration on real wages confirms this. Still, the suspicions that selection bias tempered the gains are often voiced. Some likely aspects of selection bias such as ambition, self-reliance and risk aversion are not easily measured. However, our survey of those that are easier to measure suggests that the suspicions, more often articulated in Ireland than Italy, are exaggerated. Moreover, it also points to the likelihood of some mitigating brain gains in both countries through the impact of emigration and return migration on the stock of human capital in the sending countries.

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7

The Production of Impoverished but Sophisticated Emigrants: Emigration, Human Capital, and Economic Growth in Sweden

Johannes Westberg

Abstract In the period between 1850 and 1930, an estimated 1.25 million Swedish citizens emigrated to North America. In this chapter, I examine two dimensions of the relationships between schooling, emigration and economic growth in this context. Firstly, I address the impact that emigration had on Sweden's comparatively high levels of human capital. Secondly, I discuss the influence that the emigration of this comparatively literate population had on economic growth in Sweden. The results of these investigations indicate that the magnitude of the loss of labor force that the emigration implied, rather than the loss of specific skills, imposed a greater influence on the economic development of Sweden during this time, even though the emigration and re-migration of certain professional groups may have also influenced economic growth.

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7.1 Introduction

The mass emigration of Swedes to North America prior to World War II remains a fascinating episode in Swedish history and rightly so. The emigration rates from Sweden were among the highest in Europe. Admittedly, they were lower than the intercontinental emigration rates of Norway and Great Britain, but they were comparable to that of Italy and Portugal, and even higher than those of Denmark, Finland and Germany (Easterlin 1961, 335). Between 1851 and 1930, an estimated 1.25 million Swedish citizens emigrated to North America, of which about 200,000 returned to Sweden before 1930. Thus, between a fifth and a quarter of all Swedish citizens settled in North America during this period (Carlsson 1976, 129; O'Rourke and Williamson 1999, 122). By 1910, every sixth Swede lived in the USA (Ljungberg 1997, 160). These numbers are particularly staggering, considering that the Swedish population in 1850 was no more than 3.5 million (Karlström 1985, 19).

In this chapter, I examine two dimensions of the relationships between schooling, emigration and economic growth. First, I investigate the impact that emigration had on Sweden's comparatively high levels of human capital—levels that prompted Lars Sandberg (1979) to describe the Swedish population as an “impoverished sophisticate.” This investigation includes the presentation of the domestic supply and demand factors that promoted the development of human capital in Sweden, and a discussion of the extent to which emigration and the consequent re-migration either implied a brain drain or a brain gain. Second, by referring to previous research, I discuss the impact that the emigration of Sweden's relatively literate population had on its economic growth. By doing so, I show how existing research indicates that the magnitude of the loss of labor force that the emigration implied, rather than the loss of particular skills, had the greater impact on the economic development of Sweden, notwithstanding the fact that emigration and re-immigration of certain professional groups may also influenced economic growth in Sweden at the time.

7.2 Emigration from Sweden

Although journeys had been made by people from Sweden to North America earlier in history—including the Viking journeys across the Atlantic and a seventeenth-century attempt at creating a Swedish colony in the Delaware region—the second half of the nineteenth century saw the first significant migration from Sweden to North America. There had also been some mobility between Sweden and USA in the early nineteenth century. Between 1820 and 1844, evidence show that 563 passenger fees for journeys from Sweden to the USA had been paid. These tickets were, however, probably not for the purpose of emigration, but for tourism, business or other reasons (Carlsson 1976, 115).

Swedish mass emigration to the USA started in the mid-nineteenth century. At this point in time, Sweden was a largely rural and sparsely populated country. Although emigration, at times, was prompted by downturns in business cycles, the second half of the nineteenth century saw substantial economic development in Sweden, as indicated by a growth in the total GNP and a growth real wages (see, e.g., Sandberg 1979; Ljungberg 1997). Between 1870 and 1910, labor productivity rose from 39 to 53% of that of Britain's, while Swedish real wages rose from 30 to 59% of the US real wages (O'Rourke and Williamson 1995, 1, 5).

During this period of remarkable economic development, the emigration rates from Sweden fluctuated sharply (see Fig. 7.1). In total, 75% of the emigration to the USA took place during a total of 35 years (1868–1873, 1879–1893, 1900–1913). After what has been described as the pioneering period of 1845–1854, which saw the emigration of about 14,500 individuals to the USA, increased emigration was seen during the famine years of 1868–1873; the so-called culmination of Swedish emigration in 1879–1893 encompassing 493,000 emigrants; the pre-war emigration of 1900–1913; and the postwar emigration of 1920–1929. Although emigration from Sweden to North America continued to some extent—in total, about 9000 persons left Sweden in the 1930s—immigration into Sweden began to supersede emigration rates. The era of mass emigration had thus ended (Carlsson 1976, 116–128).

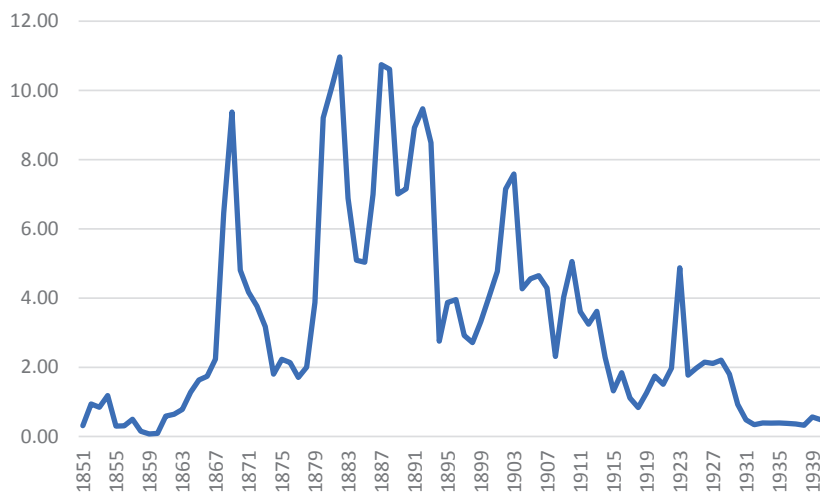


Fig. 7.1 Rates of emigration from Sweden, 1851–1940 (Source Lund University Macroeconomic and Demographic Database. Note Emigration rates from Sweden to all countries per 1000 persons)

As a result of the rural character of Sweden, the majority of emigrants moved from the countryside where they had a background in agriculture (Carlsson 1976, 140–143). Although these rural emigrants were not equipped with a level of educational attainment above the basic primary school level, they were probably comparatively *literate*, both from a Swedish standpoint and from an international standpoint (Sandberg 1979). This is an issue that will be further explored below. As were most emigrants from other countries (Hatton and Williams 1992, 4), the Swedish emigrants were also quite young. 71% of the Swedish emigrants in the period 1881–1910 were between 15 and 34 years of age, and only 13% were older than 34 years of age (Bohlin and Eurenus 2010, 535).

Just as with the volume of emigration, the *character* of the emigration fluctuated over time. The pioneer period saw, for example, the emigration of religious dissents (Söderberg 1981) and the emigration of a number of particularly wealthy individuals who aimed to profit from the land that was available in the American Midwest. Thereafter, emigration was linked to the severe crop failures (in Sweden)

of 1867 and 1868, and the industrial recessions of 1879–1880 and 1891–1893. Other periods relevant to emigration include the crisis in Swedish agriculture of 1886–1888, and the labor market conflicts of the early part of the twentieth century (Carlsson 1976, 123–130). The early emigrants travelled as families, often together with other families. However, at later stages, Swedish emigration consisted of young, and frequently, unmarried individuals. The proportion of emigrants who were farmers also decreased, and, instead, increasing numbers of farmhands, maid servants, and farmer's sons and daughters whose future looked bleak in the overpopulated rural regions of Sweden made the journey to North America (Carlsson 1976, 119–132, 142). This change in the structure of the Swedish emigration has been linked to the purpose of the emigration. At an early stage, emigration offered individuals the opportunity to exchange their small Swedish land plots or smallholdings for the reasonably priced farms in the Midwest. At a later stage, when the number of farms decreased, emigration was driven by the desire to take on better-paid employment, thus characterizing this emigration as a form of *labor migration* (Carlsson 1976, 130–132).

The Swedish emigration described above was caused by several factors that have been framed in terms of push factors and pull factors. By its contemporaries, this emigration was often seen as the result of push factors that included rural poverty, a restrictive, class-based society, (perceived) heavy taxes and forced conscription. Pull factors included the possibility of living a better life and the opportunity to acquire land (Norman 1976, 149–150). Research in the fields of history and economic history has similarly presented a number of different explanations as to why emigration, in general, takes place. These studies include the examination of issues such as the role of a country's demographic structure, economic growth, its level of industrialization, the presence of social networks and the extension of suffrage (Hatton and Williams 1992; Bertocchi and Strozzi 2006). In the case of Sweden, studies have shown that push and pull factors interacted with each other. When the US economy was expanding and the Swedish economic cycle was in regression, emigration increased and vice versa. Some research results indicate that the economic development in America was a stronger pull factor than certain push factors, such as weak business cycles in Sweden (Norman 1976, 151–152).

Research has also been devoted to examining regional variations (within one and the same country) with respect to emigration. In Sweden, the six counties of Halland, Värmland, Kronoberg, Älvsborg, Jönköping and Kalmar represented 28% of the rural population between 1881 and 1910, but were the home counties of 44% of the emigrants. To explain these patterns, land ownership and population growth have been considered as push factors. In areas with rapid growth that was dominated by small farms (i.e., the structure of the agrarian sector at the time in certain counties—including limited opportunities to acquire new land) stimulated emigration. Studies have also shown how people's desire to emigrate abroad decreased the nearer to a city they lived. In such cases, the urban population moved to other urban areas instead of moving to a foreign country. People's desire to emigrate was more observable in areas which already a strong tradition of emigration (Carlsson 1976, 140; Bohlin and Eurenus 2010).

Previous research has provided us with insight into the emigration of Swedish women. Quantitative data indicates that women emigrated to a lesser degree from Sweden than men. This tendency was particularly marked when emigration rates were high, for example, during the 1880s. Swedish women also seem to have responded less readily to the pull of economic upswings in the USA and also seem to be less affected by the push of economic decline in Sweden, than men. These observations have been explained in terms of the fact that labor market opportunities for women were restricted and included jobs which were less affected by rises and falls in business cycles, for example, jobs as a servant or maid (Bohlin and Eurenus 2010, 535). Nevertheless, nineteenth-century women perceived emigration as an opportunity to escape from the traditional, Swedish rural society. While minimum regulations regarding primary schooling applied to boys and girls alike, women first received equal inheritance rights in 1854. Note, too, that unmarried women were declared legal adults in 1858; women received the right to attend higher education in 1870; and they were given voting rights in national elections as late as 1919–1921 (Norborg 1993, 138–140). Potential female emigrants also noted the very low status that female servants were granted in Sweden. In this respect, the perception of the USA as a “women's paradise,” where a woman's social status

was higher and where a servant's working situation was comparatively better, was a push factor (Kälve­mark 1983, 140, 171–172).

The phenomenon of Swedish emigration (during the time period under discussion) raises a wide range of questions. These include questions concerning the production of such relatively literate emigrants—their level of literacy will be qualified in the discussion below—and questions concerning the consequences that such large-scale emigration had on economic development in Sweden. As evident from below, these questions are not properly answered by simple answers. As is evident from below, answers to these questions are dependent on what social or professional groups one examines. In this chapter, the analysis of the expansion of mass schooling in Sweden is based on my own recent research (see Westberg 2014, 2017), and the vast body of research on Swedish emigration that has been published from the 1960s to date.

7.3 The Production of Human Capital in Nineteenth-Century Sweden

The high level of literacy that was possessed by the Swedish emigrants was the result of a number of interconnected developments. As Sandberg (1979) notes, Lutheranism created the cultural, religious and political basis for the rise in reading ability of the eighteenth century. The Church Law of 1686 was a typical expression of the reformation: Each and every person should, by himself, read and understand the words of the Bible. The Law of 1686 thereby gave the head of the household the responsibility for educating the children and servants found within the household. Instruction was thus performed largely in the home, with a focus on reading ability and catechetical knowledge. The main role of the clergy was to inspect and register the level of knowledge via examinations that were conducted in church and in the parishioners' homes (Lindmark 2009).

However, the reading campaign was not only imposed on the Swedish population from above. In addition to serving the requirements of the Church and the State, the need for literacy and catechism was

also felt by individuals who wished to live a Christian life. In this context, home instruction supported existing traditions of family prayers and lay readings. But literacy also satisfied more mundane needs, since all adults could expect to be formally examined at their confirmation, marriage and when they moved between parishes. As a result of these practices, the population of Sweden (albeit rural) was able to read at the end of the eighteenth century (Johansson 1988, 2009, 73).

This grand eighteenth-century literacy campaign resulted in what Sandberg describes as a “strong taste preference for literacy and elementary education” in Swedish society (Sandberg 1979, 238) that underpinned the development of schooling in the nineteenth century. By the late eighteenth century and the early nineteenth century, critics nevertheless noticed the limitations of a system that put so much responsibility of the child’s education on the shoulders of its parents. Proposals for the construction of a national elementary school system were thus debated during the first decades of the nineteenth century. As a result of this debate which featured the recurring fear of a growing underclass and included both conservative and liberal stances on the education of the common people, the School Act of 1842 (*folkskolestadgan*) was issued. This act formed the basis of the nineteenth-century school system that the majority of the Swedish emigrants were educated in (Westberg 2019).

The School Act of 1842 defined a school system that was based on the approximately 2300 parishes found in Sweden at the time. The Act stated that every parish was obliged to establish at least one ambulatory school or preferably a permanent school. Such a school was charged to provide children of a school-going-age with at least a minimum amount of education in reading, catechism, biblical history, church singing, writing and arithmetic. The School Act did not make schooling compulsory, since it allowed children to be educated at home, and it did not define a minimum (or maximum) number of school years which the child should attend, apart from noting that schooling should commence once the child had reached the age of nine at the latest. Instead, the responsibility for organizing and funding these schools was placed on the shoulders of the nascent school districts that the parishes oversaw (Westberg 2019).

Although the central government developed their involvement in the local school districts, by establishing a system of school inspectors (1861), publishing guidelines for school building design (1865, 1878) and curriculum guidelines (1878, 1889, 1900), and increasing the size of central government subsidies, a decentralized organization remained a central feature of the Swedish primary school system throughout the nineteenth century (Westberg 2017, 12–15; 2019). This design of the Swedish school system was, in many respects, successful. Not the least in the respect that it enabled Sweden to reach high levels of primary school enrollment by 1900, which were comparable to those of France, Prussia and the USA (Lindert 2004, 92–93). This system also enabled high levels of primary school expenditure per (school age) capita. In fact, the levels of expenditure in this regard exceeded those of Prussia and France, but they were below the USA, and England and Wales (Chaudhary et al. 2012, 223).

In light of the literature on the history of schooling, the notion of impoverished sophisticates as applied to the Swedes is one of interest. To begin with, the literacy levels in Sweden do not seem to have been propelled by industrialization and urbanization, which are forces that have been emphasized in the existing research literature. (Regarding such explanations, see, e.g., Boli 1989.) In addition, the influential theories of schooling and state formation do not shed much light on the developments in Sweden. Although the School Act of 1842 may be explained by the growing significance of a world model of the nation-state, that included such acts, it does not explain the actual development of schooling in Sweden, which differs from the development in other countries that promulgated similar School Acts, including Greece (1834), Spain (1838) and Portugal (1844) (Soysal and Strang 1989, 278). State Formation Theory, which links rapid developments in schooling with intensive state formation processes following war or revolutions (Green 1990), fails to properly explain the events that unfolded in the nineteenth century in peaceful Sweden following the rather undramatic loss of Finland in 1809 (Edgren 2010).

In fact, there are several other stand-out features of the early Swedish school system that deserve further investigation. First, I must emphasize the strong preference for basic education that was found at all levels of

Swedish society. This created a demand for schooling among parents, who, due to the long tradition of popular education in Sweden since the literacy campaign following the Church Law of 1686, had a firm belief in the value of basic education. This firm belief in education was also reflected among particularly influential social groups that, at a local level, decided how the provision of schooling would take place. As Andersson and Berger (2018) have shown in a quantitative study of more than 2000 local school districts, districts that were dominated by local elites invested more in schooling than other districts. Qualitative case studies have found similar support for the provision of basic schooling among the landless, as well as among farmers, industrialists and estate owners (Tiscornia 1992; Westberg 2018). Whether this support was strengthened by an increased demand for literacy due to emigration opportunities (see Mountford 1997) remains, however, to be determined.

Secondly, the decentralized organization of the Swedish primary school system displays several features that may explain its success in creating comparatively high levels of human capital. The somewhat decentralized organization and funding of the Swedish school system were probably one of these features. In his comparative study, Lindert (2004) argues that decentralization promoted the expansion of schooling. By allowing governing bodies at the local or regional levels to decide on school matters, decisions could be made with respect to educational investments that could not have been taken at a national level. Although decentralization certainly did not promote schooling in every national context (see, e.g., Cappelli 2015, in the case of Italy), the Swedish decentralized school system was able to create rising enrollment rates.

Although much research remains to be done on the specific features of the Swedish decentralized school system that enabled a rapid rise in enrollment and educational expenditure, a number of institutional features deserve mention. To begin with, the local organization of each Swedish school district was of importance. The significance of local governing bodies which enjoyed the right of holding funds and collecting taxes has been noted in the case of schooling in the USA (Beadie 2010). In Sweden, each school district had the right to fund their schools by

taxing their inhabitants according to a tax system and a tax level of their choice. The School Act of 1842 only specified that a school district could choose to implement a per capita tax, a general tax or fund their schools by means of school fees (Westberg 2017, 2019). In addition to these responsibilities, each school district also had the authority to collect taxes. Based on the Swedish parishes, these school districts were part of an already established, respected organization that, since medieval times, had taxed their inhabitants for various purposes (Westberg 2014, Chapter 5). In this regard, it is important to note that the decentralized Swedish school system was based on organizationally strong local school districts that enjoyed the authority, the ability and the legitimacy to tax their inhabitants, in a context in which basic literacy was highly rated.

In terms of school funding, the Swedish school system was also well supported. Despite that Sweden remained comparatively poor from an international standpoint at the mid-nineteenth century (Sandberg 1979), and the scarcity of monetary resources in rural Sweden (where a farmer's household still produced a significant share of what they consumed), the Swedish school districts were able to fund an increasing number of schools. Apart from the strength of local school districts, their use of in-kind resources may partly explain how they were able to provide the Swedish population with a basic education. Even though in-kind taxes were in decline in Swedish society at large (Schön 2010), they played an important role in the funding of primary schools following the School Act of 1842, reducing the reliance on monetary taxes and thus enabling the expansion of mass schooling in Sweden (Westberg 2017, Chapter 4).

In terms of school funding, the Swedish school system was also given increasing financial support from the central government. After the reform of 1871, a matching grants system was introduced that provided school districts with a proportion of teacher salaries up to a certain salary level. As the Swedish school system expanded, however, the central government's share in school districts revenues did not increase at the same pace. Instead, state subsidies remained at about 30% of the school districts' revenues in the years between 1865 and 1900. Although local taxes remained the main source of income for each school district,

this comparatively high level of state subsidy (from an international standpoint) promoted the provision of schooling in Sweden (Westberg 2017, 144–148).

Although the factors described above did contribute to the rise of mass schooling in Sweden that resulted in high levels of enrollment and literacy, it must be acknowledged that the primary school system in Sweden, as in many other countries, only provided school-aged children with a *basic* level of education. In 1859, only seven percent of school children were provided with an education that was above the minimum level (focusing on reading, writing, arithmetic and religious knowledge). Statistical data from 1865 indicates a similar focus on these school subjects, in contrast to the relatively few children who received instruction in history, geography, natural history and drawing (Westberg 2019). The schooling that was provided also had quantitative limitations. Estimates indicate that the average school attendance was 59% in 1890, despite the fact the school year consisted of a mere 34 weeks (Ljungberg and Nilsson 2009, 80).

While we thus might draw the conclusion that Swedish children were provided with a merely basic education, the nineteenth century nevertheless saw an increase in writing ability. In 1905, 95% of Swedish convicts could both read and write, and among military recruits in 1905, 69% could write “acceptable” and 30.3% could write “good,” while only 0.7% could not write at all (Johansson 1977, 89, 91). What these figures indicate is, I believe, the main accomplishment of the decentralized, Swedish, nineteenth-century school system. This system was based on fiscally robust school districts, in-kind taxes and increasing state subsidies.

7.4 A Brain Drain?

The emigration of a significant and relatively literate part of the Swedish population was, by contemporaries, perceived in different ways. In the early phases of this emigration, positive attitudes were held toward it. Emigration was, for example, optimistically described as a “Swedish colonization of America” that could have a positive impact

both on individuals and on society at large. Emigration would reduce competition for work among those left behind, and the detrimental effects on Swedish society were downplayed. In line with a Malthusian perspective, emigration was supposed to reduce the pressures of a growing population. The Swedish economist, Knut Wicksell (1851–1926), argued, for example, that emigration could solve the problem of rural poverty. There were also those who saw emigration as a necessity and as a method for creating a better balance between the age groups in Sweden; a country whose demographics were marked by excessive numbers of young people at the time (Kälvemark 1972, 56–63; O'Rourke and Williamson 1999, 147).

There were, however, also negative attitudes toward emigration, which were particularly marked at the turn of the century (i.e., later in the period under discussion). The fact that so many Swedes had emigrated from their fatherland was perceived as a national failure to provide opportunities for its own sons and daughters and as an expression of a lack of national solidarity. In addition to these nationalist arguments, there were voices raised which claimed that emigration deprived the agricultural and industrial sectors of its labor force. Such voices also implied that Sweden had lost its best and brightest as a direct result of emigration. There were also those who argued that emigration weakened the state of Sweden's national defense. As a result of this concern, the Swedish Emigration Commission was appointed in 1907 to investigate the causes of emigration, in order to implement policies to curb it (Kälvemark 1976, 106–112).

As contemporary commentators have indicated, we need to examine the relationship between education and emigration, both at the level of the individual and at the level of the society. From the perspective of the individual, the decision to emigrate may be perceived as a deliberate decision where the individual weighs the expected cost of emigration against expected benefits; the latter including the possibility of gainful employment (Bohlin and Eurenus 2010). There is evidence indicating that individuals could benefit from emigration. As Sandberg (1979) has shown, Swedes were comparatively highly remunerated among workers in mining and manufacturing in the USA. In this respect, the relatively high levels of literacy in Sweden may have enabled Swedes to benefit from their decision to emigrate from Sweden.

On a societal level, the sheer volume of the emigration raises a number of questions regarding its impact on the human capital and economic development of Sweden. In terms of educational attainment and literacy rates, note that emigrants from European countries often had higher literacy rates than those who stayed behind (Williamson 2006, 21–22). This was probably also true in the Swedish case, for the same reason as in other countries; those individuals who emigrated were comparatively young and had consequently benefited from the expanding school system. This system resulted in an increase in school enrollment rates and the number of years each child spent in school (Table 7.1). There are also other reasons why one should stress the relative skills of the Swedish emigrants from an international perspective. The Swedish school system exhibited comparatively high rates of enrollment (e.g., Lindert 2004, Table 5.1), and, as mentioned above, Swedish immigrants in the USA had comparatively high average wages, which may indicate a relatively high level of literacy and other skills (Sandberg 1979, 235–237).

The notion whether emigrants were more educated than their peers may, however, be questioned. In the case of Norway, Abramitzky et al. (2012) show that men from urban areas with poor prospects were more likely to emigrate than their wealthier nationals. In the Swedish case, we know that the majority of emigrants did not originate from the educated or vocationally skilled strata of society. In (mostly) agrarian

Table 7.1 The expansion of primary schooling in Sweden, 1843–1940

	Enrollment ratio (ages 7–14)	School year in weeks	Attendance of those enrolled (%)	Average school years
1812	5.4	23.9	25	0.1
1820	7.1	25.2	27.1	0.1
1843	21.2	29.3	33.9	0.4
1868	64.9	34.3	43.2	2
1890	72.9	34.3	59.3	3.1
1910	75.3	34.3	80.4	4.3
1940	77	37.4	98.4	5.9

Source Ljungberg and Nilsson (2009, 80)

Note The category, “average school years,” has been standardized

Sweden, emigrants were often among the poor and landless found in the agricultural sector. Typically, emigrants were sons and daughters of farmers (children living at home, farmhands, maids, servants, apprentices) who, due to the demographic revolution, saw their opportunities to own land (either via inheritance or purchase) dwindle (Carlsson 1976, 140–143).

