Once Upon a Time in the Americas:  
Land and Immigration Policies in the New World

Stanley L. Engerman  
University of Rochester and NBER

Kenneth L. Sokoloff  
University of California, Los Angeles and NBER

and

Tricia Redeker Hepner  
University of Tennessee

April, 2007

Abstract

Our paper aims to improve our understanding of whether there are systematic patterns in the evolution of institutions by examining the evolution of land and immigration policies across the range of colonies/societies established by the Europeans during their colonization of the New World over the 16th, 17th, 18th, and 19th centuries. The case of the Americas provides an excellent natural laboratory to study the effects of different forces on the development of institutions. First, these societies were all settled by a limited set of European countries at roughly the same time, and were extremely diverse with respect to many aspects of their endowments. Second, although their initial conditions differed enormously in some respects, nearly all of these New World societies had a relative abundance in land and natural resources, and came to specialize quite early in their histories in agriculture and mining. The policies they adopted toward the ownership and use of land and the openness toward labor flows had very significant implications for their long-run paths of development. Our comparative study is intended to contribute to knowledge not only by helping to establish a systematic record, but also by attempting to identify salient factors in accounting for the variation over time and place in the design of strategic institutions.
I. Introduction

Once upon a time, more than five hundred years ago, Europeans began a grand, long-term campaign to extract material and other advantages from underpopulated or underdefended territories by establishing permanent settlements around the world. There had been extensive migration within Europe, both eastward and westward, including settlements of conquered areas within Europe, by both Europeans and non-Europeans. There was also a large movement of contracted labor from east and central Europe to Russia. The radically novel and diverse environments they encountered offered great economic opportunities, but also posed formidable problems of organization. Such circumstances made adaptation and innovation essential, and enormous variety in the economic structures and institutions that evolved over time is evident across colonies, even amongst those of the same European nation. Inspired by the goal of improving understanding of the role of institutions in the processes of economic growth and development, many scholars have recently come to appreciate how the history of European colonization provides a rich supply of quasi-natural experimental evidence that can be analyzed to determine whether there were systematic patterns in how institutions or economies evolved with respect to initial conditions, and what causal mechanisms may be involved. Our paper is very much in this spirit.

The European movements into Africa and Asia, beginning at about the same time as the colonization of the Americas, found areas of high population density that provided more than ample native labor forces and left little need for extensive inflows of settlers or migrants from elsewhere. Few Europeans were to make the trek to these colonies, and their numbers, relative to the aboriginal populations, accordingly remained quite small (see Table 1 for the population composition of colonies late in the 19th century). There
was also extensive movements by the British after 1788 to Australia and New Zealand, and at the end of the nineteenth century by Britain and other European nations to Africa.

In the Americas, however, the Europeans confronted very different sorts of environments. Although conditions varied across space, overall, low population density (or labor scarcity) was the rule, and thus the economic problems of the colonizers (or authorities) centered on how to exploit the abundant land and other natural resources without much labor on hand to do the actual productive work. Two fundamental and closely related issues were central to this challenge. First, how would ownership or use rights in land be allocated amongst the interested parties, such as the state (or the corporate entity behind any particular colony), individual settlers, Native Americans, and the church? Land disposal policy not only affected the rate at which this critical resource was opened to investment and the generation of output, but also influenced the supply and location of labor, by means such as making it easier for individuals to realize the returns to the land they worked (and might invest in) and subsidies to potential immigrants (international as well as intra-national). In some cases, land policies involved making unoccupied or unemployed land available; but not infrequently, ownership or use rights were transferred from previous users – such as Natives or squatters – to other parties. Because land policy could have such a major impact on the pace of regional development, another key feature was the degree of centralization of authority: whether the national government would have exclusive jurisdiction over land policy, or were states, provinces, or other districts permitted separate land policies?

Another critical issue that faced the colonial authorities was how to secure or attract enough labor to realize the potential fruits to the abundant land and natural resources. The colonies in the Americas were hardly unique in their attention to the
adequacy of labor supply. Indeed, population had been a longstanding concern of many
elites and statesmen, especially those of a mercantilist bent, in many societies around the
globe, although some national policymakers believed that there was overpopulation
within parts of Europe. The situation in the New World was more urgent, however,
because of the extreme scarcity of labor that the European colonizers found in the New
World, either on contact, or soon afterward as the diseases they brought with them
wrought depopulation of the Native Americans, estimated to be a decline of more than
eighty percent of the population. (Prior to 1492 it was probable that the population of the
Americas exceeded the total of the twelve major European nations.) The recognition that
labor was essential to extract income from colonies was one major reason (their wealth
was another) why the Spanish, the first Europeans to organize colonies in the Americas,
chose to focus their efforts on the more densely-populated and richer areas we know as
Mexico and Peru. There, the Spanish adapted the hierarchical institutions of the Aztecs
and Incas and introduced their own systems (such as encomienda) involving grants to
Spanish settlers of claims to labor or tribute from Native Americans, to obtain much of
the requisite labor supplies.

Colonies established later, whether British, French, Portuguese, Dutch, Swedish,
or Danish, had to manage without much in the way of a native labor force, and had to tap
outside sources. Unconstrained by law or morality (no colony or country in the New
World maintained more than a temporary prohibition on slavery through 1777), those
with climates and soils well suited for crops such as sugar or cacao obtained the dominant
share of their labor forces from the world market in slaves. Although their heavy reliance
on slaves may have been encouraged somewhat by proximity to Africa, by far the factor
most responsible seems to have been the development of the gang and other systems of
organizing slave labor that gave large slave plantations a substantial efficiency advantage in producing those highly profitable commodities. Colonies with the appropriate endowments quickly came to specialize in these crops, and their demand for labor kept slave prices above what employers in areas more fit for grain or mixed agriculture could easily afford. The result was that the relatively few colonies in the Americas that lacked both a large native population as well as conditions conducive to growing sugar and other slave-intensive staples, found themselves having to exert themselves to mobilize labor forces of European descent.

