The Atlantic World Economy and Colonial Connecticut

by

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Submitted in Partial Fulfillment

of the

Requirements for the Degree

Doctor of Philosophy

Supervised by

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2009
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Acknowledgements

Throughout the research and writing of this dissertation, I have accumulated a number of debts. I would like to thank Professors Stanley Engerman and Michael Jarvis for their encouragement and advice at every step. Mike Jarvis was kind enough to share his microfilm collection of Dutch West Indian port records and his extensive knowledge of early maritime history. Joseph Inikori has been an unending source of encouragement. I attribute my success as a scholar to his advising and direction. I would like to thank Johannes Postma, John McCusker, Gloria Main, David Eltis, Gary Walton, and James Shepherd who offered advice along the way. I owe an enormous debt to Bruce Stark at the Connecticut State Library for his extensive knowledge of early Connecticut court records and his assistance through this whole process. I also would like to thank the excellent staff at the Connecticut State Library for their patience in fulfilling my requests for account books and court dockets. I would also like to thank Judith Johnson, Barbara Austen, and the staff at the Connecticut Historical Society, whose help in finding relevant materials was invaluable to this process. I would like to also thank Pat Schafer at the New London County Historical Society, who shared her knowledge of the Joshua Hempstead diary with me at every stage of my writing. Special thanks goes to the great staff at Yale University’s Sterling Library, for always having items pulled from the archives in advance of my visit. I would especially like to thank the Gilder Lehrman Center for a 2006 fellowship that allowed me to tap the rich archives in New York City. Jean Klein, Anne Farrow, Alicia Wayland, Eric Kimball and Jeremy Saucier were constant sources of encouragement and support throughout this entire process. Finally, I would like to thank my wife Rachel for her understanding, patience, and strength through a process that was very difficult. I wish to dedicate this dissertation to my son Jake, the best part of every day.
Abstract

My dissertation situates Connecticut’s integration within the evolving Atlantic economy, stressing its central role in the development of a market economy in the colony. To compensate for the colony’s missing port records, I have constructed a detailed database of the volume of shipping between Connecticut and the Atlantic World using all extant port records from the rest of British America, merchant records and account books, all extant shipping lists in colonial newspapers, as well as the Dutch West Indian port records. My research has revealed that earlier images of Connecticut’s “minor” role in the Atlantic World Economy are misplaced. Connecticut producers eagerly exploited the growing markets throughout the Atlantic World, exporting lumber, foodstuffs and livestock. Connecticut was the largest single supplier of horses, cows, sheep, and oxen to the sugar plantations in the West Indies. In addition, my research on Dutch port records indicates a much larger volume of smuggling between Connecticut and the foreign West Indies. Furthermore, Connecticut had a considerable shipbuilding industry. For many years, Connecticut shipyards supplied vessels to resident merchants and merchants throughout the Atlantic World.

Connecticut’s integration into the Atlantic economy fostered the development of a market economy in the colony. Scholars have generally agreed that colonial port towns and their immediate hinterlands throughout British North America were integrated into the Atlantic economy not long after their initial settlement. What is
not so clear is the process of the expansion of the market from the port towns deeper into the hinterland. The unprecedented increase in colonial American consumption of British manufactured goods and tropical groceries after 1700 induced the “industrious revolution” in Connecticut, as households devoted greater efforts to produce for market exchange to obtain the means to pay for these imported commodities. Transportation improvements opened the countryside to direct access to production for Atlantic markets. Distributing imports and collecting commodities produced in the countryside, retail stores and taverns spread the market economy throughout Connecticut. The process was quite complex. In the seventeenth century, commerce with the West Indies promoted specialization in maritime activities in the urban towns of Connecticut. As the scale of trade increased, Connecticut merchants drew larger regions into production for market exchange to supply commodities for export markets and the growing resident urban population. Over time, a domestic market developed within Connecticut. The entire process of market expansion within Connecticut was clearly tied to the vicissitudes of the Atlantic economy.
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Introduction

On May 28, 1923, the eminent scholar of early American history Charles, McLean Andrews delivered an address to the Connecticut Society of Colonial Wars. The society requested Andrews to speak on a topic related to the history of Connecticut. Andrews chose to present a paper assessing Connecticut’s place in colonial history. In the beginning of his address, he compared Rhode Island with Connecticut, arguing that their political history during the colonial period were identical in that both were proprietary colonies. However, outside of politics, both colonies were complete opposites. According to Andrews, Rhode Island, though occupying a small area, was a commercial colony with extensive economic dealings throughout the Atlantic World. Connecticut, on the other hand, did not have much contact with the outside world, according to Andrews. He cast a lasting judgment on the colony’s economic history, saying “Connecticut, therefore, stands alone, in a class by herself, as something unique among the British colonies—a small, inconspicuous agricultural colony, occupying but a tiny part of the earth’s surface, largely isolated from the main currents, commercial as well as political…”¹ In another important work, Roland Mather Hooker dismissed the importance of the colony’s commerce noting, “Connecticut’s colonial trade as compared with that of the neighboring colonies was so small as to be almost negligible. For that reason it had an influence

upon the life of the colony that was insignificant as compared with the basic
importance of agriculture.”²

These two early pronouncements on Connecticut’s maritime economy have
left lasting legacies on the maritime history of the colony. In an influential
conference held in 1988, Barbara Solow echoed these earlier arguments on
Connecticut’s role in the early modern Atlantic economy. While underlining the
importance of trade with the West Indies and Africa for British North America,
Solow noted, “If we want to visualize Massachusetts without Boston and its
commodity and shipping trade to the West Indies, or Rhode Island without Newport
and its slave and rum trade to Africa and the islands, we need only look at
Connecticut…In the eighteenth century, Connecticut with…exports few, agriculture
primitive and unremunerative, contained 150,000 people in seventy towns that
remained substantially without industry as late as 1818.”³ Solow presented this
statement in an introduction to an edited volume of the conference papers whose
overwhelming focus was on the importance of slave-based commerce to the Atlantic
economy. This conference was one of three that marked a significant turning point in

² Roland Mather Hooker, Colonial Trade of Connecticut (New Haven: Yale University Press, 1936): 42; Hooker’s comprehensive study of Connecticut’s commerce relied on two major sources, diaries
and a set of reports from the Governor to the Board of Trade. These reports for 1680, 1730, 1749,
1756, 1761, and 1774 all paint a picture of underdevelopment for Connecticut’s maritime economy.
Hooker’s study rests on a non-critical use of these sources, which Hooker basically uses at face value.
For instance, each report argues that Connecticut did not trade with foreign territories in the West
Indies, an obvious false reporting. These reports were meant to demonstrate adherence to the
Navigation Acts. It is clear that Connecticut Governor’s would present a picture of relative
insignificance to dispel any suspicions.
scholarship on the Atlantic economy, one that began to stress the importance of foreign trade as the causal factor in the industrial revolution.⁴

Scholarship on the economic history of colonial New England has largely reinforced the image of Connecticut’s disconnection with the Atlantic economy. In their anthology on the economic history of colonial British North America, John McCusker and Russell Menard devote only fleeting comments to Connecticut in their chapter on New England. More recently, in Margaret Newell’s comprehensive study of New England’s economic transformation, Connecticut is mentioned on only a few pages, while Massachusetts receives the bulk of her attention.⁵ Indeed, Massachusetts has served as the model for the rest of New England’s colonial economic history. Or, to state this another way, works purportedly on New England are mostly on Massachusetts or Rhode Island. A recent study on the evolution of the kitchen garden in colonial New England reached a curious conclusion. According to the author, “New England never imported garden produce in any significant quantity; nor for the most part, did they export it”. In a footnote to this quote, the author further stated, “A notable exception to this statement is Rhode Island’s eighteenth-century export of significant quantities of onions.”⁶ Modern conceptions of Connecticut were often shared by contemporaries of the colonial period. While leaving the colony in 1744, Dr. Alexander Hamilton mistakenly confused Connecticut

as being part of Massachusetts. According to Hamilton, “One Mr. Law is present
governour of the province [Connecticut]. It is but a deputy government under that of
New England or the Massachusetts”.7

Connecticut’s inferior status in the literature on the economic history of
colonial British North America can be related to Benedict Arnold’s invasion of New
London during the American Revolution. On the morning of September 6, 1781, a
large British force consisting of 32 ships and 1,700 soldiers, under the command of
Benedict Arnold, invaded and, after only sporadic resistance, seized the port of New
London. During the Revolution, Connecticut merchants shifted their resources from
traditional markets into privateering, using New London as the chief base of
operations. Operating from a naval base astride Great Britain’s main route of
communication with its center of military operations in New York City, privateers
based in New London captured several hundred British vessels by 1781. Arnold’s
raid was intended to destroy this nest of privateers. During the attack, Arnold’s force
set fire to stocks of provisions and naval stores, igniting an inferno that eventually
spread throughout the town. Overall, around 143 buildings and about 12 sailing
vessels were engulfed in the inferno. Among the buildings destroyed was the
Customs House, serving as the repository for Connecticut’s port records.8 In the

7 Carl Bridenbaugh (ed.) Gentleman’s Progress: The Itinerarium of Dr. Alexander Hamilton
8 For an excellent contemporary description of the raid, see Connecticut Journal 9/13/1781 and “Diary
of Frederick Mackenzie, giving a daily narrative of his military service as an officer of the regiment of
Royal Welch fusiliers during the years 1775-1781 in Massachusetts, Rhode Island and New York”
Trade of Revolutionary Connecticut,” (unpublished Ph. D Dissertation, University of Pennsylvania
context of a global war with fronts spanning from the Indian Ocean, Caribbean Sea, Atlantic Ocean, Europe, and throughout the North American mainland, the New London invasion can be easily dismissed as a minute sideshow. However, Arnold’s raid was crucial in shaping future attempts at situating Connecticut within the larger Atlantic Economy. At the time of Arnold’s attack, the New London Customs House contained the bulk of Connecticut’s Naval Office Shipping Lists (NOSL) and ship registers, two crucial sources on the colony’s maritime economy.

Down to 1781, the New London customs house contained all NOSL for Connecticut’s trade from 1708 to 1764, eastern Connecticut’s trade from 1764 to 1781, and, most likely, Connecticut’s shipping register. The importance of the NOSL for early American history can not be exaggerated. They provide information on colonial shipbuilding, imports of slaves and commodities and exports of commodities. However, a considerable portion of the NOSL housed in London,


including those from Connecticut, was destroyed in an 1814 fire. Nevertheless, NOSL for various periods of the eighteenth century have survived in part for South Carolina, Georgia, East Florida, Massachusetts, New York, New Hampshire, New Jersey, Maryland, Virginia, and several islands in the West Indies. These lists have served as the basis for many works on the economy of British America.

This dissertation examines Connecticut’s integration into the Atlantic economy from initial settlement to the Revolution and how this integration fostered the expansion of the market economy in the colony. Previous works on Connecticut’s maritime economy have focused overwhelmingly on the late colonial/Revolutionary era. Much of this focus is two-fold; surviving records are concentrated for the years

after 1750, and Connecticut’s Naval Office Shipping Lists (NOSL) have not survived. Surviving NOSL for other colonies in British America have been used in many studies. To compensate for Connecticut’s missing NOSL, I have examined all surviving NOSL for British America to reconstruct Connecticut’s maritime economy. In addition, I have examined the surviving correspondence of Connecticut merchants. Furthermore, an analysis of all surviving British North American newspapers from 1700 to 1772 has further illuminated Connecticut’s maritime economy, particularly the coastal trade. To highlight Connecticut’s smuggling trade, I have examined the surviving Dutch West Indian port records for Surinam, St. Eustatius, and St. Marten. Finally, I examined the Connecticut court records, an untapped treasure trove of information on Connecticut’s colonial economy. The court records and account books have offered a detailed picture of the development of a market economy in Connecticut.

Since this dissertation analyzes the impact of the Atlantic economy on colonial Connecticut, the logical place to start is by explaining what is meant by the Atlantic economy. Chapter 1 highlights the evolution of the Atlantic economy from 1500 to the American Revolution. Using data culled from the surviving NOSL newspapers and other sources, Chapter 2 analyzes Connecticut’s trade with the West Indies, with focus on the overtime evolution, commodities, and markets. In addition, Chapter 2 presents a revised estimate of the value of Connecticut’s trade with the West Indies, one that is substantially higher than past estimates. Chapter 3 analyzes Connecticut’s coastal trade or trade with the rest of British North America, its size,
commodities, and value. Chapter 4 presents a new look at the volume and value of shipbuilding in the colony. Connecticut shipyards constructed vessels for domestic merchants as well as merchants throughout the Atlantic World. By the 1760’s, the export of vessels was the third largest branch of Connecticut’s commerce. Chapter 5 analyzes how integration into the Atlantic economy fostered the expansion of a market economy in Connecticut. This chapter provides the story of how a subsistence economy transformed into a market economy by the Revolution, a process fostered by the Atlantic economy.

Note: Studying the economic history of British America presents scholars with many pitfalls. Merchant correspondence often cites prices in many different currencies like lawful money, sterling, and the local currency of the colony. In addition, the naval records often record commodities shipped in a variety of containers, such as hogsheads, barrels, tierces, casks, puncheons, and many others. To create a uniform discussion, all values were converted to sterling using the indices provided in John McCusker’s *Money and Exchange in Europe and America, 1600-1775*. Likewise, all containers were converted to uniform units using McCusker’s formulas.  

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Chapter One: The Atlantic World Economy

On August 17, 1767, Joshua Elderkin, a farmer from a town in the interior of Connecticut, wrote to New London merchant Nathaniel Shaw, a prominent merchant of the colony. In the letter, Elderkin promised to collect cattle and horses suitable for shipping from the surrounding communities and send them to New London, the largest port in the colony. In exchange, Elderkin requests 2 hogsheads of rum, 3 hogsheads of molasses, and 30 pounds of indigo, products derived from the vast slave plantations of the Caribbean. Not long after the transaction, Shaw dispatched his brigantine *Lucretia* to various ports in the West Indies, carrying Elderkin’s cows and horses. The brigantine sold several cows and horses in Martinique, Grenada, and Mole St. Nicolas over the course of 1768.¹

This single example could be easily overlooked in the minutiae of early American history. Yet, it demonstrates the causal link between the evolving Atlantic market and the development and expansion of the market economy in colonial Connecticut. In a complex series of transactions, buyers from the French and British West Indies were brought together with small-scale producers in the interior of Connecticut; demand for foodstuffs, lumber, and draft animals on the plantations of the Caribbean and subsequent planters’ sale of tropical commodities, such as rum, molasses, sugar, and other goods, drew subsistence producers throughout the Atlantic

¹ Sterling Library, Yale University Department of Manuscripts and Archives, Shaw Family Papers, Yale Department of Archives and Manuscripts (hereafter Shaw Papers) Joshua Elderkin to Nathaniel Shaw, August 17, 1767; Nathaniel Saltonstall to Nathaniel Shaw September 5, 1767.
world into production for market exchange. The spread of the market undermined mercantilist barriers between empires in the Americas. In other words, despite French and British treaties restricting trade between their empires, factors and goods flowed incessantly between them.

The foundations for the evolution of the Atlantic economy after 1650 were laid with the start of large-scale silver mining in Spanish America in the mid-sixteenth century and sugar production in Brazil after 1570. Silver mining and sugar production shifted the European center of economic gravity toward the Atlantic and effected considerable change in the European economy. After 1650, the slave plantations of the Circum-Caribbean became the focal point of the evolving Atlantic market, from which commerce expanded in all directions. Specialized production in the Caribbean induced specialized production in other parts of the Atlantic, stimulating the spread of the market economy throughout the region.² Owing to the massive expansion of tropical commodity production for export and the attendant high returns, planters in the West Indies had the highest per capita income in the Americas. Devoting their resources almost exclusively to production for export and importing their foodstuffs, lumber, and draft animals from British North America, the plantations of the Caribbean were inducing an Intra-American division of labor. Shaw’s and Elderkin’s transaction demonstrates how the Atlantic world economy was evolving into a quasi-common market. Despite mercantile restrictions barring inter-empire trade, Shaw’s vessel sold draft animals to buyers in the English and French

Caribbean, regardless of nationality. Slave plantations in Caribbean colonies engaged in a highly specialized tropical commodity production for external markets, forcing planters to procure foodstuffs, draft animals, and lumber from elsewhere. Planters in the British, French, Danish, and Dutch West Indies constantly searched for external suppliers of food, draft animals, and lumber. The growth of the demand for these goods on the slave plantations—demand rose as the plantation complex spread to most Caribbean islands and Surinam—led planters to evade mercantile restrictions and allow the free movement of goods between empires. The focus of this chapter is to present a broad overview of the Atlantic economy and its role in the spread of production for market exchange in the northern colonies of British North America.

1.1 The Atlantic World Economy Before 1650

Before 1440, the Atlantic Ocean was rather quiet. Western European contact with Western Africa was indirect, mediated by merchants from North Africa. After 1415, Portuguese explorers began to chart the West African coastline, eventually opening new branches of commerce whereby Portuguese merchants sent gold, slaves, and spices back to Europe. Portuguese trade with Western Africa grew down to 1492. Nevertheless, only a few vessels traded between Portugal and Western Africa

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annually and this commerce can best be described as extensive, rather than intensive since it did not produce much of a division of labor. Aside from Portuguese Western African trade, the three major regions of the Atlantic basin—Western Europe, the Americas, and Western Africa—developed in almost total isolation from each other. The Americas had no commercial contact with Western Africa or Western Europe. The production activities of the bulk of the population in Western Europe and Western Africa were unaffected by the flow of goods between the two regions before 1492.

On the eve of Columbus’s voyages to the Americas, the economies of the three major regions of the Atlantic were based largely on subsistence production (the bulk of the output was consumed directly by the producers without market exchange). Scholars generally agree that in the pre-industrial world, where natural resources were abundant but capital and labor were in short supply, two factors helped to transform subsistence economies into market economies: population growth and the export of commodities.\(^5\)

With the exception of a few possible pre-1492 encounters, the Americas were isolated from the rest of the world.\(^6\) Geographical factors constrained the growth of intra-American commerce before 1492, as well. A considerable portion of the pre-European indigenous population consisted of nomadic groups and semi-sedentary

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groups producing for their own subsistence. The Aztec empire in Central America and the Inca Empire in the Peruvian highlands developed into the largest centralized state systems in the Americas with high population densities, complex communication systems and productive agricultural sectors. Yet, even within these empires production was largely driven by subsistence and tributary needs rather than market demands. There is no evidence of any sustained commerce between the Aztec and Incan empires, and indigenous transportation networks before European contact reflected military-administrative needs rather than market demands.

Isolation from the Old World, geographical barriers to intra-American trade, and low population density largely explain the low level of market development in the Americas before 1492. One scholar has estimated that before 1492, population density in Latin America and the Caribbean was around 6.7 people per square mile. Considering that the bulk of the pre-contact population lived in the Aztec and Inca empires, it is clear that most of Latin America and the Caribbean had extremely low population densities. Hence, commercialization had not proceeded far in the Americas by 1492.

The situation in Western Africa before 1492 was somewhat different. In the interior savanna of West Africa, several powerful states emerged, which were largely involved in trans-Saharan trade. For centuries before 1492, a large amount of trade

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across the Sahara linked West Africa with North Africa and the larger commodity chains of the Mediterranean trading world. The expansion of the trans-Saharan trade interacted with internal factors to stimulate the growth and spread of the market economy in West Africa. The interior states in the savanna had relatively large manufacturing sectors, especially textiles and metals. There was an embryonic development of a division of labor between the more populated hinterlands and the sparsely populated coastal regions, giving rise to the growth of trade between the two regions. In exchange for manufactured goods, the coastal regions supplied the interior states with primary products and gold. On the whole, the trans-Saharan trade and internal developments in the savanna societies in the interior encouraged the gradual development of specialized production in West Africa. Nevertheless, population densities in West Africa were relatively low, ranging from 20 to 40 people per square mile, a situation that constrained widespread development of market economies. Farther south in West-Central Africa, one scholar estimates that population densities were much lower in certain parts and 60% of food supplies were

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obtained through hunting and gathering in the fifteenth century; market development was at a much lower level.\textsuperscript{11}

Of the three major regions of the Atlantic basin, Western Europe had the highest level of commercial development in the fifteenth century. Widespread population growth ended around 1300 AD, followed by plague and decline. The end of the Black Plague resulted in an increase in population growth and density, making Western Europe the most densely populated region of the Atlantic basin in the fifteenth century with about 67 people per square mile in 1450.\textsuperscript{12} After the tenth century, growing population led to internal colonization of vast regions of Europe. This process gave rise to regional specialization and intra-European trade, as differing factor endowments encouraged inter-regional specialization and trade.\textsuperscript{13} The growth of inter-regional trade was reinforced by external trade with the Mediterranean world from the eleventh century.\textsuperscript{14} In this trading system, Italian merchants acted as middlemen, exchanging Eastern goods, such as spices and textiles, for Western goods. This trading system contributed to the growth of three central regions in Europe: the trading cities of Genoa and Venice, the textile producing regions of Flanders, and the market cities of Champagne. Involvement in this trading system contributed to the evolution of the market economy in large parts of Western Europe.

\textsuperscript{12} Inikori, \textit{Africans and the Industrial Revolution}, 158.
Yet, the extent of the market economy in Western Europe in the fifteenth century remained limited and subsistence production continued to predominate.

Prospects for the growth of intra-European trade, especially in manufactured goods, were declining between the fourteenth and seventeenth centuries. Starting in the early fourteenth century, global climate change, a string of bank failures in Italy, and general signs of labor unrest throughout Europe signaled a weakening of the Mediterranean trading system. The Black Death of the middle of the fourteenth century delivered the deathblow to the Mediterranean-based trade and undermined population growth. The expansion of intra-European trade further suffered from the effects of the rise of economic nationalism, a trend with antecedents from the medieval period.

It is in this context that the importance of the fifteenth-century explorations in the growth of trade in Western Europe has to be measured. The exploration and settlement of the Americas was a major turning point. The mining and sugar production in the Iberian-American empires provided the initial spark. The discovery of vast deposits of silver in Mexico and Peru in the 1540s and the production of sugar in Brazil after 1560 created great opportunities for the growth of trade.

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trade in the Atlantic basin. Mining and plantation agriculture in the Americas effected major changes in the economies of the Atlantic basin. The total tonnage of ships sailing between Spain and Spanish America increased from roughly 20,000 tons annually in 1515 to about 250,000 in 1600. The annual average value of Atlantic commerce tripled following the expansion of mining in Spanish America and sugar production in Brazil, increasing from £1,286,000 in the period 1501–1550 to £3,764,000 in the period 1551–1600.

The growth of specialized commodity production for export before 1650 fostered the spread of production for market exchange throughout Spanish and Portuguese America. The silver mines of Spanish America were located in regions with poor soils. Thus, the early population of miners relied on producers in the other regions to supply their subsistence needs. The discovery of silver deposits was followed by road construction to link the mining regions to the rest of the Spanish American mainland, particularly with food producing regions. The mining process required massive inputs of labor and materials, such as salt, wood, water, iron, and mercury. These materials were supplied by vast areas of Spanish America. As the scale of production increased in the mining regions population densities increased.

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20 Inikori, Africans and the Industrial Revolution, 181, Table 4.4.
The growing demand for foodstuffs and other goods in the mining regions pulled more distant regions of the empire into production for market exchange.

The case of the mining town of Zacatecas in northern Mexico exemplifies the impact of mining on the spread of commercial agriculture and the market economy. Zacatecas is roughly 8,000 feet above sea level, with infertile soils, but an enormous and growing population as a result of mining. Once mining began in 1548, the Spanish had the natives construct roads to link Zacatecas to the more fertile regions of southern Mexico, in order to supply the mines with sufficient foodstuffs. An observer noted in 1562 that mine owners pumped 800,000 ducats, for housing and other goods, into the economy of northern Mexico in only a few short years. The more lasting effect of mining involved the spread of commercial agriculture. Zacatecas derived supplies of foodstuffs, such as meat, maize, wine, and wheat, and draft animals from all over Mexico. For example, the Bajío region of southern Mexico became the largest supplier of wheat to Zacatecas. An observer from the early seventeenth century noted how demand from the mines fostered investments in improving agricultural production, including investments in irrigation. Northern Mexico, too, was affected by the mining boom around Zacatecas. Though sparsely settled before European contact, northern Mexico became a major source of meat for the mining zones, as vast regions of northern Mexico were transformed into cattle raising farms.\footnote{Peter Bakewell, \textit{Silver Mining and Society in Colonial Mexico: Zacatecas: 1546-1700} (Cambridge: Cambridge University Press, 1971): 58-80.} By the end of the sixteenth century, there were hundreds of thousands of
sheep, goats, cows, and horses in northern Mexico. With growing demand in the mines, land values surrounding the mines increased, further inducing commercialization. Growing demand in the mining sector led to the construction of specialized, large-scale provisioning units, such as estancias, sheep farms, market gardens, pig farms, haciendas, and wheat farms. Some regions specialized in wine, grain, and maize production. Through direct and indirect channels, the mining regions linked previous self-sufficient regions of Spanish America to the interstices of trans-Atlantic commerce. Mining led the development of a growing domestic market that was tied to the export of bullion.

The effect of mining in Zacatecas on other regions of Mexico was repeated by mining communities throughout Spanish America. For example, the enormous mine at Potosi in Peru was located 4,000 meters above sea level and boasted a population of only 4,000 in the 1540s, 120,000 in 1580, and 160,000 in 1650. Since the land around Potosi, up to a six mile radius, was barren, Potosi had to procure foodstuffs and other supplies from all over the viceroyalty of Peru, a massive colony spanning the Pacific coast of South America. In addition, since Potosi was located 400 miles from the coast, the growth of mining fostered the development of a complex system of transportation to carry bullion from the mine to the coast and then by sea to

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24 MacLeod, “Aspects of the Internal Economy of Colonial Spanish America,” 252-257.
25 Burkholder and Johnson Colonial Latin America, 171.
Panama, whence it was exported to Spain. The transport of silver from Peru to Panama also fostered the development of shipbuilding on the Pacific coast of South America. Within Mexico, a similar complex system of transportation carried silver from the mines deep in the interior to the coast for shipment to Spain.\(^\text{27}\) The development of complex transportation systems, requiring thousands of specialized laborers, also encouraged the division of labor since this sector required foodstuffs from outlying regions. Mining also induced forward linkages, as urban centers, such as Mexico City and Lima, emerged to collect, process, and distribute silver throughout the empire.