The question of whether a *brain drain*, defined as “a decrease in average human capital by the emigration of skilled workers” (cf. definition of brain drain in Baten and Juif 2014, 378), occurred in the Swedish context is, consequently, debatable. While they were literate (in comparison with national averages and the international context), these poor Swedish émigrés had, in most cases, *not* enjoyed the benefits of a vocational education or secondary education. Instead, as mentioned above, the Swedish school system merely provided school-aged children with a basic education, primarily in reading, writing, arithmetic and religious knowledge.

Consequently, the emigrants’ level of sophistication, as the emigration’s impact on Sweden’s level of human capital, must not be overstated. Since the majority of emigrants were between 15 and 34 years of age, such large-scale emigration may be expected to have diminished the average level of human capital (in terms of educational attainment, literacy, etc.) for the entire adult population aged between 18 and 65. In terms of educational investment, the emigration of many individuals may also be interpreted as a loss, since the investment in the education of children by their respective families and school districts was lost once they had emigrated to the USA (cf. Hill 1975, 49–50 regarding the gains made by the USA in this respect). However, for the main group of the emigrants (categorized in terms of their age), the average human capital in Sweden would not necessarily have been negatively affected, since the emigration mainly consisted of individuals from the countryside who possessed just basic education.

The negative impact of the emigration on economic development is also open for discussion. Although the Swedes who emigrated earned comparatively high salaries in the USA (Sandberg 1979), and while some enjoyed certain social, political, and economic success in the USA (Carlsson 1988), it is highly doubtful as whether these poor rural

emigrants would have enjoyed the same opportunities to employ their entrepreneurial mind-set if they had remained in Sweden and thus contribute to the country's economic growth. In Sweden, the small number of individuals who had access to significant capital and the restricted access to higher education limited the recruitment base for entrepreneurs to the upper classes and the upper middle classes (Dahmén 1970, 63–64).

7.5 A Brain Gain?

In addition to observations that focus on the general features of Swedish emigrants, the analysis may also address the specific professional groups that left Sweden. Apart from the dominant group of rural emigrants, other social groups and professions were also represented among the masses that left Sweden. In the last two decades of the nineteenth century, shoemakers, and metal and mechanical engineers were among the groups that frequently emigrated. Emigration frequency was also comparatively high among tailors; so much so that international competition caused their market in Stockholm to fall between 1886 and 1893 (Carlsson 1976, 142–144).

Although it is possible to talk about a brain drain in specific sectors, for example, tailors and shoemakers in Sweden (which had their counterparts in the emigration of Danish dairymen [Hvidt 1975, 115]), the loss of workers with particular skills hardly had a significant impact on economic growth in Sweden. One group that might have implied a brain drain of certain economic significance was, however, technical engineers. Technical engineers (individuals who held a degree from a technical educational institute) constituted a professional group that exhibited a comparatively high rate of mobility. Of 5994 graduates from technical educational institutes in Sweden between 1880 and 1919, an entire 38.9% emigrated abroad to the USA or to other Western countries (Grönberg 2003). Technical engineers were, however, among those groups that also exhibited a high rate of re-migration. Among Swedish emigrants in general, re-migration increased during the 1880s, had peaks during the US economic recession in 1893–1895,

and increased again during the period 1902–1908. In total, return emigration equaled 15% of the emigration from Sweden 1875–1913 (Tedebrand 1976, 209, 213–214). In contrast, about 71% of emigrant technical engineers migrated back to Sweden.

Engineers who were born in Sweden's larger cities and possessed high level of education and social origin were most tempted to return. While working abroad was beneficial for engineers with a low social origin, engineers who had high social origins were most likely to leverage their foreign experience to obtaining management positions. Back in Sweden, these engineers played major roles in the development of Swedish industry. In the mechanical and electrical industries, technical engineers filled about two-thirds of the leadership positions, and in the steel and iron industry, approximately 45% of management positions were occupied by technical engineers. The emigration of this particular professional group resulted in what may be termed a brain gain, according to Grönberg (2003). Using their experience from abroad, these engineers implemented production methods that they had learnt from abroad, once they returned to Sweden (Grönberg 2003, 21, 70, 254–256).

The above conclusion may, however, not be drawn regarding re-migration to Sweden in general. For many farmers' sons, their stay in the USA merely allowed them to buy a Swedish farm with money that they had saved from abroad. Case studies indicate that as many as 93% of re-emigrants did not change their social position after their stay in the USA. For these individuals, their stay in the USA—most frequently consisting of a period shorter than 4 years—was merely a parenthesis in their lives (Tedebrand 1976, 226–227) that neither had a profound impact on their individual life-journey nor on economic growth in Sweden.

7.6 Two Models of Interpreting Emigration

Instead of being directly interpreted as a brain drain, the research literature has interpreted the impact of the significant loss of the literate population on Sweden in various ways, depending on how economic development in Sweden is interpreted. As mentioned above, economic

growth started to accelerate from the mid-nineteenth century onwards in Sweden. This process exhibited several phases. Initially, the main contribution to growth (in terms of GDP or GDP per capita) was not industry, but, instead, it was agriculture and related activities (Edvinsson 2005, 173). Thereafter, the first period of industrialization focused on steel manufacture and the sawmill industry. The subsequent, so-called second industrial revolution was based on mechanical engineering and the production of motors (Henning et al. 2011, 541).

While this catch-up was part of an international pattern, in which poor countries on the periphery of Europe often experienced a faster growth than the richest European countries (O'Rourke and Williamson 1995, 1), this development was also determined by the national context. In the Swedish case, a wide variety of factors have been acknowledged to have been operative. These include Sweden's natural resources, a favorable international environment and high literacy rates (O'Rourke and Williamson 1995). In this context, the economic historian Lars Magnusson has, for example, described the international market, the growing domestic market, the prevalence of handicraft production in cottages and the supply of capital as vital preconditions for the industrial transformation of the Swedish economy (Magnusson 2000, 109–117). Other studies have stressed factors such as high levels of human capital (Sandberg 1979), institutional changes including the freedom of economic activity (1846), a liberalization of the labor market (Henning et al. 2011) and the ability of the increasingly productive agricultural sector to transfer its labor force to the industrial sector (Göransson 1988).

In general, there have been two major theoretical models that are invoked to come to an understanding of the industrialization process that took place in Sweden. The Export Model emphasizes the role of export and British free trade, high savings and low consumption. According to this model, the expansion of the Swedish industrial sector could be financed largely because of the high profits earned from the export of timber and other raw materials. On the other hand, the Domestic Market Model stresses the role of increasing commercialization, a growing domestic market and heavy capital imports. According to this model, the development of the Swedish domestic market

enabled the Swedish economy to respond to changes in the international markets in the 1850s and also guided subsequent development by means of capital imports. From this perspective, raised wages and increased consumption were vital factors that contributed to the rationalization of both the agricultural sector and industrial sector. A development which created circumstances which could attract and sustain future economic development (Ljungberg 1996, 265–267).

One's interpretation of the impact of emigration depends on how the Swedish catch-up is understood. On the one hand, studies have perceived emigration as a slightly negative factor. Departing partly from the Export Model, Urban Karlström has argued that while emigration did not have a significant impact on the Swedish economy, it did hamper the transfer of resources from the rural sector to the urban sectors of the economy and thus hurt the export-oriented Swedish industrial sector (Karlström 1985, 161). From a domestic market perspective, Lennart Jörberg has argued that a more rapid population growth would have promoted a larger domestic market, increased capital imports and driven a more rapid urbanization process (Ljungberg 1997, 160). Similarly, Lars Magnusson has noted that it is reasonable to assume that the loss of population resulted in a loss of labor force that hampered economic growth (Magnusson 2000, 111).

From the perspective of the Domestic Model, however, the Swedish mass emigration may also be understood as stimulating economic growth. Clearly, emigration entailed a significant reduction of the labor force. This reduction has, however, been interpreted as an important factor that raised wages, and, in turn, triggered certain structural changes in the Swedish economy. In the agrarian sector, emigration has been linked to higher wages for farmhands, which stimulated the mechanization of farming and thus increased farming productivity in Sweden (Morell 2011, 169; cf. Allen 2009, Chapter 3 on the role of factor scarcity in technical changes in the agricultural revolution in England). In the industrial sector, emigration has been linked to the transition from the staple industries of timber and iron, to modern engineering and the pulp industry. Due to these industries' use of modern technology and increased productivity, they could afford to meet raised demands with respect to wages (Ljungberg 1997, 160–161). From this perspective, it

was thus not the loss of skilled labor that primarily affected economic growth in Sweden (via a shortage of skills), but rather it was the reduction of the labor force as a whole (regardless of level of skill) that stimulated the economy, via raised wages that a shortage of labor had created.

7.7 In Conclusion

In summary, this chapter has provided insight into the complex relationships between schooling, emigration and economic development in the curious case of Sweden; a country marked by rapid economic development, high levels of emigration and high rates of school enrollment and literacy rates. In this particular case, the development of mass education certainly raised the human capital stock of the country which, in turn, promoted economic growth (Sandberg 1979; Ljungberg and Nilsson 2009).

The loss of numerous young and relatively literate emigrants does, however, not seem to have entailed a loss of human capital that significantly hampered economic growth. In the context of rural Sweden, with its generally high levels of literacy, emigration did not mean that Sweden lost its best and brightest. Instead, the emigrants came from the average literate rural population whose opportunities to contribute to the economic development of Sweden were limited due to their lack of (academic or vocational) education and due to their limited access to capital. With respect to specific professions, however, another image emerges. Instead of a brain drain, the Swedish emigrants' return home may, instead, have entailed a brain gain with respect to certain professions. A staggering 71% of the technical engineers returned to Sweden, often claiming positions in which their experiences from abroad would have had a positive impact Swedish industry.

Most importantly, the main significance of emigration in the specific case of Sweden, in terms of economic development, was not the loss of literate inhabitants, but the loss of a labor force. The exit of 1.25 million Swedish citizens between 1851 and 1930 implied, according to the Domestic Model of Swedish industrialization, raised wages that, in turn, prompted structural reforms of both the agrarian sector and the

industrial sector and consequently stimulated economic growth. In the curious case of Sweden, it was thus not the human capital of those who emigrated, but the human capital of those who stayed behind or returned that played the most important role in economic growth at the time and in subsequent years.

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8

Organizations Matter: German Schools and Educational Performance Amid Brazilian Coffee Plantations (1840–1940)

Bruno Gabriel Witzel de Souza

Abstract Current literature on human capital accumulation has significantly advanced our understanding of the historical origins of current educational outcomes. Historical dependence, however, is not deterministic and shocks can change the levels and trends of educational performance in the short and long run. A particularly important shock refers to immigration, as flows of foreign-born carry stocks of human capital, potential demands for schooling and specific cultural traits. Albeit increasingly convincing in their identification strategies, studies of the historical relationship between immigration and education still present some gaps in terms of transmission channels. After arguing that, on average, immigrants positively affected educational path dependence in Latin America, we are still left with the question of how this happened. This chapter contributes to this question by studying the history of educational organizations founded by a specific group of immigrants in a delimited geographic area, namely German-speaking immigrants in São Paulo, Brazil. Despite being a minority group, German-speakers

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strongly influenced schooling in the region. By the mid-nineteenth century, these immigrants were mainly laborers in the coffee plantations of São Paulo. Consequently, I first analyze the existence of schools in some of these plantations. I then study the foundation and administration of German schools, which showed a large array of strategies in dealing with the supply of education. These schools varied in size, location, curricula, ideological orientation, financial stability and social interconnections with the local population. Studying these historical components contributes to our understanding of how organizations mattered in molding the institutional path dependence of education.

Keywords Germans, German-speakers · Brazil · Schooling, foreign schools · Plantations

8.1 Introduction

Hardly any other facet of globalization raises more passionate societal reactions than international migration and its consequences for receiving societies. *Why do people move? What do those aliens seek? Will they be able to reach their goals? If so, at which costs for the sending and receiving societies?* Academicians, policymakers and the civil society in general have recurrently asked these legitimate questions. What is of little comfort, however, is to notice how easily the framing of such inquiries have turned toward latent or explicit xenophobia and even persecution of minority groups, past and now. The study of historical migration is therefore crucial to evaluate the answers given to these questions at different regions and periods. Overall, it is encouraging to notice that historical experience with mass migration did not lead to the catastrophic scenarios so frequently predicted by those who opposed or feared the movements of people. On the contrary, the academic literature points more to long-term benefits of immigration. By bringing the entirety of their beings, foreigners increase local diversity, which might lead to innovation, transfers of knowledge and ideas and to institutional

shocks—features that are particularly important for the levels of human capital of a society.

The current chapter explores some of these questions with a case study in the context of the global migratory flows of the nineteenth and early twentieth centuries. The chapter summarizes the trajectories of German-speaking communities in the Brazilian state of São Paulo from the 1840s to the 1940s. It focuses on the influence that these immigrants had on the foundation of various educational organizations and how these affected the educational levels of the receiving society.

Although not indisputable, an important branch of the literature on Latin American economic development has advocated the existence of a positive link between international migration and increased levels of education (Sánchez-Alonso 2019, 24–7). Inserted in a broader theoretical framework, the main question is whether immigrants were able to change some institutions of the receiving societies related to human capital accumulation (Glaeser et al. 2004; Acemoglu et al. 2014). Staggering inequality and the capture of the State by entrenched elites were convincingly shown to be related both to the colonial heritage and to subsequent lagged levels of education in Latin America (Mariscal and Sokoloff 2000; Frankema 2009; Wegenast 2010). In particular, Engerman et al. (2009) argue that regions with suitable endowments for colonial cash crops had economic incentives to organize production in slave-operated plantations. The extreme levels of inequality thereupon developed led to restricted political participation and to a limited provision of public goods, including universal schooling.¹

In this context, international migration could have acted as a positive shock to some of these negative outcomes in the post-colonial era, as the literature suggests a positive association between immigration and various indicators of human capital. Figure 8.1 illustrates this potential relationship by plotting a conditional correlation between gross immigration and gross enrollment in Argentina, Brazil, Mexico and

¹Naritomi et al. (2012) show a negative impact of sugar plantations and gold extraction on Brazilian institutions. However, they do not find a direct impact of colonial production on current spending on education.

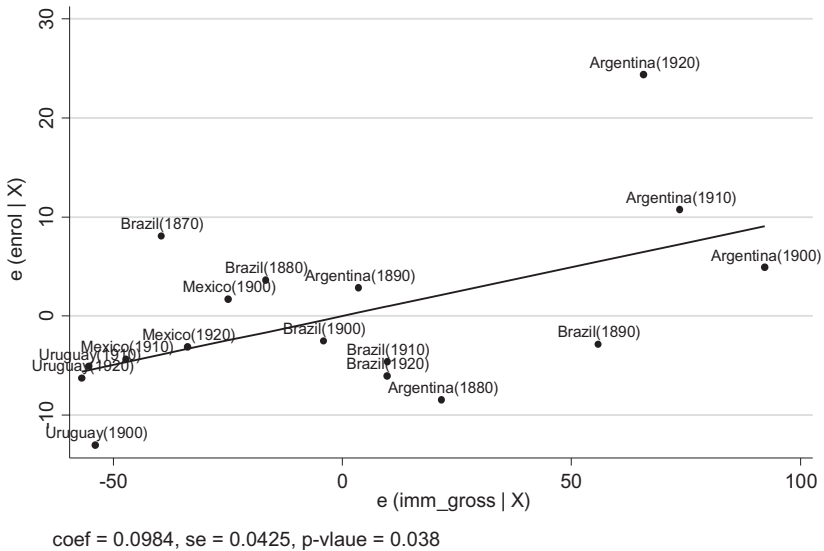


Fig. 8.1 Immigration and enrollment in four Latin American countries: a suggestive correlation (*Sources of data* (1) Gross enrolment from Frankema [2009, pp. 366–7]; gross immigration from Mitchell [1993, pp. 97–100]. *Explanatory note* The graph plots the partial effect of gross immigration on gross enrollment for an unbalanced dataset covering Argentina, Brazil, Mexico and Uruguay from 1870 to 1920, averaged by decade. POLS estimates further control for a time trend and country fixed effects. *Notes* (1) The graph is purely illustrative of the correlation between immigration and education. (1.1) The graph does not imply a causal relation; for this, the stock of immigrants [rather than the flows] would be more adequate. (1.2) A causal assessment would further require a solution to the simultaneity of the variables and other biases stemming from time-varying omitted controls. (1.3) The reported results are not robust. On the one hand, fixed effects and random effects estimates confirm this positive and significant relationship. On the other, results are sensitive to the sample of countries and to refinements in the measure of immigration. In particular, if net immigration is considered [which implies dropping Brazil and including Jamaica and Trinidad and Tobago, according to data availability], the relationship between immigration and education becomes statistically non-significant. All analyses are available upon request)

Uruguay—averaged by decade over the period 1870–1920. The positive sloped line suggests that, on average and holding constant all

other factors in the analysis, a larger inflow of foreigners was associated with a larger number of enrolled children.

Quantitative analyses building on similar evidence have provided increasingly more accurate data and clearer identification strategies in assessing the link between immigration and human capital formation. Studies at the country level in Latin America presented by Frankema (2009), Manzel et al. (2012), as well as those discussed in Sánchez-Alonso (2019) suggest the same positive relationship. For Brazil, a number of authors have found similar results. The transmission channels vary by region, but a general lesson remains: receiving societies benefited from different characteristics of immigrants, which translated into higher levels of human capital (Carvalho Filho and Colistete 2010; Summerhill 2010; Carvalho Filho and Monasterio 2012; Stolz et al. 2013; Rocha et al. 2017; Witzel de Souza 2018).²

Despite its manifold contributions, this literature has still not explored the more disaggregated dynamics of the relationship between immigration and human capital formation. In particular, little is known about the interactions of immigrant communities among themselves and with natives in the supply and demand of educational services. This is a crucial question, as it implies a step forward in unfolding the black box of institutional path dependence. After all, what did immigrants actually do to increase the levels of education? Did natives respond positively or did they increase the constraints against foreigners?

The current chapter attempts to contribute to answering these questions by studying the educational organizations founded by or because of German-speaking immigrants in São Paulo. The main goal of the chapter is to bridge the previous literature with the analyses provided by a vast body of knowledge from the history of education. On the one hand, the historiography on foreign education provides more flesh to the backbone of long-run analyses in economics. To the former, the chapter also adds some new information on the history of educational

²A seminal contribution with relatively different results is that of Musacchio et al. (2014).

organizations founded by German-speakers.³ On the other hand, the institutional analysis of economists provides a thread to the historiography of foreign education, whose case studies tend to be self-contained otherwise.

The chapter is organized as follows. Section 8.2 provides an overview of the migratory flows and educational conditions in São Paulo, focusing on the role played by the German-speakers. Section 8.3 studies the initiatives of some Brazilian landowners to create schools in their farms to attract foreign laborers. This section surveys some schools founded in plantations since the 1840s, but also highlights their educational shortcomings. Section 8.4 studies the formation of immigrant clusters and the foundation of German schools. It aims at showing the internal dynamics of these organizations and their connections to the receiving societies. Section 8.5 presents some concluding remarks.

8.2 Brazilian Context: An Overview of Migratory Policies and Educational Performance

8.2.1 Immigration Policies and the Coffee Economy (1820–1920)

From 1820 to 1920, *ca.* 3.1 million people gross immigrated to Brazil. Although this number is but a small fraction of its total population or as density of the entire country, regional variations make immigration to the center-southern regions of Brazil comparable to other experiences in the southern cone of Latin America (Williamson 2015, 9; Sánchez-Alonso 2007, 415–8; 2019, 10–5).

From 1872 to 1914, the province/state of São Paulo received *ca.* 1.65 million immigrants, the majority from Italy, Portugal and Spain (Levy 1974). Gross immigration accelerated by the end of the 1880s,

³Based on archival research conducted at the *Instituto Martius-Staden*. See Witzel de Souza (2014).

when the provincial government started subsidizing the migratory costs of households who accepted employment in the coffee plantations (see Klein 1995 and references therein). This policy aimed at guaranteeing an elastic supply of labor to the expanding coffee plantations in the aftermath of the Brazilian abolition of slavery, lastly proclaimed in 1888.

The consolidation of mass immigration to São Paulo in the 1880s builds on a long learning process, whose origins can be traced back at least to the 1820s. In the first years of the newly independent country, the Brazilian Empire promoted the foundation of rural colonies for European settlement (Buarque de Holanda 1941, 5). Although more prevalent and successful in the southern provinces, this policy led to the foundation of few but important immigrant nucleuses with German-speakers in São Paulo (Siriani 2003, 2005). The foundation of settlement colonies at the time had primarily political goals, such as the settling of border regions, the increment of demographic density and the “whitening” of a population formed to a large extent by African slaves (Bisan Alves 2006).

Settlement colonies were, however, at odds with the interests of a new class of plantation owners, whose political power started to increase with the expansion of the agricultural frontier to the central-western parts of the province. While older landowners with well-established farms on the coastal region of São Paulo—closer to the capital of the Empire—had consolidated stocks of slaves, the new agricultural frontier had an initially low density of captive workers (Buarque de Holanda 1941, 16; Viotti da Costa 1998, 49–50). At the same time, the Brazilian abolition of the transatlantic slave traffic in 1850 was an important shock to that traditional supply of labor to Brazilian plantations (Viotti da Costa 1998, 74–86). Landowners started looking for alternative sources of labor and immigration appeared as an attractive solution. However, competition in international labor markets was intense at this period, and Brazilian institutions were recognizably unattractive to immigrants: slavery, difficult access to landownership, and the official association between the Brazilian Empire and the Roman Catholic Church were barriers to an increased migratory flow.

A solution found in the 1840s was to hire immigrant contract laborers. With public funds, interested coffee planters supplied credit to poor Europeans interested in emigrating, but who lacked the funds to do so; those immigrants then committed the labor force of each household member to the repayment of the outstanding debt thus incurred.⁴ German-speaking and Portuguese contract laborers hired under this credit-labor interlinkage constituted the main migratory flow to São Paulo from the 1840s to the 1860s. Abuses in the enforcement of contracts by some landowners and exaggerated expectations of immigrants, based on false propaganda circulated in Europe, led to a series of conflicts (Witzel de Souza 2012). The result was a decrease in the migratory flows in the 1870s, when new contractual arrangements paved the way to the mass immigration of the 1880s.

8.2.2 Immigration and Educational Performance: Is There a Causal Relationship?

Brazilian educational performance in the nineteenth century lagged behind not only that of world leaders, but also of other Latin American countries at similar levels of economic development. According to data from Carvalho Filho and Colistete (2010, 9–11), at the beginning of the twentieth century, the number of Brazilian children in school age enrolled in primary schools was only 10% of the level prevailing in the USA and 18% of that of Prussia. More importantly, it was also only a fraction of that in Argentina, Uruguay, Peru and Chile, corresponding to 30%, 37%, 40% and 43% of their enrollment levels, respectively.⁵

This situation started to change simultaneously to the increase in the migratory flows to Brazil. Turning to a within-country analysis, Fig. 8.2 plots the average number of immigrants in a Brazilian province/state (left panel) and that region's corresponding literacy rates (right panel).

⁴The extremely rich literature on the transition from slavery in Brazil includes Buarque de Holanda (1941), Dean (1977), Witter (1982), Stolcke and Hall (1983), Lamounier (1986) and Viotti da Costa (1998).

⁵See also Manzel et al. (2012), Chaudhary et al. (2012, 6–7) and Frankema (2009, 366–7).

