

INSTITUTIONS, FACTOR ENDOWMENTS, AND PATHS OF DEVELOPMENT IN THE NEW WORLD

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In recent years economists have increasingly made reference to *institutions* in accounting for differences across nations in economic performance. The concept is applied broadly, encompassing: the political and legal framework that provides the basic formal rules and laws within which individuals and firms operate; voluntary and cooperative arrangements between private actors that affect the nature and organization of exchange; as well as cultural values and beliefs which influence economic behavior through their impacts on the willingness to enter and follow the rules of the market and on the nature of goods, services, and nonpecuniary items desired. From a situation not long ago in which *institutions* were neglected, if not ignored, by the discipline, it is now viewed as obvious that they matter for the processes of economic growth, and that they must form part of any explanation of performance. There has, however, been relatively limited progress in analyzing where they come from or whether they are exogenous or endogenous. This is unfortunate in that the sources of institutional change will affect not only the patterns of economic growth, but also the manner in which we interpret the role of *institutions* (Davis and North 1971; North and Thomas 1973; North 1981).

Economic historians, whose comparative advantage is in the study of economic processes that take place over long periods of time, have always recognized the importance of *institutions*, and of understanding where they come from. This interest is evident in recent work on the puzzle of the long term paths of development followed by the economies in the New World -- North and South America -- established as colonies by the Europeans during the sixteenth, seventeenth, and eighteenth centuries. All of them began with vast supplies of land and natural resources per person by the standards of that era, and the differences in income between them were quite small. Indeed, the prospects for the Caribbean and Latin America appeared so promising that European observers generally regarded the thirteen British colonies on the North American mainland and Canada as of relatively marginal economic interest until the nineteenth century.¹ Several centuries later, however, we know that the U.S. and Canada ultimately proved to be far more successful than the other economies of the hemisphere in realizing growth over time. The puzzle, therefore, is how and why the areas that were first settled, and the choices of the great majority of Europeans who came to the Americas through 1800, fell behind.

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 and

1998; North, Summerhill, and Weingast 1998; Nugent and Robinson 1999; and 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 degree of democracy, prevalence of corruption, the security of property rights, the structure of the financial sector, investment in public infrastructure and social capital, and the inclination to work hard or be entrepreneurial. Few attempt, however, to identify systematic patterns in, or explore the sources of, these differences in institutions. Those who have, typically emphasize 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 U.S. and Canada to British institutions being more conducive for 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.

Certainly there has been enormous variation in the paths of growth among New World economies. Systematic estimates of per capita income extending far back in time have not yet been constructed for many economies, and even those that exist are rough, but Table 1 conveys a sense of the current state of knowledge. The figures suggest that the leadership of the United States and Canada over their hemispheric neighbors did not emerge until the late eighteenth and nineteenth centuries, when these North American societies began to realize sustained economic growth ahead of their neighbors in the hemisphere. In 1700, there seems to have been virtual parity in per capita income between Mexico and the British colonies that were to become the U.S., 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 the U.S.. Although the latter economy may have begun to grow and to 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 U.S. and Canada and the rest of the hemisphere opened up, and the magnitude of the gap has been essentially constant overall in proportional terms since 1900.

A striking implication of these figures is that the relationship between national heritage and economic performance was much weaker than is popularly thought. During the colonial period, the most successful economies 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 U.S. and Canada, but the majority of the New World economies established by the British, including Barbados, Jamaica, Belize, and Guyana, were like their other neighbors in not realizing sustained economic growth and structural change until much later; having been part of the British Empire was far from a guarantee of growth.² Likewise, there was considerable diversity in the paths of development followed by the economies of Spanish America. This is most evident in the contrast between the nations of the southern cone and Mexico or Peru. Indeed, it is the former class of countries, such as Argentina, Chile, and Uruguay, that, of all the other economies of the New World, most closely resemble the

U.S. 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 diversity in experience, such as factor endowment. 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 rather new, however, is the focus on how initial conditions, or factor endowments broadly conceived, could have had profound and enduring impacts on the extent of inequality, and ultimately on their long-run paths of institutional and economic development. 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 some developed very differently early in their histories with respect to the degree of inequality in distributions of wealth, human capital, and ultimately political power. In particular, whereas the greatly majority were characterized by extreme inequality virtually from the outset, the colonies that came to compose the United States and Canada stand out as somewhat deviant cases.

The "discovery" and exploration of the Americas by the 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 New World 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.