The British colonies on the North American mainland exemplify this pattern. Having been established in locales with only sparse numbers of Native Americans (especially after suffering from the introduction of diseases from Europe), and receiving only modest inflows of slaves until well into the 18th century, the thirteen colonies (or their authorities) realized that they would have to increase their populations if they were to be successful and quickly set about devising institutions and policies that would attract migrants from Europe. The foundation for their campaign was the institution of indentured servitude that, after a protracted process of polities passing and implementing laws aimed at improving the enforcement of both sides of the indenture contract (and improving terms to secure an edge over competitors), was enormously effective and accounted for more than 75 percent of arrivals from Europe. Other inducements, which were offered in some form for extended periods by all of these colonies, included easy and very low-cost access to owning land.

The active pursuit of European migrants by the British colonies on the mainland contrasts sharply with the policies of Spanish America. Although the first waves of settlers in Spain’s colonies, particularly those from the military or from elite
backgrounds, were rewarded with grants of land, claims on Native Americans, relief from taxes, and other incentives, the Crown began early in the 16th century to regulate and restrict the flow of European migrants to its colonies in the Americas. The stringency of the limits did vary somewhat over time, due to the population changes and movements such as the migration of expelled moriscos in the early seventeenth century. There were occasionally interventions designed to effect movements of population, from Europe as well as of slaves, to specific colonies judged especially worthy or needy of support, including Mexico and Peru, but overall there is no doubt that Spanish policies impeded, rather than encouraged, the migration of Europeans to the New World. A salient illustration is the conspicuous failure of the Spanish Crown to approve proposals for free transportation in return for future labor services. The starkly divergent approaches of the Spanish and British mainland colonies toward migration may appear puzzling, especially as their agricultural sectors were similar in consisting largely of grain and animal products, but we argue here that the fundamental explanation for this difference is that the most important Spanish colonies (i.e. Mexico, Peru, and Colombia) were relatively abundant in labor as compared to their British mainland counterparts, the population density in 1700 in the three leading Spanish colonies was several times greater than for the British mainland colonies. Their relatively substantial Native American populations kept returns to unskilled labor low, and reduced the incentives for Spaniards who might have contemplated migration to the New World, as well as elites in the colonies, to lobby the Crown to change its policies. The other important factor behind the maintenance of the strict limitations on immigration, in our view, was the greater centralization or concentration of political authority. Not only did the imposed controls apply to immigration to all of the Spanish colonies in the Americas, but centering the
government structures for Spanish America in Mexico City and Lima meant that outlying areas with different conditions and demands for labor (such as Argentina) were largely deprived of autonomy or even influence in policy.

These contrasts in land and labor policies that had emerged early in the colonial period essentially endured into the 19th century, by which time most of the societies in the Americas were independent nations and nominal democracies, and beyond. Despite periodic spells of political tension (if not conflict) about immigration, generally coinciding with macroeconomic contractions (or focused on specific ethnic groups), the U.S. (and Canada) continued to pursue policies that were generally extremely favorable to immigration. Although state (provincial) and local governments on or inside the western frontier of the time may have been the most aggressive in courting migrants, the importance of the consistently liberal stances of the U.S. and Canadian governments toward making public land available in small plots at low cost to all who sought to settle should not be underestimated. The usefulness of offering easy access to land in attracting migrants was universally understood, and indeed helps to explain that in an era of labor scarcity cities and long-settled areas in the East accounted for the major opposition to the federal governments disposing of land out West on generous terms.

Despite most societies having achieved independence, and other radical changes in their environment, there was much continuity as well in Latin America. Most notably perhaps, the region remained largely dependent on the population born there -- whether of European or Native American descent. Immigration from abroad was not much more than a trickle, except for the experiences of Argentina, Uruguay, Brazil, and several of the smaller nations beginning late in the 19th century. Responsibility for this failure to attract immigrants can not be laid solely on the policies of the nations of Latin America.
With the improving levels of material welfare and economic opportunity that the U.S. could offer as it industrialized, there was now an increasingly tough competitor for immigrants from Europe, and the U.S. became the major recipient of migrants from Europe. That being said, however, it is striking that although there were many appeals for programs to entice more immigrants, inspired in part by the evident success of the U.S., most of the programs purporting to target that goal were either framed very narrowly or flawed in design. Even when public lands were to be made available for purchase, the terms or other details of the laws tended to keep prices high or greatly advantage the wealthy and privileged in access. This evident lack of concern by the authorities with offering incentives to migrants was likely not unrelated to the generally poor record throughout Latin America (though better in Argentina, Uruguay, and Chile, which were relatively labor scarce for the region) in providing for public schooling, and to the policies that a number of countries, such as Mexico and Colombia, implemented late in the 19th century (when land values had risen) that transferred to large landowners the rights to land traditionally held and worked by Native Americans as community property.

In this paper, we lay out the basis for our view that the record of the evolution of land and immigration institutions in the Americas, since colonization, provides broad support to the idea that factor endowments are of fundamental importance. We highlight, in particular, the significance of labor scarcity or abundance. Where labor was scarce, even political and economic elites who may have had disproportionate power in shaping institutions were willing to extend privileges, including low-cost access to land, to ordinary people as a means of attracting or mobilizing them. Not only was this influence of labor scarcity direct and immediate, but it may also have had long-lasting effects in fostering greater economic and political equality and the different outcomes that might
flow from such conditions. Where labor was relatively abundant, however, elites had less reason to share privileges as a means of attracting more labor, and likely were less constrained in their ability to shape institutions to advantage them. In section II, we develop our argument with a brief sketch of the history of land and immigration institutions during the colonial period. In section III, we discuss how these institutions evolved during the 19th century, and devote some attention to detailing how variation across countries within Latin America and across the states of the U.S. is generally consistent with our hypothesis. Section IV concludes.