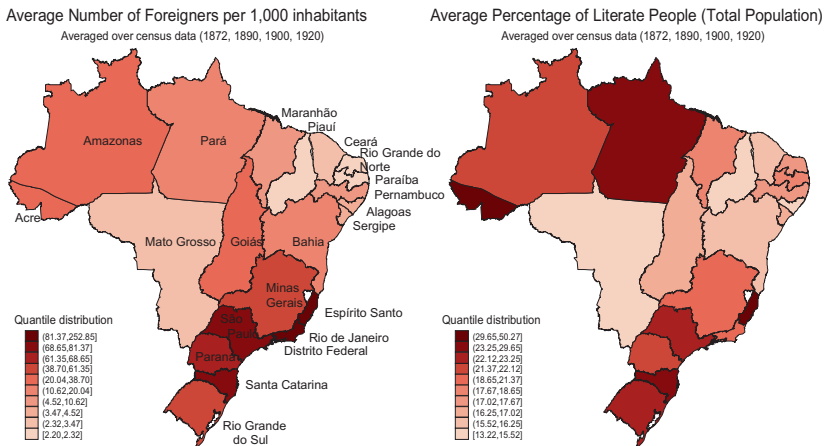


Fig. 8.2 Immigration and educational performance across Brazilian states (Source *Anuário Estatístico do Brasil—Ano V—1939–1940* [Instituto Brasileiro de Geografia e Estatística 1941, pp. 1302–3]. Notes (1) The maps plot the frontiers of Brazilian provinces/states in 1872, adding the territory of Acre, historically incorporated to Brazil in 1903/1904; (2) The cross-province/state distribution follows that of the original source; no adaptation has been made in the geographic units and their changes over time; and (3) All data averaged across the data points from the 1872, 1890, 1900 and 1920 Censuses)

More specifically, the maps show the average stock of immigrants per 1000 inhabitants—averaged over the censuses of 1872, 1890, 1900 and 1920—and literacy rates, averaged over the same period. Please notice that these variables are distributed by deciles, *i.e.*, each group illustrated by a different color in the figure contains 10% of the observed units.

Similar to the previous cross-country analysis, Fig. 8.2 suggests a positive correlation between the share of immigrants and the literacy rate of a province/state. However, linking causally these two variables requires controlling for a number of confounders that could have simultaneously driven immigration and the educational performance of a region. The province/state of São Paulo, in particular, experienced an economic boom with expanding plantations, leading to capital accumulation and a consolidated provincial budget. At the same time, a higher demand for services and crafts emerged in municipalities, which experimented demographic growth and increased rates of urbanization. Finally,

more intricate commercial and financial services, as well as investments in infrastructure required increased levels of human capital and immigrants.

Moreover, the establishment of a causal relationship requires some assessment about immigrants' selectivity. The literature has only recently opposed the hypothesis that immigrants to Latin America were negatively selected in terms of human capital comparatively to their counterparts in the Western Offshoots (Sánchez-Alonso 2007, 2019). However, it remains true that the majority of immigrants to Brazil came from countries with comparatively low levels of education (Musacchio, Fritscher and Viarengo 2014, 747) and that most immigrants were among the poorest Europeans, with high opportunity costs to invest in education.⁶

Unfortunately, we still lack comprehensive microdata on immigrants' literacy in Brazil by the mid-nineteenth century. However, as mentioned before, most studies in economic history have shown a positive impact of immigrants on education even after controlling for the most important confounders. Furthermore, there is a plethora of studies on the history of education showing the active role of foreigners in founding schools in Brazil.⁷ Minority groups, especially Germans and Japanese, played an outstanding role in the supply of education. Similarly, although Italians had lower levels of human capital comparatively to other northwestern Europeans, their massive inflow after the 1880s also strongly influenced the educational landscape of São Paulo.

These two branches of knowledge have unambiguously pointed to immigrants' contributions to consolidate the Brazilian educational system until World War I, when the first effectively restrictive policies against foreign schools started being enforced. Later on and in a *cre-scendo*, the initiatives of immigrants received deathblows in the 1930s, when new legislation prohibited the usage of foreign languages and nationalized the administration of foreign schools. Once Brazil joined

⁶In an unsettled debate, Dean (1977, 113) defends that poverty had no effect on immigrants' self-selection to Brazil.

⁷For specific German schools, see Bezerra (2001, 2007), Santos Nobre (2004), Ribeiro (2005) and Gouvêa (2011).

the Allies in 1942, the contributions of German, Italian and Japanese schools ceased officially (Seyferth 2002, 2013). Nevertheless, they had already a centennial history by then.

8.3 Immigration and Schools Amid Coffee Plantations

The first contribution of immigrants to the Brazilian educational system was to incentivize the supply of schooling services in some farms where they worked. Landowners and public authorities slowly learned that schooling provided a non-monetary incentive to attract some groups of foreigners (Abrantes 1846, 50; Perret-Gentil 1851, 23). Brazilian precarious educational conditions became a source of concern for authorities in the German States and Switzerland; as it provided strong propaganda material against immigration, the matter received increased attention of the rural elites interested in obtaining foreign labor (Davatz [1858] 1941, 239; Tschudi [1866] 1953, 195–6).⁸

German-speaking contract laborers were generally hired as entire households. This implied that, if household heads were literate, they had attended schools prior to emigrating and their offspring would likely be in schooling age. From the first German cohort of contract laborers arrived in 1847 in farm *Ibicaba*, for instance, 26.4% were younger than 10 years old, *i.e.*, a cohort that probably studied in the farm already from 1847. That farm counted, already in 1851, with a German teacher, listed in the records of immigrant households. The teacher's household, composed by a wife and two children, did not harvest coffee, indicating that he was probably dedicated exclusively to teaching (Perret-Gentil 1851, 41).

Farm *Ibicaba* was proprietary to the firm *Vergueiro & Co.* Headed by Senator Nicolau Vergueiro, this firm captained the hiring of contract laborers in the 1840s and acted as a leading political and economic force in the Brazilian business of international migration in the 1850s.

⁸See also the reports by Tschudi translated in Heflinger (2009, 90–105).

It is noticeable that the Social Contract of the firm, signed in 1846, already envisaged the creation of schools for its employees (Witter 1982, 111). In 1850, the firm *Vergueiro & Co.* even approved the statutes for the creation of a type of vocational school within the German-speaking colony of its farm. The ambitious project aimed at creating a primary, a secondary and a professional school to train “farmers, engineers, veterinarians, and craftsmen”.⁹ This plan, however, never materialized, as can be inferred from the precarious educational conditions described by the next teacher working in farm *Ibicaba*, Thomas Davatz ([1858] 1941, 117–9).¹⁰

Despite criticisms against the low educational attainment of the children living in *Ibicaba*, Davatz’ description of the organization of its school demonstrates the preoccupation of some immigrants with the supply of educational services. The organizational structure of the school was complex and involved all the immigrant community living in the farm. The director of the immigrants’ colony first suggested a teacher to a schooling commission, whose final approval was conditioned on a general meeting of the German-speakers in the farm. The teacher’s remuneration was organized in a way that resembles the associative schools created by German-speakers later on: each family contributed monthly with 320 réis per child; the final wage was raised to 430 mil-réis, with the difference covered by the farmer.¹¹ Davatz argued, however, that he never perceived more than five mil-réis for the profession of schoolmaster (idem, 155–7).

Schools in other farms spread with the increased number of plantations employing German-speakers. In the 1850s, there are records of schools in farm *Angelica* (municipality of Rio Claro), also owner to *Vergueiro & Co.*; in colony *Senador Souza Queiroz* and farm *Saint Jerome*

⁹O Mercantil (17/08/1850, p. 2).

¹⁰This Swiss schoolmaster became the leader of an important immigrants’ strike in 1856—the so-called *Sharecropper’s Riot*—which influenced the decline of contract labor as an immigration policy.

¹¹Similar to the *rate bill* in New England before mass schooling (Engerman et al. 2009).

(Limeira)¹²; and in farm *Saint Lawrence* (Constitution), where lectures were held in German and Portuguese.¹³

In the same decade, about 110 farms in 24 municipalities employed some form of contract labor (Witzel de Souza 2012, 85). In this context, having five farms with schools does not seem to be a great educational accomplishment. Nevertheless, these five plantations had more contract laborers than the average for the period, suggesting that a minimum scale was necessary to supply a school in a farm¹⁴—a challenge that persisted in schools founded by immigrants themselves later on, when a trade-off between scale and the community capacity to solve problems of collective action appeared.¹⁵ Therefore, it is not exaggerated to argue that a non-negligible parcel of immigrant children received some rudimentary schooling still while at the farms (idem 2014, 58–9).

In the period between the immigration of contract laborers and the beginning of mass immigration, farmers continued to compete for labor by supplying various services valued by immigrants. The most prominent probably refers to the hiring of German-speakers by Baron of Porto Feliz. Besides two primary schools in two farms, his laborers counted with medical and religious assistance. The farmer determined that schooling was mandatory for boys and optional for adults. Remarkably, the teachers of the two schools were responsible for the education of the slaves as well. Another farmer who kept employing German-speaking contract laborers in this later period was Francisco de Souza Queiroz.¹⁶ Similarly, his colonies *Santa Barbara* and *São Jerônimo* were considered excellent for offering educational, medical and religious services to immigrants in the 1870s.¹⁷

¹²I could not determine whether these two schools were actually just one.

¹³Valdetaro (1857–1858), “Mapa Demonstrativo das cinco colônias existente no Município da Limeira [...], 25/01/1854”—APESP, Lata C07213—Colônia.

¹⁴See “Carta de Nicolau de C. Vergueiro [...] 06/01/1852,” in Heflinger (2009, 41–2).

¹⁵See “Johann Jacob von Tschudi, ausserordentlicher [...],” Bundesarchiv Bern, E2#2103#101.

¹⁶Correio Paulistano (20/06/1869, p. 1) and Diário de S. Paulo (01/08/1875, p. 2).

¹⁷See Witzel de Souza (2019) and references therein as well as Correio Paulistano—1870 (08/02, p. 1; 26/11, p. 2).

Also interesting was the foundation of schools in farms where German-speakers were absent. In the early 1870s, the proprietor of farm *Laranjal* opened a school for the workers. This farm had employed Germans and Swiss in the 1850s, but modified the ethnic composition of its workforce later on; in the years with German-speakers, no school existed.¹⁸ A similar situation prevailed in farm *Nova Lousã*, a plantation owned by a progressive landowner who never employed slave labor. In that farm, Portuguese children and adults attended nocturnal lectures thrice a week. Finally, there is also some imprecise information about the existence of various schools in the farms of the municipality of Campinas, whose curricula included “writing, music, and different languages” (Luné and Fonseca [1873] 1973, 487–8; Freitas 2013, 44–5).

These are important cases to qualify the claim that political economy determinants necessarily hampered schooling in Latin America. On the one hand, it well-established that the capture of the State by entrenched elites, high inequality, and lack of political accountability are all forces that go against the provision of universal education (Lindert 2004; Galor et al. 2009). On the other hand, empirical and comparative analyses of educational determinants still need to consider more carefully the heterogeneity of elites’ interests (Chaudhary et al. 2012, 13–5). The cases at hand show how the supply of schooling was, at times, aligned with the *private* interests of landowners, who used the supply of education as a mean toward the obtainment of immigrant labor.¹⁹

To be clear, the argument that rural elites had private interests in the provision of education does not invalidate that those elites opposed universal public education. The schools discussed above were supplied at the level of farms, with limited societal impact, low quality, and having students whose opportunity costs were extremely high, especially if their families were bonded to an outstanding debt. Nevertheless, these schools still provided the first rudimentary education to a selected group of individuals in a country where illiteracy was the rule.

¹⁸Valdetaro (1857–1858); O Estado de São Paulo (13/04/1934).

¹⁹As pointed out at the country level by Engerman et al. (2009).

8.4 German Schools in the Countryside of São Paulo

8.4.1 Chain Migration, Associative Life and the Foundation of Foreign Schools

The main channel for the socioeconomic integration of foreigners in São Paulo in the nineteenth century was to settle in urban centers upon the completion of their obligations in a farm. Although some immigrants succeeded in becoming landowners and others remained longer as rural workers, evidence shows that immigrants in São Paulo by the 1870s tended to integrate economically as urban workers. Those who remained in rural areas generally bought land jointly, *i.e.*, with a pool of funds from various families. In this context, Fig. 8.3 maps the distributions of all German schools created until the 1930s.²⁰ It shows a concentration of German-speakers in regions around the municipalities of Campinas and Rio Claro, where the first and largest farms employing contract laborers were located, creating networks for posterior chain migration. The map also shows how, in the first two decades of the twentieth century, the north- and south-western parcels of the state increased in importance for the immigrants, as the agricultural frontiers and the railroads expanded.

A comparative history of specific immigrant clusters goes beyond the scope of this chapter, as the literature has stressed the particularities of these communities according to the origins of the German-speakers and local economic conditions (Bezerra 2007, 64–71; Silva 2010, 84).²¹ Notwithstanding these idiosyncrasies, we observe some common patterns in the socioeconomic and cultural integration of these communities. In line with the predictions of the literature on the determinants of immigration, German-speakers in the 1870s clustered around

²⁰This “historical stock” of schools ignores the disappearance of specific organizations over time.

²¹For case studies on German-speaking rural communities in São Paulo, see Grininger (1991), Bezerra (2001), Alves (2007), Silva (2010) and Varussa (2017). Karastojanov (1998) provides an account of German-speakers in Campinas.

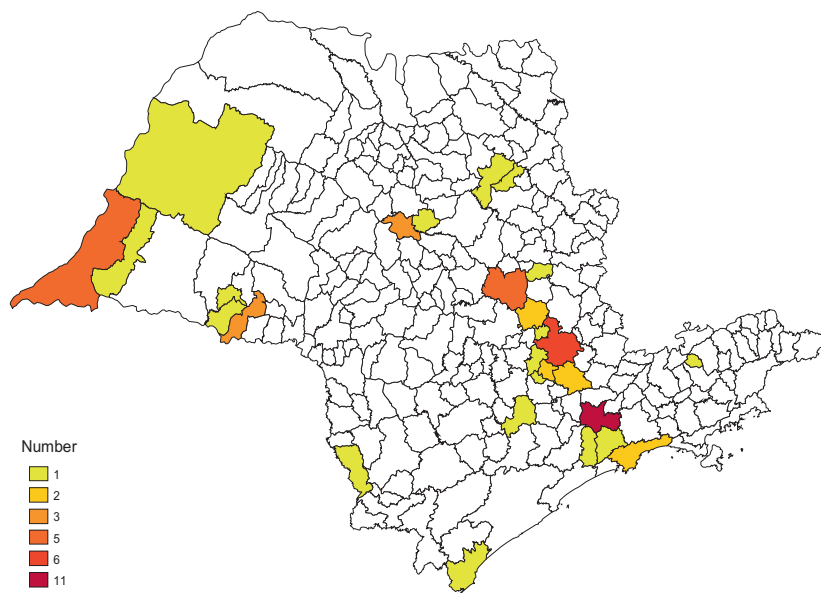


Fig. 8.3 German schools in São Paulo: all schools created until the 1930s (Sources (1) Witzel de Souza [2014, Appendix pp. i–iv] complemented by *Deutsche Schulen im Staat Sao Paulo, Stand 1930. Bearbeitet vom Landesverband Deutsch - Brasilianischer Lehrer. Notes* (1) Date for Santo Amaro, Sao Paulo [capital] and São Bernardo: *Landesverband*; (2) The school located in *Serra da Cantareira* was added to the municipality *São Paulo*; (3) Following Bassanezi [1999]: (3.1) *Serrinha* was added to the municipality *Cravinhos*; (3.2) *Presidente Bernardes* was added to the municipality *Conceição do Monte Alegre* (3.3) *Ferraz-Corumbataí* was added to the municipality *Rio Claro*; (3.4) *Cosmópolis* was added to the municipality *Campinas*; (3.5) *Colony Aymoré* was located in the municipality *Presidente Wenceslau*; (4) The latter probably overestimates the number of German schools due to double counting; (5) Divergences with respect to Witzel de Souza [2018] are due to the geographic units considered and years of foundation of schools)

communities formed in the 1840s–1850s. In this early period, since those immigrant communities were constrained by their scale, private teachers acquired a prominent role (Seyferth 2013, 583 and footnote 9). Schools, if existent, were maintained mainly on a private basis.

The educational situation in the municipality of Rio Claro is illustrative in this regard. With one of the largest German-speaking

community in São Paulo, this municipality had its first consolidated German school only in 1883. Previously, two private teachers—Mr. Heinrich Kitz and Dr. Rhein—attempted to found private schools. The former started his career as a teacher in the farm of a German family; after a failed attempt to found the school in Rio Claro, he became a private teacher in the municipality of Piracicaba, before settling in Franca. Interestingly, Mr. Kitz had immigrated to the USA before going to Brazil, where his fluency in English was considered an educational asset. Dr. Rhein, in turn, had the ambitious goal of founding a primary and a secondary school in that municipality, a plan that unfortunately did not materialize (Hoch 1928, 1; Sommer 1951, II).

Family Bohn was more successful in their educational projects for Rio Claro. In 1873, Edward Bohn and his wife—Maria Guilet Bohn—founded two private schools for boys and girls (Abreu and Arruda Campos 2014, 20–1). Their relative success resulted from the family's outstanding position in the immigrant community and in local social circles, as Mr. Bohn worked also as a music teacher and piano tuner (Luné and Fonseca [1873] 1973, 510, 512). Moreover, Mr. Bohn eventually served as pastor before the foundation of the Lutheran Church in the municipality and captained the inauguration of a Lutheran Cemetery (Krüger et al. 2008, 20–3; Methner 1962).²²

These various societal efforts of family Bohn are symptomatic of the evolution of foreign communities, as most networks of German-speaking immigrants first appeared to solve daily problems related to their socioeconomic and cultural integration.²³ Moreover, similarly to Davatz in *Ibicaba* and Bohn in Rio Claro, one notices in the first immigrant nucleuses the prominent role of teachers, who had a vast array of societal duties for the community, including educational, religious and moral obligations (Grininger 1991, 53, 64; Silva 2010, 100–1; Seyferth 2013, 588). In a sense, the first German schools consolidated in an organization the role that teachers have had personally so far. The

²²The Brazilian Empire (1822–1889), having Roman Catholicism as the State's religion, did not allow for the burial of non-Catholics in official cemeteries.

²³See Ruch (1937), Sommer (1953, VI), Haach (1999, 710), Karastojanov (1998, 51, 91) and Simson (mimeo, p. 5).

most prominent figure in this respect was probably the Lutheran pastor Johann Jakob Zink. Sent to São Paulo by the *Swiss Basel Mission*, he aimed at solving educational and religious problems faced by immigrants and pointed out by a Swiss plenipotentiary minister in the early 1860s. Mr. Zink first established the German School of Rio Claro, before transferring it to Theodor Kölle, a German pastor and educator (Krüger et al. 2008, 23–6).

As immigrant communities grew larger, got economically more thriving and socio-culturally better integrated, organizations that were more complex started emerging. German schools appeared in this context. They were either private or associative, *i.e.*, schools maintained by regular contributions of an association, usually with deliberative power in directing the school. Although some German schools were purely School Associations [*Schulvereine*], the majority had some connections to religious communities and to a number of other organizations, such as reading groups and cultural clubs. Religious associations had been fundamental for the foundation of the first schools in the rural regions of *Pires* (Limeira) and *Kirchdorf* (Leme). In the former, the school included lecture halls, a church and rooms for a teacher and a pastor. Although separated *de jure*, the Board of Directors of the school and of the church were mixed in practice (Bezerra 2001, 138–9). In *Kirchdorf*, the association even mixed in its statutes the school and the religious community. A similar structure probably prevailed in the school of the rural community of *Ferraz-Corumbataí*, given that its first teacher had worked in *Kirchdorf* and initially held only a Sunday school in that other municipality (Keller 1919, 9–12).²⁴

Other schools emerged within the umbrella of multipurpose organizations. In the municipality of Monte-Mor, the school was founded by a so-called Entertainment- and School-Association [*Unterhaltung- und-Schulverein*], which used its meetinghouse for lectures. However, nowhere else can the complex symbiosis between the foundation of

²⁴I did not carry a systematic research about Sunday schools, but they seem to have been important. See, *e.g.*, the letters of Johannes and Frederico Krähenbühl, Piracicaba (07/09/1872) in Krähenbühl (2007, 43).

schools and the broader associative life of immigrants be better seen than in the municipality of Campinas. The first German school in that municipality was created by the Reading-and-School Association [*Lese- und-Schulverein*], in 1874. This association had a long history, appearing for the first time in 1863 as the Association of German Volunteers of Campinas [*Verein der Deutschen Freiwilligen in Campinas*], founded by two economically successful immigrants, Mr. Anton Excel and Dr. Otto Kupfer (Luné and Fonseca [1873] 1973, 332, 342–8; Seckler 1888, 388). This association exemplifies a curious process of political integration: It originally aimed at creating an armed group in favor of Brazil because of a diplomatic distress faced by the country against Great Britain. Local authorities first authorized the existence of the association, but the provincial government did not, albeit thanking its members for their solicitude to their hosting country (Karastojanov 1998, 73–8). Using the same organization, the association then changed its purpose and provided for the foundation of a school (Jahn 1905, 356; Keller 1919, 8–14; Sommer 1951, III). Although related to the maintenance of the German culture, this association was from the beginning concerned with its integration into the local society and its original propose was even to create a “German-Portuguese School” (Karastojanov 1998, 78–9).

The chapter has so far discussed the existence of *German* schools because the term links an educational organization to an ethnolinguistic group. The literature on the history of education, however, is careful in showing some profound structural and ideological differences among schools (Kreutz 2000, 2005; Seyferth 2013). Although the receiving society tended to homogenize those immigrants from Central Europe as the “*alemoada*”,²⁵ they had actually come from almost all over the German-speaking regions and departed at different moments of a half-century that completely remodeled the frontiers of those regions—with major consequences for their senses of belonging.

²⁵This colloquial plural for *Germans* consolidated in the countryside of São Paulo. The term remains associated with phenotypes, ignoring variations of nationalities and cultures.

New migratory waves thus led to the creation of new and diverse schools. New immigrants and some of those who had first settled in older clusters moved westwards with the agricultural frontier. In the new regions, the same process of settlement, clustering and consolidation of an associative life repeated. In the older regions, in turn, problems within the schools led to various breakups and the foundation of new organizations. The most important disputes involved the learning guidelines—especially those regarding religious views—and membership rules in the schools' associations—especially those regarding the acceptance of other nationalities. It is impressive that a small community such as that of *Bairro dos Pires*, for instance, had two schools as the result of disputes on whether the association should be confessional-based (Bezerra 2001, 132–4). A similar scenario prevailed in Campinas, which had the largest number of German schools in the countryside. The Reading- and Schooling-Association, mentioned above, was separated from *School Germania* in 1873. The foundation of the latter was probably a reaction against rules of membership based on nationality (Karastojanov 1998, 109–111).²⁶ Relatedly, disputes about the role of religion in the German schools led Pastor Zink to create the New German School of Campinas [*Neue Deutsche Schule Campinas*] in the 1890s, an institution that was finally merged to the Reading- and Schooling-Association in the 1930s. Finally, differences in the socioeconomic position and financial stability of parents motivated the foundation of different schools, particularly in the capital of the state (Hoch 1928, 4; Bezerra 2007, 64–71).

8.4.2 International Migrants, Local Influencers: German Schools and Education in São Paulo

Together with new migratory waves, an important historical element that led to internal changes in the organization of the schools was the socioeconomic and cultural integration of the immigrants. Differently

²⁶*School Germania* was short-lived and shut down in 1878 (Jahn 1905, 360).

from other immigrant clusters, particularly in southern Brazil, foreign communities in São Paulo were rarely isolated (Buarque de Holanda 1941, 23; Witter 1982, 82; Seyferth 2002, 147). This led to a paradoxical sense of belonging among German-speakers and their descendants. While integration was well on the way by the beginning of the twentieth century, many of the associative organizations aimed at preserving a German identity (Seyferth 2002, 2013, 593–4, 599–600).

This created tensions for the feeling of *Germaness* that became apparent in the guidelines of the schools. First, there was the need to determine how open to the local society a German school was. Second, the school had to decide which skills it would supply. At the beginning of the twentieth century, the first German-speaking contract laborers were already witnessing the birth of second and third generation Brazilians. These older communities increasingly faced the question on whether they aimed at maintaining specific cultural characteristics—of which learning German was the most prominent²⁷—or focusing on skills for a full integration into local society, economy and politics.

Schools in the economically most dynamic regions responded with a more intensive integration into the local educational landscape, especially those located around the capital, in the urban centers nearby Campinas and in the seaport city of Santos.²⁸ The prospects of integration into the local society became also important for members aspiring a position in the schools' associations. In the German schools of Santo André, São Bernardo and Santos, there were only monetary requirements for admission as ordinary members. In contrast, older statutes of the German school in *Pires* required prospective members to be part of the German-speaking community by birth or marriage and to be interested in preserving the German language. Nonetheless, there is evidence that the majority of the German schools did not adopt an attitude of

²⁷For the relevance of preserving the German language, for instance, see examples in: *Instituto Martius-Staden*: Fragebogen Deutsche Schule Rio Claro, 1927—Doc. N. 10858; Dr. Paul Kölle—Instituto Kölle Rio Claro (Docs. N. 41007 and 40628) and *Kirchdorf* (Habermann 1937).

