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History Lessons
Institutions, Factor Endowments, and Paths of Development in the New World

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This occasional feature will discuss episodes and events drawn from economic history that have lessons for current topics in policy and research. Responses to this column and suggestions for future columns should be sent to Kenneth Sokoloff, Department of Economics, University of California—Los Angeles, 405 Hilgard Ave., Los Angeles, CA 90095-1477.

Introduction

As Europeans established colonies in the New World of North and South America during the sixteenth, seventeenth, and eighteenth centuries, most knowledgeable observers regarded the North American mainland to be of relatively marginal economic interest, when compared with the extraordinary opportunities available in the Caribbean and Latin America. Voltaire, for example, considered the conflict in North America between the French and the British during the Seven Years' War (1756-63) to be madness and characterized the two countries as "fighting over a few acres of snow." The victorious British were later to engage in a lively public debate over which territory should be taken from the French as reparations—the Caribbean island of Guadeloupe (with a land area of 563 square miles) or Canada (Eccles, 1972; Lokke, 1932). Several centuries later, however, we know that the U.S. and Canadian economies ultimately proved far more successful than the other economies of the hemisphere. The puzzle, therefore, is how and why the

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areas that were favored by the forecasters of that era, and the destinations of the vast majority of migrants to the Americas through 1800, fell behind economically.

Systematic estimates of per capita income over time have not yet been constructed for many economies, and those that exist are rough, but Table 1 conveys a sense of the current state of knowledge for a selected group of New World countries relative to the United States. The figures suggest that the economic leadership of the United States and Canada did not emerge until several centuries after the Europeans arrived and began establishing colonies. In 1700, there seems to have been virtual parity in per capita income between Mexico and the British colonies that were to become the United States, and the most prosperous economies of the New World were in the Caribbean. Barbados and Cuba, for example, had per capita incomes that have been estimated as 50 and 67 percent higher, respectively, than that of (what was later to be) the United States. Although the latter economy may have begun to grow and pull ahead of most economies in Latin America by 1800, it still lagged behind those in the Caribbean, and Haiti was likely the richest society in the world on a per capita basis in 1790, on the eve of its Revolution (Eltis, 1997). It was not until industrialization got under way in North America over the nineteenth century that the major divergence between the United States and Canada and the rest of the hemisphere opened up. The magnitude of the gap has been essentially constant in proportional terms since 1900.

These differentials in paths of development have long been of central concern to scholars of Latin America and have recently attracted more attention from economic historians and economists more generally (North, 1988; Engerman and Sokoloff, 1997; Coatsworth 1993, 1998; Acemoglu, Johnson and Robinson, 2000; Engerman, Haber and Sokoloff, 2000). Although conventional economic factors have certainly not been ignored, the explanations offered for the contrasting records in growth have most often focused on institutions and highlighted the variation across societies in conditions relevant to growth such as the security of property rights, prevalence of corruption, structures of the financial sector, investment in public infrastructure and social capital, and the inclination to work hard or be entrepreneurial. But ascribing differences in development to differences in institutions raises the challenge of explaining where the differences in institutions come from. Those who have addressed this formidable problem have typically emphasized the importance of presumed exogenous differences in religion or national heritage. Douglass North (1988), for example, is one of many who have attributed the relative success of the United States and Canada to British institutions being more conducive to growth than those of Spain and other European colonizers. Others, like John Coatsworth (1998), are skeptical of such generalizations, and suggest that they may obscure the insight that can be gained by examining the extreme diversity of experiences observed across the Americas, even across societies with the same national heritage.

Indeed, a striking implication of the figures in Table 1 is that the relationship between national heritage and economic performance is weaker than popularly thought. During the colonial period, the economies with the highest per capita

Table 1
The Record of Gross Domestic Product per Capita in Selected New World Economies, 1700–1997

	GDP per capita relative to the U.S.			
	1700	*1800*	*1900*	*1997*
Argentina	—	102	52	35
Barbados	150	—	—	51
Brazil	—	50	10	22
Chile	—	46	38	42
Cuba	167	112	—	—
Mexico	89	50	35	28
Peru	—	41	20	15
Canada	—	—	67	76
United States (GDP p.c. in 1985$)	550	807	3,859	20,230