In Brazil, the early Portuguese settlers did not find vast native populations to exploit or mountains of silver to mine.\(^\text{28}\) For the first 60 years, Portuguese settlements in Brazil resembled the trading factories of the Indian Ocean, with settlement and economic activities confined to assembling brazilwood.\(^\text{29}\) After 1560, however, Brazil underwent a considerable economic transformation, as sugar plantations, employing first natives and later enslaved Africans were established.\(^\text{30}\)


\(^{28}\) It would not be until the 1690s when gold deposits were discovered in the deeper interior of Brazil.


The spread of sugar production produced a similar spread of commercial activity as mining did in Spanish America. Coastal sugar production for export fostered commercialization and gave rise to larger population densities on the coast and deeper in the interior. The sugar plantations concentrated in the provinces of Pernambuco and Bahia produced 2,500 metric tons of sugar in 1560 and 16,000 metric tons by 1600.\textsuperscript{31} In 1637, there were 350 sugar mills in Brazil.\textsuperscript{32} Large-scale specialized production in these two regions gave rise to the growth of inter-regional specialization and trade in Brazil, as outlying regions were drawn into production for market exchange in order to supply the growing plantation population. The high returns of sugar planting led to a crowding-out effect of ancillary economic activities, as all fertile lands along the coast were engrossed by cane planting. The demand for foodstuffs, draft animals, and production inputs fostered commercialization and the construction of transportation networks deeper into the interior of Brazil. The interior region of Brazil, known as the \textit{sertao}, became a specialized livestock raising zone directly connected with the demand for foodstuffs and draft animals generated in the sugar zones. The construction of new roads facilitated the transportation of vast herds of cattle from the \textit{sertao} to the coast, in exchange for European manufactures. A typical Brazilian sugar mill required between 30 and 60 oxen to power the mill and to transport the product to market. By the first decade of the eighteenth century, there were over 1,300,000 head of cattle in the \textit{sertao} supplying the needs of the plantations.

\textsuperscript{31} Curtin, \textit{Rise and Fall of the Plantation Complex}, 26.
for draft animals and foodstuffs. Likewise, corn production, a considerable portion of which was transported to the sugar plantations, spread throughout coastal Brazil, particularly in regions where soils were unsuitable for sugar planting.\textsuperscript{33}

The mining and sugar production of the Americas also boosted commercialization throughout Western Europe. American silver provided a major impetus to intra-European trade, as it spread throughout most of Europe despite Iberian mercantile restrictions. American silver spread throughout Europe by three major channels. First, after 1500, Spain was engaged in protracted wars in Northern Italy, the Western Mediterranean, France, the Low Countries, and the German states. The Spanish state paid for these wars with American bullion.\textsuperscript{34} Second, there was growing demand for manufactures in Spanish America. Because the influx of American bullion encouraged rent-seeking by Spanish elites, domestic manufacturing was neglected. As a result, foreign manufactures from Germany, England, Holland, and France flowed into Seville to meet the needs of consumers in Spain and in Spanish America. Spanish American bullion paid for much of the imports.\textsuperscript{35} Third, European nations illicitly traded with peripheral regions of the Spanish Empire, such as the Mosquito Coast, Buenos Aires, and Panama, exchanging manufactured goods

\textsuperscript{33} Schwartz, “Colonial Brazil,” 459-465.
\textsuperscript{35} Stein and Stein, \textit{Silver, Trade, and War}, 7; MacLeod, “Spain and America,” 367.
Spain’s monopoly of American trade created massive shortages throughout the empire, making prices for manufactures high enough to encourage foreigners to risk smuggling. These three channels ensured that despite Spanish mercantile restrictions American bullion spread throughout all of Europe, increasing the monetization of European economies and advancing the market economy.

Brazilian sugar was also re-exported throughout Europe through 1648. By 1570, Brazilian sugar had captured the bulk of the European market. Brazilian export of sugar to Portugal and the Netherlands generated a dynamic re-export trade throughout Europe, as merchants in these two nations later re-exported much of the sugar throughout the continent.

The settlement of the Americas also fueled the development of four other branches of commerce for Western Europe: the Baltic, Levant, East Indies, and Africa. Within Europe, the Baltic region became a major supplier of raw materials and foodstuffs to France, Spain, Holland, England, and Portugal. This trade was very imbalanced, as the Baltic purchased few goods in return for their exports. Most remittances were made in bullion transfers. Similar imbalances existed in Western Europe’s trade with the Levant and the East Indies, which were corrected with bullion transfers. Baltic supplies were crucial to the shipbuilding sector in northwestern Europe, while goods from the Levant and East Indies, particularly textiles, were valuable commodities in intra-European trade. By 1640, though the exact volume is

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unknown, London re-exports of East Indian textiles to Russia, Germany, North Italy, and the Levant increased substantially. While Western Europe’s export of bullion to these three regions grew from an annual average of 101 tons in 1601 to 156 tons in 1700, European import of American bullion grew from an annual average of 245 tons in 1601 to 370 tons in 1700. Finally, mining and plantation agriculture in the Americas gave rise to the development of the Atlantic slave trade. Prior to the massive New World demand for slave labor, European contact with Africa remained limited. European merchants traded in commodities, such as gold and spices, while the trade in captives was limited. Between 1500 and 1650, it has been estimated that 512,700 slaves were landed in the Americas, opening a new expansion in European trade with Africa. In summary, the mining and plantation zones of the Americas had far-reaching effects on the economies of the Atlantic basin.

1.2 The Atlantic Economies 1650–1776

Large-scale commodity production for export in the mining and plantation zones of the Americas grew phenomenally in the period 1650–1800. Mining and plantation agriculture spread to new regions in the Americas during the period, while the volume of production increased in the older regions. The most significant

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development during this second phase was the rapid expansion of slave plantations in the Circum-Caribbean region.

While Spain was engaged in protracted wars in Europe, England, the Netherlands, and France took advantage of their adversary’s distractions to colonize various islands in the Caribbean and parts of North America. Over the course of the seventeenth century, France, England, and the Netherlands colonized most of the Caribbean islands, the Guyanas on the northern coast of South America, Canada, and the entire eastern seaboard of North America. The expansion of these nations into the Americas resulted in the creation of six new plantation complexes in the Americas: the British West Indies, French West Indies, Dutch West Indies, Danish West Indies, and Upper South and Lower South North American mainland. These complexes were the most specialized regions in the Atlantic world. According to a leading scholar on the West Indies, the six central elements of this new phase in the plantation complex [in the West Indies] were “a swift shift from diversified agriculture to sugar monoculture, from sparse to dense settlements, from production on small farms to large plantations, from free to slave labor, from low to high value per capita output.”

According to a recent compendium on New World slavery, the

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41 Macleod, “Spain and America,” 378.

economic nodes of the Americas were confined to the tropical slave plantations of the Circum-Caribbean. The plantation complexes in the Caribbean and southern colonies of British North America, involving the coerced transportation of millions of African slaves employed in the specialized production of tropical commodities for export, exerted the largest influence on the growth and diffusion of transatlantic chains of commodities, capital, and migrants forced and free. Demand generated in the plantation Caribbean acted as a powerful magnet, attracting resources from throughout the Atlantic basin. Production in this region mobilized resources in Europe to supply the islands with manufactured goods, slaves, and transportation services. Over time, the direct trade with the West Indies and the re-export trade attendant assumed a considerable portion of the overseas trade of most nations of Western Europe. West African integration in the Atlantic economy, a process that began with the Portuguese voyages of discovery in the early 1400s, deepened due to the demand for slave labor in the Caribbean.


The first plantation complex appeared in the British colony of Barbados. From its initial settlement in 1627 to 1635, the development of Barbados proceeded slowly. In the 1630s, Barbadian planters constructed a plantation complex employing a mix of African slaves and white indentured servants, which produced tobacco, cotton, and indigo. Gradually during the 1640s, success in producing these crops led Barbadian planters to shift their resources into sugar production. The Barbadian sugar model of slave labor—specialized production for distant markets and economies of scale—later spread throughout the four British islands in the Lesser Antilles, Nevis, St. Kitts, Antigua, and Montserrat. Jamaica, on the other hand, did not witness a sugar boom in the early years after its conquest in 1655. Despite its larger size, compared to the rest of the British West Indian islands, settlers exploited its proximity to Spanish America to engage in privateering and smuggling. This illicit commerce grew until 1670, when proceeds from it were used to construct a sugar sector. After the start of sugar production, all British West Indian colonies

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46 Dunn, *Sugar and Slaves*, 49.
developed a similar demographic structure, with populations consisting of 80-90% slave labor.\textsuperscript{50}

Until 1700, the British West Indies produced the largest amount of sugar in the Caribbean basin. Barbados was the largest single producer in the British West Indies and probably the richest colony in the Americas at this time, exporting tropical commodities (mostly sugar) amounting to £443,000 (sterling) annually, compared to £220,000 (sterling) for the Chesapeake tobacco colonies, and £227,490 (sterling) for Bahia, Brazil.\textsuperscript{51} Over the course of the eighteenth century, however, Jamaican sugar output surpassed the rest of the British West Indies. By 1770, Jamaica produced about 47% of total British West Indian sugar output. The British West Indies were the second largest plantation complex, producing 36% of the total value of Caribbean output in 1770. Of the six major commodities produced in the Caribbean (sugar, its two by-products of molasses and rum, coffee, cacao, and indigo), British planters focused almost entirely on the first three. Sugar, rum, and molasses represented 92% of the value of the output of the British West Indies in 1770.\textsuperscript{52}

The second plantation complex emerged in the French Caribbean. Until 1650, the French West Indies consisted of half of the island of St. Kitts, Guadeloupe, and

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\textsuperscript{50} Stanley Engerman, “Europe, the Lesser Antilles, and Economic Expansion, 1600-1800,” in Robert Paquette and Stanley Engerman (eds.) \textit{The Lesser Antilles in the Age of European Expansion} (Gainesville: University of Florida Press, 1996): 156.


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Martinique. In the early years of settlement, planters focused on tobacco production. However, soil exhaustion and competition from Chesapeake tobacco forced producers to shift their resources to other commodities. By the 1660s, French planters constructed large sugar plantations based largely on the earlier Barbadian model. The largest single colony in the French West Indies, Saint Domingue, began as a series of scattered settlements of buccaneers and privateers before France officially set it up as a colony in the 1690s. Like Jamaica in this period, Saint Domingue was a base for smuggling into the Spanish Empire, whereby French settlers exchanged European manufactures and slaves for Spanish bullion. By the end of the seventeenth century, settlers shifted their resources to sugar production. By 1770, Saint Domingue had become the single largest sugar producer in the Caribbean, with a share of about 33% of all Caribbean output. The French West Indies had a highly diversified plantation economy, in which sugar and its two by-products represented only 63% of total output, as compared to 92% in the British West Indies. By 1770, the French West Indies were the dominant plantation complex in the Caribbean, producing 51% of the value of total Caribbean output and even larger portions of non-sugar commodities: coffee (67%), indigo (97%), and cotton (56%).

55 Statistics on French West Indian output in 1770 were calculated from Eltis, “Slave Economies,” Table 3.1 113-114.
The Dutch colonies on the northern South American mainland comprised the third plantation complex within the Caribbean basin. In the 1630s, the Dutch colonized six small islands in the Caribbean: Curacao (1634), Aruba (1636), Bonair (1636), St. Maarten (1631), St. Eustatius (1636), and Saba (1640). With dry climates and dry soils, these islands could not support the spread of the plantation complex.\(^{56}\) Rather, merchants on these islands exploited their close proximity to the Spanish, French, and British colonies to engage in widespread smuggling. With the loss of their conquests in Brazil in 1654, Dutch merchants focused on trading with Barbados and Martinique, providing slaves, capital, and shipping services to their nascent plantations. The English Navigation Acts of 1651 and the later French imperial ordinances of 1664 and 1673 effectively barred Dutch trade with their West Indian colonies.\(^{57}\) Barred from trading with Brazil and the French and British West Indies after 1680, Dutch merchants shifted their resources to constructing plantation complexes on the northern coast of the South American mainland in Surinam, Demerara, and Essequibo. When captured in 1667, there were 23 plantations in Surinam producing a range of tropical commodities and by 1713, there were 202 plantations.\(^{58}\) Between 1668 and 1803, Dutch merchants exported over 184,000

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\(^{56}\) P.C. Emmer, “‘Jesus Christ was Good, but Trade was Better,’ An Overview of the Transit Trade of the Dutch Antilles, 1634-1795,” in Robert Paquette and Stanley Engerman (eds.) The Lesser Antilles in the Age of European Expansion (Gainesville: University of Florida Press, 1996): 211.


slaves (51% of their total slave trade) to Surinam.\(^5\) In 1770, Surinam had a highly diversified plantation complex since sugar and its by-products represented only 43% of total output. Settled sometime between 1609 and 1621, Essequibo had inauspicious beginnings and until the 1630s, the Dutch West Indian Company considered abandoning the settlement. The loss of Brazil and the rise of mercantile restrictions in the British and French West Indies prompted the Dutch to develop this colony into a plantation complex. Later, in 1746, Dutch settlers in Essequibo colonized Demerara. Over the course of the eighteenth century, Dutch merchants exported over 21,000 slaves to these two colonies. Meanwhile, the number of plantations in Essequibo and Demerara increased from 19 in 1700 to 301 in 1769.\(^6\)

Despite the rapid expansion of these three colonies, the Dutch West Indies represented only 8% of total West Indian export commodities.\(^6\)

The fourth plantation complex in the Caribbean emerged in the Danish West Indies. Danish West Indian sugar production began with the conquest of St. Thomas in 1666, and expanded with the acquisition of St. John in 1718 and St. Croix in 1733. This plantation complex was the smallest in the Caribbean, consisting of only 333 square miles, and by 1770, the population of the Danish West Indies consisted of just


\(^6\) Statistics on Dutch West Indian 1770 output were calculated from Eltis, “Slave Economies,” Table 3.1 113-114.
over 25,000 slaves and 2,000 whites. The Danish West Indies produced only 3% of the total value of all Caribbean output. Furthermore, these islands focused almost entirely on the production of sugar and its by-products of rum and molasses, which represented about 93% of the total value of Danish West Indian output.

The fifth plantation complex was on the North American mainland in the tobacco-producing Chesapeake region. In 1607, English settlers flocked to Virginia in hopes of discovering gold. These early hopes were disappointed and the colony suffered mortality rates of between 50 and 60% for the next several years. The start of commercial tobacco production in 1617 provided the needed impetus to save the colony. Tobacco exports grew from 119,000 pounds in 1620 to 3,600,000 pounds in 1700, reaching 100,000,000 pounds by 1776. For the first seventy years of the colony’s existence, tobacco planters relied on white indentured servants for their labor. However, rising wages in England and slowing population growth undermined the supply of white labor. At the same time, the expansion of the Atlantic slave trade created a sufficient supply of slave laborers for Virginia plantations.

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63 Statistics on Danish West Indian output were calculated from Eltis, “Slave Economies,” Table 3.1 113-114.


the eighteenth century, tobacco remained the dominant cash crop in the Chesapeake, representing 99.4% of total exports in 1701 and 87% in 1727. After 1730, Chesapeake planters exploited market opportunities for grain and livestock in the West Indies, coastal trade, and Southern Europe, thereby diversifying their production by exporting to these regions, and domestic shipbuilding increased after 1740. In addition, planters hedged their fortunes by shifting resources into production for internal markets.\footnote{Philip D. Morgan, \textit{Slave Counterpoint: Black Culture in the Eighteenth Century Chesapeake and Lowcountry} (Chapel Hill: University of North Carolina Press, 1998): 38-58.} This diversification is shown by the fact that during the period 1768–1772 when tobacco accounted for 75% of the total value of Chesapeake exports, Virginia had become the largest single exporter of corn and third largest exporter of grain for coastal markets.\footnote{McCusker and Menard, \textit{Economy of British America}, 117-143; Lorena Walsh, “Summing up the Parts: Implications for Establishing Chesapeake Output and Income Subregionally,” \textit{William and Mary Quarterly} 61 (1999): 55; David Klingaman, “The Significance of Grain in the Development of the Tobacco Colonies,” \textit{Journal of Economic History} 29 (1969): 268-278; Paul G.E. Clemens, \textit{The Atlantic Economy and Colonial Maryland’s Eastern Shore: From Tobacco to Grain} (Ithaca: Cornell University Press, 1980); Russell R. Menard, “The Tobacco Industry in the Chesapeake Colonies, 1617-1730,” \textit{Research in Economic History} 5 (1980): 109-177.}

The sixth plantation complex emerged in the Lower South region of the North American mainland in the colonies of South Carolina after 1700 and Georgia after 1740. South Carolina, settled in 1670 largely as an outgrowth from Barbados, was the only British mainland colony intended as a slave colony from its initial settlement. As early as the 1670s, slaves represented between one-quarter and one-third of the

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total population of the Low Country.\textsuperscript{68} For the next thirty years, South Carolina served as a provisioning area for Caribbean plantations, as well as an export colony of hides and naval stores to Britain.\textsuperscript{69} Yet, by 1690, South Carolina still remained a backwater colony, consisting of about 4,000 inhabitants. By 1740, however, the population of the Low Country reached 50,000, of which over 39,000 were slave laborers, and South Carolina planters were the richest producers on the North American mainland.\textsuperscript{70} This change in fortune is accounted for by the fact that starting around 1700, commercial rice production allowed South Carolina planters to construct the most intensive plantation system on the mainland, with demographic characteristics approaching those of the Caribbean colonies. By the eve of the American Revolution, slaves represented 70\% of the population of the coastal Low Country, and close to 90\% in certain parishes. Moreover, Low Country plantations were the largest on the North American mainland and had the largest concentration of slaves, with most employing over 50 slaves.\textsuperscript{71} Though small by West Indian standards, South Carolina rice plantations were the largest in acreage and slave-labor employment on the North American mainland. Rice production grew from an annual average of 474,000 pounds in 1701–1703 to over 64,000,000 pounds in 1772.\textsuperscript{72} After

\textsuperscript{68} Morgan, \textit{Slave Counterpoint}, 1.
\textsuperscript{71} Morgan, \textit{Slave Counterpoint}, 38-58.
\textsuperscript{72} R.C. Nash, “South Carolina and the Atlantic Economy in the Seventeenth and Eighteenth Centuries,” \textit{Economic History Review} 45 (1992): Table 1, 680.
1740, indigo became a major export commodity for the Lower South as well. By 1768–1772, rice and indigo exports represented 80% of all Lower South exports.\footnote{McCusker and Menard, \textit{Economy of British America}, 169-188.}

The expansion of these new plantation complexes coincided with the growth of output in Spanish America. Starting around 1700, new blasting techniques and more rational organization of labor supplies in New Spain led to a massive expansion of silver production; silver output in Peru alone tripled over the course of the eighteenth century.\footnote{Peter Bakewell, “Mining in Colonial Spanish America,” in Leslie Bethell (ed.) \textit{Cambridge History of Latin America Vol II} (Cambridge: Cambridge University Press, 1984): 146-147; D.A. Brading, “Mexican Silver Mining in the Eighteenth-Century: The Revival of Zacatecas,” \textit{Hispanic American Historical Review} 50 (1970): 665-681.} The creation of new mines throughout Spanish America led to the development of new urban centers, deepening the division of labor throughout the countryside. For example, the discovery of new silver deposits in the previously undeveloped western region of New Spain around Guadalajara over the course of the eighteenth century led to the urbanization of that town. The new western mines induced a similar division of labor as the earlier mines in Zacatecas and Potosi.\footnote{Eric Van Young, “Urban Market and Hinterland: Guadalajara and Its Region in the Eighteenth Century,” \textit{Hispanic American Historical Review} 59 (1979): 593-635.}

The increase in mining also fostered the development of widespread merchandizing and distribution of global consumer goods, overseen by a growing class of merchants in New Spain. The increased commercialization attendant with higher volumes of bullion output accelerated the expansion of the market for manufactured goods to the interior mining regions and their provisioning regions.\footnote{Stanley J. Stein, “Tending the Store: Trade and Silver at the Real de Huaulta, 1778-1781,” \textit{Hispanic American Historical Review} 77 (1997): 377-407.}
The growth in mining output was due partly to the expansion of production in newer parts of the empire. Starting in the last quarter of the seventeenth century, a plantation complex emerged in the Spanish colony of Venezuela. For most of the seventeenth century, despite a growing cacao trade with New Spain, Venezuela was considered a colonial backwater, largely neglected by the Spanish. Few Spanish ships traded in this province, causing massive shortages of European manufactures and slaves.77 From Curacao, the Dutch engaged in a massive contraband trade with Venezuela, exchanging slaves and manufactured goods for the province’s cacao, which induced a massive expansion of cacao production.78 Between 1701 and 1728, Dutch traders in Curacao carried between 25% and 62% of all Venezuelan cacao. The large-scale nature of this trade led Spanish authorities to create the Caracas Company in 1728 to redirect Venezuelan cacao to metropolitan Spanish merchants. The volume of Venezuelan cacao exports increased from just over 3 million pounds in 1701 to 8.5 million pounds in 1754.79 Dutch smuggling and the later Spanish company trade led to an enormous expansion of commercialization in Venezuela. For instance, a 1684 report counted 437,000 cacao trees around Caracas, while a 1744

report counted over 5 million cacao trees.\textsuperscript{80} The expansion of mining production in Peru and New Spain and the new plantation complex in Venezuela led to the growth in exports from Spanish America to Spain, which increased from an annual average of £3.2 million in 1650 to an annual average of £5.2 million by 1770.\textsuperscript{81}

Portuguese Brazil also underwent a massive expansion in production for export markets after 1700. After the mid-seventeenth century, Brazil lost its role as the leading sugar producer in the Atlantic world as Caribbean production quickly took over the European market. Around 1695, prospectors discovered large gold deposits deeper in the interior of Brazil around the region known as Minas Gerais. The discovery of gold stimulated the growth of specialization and division of labor, as settlers employing over 340,000 slaves moved into the previously unsettled regions in the interior between 1698 and 1770.\textsuperscript{82} By 1750, with a population approaching 100,000, Minas Gerais attracted foodstuffs from Bahia and Pernambuco in the northeast and Rio Grande de Sul in the South. Gold strikes led to the construction of new roads from the interior to the coastal regions, eventually leading to the development of the new colonial capital of Rio de Janeiro in 1763. The Brazilian colonial government quickly issued grants for producers to supply the mines with...

\textsuperscript{81} Inikori, \textit{Africans and the Industrial Revolution}, 181, Table 4.4
cattle, salt, manioc, pigs, and poultry. Food producers throughout southern Brazil exploited the new market opportunities in the mining regions.

The six new plantation complexes and the resurgence of mining in Spanish America and Brazil ignited a considerable expansion of commercialization throughout the Atlantic basin. The introduction of many tropical commodities to European consumer markets led to a period of unprecedented growth in demand throughout the continent. As a result, the volume and value of American exports to Europe expanded rapidly, growing from just over an annual average of £6 million in 1601–1650 to an annual average of £14 million in the period 1711–1760 and £22 million in 1761–1780. After 1650, the dynamism generated in the Caribbean led to a massive coerced population movement across the Atlantic. European merchants transported nearly 12.5 million African captives to the Americas after 1650, most of which went to either the West Indian islands or Brazil.

While transatlantic trade grew between 1650 and 1800, the volume of intra-American trade underwent unprecedented expansion due primarily to the plantation complex in the West Indies. In the Caribbean, the bulk of the productive potential on each island was quickly shifted into production for export. Except for the larger islands like Jamaica, where a considerable portion of the land was ill-suited for sugar

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85 Inikori, Africans and the Industrial Revolution, 197, Table 4.7.
planting, the Barbadian process of transformation—rapid deforestation, amalgamation of smaller farms into enormous plantations, employment of a large slave-labor force, and reliance on external sources of foodstuffs—was replicated on all of the other West Indian islands with factor endowments conducive to sugar production. The spread of the Barbadian model throughout the Caribbean after 1650 led to the expansion of the market for foodstuffs, lumber and draft animals. To properly function, West Indian plantations required food for their slave-labor force, lumber for repairs on mills and casks for shipping tropical commodities, and livestock for fresh protein, manure for fields, transportation, and powering sugar mills. Due to the relatively small size of the islands, profitable nature of tropical commodity exports, and deforestation attendant with plantation production, the West Indian islands had to seek external sources to obtain these items.

As the Caribbean basin transformed into the most specialized region in the Atlantic basin, the market for imports in these islands induced an Atlantic-wide division of labor. Regions on the North American mainland, especially the northeastern colonies, unsuitable for plantation-type production, found market opportunities in the growing plantation economies of the Americas for the employment of their natural resources. Complementary economies developed on the mainland, as the southern colonies concentrated largely on slave-produced export commodities [rice, tobacco, and indigo before 1800] and the northern colonies produced largely maritime services and provisions for export to the plantation economies in the Caribbean and the South. Tobacco, rice, and indigo production
drew capital, shipping, and thousands of slaves from across the Atlantic, eventually
bestowing upon plantation owners the highest per-capita incomes on the continent.

For a time, the West Indies served as the main market for the services and provisions
produced in the northeast colonies. The integration of mainland suppliers of maritime
services, foodstuffs, lumber, and draft animals with West Indian plantations was a
gradual one as the Barbadian model spread to most of the islands of the Caribbean.
Yet, as more islands were devoted to sugar planting, the market for British North
American services and provisions grew rapidly.

