Mid-term exam: North American Economic History to 1914 Deadline:

Handed on: February 25th at 5pm

March 1st at 12pm

Format

Provide an answer of roughly 1500 words (-10% to +20%) to **two** of the **four** questions below. You must rely on at least *one* class reading to answer the question. You must also rely on *one* source beyond the assigned readings. However, you are free to use additional sources as long as they are in published journals, books or edited volumes (use google scholar with keywords associated with the question or the topic, that will help). I will not accept Wikipedia, National Geographic or an article in the *Washington Post* (points will be docked for such sources). All sources <u>must</u> be cited.

Each of the questions is associated with a very short passage/text that you must read to situate the question.

You are graded on the following dimensions: a) writing quality b) ability to demonstrate understanding of the topic c) conciseness of the answer d) your use of class materials.

Question 1:

In the first text associated with this exam (Susan Previant Lee and Peter Passell. 1979. A New Economic View of American History. New York, NY: W.W. Norton, pp. 30-35), you are given a description of England's Navigation Acts and a discussion of how burdensome these Acts were for the American colonies. On page 31, Lee and Passell note that "this burden must be weighed against the benefits accruing to colonial shipowners if one is to computer the net impact on the colonial economy". While Lee and Passell are only interested in the net effects, can you use the content of our theme on institutions (week 3) to explain if there are other reasons for why we would be interested in who gains from such an Act?

Question 2:

In the second text associated with this exam, you are given a passage from an old publication (1853. *Debon's Review, Agricultural, Commercial, Industrial Progress and Resources*, pp. 178-179). The text refers to the production of cotton in Trinidad in the 1850s and how, even though the slaves had been freed, the colony was failing to meet its potential. The author argued that it was a good idea to convince superior workers from the US and Barbados to come to Trinidad to farm cotton. The underlined passages speak to the "apathetic" peasantry of Trinidad (what the author refers to the as "the present free negro population") that is unsuited for farming cotton. From the perspective of what we discussed in theme 2 regarding the rationality of economic actors, how would an economist/economic historian treat the claim of an "apathetic and lazy" peasantry?

Question 3:

In the third text associated with this exam (Jeffrey R. Hummel. 2018. Benefits of the American Revolution: An Exploration of Positive Externalities.), the author questions articles that came out in the summer of 2018 celebrating the American Revolution. The author suggests that the Revolution was rife with

"positive externalities". He makes his case by stating that "without the American Revolution, the condition of Native Americans would have been no better, the emancipation of slaves in the British West Indies would have been significantly delayed, and the condition of European colonists throughout the British empire, not just those in what became the United States, would have been worse than otherwise". How can such inferences be made and why are they relevant? Considering what we discussed in theme 1 of the class, how would the economic historians go about considering the question of whether or not the American revolution was a good thing?

Question 4:

In this article by economic historian Joshua Rosenbloom (2018. *The Colonial American Economy*. Working Paper), there is a description of the level and trend of American living standards during the colonial era. Simply put, he argues that Americans were rich but that incomes were not increasing. Considering his accompanying description of population trend, why is an interesting piece of information? Consider what we discussed in themes 4 or 5 (concentrate on one only, but you are free to choose which one) in order to frame your response.

Economic Impact on the American Colonies

Imperial regulation increased the income of some colonists, decreased that of others. On the benefit side, protection against non-British competition boosted the size of New England's ship building and shipping industries. Massachusetts shipyards, close to the forests of upper New England, had low costs compared to English shipyards. And once built, American colonial ships fared well in Empire competition, particularly between New England and the West Indies. As Shepard and Walton point out, colonial crews could be paid off and dismissed at home port; English ships were forced to bear the expense of frequently idle deckhands in those same ports.

A number of colonies benefited from the policy of subsidizing colonial production that complemented home manufacture. The six-penceper-pound bounty on indigo paid after 1748 represented only a few percent of the wholesale price of the goods on the dock in Charleston, but many historians believe it had a critical impact on the growth of the industry. Bounties on other products—notably tar, pitch, turpentine, and lumber from North Carolina's forests—generated cash payments somewhat in excess of the indigo bounty. And finally, colonial exporters of unsubsidized goods benefited indirectly from mercantilist policies due to protection afforded them in the English domestic market. Colonial exports sold for a higher price in Britain because competing non-British products bore special, high tariffs.

Balanced against these benefits were the burdens of the Navigation Acts. First, the colonists had to pay higher prices for most goods imported from non-British sources, since a long list of these imports had to be routed through England. Enumerated non-British imports represented about 15 percent of colonial imports. Americans were also forced to pay premium prices for English manufactures protected by enumeration that might otherwise have been purchased from low-cost Continental sources.

Analogous to the import burden is the export burden generated by the Navigation Acts. Most of the tobacco and rice produced in the colonies was reexported from Britain, and a large portion of the reexport cost was borne by southern planters. Finally, colonial exporters paid higher prices for shipping services than they might otherwise, owing to the inability of foreign vessels to compete for the colonial trade. Part of the burden fell on foreign consumers forced to pay higher prices. But unless the supply of colonial exports and the demand for colonial imports were utterly unresponsive to price changes—an unlikely notion colonists shared that burden. Note that this burden on export producers must be weighed against the benefits accruing to colonial shipowners if one is to compute the net impact on the colonial economy.

Historians have long debated the effect of the Navigation Acts on

from Dutch and Spanish colonies. A more complete system was instituted in the 1650's and 1660's, embodied in a set of laws called the Navigation Acts. These acts can be boiled down to four general categories. First, to protect British shipping interests, vessels owned or built outside the Empire were banned from the colonial trade and ships involved in colonial trade were required to employ a crew consisting of no less than three-fourths British subjects.