II

A central issue, common to all of the colonies, was labor supply, which had obvious and substantial implications for the ability to take advantage of the abundant natural resources available in the New World. The seriousness of this constraint was a major reason why the Spanish, the first Europeans to arrive, chose to focus their efforts on the areas in the Americas with the largest concentrations of native populations (see Table 2) and were also the richest. Another indication of the relative labor scarcity prevailing in the New World is the extensive and unprecedented flow of migrants from Europe and Africa (see Table 3) that traversed the Atlantic despite high costs of transportation. That over 60 percent of migrants between 1500 and 1760 (increasing from roughly 20 percent prior to 1580 to nearly 75 percent between 1700 and 1760) were Africans brought over involuntarily as slaves is a testament to the high productivity of labor (due to labor scarcity) in the Americas. With their prices set in competitive international markets, slaves ultimately flowed to those locations where their productivity was greatest – and their productivity tended to be greatest in areas with climates and soils well suited for the
cultivation of sugar and a few other staple crops. 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, with only the Spanish and British settlements drawing between one-half and two-thirds of their pre-1760 immigrants from Africa. In contrast, over 80 percent of all immigrants to the French and Dutch colonies were slave, and the figure was over 70 percent for the Portuguese.

The areas in the Caribbean and on the northern coast of South America (particularly Brazil) that had a comparative advantage in sugar, cacao, and a few other crops, relatively quickly specialized in producing these commodities on large plantations, and obtained the bulk of their labor force from the slave trade. These colonies had relatively little need for large numbers of European immigrants. For different reasons, the same was true for Spanish America. European immigrants (and creoles) were initially required to defeat the Native Americans, establish control over and later defend territory, and head the basic political and economic structures, but the majority of the overall labor force was provided by the Native Americans.

With Spain the pioneer in establishing substantial settlements, nearly two-thirds of the migrants to the Americas between 1500 and 1580 landed in Spanish colonies. That share plunged over time, to 13.4 percent between 1700 and 1760. Part of this precipitous fall was due to the rise of the colonies of other European nations, but a more important factor was Spain’s severe tightening of the restrictions on who was allowed to migrate to its colonies. Unlike the other major European colonizers, Spain, with the support if not instigation of the pensulares and creoles already there, progressively raised more formidable obstacles to those who might have otherwise ventured to the New World to seek their fortunes. The authorities in Spain seem to have been motivated both by a desire
to keep costs down (by limiting the numbers of centers to defend), as well as by the desires of those who had arrived early, or descended from those who did, to maintain their privileged positions. Early in the 16th century, they began to impose strict controls (as reflected in requirement for licenses) over who could settle in the Americas, with preference shown for relatives of those already there, and permission denied to citizens of other European countries as well as to non-Catholics. Licenses to emigrate were initially restricted to single men, but were ultimately extended to married men accompanied by their families; single white women were never allowed, based in part on the availability of Native American women. It seems highly unlikely that such a restrictive stance toward immigration would have been retained if there had not already been a substantial supply of Indians to work the land and otherwise work with the assets owned by the elites and the Spanish Crown. In this sense, at least, the policy must have been largely due to the factor endowments. Another mechanism through which the relatively ample local supply of labor provided by the Native Americans would have had a similar effect was through keeping the returns to unskilled labor low, and in so doing reducing the pressure from ordinary Spanish desiring to migrate.

What stands out from the estimates presented in Table 4 is how small the percentages of populations composed of those of European descent were in Spanish America and the in the economies focused on sugar well into the 19th century. The populations of those colonies suitable for cultivating sugar, such as Barbados and Brazil, came to be quickly dominated by those of African descent who had been imported to work on the large slave plantations. The populations of the Spanish colonies were composed predominantly of Indians and mestizos, largely because these colonies had been established and built up in places where there were substantial populations of Native Americans.
beforehand, and because flows of Europeans were constrained by the restrictive immigration policies of Spain; if not for these policies, the societies in the southern cone of South America, such as Argentina and Chile, might well have attracted many immigrants from Europe during the colonial period. As a result, less than 20 percent of the population in Spanish America was composed of whites as late as the beginning of the 19th century.5

It was the northern part of North America, the temperate-zone colonies that became the U.S. and Canada, that were distinctive in their reliance on attracting immigrants from Europe, a reliance forced to some extent later in the southern temperate zone colonies of Argentina, Chile, and Uruguay. The northern temperate areas had only very small numbers of Native Americans on the eastern rim of the continent, where the most substantial European settlements were located, and thus the composition of their populations soon came to be essentially determined by the groups who immigrated and their respective rates of natural increase (which was of particular significance in New England, where net migration was negative over the colonial period, but the rate of natural increase very high). Although significant numbers of slaves were employed in the southern colonies, on the whole the factor endowments in the thirteen colonies and Canada were far more hospitable to the cultivation of grains, tobacco, and animal products than sugar (or other crops that were grown on large slave plantations during this era). The colonies in this area accordingly absorbed far more Europeans than African slaves, and they stood out in the hemisphere with whites accounting for roughly 85 percent of the population (labor force).