Notes and Sources: The relative GDP per capita figures for Latin American countries come primarily from Coatsworth (1998). Coatsworth relied extensively on Maddison (1994), and we draw our estimates for Canada and the United States in 1800 and 1900 from the same source (using linear interpolation to obtain the 1900 figures from 1890 and 1913 estimates). The GDP per capita estimates for Barbados in 1700 are from Eltis (1995). The 1997 figures are based on the estimates of GDP with purchasing power parity adjustments in World Bank (1999). Since there was no adjustment factor reported for Barbados in that year, we used that for Jamaica in our calculations. The 1700 figure for the United States was obtained from Gallman (2000), by projecting backward the same rate of growth that Gallman estimated between 1774 and 1800. Maddison (1991) has published alternative sets of estimates, which yield somewhat different growth paths (especially for Argentina) during the late nineteenth and early twentieth centuries, and he has a more positive assessment of Brazilian economic performance during the early nineteenth century than does Coatsworth, but the qualitative implications of the different estimates are essentially the same for our purposes.

incomes were those in the Caribbean, and it made little difference whether they were of Spanish, British, or French origin. The case for the superiority of British institutions is usually based on the records of the United States and Canada, but the majority of the New World societies established by the British—including Barbados, Jamaica, Belize, Guyana, and the lesser-known Puritan colony on Providence Island—were like their other neighbors in not beginning to industrialize until much later. Having been part of the British Empire was far from a guarantee of economic growth (Greene, 1988; Kupperman, 1993). Likewise, there was considerable diversity across the economies of Spanish America. This is most evident in the contrasts between the experiences of the nations of the southern cone and those with large populations of Native American descent, such as Mexico or Peru. It is the former class of countries, including Argentina, that of all the other economies of the New World most closely resemble the United States and Canada in experience over time.

With the evidence of wide disparities even among economies of the same European heritage, scholars have begun to reexamine alternative sources of differences. Though not denying the significance of national heritage, nor of idiosyncratic conditions that are unique to individual countries, they have begun to explore the possibility that initial conditions, or factor endowments broadly conceived, could have had profound and enduring impacts on long-run paths of institutional and economic development in the New World. Economists traditionally emphasize the pervasive influence of factor endowment, so the qualitative thrust of this approach may not be entirely novel (Baldwin, 1956; Lewis, 1955; Domar, 1970). What is new, however, is the specific focus on how the extremely different environments in which the Europeans established their colonies may have led to societies with very different degrees of inequality, and on how these differences might have persisted over time and affected the course of development through their impact on the institutions that evolved. In particular, while essentially all the economies established in the New World began with an abundance of land and natural resources relative to labor, and thus high living standards on average, other aspects of their factor endowments varied in ways that meant that the great majority were characterized virtually from the outset by extreme inequality in wealth, human capital, and political power. From this perspective, the colonies that came to compose the United States and Canada stand out as somewhat deviant cases.

From Factor Endowments to Inequality

The "discovery" and exploration of the Americas by Europeans was part of a grand, long-term effort to exploit the economic opportunities in underpopulated or underdefended territories around the world. European nations competed for claims and set about extracting material and other advantages through the pursuit of transitory enterprises like expeditions as well as by the establishment of more permanent settlements. At both the levels of national governments and private agents, adaptation or innovation of institutional forms was stimulated by formidable problems of organization raised by the radically novel environments, as well as by the difficulties of effecting the massive and historically unprecedented intercontinental flows of labor and capital. Common to all of the colonies was a high marginal product of labor, as evidenced by the historically unprecedented numbers of migrants who traversed the Atlantic from Europe and Africa despite high costs of transportation.

Well over 60 percent of the more than 6 million individuals who migrated to the New World from 1500 through the end of the eighteenth century were Africans brought over involuntarily as slaves (Eltis, 2000; Engerman and Sokoloff, 1997). With their prices set in competitive international markets, slaves ultimately flowed to those locations where they were most productive. There were no serious national or cultural barriers to owning or using them; slaves were welcomed in the colonies of all the major European powers. The fraction of migrants who were slaves grew continuously, from roughly 20 percent prior to 1580 to nearly 75 percent between 1700 and 1760. The prominence of slaves, as well as the increase over time in the proportion of migrants going to the colonies of Portugal, France, and the Netherlands, and the continued quantitative dominance in the destinations of migrants to British America of colonies in the West Indies and on the southern mainland, reflects the increasing specialization by the New World over the colonial period in the production of sugar, coffee, and other staple crops for world markets. These colonies attracted heavy inflows of labor (especially slaves) because their soils and climates made them extraordinarily well-suited for growing these lucrative commodities, and because of the substantial economies of scale in producing such crops on large slave plantations (Fogel, 1989). Indeed, there are few examples of significant colonies which were not so specialized: only the Spanish settlements on the mainlands of North and South America (some of which had concentrations of labor in silver or other mines) and the New England, Middle Atlantic, and Canadian settlements of Britain and France. It was not coincidental that these were also the colonies that relied least on slaves for their labor force.