Second, a long, changing list of "enumerated" goods produced in British colonies, including sugar, tobacco, indigo, furs, and naval stores could only be shipped to Britain. This meant that even enumerated goods bound for the continent had to be shipped initially to England

and then reshipped to their ultimate destination.

As part of a coherent mercantilist system, enumeration may or may not have made sense. The obvious disadvantage was that the extra cost of shipping through England made colonial exports less competitive in world markets, and thereby reduced opportunities to earn foreign exchange—that is, bullion—for Empire coffers. But the enumeration requirement worked like a sales tax or export tariff, raising the price to foreign buyers and lowering the revenues per unit to domestic sellers. If continental European demand for colonial exports were inelastic, higher consumer prices with the associated lower volume of sales would have actually increased total Empire export revenues. Since the relevant demand elasticities are not known, it is not possible to calculate the net impact of export enumeration on foreign exchange earnings. The contemporary mercantilist rationale for reexport requirements were not some esoteric economist's argument, but the boost they provided to British shipping, ship construction, and port facilities. Note, too, that enumeration generated healthy profits for English merchants in the business of warehousing and transferring cargoes. Keeping these merchants happy may not have been an objective of mercantilist doctrine, but it was good politics.

Third, there were controls on imports that mirrored export enumeration. Enumerated imports were, by law, shuttled to England and reloaded on British ships before they could be shipped to colonies. Along with boosting British commerce, the requirement facilitated the collection of stiff tariffs on imported goods that might have otherwise es-

caped detection.

And, finally, there was a set of direct controls and incentive payments to encourage imperial self-sufficiency. The grand design was production specialization along rather sensible lines of "comparative advantage." England would produce manufactures, while the colonies would produce raw materials. To that end, the colonies were forbidden to export wool textiles and fur hats, even from one colony to another. And, subsidies (bounties) for exports of indigo to England created an industry in South Carolina where none had previously existed.

the colonies. Lawrence Harper changed the character of the debate, however, by offering actual estimates of some of the gross burdens and benefits in place of qualitative judgments about their importance.

Harper's analysis of the burden, shown in table 2.1, is limited to the direct costs of enumeration—the costs of rerouting exports and imports through England. The wide range of estimates for the year 1773 is derived from varying assumptions about the burden of enumeration per unit traded and the total volume of goods affected. Harper also computes one portion of the benefits of the Navigation Acts, the total subsidies paid on colonial exports of indigo, naval stores (tar, pitch, turpentine) and lumber.

tine), and lumber.

Writing two decades later (1965), Robert Paul Thomas recomputed the impact of colonial regulation, working this time from an explicit counterfactual model of what economic life would have been like without the British presence. Thomas argued that it was unrealistic to speak of the burden of British Empire membership before 1763. Separation would only have led to domination by another power—France or Spain. After 1763, however, American independence was, at least in theory, practical. The French and Indian War resulted in the loss of Canada by France and Florida by Spain, spelling the end of significant continental influence over the lives of North American residents.

TABLE 2.1

HARPER'S ESTIMATE OF BENEFITS AND BURDENS
OF NAVIGATION ACTS
(million \$)

	Low	Intermediate	High
Export Burden Tobacco Rice Import Burden total*	2.18 .19 <u>.52</u> 2.88	$ \begin{array}{r} 2.43 \\ .23 \\ \underline{1.00} \\ 3.66 \end{array} $	3.40 .52 <u>3.44</u> 7.36
Bounty Benefit Indigo Naval Stores Lumber total*	.12 .18 <u>.03</u> .32	.12 .18 <u>.03</u> .32	.12 .18 <u>.03</u> .32

*Columns do not sum due to rounding errors in the individual entries.

Source: Lawrence Harper, "The Effect of the Navigation Acts on the Thirteen Colonies" in Harry Scheiber (ed.), *United States Economic History* (Knopf, 1964), p. 37.

Thomas then calculated the impact of trade regulation in one year, 1770, and alternatively for an average year over the 1763–72 period.

THE REEXPORT BURDEN

Colonists were paid lower prices ("the direct burden") and were able to sell less ("the indirect burden") due to reexport requirements of the Navigation Acts. To calculate a hypothetical free market price for exports, Thomas assumes that, in the absence of regulation, the ratio of American to Continental prices for each export prior to the Revolution would have been the same as the ratio that actually prevailed after the Revolution. He then multiplies his hypothetical, unregulated price by the actual volume of pre-Revolution exports to obtain the direct burden.

The size of the indirect burden depends critically upon how responsive American export suppliers would have been to the higher prices prevailing in a hypothetically unregulated market. Thomas assumes separate supply elasticities for tobacco, rice, and a category called "other exports" to generate hypothetical increases in total export revenues. He then subtracts half that amount to net out the added cost of diverting additional labor and land resources into hypothetical export production.

THE IMPORT BURDEN

Americans paid more and bought less due to Empire restrictions on imports. Thomas computes these direct and indirect import burdens analogously to the export burdens, again using actual post-Revolutionary import prices as a hypothetical benchmark. The burden does not end here, however. Americans also paid more for English goods that were protected against Continental competition by tariffs, and Thomas makes an effort to estimate this loss as well.

EXPORT PREFERENCES

Just as English exports to colonial markets were protected against continental competition, American exports to Britain were protected against competition from non-Empire sources. Thomas calculates the positive price impact on colonial exports by creating an index of the average value of such tariff preferences. By assuming an average supply elasticity for the goods subject to this preference, he is able to estimate both the direct benefit of higher prices and the indirect benefit of an increased volume of exports.

