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The first permanent British settlement in what became the United States was established in 1607, nearly 170 years prior to the American declaration of independence. This chapter examines the economic development of the British North American colonies that became the United States. As it describes, abundant natural resources and scarce labor and capital contributed to the remarkable growth in the size of the colonial economy, and allowed the free white colonial population to enjoy a relatively high standard of living. There was not, however, much improvement over time in living standards. Patterns of factor abundance also played an important role in shaping colonial institutions, encouraging reliance on indentured and enslaved labor as well as the development of representative government. For most of the colonial era, the colonists happily accepted their relationship to Britain. After 1763, however, changes in British policies following the end of the Seven Years War created growing tensions with the colonists and ultimately led to the colonies to declare their independence.

## Introduction

Reflecting the dominant themes in the cliometric literature, this chapter is concerned with the economic history of those British mainland North American colonies that became the United States in 1776. It is important at the outset to acknowledge the backward-looking nature of this selection criterion. During the seventeenth and eighteenth centuries Britain established a number of other colonies in the Americas, including parts of coastal Canada and the West Indies. At the same time, other European nations were also engaged in colonization efforts in North America. The Spanish had established colonies in parts of the Southwest and Florida, France had colonized Quebec, and until the 1660s the Netherlands controlled parts of what would become New York and New Jersey.

Focusing on European colonization also diverts attention from the experience of the indigenous peoples who had occupied North America for millennia prior to the arrival of European explorers. For this latter group, European colonization proved profoundly destructive. Exposure to European diseases, such as Smallpox, decimated native populations. Natives were exposed to these diseases through contact with European fishing expeditions even before permanent European settlements were established. Thus, when the first permanent European settlements were established they encountered indigenous communities that were already disrupted, encountered less resistance than might otherwise have been the case, and were often able to occupy lands that had been cleared by native inhabitants.

Despite the merits of these different perspectives in informing historical understanding of the colonial era, the cliometric literature has mostly adopted a vantage point that casts the history of this phase of American economic development as background for the subsequent development of the United States, asking how developments in the years leading up to American independence from Britain shaped the subsequent evolution of the U.S. economy. This chapter will largely follow this approach.

## Economic Performance and Living Standards

### *Income at the End of the Colonial Period*

Quantitative data on which to base measurements of income in the colonial period are quite limited. Nonetheless, recent scholarship has shed additional light on incomes near the end of the colonial period suggesting that by this time free white residents of North America enjoyed living standards that compared favorably with Britain, which, according to Maddison's estimates (Bolt and van Zanden 2013) had the highest per capita income in the world at the time.

Allen, Murphy and Schneider (2012) have gathered time series of unskilled wage and the cost of living for workers in three British North American colonies as well as in a number of other locations around the world. Converting nominal wages in each location into their equivalent in grams of silver, and then deflating these by the cost of subsistence, they have computed comparative welfare ratios for each location. These comparisons are depicted in Figure 1. By the time of the American Revolution, laborers in Philadelphia had the highest earnings of any location represented in their data, roughly 25 percent higher than laborers in London. Laborers in Boston and Maryland, which had lagged behind London were by the 1770s quite close to London and well ahead of their counterparts in South America and China.

Peter Lindert and Jeffery Williamson (2016a, ch. 2) have undertaken the more ambitious task of constructing estimates of national income by combining social tables, describing the occupational and class structure of the population with estimates of labor and property income for each group. Their approach allows them to construct aggregate per capita income estimates in 1774 for the colonies as well as to examine the distribution of income within the colonies. Their estimates show that per capita incomes were higher in America than England by 1774, and much more equally distributed. According to their estimates, the Gini for free American colonists was 0.4, well below the average of 0.57 calculated for four Northwest European countries at the time. Even including the enslaved, their North America Gini rises only to 0.44. As they acknowledge adjusting for exchange rates and cost of living differences is challenging at this time, but what seems clear is that while incomes at the top of the distribution remained higher in England, the colonies offered considerable economic opportunity for those further down the income distribution, a fact consistent with the rising tide of British immigration to North America in the decades before the Revolution.

*Economic Growth*

Estimating longer run trends in Colonial Incomes is more difficult. Demographic evidence attests to the robust extensive growth in the colonial era. The first permanent British settlement in Colonial America was established in 1607, at Jamestown, in what is now Virginia. A second settlement was established in Massachusetts in 1621. By the time the American colonies declared their independence in 1776, the population of colonial America had increased from a few hundred settlers to approximately 2.5 million. Nonetheless, this population remained confined primarily to a relatively narrow strip of land along the Atlantic seaboard stretching from present-day Georgia, in the South, to what is now Maine, in the North.

The growth of the European and African populations was accompanied by a decline in the indigenous population. Estimates of the size of the pre-contact indigenous population vary considerably, but there is little question that Smallpox and other European diseases hit the native population quite hard. Ubelaker (1988, pp. 289-94) estimates that the Indigenous population east of the Mississippi River fell from about half a million in 1600 to 254,485 in 1700 and 177,630 in 1800.

Relying on a variety of censuses, tax rolls and other documents, historical demographers have been able to work out reasonably detailed estimates of the growth of European-American and African-American populations. High rates of fertility, early marriage, and relatively small numbers never married combined to produce rapid rates of natural increase throughout the colonies. Voluntary migration and the importation of slaves further increased population growth rates. Together these factors contributed to population growth rates close to 2.8 percent per year, on average, for most of the Colonial period. This rate was sufficient to produce a doubling of population every generation. One contemporary observer, Thomas Malthus, characterized the rate of increase as “probably without parallel in history,” and used it as support for his contention that in the absence of constraints population would increase at a geometric rate (Galenson 1996, p. 169).

Figure 2 plots regional growth in population numbers on a semi-log scale. Growth rates in the first few decades of settlement were quite rapid, reflecting the contributions of immigration to an initially small base, but then slowed as natural increase became the dominant source of growth. As the regions of earliest settlement, the Chesapeake and New England accounted for virtually all of the colonial population through the end of the 17th century. After 1680, however, the Middle Atlantic colonies (New York, New Jersey and Pennsylvania) attracted growing numbers of immigrants and expanded rapidly. Settlement of the Lower South (the Carolinas and Georgia) did not begin in earnest until nearly 1700, but thereafter the region grew quite quickly, though the population of this region remained much smaller than the other colonial regions.

The early colonists experienced extreme hardships as they adjusted to a new land. Shortages of food, the challenges of adjusting to conditions and the disease environment all contributed to initial high rates of mortality (Perkins 1988, p. 6). As colonial settlements became more established, however, living conditions improved and mortality rates declined. Quantifying early living standards has, however, proved difficult.

Based on the robust growth of colonial population and the diversifying economy it supported, early accounts assumed that per capita incomes must have been rising in the colonial period. McCusker and Menard (1985, pp. 52-57), for example, in their influential assessment of the state of colonial economic history suggested that per capita incomes in the 18th century must have grown at least as fast as Britain and might have grown twice as fast—leading them to suggest that per capita income growth was in the range of 0.3 to 0.6 per cent per year.

More recent scholarship has, however, argued on the basis of new data and more refined analytical techniques that after overcoming the initial challenges of settlement the pace of aggregate economic growth was quite small. In view of the limited quantitative data available for the Colonial period these estimates rely largely on back-casting income levels based on indices for a few key indicators. Mancall and Weiss (1999) applied the method of controlled conjectures to construct per capita GDP estimates for the period 1700-1800. They began with the identity that per capita GDP is equal to output per worker times the labor force participation rate. That is:

(1) $Q/P = (L/P)*(Q/L)$

Where Q is GDP, P is population, L is the labor force, L/P is labor force participation and Q/L is output per worker.

Output per worker can then be decomposed into a weighted sum of per worker productivity in different economic sectors:

(2) $Q/P = (L/P)*[(1-S_a)*(Q/L)_n + S_a(Q/L)_a] = (L/P)*(Q/L)_a[(1-S_a)k + S_a]$

Where the subscripts a and n denote agriculture and non-agriculture, respectively, $S_a$ is the share of the labor force employed in agriculture, Q/L is average output per worker, and k is the ratio of output per worker in non-agriculture to agriculture.

Beginning with known values of per capita GDP in 1800 and assuming that relative labor productivity, k, was constant at its 1800 level, it is possible to project backward per capita income on the basis of estimates of just three series: labor force participation, the sectoral distribution of labor and labor productivity in agriculture. While the first two series can be derived primarily from available demographic data, Mancall and Weiss derived estimates of output per worker in agriculture primarily from evidence about food consumption by different segments of the population (e.g, children, adult males, adult females and slaves) and net exports.

Based on the constancy of military rations over time, their baseline case assumed constant levels of consumption of agricultural products over time, and, in turn, implied that per capita income (expressed in 1840 prices) increased only from \$64 in 1700 to \$68 in 1770 and then fell to \$67 in 1800. This is a growth rate of just 0.08 percent per year for the shorter period and 0.04 percent per year for the entire century. Mancall and Weiss explicitly acknowledged that they could not definitively measure agricultural production; nonetheless they noted that their estimates of per capita GDP were constrained by the range of plausible values for domestic agricultural consumption.