²⁸Theoretical discussion in Chaudhary et al. (2012, 4–5) and evidence for German-Brazilians in Seyferth (2013, 585–7).

exclusivity regarding pupils' nationality. Foreign schools—including of other nationalities—partially filled the gap in the total supply of education left by inadequate public schooling. Local governments probably recognized this; the schools in *Kirchdorf* and in the rural community of *Helvetia*, for instance, even received funds from corresponding municipal chambers (Hoch 1928, 2; Alves 2007, 80–6).²⁹ Moreover, most German schools offered scholarships or exempted certain students from tuitions and fees. This seems to have been a common practice in associative and in private schools alike, including *Kirchdorf*, *Neue Deutsche Schule*, the Reading- and Schooling-Association of Campinas, in *Bairro dos Pires*, Santos, and Sant'Anna (Bazet 1905, 338–9; Jahn 1905, 355; Bezerra 2001, 252; Noble Saints 2004, 195).

The institutionally stable scenario in which German schools consolidated since the 1860s was severely affected by World War I. The Brazilian central government imposed the first legally binding measures against the teaching of foreign languages and modified the statutory bases of foreign schools. From this point, those organizations adopted, voluntarily or forcedly, curricula increasingly more aligned to the Brazilian educational system. In the 1920s, the countryside of São Paulo witnessed the professionalization of German teaching associations, leading to attempts to unify the curricula of schools that had been created since the 1870s (Santos Nobre 2004, Chapter IV; Seyferth 2013, 589). The endpoint to this nationalization process then took place in the 1930s. After 1938, the central-dictatorial Brazilian government consolidated a campaign of nationalization conceived at least since 1889. New legislation established rigid nationality requirements for school directors, administrators and even part of the teachers. A law prohibiting the teaching of foreign languages in schools was followed by a ban on the use of foreign languages in public in 1939 (Bisan Alves 2006, Chapter 2; Seyferth 2002, 140; 2013, 589–99). German-speaking communities had no alternative but to accept the legislation, even if

²⁹Grininger (1991, 128–40), however, discusses the shortcomings faced by local politicians associated with *Helvetia*. For the financial situation of the school in *Kirchdorf*. Instituto Martius-Staden, II. Einnahme, Kirchdorf, 1929/30.

resistance occurred individually, such as with the employment of private teachers for the maintenance of the language.

These shocks decreed the end of an era of about half a century in which foreign communities provided solutions to a limited supply of public education. Quantitative evidence shows that these foreign schools influenced educational conditions beyond the circle of immigrant communities. By the first decade of the twentieth century, German schools in São Paulo increased enrollment in private and in public schools (Witzel de Souza 2018). Unfortunately, we still lack a comprehensive analysis of nominal lists of children enrolled in German schools to determine their nationalities and the degree of openness of the schools to non-German-descendants. Nevertheless, preliminary qualitative evidence shows that Brazilians who did not descend from German-speakers were not infrequently enrolled in most of the German schools. This followed a tradition that can be traced back to the first school of farm *Ibicaba*, where the Brazilian administrator enrolled his children in the foreign school (Perret-Gentil 1851, 68).³⁰ Whether this was a general pattern or more a propagandistic effort of the German schools to show their positive relationship to the receiving society is a question that remains open.

8.5 “Ignorant People”? Some Qualifications and Concluding Remarks

Two assumptions support the literature that links immigration to a better educational performance in Latin America. The first is that immigrants had a higher demand for education than the local population, on average. The second is that immigrants had enough organizational and financial capacity to meet that demand with their own solutions—among others, with their own schools.

For the twentieth century, German-speaking immigrants arrived in Santos indeed had the highest literacy rates (91.1%) among all

³⁰See similar evidence for colony *Riograndense* in the 1920s in Silva (2010, 89).

nationalities, slightly above the Japanese (89.9%) and beyond Italians (71.3%), Portuguese (51.7%) and Spanish (46.3%) (Kreutz 2000, 353). Moreover, although German-speakers had a declining trend in the shares of immigrants to São Paulo, the relative importance of their schools increased over time. In 1917, from 565 private schools in the state, 37 were German. This represented 36.6% of all foreign schools, just marginally behind those founded by Italians, who constituted a much larger share of immigrants (Bezerra 2007, 111–2). For Brazil as a whole, Germans founded the largest number of foreign schools, reaching an impressive number of about 1500 organizations (Kreutz 2000, 355; 2005, 92–3).

However, this chapter discussed at length that the pool of immigrants was very heterogeneous. Hence, it should not be surprising to read accounts in which immigrants were presented as “ignorant people,” as, *e.g.*, claimed by Thomas Davatz in some of the most exasperated lines about the low educational attainment of German-speakers in Brazil. The schoolmaster argued that some immigrants in *Ibicaba* were *barely* literate and possessed *very limited* knowledge of calligraphy, sacred history, arithmetic and singing. Consequently, those individuals had little concern about the education of their offspring (Davatz [1858] 1941, 117–8).³¹

This type of critic is important to qualify the assumption that immigrants had, on average, a high demand for education. It nonetheless does not invalidate the *relative* nature of the argument. Writing with orthographical mistakes and in scrawls still gave those immigrants an educational advantage over the mass of illiterate Brazilians.³²

Moreover, the fact that Brazilians were on average illiterate does not imply that they did not demand education. New archival evidence has shown that local communities petitioned for the provision of schools in São Paulo in the nineteenth century. Importantly, even illiterate

³¹See other cases in Valdetaro (1857–1858); “Johann Jacob von Tschudi, ausserordentlicher [...]”; Peter Krähenbühl (07/09/1872) and João Krähenbühl (31/01/1899) in Krähenbühl (2007, 43, 67).

³²This discussion complements Carvalho Filho and Colistete (2010, 8–11) and Seyferth (2013, 584–6).

individuals demanded the inclusion of their names in such documents (Colistete 2017). It is hard to estimate the impact of similar petitions on an aggregate demand for education; nevertheless, these cases further refine and qualify the view that there was little aspiration for education among the poor in Brazil until the arrival of immigrants.

If this interpretation is correct, the educational contribution of immigrants probably weighted more to the supply than to the demand side. Local landowners and politicians were more responsive to the demands of foreigners. Attracting immigrants was a cornerstone of Brazilian politics in the nineteenth century. Although the number of free Brazilian laborers in the plantations was far from negligible, they could be hired under usual forms of patron-client relations. To use the stick against Brazilians had fewer consequences than doing so against foreigners, to whom the carrots were thus more abundantly served—including the schools in the farms, as surveyed in the chapter.

Moreover, the chapter showed the importance of immigrants' networks and of their general associative life for the foundation of German schools. The members of a relatively well-delimited community were in a better position to solve problems of collective action than the vast array of the Brazilian population. Foreigners were clustered, shared idiosyncrasies of a minority group—some of which they aimed to preserve—and usually enjoyed a better socioeconomic position than the average working-class Brazilian.³³ Undoubtedly, German-speakers and other Europeans suffered with backlashes of xenophobia and the majority arrived as poor immigrants in Brazil; nevertheless, immigrants in general enjoyed social esteem and a large part of their descendants seems to have experienced upward mobility. Conversely, societal stigma, racism and poverty made it more difficult for a vast array of Brazilians to make their demands for education effective.

Overall, the contributions of the German-speakers to the educational development of São Paulo resulted from the institutionalization of their demand for education and their contact with the population of the receiving societies. This chapter summarized how the foundation

³³See a similar argument in Engerman et al. (2009) and Wegenast (2010, 110).

of those schools was related to immigrants' broader cultural contributions. Without an underlying associative life to solve daily problems of collective action and to maintain some cultural traits, there would be no German school. If a broader conclusion can be derived from this historically and geographically specific case study, it is that the institutional contributions of immigrants might flourish only insofar as they have enough cultural liberty, conditional on being non-isolated from the receiving societies.³⁴

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³⁴Manzel et al. (2012, 958) come to a similar conclusion. Seyferth (2013, footnote 26) points to the same direction in her analysis of German schools in southern Brazil.

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Part IV

Global Forces and Institutions in the Era of Mass Education



9

Annexing the World: Education in the USA as Nationalist Policy in a Competitive Global Economy, 1877–1907

Nancy Beadie

Abstract After the US Civil War, political leaders promoted mass education as a strategy of economic development for the defeated South and as a means of economic and political integration for the nation as a whole. At the same time, national leaders came to see education in global terms, as a system for export to colonial territories. Drawing primarily on the public record, this chapter outlines the dual significance of education as a means of national consolidation at home and as a tool of colonial intervention abroad. In the process, it highlights continuities between domestic and imperial projects, namely historical ties between education funding and resource extraction and the significance of education in mediating between the interests of major finance capital and those of ordinary citizens.

Keywords US capitalism · Imperialism · Colonialism · Political economy · Education

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In the decades following the US Civil War (1860–1865) and Reconstruction (1867–1876), political leaders in the USA promoted a national policy of mass education as a strategy of economic development for the impoverished and defeated agricultural South and as a means of economic and political integration for the nation as a whole. At the same time, national leaders increasingly came to see education in global terms, as a system that could be exported to colonial territories. By 1900, some of the same federal officials who promoted a national system of education in the USA in the 1870s and 1880s were busy “spreading the empire of free education” in Puerto Rico, Cuba and the Philippines (Manekin 2009). What, if any, was the relationship between these two projects? How did leaders frame those connections? What was the practical economic and political significance of education in the historical rise of the USA as a global economic and imperial power in the last quarter of the nineteenth century?

This chapter outlines the dual significance of education as a means of national consolidation at home and as a tool of colonial intervention abroad. In the process, it highlights some little-recognized continuities between the domestic and imperial projects. To chart this history, the chapter first discusses the significance of education in the historical rise of the USA as a global economic and imperial power as currently portrayed in the literature. It then describes the national context of education in the USA after the Civil War and the campaign for federal aid for education as a means of national integration and consolidation. After highlighting the role of international trade in promoting such policies, the chapter concludes with a discussion of the long-term significance of federal education policy-making in US politics and political economy.

9.1 The Significance of Education in the Rise of US Economic and Imperial Power

One way in which the significance of education in the rise of US economic and imperial power can be understood is in terms of the politics of capitalism. In a 2016 historiographical essay, the historian Paul Kramer (2016) suggested such a frame for “connecting more localized

and nationalized histories of American capitalism outward.” Seeking to bring together two different, but potentially complementary, historiographies on the history of capitalism and the history of imperialism, Kramer argued for reframing the effort as a project of “political-economic history.” Such an approach, he suggested, would allow historians to “denaturalize” economic relations, recapture the “politics of capitalism” and trace “imperial trajectories” both “within and across national boundaries” (p. 333). Kramer himself identified education as operating within that transnational political space, but a focused analysis of the significance of education in relation to the politics of US capitalism and imperialism remains an unmet challenge, particularly for the late nineteenth century. This chapter is a step in that direction.

Scholars of US political economy and government have largely ignored education as a policy domain. Even as a growing body of international and comparative literature analyzes mass education as a focus of nation-state development across many countries in the late nineteenth century, education remains a largely understudied topic in the US literature on economic and political development. As compared with the much-studied topics of tariff policy, currency regulation, railroad development, resource extraction, industrialization, labor migration and overseas colonialism, the significance of education as an object of economic investment and a site of administrative capacity has received fairly little attention. And yet, as a matter of US politics, education policy-making was pervasive in its reach and closely tied to each of these other domains of national economic policy. Moreover, major business, economic and political leaders at the time saw education as central to the nation’s capacity to compete internationally.

For the late nineteenth century period discussed in this chapter, political economists such as Richard Franklin Bense (1984, 1990, 2000) and historians such as Noam Maggor (2017) and Nicolas Barreyre (2015) have constructed elaborate accounts of how northeastern capital managed both politically and financially to dominate the consolidation of a national political economy in their interests. Only rarely do such studies mention education or education funding as a domain of political economy, however. In his entire multi-volume opus on the history of US political economy, Bense refers to education barely once, in a footnote

(Bensel 2000, p. 172, n. 124). Although he acknowledges there that bills proposing federal aid to education were constantly before Congress in the 1880s, and that support for such aid appeared in both Republican and Democratic party planks at both state and federal levels from 1877 to 1888, Bensel nowhere reflects on the significance of education politics and policy in his larger story of economic development and industrialization in the late nineteenth or early twentieth centuries. Other classic studies of US political economy in this period such as seminal works by Stephen Skowronek (1982), Theda Skocpol (1992) and Elisabeth S. Clemens (1997) are even more complete in their exclusion of education politics and policy as subjects of analysis.

Economists with an interest in issues of human capital, by comparison, have devoted more concentrated attention to issues of schooling and school funding. In a study that focused almost entirely on the twentieth century, Claudia Goldin and Lawrence Katz (2008) went so far as to attribute a significant portion of economic growth during that century to investment in mass public schooling, especially at the high school level. As economists, however, they focused their analysis almost entirely on correlations among demographic statistics and economic measures as outcomes of school investments. They did not attempt to describe or explain the political dynamics that produced those policies. Similarly, in their comparative analysis of public school investments and outputs across nations in the period from 1870 to 1910, economists Peter Lindert (2004) and Sun Go and Peter Lindert (2010) provide important insights into the significance of school funding levels as drivers of education attainments and economic growth, but without exploring the political side of that model of political economy.

It is the contention of this chapter, as well as of the larger body of scholarship of which it is a part, that the most important connection between education and economic development in the late nineteenth and early twentieth centuries in the USA was political. That relationship will be framed here in terms of the convergence of interests. Education as a policy domain effectively mediated between economic interests and social goods. To see how this mediation worked, however, one has to go below the surface of political rhetoric and stated purposes of official policy to uncover the networks of political influence that undergirded them.

9.2 Education and Southern Re-integration After the Civil War and Reconstruction

When Rutherford B. Hayes finally assumed the office of President of the United States on March 5, 1877, after the most disputed presidential election in US history, he made education central to his vision of how to govern a nation divided by region (North and South) and polarized by party (Republican and Democrat). Since the end of the Civil War in April 1865, northern Republican leaders in Congress, working together with newly emancipated freedmen and the two-term Republican President Ulysses S. Grant (1869–1877), had imposed a constitutional and political reorganization of the defeated South that was enforced by military officers appointed by the federal government—a regime known as southern Reconstruction. Among the provisions, southern states were forced to adopt under Reconstruction were federal constitutional amendments abolishing slavery, providing federal equal rights protection and establishing black male suffrage, and state constitutional provisions for systems of universal free education. Since the last southern states adopted such provisions in 1870, however, active resistance by southern white supremacists, evidence of rampant corruption of Republican national leaders by railroad and banking interests, and a severe economic depression in 1873 precipitated by financial scandal, had considerably undermined the political strength of the Reconstruction coalition. Together with violent black voter suppression and corruption of election systems in key southern states, such forces had brought about the closely contested presidential election of November 1876 that resulted in a disputed electoral count which Congress was forced to resolve.¹

The final Congressional resolution that led to the installment of the Republican Hayes as president concluded just three days prior to the president's inauguration. Even in those final days, the orderly transfer of power was threatened by Democratic stalwarts desperate to prevent

¹The standard survey account of southern Reconstruction and its demise is provided by Eric Foner (1988, 2014).

his swearing-in. To settle the many questions about the legitimacy of various vote totals had involved four continuous months of intense partisan conflict within Congress, among Supreme Court Justices appointed to a special election commission, and at every level of party organization and government. Although the spoken and unspoken terms of “the Compromise of 1877,” if anything so definite actually occurred, are still subject to scholarly dispute, it is clear that whether explicit or implicit, they included a prompt withdrawal of federal troops from the South and acceptance of many of the former leaders of the southern “rebellion” as postwar southern governors and legislators—a set of events commonly referred to as the “end” of Reconstruction.² In effect, the election of 1876 and its disputed result had reopened divisions of the Civil War and readjusted the terms upon which the South had been readmitted to the Union.

In this context, Hayes’ inaugural speech, composed during those final days of conflict and negotiation, expressed his administration’s strongly felt need to find a path toward national reintegration. After acknowledging the fundamental principles at odds in the recent election, Hayes offered a bridge to national unity that verged on a practical political program but remained at the level of general idea. The idea was to address the conditions of poverty and devastation that prevailed in the South by making federal investments in the southern economy. As a fundamental first step in that direction, Hayes suggested federal investment in education:

But at the basis of all prosperity, for that as well as for every other part of the country, lies the improvement of the intellectual and moral condition of the people. Universal suffrage should rest upon universal education. To this end, liberal and permanent provision should be made for the support of free schools by the State governments, and, if need be, supplemented by legitimate aid from national authority. (Hayes 1877; Holt 2008, p. 261)

²For a summary of this debate, see Michael Holt (2008).

Though brief, Hayes' statement was noteworthy. As rhetoric, it trod tried and true ground. The notion that both the wealth of nations and the survival of republican government depended on the intelligence of its people had been a commonplace of political speech since the 1770s and 1880s. Similarly, as policy proposal, the basic tenets of Hayes's statement were familiar. In existing states of the North and West, the principle and practice of providing universal free education through state systems of common schools had been worked out in state legislatures during the 1820s, 1830s, 1840s and 1850s. In the South, as noted above, similar such provisions had become required elements of the new state constitutions adopted by southern states under Reconstruction. What was noteworthy about Hayes' statement, then, was neither the principle of universal education nor the fact of state systems of support for free schools. It was the prospect offered in the final clause of the last sentence—that is, the prospect of federal aid.

Even this, the idea of federal aid to states to help fund their education systems, was not entirely new. Versions of such proposals had been promoted by leading state educators as early as the 1830s and had gained strength in the 1850s, eventually contributing to the creation of the National Bureau of Education in 1867. During the height of Reconstruction, from 1867 to 1872, the federal government had provided aid to support freedmen's education in the South under the operations of the Freemen's Bureau. Meanwhile, beginning in 1870 and continuing through the decade, Congressmen had considered a series of bills that would have provided federal aid to education in states and territories. More recently, in the months leading up to the election of 1876, Republican candidates for Congress and the Presidency had proposed education amendments to the federal constitution as well as legislative measures aimed at providing federal guarantees and support for education. In many ways, then, Hayes' statement about education in his inaugural speech capitalized on ideas already present in political discourse (Beadie 2016a; Lee 1949; Holt 2008).

But there was more to Hayes' statement than meets the eye. Hidden between the lines of Hayes' proposal was a specific strategy for forging a convergence of political and economic interests among diverse northern and southern constituencies. It was a strategy that built

upon long-standing northern Republican advocacy for federal aid to education but that also drew upon nascent sources of southern support particular to the political moment. Probably sketched out in the weeks just before Hayes' inauguration by one of his closest allies, the incoming Secretary of Interior, Carl Schurz, the strategy was further crystallized, vetted and advanced by the influential Commissioner of Education, John Eaton, an appointee and protégé of outgoing President Ulysses S. Grant, at a special meeting of the National Education Association held in DC during the three days prior to Hayes' swearing-in (NEA 1877, pp. 253–259).

The strategy had several key components. First, it conjoined economic and social issues in one policy proposal. As presented rather abstractly by Hayes in his inaugural speech, he proposed to “improve the intellectual and moral condition of the people” *and also* to promote economic development and prosperity for the South. More precisely, though inexplicitly, he proposed to address a very specific economic and political crisis occurring in key southern states at the time. Over the previous six or seven years, governors and legislators of southern states—chief among them the state of Virginia—had diverted public funds ostensibly raised for public schools to pay service on state debts. In response, a nascent populist political movement known as the Readjusters had galvanized an unlikely alliance of black and white voters, Democrats and Republicans, to call for the repudiation of antebellum state debts and to throw responsible state officials out of office (Dailey 2000). Meanwhile, as the threat of repudiation became real, major finance capitalists represented by the Peabody Fund also became politically active on the issue. Recognizing that their previous strategy of providing limited philanthropic aid to southern schools was inadequate, officers of the Fund began in 1877 to work with the Schurz-Hayes administration to advocate for federal funding of state school systems as a means of addressing debt problems in southern states (Peabody 1881, pp. 127–128).

What was important about federal aid to education as a policy issue in this context, in other words, was not how constituencies divided over it, but how it brought otherwise opposing constituencies together. That Hayes, a northern Republican, would have allied himself with the

creditors of state debts is not surprising. Nor is it surprising that both northern educators and southern freedmen favored funding for universal free public schools. What is noteworthy is that the prospect of federal aid to education potentially represented a convergence of interest among white southern officials, northern creditors of southern governments *and* their southern populist critics. This was a potential that the Schurz-Hayes administration recognized and acted upon with somewhat close attention for the remainder of the 1870s.

9.3 Education, Western Transformation, and the Construction of a National Market

The political convergence behind debt relief for southern state governments was not the only capital-friendly interest convergence that federal education policy helped to forge after the Civil War. Beginning in the 1870s and continuing into the twentieth century, three different, but overlapping phases, of federal education policy-making harnessed somewhat different sets of capital interests and reconciled somewhat different sets of critics. The first phase, centered on the period from 1870 to 1890, tied federal support for education to the sale or lease of western lands. The second phase, extending roughly from 1880 to 1896, tied federal support for education to the tariff system, and thus to federal protection for northern industry and some forms of agricultural production, as well as to the larger regime of northeastern capital investment. Finally, the third phase had roots in the prior two phases, but came to a head in the period from 1898 to 1907 through the set of colonial education policies embodied in the annexation of Hawaii and the colonization of Puerto Rico, Cuba and the Philippines through the Spanish-American War.

Although each of these phases of federal education policy-making mobilized a somewhat different constellation of capital interests and critics, all drew political strength from the generally popular aim of aiding the cause of universal literacy and education. In this way, the project of federal support for education provided consistent political cover for

the shifting purposes and priorities of capital. Those shifting priorities in turn constituted important stages of economic development and of the rise of the USA as a global economic and imperial power. In, *The Political Economy of Industrialization*, Bensel (2000) chronicles the shifting aims of finance capital over the last quarter of the nineteenth century along with the political regimes that supported their endeavors. Bensel himself makes virtually no reference to the role of federal education policy-making in those regimes. His account is also essentially continental in scale, concluding in 1900 without seriously engaging the dynamics of US colonial expansion overseas. Nonetheless, Bensel provides a sturdy scaffold for identifying political links between phases of education policy-making and stages of economic development.

Bensel identified three main pillars of economic policy as central to the process of industrialization and economic development in the USA from 1877 to 1900, to each of which he devoted a lengthy chapter of analysis. The first of those pillars was “the political construction of the national market” and the “transformation of the West.” Through “rapid sale of the public domain” and the extension and consolidation of a national railway system, the USA converted vast government holdings in the West into private property, extended “the free economic space of the national market westward,” and spurred “the commodification of the natural resource base” of the western region (Bensel 2000, pp. 293–307, *passim*). While this pattern of economic development had precedents in the 1830s and 1850s, Bensel emphasizes the incredible scale and economic impact of the third and last of the land booms triggered by sale of public domain in the 1870s and 1880s. Meanwhile, fueled by a synergistic combination of heavy land sales and capital investment, western railroad construction added mileage to the national network at unprecedented rates. This in turn fed rapacious extraction of timber, mining and agricultural resources (Cronon 1991).

Though not noted by Bensel, federal education policy played a key political role in this transformative process, a role that dated from the earliest days of US nation-building. In the 1780s, Congress directed that portions of all newly appropriated federal lands be set aside to support schools, a tradition that continued in subsequent acts. Under this land-based system of school support, the federal government first

appropriated Native American lands through conquest and/or treaty, then surveyed the lands and organized them as saleable property, with certain sections reserved for support of schools according to a system to be specified once the territory became a state. In order to realize the value of school lands, states either sold them outright, often to large-scale land speculators or other corporate enterprises, investing the proceeds in capitalist enterprises such as banks or mortgage lending; *or* they managed the lands directly in economically productive ways, such as leasing them to timber companies, mining interests or livestock operations. In this sense, school lands linked the politics of public education to the politics of capitalist expansion and economic development, including resource extraction and commodification (Beadie, forthcoming). At the same time, the tradition of tying school funding to land acquisition, exploitation and/or sale made school lands a fundamental building block in the political economy of settler colonialism (Beadie et al. 2016). It used portions of lands appropriated by the federal government from Native Americans to confer benefits on white settlers who colonized the land.