EXPORT BOUNTIES

Bounties raised colonial income, but by less than the total cash payment to producers. This follows from the fact that bounties stimulated the production of certain goods—indigo, naval stores, and lumber—and thereby reduced the amount of land and labor available to produce other goods. To adjust for this resource reallocation, Thomas assumed

that (1) the supply elasticity for lumber and naval stores was equal to one, and (2) without bounties, no indigo at all would have been exported.

SHIPPING BENEFITS AND BURDENS

The Navigation Acts tended to increase the earnings of colonial shipowners by blocking direct competition from non-Empire vessels. They tended to decrease ship earnings, however, by reducing the total volume of foreign commerce. In the absence of data needed to quantify these effects, Thomas ignores them. This is equivalent to assuming that the benefits equaled the burdens.

Table 2.2 summarizes Thomas's results.

Although calculated quite differently, the magnitude of Thomas's estimate of the gross burden of the Navigation Acts isn't very different from Harper's "intermediate" estimate. What makes Thomas's net burden so much smaller is, of course, the offsetting military defense benefit, included to provide a more realistic measure of the overall impact of mercantilism.

TABLE 2.2 ANNUAL NET BURDEN ON COLONIAL FOREIGN COMMERCE (million \$)

	1770	1763–1772
Burden		
Exports tobacco rice other Imports total*	1.63 .60 .27 <u>.61</u> 3.10	1.04 .70 .18 <u>.72</u> 2.63
Benefit Tariff Preference Bounties total*	.28 .17 .44	.20 .18 .37
Net Burden	2.66	2.26

^{*}Columns do not add up due to rounding errors in the individual entries.

Source: Robert Thomas, "A Quantitative Approach to the Study of the Effects of British Imperial Policy on Colonial Welfare," Journal of Economic History 25 (Dec., 1965), p. 626.

Thomas's interpretation of the impact also differs from Harper's. Harper argued that a \$3 million burden was, in some important sense, large-larger, in fact, than the entire budget of the United States' national government in the 1790's. Just why this comparison is relevant, however, is not clear. The best explanation is that Harper had no alternative standard by which to compare the estimated burden.

Thomas, by contrast, does; he uses per capita income as a reasonable basis for comparison. If, as Thomas assumes, income was about \$100,1 the net burden would be far less than one percent. From such an estimate it would be difficult, Thomas concludes, to infer that the British

presence was a serious hardship for the colonists. Far from settling th Gallman suggests that it was so

required to spin and weave the same, and the managers' wives will be expect-ed to give particular attention to this department, so essential to economical man-

garden will be established and well cultivated, that there may be, at all seasons, an abundance of wholesome and nutritious vegetables for the negroes, such as cabbages, potatoes, turnips, beets, peas, beans, pumpkins, &c. 12th. A vegetable or kitchen

will be required to be at his quarters, and to retire to rest; and that this rule may be strictly enforced, the manager will frequently, but at irregular and nnex-pected hours of the night, visit the quarters and see that all are present, or pun-13th. A horn will be sounded every night at nine o'clock, after every negro

to report to him every such visit, and he they are not only unskilled, but manifest will promptly, upon receiving such re- a decided objection to the proper use of port, join the pairol party, and see that agricultural implements. Hoe husban-they strictly conform to the law whilst dry, and hoe husbandry alone, is their 14th. Each manager will do well to organize in his neighborhood, whenever on his plantation, and abstain from compracticable, patrol parties, in order to degroes, which are generally committed at night. But lest any pairol party visit his plantation without apprising him of their intention, he will order the negroes tect and punish irregularities of the ne-

mitting any abuse. In a late number of the Manchester Guardian appears a paper upon the Cul-treation of Cotton in Trinidad, in which the author, whilst he admits the appropriateness of chinate, considers the pre-sent free negro population of the island try, and proposes to obtain laborers from Barbadoes and from the United States. as untirely unfit for any profitable indus-He says:

our own population; but a finer peasan-try, skilled in the most improved agriculeths of which are, at the present mo-ment, in the hands of the crown) presents state a cotton field of seventy-five miles, along in the windings of the coast, in length, TI varied by a breadth of from one to six the miles—say three miles—of the finest no cotton land in the known world. Through-ou The failure of Mr. Walkinshaw's experiment does not determine the queslishing cotion growth to any desired ex-tent in the island. From Point Galcota to Point Icacos, that is to say, the south-ern coast of this island (nineteen-twentition of the policy and feasibility of estabout its entire breadth, the lands are shel-

southern chain of mountains; and on the spot already exists every necessary for buildings. The only drawback that exists to its occupation would be the difopened state of the country; but as the attention of the government is already where they terminate their labors with Moronga; and so connected, the whole seaboard would then be "come-at-able" ple of this colony, it would be impolitic to trespass on the present laboring population for a supply; in fact, the planters want twice the quantity they now have. with ease. Another apparent, but not real, disadvantage of this locality is, that it is almost destitute of population. I say this is not really a disadvantage; because if sugar is still to continue the staficulty of reaching it in the present unfrom San Fernando to the mission of gigantic undertaking to connect the spot seriously directed towards making a road Savannah Grande, it would not be a very from the northern winds by