Perhaps because it was the one region in the New World that was dependent on attracting large numbers of voluntary migrants from Europe during the colonial period, the colonies in the northern part of North America distinguished themselves soon after their establishment for institutions supportive of immigration and attractive to immigrants. The
willingness of the thirteen colonies to accept convict labor is an aspect of their history that Americans prefer to deemphasize, but a both better known and important example of this pattern is indentured servitude, a contractual means of extending credit (primarily the cost of transportation across the Atlantic) whereby the servant promised to work for the recruitment agent (or the agent to which he assigned or sold the contract) in a specified colony and for a specified period of time. This system was first introduced by the Virginia Company, designed explicitly to attract potential migrants from Britain, but the innovation (which was related in legal basis to contracts as servants of husbandry, if not apprentices as well) soon spread to carry migrants from a variety of countries in Europe to British colonies. Over the entire colonial period, upwards of 75 percent of European migrants to British America came as indentured servants. Although some may regard the extensive use of indentured servitude in the British colonies as due primarily to a distinctive British heritage, this characterization seems unwarranted. Not only did contractual forms similar to apprenticeships and servants of husbandry and migration of convicts exist in a number of European countries, including Spain, Portugal, France, and earlier from Northern Italy and Sicily. In Spain, however, the Crown chose either not to implement or maintain a proposal to provide transport to its colonies in return for obligated labor services on arrival. The evidence appears consistent with the view that the urgency of the demand for workers from Europe contributed to the institutional innovation and its diffusion.

Another way in which the colonies in the northern part of North America strove to attract immigrants was through making ownership of plots of land rather accessible. Of course, with the enormous abundance of land relative to labor, land was relatively cheap, especially compared to the wage, and easy to obtain (by European standards) through the market. But the experience in the colonies on the North American mainland sometimes went well
beyond that, with provincial authorities making obvious use of land grants to attract migrants. In the British colonies, the distribution of land was left to the individual colonies, once the land was transferred from the Crown to proprietors or the government of the crown colonies. Over time, some quite different, but persistent, regional patterns emerged. The New England colonies made grants, generally of small plots, to individuals, but land grants were not directly used to attract indentured servants (as they were elsewhere) -- perhaps because of the relatively small number of immigrants who came or were needed to come to the region.

It was in the southern colonies (states), where staple crops were grown and the demand for European field labor may have been especially high, that land grants were most targeted at attracting indentured servants and other migrants. During the 17th century, Virginia introduced the headright system (grants of land to settlers, or to those who enticed others to settle) to stimulate in-migration, with the only requirement a three-year period of settlement. Indentured servant laborers who came to Virginia were to be granted about 50 acres when their term had expired. Variants of the headright system were adopted in Maryland and the Carolinas. The Middle Atlantic colonies of New Jersey and Pennsylvania also employed variants of the headright system, but, in both, the grants of land were subsidized, rather than free. Late in the 18th century, after independence, a number of which were now state governments extended their liberal land policies to include preemption for squatters.

It is perhaps worth highlighting how different the attention to, and prevalence of, land ownership was in the northern part of North America as compared to Europe. Tenancy, and farm labor, were obviously much more common in Britain and France than in their American colonies on the mainland, with these arrangements and other means of allocating
land achieved over a very long history and in environments with rather different land-labor ratios. The attempts to bring variants of the British manorial system and the French seigneurial system (in Pennsylvania and Canada, for example), were, however, not successful, given the land availability, crops to be grown, and their optimal scale of production. Thus, in the French and British mainland colonies, there was adaptation in land policy to allow for smaller units worked by owner-occupiers and more flexibility in production. These adaptations meant that the distributions and allocations of land were more similar across these colonies than they were with those in the metropolis in Europe. Because of the long tradition of property requirements for voting, the wider distribution of land was significant not just for economic purposes, but also meant a broader base for voting. Thus, while voting could influence land policy, land policy could also influence voting.

There was, of course no such liberality regarding land policy in Spanish America. Without any significant interest in attracting more immigration to its colonies, but with concern for maintaining control and a stream of revenue from the labor of the Native American labor force, the initial policy in nearly all of the colonies with substantial populations was the *encomienda* system, which consisted of Crown-awarded claims to tribute (in goods, service, and in time cash) from a specified body of natives working on the land where they had previously resided. Relatively small numbers (never much more than 5000) of these often enormous grants (Cortes was assigned 115,000 natives in Mexico, and Pizarro 20,000 in Peru) were awarded in any single colony. In Peru, for example, only 5 percent of the Spanish population in the mid-16th century held *encomiendas*.$^6$ These *encomenderos* and their families became, in effect, the aristocracy of Spanish America, and when pressure from depopulation and movement toward a cash economy, as well as
Church concern about treatment of Native Americans began to alter the *encomienda* system, they were well positioned to assemble large private holdings of much of the best located and most fertile land. The high concentration of land holding that developed over time in Spanish America paralleled the extreme inequality that prevailed in wealth, human capital, political influence, and other dimensions.

III

As the United States became a sovereign country and most of Spanish America gained independence from Spain over the late 18th and early 19th centuries, there were many important changes across the Americas in institutions and in the economic environment of great relevance to immigration and land policy. First, if not foremost, the structures of government institutions were radically altered. Although Canada remained a colony with limited autonomy until the 1860s, and Brazil was, after 1822, an independent monarchy, most of the major societies were both independent and at least nominally democratic (and if not free of slavery, with severe restrictions on slave imports). The new national governments, and their ability to design policies targeted to the interests (as felt and expressed by various domestic groups) of their own individual countries, and to implement them, were crucial and novel elements. Among those interests of course, was the value of settling unoccupied territories within the national boundaries, if not expanding those boundaries, which led to costly wars in the nineteenth century. This interest in new settlements gave impetus to both liberal immigration (if not intra-country migration as well) and land policies, particularly in countries where labor was especially scarce. Also of great consequence for the formulation of immigration and land policy was the onset of industrialization in the U.S. and Western Europe and the acceleration of
technological change. Economic growth and the decrease in the cost of trans-oceanic transportation increased the propensity of Europeans to migrate to the New World (without having to indenture themselves), but also increased the relative desirability of the U.S. as their destination, as compared to other countries in the hemisphere. These advances also spurred the growth of international trade, and increased the returns to the exploitation of the abundant land and natural resources in the New World. In so doing, they contributed to an increase in the value of land, a development that not only likely influenced the behavior of immigrants in countries where land was more accessible, but also that of elites in countries where they exercised disproportionate political power.