Over sixty percent of the migrants, through 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 on the production of sugar, coffee, and other staple crops for world markets. Virtually all of these colonies were heavily oriented toward the production of such crops, and attracted such heavy inflows of labor (especially slaves) because their soils and climates made them extraordinarily well suited for producing these valuable commodities, and because of the substantial economies in producing such crops on large slave plantations. 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 which relied least on slaves for their labor force.³

The best performing New World economies through 1800 were those that possessed climates and soils that were well suited for the production of sugar and other highly valued crops associated with extensive use of slaves. Most of these colonies, 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 as were their populations by slaves of African descent.⁴ The greater efficiency of the very large plantations, and the overwhelming fraction of the populations that came to be black and slave, made their 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, the long-run success and stability of the members of this elite was also undoubtedly aided 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 which commonly 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, other than some islands in the Caribbean, Spanish America. Spain focused its attention on, and designed their New World policies around conditions in, colonies such as Mexico and Peru, which were characterized by rich mineral resources, relatively substantial numbers of natives surviving contact with the European colonizers and by the distribution among a privileged few of claims to often enormous blocs of native labor, as well as to grants of land and mineral resources. The resulting large-scale estates and mines, established early in the histories of these colonies, were to some degree based upon preconquest social organizations whereby Indian elites extracted tribute from the general population, and 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 (in the form of labor and other resources) from rather sedentary groups of natives 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 – 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. For different reasons, therefore, this category of colonies was like the first in generating an economic structure in which large-scale enterprises were predominant, as was a very unequal distribution of wealth. These latter colonies relied on the labor of natives with low levels of human capital, instead of slaves; in both cases, the elites were racially distinct from the bulk of the population.⁵

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 low-human-capital labor 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 restriction of European migration to its colonies (which was unique among all European colonizers) and of generous awards of property and tribute to the earliest settlers. The early settlers in Spanish America endorsed formidable requirements for obtaining permission to go to the New World - a policy which limited the flow of migrants and helped to preserve the political and economic advantages enjoyed by those of European descent who had earlier 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).⁶

The final category of New World colonies were those located in the northern part of the North American mainland - chiefly those that became the U.S., but inclusive of 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.

II THE ROLE OF INSTITUTIONS IN THE PERSISTENCE OF INEQUALITY

There seems to be strong evidence that various features of the factor endowments of 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. The factor endowment and the degree of inequality may influence the directions in which institutions evolve, but these institutions in turn affect the evolution of the factor endowment and of the distributions of wealth, human capital, and political power. 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 (Inter-American Development Bank 1999; Deninger and Squire 1996),

we suggest that the initial conditions had long lingering effects, not only because certain fundamental characteristics of the New World economies and their factor endowments were difficult to change, but also because government policies and other institutions tended generally to reproduce the sorts of conditions that gave rise to them. Specifically, in those societies that began with extreme inequality, elites were likely better able to establish a basic 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 non-members -- contributing to persistence over time of the high degree of inequality.⁷ 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.⁸ We have already mentioned the highly concentrated pattern of landownership produced and perpetuated by land policies in most of Spanish America. In the U.S., where there were never major obstacles, the terms of land acquisition became 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 seem to have been less successful than in the U.S. and Canada in getting land to smallholders. That the major crops produced in the expansion of the U.S. and Canada were grains, permitting relatively small farms given the technology of the times, 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 U.S. 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 both 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 our hypothesis that elites in societies which began with greater inequality evolved more power to influence the choice of legal and economic institutions to an empirical test, is to look at how broadly the franchise was extended and what

fractions of respective populations actually voted in elections. Since most of the 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 U.S. and Canada were the clear leaders in doing away with restrictions based on wealth and literacy, and had much higher fractions of their populations voting than anywhere else in the Americas. Not only did they attain the secret ballot and extend the franchise to even the poor and illiterate (which were re-introduced in the U.S. South at the expense of Blacks during the 1890s) much earlier, but they were also at least a half-century ahead of even the most democratic countries of South America (Uruguay, Argentina, and Costa Rica, who have generally been regarded as among the most egalitarian of Latin American societies) in the proportions of the population voting.

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 until early in the nineteenth century. By 1815, only four states had adopted universal white male suffrage, but as the movement to do away with political inequality gained strength, they were joined by the rest of the country as virtually all new entrants to the Union extended voting rights to all white men, and older states revised their laws. The shift to full white manhood suffrage was largely complete by the late 1840s, with the relatively more egalitarian populations of the western and northern states leading those in the South. Similar political movements with similar outcomes followed with only a short lag in the various Canadian provinces, but the analogous developments were not to occur in Latin America until the twentieth century. As a result, through 1940 the U.S. and Canada routinely had proportions voting that were 50 to 100 percent higher than did their most progressive neighbors to the South, three times higher than in Mexico, and up to five to ten times higher than in countries such as Brazil, Bolivia, Ecuador, and even Chile. It is remarkable that as late as the beginning of the twentieth century, none of the countries in Latin America had the secret ballot and only Argentina was without wealth and literacy requirements for adult male suffrage.⁹

Two fundamental questions arise about the pattern of diffusion of universal male suffrage across New World economies. The first is the extent to which the pattern was related to the differences in the degrees of inequality that arose soon after European settlement -- as we suggest. The issue requires deserves more investigation, but the leadership of the U.S. and Canada overall, as well as the histories indicating that their attainments of universal male suffrage and of the secret ballot were the products of a long series of hard fought and incremental political battles over the early nineteenth century, are certainly consistent with the view that the extent of equality or homogeneity was highly relevant. Moreover, alternative explanations, such as the importance of national heritage, are not very useful in identifying why Argentina, Uruguay, and Costa Rica pulled so far ahead of their Latin American neighbors, nor with why other British colonies in the New World lagged Canada.