But even supposing this population avail-able to the cotton grower, I much ques-tion the policy of using it. Our peasanthe young may hereafter be convinced of the utility of implement assistance, you will never got the adult population to adopt it. Now, without implemental husbandry, to grow cotton at a paying rate anywhere would be impossible, sim-ply because it would have to compete it would be impolitic to employ our pre-sent population, lazy and unskilled as it undoubtodly is, where nothing but energy forte; and I am of opinion that, although with the implementary husbandry of other places and there is no doubt of hence, I contend that, even if available, The people in the northern section of the United States would be much less adapted for such a cultivation than even try is decidedly the most apathetic and laxy in the world, and, more than all, the result of such a competition; and growing undertaking, inasmuch as the population brought to work the soil would and intelligence can hope for success; and I view the isolation of our southern coast as an advantage to any cottonstand less chance of the contaminating influence of our most inferior peasantry

off, and found it to contain 1000 square it yards, which is a little over one-fifth of an acre. After the grass which was all cut off of it was sufficiently cured, we shocked it till it was dry enough to nestook, and weighing an average shock, its we found that the piece of ground had by yielded 1,000 lbs, of hay; which, though a not onlirely cured, was sufficiently so to During the last season, we measured a small lot in which it was growing, as accurately as we could by stepping it yielded us a fine crop of grass, and is now very nearly ready for a second mowing. It is frequently cut five or six mowing. It is frequently cut five or six times in the course of one season, and yields a large crop of hay each time. allow of its being safely stored in a house. This would make an acre yield was the second or third cutting; and it yielded four crops, but none as heavy as the one we tried the experiment with. house. This would make an acre nearly 5,000 lbs. at one cutting. sugar planter, they were ready to mi- vie grate, to a considerable number, if placed Du in a position of being independent of the sm whim and caprice, to say nothing else, acc of our proprietors and their managers.

I took some pains to ascertain their ya feelings with regard to a migration to an Trinicad, as cotton growers, and am well cut satisfied that arrangements might be shown. taral implements, than the colored population of the slave states, are not to be found: and although they decidedly refused to go to Trinidactas the seris of the bers-in fact, I had several propositions from them to that effect; and at a pub-lic meeting at Baltimore, they carried a this end; and I think that a comparcommand an immensely increasing pop-ulation, engaged in cotton growth in this made with them to move in large numresolution, requesting me to act as their agent here, to obtain them some concessions from the colonial government to atively small capital would annually

latitudes. Dr. Withers, of Alabama, has sent us a paper in which he recom-mends the Guinea Grass as altogether The Cultration of Grasses should receive at the south much more attention than it has in the past. The ry is an expensive affair. We cannot expect northern grasses to thrive among us, but should adopt those of southern support of stock from the crib or granaadapted to our wants:

sland.

Ser

ell is true, that it does not flourish in in perpetual verdure here, as it does in sal Jamaica, but it grows luxuriantly for not eight months in the year—and at a time stown an almost all our other artificial grass. Ge es are parched up by the heat of the sun, a dening a native of the tropics, it rejoices in the genial heat of the summer's sun. The Springing up in our climate with the the first harbingers of spring, it bears reby peated movings till the chilling frosts up of the fall. As is known to all of us, we had on the 7th April this year a see- an vere freeze, which destroyed much of be our corn, and all the cotton which was lan then growing. The Guinea grass was at that time high enough to mow, but it was killed nearly to the ground. Subit was killed nearly to the ground. Sub-sequently, the location on which it was growr, was entirely overflowed, by the unprecedentedly high freshet at so late a season as the first of May, and re-mained upwards of a week under the water from the river; yet it has already

The soil in which it was grown was a deep sandy loam, highly manured, and originally rich. It is in vain to expect any land to yield so large a crop of any a double handful. By bedding them in a rich loam, we observed roots enough in the season to plant about an acre during the next. As it does not propagate itself supplied with wich, stimulating manures. "The method of propagating it is by the roots, which resemble very much the cane roots of the country, but more nearly the calamus root. In the West Indies they propagate it by seed; but in in some of the books, however, that it is said to be raised from seed, but that is stock was brought from Virginia, by Gen. J. H. Cocke, and consisted of about this country, as far as my experience extends, the seed do not vegetate. I see by seeds, and is not liable to be taken the wheels of vehicles, or the hoofs of animals, it spreads very slowly, and may be entirely eradicated by cultivating the land; or more effectually by turning hogs on it in winter, as they are very fond of the roots, and go to a great depth to obtain them. It spreads, however, gradually into the adjoining lands, and should not be planted near a garnot be turned, when you should wish to vegetable product, unless it is amply up and scattered by the birds of the air, den, or any place into which hogs depth to obtain them. eradicate it.

"The method of planting is to lay off

Benefits of the American Revolution: An Exploration of Positive Externalities

By Jeffrey Rogers Hummel

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It has become *de rigueur*, even among libertarians and classical liberals, to denigrate the benefits of the American Revolution. Thus, libertarian Bryan Caplan writes: "Can anyone tell me why American independence was worth fighting for?... [W]hen you ask about *specific* libertarian policy changes that came about because of the Revolution, it's hard to get a decent answer. In fact, with 20/20 hindsight, independence had two massive anti-libertarian consequences: It removed the last real check on American aggression against the Indians, and allowed American slavery to avoid earlier—and peaceful—abolition." One can also find such challenges reflected in recent mainstream writing, both popular and scholarly.



In fact, the American Revolution, despite all its obvious costs and excesses, brought about enormous net benefits not just for citizens of the newly independent United States but also, over the long run, for people across the globe. Speculations that, without the American Revolution, the treatment of the indigenous population would have been more just or that slavery would have been abolished earlier display extreme historical naivety. Indeed, a far stronger case can be made that without the American Revolution, the condition of Native Americans would have been no better, the emancipation of slaves in the British West Indies would have been significantly delayed, and the condition of European colonists throughout the British empire, not just those in what became the United States, would have been worse than otherwise.

It's true that the American Revolution had some mixed results from the standpoint of liberty. Like all major social upheavals, it was brought off by a disparate coalition of competing viewpoints and conflicting interests. At one end of the Revolutionary coalition stood the American radicals—men such as Samuel Adams, Patrick Henry, Thomas Paine, Richard Henry Lee, and Thomas Jefferson. Although by no means in agreement on everything, the radicals tended to object to excessive government power in general and not simply to British rule. They viewed American independence as a means of securing and broadening domestic liberty, and they spearheaded the Revolution's opening stages.