Although there were frequent changes in the precise details, overall there was remarkable continuity in the basic orientation of U.S. policies in favor of immigration and relatively easy access to land in small plots. At the national level, there were periodic calls for restrictions, but except for those imposed in the name of public health and those (after 1880) on Japanese and Chinese, serious obstacles were not introduced until the 1920s.

State policies differed substantially, however. Over the 19th century, those new to the Union often sent abroad delegations or placed advertisements to attract immigrants to their environs, and highlighted liberal qualifications for residence and participation in local elections and commitments to public schools and other infrastructure of particular interest to potential migrants. Later in the 19th century, however, concentrations of immigrants in industrial cities led some states (mostly in the northeast) to raise difficulties by introducing literacy tests for voting. Again, there seems a relation between labor scarcity and public policies toward immigrants.

With the establishment of the U.S., many of the original states gave up their claims to land in the West, and ceded principal authority in public land policies, to the federal
government. This may well have proved fortuitous for the maintenance of liberal land policies – which generally evolved over time through new legislations (see Table 5) to make the terms for individuals seeking to acquire and settle on land progressively easier. These changes were the basis of debate among the representatives of the different regions in Congress and elsewhere, often intertwined with other aspects of political disagreement. This reflected the broad range of issues that the controversies over land dealt with. For example, because of the government’s budget constraint, there was a tradeoff between revenues from land sales and revenues from the protective tariffs favored by northeastern manufacturers. Given that land policy could influence the distribution of population across regions (and thus wage rates), commodity prices, land value, and the location and structure of output, political disagreement should not have been surprising. What is most striking, perhaps, is that despite such political disagreements, a commitment to broad and easy access to those seeking to settle on public lands was generally sustained and deepened.

What may have begun as a intended set policy, however, shifted numerous times over the antebellum period, and later. From 1796 to 1820, the government provided credit to purchasers, but this ended following the panic of 1819 and numerous defaults. Other dimensions, however, went into a liberalized direction. The pace at which land was surveyed and made available increased. The Preemption Act of 1841, following a decade of more individualized legislation in which title was not specified beforehand, permitted settlers (squatters) to purchase settled lands before they would be auctioned, allowing them to keep the value of improvements made before title was legalized. The minimum size of purchases fell from 640 acres in 1796 to 40 acres as of 1832, before postbellum adjustments made for desert lands, timber culture, and related matters. With the
minimum price per acre cut from $2 in 1796 to $1.25 after 1820, the minimum purchase for a plot fell from $1280 in 1796 to $50 in 1832. Many other policies that made land more available followed. The Graduation Act of 1854 established that land not yet sold could be sold at a price below $1.25, with the price prorated based on the length of time before sale (30 cents per acre after thirty years). And, in 1862, the Homestead Act (which was extended or liberalized several times more before 1920) provided 160 acres for each family head who either resided on land for five years or who paid $1.25 per acre after 6 months’ residence. That the westward movement accelerated over the 19th century, and that more individuals from lower income groups were able to acquire land, was to no small degree attributable to the liberal land policies.

The government’s choice between a high price and a low price land policy had a number of implications. Low prices or free land would make it easy for more people to acquire land, attracting more people to the West either initially as landowners, or else as tenants with the hopes of becoming landowners in the future. Low prices would mean, in general, low revenues, leading to more reliance on higher alternative sources of income (such as tariffs, which the Northeast would like), but the encouragement to westward movement of workers would reduce the available labor supply and raise wage rates in the areas of outflow (which manufacturing interest in the Northeast would not like). The maintenance of liberal land policies was certainly not predestined in a complex political environment, but ultimately the highly democratic political institutions and the well founded belief that such policies would enhance returns to labor generally may have together been decisive.

That not everyone accepted the case for a liberal land policy, and that even in a country with labor scarcity it might not be advocated or adopted, is illustrated by the arguments
for a high land price policy offered by two renowned economists: the American Henry Carey and the Englishman Edward Gibbon Wakefield.

Carey argued for high land prices to slow the pace of settlement and to benefit from the positive externalities attributed to higher population density in urban and previously settled areas. A more influential set of policies, both in theory and with its effect upon policymakers, came from Wakefield. Wakefield was interested in British settlement of Australia and New Zealand, and thought that their growth and development would be aided by ensuring a labor force in older areas, while slowing down the pace of settlement by owners of land in the newer areas. This policy entailed a high price (“sufficient price”) to limit the movement of labor from the older areas, with the use of funds collected tied to the payment to help subsidize new immigrants. Thus, Wakefield’s proposals would have served to attract immigrants and yet create concentrations of labor with geographically limited settlement. Such a policy was in fact introduced in parts of both Australia and New Zealand, but, with sufficient adaptability of institutions, did not become a permanent fixture in either place.