Assuming a more rapid rate of growth of agricultural production would produce higher rates of per capita GDP growth, but even assuming that agricultural consumption grew as fast as it did in the first half of the nineteenth century would result in a growth rate of per capita GDP of only about 0.2 percent per year, well below the range posited by McCusker and Menard. Yet, assuming this rate of growth, and accepting the levels of GDP in 1800, implies that value of food consumed by free colonists in 1700 would have been lower than the value of the diet consumed by slaves in 1800. Mancall and Weiss argued that this implication seemed implausible and so concluded that likely rates of per capita GDP growth could not have been higher than 0.1 percent per year and were likely closer to zero.

In subsequent work, Mancall, Rosenbloom and Weiss (2004) and Rosenbloom and Weiss (2014) have constructed similar estimates for the colonies and states of the Lower South and the Mid-Atlantic regions, respectively. Applying the method of controlled conjectures at a regional level allowed them to incorporate additional, region-specific, evidence about agricultural productivity and exports, and reinforced the finding that there was little if any growth in GDP per capita during the eighteenth century. Lindert and Williamson (2016b) have also attempted to backcast their estimates of colonial incomes. Their estimates rely in part on the regional estimates of Mancall, Rosenbloom and Weiss, but the independent evidence they present is consistent with the view that economic growth was quite slow during the eighteenth century.

*Wealth Accumulation*

One of the richest sources of information about colonial living standards is provided by probate inventories. In one of the first studies to utilize these data, Jones (1980) drew a sample of 899 probate inventories from randomly selected counties in each region of the colonies in 1774. After adjusting the age distribution to reflect that of the population, and reweighting observations to reflect the fact that wealthier descendants had a higher probability of entering probate she was able to construct estimates of per capita wealth holding by region. These are summarized in Table 1.

The first column of Table 1 shows average total net worth per free capita by region. On this basis, there appears to be a wide gap in wealth accumulation between colonial regions: residents of the southern colonies had accumulated nearly twice as much wealth as residents of the Middle Atlantic colonies, and almost 2.5 times as much as residents of New England. This difference, however, reflects almost entirely the effects of slavery on the distribution of wealth. As the second and third columns show, most slave wealth was concentrated in the South, and regional differences narrow considerably if attention is confined to non-human wealth. When the definition of the population is broadened to include the enslaved as well as free residents, as shown in column 4, regional differences in non-human wealth per capita are nearly equalized. Thus, one can conclude that while slavery allowed the free residents of the southern colonies to amass a greater concentration of wealth, much of it in the form of property rights in labor, physical capital accumulation was remarkably similar regardless of region.

While Jones was able to provide a detailed cross-sectional snapshot at the end of the colonial period, several other studies have sought to use probate inventories to illuminate trends over time. The results of these studies largely support the picture of a relatively static standard of living. Main and Main (1988) analyzed the economic growth and development of southern New England using a sample of over 16,000 inventories from 1640 through 1774. Figure 3 plots the evolution of estate values and their major components in constant prices. There was, as they concluded, "no doubt that wealth in southern New England was growing in real terms, and the principal category in which that growth occurred was in land and buildings" (p. 36). Indeed, the per capita value of many other categories of wealth was actually declining over time. Thus, while New Englanders cleared land and invested in additional improvements to this land there was little growth in other markers of material well-being. Lindert and Williamson's (2016b) recent reanalysis of these probate data further reinforces the impression of a relatively static economy. Using regression techniques to control for age, location and occupation they conclude that only farmers in the later-settled hinterland regions experienced significant gains in wealth over time as they continued to add to their improved land and accumulate additional livestock.

Ball and Walton (1976) made use of inventories from Chester County, Pennsylvania to measure changes in agricultural productivity over the majority of the 18$^{th}$ century. To estimate productivity growth, they constructed indexes of outputs (grain and livestock) and inputs of land and capital from probate inventories and combined these with estimates of labor input from other sources. Setting productivity to 100 in 1714-31, they found that it had increased to 108 by 1750-1770, but fell back to 105 in 1775-90 (Table 6, p. 110).

**The Colonial Economy**

Economic historians have tended to view the colonial economy through one of two lenses. The first approach focuses primarily on the high ratio of land and natural resource to labor that European colonists encountered in North America. According to this "demographic" model natural resource abundance raised labor productivity, especially in agriculture, contributing to the colonists' high standard of living and removing the demographic constraints that limited population growth in Europe (Smith 1980). Unchecked natural increase combined with migration, both voluntary and forced, to produce the economy's rapid extensive growth. The second view of the colonial economy focuses on the role played by key exports as drivers of economic growth. This "staple exports" thesis emphasizes European demand for tobacco, rice, indigo, and other exports as a major determinant of the size and structure of the colonial economy (McCusker and Menard 1985).

The truth, as is often the case, lies somewhere between these two views. There is no question that land abundance made entry into farming relatively easy, thus encouraging early marriage and high rates of marital fertility. At the same time, mortality was low because abundant food and forest-products contributed to a better nourished, better housed, and healthier population, while low population density discouraged the transmission of diseases. Quantitatively, the production of food and fuel for domestic, and mostly local, consumption dominated the economy. Mancall and Weiss (1999), for example, estimated that colonial exports amounted to only about 10 percent of economic activity across the eighteenth century. Even in a highly export dependent region, such as the Lower South, Mancall, Rosenbloom and Weiss (2008) estimated that foreign exports amounted to only 20-25 percent of GDP and were declining in importance over time.

Yet, exports were essential to colonial economic survival. The potential contribution of colonial exports to the larger empire was one of the primary motivations for colonization, and export earnings were crucial to the colonies' ability to pay for imports of manufactures and other goods that could not be produced domestically. Differences in export crops also resulted in the emergence of distinctive patterns of economic organization across the colonies, as reflected in the distribution of wealth noted earlier. Moreover, volatility in international trade played a role in contributing to short-run fluctuations within the colonial economy, although it seems likely that these effects were concentrated in the commercially oriented port cities and did not greatly affect hinterland farmers.

*Regional Differentiation in the Colonial Economy*

In the Southern colonies, climatic conditions were conducive to the cultivation of crops that found lucrative markets in Europe. In Virginia, Maryland, and parts of coastal North Carolina, tobacco cultivation spread widely, stimulating demand for labor and encouraging immigration. Tobacco did not require major capital investments and was characterized by few economies of scale, leading to a society dominated by small holders working their land with family labor and possibly the assistance of a few servants. By the late 1600s, however, planters in the upper South had begun to import slaves, allowing some producers to expand the scale of production.

Further south, in the low country of South Carolina and Coastal Georgia, early colonists discovered that conditions were favorable for the cultivation of rice. In contrast to tobacco, rice cultivation relied on relatively large capital investments to control irrigation that allowed fields to be flooded and drained. As a result, rice was grown mainly on relatively large plantations, and colonists in coastal South Carolina and Georgia relied heavily on slave labor to provide an adequate work force. Interestingly, at its founding Georgia was intended to be a free colony and slavery was prohibited. Settlement proceeded slowly, however, until its founders realized that the prohibition on slavery was discouraging commercial development and allowed the use of enslaved workers. Beyond the narrow coastal region rice was not a viable crop, and the interior of both colonies was settled primarily by small holders and independent farmers.

The climate of the northern colonies more closely resembled that of northwest Europe, limiting export opportunities. Pennsylvania, New Jersey and New York nonetheless supported the development of small farms raising livestock and growing wheat and other grains. Flour produced in the region found markets in Southern Europe and the West Indies. Conditions in New England were not as favorable for producing agricultural surpluses, but the region did develop markets supplying food to the West Indies, where intensive sugar cultivation squeezed out local food crops.

Reflecting the greater complexity of regional trading relationships, the northern colonies developed dense and relatively sophisticated merchant communities that helped to organize and finance regional and international trade and provide shipping services. By the late colonial period, Boston, New York and Philadelphia had become bustling urban centers. The largest, Philadelphia had over 30,000 residents in 1775, while New York had 25,000, and Boston 16,000. In comparison, Charleston, the only significant urban center in the South had a population of just 12,000.

*Free and Unfree Labor in the Colonies*

Regional differences in export crop production correlated closely with the use of enslaved labor. Although slavery was legal throughout the colonies, and there were slaves everywhere in British North America, by the 1770s over 90 percent of the slave population was concentrated in the colonies from Maryland to Georgia. It is tempting to explain the regional distribution of slavery in terms of the distribution of export staples, but the linkage between labor institutions and crops was mostly indirect. While investments in tidal irrigation needed to cultivate rice encouraged large scale production, tobacco could be cultivated profitably on a small scale and was subject to no economies of scale (Wright 2006, p. 29).