The economies that specialized in the production of sugar and other highly valued crops associated with extensive use of slaves had the highest per capita (including slaves) incomes in the New World. Most, including Barbados, Cuba, and Jamaica, were in the West Indies, but some (mainly Brazil) were in South America. They specialized in these crops early in their histories, and through the persistent working of technological advantage and international markets in slaves, their economies came to be dominated by large slave plantations and their populations by slaves of African descent (Dunn, 1972; Sheridan, 1974; Moreno Fraginals, 1976; Schwartz, 1985; Knight, 1990). The greater efficiency of the very large plantations, and the overwhelming fraction of the populations that came to be black and slave, made the distributions of wealth and human capital extremely unequal. Even among the free population, there was greater inequality in such economies than in those on the North American mainland (Galenson, 1996).

Although the basis for the predominance of an elite class in such colonies may have been the enormous advantages in sugar production available to those able to assemble a large company of slaves, as well as the extreme disparities in human capital between blacks and whites (both before and after emancipation), the long-run success and stability of the members of this elite were also facilitated by their disproportionate political influence. Together with the legally codified inequality intrinsic to slavery, the greater inequality in wealth contributed to the evolution of institutions that protected the privileges of the elites and restricted opportunities for the broad mass of the population to participate fully in the commercial economy even after the abolition of slavery.

The importance of factor endowments is also evident in a second category of New World colonies that can be thought of as Spanish America, although it also included some islands in the Caribbean. Spain focused its attention on, and designed their New World policies around conditions in, colonies such as Mexico and Peru, whose factor endowments were characterized by rich mineral resources and by substantial numbers of natives surviving contact with the European colonizers. Building on preconquest social organizations, whereby Indian elites extracted tribute from the general population, the Spanish authorities adopted the approach of distributing enormous grants of land, often including claims to a stream of income from the native labor residing in the vicinity, and of mineral resources among a privileged few. The resulting large-scale estates and mines, established early in the histories of these colonies, endured even where the principal production activities were lacking in economies of scale. Although small-scale production was typical of grain agriculture during this era, their essentially non-tradeable property rights to tribute from rather sedentary groups of natives (tied to locations by community property rights in land) gave large landholders the means and the motive to operate at a large scale.

Although the processes are not well understood, it is evident that large-scale agriculture remained dominant in Spanish America—especially in districts with linkages to extensive markets—and that the distribution of wealth remained highly unequal over time. Elite families generally acted as local representatives of the Spanish government in the countryside during the colonial period and maintained their status long after independence. The persistence and stability of elites, as well as of inequality generally, were also certainly aided by the restrictive immigration policies applied by Spain to her colonies, and by laws throughout Spanish America requiring that a citizen (a status entailing the right to vote and other privileges) own a substantial amount of land (qualifications that were modified in post-independence constitutions to require literacy and a specified economic standing). For different reasons, therefore, Spanish America was like the colonies specializing in the production of crops like sugar in generating an economic structure in which wealth, human capital, and political power were distributed very unequally, and where the elites were drawn from a relatively small group that was of European descent and racially distinct from the bulk of the population (Lockhart and Schwartz, 1983; Chevalier, 1963; Van Young, 1983; Lockhart, 1994; Jacobsen, 1993).

As in the colonial sugar economies, the economic structures that evolved in this second class of colonies were greatly influenced by the factor endowments, viewed in broad terms. The fabulously valuable mineral resources and abundance of labor with low amounts of human capital were certainly major contributors to the extremely unequal distributions of wealth and income that came to prevail in these economies. Moreover, without the extensive supply of native labor, it is unlikely that Spain could have maintained its policies of tight restrictions on European migration to its colonies and of generous awards of property and tribute to the earliest settlers. The colonists in Spanish America endorsed formidable requirements for obtaining permission to go to the New World—a policy that limited the flow of migrants and helped to preserve the political and economic advantages enjoyed by those of European descent who had already made the move. In 1800, less than 20 percent of the population in Spanish colonies such as Mexico, Peru, and Chile was composed of whites; it would not be until the major new inflows from Europe late in the nineteenth century that Latin American countries such as Argentina and Chile would attain the predominantly European character they have today (Engerman and Sokoloff, 1997).