Another, and more durable, example of where Wakefield’s ideas were embraced is in Brazil. In that country, after the grants policy (which also had provision for purchase of land at relatively low prices) of the colonial government had been abolished at independence in 1822, squatting became the dominant means by which individuals of all classes carved land to cultivate or settle on from virgin territory. These arrangements were generally not recognized under the law, and came to be viewed as a significant obstacle to the growth of coffee production and development in general. Coffee plantations needed well defined and secure rights to their land, but also required labor. The land law of 1850, the original draft of which was proposed in 1842, dealt with these
issues in the ways prescribed by Wakefield. Public lands were to be offered at high prices, with requirements that all plots purchased be surveyed at the expense of the purchaser. Although early drafts of the law provided for a land tax, which together with revenue from land sales and fees for surveying, was intended to pay for the subsidies to immigrants from abroad, the tax was dropped in the final legislation. The impact of the law was to seriously limit access to public lands for ordinary people, including immigrants, and advantaged elites both by their differential capability of obtaining land and by lowering labor costs. Whether or not the land law of 1850 was a more effective stimulus to immigration than would a policy of easy access to land would have been is unclear, but its particulars suggest that its passage and maintenance over time may have been at least partially due to the extreme political and economic inequality that prevailed in Brazil. Here, as in many other countries in Latin America, elites were more capable of shaping policies and institutions to serve their interests than in societies with more democracy and greater equality. Indeed, as the growing volume and diversity of international trade during the mid- and late 19th century increased the value of land, there seems to have been a wave of policy changes throughout Latin America that not only eschewed the evidently successful U.S. example of liberal land policies, but instead worked to increase the concentration of ownership. Nevertheless, in Brazil and Chile at the end of the nineteenth century, the abolition of slavery brought about an increased demand for European labor to produce export crops, now on smaller units than the plantations. This demand led to the provision of subsidies of transportation, cash, or land to attract migrants from southern Europe.

As we have stressed, virtually all the economies in the Americas had ample supplies of public lands during the 19th century (especially when one acknowledges that
land traditionally occupied and worked by Native Americans as community property was often viewed as public lands -- and completely unencumbered as such when depopulation or migration shifted those long-time occupants away). Since the respective governments of each colony, province, or nation were regarded as the owners of this resource, they were able to influence the distribution of wealth, as well as the pace of settlement for effective production, by implementing policies to control the availability of land, set prices, establish minimum or maximum acreages, provide credit for such purposes, and design tax systems. Because agriculture was the dominant sector throughout the Americas during the 19th century, questions of how best to employ this public resource for the national interest, and how to make the land available for private use, were widely recognized as highly important and often became the subject of protracted political debates and struggles. Land policy was also used as a policy instrument to influence the labor force, either by encouraging immigration through making land readily available or by influencing the regional distribution of labor (or supply of wage labor) through limiting access and raising land prices.

The United States never experienced major obstacles in this regard, and the terms of land acquisition became easier over the course of the 19th century. The well-known Homestead Act of 1862, which essentially made land free in plots suitable for family farms to all those who settled and worked the land for a specified period, was perhaps the culmination of this policy of promoting broad access to land. Canada pursued similar policies: the Dominion Lands Act of 1872 closely resembled the Homestead Act in both spirit and substance. Argentina and Brazil (as just discussed) instituted similar changes as a means to encourage immigration, but these efforts were much less directed and thus less successful at getting land to smallholders than the programs in the United States and
In Argentina (where a comprehensive land law was passed in 1876 and followed by an extremely restrictive – applying only to Patagonia – Homestead Act in 1884), a number of factors seem to explain the contrast in outcomes. First, the elites of Buenos Aires, (the city and province accounted for forty percent of Argentina’s population at the end of the nineteenth century), whose interests favored keeping scarce labor in the province if not the capital city, were much more effective at weakening or blocking programs than were their urban counterparts in North America. Second, even those policies nominally intended to broaden access tended to involve large grants to land developers (with the logic that allocative efficiency could best be achieved through exchanges between private agents) or transfers to occupants who were already using the land (including those who were grazing livestock). Although the debates over the land laws made frequent reference to the examples provided by the country’s North American neighbors, the Argentine laws generally conveyed public lands to private owners in much larger and concentrated holdings than did the policies in the United States and Canada.

Third, the processes by which large landholdings might have broken up in the absence of scale economies may have operated very slowly in Argentina: once the land was in private hands, the potential value of land in raising or harvesting livestock may have set too high a floor on land prices for immigrants and other ordinary would-be farmers to manage. Such constraints were exacerbated by the underdevelopment of mortgage and financial institutions more generally.

Argentina, Canada, and the United States all had an extraordinary abundance of virtually uninhabited public lands to transfer to private hands in the interest of bringing this public resource into production and serving other general interests. In societies such as Mexico, however, the issues at stake in land policy were very different. Good land was
relatively scarce, and labor was relatively abundant. Here the lands in question had long been controlled by Native Americans, but without individual private property rights. Mexico was not unique in pursuing policies, especially near the end of the 19th and the first decade of the 20th centuries, that had the effect of conferring ownership of much of this land to large non-Native American landholders. Under the regime of Porfirio Díaz, Mexico effected a massive transfer of such lands (over 10.7 percent of the national territory) between 1878 and 1908 to large holders such as survey and land development companies, either in the form of outright grants for services rendered by the companies or for prices set by decree.

In Table 6 we present estimates for these four countries of the fractions of household heads, or a near equivalent, that owned land in agricultural areas in the late 19th and early 20th centuries. The figures indicate enormous differences across the countries in the prevalence of land ownership among the adult male population in rural areas. On the eve of the Mexican Revolution, the figures from the 1910 census suggest that only 2.4 percent of household heads in rural Mexico owned land. The number is astoundingly low. The dramatic land policy measures in Mexico at the end of the 19th century may have succeeded in privatizing most of the public lands, but they left the vast majority of the rural population without any land ownership at all. The evidence obviously conforms well with the idea that in societies that began with extreme inequality, such as Mexico, institutions evolved so as to greatly advantage the elite in access to economic opportunities, and they thus contributed to the persistence of that extreme inequality.