At the other end of the Revolutionary coalition were the American nationalists—men such as Benjamin Franklin, George Washington, Gouverneur Morris, Robert Morris, and Alexander Hamilton. Representing a powerful array of mercantile, creditor, and landed interests, the nationalists went along with independence but often opposed the Revolution's radical thrust. They ultimately sought a strong central government, which would reproduce the hierarchical and mercantilist features of the eighteenth-century British fiscal-military State, only without the British. Of course, any such sharp distinction entails some over-simplification. These differences were arrayed along a spectrum, and individuals over time might alter their perspectives. Thus, John Adams started out as a radical but became a nationalist, whereas James Madison evolved in the opposite direction.

Domestic Benefits

Caplan asks what specific benefits came about because of the American Revolution. There are at least four momentous ones. They are all libertarian alterations in the internal status quo that prevailed, although they were sometimes deplored or resisted by American nationalists.

I. The First Abolition: Prior to the American Revolution, every New World colony, British or otherwise, legally sanctioned slavery, and nearly every colony counted enslaved people among its population. As late as 1770, nearly twice as many Africans were in bondage throughout the colony of New York as within Georgia, although slaves were a much larger percentage of Georgia's population. Yet the Revolution's liberating spirit brought about outright abolition or gradual emancipation in all northern states by 1804. Vermont, which, despite participation in the Revolution remained an independent republic until it was permitted to join the union in 1791, was the first jurisdiction to abolish adult slavery—in 1777. In 1786, the Confederation Congress also prohibited the extension of slavery into the Northwest Territory.

There is a tendency to minimize this first emancipation because slavery had been less economically entrenched in the northern colonies than in the southern colonies and because in many northern states slavery was eliminated gradually. But emancipation had to start somewhere. The fact that it did so where opposition was weakest in no way diminishes the radical nature of this assault upon a labor system that had remained virtually unchallenged since the dawn of civilization. Of course, slavery had largely died out within Britain. But the *Somerset* court decision of 1772, which freed a slave brought from the colonies, had a limited reach. Masters continued to bring slaves occasionally into the country and were able to hold them there. Parliament did not formally and entirely abolish the institution in the mother country until 1833.

Even in southern colonies, the Revolution's assault on human bondage made some inroads. Several southern states banned the importation of slaves and relaxed their nearly universal restrictions on masters voluntarily freeing their own slaves. Through resulting manumissions, 10,000 Virginia slaves were freed, more than were freed in Massachusetts by judicial decree. This spawned the first substantial communities of free blacks, which in the upper South helped induce a slow, partial decline of slavery. By 1810, for instance, three quarters of African-Americans in Delaware were already free through this process.

- 2. Separation of Church and State: Unlike the case of slavery, the revolutionary separation of church and state was more pronounced in the South than in the North. Although the British colonies prior to the Revolution already practiced a relatively high degree of religious toleration, only four of thirteen colonies had no established, tax-supported church: Rhode Island, New Jersey, Pennsylvania, and Delaware. As a result of the Revolution, the five other southern states and New York disestablished the Anglican Church. With the adoption of the Constitution and then the First Amendment, the United States become the first country to separate church and state at the national level. Several of the New England states, however, retained their established Congregational Church, with Massachusetts becoming the last to fully abolish tax support as late as 1833. In our modern secular age, it is too easy to take these accomplishments for granted, but they were unprecedented.
- 3. Republican Governments: As a result of the Revolution, nearly all of the former colonies adopted written state constitutions setting up republican governments with limitations on state power embodied in bills of rights. Only Rhode Island and Connecticut continued to operate under their colonial charters, with minor modifications.

"Virginia reduced the number of capital crimes from twentyseven to two: murder and treason."

The new state constitutions often extended the franchise, with Vermont being again the first jurisdiction to adopt universal male suffrage with no property qualifications and explicitly without regard to color. Going along with this was a reform of penal codes throughout the former colonies, making them less severe, and eliminating such brutal physical punishments as ear-cropping and branding, all still widely practiced in Britain. Virginia reduced the number of capital crimes from twenty-seven to two: murder and treason.

4. Extinguishing the Remnants of Feudalism and Aristocracy: This is probably the most diffuse of the Revolution's radical consequences. Quit-rents, a feudal land tax that had been paid either to colonial proprietors or to the Crown, had been due in all colonies outside of New England and were now terminated. All the new states abolished primogeniture (the sole right of inheritance to the firstborn son) and entail (a prohibition of the sale, break up, or transfer to outside the family of an estate) where they existed, either by statute or by constitutional provisions. Doing so not only eliminated

economically inefficient feudal encumbrances on land titles but also was a blow against hereditary privilege and the patriarchal family, because it undermined traditional patterns of inheritance and facilitated the rights of daughters and widows to possess property. Anyone who has read a Jane Austen novel is aware that these legal props for the landed gentry still persisted in Britain into the nineteenth century. At the same time, all states except South Carolina liberalized their divorce laws.

Even the egregious treatment of Loyalists during the Revolution indirectly contributed to the erosion of feudal entitlements. The claim that only one third of Americans supported the Revolution, one third were neutral, and one third were opposed is still frequently repeated, but it is a misreading of a letter written by John Adams in 1812 referring instead to American attitudes about the *French* Revolution. The consensus of historians is that between 40 and 50 percent of the white population were active Patriots, between 15 and 20 percent were Loyalists, and the remainder were neutral or kept a low profile. Obviously these proportions varied across regions and over time. Yet all the new states passed laws confiscating Loyalist estates. Since many of these estates were proprietary grants to royal placemen, the confiscations entailed a redistributionist land reform.