The final category of New World colonies were those located in the northern part of the North American mainland—chiefly those that became the United States, but including Canada as well. These economies were not endowed with substantial populations of natives able to provide labor, nor with climates and soils that gave them a comparative advantage in the production of crops characterized by major economies of using slave labor. For these reasons, their development, especially north of the Chesapeake, was based on laborers of European descent who had relatively high and similar levels of human capital. Compared to either of the other two categories of New World colonies, this class had rather homogenous populations. Correspondingly equal distributions of wealth were also encouraged by the limited advantages to large producers in the production of grains and hays predominant in regions such as the Middle Atlantic and New England. With abundant land and low capital requirements, the great majority of adult men were able to operate as independent proprietors. Conditions were somewhat different in the southern colonies, where crops such as tobacco and rice did exhibit some limited scale economies; cotton, which was grown predominantly on large slave plantations, was not a quantitatively important crop until the nineteenth century. But even here, the size of the slave plantations, as well as the degree of inequality in these colonies, were quite modest by the standards of Brazil or the sugar islands of the Caribbean.

The Role of Institutions in the Persistence of Inequality

There is strong evidence that various features of the factor endowments of these three categories of New World economies—including soils, climates, and the size or density of the native population—predisposed them toward paths of development associated with different degrees of inequality in wealth, human capital, and political power. Although these conditions might reasonably be treated as exogenous at the beginning of European colonization, it is clear that such an assumption becomes increasingly tenuous as one moves later in time after settlement. Particularly given that both Latin America and many of the economies of the first category, such as Haiti and Jamaica, are known today as generally the most unequal in the world (Deninger and Squire, 1996), we suggest that the initial conditions had lingering effects, not only because certain fundamental characteristics of New World economies were difficult to change, but also because government policies and other institutions tended to reproduce them. Specifically, in those societies that began with extreme inequality, elites were better able to establish a legal framework that insured them disproportionate shares of political power, and to use that greater influence to establish rules, laws, and other government policies that advantaged members of the elite relative to nonmembers—contributing to persistence over time of the high degree of inequality (Kousser, 1974; Acemoglu and Robinson, 2000). In societies that began with greater equality or homogeneity among the population, however, efforts by elites to institutionalize an unequal distribution of political power were relatively unsuccessful, and the rules, laws, and other government policies that came to be adopted, therefore, tended to provide more equal treatment and opportunities to members of the population.

Land policy provides an illustration of how institutions may have fostered persistence in the extent of inequality in New World economies over time. Since the governments of each colony or nation were regarded as the owners of the public lands, they set those policies which influenced the pace of settlement as well as the distribution of wealth, by controlling its availability, setting prices, establishing minimum or maximum acreages, and designing tax systems (Gates, 1968; Solberg, 1987; Adelman, 1994; Viotti da Costa, 1985). We have already mentioned the highly concentrated pattern of land ownership produced and perpetuated by land policies in most of Spanish America. In the United States, where there were never major obstacles to acquiring land, the terms of land acquisition became even easier over the course of nineteenth century. Similar changes were sought around the mid-nineteenth century in both Argentina and Brazil, as a means to encourage immigration, but these steps were less successful than in the United States and Canada in getting land to small holders. The major crops produced in the expansion of the United States and Canada were grains, which permitted relatively small farms given the technology of the times and may help explain why such a policy of smallholding was implemented and was effective. But as the example of Argentina indicates, small-scale production of wheat was possible even with ownership of land in large units, maintaining a greater degree of overall inequality in wealth and political power.

The contrast between the United States and Canada, with their practices of offering small units of land for disposal and maintaining open immigration, and the rest of the Americas, where land and labor policies led to large landholdings and great inequality, seems to extend across a wide spectrum of institutions and other government interventions. In the areas of law and administration pertaining to the establishment of corporations, the regulation of financial institutions, the granting of property rights in intellectual capital (patents), industrial policies, as well as the provision of access to minerals and other natural resources on government-owned land, New World societies with greater inequality tended to adopt policies that were more selective in the offering of opportunities (Engerman and Sokoloff, 1997; Engerman, Haber and Sokoloff, 2000; Haber, 1991). Of course, members of wealthy elites almost always enjoy privileged positions, but these societies were relatively extreme in the degree to which their institutions advantaged elites. Moreover, this contrast across New World societies with respect to the differences in the breadth of the respective populations having effective access to opportunities for economic and social advancement seems much more systematic than has been generally recognized.