A spate of recent works has directly and indirectly questioned the extent of the
West Indian-induced regional division of labor with British North America. The
traditional argument holds that the extraordinary returns of sugar production
prompted planters to concentrate most available resources into plantation production.
Sugar planting entailed the importation of thousands of African slaves, the clearing of
most West Indian forests, and the amalgamation of most lands into large plantations.
Over time, the West Indies were transformed into the most specialized export
economy of the Atlantic world, in which sugar was the dominant crop, the export of
which represented a considerable share of the region’s GDP. The nature of sugar
production created a market for imports from the North American mainland, such as
foodstuffs for the slave-labor force, lumber for the several thousand casks of tropical
commodities shipped to Atlantic markets and for internal construction, and draft animals for transportation and more specifically to power sugar mills.  

Recently, scholars have attempted to revise this image of the West Indian economy, questioning in particular the strength of the mainland–West Indian economic connection. The revisionist scholarship suggests that the West Indian plantations could have found an alternate source of provisions than the mainland colonies. In a recent compendium on New World slavery, the authors noted, “The Caribbean sugar islands could have found alternative sources for the provisions they obtained from the Northern Colonies far more easily than the Northern Colonies could have located a substitute market. Indeed, it is easier to imagine the dramatic growth of trade in the Atlantic region without the northern colonies.” This impression is informed by works written over the past decade. In particular, scholars have begun to undermine the centrality of the export of sugar to the West Indian economy, focusing instead on the thriving domestic economy.

The works particularly important to measuring the extent of West Indian reliance on the mainland colonies deal with the allocation of provision grounds to slaves, the slave-created internal marketing system, and cattle farming in the Caribbean. These works

87 The traditional view is best summarized by John J. McCusker and Russell R. Menard who noted, “Sugar likewise offered some prospects for farmers and merchants in the mainland colonies…Food was not the only commodity the planters wanted from the mainland. Barbados is small, with less than 100,000 arable acres, and the forests were quickly cut down to make room for cane. The planters still needed wood, however, for fuel, building, and fences, and for hogsheads to ship the crop. And they needed livestock to power the mills” in Economy of British America, 155.


have done much to uncover the domestic economic activities of the West Indies and to shift analysis away from the singular focus on sugar toward a more balanced approach to the region’s economic development. While shedding much needed light on a neglected topic, these various works have cast doubt on the importance of the mainland colonies to the Caribbean plantations.

To be sure, no one has questioned the West Indian reliance on mainland lumber exports, which amounted to 36 million boards, 3.8 million hoops, 38.9 million shingles, 62,000 shook hogsheads, 162 house frames, and a variety of colonial-made furniture in 1770. British North American lumber served as the basis for the construction of the several thousand wooden casks in which tropical commodities were exported to Atlantic markets. Moreover, mainland lumber also was used for the construction of buildings, wharves, and houses in the West Indies, a region requiring constant reconstruction due to hurricanes and almost incessant warfare. A 1751 hurricane that struck Antigua caused “great damage to our buildings” and many planters had “dwelling houses, mills & works…entirely destroyed.”

Two hurricanes in particular in 1766 and 1772 wreaked considerable havoc throughout much of the Caribbean, necessitating the almost complete reconstruction of infrastructure and buildings on several islands. Thus, it is not the reliance on

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90 Figures taken from PRO/TNA Customs 16/1.
mainland lumber that is in question, but rather whether this was the only source available to the islands.

The detailed records of the Parham plantation on Antigua illustrate the importance of lumber purchases. This one plantation boasts one of the most complete run of records for most of the eighteenth century. The plantation seems to have begun operations in 1689. Over the course of the eighteenth century, the plantation borders fluctuated as tracts were bought and sold, though the average size of the plantation remained around 800 acres.\textsuperscript{93} Table 1.1 shows the shifting nature of lumber imports. Though the volume of purchases varied over time, the plantation incessantly required a range of lumber for sugar casks and construction.

<table>
<thead>
<tr>
<th>Year</th>
<th>Acres (#)</th>
<th>Lumber (Feet)</th>
<th>Shingles (#)</th>
<th>Staves (#)</th>
<th>Hoops (#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1727</td>
<td>1000</td>
<td>5,351</td>
<td>9,550</td>
<td>6,350</td>
<td>600</td>
</tr>
<tr>
<td>1746</td>
<td>796</td>
<td>12,425</td>
<td>21,550</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1750</td>
<td>806</td>
<td>39,497</td>
<td>33,200</td>
<td>15,650</td>
<td>3,000</td>
</tr>
<tr>
<td>1760</td>
<td>806</td>
<td>9,267</td>
<td>5,200</td>
<td>6,550</td>
<td>n/a</td>
</tr>
<tr>
<td>1771</td>
<td>806</td>
<td>27,284</td>
<td>16,340</td>
<td>19,903</td>
<td>6,345</td>
</tr>
</tbody>
</table>

Source: The Tudway of Wells, Antigua Estate Papers, 1689-1907 (British Records Relating to America in Microform) Reel 1 (hereafter Tudway of Wells Estate Papers).

Nevertheless, finding alternate sources would have been prohibitively expensive if not impossible for plantations in the West Indies. It would have been too expensive to import this much lumber from Europe. For one thing, over the course of 8

the eighteenth century, the expansion of navies and merchant fleets, growing population, and rising urbanization led to massive deforestation in many parts of Europe. By the late seventeenth century, only one-sixth of England’s acreage was still forested, and some areas suffered such acute timber shortages that imports were needed. Even if West Indian plantations obtained lumber from regions in Europe with an abundance of lumber, such as Eastern Europe and the Baltic, the distance involved in shipping would have imposed considerable costs, making sugar production far more expensive. Besides, the Baltic region was often drawn into the various European wars of the seventeenth and eighteenth centuries, wreaking havoc on shipping lanes and ultimately rendering this source of supply questionable.

Moreover, it is extremely unlikely that the West Indian plantations could have obtained this volume of lumber from sources in Spanish America. In the years 1768–1772, merchants in British North America assembled a shipping fleet amounting to an annual average of around 1,200 vessels totaling 106,861 tons to ship lumber to the West Indies. Given mercantile barriers to inter-colonial trade, it is inconceivable that this volume of shipping could have traded between Spanish America and the West Indies without sparking more Atlantic wars. After all, it was small sloops trading illicitly from Jamaica to the Spanish Main that caused diplomatic tensions and the

War of Jenkins Ear and other Anglo-Spanish hostilities. It is difficult to imagine the West Indies obtaining their lumber requirements from Spanish America without causing even more Atlantic wars that would have driven prices much higher. Overall, it is difficult to imagine where the West Indian plantations could have obtained their lumber in the absence of the British North American supply.

The extent of the West Indian reliance on external foodstuffs has received more attention than that of lumber. By 1770, the population of the plantation Caribbean stood at just over 1 million people, of which 950,000 consisted of enslaved Africans. With very limited land resources and dynamic export markets, plantation owners had to devise means to feed their coerced labor force. In the end, plantation owners employed three strategies to feed their slaves: import foodstuffs, allocate a portion of plantation lands to provisions, or, somewhat related, grant slaves small plots to grow their own provisions. Recent works suggest that the first option was the lesser option adopted, indicating that imports were not important as most islands were self-sufficient. According to Richard Bean’s in-depth analysis of port records, food imports into Barbados and Jamaica never amounted to more than 25% of the total (free and slave) caloric needs of each island, while slaves produced 90–93% of

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98 Eltis et. al. “Introduction,” 10, Table 2.

their own food. A more recent dissertation on Jamaica’s overseas trade reinforces Bean’s assertion of the relatively minor role of imports in the daily caloric requirements of the island. Yu Wu’s dissertation posits that only between 11% and 25% of daily food requirements were imported into Jamaica between 1688 and 1769. Recent work on non-sugar economic activities in the West Indies reinforces the notion of lesser reliance on food imports. To lessen their dependence on external suppliers and to give their slaves more incentives, plantation owners devoted estate lands to the provisioning system, whereby slaves were required to grow their own food. The granting of provision ground to slaves fostered the rise of slave marketing or huckstering, a distribution system of domestically produced goods on West Indian islands. Under this system, slaves were often given Sundays off to go to market, usually the main port town, and retail their self-produced goods. The slave marketplace consisted of small, inexpensive exchanges, such as poultry for fish, salted provisions for cheap textiles, and a range of other goods. The allotment of provisioning grounds and the marketing system was a negotiation between slave

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102 See for example the various articles in Shepherd (ed.) Slavery without Sugar.


 owners wishing to maximize productivity and docility in their labor force and the
slaves attempting to improve their living conditions and create a more autonomous
existence.

The existence of the provisioning ground system and internal marketing
system does not negate the importance of mainland food imports to the West Indian
diet, however. Planter sustenance strategies varied from island to island based on a
medley of factors. There was a positive correlation between food sufficiency and
land availability. Smaller islands like Antigua relied to an overwhelming extent on
food imports based on the limited availability of land, while planters on Jamaica, one
of the larger West Indian islands, were able to meet a larger percentage of their
slaves’ food requirements domestically. Certain tropical commodities (particularly
sugar) imposed more rigorous demands on plantation resources for longer periods of
time, which meant that purchasing food imports was a much more efficient allocation
of resources. The general prices of provisions also played a role in planter strategies.
Food prices varied based on climatic and diplomatic conditions of the Atlantic world,
prompting planters to shift their strategies accordingly. Constant wars often
undermined the shipping networks between the mainland colonies and the West
Indian islands and resulted in the increase of population of the islands when more
soldiers were deployed in this crucial front, causing food shortages in the islands.
Also, a decline in world sugar prices was incentive enough to reduce plantation

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imports as export earnings fell. During many of these periods, reducing reliance on imported food and boosting plantation self-sufficiency were rational tactics for planters seeking to maximize returns. Indeed, scaling back the production of export commodities could also lead to later higher world prices.

Overall, planters relied on mainland imports to meet some food needs. By the late colonial period, British North America exported a large variety of foodstuffs, such as bread, flour, rice, barreled meat and fish. In 1770, the mainland food exports to the West Indies amounted to 26 million pounds of fish, 16 million pounds of corn, 1.6 million pounds of onions, 52 million pounds of bread, 42 million pounds of rice, as well as a host of other grains, beans, and dairy products. To achieve adequate supply, West Indian plantations relied on a combination of imports and domestic production of foodstuffs. On larger islands like Jamaica, British North America may have been less crucial in supplying food, but for smaller islands this source was pivotal. Thousands of acres of land would have been needed to grow and raise the amount of food British North America exported to the West Indies. Without this source, overall sugar production would have been curtailed since so much land would have been needed to raise the food imported from the mainland. Given the relative small geographic size of most West Indian islands, it is doubtful the plantation complex would have developed as rapidly as it did in the absence of the supply of mainland foodstuffs.

107 Calculated from PRO CO 16/1.
Again records from the Parham plantation demonstrate the importance of food imports. Purchases varied in each year, but the plantation never achieved self-sufficiency. Climatic conditions often created the necessity to import food. On a separate plantation, a severe drought on Antigua in September 1746 “burnt up” one plantation’s grown corn supply, making the need for imports crucial.\textsuperscript{108} Periods of excessive rain also hurt food crops. Table 1.2 shows the range of foodstuffs purchased on one plantation in Antigua.

![Table 1.2 Food Purchases on the Parham Plantation 1727-1771](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>Slaves</th>
<th>Butter (#)</th>
<th>Rice (lb)</th>
<th>Fish (barrel)</th>
<th>Beef (barrel)</th>
<th>Corn (bushel)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1727</td>
<td>162</td>
<td>126</td>
<td>0</td>
<td>27</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>1746</td>
<td>315</td>
<td>491</td>
<td>5,728</td>
<td>11</td>
<td>22</td>
<td>379.5</td>
</tr>
<tr>
<td>1750</td>
<td>355</td>
<td>927</td>
<td>8,173</td>
<td>92</td>
<td>43</td>
<td>617</td>
</tr>
<tr>
<td>1760</td>
<td>n/a</td>
<td>582</td>
<td>7,932</td>
<td>89.5</td>
<td>41</td>
<td>575</td>
</tr>
<tr>
<td>1771</td>
<td>490</td>
<td>0</td>
<td>6,133</td>
<td>0</td>
<td>0</td>
<td>2,099.5</td>
</tr>
</tbody>
</table>

Source: Tudway of Wells Estate Papers, Reel 1.

Works on the non-sugar economy in the West Indies have also highlighted the dynamic livestock raising sector.\textsuperscript{109} In response to the demand for draft animals and fresh meat generated on plantations, some West Indian producers converted lands

unsuitable for sugar planting into cattle farms, also known as pens. Cattle pens increased efficiency in the West Indies, as they reduced the need for imported livestock and turned lands unsuitable for sugar planting productive. Moreover, planters could put capital in pens to diversify their investments and create a hedge against falling world sugar prices. For instance, along with six sugar plantations, Jamaican planter Simon Taylor invested £49,000 sterling in three cattle pens in 1813–14. While livestock were probably raised on most islands, it seems, however, the large pens, or farms devoted to raising large numbers of livestock, were confined to Jamaica, an island with extensive land unsuitable for sugar planting. The higher returns attendant with sugar planting crowded out cattle farms. The price differential of land for both types of farms indicates the sheer pull of sugar planting. For instance, in the early 1800s, an acre of cane land cost £50, while an acre of a cattle farm cost only £2.

Jamaica can be used as a test case for the importance of livestock imports. Despite the growth in the number of pens on the island from 73 in 1684 to 300 on the eve of the American Revolution, Jamaican pens never supplied all of the livestock needs of the island. In the period 1762–1768 for which only partial records survive, Connecticut vessels exported a total of 1,583 horses, 814 pigs, 619 cows, 1,127 sheep, and 99 oxen to Jamaica. These figures are only a fraction of the total, since only limited Jamaican port records survive and this survey only looks at

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112 For the number of pens, see Shepherd, “Livestock and Sugar,” 631.
113 Figures derived from PRO CO 142/16-18.
Connecticut exports. In the single year 1762, Jamaica imported 771 mules, 292 horses, and 460 sheep.\footnote{Wu, “Jamaican Trade, 1688-1769: A Quantitative Study,” 286.} It is clear even from the partial records that Jamaica imported a range of livestock despite the presence of livestock pens and it seems that cattle and oxen were the only types of animal that Jamaica came closest to achieving self-sufficiency. Edward Long’s contemporary \textit{History of Jamaica} (1774) bemoaned the fact that Jamaica relied on outsiders for livestock, assigning the cause to the lack of good internal roads on the island and the insufficient number of “industrious inhabitants” willing to set up breeding farms. According to Long, the lack of Jamaican self-sufficiency in livestock caused the outflow of bullion to British North America to pay for imports.\footnote{Edward Long, \textit{The History of Jamaica or, General Survey of the Ancient and Modern State of that Island with Reflections on its Situation, Settlement, Inhabitants, Climate, Products, Commerce, Laws and Government} (London: Lowndes, 1774): 411, 548-549.} If the one island with such large farms devoted specifically to raising draft animals for plantations could not achieve self-sufficiency, it is unlikely that any other island in the plantation Caribbean was able to do so. Thus, livestock had to be imported on all plantation colonies.

Though often overlooked in the literature, the importance of livestock to the sugar making process cannot be exaggerated. The famous Antiguan planter, Samuel Martin, referred to as the “Father of Antigua to whom it owes a thousand advantages” and probably the most important writer on sugar planting in the second half of the eighteenth century, underscored the importance of livestock to the plantation in his pivotal “Essay on Plantership” (1785).\footnote{For the comment on Martin, see Janet Schaw, \textit{Journal of a Lady of Quality: Being the Narrative of a Journey from Scotland to the West Indies, North Carolina, and Portugal in the Years 1774-1776}.} In his essay that was intended to serve as...
an “introduction of a young planter” or a manual for setting up a sugar planter, Martin writes “negroes, cattle, mules, and horses are the nerves of a sugar plantation.” So important did Martin hold livestock to the sugar making process that he devoted the first part of the essay to the proper feeding, care, and maintenance of slaves and livestock. Martin’s essay was meant to school other aspiring planters on the proper way to grow sugar, based on his own experiences. To Martin, aside from slaves, livestock were absolutely essential to plantation production. For example, in 1768, his 605-acre plantation consisted of 304 slaves, 19 mules, 61 oxen, 7 bulls, 5 steers, and 23 cows. Martin’s observations are shared by most other contemporary writers on West Indian sugar planting. In his instructions to his plantation manager, absentee planter Henry Drax noted, “You know very well the necessity of a good stock of working cattle for carrying on the plantation business.”

Livestock fulfilled three crucial functions to the plantation complex. First, and arguably the most important, livestock were employed as a source of power for sugar mills. The central machinery of all sugar plantations was the mill, a complex device with three rollers that crushed sugar cane as it passed through. All freshly cut cane had to be crushed in a mill to create a syrupy-like liquid, which once further

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processed became sugar.\textsuperscript{121} West Indian planters used three energy sources to power their sugar mills: animal, wind, and water. For animal-powered mills, planters used oxen, horses, mules, or cattle, most of which were imported from the mainland colonies. It seems that most islands relied on animal-powered mills in the early years of sugar planting since wind and water mills were much more expensive.\textsuperscript{122} Over time, capital accumulation allowed plantation owners on certain islands to invest in wind and water mills to exact a higher proportion of juice from canes. Russell Menard’s recent study of the transition to sugar production has suggested that Barbados relied on livestock to power sugar mills in the early years of the sugar industry, but switched to the more efficient windmills by the end of the seventeenth century. While there were 350 cattle mills on the island in the 1650s, there were only 14 in 1773.\textsuperscript{123} Antiguan planters also relied on wind to fuel their mills far more than cattle. In 1729, there were 178 windmills on the island compared to only 33 cattle mills.\textsuperscript{124} 

Though some islands employed wind and water to fuel their mills, not all islands could escape their dependence on livestock-powered mills. With generally

\textsuperscript{122} Long, \textit{History of Jamaica}, 411; Sheridan, \textit{Sugar and Slavery}, 144-46.
\textsuperscript{123} Sir Hans Sloane, \textit{A voyage to the islands Madera, Barbados, Nieves, S. Christophers and Jamaica, with the natural history of the herbs and trees, four-footed beasts, fishes, birds, insects, and reptiles} (London: Printed by BM for the author, 1707): 33; Menard, \textit{Sweet Negotiations}, 72-73; A c. 1680 map, on the other hand, provides a different interpretation of the transition to windmills. According to the map, most sugar mills continued to rely on livestock for power in 1680. See Dunn, “The Barbados Census of 1680,” 16.
flat lands, Barbados and Antigua had few barriers to the free flow of wind, allowing the widespread adoption of windmills. Other islands either lacked available sources of water for water mills or had encumbrances (hills or mountains) preventing the use of windmills, necessitating the use of animal-powered mills. The more mountainous Jamaica relied on animal power to an extent not seen on either Barbados or Antigua. In 1763, Jamaica had 566 sugar plantations, 382 or 67% of which relied on animal-powered mills and the rest on either wind or water power.\textsuperscript{125} It seems that the non-Anglo West Indies relied overwhelmingly on livestock to power their sugar mills, a point important for Connecticut’s trade with these islands. A letter from Barbadian Governor, Robert Lowther, to the Board of Trade in 1715 is revealing for the reliance of the foreign West Indies on horses to power their mills. In the letter, Lowther wrote:

\begin{quote}
I humbly conceive it would be of great advantage to this place, and to all His Majesties Sugar Colonies, if there was a law made in England to restrain His Subjects in North America from exporting horses into any country not under His Majesty’s dominion, for the French at Martinique and Guadeloupe, and the Dutch at Soronam [sic] begin to rival us in the sugar trade, and this is owing in some measure to the great supplies of horses they frequently receive from New England and other parts of that continent, for as we grind the sugar canes with wind-mills, so they are necessitated to do it by an engine that’s drawn by horses and cattle.\textsuperscript{126}
\end{quote}

Statistics from foreign islands underscore the reliance of planters on livestock to power their sugar mills. In 1766, St. Croix, the largest Danish plantation

\textsuperscript{125} Shepherd, “Livestock and Sugar,” 636.

colony, had 101 sugar mills powered by horses compared to only 63 windmills.\textsuperscript{127} The sugar industry of the French West Indies relied, to a considerable extent, on animal power. Maps of Martinique in 1732 and 1762 show only two and five plantations using windmills respectively, while the rest relied on livestock and only two of the 252 mills on Guadeloupe were powered by wind in 1739.\textsuperscript{128} Given their greater efficiency, it is clear that planters used the more efficient water and wind mills where geographic and climatic conditions were favorable, but continued to use livestock-driven mills everywhere else.\textsuperscript{129} Though it is impossible to quantify the total number, it is clear that imported livestock continued to power West Indian mills before the American Revolution. Furthermore, even on plantations with windmills, it was suggested that planters keep a livestock mill as backup, particularly when winds were calm. According to a planter on the British island of Grenada, “on windmill estates, it is very necessary to have a light mule or horse-mill as a reserve in calm weather.”\textsuperscript{130}

The second role for livestock, one that grew in importance over time, was for the application of dung, or manure, to fields for fertilization. Though the application of manure to sugar plantations occurred before 1700, it seems that the soil exhaustion

\textsuperscript{129} W.A. Green, “The Planter Class and British West Indian Sugar Production before and after Emancipation,” \textit{Economic History Review} 26 (1973): 452.
experienced in the 1730s and 1740s coupled with the diffusion of better knowledge on West Indian soil types led to the much more widespread adoption by the mid-eighteenth century.¹³¹ All contemporary writers considered dung a vital resource for West Indian plantations, especially on islands with exhausted soils.¹³² When properly spread, dung worked to rejuvenate overworked soils. According to William Belgrove’s contemporary treatise on sugar planting:

> As to Dung, the Article upon which the success of a crop almost entirely depends, it is I think impossible to prescribe an particular Rule for making it…The litter from the stable, if a sufficient number of horses be kept on an Estate, will be always enough for the Pens…The want of a sufficient stock of cattle and Horses, to make the Dung within due Time is attended with many Inconveniences, and a manifest loss.¹³³

Edward Long provided a detailed description of the process of obtaining dung from livestock. According to Long, “the cattle and mules are constantly brought into a penn, or inclosure, at night, where dung is preserved; and this, together with what can be collected from the hogsty, sheep still-houses, furnish the most considerable share of his [the planters] supply”.¹³⁴ Manure requirements forced planters to keep a large number of livestock on hand. Contemporary writer Belgrave put livestock requirements on a 500-acre plantation at 150 cattle, 25 horses, and 50 sheep.¹³⁵ When visiting Barbados in 1751, George Washington noted, “Their dung they are very creative in saving, and curious in making, which they do by thoroughing up large

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¹³³ Belgrove, *Treatise upon Husbandry*, 5, 6, 10.
¹³⁵ Belgrove, *A Treatise upon Husbandry or Planting*, 21.
heeps of Earth and a number of stakes drove there in Sufficient for Sixteen head of Cattle to Stand separately tied too which they are three months together tramplg. All the trash &ca. than…and then its fit to manu…”

It is impossible to quantify the importance of dung to the West Indian plantation complex, but it is clear that plantations without sufficient dung were not as productive as those with a sufficient amount. In 1729, a Nevis plantation needed 14 more horses, some oxen, and a cart to provide dung for the fields, for “the plantation goes poor.”

After a series of outbreaks of disease that reduced livestock numbers in October 1764, production on the Tudway estates was down according to the manager since “We can dung but very little for want of cattle nor indeed can the business of the Estates go on properly for want of them and more mules.”

Not only were livestock vital for the creation of dung, but they also applied it to the fields more efficiently than humans. According to Martin, “Ten mules or horses, and two light tumbrels with broad wheels and ten able negroes, may, by the common use of spades, shovels, and light mattocks, make more dung, than sixty able negroes can do in the present methods.”

Finally, livestock, particularly oxen and horses, served as beasts of burden, transporting goods around the plantation, such as freshly cut cane to the mill and barreled sugar to the port town for shipment to Europe. According to Martin, Barbados was most remiss with respect to their cattle “as if the carriage of canes to

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138 Letterbook from Antigua, the Tudway of Wells Estate Papers, October 14, 1764 Reel 16.
the mill, and of plantation produce to the market, was not as essential as any other branch of plantership.”¹⁴⁰ Edward Long noted, “Oxen are universally used in Jamaica for draught.” According to Long, it would take 10 oxen to cart 4,000 pounds of sugar from a plantation to the port town for export.¹⁴¹ In his instructions to his plantation manager, Barbadian planter Henry Clay made sure to insist that the plantation have the proper number of horses “sufficient to carry down all my sugar to Bridge-Town.” Clay’s plantation manager had access to four wain trumbrels, two horse tumbrels, one horse cart, and one wagon for the transportation of the plantation’s output to market.¹⁴² When visiting Barbados in 1774, Virginian sailor Nicholas Cresswell noted, “It is nothing uncommon to see twelve yoke of oxen to draw one Hd [hogshead] of sugar” owing to the poor nature of the internal roads.¹⁴³ Using livestock for draught was a more efficient employment of plantation resources. According to Martin, “Some planters are so ingeniously thrifty as to carry their canes upon negroes heads; not only degrading human nature to the toil of brutes, but acting in that respect diametrically opposite to their own apparent interest, which cannot be served more effectually, than by having the labour of human hands where the labour of brutes can be substituted.”¹⁴⁴

The importance of livestock to the West Indies becomes even clearer when examining the records of individual plantations. Almost all extant plantation records illustrate the importance of livestock to the daily running of the plantations. For

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¹⁴² Clays’ Instructions were an addendum to Belgrove, *Treatise upon Planting*, 68, 81.
¹⁴³ *Journal of Nicholas Cresswell, 1774-1777* (New York: Dial Press, 1924), 37.
instance, the Hilliard Plantation, a seventeenth-century Barbadian plantation consisting of 500 acres, contained 95 slaves, 45 cattle, 8 milk cows, 12 horses, and 11 mules. In his computation of the capital requirements for a Jamaican plantation, Bryan Edwards argues that a 600-acre plantation required 80 steer and 60 mules. The example of the Jamaican Bybrook plantation owned by the Helyar brothers in the early 1670s is illustrative of the need for horses, even on plantations without animal-powered mills. While overseeing the conversion of the plantation from producing cacao to sugar, Cary Helyar decided that the most efficient power source for the mill would be water, given its close proximity to a small river. Even so, in 1672, the plantation still employed 5 horses in the everyday business of sugar planting.