The U.S. Constitution's prohibition on titles of nobility may seem trivial and quaint to modern eyes. But such titles, still prevalent throughout the Old World, always involved enormous legal privileges. This provision is, therefore, a manifestation of the extent to which the Revolution witnessed a decline in deference throughout society. No one has captured this impact better than the dean of revolutionary historians, Gordon Wood, in his Pulitzer Prize winning *The Radicalism of the American Revolution*. He points out that in 1760 the "two million monarchical subjects" living in the British colonies "still took it for granted that society was and ought to be a hierarchy of ranks and degrees of dependency." But "by the early years of the nineteenth century the Revolution had created a society fundamentally different from the colonial society of the eighteenth century."

One can view this transition even through subtle changes in language. White employees no longer referred to their employers as "master" or "mistress" but adopted the less servile Dutch word "boss." Men generally began using the designation of "Mr.," traditionally confined to the gentry. Although these are mere cultural transformations, they both reflected and reinforced the erosion of coercive supports for hierarchy, in a reinforcing cycle. In the Revolution's aftermath, indentured servitude for immigrants withered away, and most states eliminated legal sanctions enforcing long-term labor contracts for residents, thus giving birth to the modern system of free labor, where most workers (outside of the military) can quit at will. Contrast that with Britain, where as late at 1823 Parliament passed a Master and Servant Act that prescribed criminal penalties for breach of a labor contract.

Wood concludes that "Americans had become, almost overnight, the most liberal, the most democratic, the most commercially minded, and the most modern people in the world.... The Revolution not only radically changed the personal and social relations of people... but also destroyed aristocracy as it had been understood in the Western world for at least two millennia. The Revolution brought respectability and even dominance to ordinary people long held in contempt and gave dignity to their menial labor in a manner unprecedented in history and to a degree not equaled elsewhere in the world. The Revolution did not just eliminate monarchy and create republics; it actually reconstituted what Americans meant by public or state power." [6]

Would all of these outcomes have happened without a War for Independence? Surely some and possibly many of them might have eventually, but the real question is whether the American Revolution played a crucial role in initiating and accelerating these developments. Those denying its significance inevitably point to Canada, which remained under British rule and, indeed, harbored many fleeing Loyalists. Today it is a free, democratic polity, with a high standard of living, and as liberal as, or in some respects more liberal than, the United States. To understand why the case of Canada does not prove the point, we need to look back before the Revolution and examine the factors that ignited it.

British Designs

The British colonies of North America, through most of their early history, enjoyed a relatively mild imperial regime that Edmund Burke described as "salutary neglect." Britain's mercantilist restrictions were either not strictly enforced or non-binding. But in the mid-eighteenth century, as the colonies became more populous and more integral to the British economy, there emerged among imperial officials a clique who wished to impose tighter control upon the colonies. Finally at the end of the Seven Years' War in 1763 (what in the colonies was referred to as the French and Indian War), in which the British drove the French out of North America, this clique implemented a new colonial policy.

The primary features of the new policy were: (1) stationing in North America during peace for the first time a large standing army, numbering never less than 7,500; (2) issuing the Proclamation of 1763, drawing a line along the western boundary of the colonies beyond which settlement was prohibited; and (3) imposing taxes to help defray the cost of the army. All of these measures aroused the colonists' suspicions, suspicions that were often quite valid. A 1763 internal memo within the British bureaucracy, for instance, proposed that "under Pretense of regulating the Indian trade, a very straight line be suddenly drawn on the Back of the Provinces," which "now surrounded by an Army, a Navy and by Hostile Tribes of Indians" will make it easier to "exact a due obedience to the just and equitable Regulations of a British Parliament."

Unfortunately for the British, the Proclamation line also alienated those who would become American nationalists, helping to throw them into coalition with the radicals. Until then, major land speculators such as Franklin and Washington had revered the British empire and been enthusiastic supporters of its expansion. But now the fruits of a victory to which they had contributed during the recent war were being denied them. Nor did the Proclamation line presage better treatment of Native Americans. After all, it had been the British army that had helped provoke and then ruthlessly crush Pontiac's Indian rebellion after France had abandoned the region, even resorting to smallpox-infected blankets to spread disease during the siege of Fort Pitt. If there was ever going to be any real check on settler aggression against the indigenous populations in North America, it had already vanished with the French defeat.

Indeed, it is hard to identify any British settler colony where the aboriginal peoples were not driven from their homelands or otherwise harshly treated. Maybe so in New Zealand, but certainly not in Australia. British acquisition of South Africa in 1806 did result in the abolition of slavery and some restraints on the Dutch-descended Boer population but the country still witnessed ongoing military campaigns against the Xhosa natives, then the Zulu War, and the ultimate emergence of apartheid. As for British Canada, the dispossession of Native Americans was less bloody than in the United States but almost as thorough. The marginalization of the Mi'kmaq of Nova Scotia was completed to provide land for arriving American Loyalists after the Revolution. Canada had two violent uprisings among the Métis, people of mixed French and indigenous ancestry, the first in 1869-1870 and the second in 1885, both suppressed and led by Louis Riel, who was therefore hanged for treason. Beginning in 1847, the Canadian government forcibly removed aboriginal children from their families to boarding schools for assimilation in order to "kill the Indian in the child," in the words of historian John S. Milloy. Canadian Prime Minister Stephen Harper ultimately apologized for this program in 2008.

Following the Proclamation of 1763, the relations between the colonies and the mother country went through three consecutive crises: the first over the Stamp Act (1765-1766), the second over the Townshend Duties (1767-1770), and the third over the Tea Act (1773). The first two involved British efforts to impose new taxes on the colonists, provoking colonial protests and resistance. In both cases, imperial authorities backed down, ushering in temporary but tense lulls. Once colonial opposition effectively nullified the Tea Act, however, the British government responded harshly with a series of Coercive Acts, and outright military conflict erupted in 1775.