Perhaps the most straightforward way of subjecting to an empirical test our hypothesis that elites in societies which began with greater inequality evolved more power to influence the choice of legal and economic institutions is to look at how broadly the franchise was extended and what fractions of respective populations actually voted in elections. Since most societies in the Americas were nominally democracies by the middle of the nineteenth century, this sort of information has a direct bearing on the extent to which elites—based largely on wealth, human capital, and gender—held disproportionate political power in their respective countries. Summary information about the differences across New World societies during the late nineteenth and early twentieth centuries in how the right to vote was restricted is reported in Table 2. The estimates reveal that although it was common in all countries to reserve the right to vote to adult males until the twentieth century, the United States and Canada were the clear leaders in doing away with restrictions based on wealth or literacy, and in attaining secrecy in balloting.

The contrast was not so evident at the outset. Despite the sentiments popularly attributed to the Founding Fathers, voting in the United States was largely a privilege reserved for white men with significant amounts of property, as it was elsewhere in the hemisphere, until early in the nineteenth century. Only four states had adopted universal white male suffrage before 1815, but after that year virtually all that entered the Union (Mississippi, in 1817, the sole exception) did so without wealth- or tax-based qualifications for the franchise. With the rapid growth of the then western states, where labor was scarce and the wealth distribution relatively equal, as well as some lowering of requirements in those previously settled, the proportion of the population voting in presidential elections surged from about 3 percent in 1824 to 14 percent in 1840. In contrast, the original 13 states revised their laws to broaden the franchise only gradually, generally after intense political struggles (five still retained some sort of economic-based qualification on the eve of the Civil War). Former President John Adams and Daniel Webster were among those who argued strongly for retaining a property qualification at the Massachusetts constitutional convention of 1820, and although their eloquence was not enough to save it, a tax requirement was adopted in its place (Porter, 1918; Albright, 1942).

A movement for the extension of the suffrage, with similar patterns across provinces, followed with a lag of several decades in Canada, but meaningful extension of the franchise occurred much later in Latin America. Although a number of Latin countries relaxed restrictions based on landholding or wealth during the nineteenth century, they almost always chose to rely on a literacy qualification; as late as 1900, none had a secret ballot and only Argentina was without a wealth or literacy requirement (Engerman, Mariscal and Sokoloff, 1999; Perry, 1978; Love, 1970; Scobie, 1971). As a result, through 1940 the United States and Canada routinely had proportions voting that were 50 to 100 percent higher than their most progressive neighbors to the South (Argentina, Uruguay, and Costa Rica—countries notable as well for their relative equality and small shares of the population that were not of European descent), three times higher than in Mexico, and up to five to ten times higher than in countries such as Brazil, Bolivia, Ecuador, and Chile.

Table 2
Laws Governing the Franchise and the Extent of Voting in Selected American Countries, 1840–1940

		Lack of Secrecy In Balloting	*Wealth Requirement*	*Literacy Requirement*	*Proportion of the Population Voting*
			1840–80		
Chile	1869	Y	Y	Y	1.6%
Costa Rica	1890	Y	Y	Y	—
Ecuador	1856	Y	Y	Y	0.1
Mexico	1840	Y	Y	Y	—
Peru	1875	Y	Y	Y	—
Uruguay	1880	Y	Y	Y	—
Venezuela	1880	Y	Y	Y	—
Canada	1867	Y	Y	N	7.7
	1878	N	Y	N	12.9
United States	1850[a]	N	N	N	12.9
	1880	N	N	N	18.3
			1881–1920		
Argentina	1896	Y	Y	Y	1.8[b]
	1916	N	N	N	9.0
Brazil	1914	Y	Y	Y	2.4
Chile	1920	Y	N	Y	4.4
Colombia	1918[c]	N	N	N	6.9
Costa Rica	1912	Y	Y	Y	—
	1919	Y	N	N	10.6
Ecuador	1894	N	N	Y	3.3
Mexico	1920	N	N	N	8.6
Peru	1920	Y	Y	Y	—
Uruguay	1900	Y	Y	Y	—
	1920	N	N	N	13.8
Venezuela	1920	Y	Y	Y	—
Canada	1917	N	N	N	20.5
United States	1900	N	N	Y[d]	18.4
	1920	N	N	Y	25.1
			1921–40		
Argentina	1937	N	N	N	15.0
Bolivia	1951	—	Y	Y	4.1
Brazil	1930	Y	Y	Y	5.7
Colombia	1930	N	N	N	11.1
Chile	1931	Y	N	Y	6.5
Costa Rica	1940	N	N	N	17.6
Ecuador	1940	N	N	Y	3.3
Mexico	1940	N	N	N	11.8
Peru	1940	N	N	Y	—
Uruguay	1940	N	N	N	19.7
Venezuela	1940	N	Y	Y	—
Canada	1940	N	N	N	41.1
United States	1940	N	N	Y	37.8