Barbados also provides an interesting case to illustrate the importance of livestock to the overall plantation complex. Even though Barbados had made the switch to windmills by 1700, the island continued to import a considerable number of horses. In the period 1710–1712, there were 409 windmills on the island compared to only 76 cattle mills. Even though the island had largely made the switch to windmills, the island’s 1,306 plantations owned 2,471 horses in these years.

Despite the dominance of windmills, Barbados continued to import a considerable number of horses throughout the eighteenth century. Between February

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148 Pitman, *Development of the West Indies*, 372.
23 and August 14, 1731, Barbados imported a total of 392 horses.\textsuperscript{149} A little later, between May 1, 1741, and January 31, 1742, Barbados imported a total of 510 horses and mules.\textsuperscript{150}

As we have seen, though many livestock were raised internally, all islands required substantial imports. Livestock imports were so crucial that West Indian governments offered bounties on their importation. In an attempt to foster the spread of the plantation complex, the government of Grenada offered bounties of 30 shillings on all cattle imports in the fall of 1766.\textsuperscript{151} But, was British North America the only potential source for livestock? Spanish America and North Africa supplied some islands with livestock, particularly mules. Yet, this source could not have been large given mercantile restrictions, and, in the absence of the mainland colonies, it is unlikely that the sheer volume of mainland imports could have been replicated from this source. Europe could have supplied livestock, but at far higher prices. Given the mortality rate of animals on the route between British North America and the West Indies alone, the much longer sea route between Europe and the islands would have imposed far larger losses and higher prices. Out of 54,000 horses that boarded vessels in British North America intended for sale in Surinam, only 35,000 actually landed, a mortality rate of 36\%.\textsuperscript{152} For most of the colonial period, livestock were kept on deck during their transportation. As such, storms and rogue waves often


\textsuperscript{150} \textit{Boston Evening Post} 3/29/1742.

\textsuperscript{151} \textit{Boston Post Boy} 12/15/1766.

wreaked havoc for livestock, even if the vessel was unharmed. The trip from the northeastern colonies to Barbados averaged around 37 days, while that from London to Barbados took about 63 days, and from Liverpool and Bristol 80 days.\footnote{Ian K. Steele, \textit{The English Atlantic, 1675-1740: An Exploration of Communication and Community} (Oxford: Oxford University Press, 1986): Appendix, Table 2.1; James F. Shepherd and Gary M. Walton, \textit{Shipping, Maritime Trade, and the Economic Development of Colonial America} (Cambridge: Cambridge University Press, 1972): 197, Table 1.7.} It is inconceivable that the tens of thousands of livestock exported to the mainland to the West Indies could have survived the much longer route from Europe.

Overall, it is clear that a division of labor did emerge between the mainland and the West Indies. Mainland lumber, foodstuffs, and draft animals provided the necessary inputs to expand tropical commodity production for export to Europe. Without these supplies from the mainland colonies, West Indian sugar production would have been constrained as thousands of acres would have needed to be shifted out of sugar production to domestically produce mainland imports. It is likely that given the costs associated with domestic production, the plantation complex would not have been as dynamic. The mainland trade to the West Indies was driven solely by market demands. The transformation of the sugar complex, involving the employment of slave labor to produce commodities for export, was a driving force in stimulating trade throughout the Atlantic basin.

1.3 Northern British North America, 16071–776

Not long after their arrival, English settlers in North America realized they needed to find a commodity suitable for export to Britain in order to obtain capital and manufactures and pay back settlement costs. Mainland factor endowments
shaped the regions responses to the Atlantic economy. With natural resource endowments somewhat similar to that in England, the colonies north of the Chesapeake found few commodities that could bear the expense of shipment to Europe, except fish and furs. On the other hand, as we have seen, the colonies from Georgia to Maryland were able to export commodities to Britain. For the northern colonies, the West Indies was the primary factor in the spread of commercialization.

Settled in 1630, the development of Massachusetts progressed slowly, based on the export of furs in exchange for imported manufactured goods, which were sold to the English immigrants that flowed to New England until the 1640s. Starting in 1640, events in England undermined the flow of immigration into New England and intensive hunting had exhausted the supply of fur-bearing animals, pushing Massachusetts into a severe depression.154 During this depression, Massachusetts merchants faced a severe deflation. The price of a healthy cow fell from £20 to only £4 and grain prices plummeted, causing bankruptcies. Exacerbating the situation, British merchants stopped granting credit to New England.155 Coincidentally, planters in the West Indies moved into sugar production at this time, creating markets for foodstuffs, lumber, and draft animals. With few prospects of finding an export staple, Massachusetts merchants focused their resources on supplying West Indian plantations with provisions. While its soil was relatively infertile, New England had abundant forests, deep natural harbors, and coasts teeming with unexploited fishing

grounds. Massachusetts merchants exploited these resources as growing specialization in the Caribbean plantation complexes created market opportunities. Rich forests in the region were used to build sailing vessels and provide export commodities to the West Indies for construction and casks to hold sugar and other commodities. Land was converted into pasture to raise draft animals for export to the islands. Quickly, shipping and maritime trading became leading sectors of Massachusetts’s economy. Massachusetts merchants developed commercial fishing to supply food for slaves in the West Indies and consumers in southern Europe. Massachusetts merchants exploited Atlantic-wide market opportunities, on occasion exporting Carolina Rice, Chesapeake tobacco, and West Indian sugar to Britain, re-exporting British manufactures and West Indian rum and molasses to the rest of British America, and exporting foodstuffs to the West Indies and Southern Europe. Massachusetts merchants constructed this maritime economy and later merchants in Connecticut, New Hampshire, and Rhode Island emulated their example, building vessels to export their domestic commodities to the West Indies and elsewhere.

The West Indies also acted as a magnet pulling in surplus foodstuffs production from the Middle Colonies. Unlike New England, however, the Middle

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Colonies occupied much larger expanses of fertile soil. Not long after settlement, merchants in New York and Pennsylvania established provisioning trade in wheat and bread to the West Indies. After 1750, both New York and Pennsylvania established a large-scale trade in these commodities to Southern Europe as well following the rise of cereal prices in Europe. However, down to the American Revolution, the West Indies remained the largest market for the Middle Colonies, purchasing 42% of their total exports.159

The intra-American division of labor fostered by the West Indian plantation complex belied imperial boundaries. Attempts by European imperial powers to restrict trade with their American colonies notwithstanding, the Caribbean and British North America operated as a quasi-common market after 1650. Factors and commodities flowed between them virtually on the basis of price movement rather than political restrictions. Growing demand in the West Indian plantation complexes for foodstuffs, lumber for construction, heating, sugar casks, and draft animals was met by supplies from the British northeastern colonies on the North American mainland, and also from Ireland to a lesser extent. This burgeoning demand encouraged specialization in North America.

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159 McCusker and Menard, *Economy of British America*, Table 9.3 199.
As sugar production spread throughout the French West Indies after 1660, their demand for lumber, draft animals, and foodstuffs increased proportionately. Given the distance of France and the underdeveloped state of the temperate regions of French America, French West Indian planters relied on foreigners to supply these goods from the very early years of sugar production. In particular, French planters relied almost entirely on livestock imports to power their sugar mills in these early years. In the 1660s, Dutch merchants supplied the largest portion of livestock for French planters. In the late 1660s and the early 1670s, Jean Baptiste Colbert worked incessantly to close the French West Indies to all foreign traders, in order to create a closed colonial system akin to England’s evolving commercial empire under the Navigation Acts. Edicts stipulated that only vessels from specific ports in France could enter the French West Indies and no foreign merchants could trade in the islands. Colbert’s restrictions instigated an immediate reaction in the colonies. French planters, accustomed to procuring their plantation supplies from foreigners, pressured the governor of the French West Indies to petition for a repeal of the new restrictions, particularly on the importation of livestock. A letter from the governor general of the French West Indies to Colbert in early 1670 underscores the importance of livestock to the French West Indies. In the letter, the governor stated:

It may be well, nonetheless, to inform you that the planters will suffer very much from such a policy [exclusion of foreigners] for the Dutch have been accustomed to bring every year horses from Curacao and Ireland, a thing

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which French merchants will not do, and if the planters cannot replace the negroes and horses which die, they will suffer seriously.\footnote{162}{Mims, Colbert's West India Policy, 189.}

To the inhabitants of the French West Indies, Colbert issued a stern reply stating that the French king ordered that no commerce would exist between these islands and any other nation, save France. Furthermore, he reassured them that a sufficient supply of slaves, livestock, and provisions would be exported to the islands by French merchants. Despite Colbert’s reassurance and insistence that French merchants carry at least some livestock on their vessels departing for the islands, French planters could not obtain a sufficient supply through legal channels. Livestock imported from France were too expensive and too few in number, for most French merchants ignored the edict.\footnote{163}{Mim’s Colbert’s West India Policy, 328-329.}

As such, by the 1680s, French planters were petitioning the king to allow foreign merchants to enter the islands with livestock. In particular, French planters petitioned for permission to exchange their molasses, a commodity without a market in France, for New England horses. In their petition, the French planters wrote, “this trade would occasion no diminution in the revenue of the King as there is no duty on syrups [molasses] and rum.”\footnote{164}{Mims, Colbert’s West India Policy, 220-222.} Colbert’s resistance notwithstanding, the colonists circumvented French law to open trade. Though little evidence exists, it is probable that New England merchants opened a trade with the French West Indies after 1680, one that would only grow through the American Revolution.
To counter reliance on foreigners to supply the plantations, French policy makers tried to foster intra-colonial trade so that the islands could obtain livestock, food, and lumber from other colonies in French America. Since the cost of transporting these goods from France to the Caribbean was high, French imperial policymakers tried to create a provisioning trade from their colonies in Louisiana and Canada to the islands. Despite its large size, French Louisiana did not become a major source of supplies for the French West Indies in the seventeenth century; only a few ships traded intermittently between Louisiana and the French West Indies. The trade routes between Louisiana and the French West Indies passed through Spain’s imperial defenses, which severely constrained this commerce as many ships were captured.\footnote{Nancy Miller-Surrey, \textit{The Commerce of Louisiana During the French Regime} (New York: Columbia University Press, 1916): 367-387.} No more than 10 ships a year traded between the two regions through 1763, when the French lost Louisiana.\footnote{Clarence P. Gould, “Trade Between the Windward Islands and the Continental Colonies of the French Empire, 1683-1763,” \textit{The Mississippi Valley Historical Society} 25 (1939): 474.} French finance minister Jean Baptiste Colbert tried to encourage Canadian trade with the French West Indies in the 1660s.\footnote{Mims, \textit{Colbert’s West India Policy}, 220-222; Gould, “Trade Between the Windward Islands,” 475.} But, between 1670 and 1700, only a total of 75 cargoes traded between the two regions.\footnote{Pritchard, \textit{In Search of Empire}, 198.} As late as 1708, the minister of Marine, Jerome de Pontchartrain, was dismayed at Canada’s inability to provide foodstuffs for the islands.\footnote{Dale Miquelon, “Canada’s Place in the French Imperial Economy: An Eighteenth Century Overview,” \textit{French Historical Studies} 15 (1988): 434.} Though forbidden by French law, French West Indian planters obtained most of their lumber,
foodstuffs, and draft animals from British North America. In 1717 and 1727, royal
outrage over the size of the illegal British North America trade prompted the French
government to impose the Lettres Patentes, in order to bar direct trade between the
British mainland colonies and the French West Indies and to grant Canada a
monopoly of the island market. As a result of these laws, Canada assumed a much
larger role in supplying foodstuffs and lumber to the French West Indies. After 1730,
between 20 and 30 ships annually plied the waters between the French West Indies
and Canada. Even so, much of Canada’s lumber exports to the French West Indies
were in fact smuggled into Canada from New England. Crop failures in 1742 and
1743, coupled with the disastrous effects of King George’s War and the Seven Years
War, undermined Canada’s provisioning trade with the islands. The loss of
Canada and Louisiana in 1763 and the inability of planters in French Guiana to
supply foodstuffs forced French policymakers to open up the French West Indies to
supplies from British North America. Overall, throughout the colonial period, the
French West Indies depended in no small measure on British North America for
supplies, as the rest of French America proved insufficient. Though estimating the
exact volume remains elusive, it is clear that the French West Indies obtained a

172 Gould, “Trade Between the Windward Islands,” 483.
173 Miquelon, “Canada’s Place,” 442.
considerable portion of their food, lumber, and draft animals from the northern mainland colonies. For one thing, in 1770, the French West Indies supplied 87% of British North American imports of molasses, or roughly 5.8 million gallons.\textsuperscript{175}

British North American merchants also exploited the markets for foodstuffs, lumber, and draft animals in the Dutch West Indies. Once the plantation complex emerged in Surinam, Essequibo, and Demerara, Dutch demand for these items rose. However, with the loss of New Netherlands in the 1660s, the Dutch had no temperate colonies to supply these goods. By 1675, British North American merchants began exporting goods to Surinam. Despite early laws prohibiting commerce with British North America, Dutch policy makers legalized this commerce in 1704, when Surinam imposed taxes on it and stipulated that each ship bring in at least one horse. Between 1683 and 1794, Dutch historian Johannes Postma has calculated that over 4,000 ships, carrying over 33,000 horses, traded between British North America and Surinam, most of which came from New England. In addition to horses, North American mainland merchants exported foodstuffs to Surinam worth 146,428 guilders in 1705 and 753,735 guilders in 1744. Starting in the late seventeenth century, British North American merchants also exported horses and foodstuffs to Essequibo and Demerara, sending three ships in 1703 and 124 in 1770.\textsuperscript{176}

In addition to the trade to Surinam, British North American merchants also traded with the Dutch colonies of Curacao, St. Eustatius, and St. Maarten. With its


\textsuperscript{176} Postma, “Surinam and its Atlantic Connections, 1667-1795,” 300-305; Van Der Oest, “The Forgotten Colonies,” 353-357.
natural salt ponds, St. Maarten was a major source of salt for the Atlantic world, a commodity particularly important for preserving meat, butter, fish, and cheese.

Situated right off the coast of Spanish America, Curacao was a major emporium for smuggling with the Spanish Main. Because of its dry climate, Curacao had to import foodstuffs. New York and Pennsylvania supplied flour and other provisions to this island. British North American merchants also supplied St. Eustatius with a range of commodities, from draft animals, foodstuffs, and lumber. Many of these goods were later re-exported to the French West Indies and the Spanish mainland empire. Data from ship entrances and clearances in 1744 give an indication of Curacao’s role as an emporium. Of the almost 700 vessels that entered or cleared Curacao that year, the Spanish Mainland had 56.2%, the French West Indies 15.2%, British North America 12.5%, the Dutch West Indies 6.2%, the British West Indies 4.7%, the Netherlands 3.6%, and the Danish West Indies 1.1%.  

Located between the British and French West Indies, St. Eustatius became a major entrepôt, handling goods from all over the world. Dutch neutrality during many of the eighteenth-century wars allowed this island to act as a transfer station, exchanging mainland provisions for French West Indian sugar, rum, and molasses.  

St. Eustatius attracted ships from all over the Atlantic world. In 1744, of the 1,240 ships that entered or cleared from this island, 20% came from the French West Indies, 46.2% came from the British West Indies, 23% from the Dutch West Indies, 3.3%

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177 Calculated from Goslinga, *Dutch in the Caribbean*, 218-220.
from British North America, 3% from the Danish West Indies, 2% from the Spanish
Mainland, 1.6% from Africa, and 1% from the Netherlands.\textsuperscript{179}

On the range of commodities available in the markets of St. Eustatius in the
1770s, a Scottish traveler noted:

But never did I meet with such variety; here was a merchant vending his
goods in Dutch, another in French, a third in Spanish, etc. etc…From one end
of the town of Eustatia to the other is a continued mart, where goods of the
most different uses and qualities are displayed before the shop doors. Here
hang rich embroideries, painted silks, flowered Muslins, with all the
manufactures of the Indies. Next stall contains most exquisite silver plate, the
most beautiful indeed I ever saw, and close by these iron-pots, kettles and
shovels. Perhaps the next presents you with French and English
millinarywares. But it were endless to enumerate the variety of merchandize
in such a place, for in every store you find everything, be their qualities ever
so opposite.\textsuperscript{180}

British North American merchants also regularly traded with various parts of
the Spanish Empire. This trade was both indirect and direct. Indirectly, North
American exports to Jamaica and the French West Indies were later re-exported
through these island’s smuggling chains into the Spanish West Indies.\textsuperscript{181} North
American merchants also traded directly with Spanish Florida, exchanging foodstuffs
for bullion. After 1650, English loggers illegally settled on the northern shores of
Central America. There they felled trees and exchanged them with smugglers from
the British Caribbean and British North America. By 1700, there were upwards of

\textsuperscript{179} Calculated from Goslinga, \textit{Dutch in the Caribbean}, 204-205.
\textsuperscript{180} Schaw \textit{Journal of a Lady of Quality}, 136-137.
\textsuperscript{181} Christelow, “Contraband Trade Between Jamaica and the Spanish Main,” 309-343; Frances
Armytage, \textit{The Free Port System in the British West Indies: A Study in Commercial Policy, 1766-1822}
Struggle for British West Indian Commerce, 1650-1750} (Gainesville: University Press of Florida,
1984).
5,000 English settlers in this region and between 40 and 75 ships traded there annually. In 1751, English and American merchants exported over 8,000 tons of logwood from Belize to England, valued at £160,000. Over the course of the eighteenth century, North American merchants traded with Cuba and Monte Christi in Hispaniola as well. Spanish neglect of peripheral regions of the empire opened illicit channels of trade. For example, Cartagena was a large port town in New Grenada, not far from the silver shipping lanes. Nonetheless, the Spanish system of trade largely neglected this port, sending only 1 ship every 18 months between 1712 and 1763. Shortages of all goods created growing incentives for foreign merchants to smuggle goods into Cartagena. Merchants from New York and Philadelphia exported flour and manufactures to Cartagena over the course of the eighteenth century. In the 1760s, a series of climate changes caused deleterious droughts and floods throughout the Caribbean, striking all European colonies. Hurricanes hit Puerto Rico and Cuba particularly hard, destroying subsistence crops and causing

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widespread food shortages. As a result, Spain granted their Caribbean possessions temporary permission to open their ports to foreign vessels, in order to obtain much-needed provisions. In the 1760s, merchants from Philadelphia and New York exploited these openings, engaging in a lucrative provision trade to these islands.

Though the smallest plantation complex in the Caribbean, the Danish West Indies were a market for producers on the North American mainland. Since the first years of their settlement in the late seventeenth century, the Danish West Indies relied, in no small way, on foreign merchants for their slave imports. One scholar estimated that just under half of all of the slaves imported into the Danish West Indies came from Dutch, French, and British slavers.  

Like the Dutch, the Danish West Indies lacked a mainland empire to supply foodstuffs, lumber, and draft animals. In the eighteenth century, Danish policymakers, therefore, allowed North American merchants to export food, draft animals, and lumber to the islands. This trade was facilitated by the presence of major English and Dutch populations in the Danish islands. From the time of settlement, St. Thomas’s population consisted of a substantial contingent of Dutch settlers, while English settlers represented a sizeable portion of St. Croix’s population. Though statistics are lacking for the period 1700–1750, during the Seven Years War, Danish neutrality allowed these islands to act as transfer zones, exchanging North American products for French West Indian sugar, rum, and molasses. Between 1756 and 1763, 385 ships from British North


188 Hall, Slave Society, 9-18.
America, 90% of which came from the Middle Colonies and New England, traded with the Danish West Indies. When peace was restored, this trade reached unprecedented heights. In 1764, 148 mainland vessels traded with the Danish West Indies, while 303 vessels traded there in 1774.\footnote{Jean Louise Willis, “The Trade Between North America and the Danish West Indies, 1756-1807, With Special Reference to St. Croix,” (unpublished Ph. D. Dissertation, Columbia University, 1963): 24.}


imported into the northern colonies or exported to markets in the West Indies. In various ways, northern merchants had access to markets in virtually every part of the Caribbean basin. Large-scale specialization in plantation production created markets for northern commodities and services.

After the West Indian trade, the trade among the mainland colonies was a considerable branch of commerce. Over the course of the eighteenth century, commerce among the North American mainland colonies—or as scholars call it, the coastal trade—expanded rapidly, as regional specialization opened market opportunities for interregional and intraregional trade. Though the average tonnage per vessel employed in the coastal trade was relatively small, the number of vessels involved in this trade rivaled that of other markets. There were three main aspects of this coastal trade: 1) smaller colonies exporting their commodities to larger port towns for re-export to other regions of the Atlantic basin, 2) distribution of West Indian commodities or British manufactures from major mainland ports to smaller regions, and 3) the trade in foodstuffs from surplus regions to deficit regions.

All North American mainland colonies engaged in commerce. But some colonies either lacked deep-water harbors or adequate capital and transportation for trade with distant markets. Thus, these colonies relied on larger port towns to carry their goods to other markets. For instance, a large portion of New Jersey’s commodities were sent to New York City to be exported to distant markets. Of the total number of ships entering and clearing New Jersey ports, 66.3% were in the

coastal trade in 1722–1727 and 60.3% in 1763–1764. Similarly, almost all of Delaware’s commodities were first exported to Philadelphia from where they were re-exported to other places. Having navigational dangers and no deep-water port, North Carolina producers relied on Virginia and Pennsylvania ports to ship about half of their commodities to overseas markets. Even large colonies relied on merchants from other colonies to export their commodities from time to time. Often, Boston merchants took out ads in neighboring colonies in search of exportable goods to fill the cargo holds of their ships when commodities in their region were scarce. Connecticut exported almost all of its flaxseed to New York, whence it was exported to Ireland.¹⁹²

The coastal trade served as a major distribution of imported goods, mainly British manufactures and West Indian commodities. Many regions of the mainland lacked access to direct trade with Britain. The Chesapeake and Lower South consumers had ready access to British manufactures since tobacco, rice, and indigo attracted a number of British vessels laden with manufactures. The northern colonies, on the other hand, lacked staples sufficient to export to Britain. Only Philadelphia, New York City, and Boston were able to trade directly with Britain. The rest of the mainland colonies relied on these three ports for their manufactures. Statistics are lacking on the distribution of British manufactured goods in the coastal trade, but they

do exist for West Indian goods. New England colonies were the largest importers of West Indian goods, followed by the Middle Colonies. In 1714–1716, Massachusetts exported an annual average of 12,600 gallons of rum, 19,600 gallons of molasses, 2,100 cwt of sugar, and 4,000 bushels of salt in the coastal trade. In 1761–1765, Massachusetts exported an annual average of 209,000 gallons of rum, 99,000 gallons of molasses, 5150 cwt of sugar, and 13,500 bushels of salt. West Indian commodities were distributed in a north to south direction. Northern merchants supplied 34% of the rum, 35% of the molasses, and 12% of the sugar imported into South Carolina, while a combination of West Indian and domestic merchants supplied the rest. Between 1760 and 1769, 90% of Virginia’s imports from other mainland colonies consisted of West Indian commodities. Of New England’s average annual coastal export amounting to £304,000 in 1768–1772, West Indian commodities totaled £140,000, or 46%, while foodstuffs and lumber comprised most of the rest.193

The coastal trade also encouraged regional specialization within the mainland colonies, as regions with deficits in foodstuffs drew in supplies from surplus regions. This trade tended to take a south to north direction. With a booming maritime economy and a growing population, New England’s rocky soil could not grow sufficient food to meet the needs of its residents. Massachusetts was the largest single market, importing an annual average of 2,100 bushels of grain, 102 barrels of

flour, and 142 barrels of beef and pork in 1714–1717. By 1761–1765, Massachusetts imported an annual average of 250,000 bushels of grain, 38,000 barrels of flour, and 3,200 barrels of beef and pork. Rhode Island, Maine, and New Hampshire were also food-deficit colonies. Northern demand for foodstuffs was an important factor in the diversification of production in the Chesapeake. Faced with a volatile tobacco market, many Chesapeake planters shifted resources into grain production for local markets, as well as for export. Virginia’s exports to New England and the Middle Colonies consisted of an annual average of 80,221 bushels of corn and 10,224 bushels of wheat. By 1768–1772, Virginia exported an annual average of 319,800 bushels of corn and 68,291 bushels of wheat to these two regions. But even more than the Chesapeake, the Middle Colonies were the granaries of the Atlantic world, producing 91% of the bread and flour exported in the coastal trade between 1768 and 1772.

Even South Carolina participated in the coastal trade, exporting to the northern colonies 1,985 barrels of rice in 1717 and 15,684 barrels in 1763.194

By 1770, then, merchants in the North American northern colonies linked domestic producers to close to 1 million slaves and plantation owners in the West Indies and a sizable number of consumers in mainland Spanish America. In addition, the coastal trade created a continent-wide opportunity for arbitrage, as producers and merchants in regions with surplus commodities (i.e., British manufactures, foodstuffs, 

West Indian commodities) shipped their goods to deficit regions. Over time, the coastal trade moved mainland prices toward convergence, as the regular exchange of commodities between regions led to arbitrage. The correspondence of mainland merchants illustrates this latter point well, as they frequently shared price information in order to secure the best possible transactions. Printed current price lists in colonial newspapers further spread information on market conditions. Also, the coastal trade fostered regional specialization, further promoting the growth of the overall Atlantic economy. Though boasting a multifarious maritime economy, New England generally lacked sufficient foodstuffs for its own population. On the other hand, volatile world tobacco markets compelled many producers in the Chesapeake to shift production into foodstuffs. While Chesapeake food exports to New England allowed the latter region to specialize in the maritime economy, they also provided a much-needed outlet for the output of productive resources in the former region.