Colonial objections to the Tea Act can be puzzling, because the act itself did not directly tax the colonists. Instead it was essentially a bailout of the British East India Company, the quintessential mercantilist monopoly, which was struggling financially. Before the act's passage, the company was required to sell its tea exclusively in London where it paid a

duty. Tea destined for shipment and eventual sale in North America would be purchased by private merchants. The colonists then had to pay an additional import tax on tea, the one Townshend Duty that had not been repealed in 1770. Under the Tea Act, the company was now given a monopoly on re-shipment of tea to the colonies along with a rebate of the British duty. The act, therefore, had the ironic effect of reducing the price of tea in the colonies.

The colonists nonetheless defied the Tea Act for several reasons. Radicals, who had been boycotting the legal importation of tea, viewed the act as a clever ruse to get the colonists to accept Parliamentary taxation in principle. The act hurt American merchants, not just those importing tea legally, but also, because it undercut the price of smuggled Dutch tea, those doing so illegally. Most important, the East India Company embodied the colonists' worst fears about British plans. If the company could be given a monopoly on tea, it could also be given a monopoly on other activities. The colonists were well aware of the company's horrendous record in India, where its control over taxation in Bengal had contributed to a massive famine in 1770 that had killed up to ten million people, one third of Bengal's population.

John Dickinson of Pennsylvania, a conservative who would later oppose the Declaration of Independence in the Continental Congress, put it this way: "Their conduct in *Asia*, for some Years past, has given ample Proof, how little they regard the Laws of Nations, the Rights, Liberties, or Lives of Men.... Fifteen hundred Thousand... perished by Famine in one Year, not because the Earth denied its Fruits, but this Company and its Servants engrossed all the Necessities of Life, and set them at so high a Rate, that the Poor could not purchase them. Thus,... they now, it seems, cast their Eyes on *America*, as a new Theatre, wherein to exercise their Talents of Rapine, Oppression and Cruelty. The Monopoly on Tea is, I dare say, but a small Part of the Plan they have formed to strip us of our Property."

If the colonists needed any further evidence of British designs, Parliament, along with the Coercive Acts, passed the Quebec Act in 1774, establishing a new government for the former French territory. Although the act granted full religious toleration to Catholics, it also extended the province's boundaries into the northwest territory, reinforcing the Proclamation line. With respect to governance, it vested all authority in a royally appointed governor and council, with no provision for a colonial assembly; it re-instituted compulsory tithes to the Catholic Church; and it restored the French seigneurial system, with its feudal privileges for distributing and managing land. Even the colonies' French peasants (known as *habitants*), who constituted an overwhelming majority of the population, resented the act's aristocratic features.

In short, there is ample evidence for a claim that historian Leonard Liggio emphasized. Without the American Revolution, British hard-liners intended to fasten on North America an imperial regime in many respects similar if not identical to British rule in India. As Justin de Rivage concludes, a group that he identifies as "authoritarian reformers" had seized control of policy to implement a sweeping "transformation of the British Empire."

Global Repercussions

The potentially deleterious impact of these foiled British designs on North America is hinted at in a short article by Nobel Prize-winning economist Robert Lucas. The article was a response to an essay in which Harvard historian Niall Ferguson, based on his several books on the British Empire, glorified the empire's role in spreading economic development. Lucas responded with the obvious. The only colonies to enjoy sustained economic growth were Britain's settler dominions: Canada, Australia, and New Zealand. Looking at other colonies in Africa or Asia, Lucas concludes: "The pre-1950 histories of the economies in these parts of the world all show living standards that are roughly constant at perhaps \$100 to \$200 above subsistence levels." British imperialism thus failed "to alter or improve incomes for more than small elites and some European settlers and administrators." India is the premier case, not experiencing significant sustained growth until the late twentieth century, and Lucas could have also included among the colonies that remained poor the British West Indies and Ireland.

The impact of the American Revolution on the international spread of liberal and revolutionary ideals is well known. Its success immediately inspired anti-monarchical, democratic, or independence movements not only in France, but also in the Netherlands, Belgium, Geneva, Ireland, and the French sugar island of Saint Domingue (modern Haiti). What is less well understood is how the Revolution altered the trajectory of British policy with respect to its settler colonies. Imperial authorities became more cautious about imposing the rigid authoritarian control they had attempted prior to the Revolution. Over time they increasingly accommodated settler demands for autonomy and self-government. In short, the Revolution generated two distinct forms of British imperialism: one for native peoples and the other for European settlers.

This was immediately apparent in Canada. Parliament's Constitutional Act of 1791 divided Quebec into two colonies, Upper and Lower Canada, each with its own elected assembly. The act also ended quit-rents. Paradoxically, contributing to these outcomes was the influx of American Loyalists, many of whom embraced republican principles despite opposing independence. Nova Scotia, half the population of which was already from New England, had a representative assembly as early as 1758, and the Revolution's outbreak forced the

royal governor to propose reforms in order to maintain the colony's loyalty. Nova Scotia received three times as many Loyalists as Quebec, leading in 1784 to the partitioning off of New Brunswick, with its own assembly.

Although Australia upon initial British settlement in 1788 began as a penal colony with autocratic rule, agitation for representative government emerged early and was consummated with the Australian Colonies Government Act of 1850. British New Zealand was originally part of the colony of New South Wales in Australia, but it was separated in 1849 and got a representative government three years later. South Africa fell under sustained British rule in 1806. By 1854, the Cape Colony had its own parliament. Even in the slave colonies of the British West Indies, as the Revolutionary crisis still raged, the colonial assemblies asserted co-equality with the British House of Commons. As Sir Guy Carleton, commander-in-chief of British forces in America during the war, complained: "It is not in the Revolted provinces alone that a Republican spirit is to be found, but the tint has . . . has spread to other parts of America and to the West Indies."