Because of land abundance, entry into agriculture was relatively easy, and few free men in the colonies were willing to work for wages rather than operating their own farm. As a result, planters who wished to expand the scale of production beyond what could be cultivate with family labor were required to turn to bound labor. As Evsey Domar has famously observed it is not possible to simultaneously have free labor, free land, and large scale production. The availability of unfree labor created the potential for planters to expand production and the value of export crops provided the means to acquire unfree labor for this purpose.

During the initial tobacco boom in the Chesapeake, the high price of African slaves, which was determined by their productivity in West Indian sugar cultivation discouraged planters from the use of enslaved labor. Instead, planters who wished to expand production relied largely on European indentured servants. During the seventeenth century, indentured servitude emerged as the primary mechanism to finance the migration of English labor to the Americas. While the high returns to labor in North America made immigration an attractive prospect of English laborers, the high cost of trans-Atlantic passage (In excess of half a year's income) posed a significant obstacle (Grubb 1985).

Many of the migrants came as "indentured servants" financed their passage to America by signing contracts called indentures that committed them to work for a specified term (typically 3-4 years) in exchange for passage to the colonies. Once they arrived in America, there contract would be sold to planters seeking to hire additional labor. At the end of their service, indentured laborers would receive a small payment from their employer and would be able to set out as independent farmers. Other migrants came as "redemptioners," committing to repay ships captains once they arrived in America by selling themselves into servitude to an American master to obtain the funds needed to pay for their passage (Grubb 1986).

Data on immigration in the colonial period are scattered and incomplete, but several scholars have ventured estimates that between half and three quarters of European immigrants arriving in the colonies came as indentured servants or redemptioners. At the end of the colonial period, Grubb (1985) found that close to three-quarters of English immigrants to Pennsylvania and nearly three-fifths of German immigrants arrived as servants. Galenson (1981) has examined the terms of several large samples of indenture contracts and concluded that the length of service required to repay the cost of passage varied with individual productivity and larger supply and demand forces in a manner consistent with the operation of a highly efficient market.

In the 1680s, tobacco planters in the Chesapeake began to shift away from indentured servants toward reliance on enslaved Africans. Galenson (1984) attributes this transition to the falling price of African slaves and improvements in the market for labor in England that made indentured servants more expensive. At first, servants continued to be used to fill positions requiring more skill, but as the number of slaves increased and slave owners expanded their land holdings making it more difficult for new arrivals to gain a foothold as independent farmers, migration to the Chesapeake became less attractive to potential migrants. By the early 1700s, the bulk of indentured servants preferred to migrate to the Middle Atlantic region, and tobacco cultivation became inextricably linked to slave labor. In South Carolina, which was settled only beginning in the 1690s, planters relied from the outset on slave labor to establish commercial rice production. Consistent with the close connection between export-oriented agricultural production and the use of slaves, Mancall, Rosenbloom and Weiss (2008) document a strong positive correlation between slave imports to the Lower South by decade and changes in export values.

Figure 4 shows the rapid rise in the slave share of the population in both regions after 1680. Because the mainland colonies were relatively small importers in the larger Atlantic slave market they faced what was effectively a perfectly elastic supply of slave labor at the world price, which was determined largely by supply and demand conditions in Africa and the West Indies. Consistent with this view Mancall, Rosenbloom and Weiss (2001) show that between 1720 and 1800, long-run movements in South Carolina slave prices paralleled those in the West Indies, and that in the short run, when demand for labor drove up local slave prices the volume of imports increased and prices ultimately fell.

**Institutions and Colonial Economic Development**

*Institutions and Economic Development*

Influenced by North (1990), cliometricians and, more generally, economists, have come to see institutions as one of the primary determinants of economic development. According to North, institutions are “the rules of the game” and their means of enforcement. In this definition, they encompass both formal structures of law and governance and informal structures, such as social norms and conventions. For the most part, economists have argued that institutions that provide relatively secure property rights and promote more democratic forms of governance encourage growth by creating conditions conducive to private investment and innovation. If institutions account for differences in economic performance, however, the question becomes why do some societies have institutions better adapted to promote growth than others?

Several recent and influential articles have sought to answer this question by arguing that we can understand variation in contemporary institutional, and hence economic development, as the result of the interaction between European colonization and the initial conditions that European colonizers encountered in different parts of the world (Engerman and Sokoloff 2011; Acemoglu, Johnson and Robinson 2012). The mechanisms identified differ somewhat, but both arguments emphasize a “reversal of fortune,” through which conditions that were initially conducive to economic prosperity led to the development of institutions that discouraged subsequent growth while conditions that were initially less favorable led to development of institutions more conductive to growth.

Engerman and Sokoloff, concentrating on Spanish and British colonization in the Americas, argued that differences in climate, geography and natural endowments created opportunities for the extraction of precious metals (Latin America) or concentration in production of export staples (the West Indies) that caused them to develop highly unequal societies in which a small European elite exploited a large enslaved population. The resulting legal and political regimes produced high per capita incomes initially, but proved poorly adapted to exploiting the opportunities for modern economic growth that emerged during the Industrial Revolution. In contrast, they argue that the absence of a substantial indigenous population in North America and the fact that soil and climate resulted in limited opportunities to produce crops characterized by major economies of scale led to the development of relatively egalitarian and representative societies in the mainland colonies and that this more egalitarian social structure facilitated the transition in the nineteenth century to modern economic growth.

Acemoglu, Johnson and Robinson (2012) adopt a broader perspective, seeking to explain global variations in modern economic performance in terms of the density of population and the corresponding complexity of the societies that European colonizers encountered. Where Europeans encountered (and took over) existing extractive institutions, as in Mexico, India and Peru, they perpetuated extractive institutions founded on exploitation and inequality. In more sparsely settled and less prosperous areas of the world, such as North America, Australia and New Zealand, they established institutions of private property and political equality that were better suited to promoting growth in the long run.

*Institutions in Colonial America*

For both Engerman and Sokoloff and Acemoglu, Johnson and Robinson, Colonial America is reduced in essence to a single data point. Such broad-brush theorizing helps to establish a broader context, but risks missing important local variations and the historical contingencies that underlie the development of American institutions. As we have seen, the economic and social structure of the British colonies that became the United States varied quite substantially, producing a highly unequal distribution of the slave population and wealth holding across the colonies. Yet, all followed similar paths in terms of political structure and long-run economic development.

An important commonality across Colonial America was the shared influence of British institutions that the colonists brought with them (Jones 1996). In comparison to other European nations in the seventeenth century, Britain was characterized by a relatively weak monarch, who was obliged to negotiate collectively with quasi-independent local leaders in parliament (Elliot 1992). In comparison, in Spain, where the monarchy was relatively strong, individual notables negotiated directly with the King, resulting in a patchwork of agreements all dependent on individual relationships (Irigoin and Graf 2008). When early colonists created institutions of local governance they followed the template provided by the relationship between parliament and the King, establishing bodies to represent their collective interests viz-a-viz the empire, rather than seeking to negotiate individual arrangements.

Another manifestation of the English King's weakness was the limited resources available to devote to the project of American exploration and colonization. Instead of directly financing voyages of exploration, the King encouraged exploration by granting corporate charters or monopolies to private investors who undertook the expense and risk on their own account. Meanwhile, conditions in American encouraged the early development of relatively robust and egalitarian forms of self-government within the colonies

The first colonial charter for a mainland colony was granted to the Virginia Company in 1606. It gave investors in the company the right to establish a colony and claim the protection of the king. Importantly the charter established the precedent of private land ownership, specifying that land was to be held in free and common socage, a form of tenure that established secure property rights and made the land fully alienable and inheritable.

Organized as a joint stock company with the aim of earning profits for its investors, the Virginia Company initially adopted a hierarchical model of control in which the early colonists were housed in communal barracks and farmed the company's land. This top-down organization was poorly adapted, however, to the conditions of land abundance that the early settlers encountered. As Morgan (1971) describes, the company found it nearly impossible to compel the colonists to work on the company's behalf. As a result, the early colonists devoted little effort to food production, and the early years of the colony were characterized by food shortages, epidemic disease and hardship.

The problem of incentives was resolved when the company opted to grant each settler title to his own parcel of land, and allowed them to farm on their own account. Tensions between settlers in America and investors in England and the long delays in communication across the Atlantic further obliged the Company to allow the colonists to establish a representative assembly to make the colony's laws. When the company's charter was revoked in 1624 and Virginia became a crown colony administered directly by the king, the settlers were successful in retaining self-government through the representative assembly, subject to the right of the royally appointed governor's veto.

The Virginia Colony was followed in 1629 by the granting of a charter to the Massachusetts Bay Company, which was also organized as a joint stock company. Like the Pilgrims who settled at Plymouth in 1620, the Puritan founders of the Massachusetts Bay Company were religious dissenters and in 1630 the leaders of the Company migrated to New England taking the charter with them. With the investors in the company present in Massachusetts tensions between settlers and investors in England were reduced, and the company evolved into a colonial government.