In the mid-1870s, this fundamental material relationship between education and capitalist expansion in the USA approached a new threshold of significance. That was because the disposition of school lands throughout much of the western half of the US continent had yet to occur. In March 1877, when the Hayes administration took office, Colorado had just become a state, while much of the rest of the trans-Mississippi West remained in territorial status, including what would become the states of North Dakota, South Dakota, Montana, Idaho, Washington, Wyoming, Utah, Oklahoma, Arizona and New Mexico (not to mention Alaska and Hawaii). Although the legislation establishing those territories had reserved portions of federal public lands within them for support of education, the terms upon which those mineral-and-timber-rich lands would ultimately be administered would not be decided unless or until the territories became states, a process that played out over decades.

Meanwhile, at the federal level, national education acts introduced in Congress between 1870 and 1880 assumed that any federal funds for education would be derived from the sale or lease of western lands.

In Fall 1876, anticipating a Congressional campaign for federal funding, Commissioner of Education John Eaton compiled an account of all such prior public land allocations back to the 1780s, specifying in each case the amount of land allocated and the funds realized and distributed from those lands. What was being imagined and contested in 1877 when Schurz and Hayes took office, in other words, was not just a strategy for supporting public education and relieving public debt in the South, but a set of decisions that would determine how, when, on what terms **and in whose interests**, hundreds of millions of acres of federal public lands in the West would be disposed and their capital value realized.

The political significance of education in mediating those interests is the central point here. That significance was readily visible in the state constitutional conventions and federal Congressional debates that hammered out the terms upon which western lands would be disposed. As described in many individual territorial histories, a bonanza of land and resource speculation on the part of railway, mining and/or timber interests often occurred when the federal government first organized a territory, a process that launched the initial federal land surveys and put a judicial system in place, thereby facilitating the transformation of land into property. Lands reserved at this stage, however, such as those set aside for schools, remained to be disposed according to the terms established by a later constitutional convention. Typically, this occurred when the first speculative passion had been spent. Agents of a network of capital interests present at the first bonanza then mobilized their lobby to apply to Congress for an enabling act authorizing a constitutional convention and arranging elections in a manner likely to get themselves well-represented at the proceedings. At the same time, ordinary homesteaders, farmers and laborers as well as certain political and regional coalitions aligned with various reforms—such as the Grange (an agricultural union), women's suffrage, or “free silver”—also mobilized to exercise influence. Agents of capital and their critics then converged at the constitutional convention to hash out, among other things, the terms by which the remaining public domain would be disposed and its resulting funds administered (Beadie, forthcoming).

At the end of the 1870s, a surge in populist politics in both the South and the West led to increased pressure for more direct regulation of capital interests. This pressure eventually led to stronger regulation in state constitutions of the 1880s and 1890s. Meanwhile, in congressional debates over federal education bills in 1879 and 80, critics of northeastern capital from older states such as Virginia, Pennsylvania and Ohio, combined forces with representatives from Western states and territories such as Colorado and Montana to oppose the allocation of new Western lands for support of schools beyond those already reserved, highlighting the likelihood that rapid sale of the public domain would lead to increased monopoly control of land claims, water rights, infrastructure development and political influence by corporations. This increased populist influence, together with shifting priorities of capital, led to a fundamental shift in the sources of federal funding for education proposed and debated in the 1880s.

9.4 Education, Tariff Protection, and the Political Administration of Economic Policy

The second and third pillars of industrialization and economic development in the late nineteenth century, according to Bensel, were resumption of the gold standard and the protective tariff. Of the two, the gold standard was, in Bensel's analysis, far more important economically for the interests of finance capitalists and the process of industrialization, effecting a gradual but seismic shift in wealth from debtors to creditors and from agricultural to industrial sectors of the economy over the last quarter of the nineteenth century. By comparison, tariff protection benefited northern industry, but its net economic contribution nationally was negligible or even negative when all regions are taken into account. The importance of tariff protection, in Bensel's analysis, lay not in its economic impact but in its political significance. A virtue of tariff protection was its nearly infinite capacity to tailor economic and political benefits to specific localities and particular agricultural, industrial and business enterprises, from wool to tin, sugar to steel and coal to collars. By this means, Congressional leaders could make whatever fine-tuned

adjustments necessary to win votes for a range of policies. The political administration of the tariff protection regime was in this sense, the “the most important political bulwark of economic development” in the last quarter of the nineteenth century (Bensel 2000, p. 465). It repeatedly enabled the Republican party to cobble together constituencies necessary to sustain its economic and political regime despite considerable opposition from western and southern farmers represented by insurgent political organizations such as the Grange, Greenbackers, and Populists as well as, most memorably, by the Democratic candidate for President in 1896, William Jennings Bryan.

How did schools fit into this political equation? The answer lies in the side effects of tariff protection. A further benefit—or problem—of the tariff, depending on how one looked at it, was the considerable budget surplus it produced in the federal treasury. That surplus became so substantial, according to Bensel, that the Treasury had difficulty disposing of the revenues fast enough to prevent cash shortages from endangering the financial system. During the 1880s, the situation engendered repeated efforts by Democratic opponents to slash tariff duties and eventually led Republicans themselves to take up their own version tariff reform in 1890.

Again, though never mentioned by Bensel, federal education policy-making contributed substantially to the mediation of interests that sustained the tariff policy in this period and thus also, indirectly, to the maintenance of the gold standard. During the 1880s, a series of federal education acts, known collectively as the Blair Bill, proposed to provide an extensive system of federal funding for education. Unlike the proposed bills of the previous decade, which would have relied for funds on the sale of public lands, the Blair Bill specified no dedicated source of funding. Instead it proposed to draw funds from the General Treasury. What made the policy proposal politically and financially viable was the tariff surplus. Indeed, some critics opposed the Blair Bill primarily on the grounds that it would buttress support for the tariff system.

It is difficult to measure the precise effects of the Blair Bill on sustaining support for the tariff system and more broadly for the tripartite regime of economic policies that Bensel identified as essential to the rise of the USA as an industrial and economic power in the last quarter of the

nineteenth century. It is worth noting, however, that the Bills enjoyed extensive popular, professional and Congressional support that crossed typical divisions of party, class, region, race and gender. Formal endorsements of the legislation came from the major national labor organization of the day—the Knights of Labor; the largest national women’s organization of the period—the Women’s Christian Temperance Union; the leading national professional and civil service organization at the time—the American Social Science Association; the preeminent body of state, territorial and municipal education officials—the National Education Association; and numerous state-level education organizations both North and South. Even more impressively, support encompassed both northern Republican and Southern Democrats, and both southern white politicians and southern African American leaders. By the judgment of the press at the time, the legislation would have passed in either 1884 or 1886 if the House Democratic leadership would have let it come to a vote, a prospect repeatedly thwarted by the machinations of the tariff’s most ardent opponent, Speaker of the House John Carlisle from Kentucky (Crofts 1968). Finally, the Republican Party itself abandoned the measure once it no longer needed it to bolster its economic policies, having decisively won the presidency in 1888 on the tariff issue.

The demise of the Blair Bill after 1888 was a significant event in its own right, with lost opportunities and social, political, legal and human consequences that have yet to be fully calculated. Viewed more obliquely from the perspective of national economic policy, however, the hidden political links between education policy and capital interests represented by the tariff and the Blair Bill did not die in 1890 but only receded temporarily.

9.5 Education, Overseas Colonial Expansion and the Export of US Political Institutions

The dramatic assertion of US imperial power and intention that occurred in 1898 with the annexation of Hawai’i, the Spanish-American War, and the resulting colonization of the Philippines, Puerto Rico and Cuba, can be understood as a direct outgrowth of the

tariff system. Bensel outlines the conditions that led to that assertion of power, without directly following its imperial trajectory. In Bensel's account, even as Republicans decisively won the political battle over the practice of protectionism in 1888, they continued to confront the challenge of the excess revenues that the system created, leading to their own version of tariff reform in 1890—the McKinley Tariff Act—in order to better preserve the system as a whole. Since the tariff on sugar had created much of the budget surplus, cutting duties on unrefined sugar temporarily addressed the problem, a move that Congress counterbalanced by providing direct subsidies to the sugar industry. At the same time, Congress initiated a system of “bilateral reductions of duties” that might be used “to gain entry to markets in other nations,” a policy limited to specific resources and products, initially including sugar, molasses, coffee, tea, and animal hides, and eventually also iron and coal (Bensel 2000, pp. 477–481). Continual contestation over the tariff in ensuing decades variously restored, adjusted or removed duties on these and other individual items, but certain products—sugar, coffee, iron ore and coal—nonetheless remained at the top of the actual or potential tariff list. It was this set of conditions—the long presumption of protection for certain industries combined with the vagaries of politics and the advantages of special subsidies—that provided key incentives for incorporating the territories of Hawai'i, Cuba, Puerto Rico and the Philippines directly into the US political economy through colonial expansion at the turn of the twentieth century. Through such acquisitions, US sugar, steel and shipping companies gained access to increased agricultural production and natural resources free both from tariff costs and from the risk of losing tariff protection or, in the case of sugar, direct government subsidies.

Although Bensel did not himself theorize the imperial extension of tariff policies and politics into overseas colonial expansion, Paul Kramer does outline some of the dynamics of this development. Specifically, Kramer uses the language of “commodifying empire” to characterize what the somewhat distinctive dynamics of US imperialism, which he distinguishes from more readily recognizable forms of territorial colonial power. According to Kramer, territorial power manifested itself in the nineteenth century in forms on the land, i.e., “rail, land offices,

military fortifications, barbed-wire enclosures, border towns, and Indian reservations.” Later, such grounded systems also extended overseas, taking the form of “military bases, canals, coaling stations, colonial metropolises and port facilities outside the continent.” What distinguished later forms of “commodifying” imperialism, however, was the extent to which the physical infrastructure of US capitalist expansion “was located in spaces run, at least nominally, by other states.” Rather than focusing on governing overseas territories and their peoples directly, US imperialism increasingly focused on transforming entire political economies “to align foreign states and societies with US geopolitical and political-economic goals” (Kramer 2016, p. 337).

Education was central to this political-economic project in Kramer’s formulation. Harnessing “political-economic *ancien regimes* to the imperatives of US-oriented profit maximization” required the “re-engineering” of social relations, in Kramer’s account. For these reasons, commodifying empires like the USA “were necessarily empires over civil society, with their agents pursuing power over and through influential elites, associational life, educational institutions, media landscapes and public space” (Kramer 2016, p. 338). This formulation of the significance of education in the commodifying process of empire is suggestive, though it remains to be clearly periodized and elaborated with respect to specific examples.

Much of the rhetorical and political groundwork for projecting the political relationship between education and economic development into overseas imperial contexts had developed in tandem with domestic education policy-making in the USA in the 1870s and 1880s. Indeed, at the same special meeting called in Washington DC in March 1877 to forge support for the Schurz-Hayes administration, leaders of the NEA also focused on promoting “national representation of education” at the International Exposition to be held in Paris in 1878 (NEA 1877, pp. 254–255; Rydell 1984). An exposition of US interests at Paris, its promoters explained, could be expected to “open up new markets for our material products” and “furnish the opportunity, which should be improved, of making better known abroad the character of our political institutions.” Schools were fundamental to that objective. According to the NEA, “the vital relation acknowledged by thinking men in all

countries to exist between education and the welfare, if not the existence, of a government like that of the United States” and “the intense interest that is everywhere felt in the Old World in the work of education in this country” warranted the promotion of US education abroad. In this formulation, then, US efforts “to make education universal among all classes and all conditions of men within its borders” became a political selling point in the US bid for influence in global trade and economic relations (NEA 1877, p. 255).

A decade later Senator Henry Blair took this link between education and international trade a step further. Citing examples such as France, Belgium, Prussia, Russia, Austria and Japan, Blair warned in 1886 that other nations were “accelerating their pace” in mass education while in the USA the pace was stagnant or declining, presenting the prospect of a nation left behind. Great Britain, Blair went on to note, which once lagged the USA in school provisions, had now not only established a national system but extended it to colonies “on every vacant lot on the globe.” Spelling out the role of education in international competition further, Blair explained that “wherever among these upheaving populations” Great Britain “sends her ships she carries her institutions and her laws,” with the result that she had now “annexed the world” (Blair 1887, p. 6; Beadie 2016a; 2019). By implication, the future of the USA in matters of international commodity markets, finance, production and trade depended on federal aid for education. In this formulation, the object of mass education in a competitive global economy was less about the development of human capital skills, whether political (i.e., literacy) or technical (i.e., engineering); and more about wielding the general cultural influence and leverage necessary to harness the resources of other sovereignties to US production and trade interests.

Considered in relation to Paul Kramer’s historiographical framework, the “global” logic that US educational and political leaders advanced for the education in the 1870s and 1880s can be understood as early steps in the US projection of itself as a “commodifying empire.” The further extension of this political logic overseas at the turn of the twentieth century exhibited considerable continuities with earlier stages of the relationship between education and economic development. Indeed, the very same tariff policies that undergirded education policy-making in

the 1880s led to overseas colonial expansion. Education played important roles in this commodification process, especially in Hawai'i and Puerto Rico, though those roles varied from case to case.

In the case of Hawai'i, "the commodification process" began with the active conversion of Native Hawai'ian elites through missionary activity and advanced literary education in the 1820s. This extended period of educational infiltration occurred in conjunction with what Kramer called "the insinuation of American-associated capitalist forms." Through settlement and intermarriage, American missionaries themselves (together with European and American merchant capitalists) acquired land, imported migrant labor from China and elsewhere, and established plantation agriculture on the island. That agriculture from the start aimed at trade of key products, chiefly sugar, on international and US markets. As part of the "re-engineering of social relations" that made commodification possible, the same missionary and merchant leaders redefined themselves as part of the Native Hawai'ian elite and designed a mass educational system that channeled Native Hawai'ian and immigrant participants directly into the plantation labor system. They also imposed a series of "constitutions" that directly restricted elective power to literate elite of Native and Anglo leaders, the latter of which effectively engineered the "annexation" of Hawai'i by the USA in 1898. At every level of the colonization process, in other words, education was implicated (Beadie 2016b; Osorio 2002). As many scholars have documented for Hawai'i, that system had little or nothing to do with development of the human capital potential of citizen-producers but rather, as in the case of the US South, with the subordination and exploitation of a racialized labor force by Anglo white property-owning elites (e.g., Anderson 1988; Jung 2006; Osorio 2002; Stratton 2016).

In Puerto Rico, by contrast, the island's long prior history in the Spanish-colonial system meant that American influence there prior to 1898 was much more limited. By the same token, American influence on education in Puerto Rico after 1898 was more a matter of direct federal policy. As such it drew on prior decades of federal policy-making in the US since the Civil War. That was personified in the Puerto Rican case by John Eaton himself, the former US Commissioner of Education from 1870 to 1884, appointed to write the first education

laws for Puerto Rico in 1899. In legislating education policy for Puerto Rico, Eaton, his associate Victor Clark, and other early colonial officials tried to implant the same political, economic and legal infrastructure on the island as had previously been legislated in the territorial West and in the re-territorialized South during and after Reconstruction. That is, they aimed at establishing a layered system of local tax support, governance and control of education to be matched by funds allocated by the central government. Interestingly, the central government funding plan followed the tariff-based model characteristic of federal education policy-making in the 1880s. Central funds for schools, as for other government functions, came from tariff duties and fees (Manekin 2009, pp. 288–335; Thorpe 1909, pp. 3191–3202).³

In one important way, however, the Puerto Rican case represented a significant departure from previous phases of federal education policy-making in the USA. That was in the degree to which the importance of education and education policy were formally acknowledged. After 1900, the commissioner of education in Puerto Rico was one of six department heads, appointed directly by the President and Congress, with seats on the Executive Council of the colonial government. On paper, at least, the commissioner had significant administrative power. Early commissioners took this power seriously, directing English language policies, the establishment of agricultural and industrial training schools and the training of Puerto Rican teachers at US institutions. In 1907, as Sarah Manekin (2009, p. 366) reports, early commissioners of education in Puerto Rico and the Philippines published a special report on “American Colonial Policy and Administration” that featured education as central to colonial policy.

Scholars such as Manekin (2009), Solsiree del Moral (2013), and Rosina Lozano (2018) have highlighted the limits of system success. Manekin in particular documents the inadequacy of central government funds and local taxable wealth to implement official policies, the

³See “An Act temporarily to provide revenues and a civil government for Porto Rico, and for other purposes,” 56th Congress of the United States, April 12, 1900, reprinted in Thorpe (1909, pp. 3191–3202).

unwillingness of Congress and the US federal government to provide other subsidies, and the resistance of island citizens to the model that commissioners tried to impose. Moral, meanwhile, describes the limited impact of colonial policy on what actually happened in schools and classrooms and Lozano celebrates the surviving dominance of Spanish language and culture despite English language policies.

Together, these accounts tell us something about how, why, and when the USA developed the alternative model of imperialism that Kramer describes as that of a “commodifying empire.” Precisely because of the limits of US success in reconstructing sovereignty through direct administration, US imperialism thereafter developed along a somewhat different path. At the same time, a focus on actual effects of education policy on the island may also miss a major portion of its impact. It is no doubt true as Kramer argues and others illustrate that colonial education policy aimed at least in part at “re-engineering social relations,” political and economic power and the structure of sovereignty in the colonial territory itself. At the same time, in the context of anti-imperialist opposition to colonial ventures, the importance of education in US colonial policy may have derived in some part from addressing domestic US politics. If, as the NEA and Eaton articulated in 1877, Americans believed that “a vital relation” existed “between education and the existence of a government like that of the United States,” then what better way to win support for overseas ventures than by celebrating the opportunity it provided to “spread the empire of free education” (NEA 1877, p. 255; Manekin 2009).

9.6 Conclusion

In his 2016 historiographical essay exploring intersections between the histories of capitalism and imperialism, Paul Kramer posed the question of how the politics of capitalism facilitated US imperial expansion overseas. This chapter addresses that question in a way that connects the project of national consolidation in the late nineteenth century with that of overseas colonial expansion at the turn of the twentieth century. During the late nineteenth century, federal education policy-making in

the US forged convergences of interest that crossed social and political divides, mediated social and economic issues, provided political cover for the interests of capital and made possible the political administration of economic policies, despite what was often considerable popular opposition. It did so through a kind of political money-laundering, whereby federal policies serving capital interests were justified by the collateral social benefits that resulting funds could confer on education. In the last quarter of the nineteenth century, this political role of education policy-making facilitated the re-integration of the former confederate South and the territorial West into the nation. In the process, federal education policy-making also shored up political support for construction of a national market, political administration of the gold standard, the tariff system, and the larger policy regime promoting economic development. At the turn of the twentieth century, the US extended this logic into colonial contexts, using education as both a tool and a justification for the process of imperial commodification.

Paradoxically, the political effects of associating capital interests with federal education policy-making accrued regardless of whether the proposed policy was ever instituted or achieved its stated intent. Throughout the period discussed here, legislative proposals for federal systems of support for education in the states and territories of the continental USA failed to pass in Congress despite, in some cases, considerable popular, professional and political support. Only in colonial contexts, such as those of Native American education, Puerto Rico and the Philippines did federally administered systems of education actually result, and for those cases, historians have strongly questioned the systems' educational affects. The fact that such policy proposals failed as legislation or colonial policy, however, does not mean that they failed as politics. To the contrary, as long as the possibility existed that funds realized from public land sales, resource extraction and tariff duties *could* be directed to support education, that possibility helped sustain the convergence of interests necessary to keep those economic policies in place. As a flexible rhetorical and political logic with the power to mobilize substantial popular support for shifting capital interests, federal education policy-making has a long history of success.

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10

Risen from the Chaos: The Emergence of Modern Education in China

Pei Gao

Abstract In China, the attempt to publicly provide mass education to its population came relatively late, after the twentieth century. Replacing the traditional Confucian teaching system, a fully Western-inspired new education system was introduced at the dawn of the twentieth century as a route to national salvation. This chapter studies this critical juncture of Chinese history by first reviewing the expansion and virtues of the new system. I further discuss the driving forces and challenges. The real implementation of this national education system was highly decentralized and the de facto power was in the hands of local governments and local political elites; therefore, the variations in mass education provision across regions and through time were determined by the different preferences of local elites and the political and economic opportunities that they faced in a rapidly changing context.

Keywords Education · Political elites · China

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10.1 Introduction

The rise of public education and its effect on forming human capital has long been argued as one of the prime sources of modern economic growth. But the historical roots in the emergence of mass education are still subject to debate. Universal access to education that is at least partly provided by the state first emerged in Europe and North America from the early nineteenth century onwards, and these cases are often thought to provide an institutional model of the national development of both educational systems and more generally of social and economic progress.

The attempt to publicly provide education to its masses came relatively late to China. As a way to national salvation, a highly foreign-influenced education reform was initiated at a critical juncture of Chinese history—the modernization movement in the early twentieth century. Reformers in the late Qing dynasty called for the wholesale modernization of this ancient country, including a transformation of the educational field. The pioneers that fundamentally revolutionized education in China were missionaries. In addition to erecting their own schools, the missionaries also introduced a thoroughly Western-based curriculum into China and taught a variety of useful subjects that are markedly different from the traditional Confucian classic. However, only a small fraction of Chinese population converted to Christianity in the studied period; therefore, its economic effect was primarily through the mechanisms of setting up role models and knowledge diffusion among elites (Bai and Kung 2015; Ma 2008). The real milestone in education occurred in 1905 when the old civil service exam was officially abolished, and a new national education system approximating a Western model was implemented nationwide.¹

Given its weak formal institution and backward economy, the emergence and the rapid expansion of mass education in early

¹Modern education systems are distinctly different even among these successful cases, but fundamentally similar in several core characteristics: They are universal, mandatory, secular and academic. The phrase “modern education system” in this chapter refers to an education system that bears the above characteristics and contrasts with China’s traditional Confucian teaching.

twentieth-century China seems puzzling. How did a withering state, which struggled with both internal turmoil and foreign penetration, establish and finance its first modern education system? Looking at the demand side, how did the general public respond to this brand-new education system that delivered an alien educational content? This chapter reviews the expansion of the first Chinese modern education system and then discusses the driving forces and the challenges of its implementation.

10.2 Setting the Scene: The Traditional Education Before 1905

For more than one thousand years, the traditional Confucian teaching system was the most important pillar of imperial China's social structure before its abolition (Elman 2008). The distinguishing feature of this system is that its foremost purpose revolved around one single institution: the Imperial Civil Service Examination.² The government meticulously crafted the exams to recruit bureaucrats and social elites from the best candidates. Thanks to the high economic and social rewards attached to success in this examination, China as a pre-modern society generated a high demand for education. This may arguably have led to its relatively high levels of literacy and numeracy in history (Baten et al. 2010; Rawski 1979).

However, some fundamental weaknesses were inherent in the Confucian teaching system. It shared the drawbacks of most informal and traditional educational systems. For instance, females were almost completely excluded from formal education and there was no clear

²The civil service examination system was implemented as early as the Tang dynasty (618–896) and had existed for more than 1000 years before its abolition in 1905. It had a deep influence on Chinese society. In fact, the university entrance examination system in contemporary China evolved indirectly from the imperial one.

regulation on schooling levels, the division of grades, or the length of schooling (Elman 2008).³ Its strangest feature was that the Imperial government supported elite education rather than basic education (Rawski 1979, p. 24). In fact, the government only contributed to the direct financing of the exam, together with advanced schools admitting none but established scholars, whereas little effort went into providing basic education to the masses. Because of the absence of public provision for elementary-level education,⁴ the responsibility for educating children had mostly been assumed by private households and local communities (Borthwick 1983; Rawski 1979).⁵ Second, the educational content was very distant from both modern scientific inquiry and practical economics (Elman 2008, pp. 53–64).⁶ The curriculum focused entirely on the Confucian classics, and largely dis-incentivized young talents in China from seeking a wider spectrum of knowledge.⁷ Ancient canons and classic articles were used as textbooks for further training in writing, reading and critical thinking. This strikingly narrow focus on Confucian study was widely criticized by both the reformers and

³Under the traditional system, one may spend many years preparing for multiple ranks of examinations without being able to predict the length of schooling (Elman 2008; Xu et al. 2013). On average, basic training in classic canons, poems and articles took 6–7 years, and several more years were spent in writing eight-legged essays. Most lower degree holders (*Shengyuan*) enrolled in government schools in their twenties, and most of the top degree holders (*Jinshi*) finished the final Palace exam when they were 35–37 years old (Chang 1955).