In contrast, the proportion of adult males owning land in rural areas was quite high in the United States, at just below 75 percent in 1900. Although the prevalence of
land ownership was markedly lower in the South, where blacks were disproportionately concentrated, the overall picture is one of a series of liberal land policies, leading up to the Homestead Act of 1862, providing broad access to this fundamental type of economic opportunity. Canada had an even better record, with nearly 90 percent of household heads owning the agricultural lands they occupied in 1901. The estimates of landholding in these two countries support the notion that land policies made a difference, especially when compared to Argentina. The rural regions of Argentina constitute a set of frontier provinces, where one would expect higher rates of ownership than in Buenos Aires. The numbers, however, suggest a much lower prevalence of land ownership than in the two northernmost North American economies. Nevertheless, all of these countries were far more effective than Mexico in making land ownership available to the general population. The contrast between the United States and Canada, with their practices of offering easy access to small units of land, and the rest of the Americas (as well as the contrast between Argentina and Mexico) is consistent with the hypothesis that the initial extent of inequality influenced the way in which institutions evolved and in so doing helped foster persistence in the degree of inequality over time.

IV

Economic historians and other social scientists have recently returned to the study of the role of institutions in processes of economic growth and development. Much attention has been focused on where institutions come from, and why some societies
seem to have institutions that are conducive to progress, while others seem plagued for extended periods with those that are less supportive, if not destructive. Some scholars argue that institutions are generally exogenous, arising from idiosyncratic events that led to distinctive institutional heritages that were remarkably durable, such as those from metropolitan areas or from major convulsions, such as the French Revolution, which are difficult to predict and often have unexpected or unintended consequences. Others, however, suggest that there are powerful systematic patterns in the ways institutions evolve, shaped by how societies try to deal with the challenges and opportunities framed by the specific environment, state of technology, factor endowment, and other circumstances they face. Improving our knowledge of whether institutions are exogenous or endogenous, and of how flexible they are in adapting to changes in conditions, is crucial to gaining a good understanding of their role in economic development.

Australia apparently had a relatively large number of aborigines when British settlement began in 1788, a number not achieved by Europeans until the 1850’s, and not yet reached by the aborigines today. As in the Americas, the arrival of European diseases led to a dramatic decline in the native population. The British settlement initially began with large numbers of convicts, and while there were attempts to negotiate land purchases with the aborigines, they did not work and were soon followed by military actions to enable Europeans to acquire land. Each Australian state had its own land policies, but these tended to become more similar over time. While Wakefield had proposed his land policy be applied to all Australia, it was only in South Australia and Western Australia that Wakefield’s policy was introduced early in settlement, and in both states it ended within several decades. Initially, New South Wales, the most populous of the states,
provided large grants to individuals or companies, but over time squatters, whose holdings tended to be small, were able to get permanent title to their land. Later it was policy to permit individuals to select between 40 and 320 acres by paying one-quarter of the purchase price, the balance to be paid in three years, usually at a minimal price per acre. There are several ways in which the events in Australia resemble those of the United States, particularly in the increased ease with which whites acquired land ownership over time. There was also a high percentage of ownership of relatively small farms, although the greater importance of sheep farming in Australia created a demand for larger units to permit pastoral agriculture. And, as in the U.S., the original natives were pushed from the path of settlement and often relocated on reserves. Yet another similarity was the development of a sugar industry in the more tropical areas of both countries. This was based at first on some form of coerced labor, slaves in Louisiana and indentured Pacific Islanders in Queensland. As elsewhere, these sugar-producing plantations in both nations were considerably larger than was the typical grain farm.

New Zealand, settled from Australia in the 1840’s, also had a native population—the Maoris—although they did not suffer as severe a demographic decline after the Europeans arrived as did the natives in Australia (and the Americas). Nevertheless, with the large immigration of whites, the Maoris represented less than 10 percent of the New Zealand population within two decades of settlement. The Maoris reached better accommodation with the Europeans, including selling land to whites, than did the Australian aborigines.

Land distribution in New Zealand was determined at the state level until 1876, and land was often used as a subsidy to immigrants. Homestead provisions required a set time of residence to acquire title to land, and the governments provided credit arrangements facilitating sales of land. After several decades it was a general policy to aim at
establishing smaller units of up to 320 acres. The earlier settlement pattern was influenced by the policies proposed by Wakefield, including use of land revenues to subsidize immigration, and the selling of large units at high prices, but, as elsewhere, this policy was modified over time to permit sales of cheap land to immigrants. Thus in New Zealand, as in Australia, the general pattern over time was a liberalization of Wakefield’s land policy, to make land more easily accessible to smaller landholders.

Another example of British colonialism, this time of adjacent areas of East Africa, demonstrates the variation in British colonial policy. The settlements of Kenya and Uganda at the end of the nineteenth century generated important differences in local institutions. Both areas were populated almost entirely by black Africans. In Kenya, land was made available to white settlers in units of from 160 to 640 acres, with five acres allotted to Africans and Asians for one year, with no ownership rights. By 1840 Europeans were about one percent of the population, and owned eighteen percent of the land, that being regarded as the best land. Uganda, larger in area but with a similar African and European population mix, developed a rather different set of institutions for land distribution. There were few European settlers and landholders since, at the time of establishing the Protectorate in 1894, much of the land was given to local chiefs to be held under freehold. Unlike Kenya, with European-owned production of plantation crops such as coffee for export using African labor, Uganda produced mainly cotton on small-scale peasant farms. In part these differences between Kenya and Uganda have been attributed to differences in climate and soil type, leading to the quite distinct set of institutions and political controls. An earlier British African settlement, South Africa, conquered from the Dutch, had a somewhat different pattern. Slave labor was imported from elsewhere, mainly the Indian Ocean region, but the local natives were coerced into
labor for whites by a combination of dispossession and limits on land purchases. Whites represented a higher percentage of the population than in East Africa, but as in Kenya, they took measures to own the land the land to produce for export. By 1780, landholding was generally regarded as reserved for whites, with coerced labor left for slaves and resident Africans. Ultimately, by 1913, legislation placed the native population on reserves, (which account for 7 percent of the land) where they remained laborers for white planters and miners.