Several more efforts at colonization, including the grant of Maryland to Lord Baltimore, New York to the Duke of York, and Pennsylvania to William Penn followed a model of proprietorial land grants. The charters granted these proprietors broad powers to govern their new territories and to distribute land within them. However, as in Virginia, land abundance and distance favored the development of local assemblies to represent the settlers and a shift toward local self-governance.

The development of colonial self-government was no doubt facilitated by the limited value of colonial exports. Because of this, the English government largely adopted a policy of benign neglect toward the colonies, exercising quite limited supervision. Political turmoil in England resulting from the English Civil War also diverted attention from the colonies during the middle years of the seventeenth century, allowing traditions of local governance checked only by the veto power of the royally appointed governor to become established.

In sum, while factor endowments and distance played a role in encouraging the colonies to develop mechanisms of self-government, political norms that promoted representation through an elected assembly that represented a unified set of colonial interests to the King were also important. By the late 1600s, when South Carolina was settled, these models were adopted even in an environment characterized from the outset by large-scale plantation agriculture and a heavy reliance on slave labor.

**The Colonial Monetary System**

At the outset, the colonies were primitive agricultural economies with limited international trading relationships. In the approximately 170 years from the first settlements to American Independence the American economy grew substantially in scale, and developed more complex and sophisticated international trading and financial relations with England and other foreign countries. To support the growing scale and complexity of economic transactions the financial system had to evolve. Among the notable innovations that the colonists introduced was the widespread use of paper money as a medium of exchange (Grubb 2017, Perkins 1988, ch. 7)

For the colonists, specie (gold and silver coins) constituted the basis of the monetary system. The colonies did not produce gold or silver, however, and were prohibited from minting their own coins. Specie had to be acquired by selling exports, and the bulk of the specie in use in America came from exports to Spanish America. Exports to England also allowed the colonists to acquire pound sterling credits in the form of bills of exchange drawn on accounts in England. These foreign exchange earnings were used primarily to pay for colonial imports and little specie circulated within the colonies to facilitate domestic commerce.

In lieu of specie, the colonists relied heavily on barter for local exchange. In the Chesapeake transactions were often denominated in weights of tobacco. However, tobacco was not used as a medium of exchange. Rather merchants might advance credit to planters for the purchase of imported items, to be repaid at harvest with the specified quantity of tobacco. Elsewhere book credit accounts helped to facilitate transactions and reduce the need for currency. The colonists regularly complained about the shortage of specie, but as Perkins (1988, p. 165) observed, the long run history of prices does not suggest any tendency of prices to fall, as would be expected if the money supply was too small.

While English merchants provided commercial credit to finance international trade there were no banks or credit institutions to which colonial legislatures could turn when confronted with extraordinary expenses. In 1690, Massachusetts issued £7,000 in paper bills of credit to pay wages promised to soldiers who had participated in a military campaign against French Quebec, and made the bills legal tender in the payment of colonial taxes. As the bills were returned to the treasury they were to be retired from circulation. The experiment was a success and was soon followed by most other colonies, mostly in connection with large military expenditures. Details of these monetary emissions varied in terms of maturity, whether interest was paid, and whether the bills were made legal tender or not (Grubb 2017, 12). In most cases, however, bills were linked explicitly to future redemption through taxes to be collected, or repayment of loans.

With only a few exceptions the colonies issuance of these notes did not give rise to inflationary pressures. There is by now a large literature that has analyzed the relationship between note issuance and prices, and finds little evidence of any correlation between the series (Weiss 1970, 1974; Wicker 1985; Smith 1985; Grubb 2016. As Grubb (2016) has argued, this suggests that while the circulation of bills of credit may have facilitated exchange by substituting for book credit or other forms of barter, they did not assume the role of currency.

Despite the colonies history of limited currency depreciation, by the early 1750s English merchants had begun to express concern that loans they had extended to the colonists might be repaid in depreciated colonial currencies rather than in pounds sterling. In 1751, under pressure from these trading interest, Parliament intervened in colonial note issue, passing an act aimed at the New England colonies, restricting the maturity of new issues in Rhode Island, Connecticut and Massachusetts to two years and prohibiting their designation as legal tender in private transactions. This was followed in 1764 by a second act applying to the remaining colonies and prohibiting legal-tender provisions both for private debts and for public obligations as well. A number of colonies, including New York and Pennsylvania, defied these prohibitions, however, and continued to issue new notes (Perkins 1988, pp. 176-77). Lobbying by colonial representatives was ultimately successful in winning a relaxation of these restrictions, allowing notes to be designated as legal tender for public debts.

**The Colonies within the British Empire**

For most of the nearly 170 years between the founding of the Jamestown colony and the American Declaration of Independence, there was little tension between Britain's mainland North American colonies and the home country. The colonists identified as British subjects and thrived within the context of the expanding Atlantic economy that British policies supported. As Benjamin Franklin observed, in 1775, "I never had heard in any Conversation from any Person drunk or sober, the least Expression of a Wish for a Separation, or Hint that such a Thing would be advantageous to America" (Quoted in Taylor 2016, p. 4). From a few small, isolated outposts on the edge of a largely unknown continent they had grown by the 1750s into a well-established set of communities with a population close to 40 percent the size of the home country, enjoying relatively high living standards and supporting a complex set of international trading relationships. The context within which this growth occurred is usually termed "Mercantilism."

*Mercantilism*

The key tenet of mercantilism was that national strength was enhanced through an inflow of specie that was achieved by maintaining a positive balance of trade with other nations. Colonies could contribute to these goals by producing specie directly (as was true of Spanish colonies in the Americas), by producing crops that were valued in export markets, or by acting as a source of goods that would otherwise have to be imported from outside the empire. At the same time, colonies could contribute as markets for manufactured goods produced at home.

The Navigation Acts, first passed by Parliament in 1651, were an attempt to achieve these ends by establishing the legal parameters for colonial trading relations. Their key provisions were: (1) vessels registered in foreign countries were excluded from carrying goods between ports within the empire, (2) goods manufactured on the European continent could not be directly imported into the colonies, but had instead to pass through England; (3) certain valuable colonial exports, "enumerated goods," could be exported only to ports in Great Britain; and (4) bounties were authorized for highly valued colonial products. Among the enumerated goods were furs, ship masts, rice, indigo and tobacco. Importantly, ships registered in the colonies were allowed to carry trade within the empire. Although subsequent acts modified bounties and adjusted the list of enumerated goods, the basic outlines remained consistent until American independence (Perkins 1988, pp. 20-21, 31-32).

The requirement that major colonial exports pass through England on their way to continental markets and that manufactures be imported from England was the equivalent of imposing a tax on this trade. The resulting price wedge reduced the volume of trade and shifted some of the producer and consumer surplus to the providers of shipping and merchant services. A number of cliometric studies have attempted to estimate the magnitude of these effects to determine whether they played a role in encouraging the movement for independence (Harper 1939; Thomas 1968; Ransom 1968; McClelland 1969). The major difference in these studies arises from different approaches to formulating a counterfactual estimate of how large trade would have been in the absence of the Navigation Acts. In general, the estimates suggest that the cost to the colonists was relatively modest, in the range of 1-3 percent of annual income. Moreover, this figure needs to be set against the benefits of membership in the empire, which included the protection the British Navy afforded colonial merchants and military protection from hostile natives and other European powers.

*Regional Variation within the Colonies*

Despite the common context created by membership in the British Empire, differences in climate and soil created varied economic opportunities in the American colonies that translated into significantly different patterns of economic development across the colonies. With a relatively short growing season and rocky, infertile soil, the New England colonies were poorly endowed to produce agricultural exports. During the initial years of settlement, the colonists participated in the fur trade, acquiring beaver pelts in trade with the indigenous population, until local supplies of beaver were decimated by over hunting. Northern forests also yielded tall trees that could be used as ships masts. Potash, used in making soap and gunpowder, and which was a by-product of clearing fields by burning trees, also found an overseas market. But the value of these exports fell far short of the region's imports of textiles, hardware, and other manufactured goods. To make up this difference New England merchants developed markets in the West Indies, supplying fish, grain and livestock to support the intensive cultivation of sugar in these colonies. Boston merchants also earned considerable sums from shipping services earned carrying goods within the empire (Walton and Shepherd 1979, p. 101.

The Middle Atlantic colonies of New York, Pennsylvania and New Jersey, settled later in the 1600s, emerged as a major source of food exports in the eighteenth century. Possessing better soil, a more favorable climate and excellent natural harbors in New York and Philadelphia they became major exporters of bread, flour, wheat, and salted beef and pork for both the West Indies and southern Europe. As in New England, earnings from shipping services became a major source of export earnings in the Middle Atlantic region (McCusker and Menard 1985, chs. 5-9; Perkins 1988, pp. 19-31).