James Shepherd and Gary Walton’s book remains the most valuable work on the economic history of the 13 colonies.¹⁹⁵ Scholars have employed Shepherd and Walton’s work in their examinations of the causal relationship between trade and colonial economic development. In his survey of the literature on the economic history of early America, Edwin Perkins dismissed the centrality of trade in the process of economic development, basing his conclusions on Shepherd and Walton’s estimates.¹⁹⁶ Most tables quantifying trade in John McCusker and Russell Menard’s

Economy of British America (1985) draw on Shepherd and Walton. In his article on the importance of the West Indian trade to the economic development of colonial New England, David Richardson argued that the West Indian trade contributed only 10% of this region’s per capita income, an argument based solely on estimates derived from Shepherd and Walton. Yet, in many ways, Shepherd and Walton’s work falls short in estimating the value of colonial commerce. In a recent estimate of British North American exports for the year 1770, John McCusker has estimated that exports amounted to £3.56 million (sterling) compared to Shepherd and Walton’s estimate of £2.8 million for the same year. McCusker’s new estimate is 27% higher than Shepherd and Walton’s earlier estimate.

Table 1.3 Average Annual Value of Exports from the Northern Mainland Colonies to Atlantic World Markets, 1768-1772 (all values in £ Sterling)

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<th>Africa</th>
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1.4 The Atlantic Economy and Economic Development in the Mainland Colonies

What effect did the Atlantic economy have on the long-term economic development of British North America? For the southern mainland colonies, the effect was clear; the export of tobacco, rice, and indigo by slave plantations generated an enormous amount of wealth. In many economic indices, the southern colonies were wealthier than the northern colonies. Though the population of the southern mainland colonies represented only 47% of the total British North American population, these colonies produced 61% of total mainland exports and 75% of mainland exports to Britain in the years 1768–1772. The white per capita exports from the South (£2.8) was more than double that of the New England colonies (£.9) and the Middle Colonies (£1.1) based on the estimates made by Shepherd and Walton. According to the most recent estimates of the wealth of the mainland colonies, the southern wealth per free white individual in 1770–1775 (£87.4) dwarfed that of New England (£32.7) and the Middle Colonies (£50.8).  

The southern mainland colonies relied overwhelmingly on the export of a few staple commodities to Europe. Though very lucrative exports, their inducement to spread effects in the domestic economy was relatively limited. The southern colonies constructed a large, and growing, trade with the West Indies and coastal markets, two branches that were effecting considerable structural changes in the southern economy. In particular, these two branches of trade fostered the process of urbanization in the

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199 Peter A. Coclanis, “The Wealth of British America on the Eve of the Revolution,” *Journal of Interdisciplinary History* 21 (1990): 259, Table 2; Calculated from Eltis et. al, “Introduction,” 10, Table 2; Customs 16/1.
South, as the concentration of shipbuilding and processing industries in port towns led to a growing non-rural population. The development of several southern port towns—Norfolk, Annapolis, and Baltimore—attests to the transformative nature. Even so, the coastal and West Indian trade remained a relatively minor maritime activity of the southern colonial economy. By 1768–1772, 67% of the value of all Chesapeake exports consisted of tobacco exports to Britain, and 47% of the value of Lower South exports consisted of rice and indigo exports to Britain, while most of the rest consisted of rice to coastal and West Indian markets. The production of staples using slave labor continued to be the main source of earnings for the southern colonies. And British merchants wielded the most control over the export of rice, tobacco, and indigo, supplying the vessels, insurance, and marketing services. Even though there were marketing innovations, such as the consignment system and system of stores in the Chesapeake, British merchants continued to export 81% of South Carolina’s rice between 1763 and 1767 and between 62% and 87% of Chesapeake tobacco.

Despite the considerable income generated on southern plantations, its effect on fostering diversification was less marked. It was not entrepreneurial backwardness but the structure of market opportunities that explains southern reliance on British merchants and investment strategies. Southern merchants followed rational business strategies, investing capital in endeavors with the highest yields, mainly plantation

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201 McCusker and Menard, *Economy of British America*, 130, Table 6-1, 174, Table 8-2; Shepherd and Williamson, “Coastal Trade,” 798, Table 2.
the Revolution, the southern mainland colonies remained primarily rural, economically dependent on the export of a few slave-produced commodities, and without sizable domestic manufacturing or much economic diversification around the export base. Backward linkages from exports—shipbuilding and processing industries, for example—did not develop from the export of commodities to Europe, but were associated with the export trades to the West Indies and coastal markets. And most invisible earnings associated with overseas trade, such as freight, insurance, and profits, accrued to British merchants given their dominance of the region’s transatlantic trade.

The process of economic development in the northern colonies was much different. Without natural resources to develop staple exports to Britain, northern merchants were compelled to construct other commercial outlets to offset their trade deficits with Britain. Northern merchants traded on their own account—using their

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own vessels, employing their own capital, and purchasing the cargoes—to the West Indies almost from its earliest stages.\textsuperscript{203} As such, the export of foodstuffs, lumber, and draft animals to the West Indies—in addition to the trades to Africa, coastal markets, and Southern Europe, all of which northern merchants controlled—fostered backward linkages throughout the northern colonies. To be sure, London merchants continued to engage in the export trade from Britain to the northern colonies, providing insurance, credit, and often shipping services.\textsuperscript{204} Nevertheless, compared to those in the South, Northern merchants exercised almost total entrepreneurial independence in all of their branches of commerce.

As a result, the northern export trade provided a stronger stimulus to the urbanization process and economic diversification in these colonies. The export of services (freight and insurance, for example) earned northern merchants a considerable flow of income. To give an order of magnitude, by the end of the colonial period, shipping alone earned the colonies an annual average of £600,000 between 1768 and 1772, or the second largest source of overseas remuneration behind tobacco’s £766,000 for the same period. Total invisible earnings from shipping, insurance, and profits for the thirteen colonies in the period 1768–1772 amounted to an annual average of £817,000. Of this total, northern merchants earned £678,000, compared to only £139,000 for southern merchants.\textsuperscript{205} Invisible earnings not only

\textsuperscript{203} Pares, \textit{Yankees and Creoles: The Trade Between North America and the West Indies}, 1-16.
\textsuperscript{205} Estimates on invisible earnings are from Shepherd and Walton, \textit{Shipping, Maritime Trade}, 128, Table 7.6, 134, Table 7.7, 135.
helped to partially offset trade imbalances with Britain, but also provided funds for northern merchants to invest in their domestic economies fostering economic diversification. Merchants in the northern colonies invested their earnings from trade in a range of ancillary industries. Northern trade to the West Indies fostered the development of backward linkages in the colonies leading to urbanization in the port towns. Shipyards sprang up all over the region to supply vessels to transport goods to the islands, most of which were located in the commercial centers. The export of foodstuffs to the islands further fostered backward linkages and urbanization, as processing industries like flour mills and butchers emerged in these commercial centers to prepare food for export. West Indian demand for wood products fostered the development of lumber mills in the same urban regions as well as elsewhere.  

The economic landscape of the northern colonies diversified further as the scale of involvement in the Atlantic economy deepened. By the revolution, several small-scale industries emerged in the colonies, most of which were concentrated in the northern port towns. The northern trade with the West Indies spawned two processing industries. The growing volume of molasses imports fostered a large rum distillation industry in the mainland colonies. Of the 140 rum distilleries in operation

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in 1770, 128 were located in the northern colonies, mostly in port towns. Likewise, 24 of the 26 sugar refineries in 1770 were located in the northern colonies.\textsuperscript{207} Aside from these processing industries, the mainland boasted several other small-scale industries. Though small by British standards, colonial pottery production was also concentrated in the northern colonies; between 1760 and 1775, 23 potteries operated in the North compared to only 5 in the South. In the same period, 31 paper mills were in operation in the North compared to only 2 in the South. All glasswork factories and 78\% of all silversmiths were located north of Maryland in 1775.\textsuperscript{208} The northern colonies also exported a range of other small-scale manufactured goods, like house frames, house furniture, and shoes.

More large-scale industries also developed in the northern colonies. Over the course of the eighteenth century, colonial whaling encouraged the expansion of domestic candle manufacturing. Between 1768 and 1772, an annual average of 147,068 pounds of spermaceti candles were exported from northern colonies, as opposed to only 1,231 pounds from the southern colonies.\textsuperscript{209} Furthermore, all building and construction in the Atlantic world relied on bricks and fabricated wooden products, like shingles, staves, hoops, and lumber, and all commodities shipped overseas required wooden casks, consisting of staves, shingles, and hoops. With abundant forests, the North American mainland colonies produced the bulk of these goods. A considerable portion of these commodities was shipped to the West

\textsuperscript{207} McCusker, “Rum and the Balance of Payments,” 50-55, 431-447.
\textsuperscript{209} Calculated from Customs 16/1.
Indies, particularly for making casks for later shipment of tropical commodities to Britain. In 1770, the northern exports to the West Indies consisted of over 22 million shingles, 3.5 million hoops, and over 27.5 million feet of pine boards.\textsuperscript{210} Finally, though prohibited by British mercantile restrictions, the North American mainland colonies created a domestic textile industry, albeit on a much smaller scale than in Britain. Between 1764 and 1790, 28 textile factories operated in the North, though mostly after 1783.

The largest industry in colonial America, however, was shipbuilding. Upon arrival on the mainland, the initial settlers of all colonies constructed sailing vessels of varying sizes, most of which were used for internal and local transportation. After the 1650s, a major divergence occurred, in which the northern colonies constructed a much larger fleet of vessels than that in the South. Plantation investments and southern reliance on British shipping no doubt were the main cause in this divergence. Table 1.4 illustrates the northern dominance in shipbuilding. Northern shipbuilders not only supplied their own domestic maritime economy, but also more than 33\% of total British shipping by the end of the colonial period, earning these colonies substantial credits in their balance of payments. According to John McCusker, by the end of the colonial period, merchants in Philadelphia invested about £500,000 in their fleet of vessels.\textsuperscript{211} Between 1769 and 1771, Pennsylvania

\textsuperscript{210} Calculated from PRO Customs 16/1.
shipyards produced about 10% of total northeastern vessels. Based on McCusker’s estimate, it is possible that total northeastern investment in vessels could have amounted to £5,000,000 by the end of the colonial period. For the northern colonies, it is clear that the largest concentration of wealth was in the shipping fleet.

Table 1.4 Colonial North American Shipbuilding 1769-1771 (tonnage)

<table>
<thead>
<tr>
<th>Region</th>
<th>1769</th>
<th>1770</th>
<th>1771</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Colonies</td>
<td>15,942</td>
<td>17,726</td>
<td>19,401</td>
</tr>
<tr>
<td>Southern Colonies</td>
<td>4,059</td>
<td>2,884</td>
<td>4,667</td>
</tr>
<tr>
<td>Total British North America</td>
<td>20,001</td>
<td>20,610</td>
<td>24,068</td>
</tr>
</tbody>
</table>

Source: Price, "A Note on the Value of Colonial Exports of Shipping," 707, Table 1

Overall, the economies of the northern colonies were considerably transformed by their involvement in the Atlantic economy. When British North America was first settled, there were no urban centers as in the Spanish Empire. By the Revolution, the northern colonies contained three of the largest urban centers on the mainland (New York, Boston, and Philadelphia), as well as smaller port towns up and down the coast (i.e., New London, New Haven, Salem, Newbury, Portsmouth, as well as many others). Over time, as more northern merchants engaged in Atlantic commerce, the process of urbanization spread throughout the region. The concentration of shipyards, processing mills, taverns, distilleries, small-scale

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212 Calculated from Jacob M. Price, A Note on the Value of Colonial Exports of Shipping," Journal of Economic History 36 (1976): 707, Table 1.
industries, and retail shops generated by overseas trade led to the growth in population of these urban centers up and down the coast. It was not autonomous population growth that gave rise to these port towns. Rather it was structural processes associated with changes wrought by involvement in the Atlantic economy. Thus, on the eve of the American Revolution, there emerged a large urban population in the northern port towns, one not directly engaged in farming activities.

What effect did the growth of northern port towns have on the spread of production for market exchange in the northern countryside? This is a question that has not received much attention. Over the past several decades, there has been a regional disconnection in the study of the economic history of the northern colonies: the maritime economy and the farming economy have been studied in isolation. There have been few attempts to link the two regions in a broader discussion of the economic development process. The many works on small New England communities written in the 1970s largely painted these regions as existing in isolation from the developing maritime economy of the port towns. Stephen Hornsby’s recent discussion of the economic geography of British America has divided the

\[213\] For an exception to this rule, Daniel Vickers’s two recent works have connected the development of Essex County’s maritime economy with the surrounding countryside. See Daniel Vickers, Farmers and Fishermen: Two Centuries of Work in Essex County, Massachusetts, 1630-1830 (Chapel Hill: University of North Carolina Press, 1994); Young Men and the Sea: Yankee Seafarers in the Age of Sail (New Haven: Yale University Press, 2005).

region into 3 major spheres: a marine empire consisting of the West Indies, New
Foundland, and the Hudson Bay; a frontier empire consisting of the backcountry
throughout the mainland; and an intermediate zone consisting of the port towns of
British North America and the staple-producing regions of the southern colonies. Hornsby’s analysis depicts these three regions as largely isolated from one another
and mostly unchanging. In other words, each region developed along a trajectory that
did not relate to or affect the development of the other regions.

The separation of the countryside from port towns has been reinforced by the
ongoing debate on the transition to capitalism in early America. Some scholars argue
that the mentalité of early American farmers eschewed market production in favor of
subsistence or communal production, since they favored the family and community
over concerns of income maximization. These scholars argue that the system of
social classes in the colonial period can be characterized as neither feudal nor
capitalist. Outside of port towns, the argument goes, farmers in the countryside
produced and consumed in a world almost detached from the vicissitudes of Atlantic
commerce. Others hold that American households were not hostile to the market in
the early years of settlement for the entire process of settlement was market-driven.
They argue that the magnitude of subsistence production reflected the level of market
opportunities; early American farmers responded to market opportunities once they

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215 Hornsby, *British Atlantic, American Frontier*.
216 For the scholars that view producers in early America as subsistence producers, see James A.
Kulikoff, *The Agrarian Origins of American Capitalism* (Charlottesville: University Press of Virginia,
became available. The transition from the predominance of subsistence production in the early years of settlement to the dominance of market production was a gradual process that evolved at different points and in different ways in each region of colonial America.\textsuperscript{217} Recently, Richard Bushman summarized the debate, arguing that early American farms are best characterized as "composite farms," in which elements oriented toward market production and self-sufficiency coexisted. Farmers produced for their own needs first, engaging in market production once opportunities arose. Also, the market process did not undermine the farmer’s devotion to their families; rather, market production boosted family income and welfare. Bushman’s analysis essentially downplays the revolution in the Market Revolution, in favor of a much more gradual process of change from composite farms to full-fledged commercial farms.\textsuperscript{218}

The disconnected study of the ports and the countryside is misleading because there was a symbiotic relationship between the two regions. The Vent-for-Surplus model and the industrious revolution drove the integration of the port towns with the countryside. The development of port towns, a process largely dependent on the export and import business and shipbuilding, was linked directly and indirectly to


producers throughout the rural hinterlands. Some of the exports, such as food, lumber, and draft animals were almost entirely purchased from producers throughout the countryside. Much of this effort at producing these commodities was driven by the industrious revolution, whereby producers devoted more household resources to market exchange in order to obtain imported commodities. In exchange, merchants in the port towns supplied inland producers with British manufactures and West Indian commodities. This process of exchange was interdependent and stimulated the spread of production for market exchange throughout the northern colonies.

Gradually, a complementary economic relationship developed between northern port towns and the countryside. In the early decades of settlement, the West Indies were the main market for northern commodities. The development of the port town–countryside relationship was linked initially to the Caribbean plantations. The process of market expansion was deepened as northern port towns expanded in size, each containing a large and growing non-farming population. The growth of shipping fleets required growing supplies of lumber for domestic uses. Moreover, over time, as economic diversification increased with the creation of new industries—processing mills, textile industries, and refineries for example—northern ports acquired a large and growing non-farm population (roughly 20% of the total population by 1770) that served as another market for countryside foodstuffs. Thus, over time, producers in the countryside supplied markets overseas, primarily the West Indies, and a growing

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domestic market focused in the port towns. An ancillary process also deepened the process of market expansion. Large regions of the northern colonies became specialized producers of certain commodities for export. For instance, Wethersfield, Connecticut, was transformed into one of the largest sources of onions in the Atlantic world, probably producing up to 70% of total North American onion exports. Similar processes of specialization occurred in the horse-raising regions of eastern Connecticut and Narragansett, Rhode Island, the fishing regions of Eastern Massachusetts and Nantucket, and the lumber regions of northern New England, for example. The concentration on specialized production for export in these regions opened markets from the surrounding countryside for provisions.

Presenting the development of the port towns as separate from the backcountry ignores the interdependent nature of the regions. All families in the backcountry needed imports, ranging from necessities such as textiles, to luxuries like sugar and rum.²²⁰ The series of transactions recounted at the beginning of this chapter exemplify the nature of this demand. Joshua Elderkin, the interior merchant, collected livestock from a range of producers, paying them in rum, molasses, and indigo. These items were available only through trade with the port towns. Likewise, the entire existence of these port towns relied on the continuous supply of commodities from the countryside, without which the whole process would break down.

Disconnection in the study of the port towns and countryside is associated with a neglect of the process of integration. We know little of the transportation networks of roads, bridges, and ferries that carried goods from the interior to the coast. There have been a few attempts to analyze the network through which interior produce was exchanged for commodities from the port towns. Scholars have analyzed the role of inland merchants, taverns, and traveling peddlers in the spread of market activities deeper in the interior. Inland merchants, setting up retail establishments and extending credit to local producers, were crucial in the diffusion of market production. These merchants exchanged West Indian commodities and British manufactures for local farm produce and livestock, which were later transported to the coast for consumption or export. A few works have also examined the role of the ubiquitous taverns of early America in spreading market production. Though initially set up to retail strong drink and provide shelter for travelers, over time, taverns offered a range of services, selling West Indian goods and manufactures and extending credit to local producers. In particular, taverns often served as collection sites, whereby local farmers sent their commodities and surplus livestock. Once a large enough collection was assembled, these goods were later shipped to the coast for consumption or export. Research on the role of peddlers in this process of expansion is relatively new. It is clear that the peripatetic peddler distributed goods
over a wider area, covering a terrain much larger than taverns and general stores in the deep interior and frontier regions.\textsuperscript{221}

The contours of the Atlantic economy are becoming better known, but there are still many gaps. The expansion of the market economy relied on the evolving Atlantic economy and the specialization attendant with involvement.

Chapter Two: Connecticut and the West Indian Trade

The March 29, 1771, issue of New Haven’s only newspaper, the Connecticut Journal, reported the usual litany of colonial news with a singular focus on the mishaps of American vessels sailing to various regions of the Atlantic World. While rogue gales causing considerable travails for sailing vessels operating out of Newport, Philadelphia, Charleston, or Boston may have sparked marginal curiosity for Connecticut readers, one brief story would certainly have drawn their attention. The newspaper reported that on Christmas Day in 1770, a “violent gale of wind” struck five or six Connecticut vessels on their way to the West Indies, killing between twelve and fourteen resident sailors and over 100 horses. Even though Connecticut readers were used to reading about the losses of resident sailors, vessels, and cargoes in a trade exposed to extreme variations in weather patterns, the concentration of losses in this one storm must have been more poignant.

Though this story can easily be dismissed as one in a long line of expected losses Connecticut merchants suffered while trading to the West Indies, it is the writer’s concluding aside that would resonate with most Connecticut merchants. After illustrating the sheer losses that Connecticut merchants suffered in this one storm, the writer noted:

N.B. By a good calculation, it appears that the Northern Colonies have sunk near 50 percent on all the horses shipped for the West Indies for 10 years past. [Profits on the horse trade were about 50%] How well worth pursuing such a trade! And who would not kill all their sheep to enable them to raise horses?¹

In this one paragraph, the writer illustrated a fact that would resonate with most Connecticut merchants: the West Indian trade constituted the foremost element in the commercialization process in the colony. Even though the writer was referring to the horse trade, the article underlined the centrality of exports to the West Indies in the economy of the northern colonies. As this chapter will demonstrate, trade to the West Indies comprised the largest element in the commercialization process in Connecticut, a process that fostered the development of a market-based economy in the latter colony.

While the economic history of colonial Connecticut has received only passing attention, its West Indian trade is a more prominent topic in the literature. Several past works have highlighted the importance of this trade to colonial Connecticut’s maritime economy. The focus of most of these works, however, is on the late colonial period. Because of the destruction of Connecticut’s Naval Office Shipping Lists (NOSL), it is almost impossible to quantify trade before 1768.

This chapter reassesses Connecticut’s West Indian trade based on an extensive examination of extant British West Indian NOSL, Dutch West Indian Company

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Records, merchant correspondence, and colonial newspapers. As such, the discussion of Connecticut’s West Indian trade is pushed back in the seventeenth century and a more focused discussion is made on Connecticut’s trade with the foreign West Indies. Even though other scholars on Connecticut have pointed out the importance of livestock exports, attempts are made to indicate the dominance of Connecticut in livestock exports in relation to the rest of British North America. Finally, a new estimate of the value of Connecticut’s trade with the West Indies is offered, one that is much larger than hitherto thought.

3 In the absence of NOSL for Connecticut for most of the colonial period, I have gone through all of the other surviving NOSL for the rest of British America. All vessels trading between Connecticut ports and the rest of the Atlantic World were taken out of these surviving lists. For the British West Indies, PRO/TNA CO 27/12-14 Bahamas 1721-1757, CO 41/8-12 Bermuda 1715-1751, CO 33/13-17 Barbados, T 64/47-9 Barbados 1710-11 1772-76, 1678-1764, CO 76/4 Dominica 1764, CO 106/1-8 Grenada 1764-7, CO 187/1 Nevis 1704, CO 265/1-2, T1/489, 498, 507, 512 Antigua, Montserrat, Nevis, St. Kitts 1772-75, T1/493, 498, 502, 509, 512 Antigua 1772-75, St Vincent 1763-65, CO 290/1 Tobago 1766-67. The lists for British North America were also consulted. CO 5/573 East Florida 1765-69, CO 5/709-10 Georgia 1752-1767, CO 5/749-1750 Maryland 1689-1702, 1754-1765, CO 5/843-851 Massachusetts 1686-1719, 1752-1765, CO 5/967-969 New Hampshire 1723-1769, CO 5/1035-1036 New Jersey 1722-1764, CO 5/1222-1228 New York 1713-1764, CO 5/508-511 South Carolina 1716-1765, CO 5/1441-1450 Virginia 1699-1770, CO 221/28-31, T 64/84, T1/360, 369, 379, 387, 393, 411 Nova Scotia 1730-1766. A partial list of New Haven’s surviving customs was consulted. National Archives, New Haven Customs, A List of Foreigners Inwards and Outwards, 1762-1801. The Dutch West Indian port records, recorded in the New West Indian Company’s Volumes for St. Eustatius and St. Marten were also consulted. Connecticut’s trade with the Dutch Colony of Surinam was recorded by Johannes Postma, Postma Data Collection. For the Danish West Indies, surviving port records were recorded in Jean Louise Willis, “The Trade Between North America and the Danish West Indies, 1756-1807: With Special Reference to St. Croix,” (Unpublished Ph D. Dissertation, Columbia University, 1963). To supplement these customs lists, all surviving colonial newspapers (America’s Historical Newspapers Database) were consulted to find Connecticut vessels trading to the West Indies and other Atlantic markets. In addition, the New London County Court Files (RG 3, Connecticut State Library) were examined for cases dealing with overseas trade. Finally, several merchant collections and account books were consulted to find further voyages. For instance, among the collections consulted were Nathaniel Shaw Papers at Yale and New London County Historical Society, Thomas Allen Papers, American Antiquarian Society, Ebenezer Grant Papers at Connecticut State Library and Wood Memorial Library, East Windsor, Benedict Arnold Papers New Haven Colony Historical Society, the large collection of logbooks held at the Mystic Seaport Library, and several voyages were recorded in dozens of account books held in historical societies across Connecticut. This large assortment is henceforth called Connecticut shipping database.
The first two sections of this chapter examine the volume of Connecticut’s trade with the West Indies in the seventeenth and eighteenth centuries. The next two sections examine the range of goods exported and imported in the West Indian trade. Following commodities, the next section analyzes the markets for Connecticut’s trade. The chapter concludes with a discussion of the value of Connecticut’s trade with the West Indies.

2.1 The Seventeenth Century

It is unclear when the first Connecticut vessel traded with the West Indies. The settlement of the three Connecticut River towns (Hartford, Wethersfield, and Windsor) began in 1636 and the New Haven colony was founded in 1638. Eventually, in 1662, the two colonies merged to become the colony of Connecticut. Despite the propitious location of the new colony, excellent farmland astride a large river, it is unlikely that much overseas trade took place in the first few decades of settlement. The need to secure the settlements from Indian attacks and clear the land undoubtedly checked the growth of production for export.

The seventeenth century is a statistical dark age for British North American commerce. Even without adequate sources, it is reasonable to say that Connecticut’s coastal trade was quite limited between its initial settlement in 1636 and 1676.