⁴There were two types of public school that also provided elementary education: Yixue (charity school, 义学) and *Shexue* (community school, 社学). However, their share in total elementary education was small; according to Rawski (1979, pp. 33–36), over the Qing dynasty about 13,400 out of 40 million school-aged boys enrolled in these publicly provided elementary schools.

⁵The most commonly seen educational institutes providing elementary-level education are collectively called private popular schools (*Sishu* 私塾), i.e., single-teacher operations run for profit. *Sishu* literally means private schools. They vary a great deal from every standpoint (Rawski 1979, pp. 44–53), and more detailed elaboration of them is outside the scope of this study.

⁶Classical education in medieval Europe shared similar drawbacks to China's in that the curriculum was at first based on religious principles and the medium of teaching was Latin.

⁷The content of the civil service examination was very narrowly focused. In order to excel in it, the core of the traditional curriculum was accordingly focused on “Confucian learning” (儒学 *ruxue*) only. The curriculum experienced a slight change through time. After the Qing period, it mainly consisted of three parts: (i) a common classical language; (ii) memorization of a shared canon; and (iii) the ability to write elegant essays, known as 8-legged essays (Elman 2008, pp. 46–93).

scholars at the time and had long been accepted as one of the explanations for China's falling behind (Clark and Feenstra 2001; Huff 2003; Landes 2006; Lin 1995; Yuchtman and Cantoni 2013).

This long-standing education system came to an abrupt end in 1905, and its most valuable legacy probably lies in China's solid cultural foundation, which always highly valued education.

10.3 The Modern Education System in China

From the middle of the nineteenth century, both the encounters with Western powers and internal turmoil threatened the Qing throne (AD 1644–1911) in pursuit of change. The Chinese government at first adopted a defensive posture under the pressure of conservative officials and traditional elites. More thorough reforms became inevitable after China's defeat in a series of wars against the West and Japan.⁸ There were intense discussions among the intellectuals and within the government on the urge to modernize China, and Meiji Japan was often considered a role model.⁹ The Qing state did not await its downfall without exploring ways forward. Thus, a number of Western-influenced reforms touching various aspects were implemented nationwide, including reforms in the field of education.

An increasing number of studies provide empirical evidence on the positive association between the introduction of Western ideas and institutions and China's economic development in the late nineteenth and early twentieth century (Ma 2008; Jia 2014; Bai and Kung 2015). As an essential part of this Western-influenced modernization movement, however, the economic and social impact of the emerging system of mass education during the period in question remains unclear.

⁸From the 1860s, we can list two opium wars, the first Sino-Japanese war, the Franco-Chinese war and occupation of Peking by 8 nations after the Boxer rebellion.

⁹For instance, one government official stated that "the military successes of Meiji Japan were a model for China and that emulating the Japanese would require expanded education in the sciences and industry" (Elman 2009, p. 201).

10.3.1 Virtues of the Modern Education System

The remodeling of the education system in China was a long journey, through which many plans were drawn up and a number of regulations were established. A memorandum was unexpectedly issued to abolish the Civil Service Exam system at all levels on September 2, 1905. Throughout the first half of the twentieth century, five education acts were passed under three different governments.¹⁰ Altogether, they provided a roadmap and laid regulatory foundations for China's first modern education model from many perspectives, including the administrative arrangements and the structure of education. Most of these education acts remained no more than unrealistic blueprints which failed to be fully implemented in practice; however, the ambition and aspirations of the state were loud and clear. By the end of the 1940s, the key elements of the modern education system were largely in place.

¹⁰A total of 5 education acts were passed in the first half of the twentieth century.

Act	Passed by	Major progress
Education Act 1902	Qing Court	Outlined the foundation of the first modern educational system
Education Act 1904	Qing Court	Failed to be implemented The first education act was put into practice. Very similar to the Education Act 1902
Education Act 1912	Nationalist Government	Lower-primary education became compulsory Female students were included in primary school
Education Act 1922	Beiyang Government	The structure of schooling changed to 6-3-3 The regulations on vocational and normal education were modified
Education Act 1928	Nationalist Government	No major adjustments

10.3.1.1 Growing Public with a Special Focus on Primary Education

In contrast with the absence of publicly provided elementary-level schools under the traditional system, the state became more supportive of primary education under the new system, while the private sector was allowed to play a greater role in high-level education. Since the literacy rate in early twentieth-century China was much lower than the level in Western countries¹¹ and the rates of return in the late industrial nations are generally believed to be higher for primary schooling than for further education (Psacharopoulos 1981; Psacharopoulos and Patrinos 2004), the greater public effort that went into primary education throughout this stage was reasonable. From Figs. 10.1 to 10.2, we see that the proportion of public primary schools rose from 75% in the 1910s to 95% in the 1940s, whereas the public schools' share in secondary schools actually dropped, especially during the wartime period. In 1912, most secondary schools were public (87.9%), and this ratio dipped to 55% by 1945.

10.3.1.2 Curricular Transformation

The most far-reaching improvement was probably in the changes in educational content. Not all educational content transmits the same human capital, and it becomes more and more clear that the differences in the educational content across countries and over time play an important role in explaining difference in economic development. As discussed in the previous section, the shortcomings of the narrow

¹¹There are no systematic data reporting the national literacy rate in China during this period. Perkins estimates that less than 50% of males over the school age in 1880s could be regarded as literate (Perkins 1975, p. 4). Rawski argues that even though the variation could be remarkably wide across regions, a rough guess at the literacy rate during the late Qing might be 30–45% for males and 2–10% for females (Rawski 1979, pp. 8–23). If these estimates are valid, nineteenth-century China had a very similar level of literacy to that of late Tokugawa Japan, where the rate for men was estimated at 40–50%, and for women at 13–17% (Ohkawa and Rosovsky 1973, p. 8).

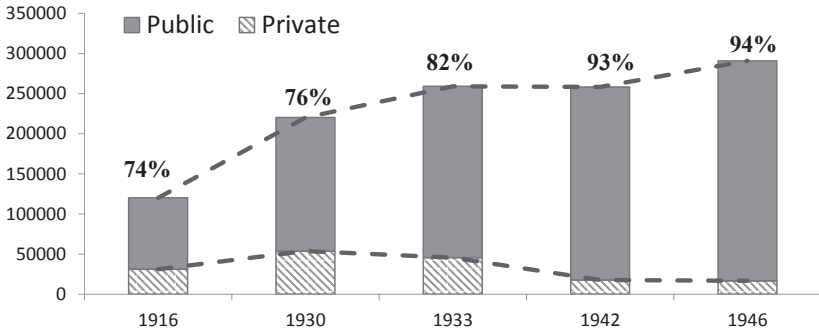


Fig. 10.1 Primary schools (public vs. private) (*Sources* (i) *Zhonghua minguo jiaoyu tongji tubiao* [The education statistic report for Republic of China, fifth] 1916, (ii) *Quanguo Chudeng Jiaoyu Tongji* [The statistic report on primary education] 1930, and (iii) *Quanguo Chudeng Jiaoyu Tongji* [The statistic report on primary education in 1933], 1937. *Note* This figure represents the share of public schools)

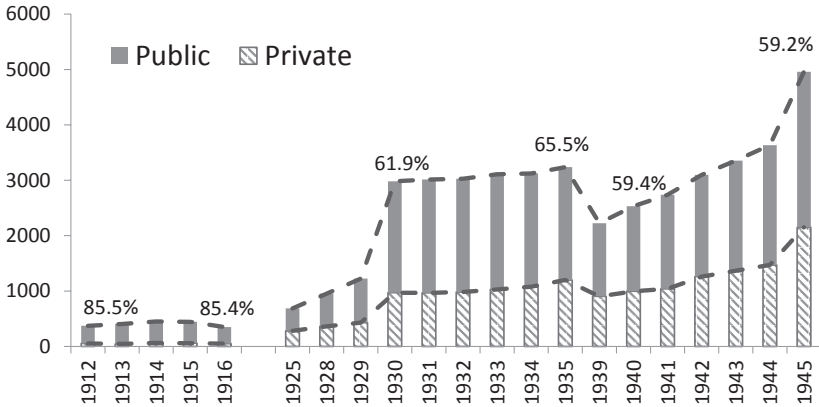


Fig. 10.2 Secondary schools (public vs. private) (*Source* Yang [1934, p. 193], Zhu [1948, pp. 1429–1430]. *Note* The figure represents the share of public schools)

focus of the Confucian teaching content had been realized in the late nineteenth century. The Chinese state started to see that Western subjects, especially science and engineering, could modernize the military, improve technology, and therefore enhance the Chinese economy.

Reforms in educational content began with very cautious steps in the late nineteenth century. The ambiguous attitude to educational content reform from conservative officials and traditional elites was mainly because these elites were selected by the traditional education system, and questioning the curriculum would compromise the legitimacy of their qualifications (Yuchtman and Cantoni 2013; Gao 2018).¹² Therefore, they felt that any investment in modern human capital beyond what was absolutely necessary to modernize the military was a threat to their positions of power.

The pioneers were a small number of military arsenal schools and language schools that were established first to provide training that was especially needed for the adoption of Western military technologies (Elman 2009). Missionary schools where foreign languages and Western subjects were taught first appeared in treaty ports and then penetrated quite widely across China. Stauffer's survey shows that missionaries established lower primary schools in 61.1% of the Chinese counties in the 1920s to spread modern knowledge (Stauffer 1922).

Thorough changes occurred only after 1905 when the old exam system was officially abandoned. The state drafted regulatory models for a new curriculum for each level of schooling, which included new academic learning, technological know-how and new ideological campaigns. As examples, Table 10.1 presents the changes in the primary school curriculum from 1904 to 1948. It is clear that the weight given to the Chinese classics drastically declined, and new subjects, such as mathematics, physics, geography and foreign languages and new moral doctrines, were introduced. Furthermore, instead of Confucianism, new moral doctrines such as nationalism, democracy and later the "Three Principles of the People" were pushed through the expanding education system to the masses.¹³ A similar pattern can be observed in the

¹²In 1898, reforms in educational content would be implemented during the "100-days reform (戊戌变法)," but then the conservatives re-asserted themselves (Zarrow and Karl 2002).

¹³The "Three Principles of the People" is a political philosophy developed by the founder of the Republic of China—Sun Yat-Sen. These three principles are often translated and summarized as nationalism, democracy and economic security (民主, 民生, 民权) (Lary 2007, p. 21).

Table 10.1 Regulatory models for primary school curricula (%)

	1904	1912	1922	1936	1948	
Chinese and Confucian classics	35	20	20	17.5	15	
Maths	10	15	17.5	15	12.5	
English	10	15	17.5	15	15	
Social science						
	History	20	15	15	10	15
	Geography					
Natural science						
	Physics	10	10	10	12.5	17.5
	Chemistry					
Art and PE	10	10	10	15	10	
Manual work	5	15	10	15	15	

Source Shu (1928, p. 79)

Note This table presents the composition of course credits for primary school students

curriculum models for secondary schools with less study of the Chinese classics and more stress on modern subjects in the new content.

Another improvement was the establishment of multiple schooling tracks to diversify the educational content. The higher-level education developed a structure of parallel tracks for general, vocational and normal schools.¹⁴ General schooling emphasized academic learning. For the first time, vocational and normal education were also incorporated into the formal education. Vocational training provided job-specific skills for specific trades and occupations, while normal education that targeted teacher training was credited with its essential importance too, especially to a new education system that lacked eligible teachers. The total number of students in vocational schools in 1912 was around 32,000; this figure rose to 50,000 in the mid-1930s (Zhu 1948, p. 1428).

10.3.1.3 Gender Neutrality

Another virtue that was introduced by the new education was the rising practice of gender neutrality. Gender educational inequality is shared by many developing countries in the early stages of development and

¹⁴Of the three tracks, there is no denying that the progress of general schooling dominated, occupying 60–70% of secondary education.

culture. In Chinese history, females had always been excluded from formal education.¹⁵

In the rise of female education, two patterns are worth highlighting. First, the pioneers were missionaries (Lu 1934). In 1844, Miss Aldersey established the first mission schools specifically for girls in Ningbo. Then a great number of missionary schools exclusively for girls were established in other cities. Another growth engine was the widespread of normal schools, because teaching was one of the very few acceptable career options for women.¹⁶ Before 1930, the proportion of female students in secondary schools never exceeded 4%, but it accounted for about 18% of normal school students (Tao 1923, p. 4). Normal school graduates were guaranteed job opportunities after graduation¹⁷; therefore, teaching became the most popular career choice for the “new women” of early twentieth-century China.

From the available data, the share of female students attending senior primary school was 6% in 1923, and this figure had increased to 15% by 1930 (Li 1997, p. 729). More abundant details of secondary schools were documented. After 1916, female student numbers in secondary schools began to rise at an unanticipated pace, and the share rose from 1% in 1912 to 26% in 1946 (Yang 1934, p. 194).

Overall the new education system boasted several virtues. First and foremost, the new system was intended to make schooling available to the whole population; and for this reason, the system was largely publicly funded. Second, the educational content was substantially transformed, from focusing only on the Confucian classics to partly incorporating Western subjects.

¹⁵Women from the higher social classes, e.g., gentry families, may have received some home education, focusing on Chinese literature and female ethics.

¹⁶The proportion of females in secondary schools did not exceed 4% before 1930, but the girls accounted for about 18% of normal school students (equivalent to secondary school) (Tao 1923, p. 4).

¹⁷Students in normal schools were exempt from paying tuition fees, and their living expenses were also covered by public funding. In recompense, after graduation, they had to serve at least three years in a local primary school (Li 1997).

10.3.2 Measuring the Expansion of Modern Education

How fast did mass education expand in early twentieth-century China? Looking at primary education first, the share of schools that were publicly provided rose steeply in the first four decades. Enrollment ratios rose from 1.2% at the beginning of the twentieth century to 12% in the 1930s, which is a similar level to that in India (11.3%) and rather lower than Brazil's (21.5%) (Lindert 2004, pp. 91–93). Unfortunately, the pronounced rise in primary schooling was interrupted by the upheaval of the Japanese invasion in 1937, which was then followed by a 4-year Civil War between the Communist Party and the Nationalist Party. The enrollment ratio dropped sharply in wartime and recovered so slowly after the war that the pre-war level was not regained until 1947.

For secondary and tertiary education, the progress of which must be based on a large pool of primary schools, the early twentieth century does not appear to be a time of rapid expansion. In 1907, only about one in every 1000 (0.1%) school-age children attended secondary school, and this figure was far lower than the level of India (2%) or Japan (13.9%). The speed of secondary schooling expansion accelerated only after the 1920s, which may be attributed to the separation of lower secondary school from higher secondary school in 1922 (Shu 1928, p. 80).¹⁸ As regards tertiary education, its scale remained minimal throughout the studied period, with high regional disparity.¹⁹ The enrollment ratio was below 0.1% before the 1940s.²⁰ To put these figures into perspective, the tertiary enrollment ratio for Japan at this time was 4.05%, and in India 0.48%, i.e., more than 4 times the level for China.²¹

¹⁸Issuing lower secondary school diplomas to students who finished 3 years of secondary schooling partially accounted for the significant decline in the number of dropouts.

¹⁹60% of universities were concentrated in Beijing and Shanghai.

²⁰Tertiary education includes universities (4-year program) and colleges (usually institutions that offered a 2-year program).

²¹One thing worth stressing is that the Japanese invasion did not hugely damage tertiary education. Most of the universities, located in big cities, were able to take advantage of the relative safety of the international settlements and French concessions in these cities. Meanwhile, the universities located in occupied China did not cease to operate; they merely fled south and continued to function throughout the war.

Even though the post-1949 period is not the focus of this chapter, it is worth briefly outlining the general expansion of education after the founding of the People's Republic of China. Public education after 1949 expanded quickly but suffered several drastic disruptions. The rapid increase can be partly attributed to the state efforts to provide educational opportunities for all social classes, which aligns with the Communist Party's political ideology (Chen 1974, pp. 59–84). The jump in the enrollment ratios can also be regarded as a bounce back after the low wartime level though the rising trend experienced several significant fluctuations. The first dip occurred during the Great Leap Forward (1959–1962), while the more extensive slump was due to the infamous Cultural Revolution (1966–1976).²² What disrupted tertiary education most was that the university entrance examination was abolished and universities were shut down for almost a full decade (Deng and Treiman 1997).²³ The sustained rise in education and the achievement of universal primary education were seen only in the 1980s, after almost a century of endeavor in educational development (Table 10.2).²⁴

²²Although the damaging effect of the Cultural Revolution is generally regarded as continuing for some 10 years, there was a gradual “return to normality” throughout the 1970s, since universities began to reopen in 1972. But the quality of education remained low, because educational opportunity was still tied to political conformity and family origin, not to academic performance. Contrary to what one might have anticipated, the primary schooling enrolment ratios managed to maintain the increasing trend after 1968 throughout the late Mao period. Unlike higher education, most primary schools continued to operate during the Cultural Revolution. By the 1980s, almost every commune had its own primary school; however, the quality of education was considerably compromised.

²³The university entrance examination was restored only in 1977. The rise of tertiary education accelerated after the 1990s when private universities were re-introduced in 1994.

²⁴The Law on Nine-Year Compulsory Education, drafted on July 1, 1986, established requirements and deadlines for attaining universal education tailored to local conditions and guaranteed school-age children the right to receive at least nine years of education (six-year primary education and three years secondary education).

Table 10.2 Enrollment rates per 1000 school-age population, 1900–1950

Year	China		
	Primary	Secondary	Tertiary
1907	12	0.7	0.07
1916	47	1.7	0.07
1922	72	2.0	0.05
1933	119	7.5	0.05
1949	214	20.7	0.21
	<i>India</i>		
1900	47	21.2	0.9
1910	65	35.1	1.3
1920	80	42.1	2.6
1930	113	65.7	3.1
1950		166.1	10.8

Source

- i. For China, the enrollment data come from Yearbooks on Education in corresponding years; and population and age structure is from Hou (2001)
 ii: For India, data come from Lindert (2004, pp. 91–93)

10.3.3 The Decentralized Education System and School Financing

This rapid expansion of the mass education system that also delivered a new curriculum was implemented and financed under a highly decentralized education system, where the degree of decentralization was greatest for primary education. Except for curriculum design and tertiary education, which were highly centralized, educational decisions were all delegated to local governments.²⁵ The provincial governments undertook the responsibility of providing secondary schooling, and county/sub-county governments for primary schooling. This meant that, apart from curricular design, the major implications and financing of public primary education, which constituted the greater part of public education at this stage, were left entirely to county and sub-county governments.

²⁵If all educational decisions are made at the local level, the system is highly decentralized. However, in practice many education systems are partly decentralized and somewhere between the two extremes (UNESCO 2013).

Table 10.3 presents the composition of schools by management and shows that the degree of decentralization increased downwards through the schooling levels, primary education was the most decentralized. From Table 10.3, the percentage of national and provincially administered primary schools never reached more than 1% of the total of primary schools, suggesting the marginal role of the central and provincial governments in this respect. International comparisons help to put China's figures into perspective. Roughly 70% of Prussia's primary schools in the 1880s were funded by local taxes; the figure was similar for the USA. In contrast, England had a rather centralized schooling system before the 1880s; less than 20% of primary schools were financed by local governments (Lindert 2004, pp. 116–117). In contrast, majority of tertiary schools were provided by central government directly.

Given that during the studied period, Chinese state faced high fiscal pressure, how were local public primary schools financed? Local governments, the real providers of the public primary schools, often faced severe fiscal constraints. Their budgets needed more than one source of revenue; their funds came from various sources, including local surtaxes,²⁶ rent from public land, and donations from wealthy residents, as well as parental contributions (tuition fees) (Liao 1936; Liu 1935; Chauncey 1992).²⁷ In order to better understand how primary schools raised funds, this research drew on more than 400 available county government balance sheets on educational finance in the 1930s.

²⁶Under Qing rule, county government should work only as a state agent in tax collection. Apart from a minimal amount retained to support basic government operations, most of the tax revenue was remitted to the provincial level and then to central government (Marianne 1985; Zelin 1984, pp. 26–62). However, the collection procedure was carried out by the county governments; therefore, the common practice of charging permissible surtax for local use on local projects was widely seen.

²⁷To show the austerity of public primary school, on average one primary school could accommodate only about 50 pupils. Local primary schools are also often recorded as occupying the older property of a traditional academy that was renovated to form a new schoolhouse. Sometimes Buddhist temples and traditional Tangs, where local people worshipped their ancestors, were confiscated for use as new schools (Gamble and Burgess 1921, p. 130). The conditions were so modest that these schools often lacked on-site toilets (Liao 1936, p. 69).

Table 10.3 Schools by management, 1910s–1940s

Year	Tertiary school (%)			Secondary school (%)			Primary school (%)			County	Grass root
	National	Provincial	Local	National	Provincial	Local	National	Provincial	Local		
1916	16.9	83.1	0	0.5		99.5	0.04			99.96	
1930	32.1	67.9	0	0.7	25.5	73.8	0.01	0.01	0.01	35.01	64.17
1933	49.1	50.9	0	0.8	26.9	72.3	0.01	0.01	0.01	21.05	78.19
1940	66.1	33.9	0	4.6	35.2	60.2	0.01	0.01	0.01	50.99	48.82
1945	64.4	35.6	0	3.9	30.5	65.5	0.02	0.02	0.02	50.99	95.76

Sources Zhu (1948)

Note This table presents the composition of schools by the authority in administrative ownership

Table 10.4 The revenue composition for public primary education

	All	Hubei	Shandong	Henan	Zhili	Jiangsu
Surcharges	63.7	41.49	70.4	76.7	59.62	70.29
Collective land	17.8	43.51	12.9	16.33	8.53	8.19

Note This table presents the revenue composition for the primary education by province. The above table presents data from Hubei, Zhili, Jiangsu, Shandong and Henan. (In the 1930s, a number of provinces published government reports on education enclosing statistics at the county level, but the informativeness of these reports differs significantly across provinces. Only five carefully document the source and composition of educational income)

As Table 10.4 shows, the two most important sources of funding for public primary schools were local tax and revenues earned from collective endowment. Looking at tax first, revenues from various types of local surcharge accounted for more than 60% of the budget. In theory, county governments had no official fiscal capacity to retain such high level of tax revenues for local use; thus, these surtaxes can be regarded as non-statutory revenues.²⁸ There are many historical narratives that mirror our findings in county balance sheets that fiscally stressed local governments resorted to informal practices to raise funds throughout the early twentieth century (Chauncey 1992; Liu 1935; Remick 2004, pp. 37–39; Sun 1935; Wang 1973).

Apart from tax revenues, the rents earned from community-owned land made the second largest contribution.²⁹ My sample shows that

²⁸It is clear that local governments levied various surtaxes and other forms of commercial charges to fund local projects, including primary schools. For instance, Shandong and Zhili provinces first began to allow local governments to levy surcharges on land tax for local flood control and famine relief after the severe flooding of the Yellow River in 1903; these opened the door to surcharges on the land tax, which then became prevalent across China. The central state made great efforts to consolidate the excessive local taxes after the collapse of the Qing dynasty. However, local taxation was well beyond control. Throughout the first few decades of the twentieth century, increasing varieties of surcharges on land tax were enforced, and the tax rates of these newly issued items rose drastically, far exceeding what the state regulated. For instance, according to contemporary documentation, as many as 673 new items were taxed by county governments, which made the systematic management of land tax impossible (Liu 1935, p. 187; Sun 1935, pp. 213–217).

²⁹The system of endowed school land (学田) emerged very early during the Northern Song period (960–1127) and matured in the Qing dynasty. In general, endowed school land was land bestowed by the Court or donated by local elites and used exclusively to support traditional academies, including county academies and prefectural academies.

17.8% of the funding in the 1930s came from the rents of endowed school land, which echoes the findings in Ding County (Gamble 1954, pp. 200–201). Gamble finds that the operation of 47% of Ding County's primary schools depended to some extent on rents from collectively owned land (Gamble 1954, pp. 200–201).

Taken together, like the successful experiences in US and some European nations in the nineteenth century (Lindert 2004, pp. 104–105), the substantial expansion of mass education in China was conducted under a very decentralized education system. The increasing number of public primary schools was mainly financed by local money. With highly unequal economic development across regions and no political participation granted to the mass, China's highly decentralized modern education system allowed public education to rise in some regions before it did in others (Chaudhary et al. 2012).