Although British policy officially discouraged colonial manufacturing enterprises, New England and the Middle Atlantic colonies also developed ship building and iron refining industries that benefitted from access to plentiful supplies of timber. Deforestation in England was a significant constraint on iron manufactures, and imports of pig and bar iron from the colonies were preferred to increasing dependence on European sources. By the late 1700s, the colonies accounted for 15 percent of world output of iron, ranking third behind Russia and Sweden (Perkins 1988, p. 25).

The southern colonies conformed much more closely with mercantilist expectations than did the New England and Middle Atlantic colonies. The Chesapeake colonies of Virginia and Maryland, along with parts of North Carolina became major producers of tobacco, which was in high demand, especially on the European continent. Exports of tobacco were the single largest source of export earnings for the mainland colonies. In the late colonial era, these colonies also began to export wheat and flour, in response to rising world prices for food (McCusker and Menard 1985, pp. 125-31; Egnal 1998, pp. 82-91). Further South, in South Carolina and Georgia, rice provided a major source of export earnings. The region was also well adapted to the production of indigo, and production of this valuable dye-stuff increased in the 1740s when Britain began to offer significant bounties for its production.

Table 2 provides a snapshot of colonial exports by region near the end of the colonial period. Tobacco, grain, rice, fish and livestock made up close to 75 percent of the value of colonial exports, with the first two accounting for nearly half of total exports. By virtue of its role in the tobacco trade, the Upper South produced over 40 percent of all colonial exports, followed by the Lower South, and the Mid Atlantic colonies. New England produced the smallest value of exports and did so with a much more diverse trade than the other regions.

**Economics, Politics and Revolution**

After nearly a century and a half of relatively harmonious development, relations between Britain and its North American colonies shifted radically after the conclusion of the Seven-Years War (often referred to in the American context as the French and Indian War) in 1763. Over the next 13 years, the colonists discovered a common identity in opposition to the British Empire, and in 1776 they declared independence. One important consequence of the Seven-Years War had been to largely eliminate France and Spain as rivals for control of North America and as potential allies for the indigenous peoples. As a result of the peace settlement reached in 1763, France had ceded Quebec and most of its North American territories to Britain. Spain, which had also entered the conflict, gave up Florida (which included territories along the Gulf Coast as far west as the Mississippi River), but acquired New Orleans from the French. Now, essentially all of North America east of the Mississippi river was under British dominion.

In the absence of significant European competitors, British attitudes toward colonial territorial expansion shifted dramatically. So long as Britain was in competition with France for control of the North American interior, colonial efforts to secure new land were consistent with imperial goals. But, after 1763, this competition was eliminated, and Britain sought to slow expansion and avoid provoking renewed conflict with the indigenous population. In the colonies, the rapid pace of population growth created an insatiable demand for new land on which to farm, however, and obtaining title to western lands became an important source of wealth for leading colonists (Egnal 1980). British efforts to restrain colonial expansion thus placed them in direct conflict with influential colonists who hoped to profit through development of western lands.

At the same time that British leaders sought to restrain colonial expansion, they were struggling with the challenges of paying the costs of the recently concluded conflict. Defending their North American possessions had been a major expense, and the colonists were lightly taxed relative to citizens at home. It seemed natural that colonists should contribute to paying wartime debts through higher taxes. To the colonists, however, these measures helped create a perception that Parliament was favoring British interests at colonial expense, and provoked a growing resistance movement centered among the mercantile and trading elite in New England and Mid Atlantic port cities (Taylor 2016).

Beginning in 1764, with the Sugar Act, Parliament sought to increase revenues from its colonial possessions. The Sugar Act actually lowered duties on colonial sugar imports from the French West from the prohibitive levels that had previously prevailed, but British officials expected that lower duties would reduce smuggling and increase tax revenues. The Act also provided for increased enforcement, cracking down on a large and illicit trade between New England and sugar producers in the French West Indies. And because colonial courts could not be relied upon to enforce these laws, moved jurisdiction to British Admiralty courts.

The Sugar Act was followed in 1765 by passage of the Stamp Act, which imposed a tax on a broad range of legal documents and newspapers. To colonists, this effort to tax domestic commerce appeared to be a significant departure from previous acts that had focused on external trade. And it evoked a strong, negative reaction from influential members of the colonial elite. Colonists threatened or intimidated the appointed tax collectors and forced many of them to resign from their positions or to agree not to enforce the tax. They also sought to organize a collective response, calling on colonial governments to send representatives to a Stamp Act Congress in New York. As the first such meeting of representatives from the different colonies, the Congress was an important step in the emergence of a sense of national identity. And the boycott of British goods the Congress organized led British merchants to join the colonists in urging Parliament to rescind the tax. In 1766, Parliament backed down and repealed the tax.

Britain's need for revenue remained, however, and in 1767 the Townshend Act imposed a new set of duties on the colonists. Believing that taxes on external trade would not meet with resistance, the Townshend Act imposed duties on imports of glass, paint lead, paper and tea. The tax was coupled, however, with plans to use part of the revenue it generated to pay the salaries of colonial governors, who until then were supported by locally collected taxes, thus making them more dependent on colonial legislatures. The colonists objected to this interference, however, and newly emboldened by the success of their resistance to the Stamp Act they launched another boycott. As the volume of business lost by British merchants mounted so did pressure to repeal the Townshend Act taxes. In 1770 Parliament dropped all of the taxes except that on tea.

The final provocation came in 1773 in the form of the Tea Act. Seeking to aid the East India Company, which found itself in significant financial difficulties, Parliament granted the company a monopoly on the sale of tea in the American market. Taxes on tea were actually adjusted, so that the price colonists would pay fell. Yet, local merchants angered by their exclusion from a lucrative trade and seeing Parliament favoring a British company at their expense organized protests. In Boston on December 16, 1773 a group of colonists boarded several vessels carrying East India tea and dumped it in Boston Harbor. In response to the so-called "Boston Tea Party," Britain ordered the complete closure of Boston Harbor and dispatched a large military force to enforce this action. Responding to these actions, the colonists convened the first Continental Congress in Philadelphia in 1774, and by early 1775 the tensions had devolved into an armed conflict precipitated by the British march on Lexington and Concord.

**After the Revolution: American Independence**

Looking backward it is easy to view the success of the American Revolution as inevitable. It was, however, anything but that. Residents of the colonies were deeply divided about independence: Loyalists, who favored remaining part of the empire, were probably almost as numerous as Revolutionaries, and a large part of the rural population remained uncommitted to either side. The Revolution thus entailed significant internal conflicts. Moreover, the Revolutionaries confronted practical challenges in taking on the much larger and better supported British Army.

The armed conflict dragged on for seven years, ending only in 1782. The colonists faced a more numerous, better equipped and better trained military force; but the British had to contend with the logistical challenges created by distance and slow communication. For the most part British forces were content to occupy a few major ports and exert pressure by attempting to blockade trade at sea. Unable to defeat the British, the colonists were ultimately successful in outlasting them as the costs of the war mounted.

For colonists outside contested areas, the impact of the conflict was relatively light. For those closer to the fighting the effects were mixed. On the one hand, increased demand for food and supplies caused by British occupation may have raised incomes. On the other hand, some colonists saw crops seized or destroyed and in the South British forces confiscated slaves and encouraged others to defect.

Most accounts suggest that independence was a negative shock to the colonial economy, but have differed in their assessment of the magnitude of the effect. After the disruption of the war, the newly independent country was largely excluded from the trading networks it had participated in prior to independence, and under the Articles of Confederation Congress lacked authority to establish tariffs and consequently was ineffective at opening European markets. Some of these difficulties were removed with the ratification of the Constitution in 1787, and the outbreak of hostilities between the French and British after 1793 created new trading opportunities for American merchants.

Bjork (1964) has argued that the effects of the disruption in international trade were short-lived and relatively mild, as resources were diverted toward westward expansion and import-competing production. LIndert and Williamson (2013), on the other hand, offer the most pessimistic estimates of the decline in incomes after the Revolution. Weiss (2017), however, offers reasons to be skeptical of their estimates. Expressed in prices of 1840, Lindert and Williamson estimate that per capita income fell from $74 in 1774 to $59 in 1800, a drop of 20 percent. Since incomes are generally thought to have begun to recover after the early 1790s this suggest that the trough in incomes must have been even larger. Mancall and Weiss (1999) argued that between 1770 and 1800 incomes were relatively flat, but inferred that there must have been some decline incomes between 1770 and 1790 that was erased by the subsequent recovery of the 1790s. Rosenbloom and Weiss (2014) estimate that in the Middle Atlantic, per capita income fell from $78.7 to $65.5 in 1791, before recovering to $78 by 1800 (all quantities in constant 1840 prices).

**Conclusion**

Between 1607 and 1776, the thirteen British North American colonies that became the United States were transformed from small isolated outposts of European settlement to a thriving economy with a population almost 40 percent the size of Britain. After overcoming the initial hardships of establishing the colonies, per capita incomes grew slowly (if at all). But the remarkable feature of this history is that the colonies were able to sustain rapid extensive growth for nearly two centuries without a reduction in living standards.