V

This preliminary paper is part of a larger project that treats the colonization of the Americas as a quasi-natural experiment that can be exploited to learn more about where institutions come from. Its focus has been on the long-term evolution of immigration and labor policies or institutions, commonly recognized as important for paths of economic development. Much work remains to be done, but our early results seem consistent with the notion that the colonies were powerfully influenced by their factor endowments in how they chose to formulate their policies regarding immigration and land. During the colonial period, Spanish America benefited from being centered on regions with rather large populations of Native Americans, and was accordingly much less dependent on immigration, both voluntary and involuntary, than other areas. Indeed, Spain maintained very severe restrictions on who and how many could come. Brazil and the islands in the Caribbean specialized at sugar and a few other tropical crops well suited for production on large slave plantations, relied heavily on importing slaves to deal with their labor scarcity problem. It was only the northern part of North America that had to obtain the bulk of its labor force through voluntary migration from Europe. Rather than coincidental, or due to their British national heritage, the innovation of the institution of
indentured servitude and the liberal offering of land grants to migrants seems to have been policy instruments designed to solve the problem of labor scarcity and allow the colonies to take better advantage of their abundance of land and other resources.

After the independence movements swept across the Americas, there was a mixture of both continuity and change in the strategic land and immigration institutions. The U.S., followed by Canada, continued to actively pursue immigrants from abroad. There was no longer a need for indentured servitude, but both countries employed very liberal land policies to attract migrants. Again, it is striking that the regions most supportive of liberal land policies, and other policies that migrants were sensitive to, were the areas in the west (of course, the boundaries of this evolved over time with settlement) which were most labor scarce. The evidence for the endogeneity of these policies appears formidable. In contrast, the new nations of Spanish heritage (or Portuguese, in the case of Brazil), who were now free to formulate policies to suit their own interests, now began to actively seek immigrants. Like their neighbors to the north (the U.S. and Canada), countries such as Brazil and Argentina were seemingly labor scarce and abundant in land available for agricultural and other purposes from early in settlement. It is curious, however, that the programs they adopted were far less generous in offering land to immigrants, or even ordinary people than was the U.S. This parsimony may be related to the general increase throughout Latin America in the value of land suitable for the production of agricultural exports, as was the movement in many other nations with large Native American populations toward policies that in effect shifted control of land from Indians to elites. It may also be related to the extreme political and economic inequality that prevailed throughout Latin America, and that we have elsewhere attributed in large part to factor endowments broadly conceived.
1 Table 3 is based upon the estimates of David Eltis. For estimates through 1830, see Eltis 1983.

2 Large blocs of land and claims on Native American labor were often granted as incentives or rewards to the early waves of settlers, especially military men, missionaries, and others of some prominence. Although smaller holdings could be obtained through sales, generally the more important were governmental land grants, the larger tended to be the holdings, and the more unequal the distributions of wealth and political power would become. The initial land grants were often non-tradable by the recipients, and yet transferable by the Spanish Crown. Hence, later migrants to colonies might indeed have eroded the value of the property rights held by earlier cohorts. It is not difficult to comprehend why the already established population of European descent was less than enthusiastic about a liberal immigration policy during the colonial era.

3 At first it seems somewhat puzzling, or contradictory to the idea that the factor endowment was the crucial determinant of policy, that Spanish authorities did not actively encourage immigration to colonies without a substantial supply of readily available Indian labor, like Argentina. On reflection, however, it seems likely that Spanish policy toward immigration to places like Argentina was simply incidental, with the overall policy as regards immigration to the New World based on the factor endowments and politics in all of Spanish America together. Hence, Spanish policy was probably driven by conditions in Mexico and Peru - the most populous and valued colonies. Since these centers of Spanish America had an abundance of Indian labor, the local elites and the authorities in Spain were able to maintain restrictive policies.

4 See, in particular, Dunn 1972, on the English colonies, and Schwartz 1985, on Brazil. In early Brazil, slaves were also used in mining.

5 The immigration policies were especially restrictive toward single European women, and this too likely contributed over the long run to the small proportion of the population that was white. The Spanish Antilles did have a relatively large white population, reflecting the limited number of Indians after depopulation, and the long lag between the beginnings of the settlement and the sugar boom that developed there only after the start of the nineteenth century. On the Caribbean in general, and for a discussion of the patterns of Cuban settlement, see Knight 1990. For an ethnic breakdown of Caribbean populations in 1750, 1830, and 1880, see Engerman and Higman 1997.

6 Burkholder and Johnson 2001, p. 118.


8 See Viotti da Costa 1985, chap. 4; Solberg 1987; and the excellent discussions in Adelman 1994.

9 It is generally thought that the introduction of livestock to Argentina, when the Spanish first arrived in the 16th century, was the basis for widespread herds of feral cattle that were present during the 19th century and could virtually be harvested. Such production of animal products (hides and beef) was associated with scale economies and did not require much in the way of labor. These conditions may have increased the economic viability of large estates where labor was scarce and land abundant. In contrast, because the major crops produced in the expansion of the northern United States and Canada were grains, whose production was relatively labor intensive and characterized by quite limited scale economies, the policy of encouraging smallholding was effective. See Adelman 1994 and Engerman and Sokoloff 2002 for more discussion.

10 For further discussion of Mexico, see McBride 1923; Tannebaum 1929; and Holden 1994.

11 Our work with the data from the 1914 census yields the same qualitative results. It is worth noting that the proportions of families that owned land are exaggerated by the 1895 census figures. A close examination of the manuscripts indicates that double counting, in which both the husband and wife were listed as landowners, was prevalent in many parts of Argentina.