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5 It was not until 1696 that British imperial policy makers made a concerted effort to collect NOSL from the American colonies. The earliest extant NOSL for all of British America is a partial set for Barbados in 1678. Furthermore, only a few colonial newspapers from the seventeenth century have survived. Most colonial newspapers contained sections on shipping news, in which the customs officer listed arrivals and departures for the colony. In addition, only a handful of Connecticut account books exist for the seventeenth century, compared to over one hundred after 1700. The absence of seventeenth century records precludes a more sustained discussion of trade in this period.
Incessant warfare in the period down to 1676 severely taxed the resources of the nascent colony, as labor and capital were diverted from the task of clearing and cultivating land and constructing the necessary infrastructure—such as roads, wharves, and sailing vessels—for commercial growth. The presence of the potentially hostile Pequot Indians in what would become eastern Connecticut compelled the new colony to allocate considerable resources to internal defense, requiring adult males to perform periodic militia duty and shifting a large portion of taxes away from commercial investment to defense. The Pequot War (1637) imposed staggering hardships on Connecticut, as Old Saybrook and Wethersfield suffered destructive raids on their farms. During this war, 75% of adult males served in the militia and the colony imposed a tax amounting to £5 per adult, at a time when resources were needed for the development of internal transportation and clearing lands for farming. Despite the obliteration of the Pequot, anxiety and insecurity prompted the colony to impose compulsory militia service on all adult males and several towns instituted security watches, again shifting scarce resources away from internal development toward defense. England’s wars with the Dutch in 1652–54, 1665–67, and 1672–74 imposed further burdens on Connecticut’s resources. The Dutch in New Netherlands posed a direct threat to Connecticut’s long, undefended coastline, forcing Connecticut to increase militia service to protect inland settlements from an Indian attack on the one hand, and now to guard the coast from a potential Dutch attack on the other hand. Though the Dutch finally surrendered New York in 1664, removing a major threat, Connecticut became embroiled in the much larger
King Philip’s War in 1676–1677. Ultimately, Connecticut contributed 350 soldiers to service in Massachusetts and an astonishing £30,000 to the war effort. The colonist’s victory removed the last direct threat to Connecticut until 1776. Nevertheless, the allocation of taxes to military spending and the employment of adult labor in militia service diverted resources away from investment in infrastructure necessary for trade and constrained the growth of farms.

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6 The French in Canada were too distant to pose a direct threat to Connecticut’s territory. It was only in the period 1715-1726 that Connecticut faced a serious danger, more specifically to its maritime communications. The proliferation of pirate activity in the Caribbean after 1715 eventually spread throughout the coastal waters of British North America, particularly in New England. In New England, pirates had rich pickings since the coastal trade between Connecticut and Boston consisted of very small vessels with few guns and sailors. Defense against the better armed and manned pirate vessels was clearly impossible. Captain Teach, in particular, harassed New England’s coastal commerce. See Marcus Rediker, Villains of All Nations: Atlantic Pirates in the Golden Age (Boston: Beacon Press, 2004): 99. At times, the pirates Captain Low and Sam Bellamy operated off the coast of New England, presenting considerable difficulties for commerce in the region between 1715 and 1726. See the chapters on these two pirates in Captain Johnson A General History of the Pyrates (Mineola: Dover Press, 1999); In May 1717, newspapers warned their readers that a pirate ship and sloop were plying the waters between Long Island and coastal Connecticut. Boston Newsletter 5/6/1717. Though the pirate threat clearly hurt coastal trade, it did not pose much of a burden on the resources of Connecticut in the form of higher taxes, militia duty, and spending on defense. New London captain John Cranston was captured by pirates while trading between Philadelphia and Jamaica in the summer of 1716. The French pirate captured Cranston’s vessel around Puerto Rico. Upon release, the French pirate gave Cranston a previously captured New London sloop to carry the other sailors back to New London. Boston Newsletter 11/5/1716.

Connecticut trade to the West Indies began to grow after the transition to sugar production in the islands in the 1640s. The construction of wharves and shipyards in the separate New Haven colony attests to the potential for overseas trade in the 1640s. By the 1660s, the presence of more infrastructural development throughout Connecticut indicates a larger volume of trade. The Coit shipyard in New London built six vessels in the 1660s, most of which probably traded with the West Indies. A New Haven vessel, the *Endeavor*, made several trips to Barbados between 1660 and 1666. A Mr. Allerton of the New Haven Colony regularly dispatched vessels to Barbados in the 1650s. Some of the early merchants acquired large fortunes from the West Indian trade. For example, New Haven merchant John Hodson left an estate amounting to £2,200 sterling in 1690, the largest estate of the seventeenth century. Even so, the total volume of trade probably involved no more than a few vessels dispatched to islands each year before 1676.

After 1680, however, Connecticut’s West Indian trade underwent a rapid period of expansion. For one thing, victory in King Philip’s War removed a major obstacle to peaceful development in the colony. Furthermore, sugar production in Barbados began its rapid expansion in the late seventeenth century and by 1700 the

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10 Hooker, *Colonial Trade of Connecticut*, 16.
island probably boasted the highest per capita export in the Americas. Moreover, by the 1680s, the plantation complex that began in Barbados had spread to most of the Lesser Antilles, creating a much larger market for mainland commodities. The population of the Lesser Antilles grew from 79,000 in 1650 to 156,000 in 1700.

Thus, while a major obstacle to continued settlement was removed in Connecticut, at the same time the West Indian market for mainland commodities was expanding as the plantation complex spread to more islands. The period after 1680 was clearly auspicious for Connecticut trade with the West Indies.

Even so, according to the literature, Connecticut merchants did not conduct a substantial overseas trade until the eighteenth century. Boston merchants, it has been said, dominated most of New England’s overseas trade until the eighteenth century. These merchants shipped New England commodities to overseas markets and distributed British manufactured goods and West Indian commodities in return. It was the rise of several other New England ports—Providence, Salem, Newport, New London, New Haven, and Portsmouth in particular—that undermined Boston’s dominance of regional trade. The process varied over time, but on the eve of the American Revolution, Boston’s dominance had eroded as these newer ports emerged.

For example, whereas the annual average volume of tonnage clearing Massachusetts actually declined between 1760–1762 and 1768–1772, it almost doubled for

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Connecticut and rose substantially for Rhode Island. Margaret Newell’s recent book best summarizes this view in relation to Connecticut:

In contrast, Connecticut continued to rely on Massachusetts ports to manage its international trade in provisions, grain, and dairy products; as late as 1708, only two ships departed from Connecticut ports for England. But, Connecticut River ports engaged in an extensive internal trade, tapping suppliers and markets in the hinterland, and seaports such as New London began to develop viable merchant communities.

Much of this view is based on the periodic reports that Connecticut governors submitted to the Board of Trade. The first extant report in 1680 tended to downplay the extent of Connecticut overseas trade, arguing that trade with New York and Massachusetts constituted the bulk of the colony’s trade. The report stated that Connecticut exported a range of grains, flax, lumber, and horses, some small quantity of which is exported to Barbados, Jamaica, and other “Caribia Islands.” To be sure, the report pointed out that the necessary foundations for West Indian trade were emerging, as shipbuilders in the colony constructed 27 vessels, amounting to 1,996 tons. Still, the report suggests that West Indian trade was very small compared to the far larger coastal trade with neighboring colonies. There is reason to question the accuracy of the report. As a proprietary colony, Connecticut public officials wrangled with their counterparts in London to maintain their autonomy. Thus,

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downplaying the role of trade meant, by implication, adherence to the Navigation Acts. An inauspicious foreign trade would deflect English bureaucratic interference and seemingly uphold the colony’s proprietary status.

A closer examination of the few surviving naval office shipping lists in the seventeenth century suggests a much different story, however. Before examining these lists, a caveat is in order. In reference to documentation on seventeenth-century British America, Joseph Inikori stated “Here we are in terra incognita.”

Though Inikori’s comment is in reference to the slave trade, it is equally applicable to colonial trade. Only a few Naval Office Shipping Lists have survived for the seventeenth century and these are only for Barbados and Jamaica down to 1700. Furthermore, lists reflecting all four quarters of the year only survive for 1686, 1688, 1689, and 1691 for Jamaica, and 1691, 1698, and 1699 for Barbados. For most years, only 1 or 2 quarters have survived. Thus, the records are very thin and can only be taken as a minimum. Also, there are no lists for the other British West Indian islands, such as Nevis, Antigua, or Montserrat. What does survive is only a snapshot of a trade that was undoubtedly much larger.

Despite the lack of sources, the surviving lists indicate that Connecticut vessels traded on a rather large scale with the islands. In the last two decades of the seventeenth century, Connecticut commodities were exported to Barbados and Jamaica on 69 voyages, 66 of which were to the former. Moreover, of the 26 vessels

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19 For Jamaica, PRO/TNA CO 142/13; For Barbados, PRO/TNA CO 33/13.
that made these 69 voyages, 24 were built and owned in Connecticut. In total, Connecticut exported a combined total of 467,630 staves, shingles, and hoops; 2,536 bushels of Indian corn; 2,396 barrels of pork and beef; and 752 horses. The export of livestock, therefore, began at a very early date for Connecticut. Given that most Barbadian mills relied on animal power before 1700, it is very likely that most of the Connecticut horses imported were employed to power sugar mills. There is no doubt that Connecticut, in fact, exported far more to the West Indies than what these figures show.

Overall, by the end of the seventeenth century, Connecticut merchants had constructed a thriving commerce with Barbados, supplying food for slaves, lumber for sugar casks, and horses for sugar mills. It is important to note that Connecticut goods were transported to the West Indies on Connecticut-built and owned vessels. Thus, the seeds of a Connecticut–West Indian trade, independent of Massachusetts influence, were sown as early as the 1680s.

2.2 The Eighteenth Century

After 1700, Connecticut’s trade with the West Indies expanded rapidly down to the Revolution. Connecticut’s early commercial networks with Barbados were eventually extended to the entire plantation Caribbean. Before analyzing the data, however, one caveat is in order. For several years, the records are thin or nonexistent. The sailing routes of many vessels further complicate estimating the number of vessels engaged in the West Indian trade. For instance, often times, Connecticut vessels made one or more stops at other ports before finally trading in the West Indies
or, upon leaving the West Indies, stopped at other ports before returning to Connecticut. The very low volume of trade for most of the eighteenth century is a reflection of the lack of port records. Few port records survive for the years before 1730, and after that date there are few complete runs for any colony. Most of the Leeward Islands do not have port records until the 1770s. Moreover, the apparent expansion of trade in the last 20 years of the colonial period is more a reflection of the more complete surviving port records than an actual change in the volume. Figure 2.1 illustrates the growth of Connecticut’s trade with the West Indies.

In November 1763, the Connecticut-owned Sloop *Tyger* sailed from New London to Ireland before sailing to the West Indies. Connecticut State Library, RG 3, New London County County Court Files, Box 155, Folder 6, Whittlesey vs. Barnes. In 1729, the Connecticut-owned Brigantine *Recovery* sailed from Barbados to Salt Tortugas before sailing back to New London. Connecticut State Library, RG 3, New London County County Court Files, Box 36, Folder 12, case 14 Mott vs. Braddock. These are just two examples of hundreds of vessels making multi-port voyages while trading with the West Indies.

Data in Figure 2.1 derived from Connecticut Shipping Database.
Figure 2.1 Total Number of Vessels Entering and Clearing Connecticut for the West Indies, 1700-1772
Given the defects in the surviving data, it is difficult to establish any long-term trends. Even so, a few points can be deduced from Figure 2.1. For most years, there were more clearances to the West Indies than entrances. By the end of the colonial period, the total tonnage of clearances from Connecticut to the West Indies was 1,200 tons more than entrances into Connecticut from the West Indies. Rather than a defect in the data, this is more a reflection of the business strategies of Connecticut merchants. Connecticut merchants often advised their vessel captains to sell the cargo and vessel in the West Indies if the market price for vessels was high. Moreover, Connecticut merchants advised the captains of vessels to depart the West Indies for another mainland market, like New York or Boston. For instance, in July 1768, the owner of the brigantine *Phoenix*, Connecticut merchant Matthew Talcott, directed its captain, Jeremiah Wadsworth, upon selling its cargo in Barbados to either get a cargo of West Indian goods for New York, in which remittance for £500 (lawful money) was to be made to Lane & Son, a London merchant company with extensive dealings with Connecticut merchants, or sell the brigantine in Barbados for £750 (Barbados currency). Furthermore, rogue waves, intermittent storms, and more serious hurricanes very often destroyed Connecticut vessels trading in the islands. Therefore, some vessels listed as clearing Connecticut for the West Indies would never make the return trip. Finally, it was often difficult for Connecticut vessels to obtain a proper return cargo from the islands. As such, merchant captains would have to spend longer periods in the islands waiting for supplies, which would complicate

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22 Connecticut Historical Society, Jeremiah Wadsworth Papers MSS, Correspondence, Box 123, Folder 1, Matthew Talcott to Jeremiah Wadsworth, July 1768.
the customs records in Connecticut. Thus, the greater number of clearances reflects
the more complex nature of return sailings, the sale of Connecticut vessels in the
islands, and the complications of obtaining return cargoes.

The information depicted in Figure 2.1 also contradicts a major argument
about Connecticut–West Indian commerce after the Seven Years War. According to
Margaret Martin, “The enforcement of the regulations regarding the West Indies
trade, the unsettling effect of the reaction to the proposed Stamp Act, together with
the dislocation caused by the war, and the financial crisis that swept Europe in 1763
led to a serious depression in 1765.” 23 Figure 2.2, on the other hand, tells a different
story. 24 Except for a slight drop in trade in 1765, 1769, and 1771, Connecticut’s
commerce with the West Indies expanded more than tenfold from 1758 to 1772.
There was a slight decline in 1765 and 1768, but overall the volume of trade grew
significantly between 1758 and 1772.

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23 Martin, “Merchants and Trade,” 29.
24 Data derived from Connecticut Shipping Database.
Another dominant image of Connecticut in the literature is one of lack of integration with the West Indies. The literature has tended to overlook the maritime economies of smaller colonies in the Atlantic world. In her essay underlining the importance of the West Indian trade to the economies of Massachusetts and Rhode Island, Barbara Solow noted:

If we want to visualize Massachusetts without Boston and its commodity and shipping trade to the West Indies, or Rhode Island without Newport and its slave and rum trade to Africa and the islands, we need only look at Connecticut…In the eighteenth century, Connecticut, with no banks, no credit, a money shortage so severe that salaries, rates, and taxes were paid in kind, exports few, agriculture primitive and unremunerative, contained 150,000 people in seventy towns that remained substantially without industry as late as 1818.\(^{25}\)

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Table 2.1, on the other hand, presents a much different picture. Based on the annual average tonnage of vessels in the years 1768–1772, Connecticut was the fifth largest mainland colony engaged in the West Indies trade. Furthermore, Connecticut’s trade with the West Indies was much larger than that of Rhode Island and New York. Located between New York City (one of the larger colonial port towns), Rhode Island (the largest slave trading colony on the mainland), and Massachusetts (the largest commercial colony) Connecticut has been assigned the status of a minor trading colony. However, this label is incorrect. Connecticut’s West Indian commerce was one of the largest.

<table>
<thead>
<tr>
<th></th>
<th>Clearances</th>
<th>% of total</th>
<th>Entrances</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>21285</td>
<td>20%</td>
<td>20980</td>
<td>21%</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>13220</td>
<td>12%</td>
<td>12939</td>
<td>13%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>12849</td>
<td>12%</td>
<td>9280</td>
<td>9%</td>
</tr>
<tr>
<td>Virginia</td>
<td>11668</td>
<td>11%</td>
<td>11417</td>
<td>11.50%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>9653</td>
<td>9%</td>
<td>8418</td>
<td>9%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>7214</td>
<td>7%</td>
<td>3157</td>
<td>3%</td>
</tr>
<tr>
<td>New York</td>
<td>7047</td>
<td>7%</td>
<td>7664</td>
<td>8%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>6803</td>
<td>6%</td>
<td>8378</td>
<td>8.50%</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>6709</td>
<td>6%</td>
<td>6877</td>
<td>7%</td>
</tr>
<tr>
<td>Georgia</td>
<td>4901</td>
<td>4.50%</td>
<td>3917</td>
<td>4%</td>
</tr>
<tr>
<td>Maryland</td>
<td>4136</td>
<td>4%</td>
<td>4542</td>
<td>4.50%</td>
</tr>
<tr>
<td>Delaware</td>
<td>777</td>
<td>1%</td>
<td>766</td>
<td>1%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>599</td>
<td>0.50%</td>
<td>448</td>
<td>0.50%</td>
</tr>
<tr>
<td>Total</td>
<td>106861</td>
<td>98783</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: PRO Customs 16/1
2.3 Connecticut Exports to the West Indies

From the end of the seventeenth century to the end of the colonial period, Connecticut vessels carried varied cargoes to the West Indies consisting of foodstuffs, lumber, and draft animals. For instance, in 1682, the New London-owned ship *Brothers Adventure* entered Barbados carrying 12 tons of pork, 3 tons of Indian corn, 2 barrels of lamp oil, 5 hogsheads of fish, 6 half barrels of flower, and 25 horses.\(^{26}\) In December 1738, the schooner *Dolphin* transported to the West Indies a cargo consisting of 5,350 staves, 3 desks, 3,616 shingles, 500 clapboards, 5,437 feet of pine boards, 2,000 hoops, 9 barrels of onions, 3 barrels of flour, 5 barrels of tar, 20 horses, and 48 hogsheads of oats.\(^{27}\) In November 1768, the sloop *Success* transported to “sundry different parts, and Islands in the West Indies” 10,000 bricks, 8,000 hoops, 7,600 staves, 3,450 ropes of onions, 34 oxen, 2 horses, 24 pigs, 7 sheep, 99 turkey, 12 barrels of beef, 2 tierces of bread, 7 tons of hay, 100 bushels of corn, 100 bushels of oats, and 50 hogsheads of water.\(^{28}\)

These vessels provide three examples of the diverse nature of Connecticut cargoes. In most years, cargoes on Connecticut vessels destined for the West Indies resembled those from the rest of British North America. Many commodities like rice were first obtained in the coastal trade for later re-export to the West Indies (see Chapter 3); though, to be sure, Connecticut never carried much rice. Connecticut’s

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\(^{26}\) PRO CO 33/13.

\(^{27}\) Connecticut State Library, RG 3 New London County County Court Files, Box 62, Folder 10, case 241 Duffy vs. Coit.

\(^{28}\) Connecticut State Library, RG 3 New London County County Court Files, Box 154, Folder 9, case 43, Hallam vs. Melleley.
diverse cargoes were not atypical, however. Though trade with the West Indies was a dynamic trade for British North America, it was often fraught with difficulties. Since all mainland colonies traded with the West Indies, individual islands were far too often glutted with certain commodities.\footnote{Richard Pares \textit{Yankees and Creoles: The Trade Between North American and the West Indies before the American Revolution} (London: Longmans, 1956): 37.} Given the small size of most West Indian islands, a few vessels could easily glut the market. Moreover, British North American merchants had to compete with Irish exports and domestic production within the islands.\footnote{Pares, \textit{Yankees and Creoles}, 84-91.} By exporting a range of commodities, mainland merchants were hedging their investments. For instance, while the price of bread and lumber may be low in Barbados in one month, the price of livestock and barreled meat may be high. At times, glutted markets precluded the sale of Connecticut cargoes. For example, in September 1763, the Connecticut-owned sloop \textit{Alliance}, carrying a large cargo of food, lumber, and draft animals, could only sell its cattle and only a few horses in various islands in the British West Indies. Eventually, the sloop was forced to sell its remaining cargo at a loss in St. Eustatius before returning back to Connecticut.\footnote{Connecticut Historical Society, Hartford, Connecticut. Joseph Trumbull Papers, Box 1, John Trumbull Jr. to Joseph Trumbull, September 21, 1763.} Table 2.2 illustrates the growing volume of Connecticut exports of several major commodities. It must be noted that this table omit many other commodities, like household furniture, house frames, candles, and many other goods. The data for the period prior to 1768 is not complete, which explains the wide variations.
Table 2.2 Total Quantity of Foodstuffs Exported from Connecticut to the West Indies by Decade, 1680–1772

<table>
<thead>
<tr>
<th>Apple and Cider</th>
<th>Beans*</th>
<th>Bread and Flour</th>
<th>Oats</th>
<th>Corn</th>
<th>Cheese</th>
<th>Butter</th>
<th>Tallow</th>
<th>Fish*</th>
<th>Onions</th>
<th>Oil *</th>
<th>Tobacco</th>
<th>Beef and Pork</th>
</tr>
</thead>
<tbody>
<tr>
<td>(barrels)</td>
<td>(bushels)</td>
<td>ton—cwt</td>
<td>(bushels)</td>
<td>(bushels)</td>
<td>(lbs)</td>
<td>(lbs)</td>
<td>(lbs)</td>
<td>(Quintals)</td>
<td>(ropes*)</td>
<td>(gallon)</td>
<td>(lb)</td>
<td>(barrel)</td>
</tr>
<tr>
<td>1680-99</td>
<td>71</td>
<td>63</td>
<td>29—11</td>
<td>2,536</td>
<td>100</td>
<td>3,205</td>
<td>261</td>
<td>12,096</td>
<td>10,200</td>
<td>2,936</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1700-09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1710-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1720-29</td>
<td>28</td>
<td>600</td>
<td>11—8</td>
<td>1,095</td>
<td>44,421</td>
<td>553</td>
<td>252</td>
<td>420</td>
<td>1,969</td>
<td>3,654</td>
<td>38,828</td>
<td>156</td>
</tr>
<tr>
<td>1730-39</td>
<td>52</td>
<td>38</td>
<td>8—15</td>
<td>3251</td>
<td>2,729</td>
<td>12,000</td>
<td>1,602</td>
<td>12,571</td>
<td>753</td>
<td>23,031</td>
<td>5,544</td>
<td>72,582</td>
</tr>
<tr>
<td>1740-49</td>
<td>102</td>
<td>4—0</td>
<td>18</td>
<td>1,272</td>
<td>8,135</td>
<td>332</td>
<td>550</td>
<td>1,710</td>
<td>5,979</td>
<td></td>
<td>34,963</td>
<td>254</td>
</tr>
<tr>
<td>1750-59</td>
<td>7</td>
<td>19</td>
<td>196—11</td>
<td>3325</td>
<td>4,075</td>
<td>9,511</td>
<td>11,879</td>
<td>17,000</td>
<td>3,953</td>
<td>22,200</td>
<td>504</td>
<td>46,396</td>
</tr>
<tr>
<td>1760-67</td>
<td>100</td>
<td>770—2</td>
<td>2,201</td>
<td>30,674</td>
<td>40,606</td>
<td>12,658</td>
<td>20,626</td>
<td>11,207</td>
<td>147,279</td>
<td>39,312</td>
<td>37,626</td>
<td>5,153</td>
</tr>
<tr>
<td>1768-72</td>
<td>431</td>
<td>1,725</td>
<td>1111—8</td>
<td>18,208</td>
<td>23,514</td>
<td>122,591</td>
<td>50,351</td>
<td>120,400</td>
<td>46,745</td>
<td>594,000</td>
<td>11,767</td>
<td>60,026</td>
</tr>
</tbody>
</table>

Source: Connecticut Shipping Database. To convert casks into uniform measures, I have relied on the format established by John McCusker in “The Tonnage of Ships Engaged in British Colonial Trade During the Eighteenth Century,” in John J. McCusker (ed.) Essays in the Economic History of the Atlantic World (London: Routledge Press, 1997). *Beans includes the general category “beans” and peas. Fish includes all varieties, such as cod, mackerel, pickled, dried, herring, and alewives. The category of Onions includes both bushels, bunches, and ropes. In the early 1700s, most onions were exported in barrel, bushel, or bunch. By the end of the colonial period, almost all onions exported were in rope form. Generally speaking, all bunches and ropes weighed about 5 lbs, as codified by an act of 1760, CCR 11, 378–379. Oil includes all forms of oil, like oil derived from whale, fish, and vegetables.
Despite the diverse nature of British North American mainland cargoes shipped to the West Indies, there did emerge a regional specialization in the trade. Factor endowments allowed regions in British North America to dominate the export of specific commodities to the West Indies. For instance, by 1771 New Hampshire dominated the export of bricks, lumber, and lumber products (shingles, staves, hoops, and house frames for instance), Rhode Island dominated the export of candles and hoops and Massachusetts exported the largest amount of fish to the islands. While New York and Pennsylvania had the most bread and flour exports to the islands, the Chesapeake colonies exported the most corn and grains. The Lower South exported the most rice to the islands. Connecticut, on the other hand, controlled the bulk of the exports of livestock and onions, as well as a large percentage of dairy products.  

Over the course of the eighteenth century, Connecticut became the onion capital of the Atlantic world. Onion farming was concentrated around the Wethersfield area, a fertile farming region on the Connecticut River in north-central Connecticut. Onions were probably grown throughout the seventeenth century, but the first shipment to the West Indies was not recorded until 1710, when one Connecticut vessel shipped 71 bushels. After 1710, the onion trade skyrocketed. In the period 1768–1772, Connecticut exported a total of almost 600,000 ropes of onions to the West Indies, an amount that represented 40% of total mainland onion exports.  