Writ large, the story is fundamentally one of resource abundance relative to labor and capital. When North American land was combined with European agricultural technologies and European institutions of private property, resource abundance created high returns to mobile resources. The result was a flow of trans-Atlantic migration and investment. This response required a variety of institutional innovations. To facilitate the movement of European laborers indentured servitude was developed as a mechanism to finance profitable migration. Yet the resulting labor response was not sufficient to meet the labor needs of the colonies, and colonists resorted as well to the involuntary transportation of thousands of enslaved Africans to perform less desirable work in less attractive locations. Among both European- and Africa-American populations, rates of natural increase were relatively high. Abundant food and fuel contributed to a relatively healthy population and allowed earlier marriage and high rates of marital fertility. As a result, populations doubled roughly every 20-25 years.

Of course, European and African settlers did not arrive in an empty land. Their success coincided with the displacement of aboriginal peoples. Early European settlers encountered natives whose populations had already been disrupted by European diseases spread by early contacts with fishermen and explorers, thus facilitating early settlement. The trade in furs (beaver in the North and deerskins in the South) was an important component of European economies in the early years of settlement, and both trade and conflict with native populations remained an important element throughout the colonial period.

In much the same way that institutions adapted to promote migration, the colonists adapted mechanisms of self-governance to their new conditions. Abundant land made it difficult for the early Virginia Company to maintain top-down discipline in its settlement. Only when land was distributed to the colonists and they were allowed to retain the profits from their effort did production begin to grow. Dealing with distant masters, separated by a months-long trans-Atlantic voyage, the colonists asserted their rights to establish local governments empowered to make collective choices for most local decisions. Local assemblies developed strong traditions that provided a foundation for local rule when the colonists declared independence.

Nonetheless, for most of the colonial period there was little thought of seeking independence. The colonies thrived within the imperial trading relationships that the British created. Under the Navigation Acts American merchants enjoyed the same access to this trade as British merchants, and the protection of the British Navy on the seas, and the British military on land provided important benefits to the colonists. After 1763, however, the dynamics of colonial relations shifted. Having largely eliminated the competition of French and Spanish colonies for control of North America, Britain wished to restrain the spread of American population and avoid provoking conflicts with native populations. The colonists saw opportunities to expand. At the same time, new taxes and new policies led colonists to question whether the British government was committed to their interests. The result was a rapidly growing movement of resistance that culminated in a formal declaration of independence in 1776.

**References**


Acemoglu, Daron, Simon Johnson and James A. Robinson [2002]. "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution." *Quarterly Journal of Economics* 117, no. 4: 1231-1294.

Allen, Robert, Tommy Murphy and Eric Schneider [2012]. "The Colonial Origins of the Divergence in the Americas: A Labor Market Approach." *Journal of Economic History* 72, no. 4: 863-94.

Bjork, Gordon C. [1964]. "The Weaning of the American Economy: Independence, Market Changes, and Economic Development." *Journal of Economic History* 24, no. 4 (Dec.): 541-60.

Bolt, J and J. L. van Zanden [2013]. "The Maddison-Project" http://www.ggdc.net/maddison/maddison-project/home.htm, 2013 version (accessed 10/19/2017)

Egnal, Marc and Joseph Ernst [1972]. "An Economic Interpretation of the American Revolution." *William and Mary Quarterly* 29, no. 1: 3-32.

Egnal, Marc [1980]. "the Origins of the Revolution in Virginia: A Reinterpretation." *William and Mary Quarterly* 37, 401-28.

Egnal, Marc [1998]. *New World Economies: The Growth of the Thirteen Colonies and Early Canada*. New York: Oxford University Press.

Galenson, David W. [1981]. *White Servitude in Colonial America: An Economic Analysis*. Cambridge: Cambridge University Press.

Galenson, David W. [1984]. "The Rise and Fall of Indentured Servitude in the Americas: An Economic Analysis." *Journal of Economic History* 44, no. 1 (Mar.), 1-26.

Galenson, David W. [1996]. "The Settlement and Growth of the Colonies: Population, Labor, and Economic Development." In *Cambridge Economic History of the United States*, Volume I: The Colonial Era. Stanley L. Engerman and Robert E. Gallman, eds. Cambridge, England: Cambridge University Press.

Grubb, Farley [1985a]. "The Incidence of Servitude in Trans-Atlantic Migration, 1771-1804." *Explorations in Economic History* 22, no. 3 (March): 316-39.

Grubb, Farley [1986]. "Redemptioner Immigration to Pennsylvania: Evidenc on Contrac Choice and Profitability." *Journal of Economic History* 46, no. 2 (June): 407-18.

Grubb, Farley [2016]. "Colonial Paper Money and the Quantity Theory of Money: An Extension." NBER Working Paper 22192.

Jones, Alice Hanson [1980]. *Wealth of a Nation to Be: The American Colonies on the Eve of the Revolution*. New York: Columbia University Press.

Jones, E. L. [1996]. "The European Background." In *Cambridge Economic History of the United States*, Volume I: The Colonial Era. Stanley L. Engerman and Robert E. Gallman, eds. Cambridge, England: Cambridge University Press.

Lindert, Peter H. and Jeffrey G. Williamson [2013]. "American Incomes Before and After the Revolution." *Journal of Economic History* 73, no. 3: 725-765.

Lindert, Peter H. and Jeffrey G. Williamson [2016a]. *Unequal Gains: American Growth and Inequality since 1700*. Princeton: Princeton University Press.

Lindert, Peter H., and Jeffrey G. Williamson [2016b]. "American Colonial Incomes, 1650-1774." *Economic History Review* 69, no. 1: 54-77.

Main, Gloria L. and Jackson T. Main [1988]. "Economic Growth and the Standard of Living in Southern New England, 1640-1774." *Journal of Economic History* 48, no.3: 27-46.

Mancall, Peter C. and Thomas Weiss [1999]. "Was Economic Growth Likely in Colonial British North America?" *Journal of Economic History* 59, no. 1 (Mar): 17-40.

Mancal, Peter C., Joshua L. Rosenbloom, and Thomas Weiss [2001]. "Slave Prices and the South Carolina Economy, 1722 to 1800." *Journal of Economic History* 61, no. 3: 616-39.

Mancall, Peter C, Joshua L. Rosenbloom, and Thomas Weiss [2004]. "Conjectural Estimate of Economic Growth in the Lower South, 1720 to 1800." In *History Matters: Economic Growth, Technology and Population, Essays in Honor of Paul A. David*. Timothy W. Guinnane, William Sundstrom and Warren Whatley, eds. Stanford, CA: Stanford University Press.

McCusker, John and Russell Menard [1985]. *The Economy of British America, 1607-1789*. Chapel Hill, NC: Univeristy of North Carolina Press.

Morgan, Edmund S. [1971]. "The Labor Problem at Jamestown, 1607-18." *American Historical Review* 76, no. 3: 595-611.

North, Douglas C. [1990]. *Institutions, Institutional Change and Economic Performance*. New York: Cambridge University Press.

Perkins, Edwin J. [1988]. *The Economy of Colonial America*, 2nd ed. New York: Columbia University Press.

Rosenbloom, Joshua L. and Thomas Weiss [2014]. “Economic Growth in the Mid Atlantic Region: Conjectural Estimates for 1720 to 1800.” *Explorations in Economic History* 51, no. 1: 41-59.

Smith, Daniel Scott [1980]. “A Malthusian-Frontier Interpretation of United States Demographic History Before c. 1815.” In *Urbanization in the Americas: The Background in Comparative Perspective*. Woodrow Borah et al, eds. Ottowa, Canada: National Museum of Man.

Taylor, Alan [2016]. *American Revolutions: A Continental History, 1750-1804*. New York: W. W. Norton.

Walton, Gary M. and James F. Shepherd [1979]. *The Economic Rise of Early America*. New York: Cambridge University Press

Weiss, Roger [1970]. “The Issue of Paper Money in the American Colonies, 1720-1774.” *Journal of Economic History* 30: 770-85.

Weiss, Thomas [2017]. “Review of *Unequaly Gains: American Growth and Inequality since 1700*, by Peter H. Lindert and Jeffry G. Williamson.” *Journal of Economic History* 77, no. 3: 952-54.

West, Robert Craig [1978]. “Money in the Colonial American Economy.” *Economic Inquiry* 16: 1-15.

Wicker, Elmus [1985]. “Colonial Monetary Standards Contrasted: Evidence from the Seven Years’ War.” *Journal of Economic History* 45: 869-884.