The second question is whether differences in the distribution of political power fed back on the distribution of wealth and of human capital, and had implications for growth. 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 an interesting one to examine in this regard (Easterlin 1981). Virtually 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 U.S. 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 U.S. had the most literate population in the world by 1800, but the "common school movement", getting under way 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 northern state 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 nearly 90 percent of white adults were literate (see Table 3). Schools were also widespread in early-nineteenth century Canada, and even though it lagged the U.S. by several decades in establishing tax-supported schools with universal access, its literacy rates were nearly as high (Cubberly 1920).¹⁰

The rest of the hemisphere trailed far behind the U.S. 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 U.S. 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 take on this responsibility on their own. Indeed, most of these societies did not achieve high levels of literacy until well into the twentieth century.

V CONCLUSIONS

Many scholars have been concerned with why the U.S. 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 U.S. 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 shared access to economic opportunities were. 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 cost of society not realizing the full economic potential of disadvantaged groups. Although the two examples we have discussed, the extension of the franchise and investment in public schools (literacy attainment), do not prove the general point, they are suggestive of a pattern whereby institutions in New World societies with greater inequality favored 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 do 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 evenhanded 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. The close correspondences between economic standing and race, however, may also have contributed to the maintenance of substantial inequality, either through natural, unconscious processes, or by increasing the efficacy of direct action by elites to retain their privileged positions and holdings.

¹ This assessment is evident in the commentaries on the conduct and resolution of the Seven Years' War in North America between England and France. Voltaire considered the conflict madness because the two countries were "fighting over a few acres of snow". The victorious English were later to engage in a lively public debate over what territory should be taken from the French as reparations – Guadeloupe or Canada. See Eccles 1972; and Lokke 1932.

² For a detailed discussion of the diversity among the British colonies in the New World, see Greene 1988. For a fascinating account of the radical divergence in paths of development between the Puritan colony at Providence Island and the better known Puritan colony in Massachusetts, see Kupperman 1993.

³ There is now a substantial literature documenting the existence of very substantial economies in the production of certain agricultural products on large slave plantations, as well as scale economies in mining. The magnitude of these economies varied across crops, but appear to have been most extensive in sugar, followed by coffee, rice, and cotton; small, but present in tobacco; and absent in grains. Cotton was not a very important crop until the nineteenth century however. For further discussion, see Fogel 1989.

⁴ For discussions of the early histories of the Caribbean colonies and Brazil, see Dunn 1972; Sheridan 1974; Moreno Fraginals 1976; Schwartz 1985; and Knight 1990.

⁵ For a superb overview of early Latin America, see Lockhart and Schwartz 1983. In addition, see treatments of Mexico and Peru in Chevalier 1963; Van Young 1983; Lockhart 1994; and Jacobsen 1993.

⁶ Though sparsely settled, Costa Rica was something of an exception. This may help account for the relative equality that is thought to have characterized it among Latin American economies.

⁷ An effective way for elites to exercise disproportionate influence on policy over time was to limit who had the right to vote, and who had the right to vote in secret. This could be a quite effective way of preserving extreme inequality, as seen in the classic account of how such restrictions on the franchise helped a white elite retain dominance over the blacks, by Kousser 1974. As treated below, countries with greater inequality, like Mexico, Brazil, and Argentina, were characterized by much lower rates of eligibility for voting than was the case in the U.S., until well into the twentieth century; higher rates of violence in effecting political change (Mexico especially); and generally less secrecy or privacy at the ballot box. Each of these conditions worked to the advantage of the politically and economically powerful. By the middle of the nineteenth century, both U.S. and Canadian politics featured much secrecy in balloting, high turnouts, party competition, close elections, and considerable peaceful political turnover, so that the system was quite different from those seen in these other countries and in Latin America overall. For a discussion of the record in the United States, see Albright 1942; Porter 1918. For discussions of the extent of suffrage and other aspects of elections in the three Latin American countries, see Perry 1978; Love 1970; and Scobie 1971. Also see the study of the extension of the franchise in Western Europe by Acemoglu and Robinson (2000).

⁸ For rather comprehensive overviews of land policy in the U.S., Canada, Argentina, and Brazil, see Gates 1968; Solberg 1987; Adelman 1994; and Viotta da Costa 1985.

⁹ There is some controversy about whether in fact there were no wealth and literacy requirements for suffrage in Argentina, but whatever the case, the proportions of the population voting were very low in that country (1.8 percent in 1896) until the electoral reform law of 1912. Those who point to the absence of such electoral restrictions at the level of the national government, suggest that the low proportions voting were due to a failure of immigrants to change their citizenship and vote, as well as to the lack of a secret ballot. Others believe that restrictions on the franchise had been enacted and were enforced at the provincial level until 1912.

¹⁰ For a more extensive discussion of the evolution of primary school systems and literacy attainment across the societies of the Americas, see Engerman, Mariscal, and Sokoloff 1999. Also see Goldin and Katz (1997) for evidence that homogeneity and greater equality within populations may have fostered investment in secondary school systems in the United States.