The next four largest onion exporters to the West Indies, Pennsylvania,  

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34 Figures calculated from PRO Customs 16/1.
Massachusetts, Rhode Island, and New York exported a total of 886,896 ropes of onions to the West Indies in the years 1768–1772. It is very likely that a considerable portion of these onions were, in fact, re-exports of Connecticut onions. In the years 1768–1772, these four colonies imported a total of 453,909 onions from coastal markets, almost all of which were from Connecticut.\footnote{All figures on onions exports derived from Customs 16/1.} In this five-year period, Connecticut also accounted for about 10\% of mainland butter exports and just under 33\% of cheese exports to the West Indies.
### Table 2.3 Total Quantity of Livestock, Lumber, and Manufactured Goods Exported from Connecticut to the West Indies by Decade, 1680–1772

<table>
<thead>
<tr>
<th></th>
<th>Sheep (no.)</th>
<th>Pigs (no.)</th>
<th>Cows (no.)</th>
<th>Oxen (no.)</th>
<th>Horses (no.)</th>
<th>Poultry (no.)</th>
<th>Lumber* (1,000 feet)</th>
<th>Staves (1,000)</th>
<th>Shingles (1,000)</th>
<th>Hoops (1,000)</th>
<th>Bricks (1,000)</th>
<th>Candles (lbs)</th>
<th>Naval Stores* (bls)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1680-99</td>
<td></td>
<td>752</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td></td>
<td>33,503</td>
</tr>
<tr>
<td>1700-09</td>
<td></td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1710-19</td>
<td></td>
<td>80</td>
<td>92</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1720-29</td>
<td>286</td>
<td>244</td>
<td>7</td>
<td>27</td>
<td>830</td>
<td>150</td>
<td>293</td>
<td>136</td>
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<tr>
<td>1730-39</td>
<td>663</td>
<td>674</td>
<td>2</td>
<td>16</td>
<td>1,464</td>
<td>169</td>
<td>1,034</td>
<td>41</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
<td>1,445</td>
</tr>
<tr>
<td>1740-49</td>
<td>413</td>
<td>114</td>
<td>15</td>
<td>4</td>
<td>1,059</td>
<td>430</td>
<td>365</td>
<td>30</td>
<td>7</td>
<td>10</td>
<td>3</td>
<td></td>
<td>184</td>
</tr>
<tr>
<td>1750-59</td>
<td>1,334</td>
<td>377</td>
<td>82</td>
<td>94</td>
<td>1,940</td>
<td>1,445</td>
<td>963</td>
<td>164</td>
<td>325</td>
<td>84</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1760-67</td>
<td>8,694</td>
<td>7,973</td>
<td>1,315</td>
<td>3,716</td>
<td>9,433</td>
<td>49,511</td>
<td>8,497</td>
<td>3,031</td>
<td>1,731</td>
<td>397</td>
<td>281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1768-72</td>
<td>39,260*</td>
<td>12,674</td>
<td>21,709</td>
<td>109,098</td>
<td>2,645</td>
<td>6,957</td>
<td>5,821</td>
<td>4,643</td>
<td>1185</td>
<td>33,503</td>
<td>115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Connecticut Shipping Database. *Lumber includes boards and the general category of "lumber" listed in the NOSL. Naval stores include tar, pitch, and turpentine. The figure for sheep in the years 1768-1772 include both sheep and pigs.
It was in livestock, though, that Connecticut exerted the largest dominance in the West Indian trade. Table 2.3 illustrates the growth in livestock exports from Connecticut to the West Indies. From the end of the seventeenth century, Connecticut merchants exported a range of livestock to the sugar plantations, most notably poultry, fowl, cows, pigs, sheep, oxen, and horses. Throughout the colonial period, Connecticut dominated the export trade in livestock. The majority of sheep, cows, oxen, and poultry exported to the West Indies from the mainland came from Connecticut farms. In the period 1768–1772, Connecticut contributed 74% of the cows, 55% of the poultry, and 48% of the sheep and hogs shipped to the West Indies from the mainland colonies. As mentioned in Chapter 1, planters in the West Indies relied in no small way on imports of livestock to properly run sugar plantations. For one thing, livestock served as a source of protein. Sheep and hogs provided a large source of dung to fertilize the plantation fields. Finally, oxen and cows were used as draft animals. Connecticut was the dominant exporter of these vital inputs in the sugar industry.

It was in the horse trade, however, that Connecticut served the largest role for the West Indian sugar plantations. Connecticut merchants began shipping horses to the West Indies in the mid-seventeenth century. Over the course of the eighteenth century, this export trade expanded rapidly, as seen in Table 2.3. By 1768–1772, Connecticut accounted for around 74% of the total number of horses exported from the mainland to the West Indies. This number is misleading, though. Rhode Island exported just over 11% of the total in the same years. As mentioned in the next
chapter, some of Rhode Island’s exports were in fact re-exports from Connecticut. Some of the horses the Brown family exported to the West Indies came from Connecticut farms. It is, therefore, very probable that Connecticut farmers raised around 80% or more of all mainland horses exported to the West Indies.

It is ironic that for such a large trade, records are lacking on its particulars. In their efforts to breed efficiency in the British Empire commercial system, customs officers only recorded the term “horse”, without paying attention to breed or gender. When merchants wishing to purchase horses in Connecticut to ship overseas placed advertisements in newspapers, they were typically just as vague, employing lines like “horses fit for shipping,” “fat shipping horses,” “good saddle horses,” or “small fat horses.”

Scattered merchant correspondence demonstrates that there was no particular gender or breed exported. On Windsor merchant Ebenezer Grant’s sloop Ranger, five horses were exported to Barbados in 1770, of which 2 were black stallions, 1 roan stallion, 1 chestnut stallion, and 1 chestnut mare. In December 1767, New London merchant Nathaniel Shaw ordered a supply of 18 horses for export to the West Indies. Ten of these horses were mill horses, 6 saddle horses, and 2 “very neat” horses. At times, Caribbean merchants requested specific types of horses. Thomas Allen, a merchant residing in St. Eustatius at the time, wrote to Groton merchant Nathan Allyn requesting “one gelding horse [castrated male horse]
of a good color about 14 ½ hands high, a good pacer and handsome and behavior.”  

When Allen moved to New London in the later 1750s, he continued to purchase gelding horses, as well as saddle and mills horses, for export to the West Indies. While the gender and breed of Connecticut horses is less clear, the average size of horses exported to the Caribbean was usually between 13 and 15 hands high. 

The horse trade, including the livestock trade in general, was fraught with major difficulties. Exporting any goods on relatively long voyages often resulted in losses, due to spillage and leakages. Wooden barrels containing sugar, rum, and molasses were expected to lose up to 25% of their volume due to leakages during the voyage to Europe. Exporting oils from the mainland to the West Indies was notorious for losses, as hogsheads incessantly lost a considerable portion of their contents to leaks. The movement of casks often exacted a large toll on freight, as the frequent tossing and turning cracked them leading to spillage.

The shipment of animals entailed even more problems for merchants. Given violent weather fluctuations and rogue waves, mainland merchants often experienced considerable losses when shipping livestock to the islands. Most livestock were kept on deck during the voyage. It seems that poultry were the only livestock shipped in special coops. To be sure, the “misuse” of coops often led to high mortality rates for

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39 American Antiquarian Society, Allen Family Papers, Box 1, Folder 1, Thomas Allen to Nathan Allyn, April 4, 1755.
40 New London Summary 5/9/1760.
41 New London Summary 10/8/1762.
43 Pares, Yankees and Creoles, 85.
poultry. For instance, in 1760, the sloop *Endeavor* carried several dozen fowl in special coops, which, due to their apparent misuse, did not prevent the deaths of a good portion of them upon arrival in St. Kitts.\(^{44}\)

The horse trade was particularly deadly. Colonial newspapers were filled with reports of horse losses throughout the colonial period. In February 1725, a “violent storm” caused the losses of 21 horses carried on 3 different Rhode Island vessels and 16 out of 18 horses carried on one sloop from New London.\(^{45}\) In September 1766, a particularly deadly series of hurricanes carried off the entire cargo of horses and oxen that one Connecticut vessel was carrying to Grenada. The damage incurred during the storms forced the vessel’s captain to seek shelter in Bermuda. While in port, the captain reported several other vessels limping into port and the seas around the island were littered with the floating corpses of horses.\(^{46}\) Even while in port, horses suffered catastrophic losses.

As mentioned at the start of the chapter, when Francis Brown arrived in New Haven after a voyage to the West Indies on March 8, 1771, he brought news of a terrible calamity that befell several Connecticut vessels around the islands. On Christmas day, 1770, a hard gale wreaked havoc on shipping lanes between the mainland and the islands. Several Connecticut vessels carrying horses were particularly affected by the gale. The sloop *Vine* was overturned, drowning all of its cargo of livestock and 6 sailors. The schooner *Dolphin* lost all of its livestock and

\(^{44}\) Connecticut State Library, RG 3, New London County County Court Files, Box 116, Folder 16, Case 40, Deane vs. Hamilton.  
\(^{45}\) *Boston Newsletter* 4/8/1725.  
\(^{46}\) *New London Gazette* 10/24/1766.
crew, except for 1 Indian sailor. The sloop *Garland* lost all of its horses except for 6. Another vessel lost all horses, except for 5, while another schooner lost 44 horses. A brigantine lost 1 sailor and 28 horses, another brigantine lost 5 or 6 horses, and another vessel lost 12 oxen. Thus, 1 gale wind caused the death of perhaps 100 Connecticut raised horses, as well as many other types of livestock.

Overall, it is clear that the livestock trade entailed considerable loss of life for countless thousands of horses, cows, sheep, and other livestock. The livestock trade even involved considerable risk while vessels waited in Connecticut to assemble a cargo to export to the West Indies. A “hard gale of wind” swept through New Haven harbor on January 7, 1758, causing one vessel intending on departing for the West Indies to lose 10 of its 34 horses, all of which drowned or were “beat to pieces against the rock.” In January 1768, the sloop *Betsy* was moored in Old Saybrook, Connecticut, waiting for a cargo of horses to ship to the islands. A small ferry carrying one horse was dispatched from Lyme, Connecticut, to fulfill part of the sloop’s cargo. Negligent navigation resulted in the crash of the ferry and the sudden drowning of the horse. Recent scholarship has done much to uncover the massive losses that slave vessels incurred in transporting millions of captives to the Americas for employment on slave plantations. The export of tropical commodities to Europe entailed the loss of around 1.4 million slaves just in transit from Africa to the Americas in the Middle Passage, as well as the untimely death of countless millions

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48 *Boston Gazette* 1/30/1758.
49 Connecticut State Library, RG 3, New London County County Court Files, Box 146, Folder 20, Case 147, Sanford vs. McCurdy.
toiling under the most brutal conditions on plantations. The sheer number of losses for mainland animals in transit is another less known but sad drama in the history of the plantation complex in the West Indies. It would not be an exaggeration to claim that over 5,000 types of livestock, including horses, cows, sheep, pigs, and poultry, died annually in transit from Connecticut to the West Indies. Rather than comparing the loss of humans with animals, it is important to note that Connecticut merchants had to load extra animals on most vessels given the expectation of a certain level of loss in transit.

Aside from the long voyages and rogue waves, horses and livestock also suffered other calamities in transit. Unlike barreled foodstuffs and lumber, horses needed to be properly fed to survive the voyage to the West Indies. Dead livestock did not attract many buyers on the islands, except for cattle, which could be used for supplies of meat depending on the time of their death. Poor preparations (not carrying enough food or water for example) for voyages on the part of captains could

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impose untold sufferings on horses and other livestock. For example, in July 1766, Connecticut merchant Joseph Harvey purchased a cargo of 26 horses for his sloop *Freemason*, which was loading for a voyage to St. Eustatius. Harvey used old cider casks to store water for the horses, casks more prone to leaking than saving water. Furthermore, Harvey stocked rotten hay and insufficient oats to feed the horses in transit. Therefore, during the voyages, the horses did not receive sufficient sustenance. When they arrived in St. Eustatius, the horses resembled skeletons and only sold for one-third their actual value if they were in prime condition. In August 1752, a Connecticut sloop was struck by lightning, which killed 30 sheep on board. The need to ship animals alive clearly imposed greater burdens on Connecticut merchants than those trying to ship barreled foodstuffs and lumber only. Connecticut’s trade with the West Indies fostered the spread of invisible earnings to neighboring colonies, in the form of insurance.

Connecticut also exported a variety of domestically produced manufactured goods to the islands. Perhaps the most common manufactured export was shoes. Throughout the eighteenth century, scattered Connecticut vessels exported several pairs of shoes to the West Indian islands. Yet, to be sure, this trade was never very large in volume or value. During the period 1768–1772, Connecticut exported a total of 710 pairs of shoes, amounting to less than £300 (sterling). The most valuable two exports consisted of Connecticut-built sailing vessels (see Chapter 4) and house

51 Connecticut State Library, RG 3, New London County County Court Files, Box 146, Folder 9, Case 385, Harvey vs. Sill.
52 *Boston Post Boy* 8/17/1752.
frames. For most of the colonial period, New Hampshire dominated the export trade in framed houses. Even so, Connecticut often exported houses to the islands though usually no more than 10 a year. These house frames varied in value from £25 to £125 (sterling), depending on the size. Yet, some houses could range much higher than that. In March 1764, the director of hospital stores on the island of Grenada placed an order with Joseph Trumbull of Lebanon, Connecticut for a building frame, which would serve as the island’s new hospital. This massive structure was to be delivered in the spring of 1765 and Trumbull was to send out carpenters to aid in the assembly of the building. This structure would have netted Trumbull over £1,123 (sterling), though later in 1766, the contract was canceled.53

2.4 Connecticut Imports from the West Indies

Connecticut imports from the West Indies were less varied than exports. The most valuable commodities were sugar and its two by-products, molasses and rum. For most years, these three commodities represented well over 50% of the value of total West Indian exports to Connecticut. Sugar, rum, and molasses were the three commodities that drove internal trade in Connecticut. As we will see in Chapter 5, it was the exchange of surplus commodities for these tropical groceries that drove the commercialization process throughout the countryside in Connecticut. West Indian salt was the next most valuable export to Connecticut. Salt was the main raw material employed in preparing barreled meat and dairy products for export in Connecticut. Connecticut also imported a varying volume of other tropical commodities, such as

coffee, cocoa, pimento, ginger, and cotton. Other imports from the islands were medicinal woods, such as lignum vitae, and dyewoods, such as logwood. Some of these imports were later re-exported to England. At times, Connecticut imported slaves from the West Indies. For instance, in 1764, the New Haven-owned sloop *Jolly Nancy* imported two slaves into New Haven from Nevis. Occasionally, Connecticut obtained manufactured goods from the West Indies, in an attempt to break free from dependence on neighboring mainland colonies to supply these goods. For example, in 1742, the Connecticut sloop *Ranger* left Barbados for Connecticut, carrying a cargo of manufactured goods, primarily textiles, amounting to £101 (sterling). Table 2.4 breaks down the major commodity imports from the West Indies.

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Table 2.4 Total Quantity of Connecticut Imports of Selected Commodities Per Decade from the West Indies, 1700–1772

<table>
<thead>
<tr>
<th>Decade</th>
<th>Sugar * (lbs)</th>
<th>Rum (gallons)</th>
<th>Molasses (gallons)</th>
<th>Cotton (lbs)</th>
<th>Cocoa (lbs)</th>
<th>Ginger (lbs)</th>
<th>Salt (bushels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700–09</td>
<td>42,440</td>
<td>54,310</td>
<td>28,110</td>
<td>4,400</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1710–19</td>
<td>161,436</td>
<td>117,635</td>
<td>49,445</td>
<td>12,165</td>
<td>0</td>
<td>0</td>
<td>1,040</td>
</tr>
<tr>
<td>1720–29</td>
<td>107,732</td>
<td>40,960</td>
<td>34,145</td>
<td>7,850</td>
<td>0</td>
<td>2,000</td>
<td>750</td>
</tr>
<tr>
<td>1730–39</td>
<td>290,740</td>
<td>90,365</td>
<td>10,714</td>
<td>1,414</td>
<td>0</td>
<td>4,000</td>
<td>500</td>
</tr>
<tr>
<td>1740–49</td>
<td>183,258</td>
<td>27,383</td>
<td>22,025</td>
<td>500</td>
<td>0</td>
<td>0</td>
<td>6,128</td>
</tr>
<tr>
<td>1750–59</td>
<td>391,499</td>
<td>32,060</td>
<td>43,844</td>
<td>4,930</td>
<td>1,035</td>
<td>40,000</td>
<td>132,028</td>
</tr>
<tr>
<td>1760–67</td>
<td>1,556,801</td>
<td>674,121</td>
<td>472,132</td>
<td>29,188</td>
<td>27,141</td>
<td>24,700</td>
<td>301,019</td>
</tr>
<tr>
<td>1768–72</td>
<td>1,419,730</td>
<td>1,565,050</td>
<td>1,110,673</td>
<td>246,094</td>
<td>360,255</td>
<td>5,600</td>
<td>568,955</td>
</tr>
</tbody>
</table>

Source: For all years before 1768, National Archives: Kew Gardens, Naval Office Shipping Lists. All of this data was pulled from the various British West Indian Port Records including Antigua and Montserrat CO 157/1, Bahamas CO 27/12-23, Barbados CO 33/13-17, Bermuda CO 41/6-7, Dominica O 76/4, Grenada CO 106/1, Jamaica CO 142/13-21, Leeward Islands CO 157/1, St Vincent CO 165/1, Tobago CO 290/1. *Sugar: this category includes both brown and white sugar.

2.5 Major Markets

Before 1770, the West Indian plantation complex—a dynamic economic system employing slave labor to produce tropical commodities for export—consisted of four regions: the British West Indies, the French West Indies, Dutch Surinam, and the Danish West Indies. In 1770, the combined exports of these four regions amounted to £7.3 million (sterling) and represented a sizable share of the commerce of the European nations trading with this region. A hierarchy existed in the West

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56 Cuba was a fifth region, but plantation production really only escalated after 1750. Besides, Connecticut had no commercial contact with this colony before 1776. John Robert McNeill, Atlantic Empires: Louisburg and Havana, 1700-1763 (Chapel Hill: University of North Carolina Press, 1985): 162-186.

Indian plantation complex, in which some regions had clearly surpassed the others. By 1770, the French West Indies were clearly the dominant plantation complex, producing 52% of the total value of these exports, while the British West Indian share amounted to 37%. The difference in production shares between the first two regions was much less than the difference between them and the bottom two. Dutch Surinam produced 8% of total exports, while the Danish share amounted to only 3%.\(^{58}\)

Regardless of their share of Atlantic world exports, all of these regions shared a few characteristics: all employed slave labor on relatively large plantations, all boasted the highest per capita income levels in the Atlantic world, and all needed imports of food, lumber, and draft animals to sustain production levels. Given the requirements of imports of food, lumber, and draft animals in the tropical colonies on the one hand and the either undeveloped (in the French case in Canada) or nonexistent North American mainland empire to supply these goods (in the Dutch and Danish case) on the other hand, a quasi-common market existed in the Americas. By quasi-common market, it is meant that mercantile restrictions aside, Connecticut merchants (like their counterparts in the rest of the mainland colonies) had access to most of the islands of the Caribbean.

For the entire colonial period, Connecticut merchants traded with every British West Indian island. They established their first West Indian commercial links with Barbados sometime in the mid-seventeenth century. Given the fact that the sugar complex emerged first on Barbados, most mainland colonies started their West

Indian trade with that island. As England took over more West Indian islands and the
sugar complex spread, the geographic scope of Connecticut’s trade with the British
West Indies expanded. Connecticut merchants traded with all the British islands
without preferences. With imperfect information on current market conditions
prevailing on the islands, Connecticut merchants usually dispatched their vessels to
the West Indies with flexible orders, which gave the captain quite broad powers in the
selection of markets if the prices current at the initial island proved poor. For
example, in July 1768, Wethersfield merchant Matthew Talcott wrote to Jeremiah
Wadsworth, the captain of his vessel:

> You being the Master of the brigantine *Phoenix* and now ready to sail, you are
to embrace the first fair wind and good weather to set to seas, make the best
way to the island of Barbados and make due entry of the vessel and cargo,
unless you find the market too bad that you shall think it best to go further,
which you may do if you receive and properly apply the effects…

Trade with the foreign West Indies is the least studied branch of Connecticut’s
commerce given its illicit nature. England’s institution of the Navigation Acts in the
late seventeenth century was an attempt to ban other European nations from
commercially infiltrating the empire, particularly the Dutch, and ensuring the proper
collection of duties on enumerated commodities. For the most part, the acts were
aimed, at least initially, at the Dutch, who were serving as the carriers of most British
American commodities to Europe. Later in the seventeenth century, the acts were
also aimed at upholding England’s two major treaties with Spain and France. In 1670
and 1686, England signed two treaties with Spain and France, respectively, banning

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59 Connecticut Historical Society, Hartford, Connecticut, Jeremiah Wadsworth Papers, Box 123, Folder
1, Matthew Talcott to Jeremiah Wadsworth, July 1768.
inter-empire trade in the Americas, among other things. Given these treaty obligations, the colonial customs service was charged with preventing commerce between British America and Spanish and French America. Yet, this task was observed more in the breach, as inter-empire trade continued for the entire colonial period. Indeed, Connecticut merchants traded with the French, Dutch, and Danish West Indies throughout the colonial period.

It is unknown when Connecticut merchants first started trading with the French West Indies, but it probably did not begin until after 1650. The spread of the plantation complex to the French West Indies after 1660 created new markets for lumber, draft animals, and foodstuffs. Connecticut was well placed to exploit the market for mainland commodities in the French West Indies. Factor endowments, particularly access to wind currents and water sources, constrained the use of windmills and water mills for the powering of sugar mills on the French islands. Therefore, planters were forced to use animals to power their mills to a large extent. By the end of the colonial period, planters on Guadeloupe and Martinique relied overwhelmingly on animal power to drive their mills. In 1769, 64% of Guadeloupe’s sugar mills relied on animal power and 63% of Martinique’s sugar mills relied on animal power in 1767. Planters in St. Domingue probably relied on animal power to a large extent, though the exact degree is unknown. In 1788, a 320-acre plantation employed 45 mules and 16 oxen in draft services and 60 mules in powering the sugar

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mill.\textsuperscript{62} So widespread was British North American livestock exports to the French West Indies that it was one of the chief grievances expressed by planters in the British West Indies in the parliamentary proceedings leading up to the passage of the Molasses Act of 1733. The petition of the British planters stipulated that “no horses or lumber shall be exported from His Majesty’s colonies in America, to any of the foreign colonies there.”\textsuperscript{63} Connecticut was an important source of supply for horses, for, as we have seen, by 1768–1772, Connecticut exported about 74% of all mainland horses to the British and foreign West Indies. Thus, it is clear that a large share of the horses powering French West Indian sugar mills were purchased from Connecticut merchants. Given its dominance of the livestock trade, it is likely that Connecticut supplied most of the livestock exported to the French West Indies.

Estimating the total number of vessels trading between Connecticut and the French West Indies is fraught with considerable difficulties. For one thing, the West Indian trade was often a shuttle trade. Mainland vessels often tramped from island to island searching for the best market before returning to their home port. These shuttle patterns complicate estimating the total movement of Connecticut vessels in the West Indies as a whole. Moreover, Connecticut vessels rarely departed for a French West Indian colony and returned directly home. Rather, the trade usually involved several

\begin{flushright}
\textsuperscript{62} Noel Deer, \textit{The History of Sugar: Volume Two} (London: Chapman and Hall, 1949): 333. \\
\textsuperscript{63} \textit{American Weekly Mercury} 7/15/1731. In 1730, according to the Surveyor General of Customs for Barbados, the export of lumber and horses from British North America to the West Indies should be prohibited. Albert B. Southwick, “The Molasses Act: Source of Precedents,” \textit{William and Mary Quarterly} 8 (1951): 392. According to Richard Sheridan, the British West Indian planters were concerned with securing three main goals in the early 1730s. The first goal was to stop British North America Ireland from trading with the foreign West Indies. The second goal was to keep foreign sugar out of England. The third goal was to stop sugar refiners from establishing a monopoly in the English market. Richard B. Sheridan, “The Molasses Act and the Market Strategy of the British Sugar Planters,” \textit{Journal of Economic History} 17 (1957): 62-83.
\end{flushright}
stops at different islands. For instance, in July 1752, the Connecticut sloop *Endeavor* cleared New London for French St. Domingue. After selling part of its cargo, the sloop departed for Jamaica where the remainder of its cargo was sold. Upon returning to St. Domingue again, the sloop was seized. The experiences of several other Connecticut vessels exemplify this case. In early 1768, the brigantine *Grace* left New Haven for Martinique. After selling its cargo, the vessel departed for Georgia to obtain a cargo of rice and mules. After leaving Georgia, a storm forced the vessel to dock in St. Eustatius, before completing its intended voyage to the French West Indies. In the summer of 1768, the brigantine *Lucretia* departed New London for Martinique, where it sold 21 cows. From Martinique, the vessel sailed to Grenada, where another 21 cows were sold. Finally, the vessel sailed for French St. Domingue, where the rest of its cargo was sold, owing to lower prices in the first 2 markets. The voyage of the schooner *Farmer* also illustrates the complexities in quantifying the volume of Connecticut trade with the French West Indies. On April 14, 1755, the schooner departed New London for Martinique, arriving on May 25, 1755. The schooner eventually left Martinique for St. Eustatius, where it landed on June 7, 1755. On June 17, 1755, the schooner sailed for St. Croix and finally sailed to New York on July 3, 1755. In one trip, the schooner traded in the French, Dutch, and Danish West Indies. Perhaps the most complicated voyage was that of the

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64 Connecticut State Library, RG 3, New London County County Court Files. Box 98, Folder 16, Parker vs. Billings.
66 Sterling Library, Yale University Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathan Saltonstall to Nathaniel Shaw, September 5, 1768.
67 G.W. Blunt Library, Mystic Seaport, Mystic, Connecticut, Logbook of the Schooner Farmer.
Connecticut schooner *Polly*. In November 1767, a Norwich merchant chartered this vessel for a voyage to the West Indies. The charter agreement stipulated that the schooner would sail to Barbados and then to St. Eustatius, before returning to Norwich. However, the schooner’s captain did not hold to the charter agreement. The schooner did stop at Barbados and St. Eustatius, but it departed for South Carolina afterward. Upon obtaining another cargo, the schooner departed for Antigua and then stopped at Guadeloupe. From Guadeloupe, the schooner departed for St. Eustatius, before returning to Norwich laden with West Indian commodities. The sailing orders for captains departing for the French West Indies underscore the complexities involved in this branch of trade. For example, the New London merchant Nathaniel Shaw wrote to Joseph Packwood, the captain of a vessel about to set sail:

Sir, you are now Master of the brigantine *Lucretia* lying at anchor in this port. With the first fair wind, you are to sail to the island of Martinique, and their dispose of your cargo if the markets suite you, if not you have liberty to proceed to any other island which you think the markets are better at. On the whole, I leave the transactions of this voyage to your discretion as to disposing of the cargo.