Table 1: Probate Wealth Per Capita, by Region, 1774

| | Per Free Capita | | | Per Capita |
|---|---|---|---|---|
| | Net Worth | Slaves and Servants | Non-human | Non-human |
| New England | 38.2 | 0.2 | 38.0 | 36.4 |
| Middle Colonies | 45.8 | 1.7 | 44.1 | 40.2 |
| South | 92.7 | 31.1 | 61.6 | 36.4 |
| All Colonies | 60.2 | 11.8 | 48.4 | 37.4 |

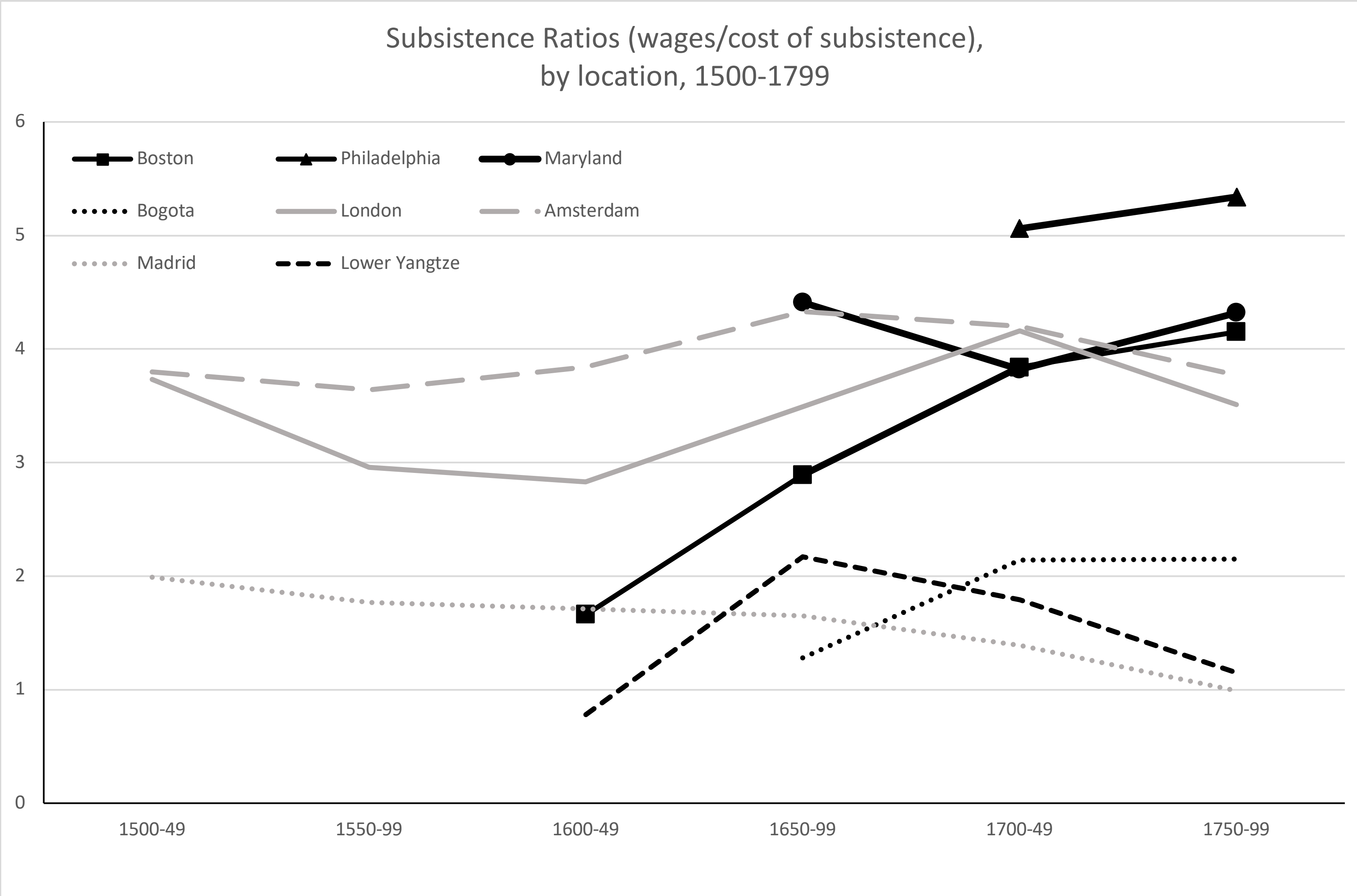
Source: Alice Hanson Jones (1980), pages 54, 58.

Table 2: Annual Average Value of Commodity Exports from American Colonies, 1768-1772 (Pounds Sterling)

| Commodity | New England | Mid Atlantic | Upper South | Lower South | Total |
|---|---|---|---|---|---|
| Tobacco | | | 756,128 | | 756,128 |
| Grains, grain products | 19,902 | 379,380 | 199,485 | 13,152 | 611,919 |
| Rice | | | | 305,533 | 305,533 |
| Fish | 152,555 | | | | 152,555 |
| Livestock, beef, pork | 89,953 | 20,033 | | 12,930 | 122,916 |
| Wood Products | 65,271 | 29,348 | 22,484 | | 117,103 |
| Indigo | | | | 111,864 | 111,864 |
| Whale Products | 62,103 | | | 25,764 | 87,867 |
| other | 8,552 | 21,887 | 39,595 | 13,904 | 83,938 |
| Iron | | 27,669 | 29,191 | | 56,860 |
| Deerskins | | | | 37,093 | 37,093 |
| Flaxseed | | 35,956 | | | 35,956 |
| Potash | 22,399 | 12,272 | | | 34,671 |
| Naval Stores | | | | 31,709 | 31,709 |
| Rum | 18,766 | | | | 18,766 |
| | | | | | |
| Total | 439,501 | 526,545 | 1,046,883 | 551,949 | 2,564,878 |

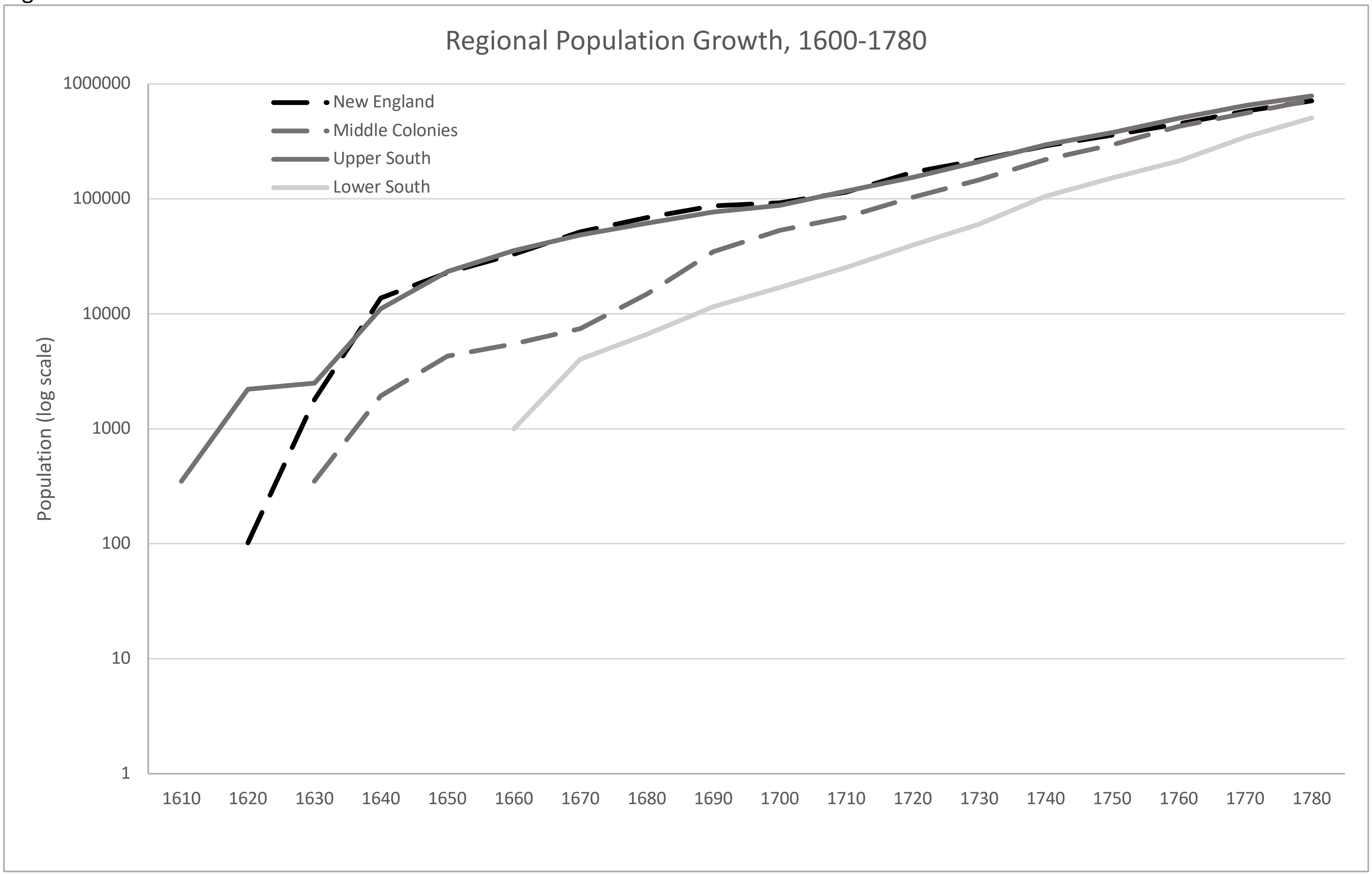
Source: McCusker and Menard (1985, pp. 108, 130, 172, 199)