10.4 What Explains the Emergence of the Modern Education System?

A large body of existing literature has pointed out the factors that may contribute to the introduction of mass education, such as institutions (Acemoglu et al. 2002, 2014; Engerman et al. 2009), political structure (Lindert 2004; Gallego 2010; Go and Lindert 2010; Mitch 2013), fiscal capacity (Bardhan and Mookherjee 2006) and preferences of elites (Chaudhary et al. 2012; Gao 2018). The emergence of the mass education in China was also a product of many political and economic forces.

10.4.1 National Survival Strategy Under Global Forces

From historical accounts, the birth of mass education was often incorporated within the process of state-building in the global context. “Mass schooling did not arise spontaneously from popular demand or from the action of market forces alone. It was to a large degree organised from above by the state” (Green 1990, p. 297).

The state has a large stake in guiding the design of education because different types of education system can lead to very different economic developments, political institutions and state capacity (Jones 2008; Yuchtman and Cantoni 2013). In addition, the state also has a compelling interest in education, an interest which also stems from its urge to forge a indoctrinatory, political or religious uniformity as a modern state and to cement ideological hegemony (Green 1990, p. 298; Ramirez and Boli 1987),³⁰ because education not only transmits knowledge but also cultivates a set of common values to shape people's beliefs and preferences (West 1965, pp. 70–86). Three historical factors have shown themselves to be generally relevant for the rise of mass education system: external military threats, internal revolution and programs seeking to escape economic underdevelopment (Green 1990).³¹ At the turn of the twentieth century, the withering Qing China experienced all three of the above, and it explains why the state-led educational reform was initiated at the point when it was.

Defeat in a series of wars against the West and Japan changed China profoundly. There were intense discussions on the need to modernize China. Taking Meiji Japan as a role model, a number of Western-influenced reforms touching various aspects were implemented nationwide. A full-scale political reform was drafted in 1901,³² which included experiments in constitutional practice at the national level, as well as representative governments at the local level (Chien 1950, pp. 52–55; Ichiko 1980). Such drastic political and bureaucratic reforms

³⁰In Europe, religious and philosophical groups had long been predominant in education. It is clear that government intervention in education starting from the nineteenth century was an endeavor to establish a national education, which could monopolize not only educational resources, but also rising nationalism.

³¹The formation of a national education system began across Europe in the nineteenth century, initiated by thriving “national sentiment” (Ramirez and Boli 1987). Later, the mass education movement in America between the nineteenth and twentieth centuries is also argued to have been largely a political outcome of the surge of independence and democracy (Bowles and Gintis 1976; Dewey 1916). Similarly, the Communist and Socialist educational “brainwashing” in the Soviet Union, the Eastern Bloc and later China between the 1950s and 1980s, also pursued a single goal—the communist indoctrination of the populace (Lott 1999).

³²The throne issued an imperial edict in 1901 calling for reform proposals and initiated the era of the dynasty’s “New Policy,” also known as the “Late Qing Reform.”

required brand-new talents and ideologies to support them, which perhaps also paved the way for the educational movement of 1905. In short, the introduction of mass education that delivered a modern curriculum clearly demonstrated the ambition of the Qing state, which viewed it as a national survival strategy.

10.4.2 The Positive Role Played by Local Elites³³

The education system is not solely a product of government that can be imposed only from the top-down. On the contrary, significant educational progress in human history has often been initiated by increasing demands from civil societies.³⁴ The decision of the central government alone cannot explain the rise of mass education in China; the implementation required efforts from the grassroots. As discussed in Sect. 10.3, since the provision of public primary education was decentralized to local governments, with the absence of representative local democracy, the elites were able to capture local governments and influence education policy; hence, they played the most important role in the rise of modern education in China (Chaudhary et al. 2012; Gao 2018).

When control of education is decentralized in societies with no franchise like China, schooling outcomes can be ambiguous. Local officials naturally have no democratic accountability toward local residents. Thus, the decision-making process is not determined by the popular wills of local residents, but rather by the political dynamics—the

³³It is worth noting that the meaning of local Elites in Imperial China was very different from the meaning of aristocrats in the Western context. China had used a civil service exam system to recruit its officials and social Elites for one thousand years; thus, its most important elite group was degree holders or literati. By passing a series of exams, a very small percentage of the top degree holders became state bureaucrats (national Elites) and attained offices outside their home provinces, while a much larger group of lower degree holders, with no eligibility to held official posts, constituted the elite group at the local communities.

³⁴For instance, before the compulsory education law drafted in the USA, many states had already spontaneously provided compulsory secondary schooling for their citizens (Goldin and Katz 2009).

equilibrium achieved between the preferences of various veto interest groups.

In the absence of a European style aristocracy and no official government below county level,³⁵ local elites shaped the political fabric and social structure of local society in various forms. As the de facto power holder, local elites could dictate the use of tax revenues to provide mass education, while they could also play a more damaging role, limiting the public funding of schools in pursuit of their own interest in maintaining their power and status as elites. Thus, the variations in mass education provision across regions and through time were determined by the different preferences of local elites and the political and economic opportunities that they faced in a rapidly changing context.

The incentive to support local mass education changed with the educational reform of 1905, as the power of the old elites crumbled, and potential new entrants saw an opportunity to rise to prominence and consolidate their social and political influence. Before 1905, local elites were the ones who obstructed the introduction of modern education. Their legitimacy as political elites came from the Confucian teaching system and thus questioning the curriculum challenged their qualifications. This changed entirely in 1905 when the traditional exam system was officially abolished. Recent studies show that the response of these traditional elites post-1905 was devoted to gathering the fruit of such institutional changes. While Jia and Bai argue that some of these elites turned to support the revolution, an aspect that may have contributed to the fall of the Qing dynasty (Bai and Jia 2016). Gao finds that these elites adapted quickly and contributed to the implementation of the nationwide modernization reforms at the local level (Gao 2018). They increased their activities in the public domain to re-institutionalize their status as elites. By implementing nationwide modernization reforms,

³⁵The direct state control never penetrated beyond county level (Deng 2011, p. 26; Qu 2003, p. 5), the daily life of people was organized in the natural village. The village was not a state administrative unit; therefore, the head of a village was not a state official either. The village head was often chosen from local elites. In fact, the lower degree holders held most of the influential and lucrative posts, including village heads, relief managers, tax agents, clerks for magistrates and others (Chang 1962; Duara 1988, p. 159; Wakeman and Grant 1975, p. 4).

they strove to gain legitimacy and recognition in local communities as elites. Since education was a major field of reform, their efforts concentrated on it, although not exclusively (Chang 1955; Qu 2003).

The role of political elites in the rise of growth-enhancing institution, like mass education, has been widely discussed. On the one hand, many studies stress that landowning elites had a negative effect on the emergence of public schooling in history in order to maintain their political power and economic rents (Cressy 2006; Acemoglu and Robinson 2006; Galor et al. 2009; Cinnirella and Hornung 2016). On the contrary, enlightened industrial capitalists were believed to contribute to the rise of public education out of their own economic interests (Galor and Moav 2006; Squicciarini and Voigtländer 2015). China's case is an interesting example that shows how elites could respond to changes of incentive and play an important role in provision of mass education.

10.5 The Challenges in Real Implementation

10.5.1 Resistance from the General Public

Despite the seeming virtues of the modern education system, to a great extent at first the general public showed little interest or understanding of the new education system. The new system was considered a severe threat to the enduring social norms and conventions of local residents. For instance, many of the schoolhouses for modern primary schools were converted from traditional academies³⁶ or ancestor halls where local residents worshiped their ancestors. These establishments were regarded as the most important symbols of the legitimacy of traditional culture, but many of them were confiscated by the modern schools. In 1912, the newly Republican government even started a new program known as the “Temple Destruction Movement,” where local governments were encouraged to seize the Buddhist and Taoist temples to

³⁶The academies under the traditional education system were by modern standards equivalent to public higher education institutions.

support modern schools in the local areas. Such destruction was massive in magnitude that some studies suggest that it accounted for more than 70% of public primary schools constructed in the first half of twentieth-century China (Wang and Zhang 2018). There was widely seen resistance to such movement.

Another reason for such strong resistance was also a fiscal matter. The increasing tax burden (see Table 10.4) fell on all local residents, whereas the benefits of the modern schooling system were not evenly spread. For an average Chinese resident, the much more expensive modern school system, proudly providing Western subjects, failed to appeal to ordinary peasants who had to pay for it. Zhang and Ding record a full list of protests and riots between 1901 and 1911. Of the 450 protests recorded, 17 were attributed to the levying of a new tax to support modern education (Zhang and Ding 1982).

What best illustrates people's slow and limited acceptance of the new system is the fact that, despite the official curtailment of traditional education in 1905, a large number of traditional-style primary schools persisted as substitutes for modern primary schools throughout the early twentieth century.³⁷ In order to promote modern education, the state even officially banned the legitimacy of *Sishu* altogether after 1928 (Liao 1936).³⁸ Yet they continued to play a big role in the basic education of the population throughout the first half of the twentieth century.³⁹ The long-lasting popularity of the traditional popular schools was caused not only by its traditional curriculum, but also by its relatively low tuition fees and easy access. According to regulations from the Ministry of Education, the yearly fee for lower primary schools

³⁷As discussed, under the traditional schooling system, the educational institutes serving the function of spreading basic education were collectively called *Sishu* (Deng 1997, pp. 6–8; Rawski 1979, pp. 24–33).

³⁸After the collapse of the Qing dynasty, to address the persistent popularity of *Sishu* across the country, a series of regulations was launched calling for their improvement to a standard comparable with the modern primary schools (Borthwick 1983, p. 81). None of these reform programs achieved very much.

³⁹The *Sishu* remained widespread only until 1949, when the Communist Party forcibly swept them out. In order to transform China into a socialist state-ownership system, on accessing power the Communist party demolished the whole private sector. Along with this economic and political line, all private schools, including *Sishu*, were forced to disappear (Deng 1997, p. 8).

was around four yuan (twelve yuan for higher primary schools), while a child attending *Sishu* was charged less than two yuan (Wang 1994). According to Tao, the actual enrollment ratio for primary education in China should at least be doubled, if these traditional popular schools are taken into account (Tao 1923, p. 6).⁴⁰

10.5.2 Insufficient Teachers

Apart from people's resistance, there were many other challenges. As discussed, a number of education acts were drafted to provide a roadmap for the modern education model; unfortunately, the implementation of the modern education system sometimes bore at best a limited resemblance to this roadmap. Especially for elementary-level schooling, insufficient numbers of eligible teachers, resistance from the local people and a lack of funding all impeded substantial progress.

For instance, given that one of the principal proposals of the new educational model was to transform educational content, the government placed explicit eligibility requirements on teachers for each level of schooling. It was essential to appoint eligible teachers who had the academic capacity to deliver the right training to students. In their recruitment, educational attainment stood as the main criterion. For a primary school post, only graduates of normal school (equivalent to secondary school) were eligible (Wang 1994). For a secondary school post, a degree from a higher normal school (equivalent to university) was required (Wang 1994). But the regulations on the criteria for teachers did specifically note that exceptions could be made when a school committee approved of a candidate, even without the required degree (Li 1997). In other words, such rules were never implemented in practice due to the extremely low number of teachers who could comply

⁴⁰As the *Sishu* lacked the official status of recognized educational institutions under the Republican government (both the Beiyang and the later Nationalist governments), neither educational yearbooks nor national surveys carry any record of them.

Table 10.5 Educational background of primary school teachers, 1946

	Tertiary	Normal	Secondary		Primary	Others	Total
			Senior	Junior			
Number	445	66	3329	9567	6472	11,102	30,981
Percentage	1.44	0.21	10.75	30.88	20.89	35.83	100

Source Zhu (1948, p. 1469)

with them. As presented in Table 10.5, after decades of education expansion, roughly 80% of the primary teachers failed to meet the standard set by the Ministry of Education.

10.6 Conclusion

This chapter looks at the greatest educational movement in Chinese history—the transformation from traditional Confucian teaching to modern mass education approximating a Western model at the dawn of the twentieth century. Although the formation of mass education system is widely believed to be promoted only by a strong state, the historical course of China presents us with an exceptionally interesting scenario. The formation of the modern education model occurred in China when the process of state formation was at its most intensive. As a route to national salvation, a highly foreign-influenced educational reform was initiated by a withering state.

The real implementation of the first mass education system was highly decentralized and the de facto power was in the hands of local governments and local political elites; therefore, the variations in mass education provision across regions and through time were determined by the different preferences of local elites and the political and economic opportunities that they faced in a rapidly changing context. Before 1905, these elites obstructed the introduction of modern education because their legitimacy as political elites came from the Confucian teaching system. Their incentives changed entirely after 1905 when the traditional exam system was officially abolished. They played a positive role in the implementation of the nationwide modernization reforms at

the local to re-institutionalize their status as elites and gain legitimacy and recognition in local communities. Since education was a major field of reform, their efforts concentrated on it, although not exclusively (Chang 1955; Qu 2003).

This chapter also opens interesting questions for future research. Despite being a milestone in Chinese education history, the establishment of the modern education in China has received very few empirical studies directly examining its consequences. Did the rise of mass education that produced modern human capital through training in modern subjects contribute to the development of modern industry and economic growth in China? More empirical studies are required if we are to better understand the importance of the rise of modern education in China after the late nineteenth century.

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11

Globalization and the Rise of Women's Literacy and Primary Education in Iran, from 1880 to the Present Day

David Mitch

Abstract Iran is a striking example of a country experiencing a shift from widespread illiteracy to the onset of universal literacy in just a few decades. What is especially remarkable about the Iranian case is the persistent drive to universal female literacy, even in rural areas, during the regime change from a secularizing autocracy to an Islamic theocracy. The basic resolution of this apparent paradox is that the Islamic Revolution was perceived by its leaders as a true revolution. It was conceived not as a return to a traditional society but as a move to purify and establish Islamic morality to counteract secular, westernizing forces in Iranian society: Education was a policy lever to achieve such goals.

Keywords Literacy · Literacy Corps · Literacy Movement · White Revolution · Islamic Revolution · Nationalism · Secularization

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11.1 Introduction

Over the course of the twentieth century, Iran was subject both to globalization and a dramatic expansion of the educational attainment of its population. The origins of expansion of mass education in Iran, and especially of women's education, began in the 1920s during the Pahlavi era, promoted first by Reza and, more decisively, during the White Revolution of Mohammed Pahlavi; yet, mass education was sustained and reached decisive majority thresholds after the 1979 Islamic Revolution. The obvious way of explaining and reconciling this apparent paradox (see Mehran 2003) is that both the Pahlavi and Khomeini and his successors placed great value on the importance of mass education and especially education of females albeit with different aims. Iran provides an important example of a case going from minimal mass education levels at the outset of the twentieth century to nearly universal literacy at least in its younger population and a dramatic narrowing of the education gender gap while subject first to forces of secularization and modernization and then to pronounced efforts to reverse these forces post-1979. Other Middle East and North Africa (MENA) countries such as Turkey and Egypt have experienced a similar phenomenon if not to the same degree. Important examples also include the Soviet Union and China.

The impact of globalization has been evident in profound if contrasting and even convoluted ways in Iran. One quite conspicuous way was with the increasing importance of petroleum as a source of wealth to the Iranian economy and the increasing globalization of the petroleum market. Second, over the course of the twentieth century, Iran was subject to influence from major world powers including Britain, the Soviet Union (Russia), and the USA. This influence has included quite conspicuous efforts by these powers at political meddling and control. Third, Iran has experienced periods of modernization and secularization, in part due to leaders that were subject to Western control and influence, in particular under the rule of the Pahlavi dynasty (1922–79) but also due to modernization in popular entertainment and communications and entertainment media. But then, since the Islamic

Revolution of 1979, Iran has been subject to backlash in direct response to previous political and social developments.

Schooling, literacy and educational attainment expanded as well and can be traced back to efforts occurring under the regime of Reza Pahlavi. Later, basic literacy and primary schooling expanded dramatically under the White Revolution of Mohammad Pahlavi, and then was notably sustained after the Islamic Revolution. These changes are especially remarkable for female education and literacy. This leads to the question of what factors sustained the expansion of female literacy and primary education despite the radical regime change which occurred in 1979. The related question of whether these factors reflected global forces and response to them also arises.

This sets out the following agenda for this chapter to consider. First, basic details of trends in Iran's educational system and measures of educational attainment will be considered. Second, attention will turn to the motivations, first of the Pahlavi regimes and then under the Islamic Republic, of promoting education. This, in turn, will lead to consideration of the extent to which each set of motivations can be seen as reflecting global forces. Finally, consideration will be given to other influences on Iranian education and the gender gap before a final summing up.

11.2 Developments in Education, Schooling and Literacy in Iran During the Twentieth and Early Twenty-First Century

Some Iranian intellectuals during the Qajar regime¹ in the nineteenth century wanted to adopt and adapt Western-style education in Iran to facilitate the adoption of Western technology and as a way of cultivating a suitable Iranian culture. Iranian students were sent to European universities to get the benefits of Western education. Limited efforts were

¹The Qajars were a Turkic-speaking tribal confederation who ruled Iran in the period 1795–1921.

made to provide for technical and military training in Iran. Modern elementary and secondary schools were established in Iran only in the 1870s and the first public elementary schools were opened only in the 1890s (Menashri 1992, p. 60). Such tendencies were resisted by traditional religious elders. So, schooling and access to education had progressed to only a very limited degree at the end of the period of rule by the Qajars and the onset of the Constitutional Revolution challenging Qajar rule in the first decades of the twentieth century.

One estimate of literacy rates in Iran indicated that in 1900, less than 5 percent of the population was literate. Only limited reading and writing were taught in traditional *maktab* schools offering instruction in Islamic religion. In 1901, there were only 17 secular primary schools, one high school and one institute of higher education in Iran. By 1910, the number of secular primary schools had increased to 76 for boys with 8344 students and 47 for girls with 2187 students. Provision was made in 1907 and 1911 legislation for compulsory and free primary education, but the legislation was not effectively enforced. In 1918–19, after a century of initial contact with Western Education, there were just several dozen secular elementary schools enrolling 24,000 students and only a few secondary schools enrolling 2400 students (Kian-Thiebaut 1998, pp. 45–46; Menashri 1992, p. 60). Traditional opposition to introducing modern, Western education was grounded in concerns that it would weaken the Islamic faith of students, put the students under the influence of Western powers and enable these powers to advance their own interests in Iran (Menashri 1992, p. 64) and also in concerns that school graduates would just end up in administrative positions rather than directly contribute to the development of Iran. Perhaps as a result of this stance, the first secular public primary school was not established until 1888 (Kian-Thiebaut 1998, p. 45).

During the Constitutional Era of transition from Qajar rule to that of the Pahlavi in the first two decades of the twentieth century, liberal supporters of educational reform emphasized the importance of providing for universal access to elementary schooling aimed at the lower classes. They argued that such schooling would provide a necessary foundation for developing a constitutional political system, for building

a modern nation-state and for social and economic progress and for the development of higher levels of education (Menashri 1992, p. 77).

11.3 Reza Shah

From a negligible base, some progress was made under Reza Pahlavi's rule (1922–41) in providing access to elementary and secondary schooling (Table 11.1).

By the time Reza Pahlavi assumed power it already appears that secular public-school enrollments exceeded that in *maktab* schools or in schools aimed at those seeking training as religious functionaries, the *tollab*. During his reign, enrollments in secular public elementary and secondary schools rose more than fivefold while enrollments in *maktab* (traditional religious) schools—while initially tripling—ended up stagnant; schools for training religious functionaries, the *tollab*, declined substantially (Table 11.2). Abrahamian (2008, p. 84) reports a similar expansion in both primary and secondary schooling in Iran during the 1920s and 1930s. Reza Shah's reign also saw expansion of higher education in Iran and the formation of Tehran University in 1934 out of a merger of 6 colleges (Abrahamian 2008, p. 85).

After Reza Shah was forced to abdicate in 1941 due to British, Soviet and American pressure to gain more reliable access to Iranian oil

Table 11.1 Percentage of population aged 5–14 (approximate school age) enrolled in elementary and secondary school, 1922–41

	Total enrolled	Enrolled as % of estimated pop aged 5–14	Male enrolled	Male enrolled as % of males aged 5–14	Female enrolled	Female enrolled as % of females aged 5–14
1922–23	44,819	1.89	37,227	3.13	7592	0.64
1940–41	315,355	9.67	227,160	13.98	88,195	5.43

Source Enrollment numbers from Menashri (1992, pp. 121, 110). Population 5–14 obtained by multiplying Menashri's total population figures by 0.25 (p. 121). This is based on rough estimates from Iranian census data 1956 and 1966 that about one-fourth of population in 1956 was aged 5–14 (see Firoozi 1970, p. 221)

Table 11.2 Students in public schools compared with religious schools (*maktab*) and in preparation for religious service (*tollab*) 1924–47

	Students in public elementary and secondary schools	<i>Maktab</i> students	<i>Tollab</i> students
1924/25	59,339	22,929	4879
1935/36	193,271	60,008	4004
1947/47	327,509	22,087	3057

Source Menashri (1992, p. 102)

Table 11.3 Estimated trends in enrollments and enrollment rates in Iran, 1941–78

Year	Population 000	Pop × 0.25 000	Primary	Secondary	Primary (%)	Secondary (%)
1941/42	12,833	3208.25	286,598	28,757	8.93	0.90
1946/47	14,159	3539.75	293,724	33,785	8.3	0.95
1953/54	16,237	4059.25	730,793	103,641	18.0	2.55
1956/57	18,955	4738.75	816,501	145,118	17.2	3.06
1961/62	22,372	5593	1,436,169	297,493	25.7	5.32
1966/67	25,789	6447.25	2,565,918	443,751	39.8	6.9
1970/71	30,020	7505	3,444,362	1,056,857	45.9	14.1
1975/76	33,375	8343.75	4,124,803	1,989,367	49.4	23.8
1978	36,000	9000	5,200,000	2,501,118	57.8	27.8

Source Menashri (1992, pp. 186, 191, 192). Primary and secondary enrollment percentages calculated by dividing primary and secondary absolute enrollment numbers by 0.25 × population numbers. The 0.25 figure is an approximate estimate during this period of the population aged 5–15 in Iran or of primary and secondary schooling age

supplies, expansion of education occurred under the reign of his son, Mohammad, between 1941 and 1979 (Table 11.3). This included the era 1941–53 when Mohammad was more of a figurehead with control of the bureaucracy and political patronage in the hands of national elites, and in the 1950s when he assumed power in his own right prompted by Anglo-American intervention (see Abrahamian 2008 for details). Menashri (1992, p. 191) shows growth of primary and secondary school enrollment as a percent of the population expanded from 2.5 percent in 1941–42 to 21.4 percent in 1977–78. However, it was under his so-called White Revolution in the 1960s and early 1970s that literacy along with primary schooling became widespread, especially in

Table 11.4 Percent of children of elementary and secondary school age enrolled

Year	Group (sex)	Iran	Egypt	Turkey
1960	Total	29	43	46
	Boys	39	54	56
	Girls	18	32	35
1975 (Turkey 1974)	Total	70	58	66
	Boys	87	72	76
	Girls	53	44	55

Source Menashri (1992, p. 192). Note that Table 11.4 includes both primary and secondary enrollment percentages while Table 11.3 reports these separately

rural areas. As Table 11.4 shows during the White Revolution era, Iran caught up with MENA peers, Egypt and Turkey, with improvement especially noticeable for females.

In 1948, the Iranian Majlis (parliament) passed a law obligating the education ministry to allocate 80 percent of its budget for each of the next 10 years to implementing a 1943 compulsory schooling law. A supplementary law in 1948 stipulated that local councils would finance schools under their jurisdictions, landlords would be subject to a special levy in the establishment of village schools, and that government-funded incentives for teaching would be offered (Menashri 1992, p. 174).