Source: Engerman, Haber and Sokoloff (2000).
[a] Two states, still maintained wealth requirements in 1850, but both eliminated them by 1860.
[b] This figure is for the city of Buenos Aires, and likely overstates the proportion who voted at the national level.
[c] The information on restrictions refers to national laws. The 1863 Constitution empowered provincial state governments to regulate electoral affairs. Afterwards, elections became restricted (in terms of the franchise for adult males) and indirect in some states. It was not until 1948 that a national law established universal adult male suffrage throughout the country.
[d] Eighteen states, seven southern and eleven nonsouthern, introduced literacy requirements between 1890 and 1926. These restrictions were directed primarily at blacks and immigrants.

Neither the timing of the general movements across the nations of the Americas toward universal white male suffrage, nor the record of adoption across states within the United States, seem to fit well with the idea that higher per capita income can provide a full accounting of the patterns through its effect of increasing a population's demand for democracy. National heritage alone is likewise unable to account for why Argentina, Uruguay, and Costa Rica were far ahead of their Latin American neighbors in extending the franchise, nor why other British colonies in the New World lagged Canada and the United States. (Barbados, for example, maintained a property qualification until 1950.) Explanations based on ideology also have a problem in having to grapple with the observation that at the same time that populations in the Americas—whether independent countries or states within the United States—extended the franchise among males by easing landholding or wealth restrictions, they generally added qualifications aimed at maintaining the exclusion of groups that were racially quite distinct from the elites. In the United States, until the Fourteenth Amendment to the Constitution, this meant adding explicit racial qualifications; in Latin America, literacy was made a requirement for citizenship, and thus for the right to vote. The issue is obviously complex and requires more investigation, but the patterns appear more consistent with the view that the extent of equality or population homogeneity was highly relevant to understanding how quickly societies extended the franchise and introduced other democratizing reforms in the conduct of elections.

Our conjecture is that these differences across societies in the distribution of political power may have contributed to persistence in the relative degrees of inequality through the effects on institutional development. The institution of public primary schools, which was the principal vehicle for high rates of literacy attainment and an important contributor to human capital formation, is interesting to examine in this regard (Easterlin, 1981). Nearly all of the New World economies were sufficiently prosperous by the beginning of the nineteenth century to establish a widespread network of primary schools. However, although many countries (through their national governments) expressed support for such efforts, few actually made investments on a scale sufficient to serve the general population before the twentieth century. The exceptional societies in terms of leadership were the United States and Canada. Virtually from the time of settlement, these North Americans seem generally to have been convinced of the value of mobilizing the resources to provide their children with a basic education. Especially in New England, schools were frequently organized and funded at the village or town level. It is likely that the United States already had the most literate population in the world by 1800, but the "common school movement" that got underway in the 1820s (following closely after the movement for the extension of the franchise) put the country on an accelerated path of investment in education institutions. Between 1825 and 1850, nearly every state in the American west or north that had not already done so enacted a law strongly encouraging localities to establish "free schools" open to all children and supported by general taxes. Although the movement made slower progress in the south, which had greater inequality and population heterogeneity than the north, schooling had spread sufficiently by the middle of the nineteenth century that over 40 percent of the school-age population was enrolled, and more than 90 percent of white adults were literate, as shown in Table 3. Schools were also widespread in early nineteenth-century Canada, and even though it lagged the United States by several decades in establishing tax-supported schools with universal access, its literacy rates were nearly as high (Cubberley, 1920).