Figure 1:



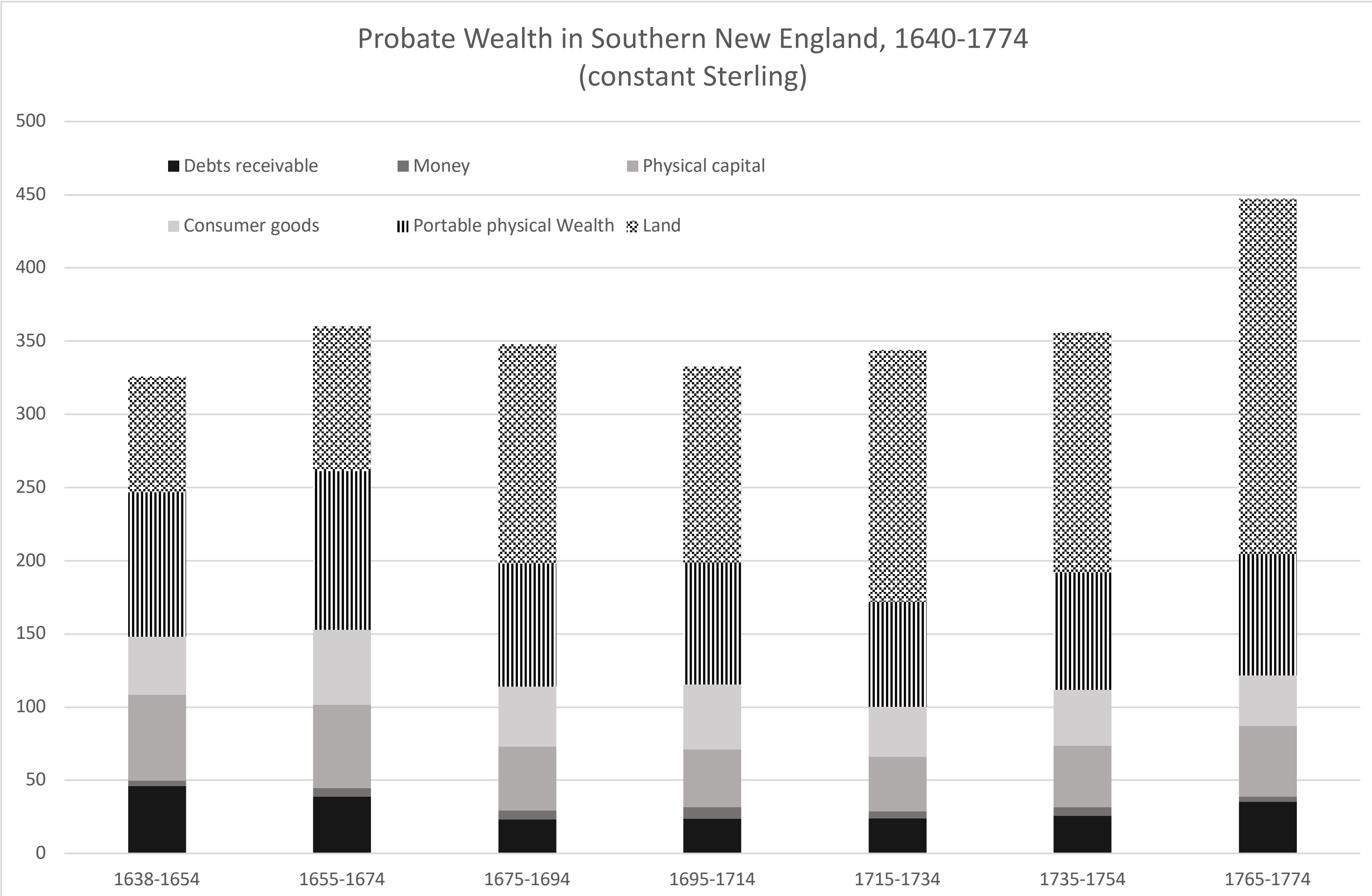

Source: Robert C. Allen, Tommy E. Murphy and Eric B. Schneider, "The Colonial Origins of the Divergence in the America: A Labour Market Approach," IGIER- Universita Bocconi, Working Paper no. 402 (July 2011), Table 4, p. 45.

Figure 2:



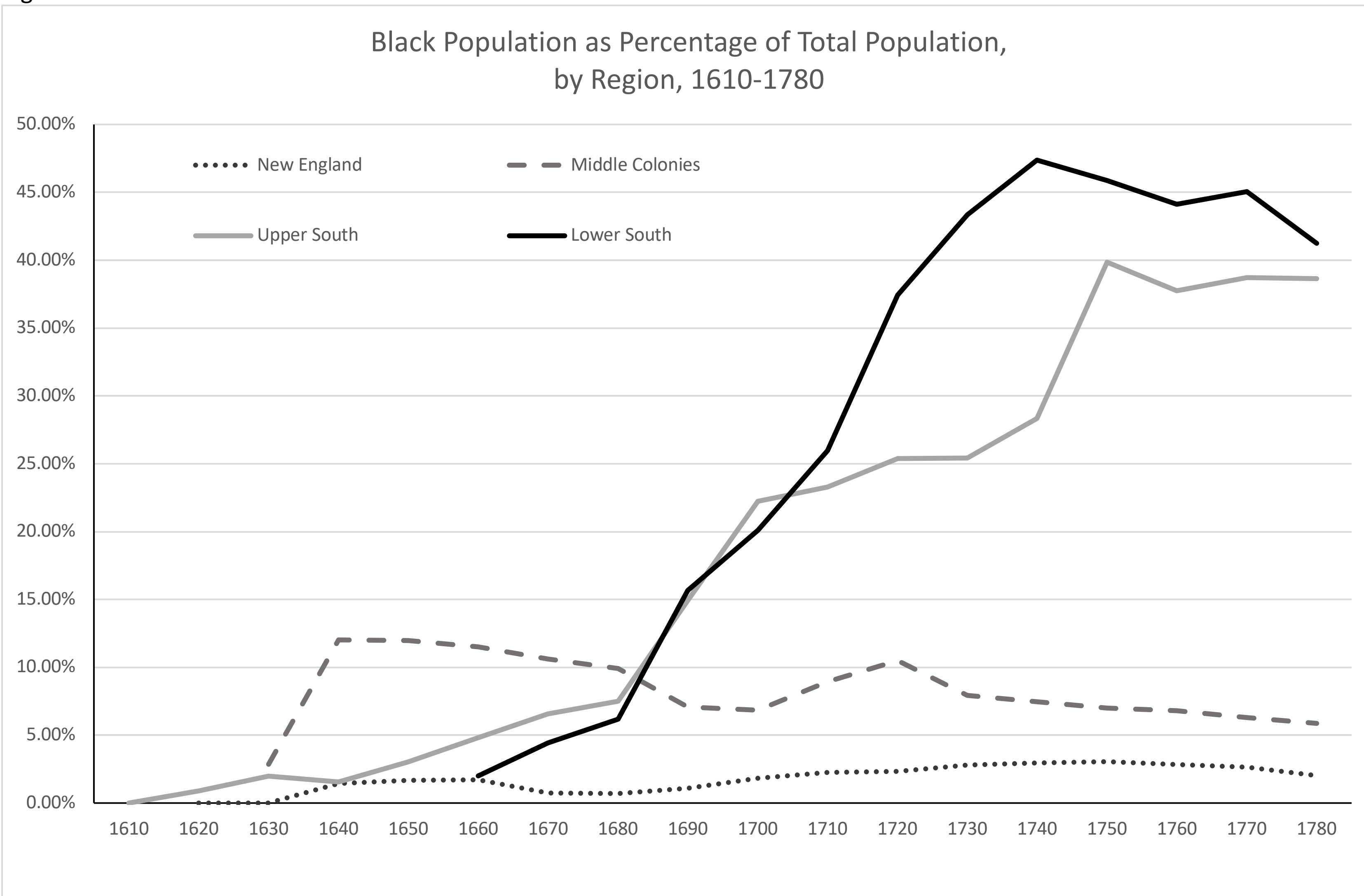

Source: Carter et al (2006), series Eg1-59.

Figure 3:




Source: Main and Main (1988), p. 36.

Figure 4:




Source: Carter et al (2006), series Eg1-59.