11.4 Mohammad Pahlavi's White Revolution and the Literacy Corps

On the eve of the Shah's White Revolution in the early 1960s, his effort to shore up his regime through land reform and educational reform, the spread of mass education in Iran was perceived by its secular leadership as inadequate. As Table 11.4 shows, the percentage of school-age children enrolled in primary and secondary schools was low relative to MENA peers Egypt and Turkey. In 1961/62, only 46.6 percent of children aged 6–10 attended school despite a compulsory schooling law passed some two decades before. A particularly noticeable gap was evident between urban and rural areas. In

1962/63, school-age enrollment rates were 74 percent in urban areas but only 24 percent outside of cities. And out of over 50,000 villages in Iran, only 7000 had schools. In response as a central part of his White Revolution policies, the Shah proposed formation of a Literacy Corps, whose name literally translated was Army of Knowledge. The Literacy Corps was to be staffed by high school graduates who were to teach literacy among other items in villages rather than performing their expected regular military service. Members of the corps received four months of military and pedagogic training before being sent to teaching positions in remote regions of Iran. The Ministries of War and Education decided jointly on numbers of teacher-soldiers and their training schedule. Members of the corps with a good record of service were then to be offered employment as regular teachers. In 1968, a Literacy Corps for female teachers was established with women serving 18 months in comparison with the 24 months for men. Girls recruited into the Literacy Corp were to teach home economics to facilitate modernization as well as literacy (Menashri 1992, p. 180).

The extent of outreach of the Literacy Corps appears to have been substantial if one follows official statistics. By the end of 1977, a total of 166,949 men and 33,642 women served in the Literacy Corps. And in 1979, at the end of the Shah's reign, there were a total of 33,500 schools in some 30,000 villages compared with only 7930 schools located in some 7000 villages in 1962/63. Although the rural population was declining in relative terms during this period, the percentage of rural and tribal students in the total elementary school population rose to 52 percent in 1979. Moreover, 74.4 percent of all rural and tribal children between the ages of six and ten were reported to be attending school. Furthermore, one of out of every two Literacy Corps teachers was reported to have continued on as a regularly employed teacher, thus increasing the supply of teachers.

The program was subject to clear limitations. Literacy Corps members had limited amounts of instruction and qualification in literacy pedagogy. Drop-out rates were high, especially for girls (Menashri 1992, p. 181). In 1975, while girls were 51.6 percent of first-grade students, their percentage fell to 46.7 percent of second-grade students, then 40.8

percent of third-grade students, 37.9 percent of fourth-grade students, and only 31.0 percent of fifth-grade students.

While noticeable improvements appear to have occurred in literacy rates over the era of the Literacy Corps, especially for women, 1975 UNESCO reports indicated that 51.8 percent of Iranian men and 75.6 percent of Iranian women were illiterate. And in rural areas, the illiteracy rate was 83 percent (Mehran 1992, p. 195).

11.5 The Islamic Revolution and the Literacy Movement Organization

In response to what he called the “shame” of illiteracy, Ayatollah Khomeini established the Literacy Movement of Iran in 1979. It proceeded in many ways similarly to the Literacy Corps of the White Revolution though with different objectives. In addition to teaching reading and writing and arithmetic, it aimed to cultivate Islamic culture. In addition to providing adult education as did the Literacy Corps, the Literacy Movement also aimed at providing instruction for school-aged children who did not have access to schools provided by the Ministry of Education (Mehran 1992, p. 197).

One important difference between the Literacy Corps of the Shah and the Literacy Movement Organization of the Islamic Republic was that the latter strongly preferred gender segregation in the provision of instruction, though in some low population density rural areas, this was not always feasible. However, this preference did lead to an increased demand for female instructors and is thought to have considerably increased the number of female instructors participating in rural literacy instruction efforts.

The Literacy Movement was organized around two cycles (Mehran 1992, pp. 198–201). The Introductory Literacy Cycle “aim[ed] at familiarizing the participants with the tenets of Islamic culture and enabling them to recognize the alphabet, read and write simple Persian texts such as newspapers and magazines, and learn arithmetic in a manner that corresponds to their daily needs” (Mehran 1992, p. 199). The

Introductory Literacy Cycle lasted 4–5 months with classes meeting 2 hours per session on a daily basis. Meeting times were to be mutually agreed on by the instructor and learners. Classes were held in schools, mosques or private homes based on convenience and suitability of facilities. Classes aimed at the rural population usually met in fall and winter to minimize interruption of farm work. Provision was made for extending the length of the Introductory Cycle in regions where the population were not native Persian speakers.

The Complementary Literacy Cycle included a curriculum of Persian, arithmetic, dictation, study of the Qur'an, Islamic culture and composition. This cycle lasted about 6 months with classes meeting daily for 2 hours a session.

By 1989, some 514,753 Literacy Movement classes were held in Iran of which 62.5 percent were in rural areas and 0.88 percent were aimed at nomadic groups (Mehran 1992, p. 199). The Literacy Movement classes clearly reached out to women. In 1987, of the 744,000 learners in the introductory literacy cycle classes, 53.2 percent were housewives, while 11.4 percent were engaged in agriculture and animal husbandry. In 1989 of the 8.2 million illiterates who had enrolled in Literacy Movement classes, 65 percent were women (Mehran 1992, p. 200).

Evidence on participants' age in the Literacy Movement classes for 1987 indicates that they were primarily teenagers and young adults. Of the 1.1 million enrolled, 0.9 percent were below the age of 10, 37.7 percent were between age 10 and 19, 28.8 percent were between 20 and 29 years old, 18.6 percent were between 30 and 39 years old, 9.3 percent were between the age of 40 and 49 and 4.7 percent were age 50 or over (Mehran 1992, p. 201). In 1987, 37,703 children aged 7–9 and 10,182 aged 10–14 were studying in literacy classes. This led to nearly universal literacy (both for men and women) for those aged 15–24 (Table 11.5); while higher illiteracy persisted for the elderly (Table 11.6), the improvement in female literacy was impressive as it concerned both rural and urban areas (Table 11.7).

Table 11.5 Literacy rates for the 15–24 age group, 1976–2014

Year	Male	Female	Difference
1976	71	42.3	28.7
1986	84.5	65.6	18.9
1991	92.4	81.2	11.2
1996	95.5	90.6	4.9
2005	98.1	96.7	1.4
2008	98.3	97.5	0.8
2014	98.2	97.7	0.5

Source UNESCO (retrieved via www.indexmundi)

Table 11.6 Literacy rates for those age 6 and over (age 7 and over for 1966), 1966–86

	Male	Female	Difference
1966	30.1	17.9	12.2
1976	58.9	35.5	23.4
1986	71.0	52.1	18.9

Source Higgins and Shoar-Ghaffari (1994, p. 24). Data are in percentages

Table 11.7 Literacy rates for women aged 15–19, 20–24 and 25–29, urban and rural areas, 1966–2006

Year	Urban			Rural		
	15–19	20–24	25–29	15–19	20–24	25–29
1966	57.7	41.2	29.5	5.4	2.7	1.4
1976	75.4	59.4	49.4	19.8	10.1	4.9
1986	85.8	75.8	65.5	53.0	36.5	22.0
1996	96.9	93.8	89.5	86.4	77.9	65.4
2006	98.3	97.9	96.3	93.2	90.5	84.1

Source Abbasi-Shavazi et al. (2008, p. 2)

11.6 Motives and Objectives of the Literacy Corps and the Literacy Movement— Especially Objectives and Motives for Promoting Female Literacy

11.6.1 Education to Promote Secularization Under Reza Shah

Reza Shah was very supportive of the spread of education, including adult education as a way of cultivating loyalty to the motherland and to his regime. This view of education contrasted with some intellectuals in Iran who thought education should promote free and critically thinking individuals (Menashri 1992, pp. 92–93). Thus, one aim of Reza Shah in promoting education was to promote nationalism and nation-building in Iran in order to counteract the influence of Islam and local ethnic and tribal identities. For this reason, emphasis was placed on Persian as the language of instruction, on teaching pre-Islamic Persian history and on adult education classes teaching the history and geography of Iran, Persian poetry and civics (Menashri 1992, p. 97). One prominent intellectual collaborating with Reza Shah stated, “It is essential for the character, the spiritual foundations and the feelings of our young people to be developed and advanced by means of a national-patriotic education, so that our...sons [will be] willing to sacrifice their lives for the motherland” (Menashri 1992, p. 94). Reza Shah was influenced by the example of Ataturk in Turkey in using education to promote nationalism (Menashri 1992, pp. 94, 96). Also, he was influenced by Ataturk’s promotion of secularization of Turkish society and diminishing the role of Islamic religious authorities (Kazamias 1966). Reza Shah did not go to the extent of Ataturk in shutting down Madrasahs (offering advanced Islamic instruction) but he did promote the growth of public secular schools at the expense of *maktab* (offering basic Islamic instruction) schools.

Reza Shah’s educational advisers put special emphasis on promoting girls’ education, despite the opposition of the *ulama* (a collective of Islamic religious scholars) (Menashri 1992, pp. 106–107).

One prominent intellectual stated in 1925 that education of girls was an important task for the government in order to set Iran “on the path of westernization and progress” (Menashri 1992, pp. 107–108). Reza Shah viewed girls’ education as a key means of promoting secularization and Westernization in Iran. Following the example of Turkey, he advocated both eliminating the veiling of women and educating them. The minister of education viewed education of girls as key to the overall progress of Iran, in part because to promote education among the younger generation, their mothers should be educated. However, some educational advisers took a more traditional view of the role of women and argued that female education should focus on housekeeping skills rather than mathematics or literature (Menashri 1992, p. 109). The Shah and his educational advisers put particular emphasis on the nurturing function of education (Parvaresh in Persian) rather than on conveying of knowledge (Amuzesh in Persian). And it was argued that women instinctively are effective in the nurturing role of education (Menashri 1992, p. 111).

11.6.2 Literacy Corps and the White Revolution—Female Education as a Way of Sustaining a Secularization Drive

By the early 1960s, the Shah and his advisers perceived that dramatic socioeconomic change was required in Iran, for his regime to maintain legitimacy and power. Popular unrest in both rural and urban areas had been manifested in the late 1950s and early 1960s in response to deteriorating economic conditions. The Shah’s authority was subject to challenge by traditional landed interests who were supported by traditional urban merchant interests. The White Revolution represented an attempt by the Shah to consolidate his power by disrupting traditional landlord interests while also appealing to popular support in both rural and urban areas through major efforts at land reform. Land reform was perhaps the central feature of the White Revolution and it had a clear populist dimension.

However, education also featured prominently in Mohammad Shah Pahlavi's White Revolution proposals of the early 1960s. Three out of nineteen articles in the White Revolution manifesto were on the "educational revolution" (Menashri 1992, p. 163). These included Article 6, on the creation of the Literacy Corps, Article 11, on educational reform through secularizing and diversifying the curriculum and Article 14, providing free and compulsory schooling at all levels of education.

The Shah prioritized the development of character as more important than instruction in utilitarian skills or literacy and even this should be subordinated to developing loyalty to his regime. The Shah perceived education as a means of developing patriotism. He thought that education would be a key means of cultivating awareness of national unity. This implied that all Iranians, including women, should be familiar with Iran's culture and history and be fluent in Persian (Menashri 1992, pp. 164–165). In a speech he gave as crown prince to teachers, he asserted that education should be used to affirm "the spirit of devotion to God, love of the shah, and patriotism" as an "inseparable triad" (as described by Menashri 1992, p. 166).

The Shah had particular motives for fostering the spread of education in rural areas and especially the education of girls and women. He thought that the spread of education in rural areas would raise agricultural productivity, enhance village life more generally and develop peasant loyalty by a sense of greater fairness than under landlord control. He also intended for education in rural areas to promote civilization through appreciation both of Iranian heritage and of the Shah's accomplishments (Menashri 1992, p. 179). The female wing of the Literacy Corps was to teach improved household management skills. Enlisting females into the Literacy Corps by improving the status of women in Iranian society would advance the process of secularization.

Strong clerical opposition emerged to the recruitment of girls to the Literacy Corps. For this reason, the Shah presented this as an initiative of a women's organization head by his sister (Menashri 1992, p. 179, note 27).

Akhavi (1980, p. 98) notes: "the *ulama* (Islamic clerical class) risked serious loss of their influence in the rural areas of the country by the Literacy corps. The elementary religious schools continued to be the

only source of education for many villagers in the remote regions of rural Iran... The Literacy Corps was specifically intended to fill the need for unavailable teachers in the outlying regions: precisely where clergy influence had continued to wax.”

Despite this opposition, the Literacy Corps persisted in its outreach efforts throughout rural Iran.

11.6.3 Khomeini's Views on Education After Islamic Revolution

Khomeini, from the outset of the Islamic Revolution, was strongly committed to employing education to counter the White Revolution and the process of secularization it had set in place (Menashri 1992, pp. 307–328).

Khomeini put particular emphasis on infusing an Islamic mind-set into Iranian universities as a key component of an Iranian Cultural Revolution that aimed at “Islamicizing and purifying the entire Iranian educational system” (Menashri 1992, p. 308).

The Islamic and populist nature of the Islamic Revolution was one factor that led its leaders to emphasize promoting literacy. Widespread illiteracy was considered by Khomeini and his followers as a “shame” in a society undergoing a cultural revolution based on Islamic principles. One core principle attributed to Mohammad was that all Muslims, female as well as male, had an obligation to pursue knowledge and this could be viewed as implying a female responsibility to acquire at least basic literacy skills (Mehran 1992, p. 195). Furthermore, in making a populist appeal for support, the post-revolutionary government asserted its commitment to the “oppressed and the have-nots,” most of whom were illiterate. Such an appeal to the oppressed can be seen as consistent with Shi'ite culture. Thus, targeting resources at eliminating illiteracy was seen by the leaders of the post-revolutionary regime as a policy that would garner the support of the more deprived elements of Iranian society, especially in rural areas (Mehran 1992, p. 196). Of at least equal importance, the 1979 revolution was seen by its leaders as a cultural revolution with an aim of transforming values. What was

evident in Iran is the perception as elsewhere of education as a powerful force for “nation building, creating model citizens in post-revolutionary societies, and the socialization of a new generation of citizens with a dramatically different worldview compared to the previous generation” (Mehran 1992, p. 196). Khomeini, in fostering literacy drives and mass education as a way making a reformed Islamic culture and a new Muslim woman, has been seen as following the examples of the Soviet Union, and communist China and Cuba (Mehran 1991, 1992, p. 196).

In his December 28, 1979, Message on the Occasion of the Establishment of the Literacy Movement of Iran, Ayatollah Khomeini identified “education for all” as a “primary need of every nation, equal to health and housing” and asked the Iranian people to “rise up against illiteracy in a decisive manner.” In Khomeini’s message, he identified three key elements according to Mehran (1992, pp. 196–197) in his drive to eliminate illiteracy. First, he labeled literacy as a “shame” and a “deficiency” and what Mehran terms “a disease that needs to be cured through a decisive act.” Thus, there was a commitment to a decisive drive to eliminate illiteracy among adults and to ensure that all school-aged children had access to instruction in literacy. Second, he identified mass mobilization involving the cooperation of both the literate and illiterate populations as a key element of this drive. Thus, the Islamic Republic of Iran’s Literacy Movement was to employ similar tactics as the Shah’s Literacy Corps. Third, however, a key difference from the Literacy Corps was that “only the pious members of society and religious organizations are asked to mobilize and teach the illiterates.” Mehran (1992, p. 197) argues that the Literacy Movement put particular emphasis on the importance of religiosity-piety in its efforts.

Mehran (2003) observes the paradox that females were supposed to both maintain their traditional roles in managing the household and to participate in the moral rebirth of Iranian society following the values of the Islamic revolution. Because of their status as a have-not group, particular emphasis was placed on providing both literacy and moral instruction to both student-age females and adult females in rural areas. Khomeini and his followers presumably saw females,

especially rural females, as an important group to enlist in the Islamic Republic's moral regeneration crusade.

Mehran (2003/4, pp. 6 et ff) distinguishes three phases in the overall evolution of society in Iran since the 1979 Islamic Revolution with each phase having a distinctive role for female education. The first phase spanning 1979–87 saw an effort to consolidate the authority of the Islamic Republic. Education was to cultivate an ideal Muslim and committed revolutionary including women. Women as both actual and potential mothers were seen as playing a critical role in raising the pious Muslims of future generations. The second stage was one of reconstruction in the aftermath of the Iran–Iraq war and spanned 1988–97. Women's participation in all aspects of Iranian society was encouraged in order to facilitate recovery from the war. The third phase spanned 1997–2003 is characterized by Mehran as a reform period. During this phase, Iranian women's movements efforts at empowerment were realized with an emphasis on women's rights as individuals not just as mothers or tools of the Islamic revolution. Women's education was valued as a means for women's self-improvement.

11.7 Comparison of the Motivations for Promoting Female Education During the White Revolution and During the Islamic Revolution

With both the White Revolution Literacy Corps and the Islamic Revolution Literacy Movement, the movements' leaders saw the promotion of female literacy as a way of enhancing popular commitment to regime values whether that be secular nationalism in the case of the White Revolution or to Islamic moral reform in the case of the Literacy Movement. However, a central motivation of the Literacy Movement was to counter the non-Islamic secularism and erosion of Islamic values that Literacy Corps classes under the Shah and more generally cultivated in the society had been promoting.

11.7.1 Did the Drive for Promoting Female Education in Both the White Revolution and the Islamic Revolution Reflect Global Forces?

Both movements can be seen as imitating or at least reflecting the influence of education and literacy drives and efforts as socioeconomic modernization in other developing countries. Particular influences on White Revolution educational movements include the emphasis placed on education as a means of nation-building in Kemalist Turkey and the literacy drives of the Soviet Union. Both movements can be seen as emulating literacy drives elsewhere including the Soviet Union, China, Cuba, Tanzania and Nicaragua which occurred in the mid-twentieth century (Arnove and Graff 1987). At a minimum, the Islamic Revolution Literacy Movement can be seen as global insofar as it was a reaction to the international secularism of the White Revolution. Insofar as Khomeini and his followers attributed what they perceived as the growing moral decadence of Iranian society as reflecting Western influences, their education efforts can be seen as a response to global influences. However, the Islamic Revolution saw itself as a true revolution and not just a reactionary return to a traditional society. Sobhe (1982) has pointed to parallels and influences on Iran from the Cultural Revolution in China.

11.8 Factors Other Than Regime Policies Affecting the Closing of the Literacy Gender Gap in Iran

The account above has focused on the role of regime policies including the Literacy Corps and the Literacy Movement as influences on the rise of literacy and closing of the gender literacy gap in Iran. However, allowance should be made for the role of other influences.

11.8.1 The Role of Urbanization and Rural-Urban Migration

The large difference in literacy and school enrollment rates between urban and rural areas in Iran has already been noted above. The urban-rural gap was particularly pronounced for females. During both the era of the Literacy Corps and the Literacy Movement, Iran experienced a marked increase in the percentage of its population residing in cities. What role did urbanization play in rising literacy and school enrollment in Iran? On the one hand, literacy rates did rise markedly after 1960 in rural as well as urban areas and a simple shift-share decomposition implies that the bulk of overall literacy increases can be attributable to rising literacy within both urban and rural areas rather than a rural-urban shift of population. Nevertheless, allowance should be made that growing urban opportunities increased the socioeconomic return to literacy perceived in rural areas, thus contributing to its spread. Internal migration was substantial, though it appears that urbanization was dominated by natural population growth in cities.

Urbanization reflected and was influenced by general trends in the Iranian economy including land reform and the increasing importance over the twentieth century of Petroleum in the Iranian economy (Table 11.8).

Table 11.8 Urbanization trends in Iran

Year	% population living in Urban areas
1960	33.7
1966	37.75
1976	46.67
1986	54.1
1996	61.01
2006	68.2
2016	73.9

Source World Bank

11.8.2 Family Income and Education of Parents

Salehi-Ishfani (2001) finds that family income and parents' education affect years of schooling for children as reported in a 1987 survey. These effects are roughly double in rural than urban areas. However, after controlling for access to schooling by clustering by village, he finds that parents' education exhibits much smaller effects on their children's schooling, while the impact of family income is unchanged. He does find a higher income elasticity for girls' schooling than boys' schooling in rural areas. However, he does not find differential effects of fathers' or mothers' education in rural areas on boys' versus girls' schooling. The fact that the impact of parental education declines after controlling for access to schooling suggests that access to schooling may mitigate the impact of parental education and insure more schooling for both boys and girls.

11.8.3 Popular Perception of Schooling and Education

Mehran's (1997) summary of a UNICEF-sponsored survey of barriers to girls' schooling in high illiteracy areas of Iran supports the findings of Salehi-Isfahani as to the importance of cultural factors and poverty in limiting the schooling of girls. The most commonly cited factors by girls, their parents, and teachers that—according to them—inhibited girls' primary-school attendance (Mehran 1997, pp. 14–15) were mainly “traditional thinking regarding the uselessness of education for girls” and cultural poverty (Mehran 1997, p. 5) defined as “illiteracy among parents and other members of the community, the limited understanding of the role and importance of education of girls by their parents.” Negative views of some parents toward education for their daughters also played a negative role, as is shown by such statements as “girls will not pay attention to religious matters if they go to school,” “girls will learn satanic sciences if they go to school,” “once they go to school, girls will begin writing letters to boys,” “financial poverty,” “mothers' need for the help of girls in housework,” “the families need for the economic activities of girls.”

Despite this, a number of historians have suggested that a variety of women's movements in Iran both before and after the Islamic Revolution made a substantial contribution to expanding opportunities for female education in Iran (Kian-Thiebaut 1998, pp. 240–254; Paidar 1995; Nashat 1983, pp. 23, 25). Over and above literacy and primary schooling, educational opportunities at higher levels also expanded for females though with fluctuating restrictions (Higgins and Shoar-Ghaffari 1994; Paidar 1995, pp. 312–322).

11.8.4 Labor Markets and Returns to Schooling

It is not at all clear that labor market opportunities or increasing economic returns to literacy and primary education occurring after the Islamic Revolution would have incentivized female literacy and primary school completion. Mehryar et al. (2004, p. 197) report from a 1996 survey that literacy rates for women participating in the labor market were higher (80.9 percent) than women not active in the labor market (70.7 percent). The difference was evident in both urban (92.9 percent versus 78.7 percent) and rural areas (66.4 percent versus 57.3 percent). However, this difference seems mainly due to high labor force participation rates by women with secondary and higher education. Women with primary only (9.3 percent) and middle-school education (7.11 percent) had lower labor force participation rates than illiterate women (10.9 percent). This can be seen as reflecting limited labor market opportunities for women and the limited advantages the primary education or literacy alone provided in the labor market. The office-work positions that offered employment to women appear to have required secondary and higher education. Since the Islamic Revolution, the literacy rate of the unemployed appears to have been rising (Mehryar et al. 2004, pp. 199, 202).

Finally, it is worth noting that a number of studies of Iran's marked decline in fertility following the 1979 Islamic Revolution, identify rising female educational attainment as a major contributing factor (Lutz et al. 2010; Erfani and McQuillan 2014). The Iran–Iraq war (1980–88) did cause labor shortages which may have created new labor market

opportunities for women, but it also created disruptions which probably hindered the spread of schooling and literacy in rural areas (Beck 2004, pp. 256–257; Poya 1999, pp. 77–93).

11.9 Conclusion: Implications for the Impact of Globalization on Social Change

By standard measures, the rise of female educational attainment in Iran over the last 50 years appears to have been quite impressive. Nevertheless, the limits on what was accomplished should be acknowledged. Mass literacy campaigns, while having pervasive results, have not resulted in fundamental mastery of literacy skills. Furthermore, the impacts of the Literacy Corps and the Literacy Movement in Iran do not appear to have been exceptions in this regard. As noted above, attrition rates in participation in adult literacy classes in both campaigns appear to have been sizeable; it is likely that even women and girls who completed these programs were subject to depreciating literacy through lack of use (see Menashri 1992, pp. 180–182, 322–326; Mehran 1992, pp. 207–210). The presence of tribal, non-Persian speaking groups was one factor that appears to have impeded the spread of schooling and literacy (Mehran 2003).

Nevertheless, Iran is a striking example of a country experiencing a shift from majority illiteracy to the onset of universal literacy in just a few decades. What is especially striking about the Iranian case is the persistent drive to universal female literacy even in rural areas during a regime shift from a secularizing autocracy to an Islamic theocracy. The basic explanation of the paradox is that the Islamic Revolution was perceived by its leaders as a true revolution. It was conceived not as a return to a traditional society but as a move to purify and establish Islamic morality to counteract secular, westernizing forces in Iranian society. Much remains unresolved about the determinants of education provision in Iran throughout the twentieth century; yet, global influences, whether as sources of emulation or as forces to be resisted and overcome, appear to have been central to Iran's late twentieth-century educational accomplishments.

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