The rest of the hemisphere trailed far behind the United States and Canada in primary schooling and in attaining literacy. Despite enormous wealth, the British colonies (with the exception of Barbados) were very slow to organize schooling institutions that served broad segments of the population. Indeed, it was evidently not until the British Colonial Office took an interest in the promotion of schooling late in the nineteenth century that significant steps were taken in this direction. Similarly, even the most progressive Latin American countries—like Argentina, Uruguay and Costa Rica—were more than 75 years behind the United States and Canada. Major investments in primary schooling did not generally occur in any Latin American country until the national governments provided the funds; in contrast to the pattern in North America, local and state governments in Latin America were generally not willing or able to fund them on their own (Engerman, Mariscal and Sokoloff, 1999; Goldin and Katz, 1997). As a consequence, most of these societies did not achieve high levels of literacy until well into the twentieth century.

Conclusions

Many scholars have been concerned with why the United States and Canada have developed so differently and were so much more successful than other economies of the Americas. All of the New World societies enjoyed high levels of product per capita early in their histories. The divergence in paths can be traced back to the achievement of sustained economic growth by the United States and Canada during the late eighteenth and early nineteenth centuries, while the others did not manage to attain this goal until late in the nineteenth or in the twentieth century. Although many explanations have been proposed, the substantial differences in the degree of inequality in wealth, human capital, and political power, which were initially rooted in the factor endowments of the respective colonies but persisted over time, seem highly relevant.

These early differences in the extent of inequality across New World economies may have been preserved by the types of economic institutions that evolved and by the effects of those institutions on how broadly access to economic opportunities was shared. This path of institutional development may in turn have affected growth. Where there was extreme inequality, and institutions advantaged elites and limited the access of much of the population to economic opportunities, members of elites were better able to maintain their elite status over time, but at the

Table 3

Literacy Rates in the Americas, 1850–1950

	Year	*Ages*	*Rate*
Argentina	1869	+6	23.8%
	1895	+6	45.6
	1900	+10	52.0
	1925	+10	73.0
Barbados	1946	+10	92.7
Bolivia	1900	+10	17.0
Brazil	1872	+7	15.8
	1890	+7	14.8
	1900	+7	25.6
	1920	+10	30.0
	1939	+10	57.0
Chile	1865	+7	18.0
	1875	+7	25.7
	1885	+7	30.3
	1900	+10	43.0
	1925	+10	66.0
	1945	+10	76.0
Colombia	1918	+15	32.0
	1938	+15	56.0
	1951	+15	62.0
Costa Rica	1892	+7	23.6
	1900	+10	33.0
	1925	+10	64.0
Cuba	1861	+7	23.8
	1899	+10	40.5
	1925	+10	67.0
	1946	+10	77.9
Guatemala	1893	+7	11.3
	1925	+10	15.0
	1945	+10	20.0
Jamaica	1871	+5	16.3
	1891	+5	32.0
	1911	+5	47.2
	1943	+5	67.9
Mexico	1900	+10	22.2
	1925	+10	36.0
	1946	+10	48.4
Peru	1925	+10	38.0
Uruguay	1900	+10	54.0
	1925	+10	70.0
Venezuela	1925	+10	34.0
Canada	1861	All	82.5
English-majority counties	1861	All	93.0
French-majority counties	1861	All	81.2
United States			
North Whites	1850	+10	96.9
South Whites	1850	+10	91.5
All	1870	+10	80.0 (88.5, 21.1)[a]
	1890	+10	86.7 (92.3, 43.2)[a]
	1910	+10	92.3 (95.0, 69.5)[a]

Source: Engerman, Haber and Sokoloff (2000).

[a] The figures for whites and nonwhites are reported respectively within parentheses.

cost of society not realizing the full economic potential of disadvantaged groups. Although the examples we have discussed—land ownership, the extension of the franchise and investment in public schools—do not prove the general point, they are suggestive of a pattern whereby institutions in New World societies with greater inequality advantaged members of the elite through many other types of government policies as well, including those concerned with access to public lands and natural resources, the establishment and use of financial institutions, and property rights in technological information. Overall, where there existed elites who were sharply differentiated from the rest of the population on the basis of wealth, human capital, and political influence, they seem to have used their standing to restrict competition. Although one could imagine that extreme inequality could take generations to dissipate in even a free and even-handed society, such biases in the paths of institutional development likely go far in explaining the persistence of inequality over the long run in Latin America and elsewhere in the New World.

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