That brings us back to the question of slavery. A Parliamentary act of 1833 abolished slavery throughout Britain and its colonies, effective in 1834, although with an explicit exception for territories controlled by the East India Company. The act's passage had partly been assisted by a major slave revolt in Jamaica during the previous two years, along with a tight symbiotic relationship between American and British abolitionists. The oftrepeated argument is that, without American independence, this act would have simultaneously abolished slavery in what became the United States. But this ignores the facts that British emancipation had to overcome the stiff political opposition of West Indian planters and that emancipation, by precipitating a collapse of production in the sugar islands, was costly for the British economy.

The only conceivable way Britain could have held on to all its American colonies was through political concessions to colonial elites. If American cotton, tobacco, rice, and sugar planters had still been under British rule, they inevitably would have allied with West Indian sugar planters, creating a far more powerful pro-slavery lobby. Moreover, by 1833 American cotton had become more essential to the British economy than Caribbean sugar. Bear in the

"Thus it is likely that, without U.S. independence, slavery would have persisted in both North America *and* the West Indies after 1834 and, indeed, possibly after 1865."

mind that it was the spread of cotton cultivation in the United States in the early nineteenth century that had reversed what little anti-slavery impulse had emerged during the Revolution in the southern states, inducing slaveholders to cease apologizing for slavery as a necessary evil and start defending it as positive good. Thus it is likely that, without U.S. independence, slavery would have persisted in both North America *and* the West Indies after 1834 and, indeed, possibly after 1865.

Conclusion

Any revolution that brings about benefits for a large sector of the population faces serious free-rider problems. Revolutionary activity is extremely risky and, once the revolution succeeds, excluding from any general benefits those who did not participate is difficult if not impossible. This explains why revolutions are always so messy and produce mixed results. It also explains why so few revolutions actually bestow genuine benefits. Gordon Tullock, in a classic 1971 article, contended that "Historically, the common form of revolution has been a not-too-efficient despotism which is overthrown by another not-too-efficient despotism with little or no effect on the public good." Nonetheless, sometimes people will eschew the free-rider incentive to bring about a better world, bearing costs that exceed any individual material gains. The anti-slavery movement, first sparked by the Revolution, is one clear case.

The American Revolution is another such case. The embattled farmers who stood at Lexington green and Concord bridge in April 1775 were only part-time soldiers, with daily cares and families to support. Their lives were hard. The British redcoats they faced were highly trained and disciplined professionals serving the world's mightiest military power. Yet when they fired the "shot heard 'round the world" that touched off the American Revolution, they initiated a cascade of positive externalities that not only U.S. citizens but also people throughout the world continue to benefit from today, more than two centuries later. They had no hope—indeed no thought—of charging for these non-excludable benefits. Nonetheless, they took the risk. What better reason to celebrate the 4th of July?

Footnotes

- [1] Bryan Caplan, "Independence Day: Any Reason to Celebrate?" EconLog (July 4, 2007).
- [2] Robert M. Calhoun, "Loyalism and Neutrality," in *The Blackwell Encyclopedia of the American Revolution*, ed. By Jack P. Greene and J. R. Pole (Cambridge, MA: Basil Blackwell, 1991), p. 247.
- [3] Royal placemen were British officials and other members of the elite to whom the Crown gave special privileges.
- [4] Gordon S. Wood, The Radicalism of the American Revolution (New York: A. A. Knopf, 1992), p. 6.
- [5] Robert J. Steinfeld, The Invention of Free Labor: The Employment Relation in English and American Law and Culture, 1350-1870 (Chapel Hill: University of North Carolina Press, 1991); Steinfeld, Coercion, Contract, and Free Labor in the Nineteenth Century (Cambridge:

Cambridge University Press, 2001).

- [6] Wood, Radicalism of American Revolution, pp. 6-8.
- [7] As quoted in Bernhard Knollenberg, *Origin of the American Revolution*, 1759-1766 (New York: Macmillan, 1960), p. 92. The memo is part of the papers of Lord Shelburne, president of the Board of Trade, and was probably written by his secretary, Maurice Morgann.
- [8] John S. Milloy, A National Crime: The Canadian Government and the Residential School System, 1879 to 1986 (Winnipeg: University of Manitoba Press, 1999). p. 42.
- [9] John Dickinson, *The Writings of John Dickinson* (Bedford, MA: Applewood Books, 1895), pp. 457-58. Dickinson wrote this passage in a pamphlet written under the name Rusticus.
- [10] Justin du Rivage, Revolution Against Empire: Taxes, Politics, and the Origins of American Independence (New Haven: Yale University Press, 2017), p. 103.
- [II] Robert E. Lucas, Jr., "Colonialism and Growth" *Historically Speaking*, 4 (April 2003): 29-31; Niall Ferguson, "British Imperialism Revisited: The Costs and Benefits of 'Anglobalization'" *ibid*.: 21-27.
- [12] R. R. Palmer, The Age of Democratic Revolution, 2 v. (Princeton, NJ: Princeton University Press, 1959-1964).
- [13] As quoted in Selwyn H. H. Carrington, "The American Revolution and the Sugar Colonies, 1775-1783," in *The Blackwell Encyclopedia of the American Revolution*, p. 516.
- [14] Gordon Tullock, "The Paradox of Revolution", Public Choice, no. 9 (Fall 1971): 95.
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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.

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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. Stop here

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