From the above vessels, it is clear that Connecticut trade to the French West Indies was a complex commerce. This is true for Connecticut’s West Indian commerce as a whole. In contrast, Connecticut vessels engaged in the coastal trade usually departed Connecticut for one port, say Boston or New York City, before

68 Connecticut State Library, RG 3, New London County County Court File, Box 150, Folder 12, Backus vs. Avery.
returning to Connecticut. The captains of these vessels in the coastal trade did not tramp around the mainland colonies searching for the best available markets. The West Indian trade, however, was a peripatetic commerce, whereby Connecticut merchants often traveled from market to market searching for the best prices. Glutted markets and difficulty obtaining a return cargo often forced Connecticut merchants to tramp around the Caribbean searching for the best market to sell their cargo or to obtain specific commodities to ship back to Connecticut. Most North American vessels probably stopped at several islands on a single voyage before returning to their original port. The complexity of the vessels’ voyages makes quantifying the number of vessels trading between Connecticut and the French West Indies, or any other region, almost impossible. The main point is that the West Indian trade was more complicated than the coastal trade. This qualification is important to keep in mind for the discussion on quantifying the number of vessels trading with the foreign West Indies.

For most of the colonial period, Connecticut’s trade with the French West Indies was illegal. The Anglo-French Treaty of 1686 was meant to ban trade between British America and French America. For French planters, this treaty would have constrained the development of a plantation complex and given the inability of French merchants and the rest of French America to supply foodstuffs, lumber, and draft animals in any sufficient manner. On the British side, the 1686 treaty supposedly banned it. However, as long as enumerated commodities were not exported to the French West Indies or manufactured goods were not imported from
thence, this trade technically did not violate the Navigation Acts. It was the fact that England was frequently at war with France after 1689 that imposed institutional constraints on this branch of trade. It was planters in the British West Indies, wishing to limit the expansion of the French islands and to ensure a cheap supply of mainland provisions and a captive market there for rum and sugar, that kept up a campaign to interdict mainland trade with the French West Indies. British West Indian planters used the war card in their campaign to undermine mainland trade with the French West Indies, arguing that mainland food exports to the French islands undermined the British war strategy of starving the French West Indies. The French and English governments imposed laws to interdict the commerce between their American empires. On the French side, policy makers passed two *Lettres Patentes* in 1717 and 1727 specifically meant to ban all trade between the mainland and the French West Indies. The Molasses Act of 1733 was a futile attempt by the British government to stop trade between British North America and the French West Indies. The imposition of high duties on imports from the French colonies, it was thought, would undermine the trade. The illegal nature of this trade forced Connecticut merchants to devise ways to contravene it.

Three factors complicate estimating the volume of trade between Connecticut and the French West Indies. Figure 2.3 lists the number of vessels trading between Connecticut and the French West Indies, in which a vessel either entered Connecticut from the French West Indies or cleared Connecticut for the French West Indies. The

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data in Figure 2.3 was derived from court records, merchant correspondence, and surviving newspapers. This table can only be taken as a minimum. The rise in trade after 1763 does not represent an outright increase, however. The institutional foundations of the trade changed dramatically after the Seven Years War. The Sugar Act (1764) reduced duties on French West Indian imports, encouraging merchants in Connecticut to disclose their actual trade at the customs house. At the same time, the loss of Canada and Louisiana in 1763 and the inability of planters in French Guiana to supply foodstuffs forced French policy makers to open up the French West Indies to supplies from British North America.\footnote{Dorothy Burne Goebel, “The ‘New England Trade’ and the French West Indies, 1763-1774: A Study in Trade Policies,” \textit{William and Mary Quarterly} 20 (1963): 331-372; David Lowenthal, “Colonial Experiments in French Guiana, 1760-1800,” \textit{Hispanic American Historical Review} 32 (1952): 22-43.} Thus, for Connecticut, the reporting of trade in the newspapers was relatively more open after 1763. In 1772, which can be taken as a reliable year for figures, almost 25% of all vessels clearing Connecticut for the West Indies went to the French West Indies.
If quantitative evidence is lacking on this trade, qualitative evidence exists to shed light on its magnitude and how it functioned. Connecticut vessels traded with the French West Indies throughout the eighteenth century. When the War of Jenkins Ear broke out, it was New London merchants that informed the rest of British North America of the new French decree closing all trade with British North America.\(^{72}\)

Despite imperial restrictions, Connecticut merchants devised several methods to trade with the French West Indies directly. For one thing, it was not until the stationing of English naval vessels in Long Island Sound that vessels had trouble clearing Connecticut for the French West Indies. For example, the business activities of the Trumbull family underscore the widespread trade to the French West Indies. In the 1760s, the Trumbull family business had fallen on hard times.\(^{73}\) In a letter Jonathan Trumbull Jr. wrote to his brother, Joseph, several suggestions were ironed out on how to revive the family’s fortunes. One such suggestion involved using one of the family’s vessels to embark on a whaling venture to obtain oil to export to England. Indeed, this was one of the options open, since the West Indian trade was becoming precarious. As John Trumbull Jr. noted, “We must continue some other business than that to the West Indies—as the station ships [naval vessels stationed to interdict foreign trade] prevent anything in the illicit way—of the trade to the English Islands is much overdone.”\(^{74}\) This statement is revealing about the importance Connecticut merchants attached to trade with the French West Indies. And, before the stationing

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\(^{72}\) Pennsylvania Gazette 11/19/1739; Boston Post Boy 11/12.1739.


\(^{74}\) Connecticut Historical Society, Hartford Connecticut. Joseph Trumbull Papers, Box 1, Folder 1, Jonathan Trumbull Jr. to Joseph Trumbull, October 3, 1763.
of naval vessels, Connecticut vessels traded with the French West Indies in large measure.

What is more revealing is that this letter was written right after the death of Joseph Hull, the customs officer in New London. Jonathan Trumbull Jr. pushed his brother, who was temporarily residing in London to restore the family’s fortunes, to get another officer appointed to further the family’s business interests, saying:

I have one thing to inform you which may be of great importance…this I shall introduce by telling you that on Saturday last died very suddenly Mr. Collector Hull of New London—which you are sensible make a fine opening for somebody to step into that office—if you can make interest in London you may perhaps send some chance of supply in his place. You know but what influence Mr. Agent Jackson [Richard Jackson was Connecticut’s agent in London] can have in such case of which service he is willing to addord you.  

Trumbull was clearly trying to get another collector assigned to New London, one that would turn a blind eye to smuggling in the colony. Nevertheless, the appointment of an officer favorable to domestic smuggling was less urgent in Connecticut. This colony, like Rhode Island, had a considerable advantage in trade with the French West Indies. Sufficient machinery to enforce the Navigation Acts was always wanting. According to a 1741 report to the Board of Trade submitted by the judge of the Vice-Admiralty court of Boston, smuggling was much more rampant in Connecticut and Rhode Island than in Massachusetts, owing to the utter shortage of “preventive officers” in these two neighboring colonies. The relatively small size of Connecticut’s two central ports, New Haven and New London, provided resident

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75 Ibid.
76 National Archives, Kew Gardens, United Kingdom, CO 5/883, Robert Auchmuty to Board of Trade, 5/31/1741.
merchants with a major advantage in smuggling to the French West Indies. The evolving administrative system of enforcement in North America called for the establishment of a customs officer in each customs district. The customs officer in larger districts, like New York or Boston, also drew on the support of lesser officials such as waiters, clerks, and searchers, who aided in the more thorough examination of the cargoes and documents of arriving and departing vessels and helped the collector in recording the data. The customs system in Connecticut, on the other hand, was run by only one officer in New London down to 1764, when an additional officer was stationed in New Haven.\footnote{Thomas C. Barrow, \textit{Trade and Empire: The British Customs Service in Colonial America, 1660-1775} (Cambridge: Harvard University Press, 1767): 75.} Even so, both officers did not have a support staff in supervision adherence to the Navigation Acts. With such inadequate supervision of the hundreds of vessels annually entering and departing Connecticut for the West Indies, resident merchants clearly had significant opportunities to engage in illegal activities.

Connecticut merchants devised a variety of tricks to fool their customs officers. Probably the most common method was the use of false clearance papers at the customs house. On November 25, 1763, Nathaniel Shaw had his brigantine \textit{Lucretia} cleared at the New London customs house for a voyage to Grenada. The customs report in the newspaper stipulated that the vessel was cleared out for Grenada in the British West Indies.\footnote{New London Gazette 11/25/1763.} Shaw’s sailing instructions to his vessel’s captain, Robert Lattemore, on the other hand, were unequivocal. “You, being the
master of the brigantine *Lucretia* now at anchor in this port, are to embrace the first fair wind and sail for Domingue [and later Martinique].”

Throughout the winter of 1763, the brigantine sold 14 horses, 24 oxen, and a variety of lumber and foodstuffs in the French West Indies, all amounting to £654 (sterling), before returning to New London. Shaw further advised Lattemore that “Upon returning home, if you hear of vessels being taken by the English men of war, and made to pay the duties [taxes levied on tropical groceries from the foreign West Indies], I would have you endeavor to get a clearance from Dominica, Anguilla, or Tortola.” In this manner, the brigantine would have never left the confines of the British Empire, at least according to the legal documents. A little later in December 1763, Shaw had other plans for his brigantine. He advised Lattemore to obtain a cargo of “the best muscovado sugar” and molasses from the French West Indies and to proceed directly home to New London. Upon reaching the coast, Lattemore was to feign distress and drop his foremost. At the same time, Shaw would send out a small boat seemingly to aid the disabled brigantine. This small boat would take on board all of the French-grown commodities, which could easily be landed onshore without attracting too much attention. A smaller sailing craft would have a much better chance of avoiding the prying eyes of New London’s customs officer. Trickery was used to create a veneer of legality, as, according to the British customs papers, this one vessel engaged in a series of legal transactions. Based on published newspaper lists, few Connecticut

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79 Sterling Library, Yale University Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw to Robert Lattemore, November 25, 1763.
80 Sterling Library, Yale University Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw to Robert Lattemore, December, 1763.
vessels traded with the French West Indies, but the use of false clearances clearly concealed a much larger trade with these islands.

Given mercantile restrictions and the omnipresent threat of seizure in the waters of the Caribbean by British vessels particularly in wartime, Connecticut merchants, like their counterparts in neighboring colonies, had to devise methods of entering the French West Indies without attracting too much attention. According to Richard Pares, the two most common forms were flags of truce (British North American entering the French West Indies under the pretense of exchanging prisoners, but really trading provisions) and feigning distress on the high seas, whereby these vessels would be admitted to the French islands, ostensibly for repairs, but really to sell cargoes. 81 That Connecticut merchants engaged in both tactics is unquestionable. On November 20, 1764, Christopher Leffingwell wrote to Nathaniel Greene, a correspondent in Boston, regarding an upcoming voyage of their jointly owned brigantine Betsey. In the letter, Leffingwell requested Greene to find several Frenchmen to sail on board the brigantine; their presence would create a veneer of legality for the upcoming voyage. Leffingwell was able to assemble a few Frenchmen in Boston, and later he scoured several towns in Connecticut to find more to outfit the brigantine to sail to the French West Indies. 82 Both methods mentioned by Pares imply a fast trade, whereby Connecticut vessels were forced to unload quickly, obtain a return cargo, and depart as soon as possible. There is more

81 Pares, War and Trade, 446-455.
82 Sterling Library, Yale University Department of Manuscripts and Archives, Leffingwell Family Papers, Box 4, Folder 1, Christopher Leffingwell Letterbook, 1764-1767 (hereafter Leffingwell Letterbook).
evidence, however, to suggest that the French West Indian trade was more relaxed, and, by comparison, Connecticut merchants were much more experienced at trading with these islands. Connecticut merchant contacts with French merchants on certain islands were so well founded that the crews of Connecticut vessels often stayed in the French West Indies, while total French crews sailed their vessels. For example, in May 1765, Nathaniel Shaw’s brigantine *Lucretia* landed in Martinique, after which his crew disembarked in the island. A new French crew took over the vessel carrying false papers declaring French ownership and sold its remaining cargo throughout the rest of the French West Indies.\(^83\) This series of transactions clearly demonstrates a high degree of trust in the creation of inter-imperial business networks.

For example, in 1755, the schooner *Farmer* arrived in Martinique on May 25 and did not depart until June 5, a stay of 12 days. Upon arrival, after 2 days of negotiations, the schooner’s captain sold Madame Joy 14 oxen, 1 cow, and 1 bundle of hay, and a cask of oats. On the same day, another French gentleman purchased 13 horses.\(^84\) On November 10, 1766, the brigantine *Lucretia* was moored in Martinique, trying to sell its massive cargo of lumber, foodstuffs, oxen, and horses. A lackluster market, however, prevented the sale of a considerable portion of the cargo. At the same time, 2 other New London sloops were in Martinique. Joseph Packwood, the captain of the *Lucretia*, transferred his unsold cargo to one of the other Connecticut sloops and dispatched it to Monte Cristi. In the meantime, Packwood loaded up what molasses he could obtain, before embarking for Monte Cristi, a port on the border

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\(^83\) *Shaw Letterbook*, 176-177.  
\(^84\) G.W.Blunt Library, Mystic Seaport, Mystic, Connecticut, Logbook of Schooner *Farmer*. 
between French St. Domingue and Spanish Santo Domingo, in company with the other Connecticut sloop. Eventually, all three vessels left Monte Cristi for New London. The case of these two vessels reveals that Connecticut merchants had much experience with trading in the French West Indies, including knowledge of geography, commercial contacts, and familiarity with the markets. Trade with the French West Indies was not always a rushed business.

The illicit nature of the trade with the French West Indies also suggests a gamble for Connecticut merchants. In other words, Connecticut merchants loaded vessels with food, lumber, and draft animals in hopes of a good market. It was the appointment of factors in the French West Indies, however, that made this trade more efficient through the exchange of market information. Factors in the French West Indies also helped Connecticut merchants bypass domestic customs officials. In June 1765, Norwich merchant Christopher Leffingwell wrote to Guadeloupe merchant Isaac Lyons regarding the imminent arrival of Leffingwell’s brigantine Betsey, saying “This voyage shall have considerable dependence on your procuring him a regular clearance from an English Island.” These forged papers would show the New London customs officer that the brigantine did not leave the confines of the British Empire. Thus, when the vessel returned to Connecticut, no duties would be paid on foreign commodities imported.

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86 Christopher Leffingwell Letterbook, 1764-1767.
The creation of business networks in the French West Indies increased efficiency in the trade and reduced risk considerably. Factors in the French West Indies passed information on market conditions. In particular, French factors highlighted the specific commodities in demand and the availability of tropical commodities. For instance, on October 12, 1772, a merchant in French St. Domingue wrote to New London merchant Nathaniel Shaw:

I have wrote to you for a cargo of flour first and second quality rice, pork and beef, mackerel, herrings, bacon, cheese, staves of one-inch thick….6 or 7 cows having good milk the inhabitants will give to me 200 sous a price at least. [A French planter] charged me to ask you if you can get for him 4 sheep, two males and two females of the greater sort that live in your country…As the servant of my wife is dead…I should be glad for having another…and if by account you could find a little mulatto or negro girl of pretty face eleven or twelve years old knowing how to sew and a good behavior, you would oblige me very much…I will not much look upon the price for a good servant, a good negro cooper should be much necessary to me if he was a good working fellow and not drunkard, I cannot bear such a thing.  

Using fake prisoner exchanges, feigning distress on the high seas, dodging customs officials, and constructing business networks with resident merchants in the islands, Connecticut merchants devised several methods to export commodities to the French West Indies, but they also found safer methods. Before the relaxation of restrictions on trade between British North America and the French West Indies in the mid-1760s, Connecticut merchants made much use of the port of Monte Cristi to indirectly export commodities to the French West Indies. The Spanish set up Monte Cristi as a port in 1749 as a means to prevent French territorial aggrandizement on the

island of Hispaniola.\textsuperscript{88} It was during the Seven Years War that Monte Cristi transformed into an important entrepôt of the Atlantic world at the time, linking merchants from the French West Indies with those from British North America. Spain’s initial neutrality in the war created a veneer of legality for the exchange of commodities between British North America and the French West Indies. Upon arriving in Monte Cristi, North American vessels would unload their cargoes and wait in port. Smaller vessels, usually French or Spanish, would then ship the commodities to French St. Domingue and return with tropical commodities for the waiting North American vessels.

Connecticut merchants made great use of this port during and after the Seven Years War. In December 1758, the sloop \textit{Sarah}, a Connecticut vessel captured by the Royal Navy for trading in Monte Cristi, landed in Charleston, South Carolina. Authorities reported the arrival of the captured vessel, noting, “We are well informed that this iniquitous commerce, carried on through the channel of Monte Cristi, the French, who were during the late embargo almost starving throughout Hispaniola, are now so plentifully supplied with all sorts of provisions.”\textsuperscript{89} The tragic-comedic 1767 voyage of the brigantine \textit{Lucretia} illustrates this point well.

The brigantine landed in Monte Cristi in September 1767, carrying horses and foodstuffs. Earlier in the day, the brigantine’s captain, Joseph Packwood, a New London mariner with extensive experience at the helm of this particular vessel,


\textsuperscript{89} \textit{New London Gazette} 2/20/1759.
ordered his cargo of horses to be transported to a nearby sloop, from which they were undoubtedly shipped to eager French planters in the neighboring colony to power their sugar mills. Once the horses were unloaded, the crew of the Lucretia settled down for a night of grog and relaxation on the forecastle. Shortly thereafter, the captains and crews of several other Connecticut vessels stationed in the harbor visited the Lucretia. This vessel was the scene of a nighttime party, but one where hierarchies were upheld. On the quarterdeck, Captain Packwood served copious amounts of rum to the captains of the other Connecticut vessels and two French gentlemen, while the common sailors of all of the vessels relaxed on the forecastle. After consuming probably a considerable amount of rum, Packwood heard several of his crew members singing. “Being in a passion,” he ignored his company and immediately confronted them on the forecastle carrying a handspike. The crew should have known better than to start singing, for before entering Monte Cristi, Packwood had already severely disciplined one crew member, Isaac Fellows, for singing while on duty. Alcohol clearly changed Packwood’s personality, causing him to become enraged at the slightest perceived infraction.

Upon entering the forecastle, Packwood admonished his crew from further singing and the consumption of more grog. Sensing dissent, Packwood then used his handspike to attack Silas Foster, a sailor from Middletown, Connecticut. Foster narrowly missed two of Packwood’s swings before being struck in the hip. Hurt, though not mortally, Foster pushed Packwood into a hogshead of molasses, the raw material that created the spirit enraging Packwood in the first place. Once regaining
his footing, Packwood punched out Foster and fled to his quarters to retrieve his cutlass. In the meantime, the crews and captains of several other Connecticut vessels stood by in undoubted horror as Captain Packwood uncontrollably cursed his crew and god. Upon obtaining his cutlass, Packwood sliced the knee of one of his crew and the head of another, before clumsily breaking it. In a final fit of anger, Packwood retrieved his pistol, prompting his crew and the captains and crews of the other Connecticut vessels to disperse. The melee did not end until a little later in the night, when Captain Horn, another Connecticut mariner, relieved Packwood of command of the *Lucretia*. In a later civil suit, based on the depositions of several sailors, Packwood had to pay Isaac Foster £38 (sterling). A little later, Packwood would have to pay William Howard £38 (sterling). But what is revealing of this case is that many other Connecticut vessels were moored in this port at the same time. Despite being in a foreign empire, the captains and crews of all of these vessels engaged in a night of partying before witnessing a pretty serious fight.

After 1755, between 40 and 100 British North American vessels could be found in Monte Cristi at any time. At most times, a large percentage of these vessels were from Connecticut. In February 1759, when British Vice-Admiral Cotes sent the sloop *Viper* to interdict North American trade with Monte Cristi, 4 of the 29

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90 For the entire case and depositions of this case, see Connecticut State Library, RG 3, New London County County Court Files, Box 147, Folder 12 Packwood vs. Foster.
91 Connecticut State Library, RG 3, New London County County Court Files, Box 147, Folder 19 Howard vs. Packwood.
vessels captured were from Connecticut.\(^{93}\) The experience of these 4 vessels shows how regular this branch of commerce was for Connecticut vessels. Two of the vessels were in Monte Cristi for 4 weeks, one for 5 weeks, and the fourth vessel had only been in port for 3 days. In November 1761, New London merchant Thomas Allen departed Turks Island for Monte Cristi. In transit, his brigantine sprung a leak. As it limped towards port, 2 other Connecticut vessels, both on their way to the same port, loaded Allen’s cargo on board and towed his brigantine into Monte Cristi. While in port, he wrote to his wife that his vessel was joined by seven others from New London (my emphasis).\(^ {94}\) Connecticut merchants traded so frequently with Monte Cristi that their vessels often engaged in a tramp trade, linking this port with ports in French St. Domingue. Throughout the summer of 1769, Nathaniel Shaw’s sloop *Dove* carried goods from Monte Cristi to Port au Prince and Cape Nicholas repeatedly.\(^ {95}\) Usually, it was small French and Spanish vessels that made the tramp trade between the 2 colonies. Connecticut trade with Monte Cristi grew throughout the 1760s, but the opening of Cape Nicolas as a free port in French St. Domingue, the general relaxation of French restrictions on trade with British North America after 1765, and the increase in hostilities between France and Spain on the island of Hispaniola that led to the temporary closing of Monte Cristi to Connecticut vessels meant that Connecticut explored other avenues to export commodities to the French


\(^{94}\) American Antiquarian Society, Worcester, Massachusetts, Thomas Allen Family Papers, Box 1, Folder 1, Thomas Allen to Elizabeth Allen, November 27, 1761.

\(^{95}\) *Shaw Letterbook*, 208-209.
West Indies. Still, as late as 1769, Connecticut vessels were calling at Monte Cristi, though at a much reduced level.

Despite all of the methods Connecticut merchants employed to conduct a viable trade with the French West Indies, severe losses were frequently incurred, at least after 1750. Despite intra-empire colonial complicity in this trade, European policy makers worked tirelessly to extirpate it. On the French side, British North American merchants were undermining their attempts at creating a more self-sufficient empire, at least until the loss of their North American empire in 1763. For the British, this trade clearly undermined the Molasses Act of 1733, and, more grievous, betrayed British war strategy against the French, particularly during the War of Austrian Succession and the Seven Years War. The attempt to starve the French West Indies during both wars was clearly undermined as British North American vessels supplied considerable foodstuffs. It is interesting to mention that just as Connecticut soldiers fought to undermine French imperial ambitions in North America in the 1750s, Connecticut merchants were illicitly exporting goods to the French West Indies, a trade that helped bolster their plantations and the French dominance of sugar production in the Atlantic world. The navies of both nations were employed in wartime and, on the British side after 1763, during peace to interdict this trade.

To escape vessels of the French Navy, Connecticut merchants devised several methods. Some tried to risk direct entrance to the French West Indies, regardless of

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96 New London Gazette 12/18/1767.
threats of seizure. Other vessels took to trading with Monte Cristi. Still, others took on neutral flags to create a veneer of legality. For example, in February 1761, New London captain Joseph Packwood, in a Dutch vessel the brigantine *Black Jack* manned entirely by Connecticut sailors, moored in Martinique, where its cargo of Connecticut commodities was unloaded. Just after the arrival of Packwood’s brigantine, a Connecticut sloop was imprisoned in Martinique for attempting to directly land goods on the island. Packwood, while assembling a cargo of molasses, allowed the crew of the sloop to stay on board his brigantine, to avoid their imminent imprisonment. Afterward, Packwood’s brigantine, and at least some of the crew of the Connecticut sloop, made their way back to Connecticut.97

It was the Royal Navy, however, that wreaked particular havoc on Connecticut vessels trading with the French West Indies. For example, in October 1759, Captain Saltonstall on board the barque *Africa*, departed New London to the West Indies. Saltonstall informed his crew and the customs house that his destination was Barbados. However, Saltonstall planned to depart for Guadeloupe. After safely landing his cargo in Guadeloupe, the vessel sailed for Monte Cristi, to load molasses. On its return to New London, an English man-of-war captured the barque, seized its cargo, and imprisoned its crew in Jamaica.98 In March 1756, the Connecticut sloop *Alice*, having just exchanged a cargo of horses for sugar, molasses, and indigo in

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97 Connecticut State Library, RG 3, New London County County Court Files, Box 135, Folder 8, Packwood vs. Miller.
98 Connecticut State Library, RG3, New London County County Court Files, Box 116, Folder 17, Case 74, Saltonstall vs. Boles.
French St. Domingue, was captured by the English Ship *Garland* for illegally trading with the enemy.  

These vessels are only two examples of countless Connecticut vessels captured by English men-of-war for trading with the French West Indies. In the 1750s and 1760s, colonial newspapers were filled with reports of Connecticut vessels, as well as those from neighboring colonies, seized by either the Royal Navy or French privateers for trading with the French West Indies. This begs the question of why Connecticut merchants would go to such lengths to deceive customs authorities and risk potential seizure by trading in the French West Indies. It was not due to lack of patriotism, for as Connecticut merchants sent their vessels to the French West Indies, thousands of Connecticut soldiers mobilized for the wars against the French.  

The ready availability of molasses in the French West Indies was clearly an inducement for Connecticut merchants to trade in the French islands. Sometime in the seventeenth century, a commercial war emerged between the mainland colonies and the British West Indies for control of the production of rum. As plantation owners erected distilleries to turn molasses into rum, merchants in British North America followed suit, particularly in New England. Over time, the competition heated up, as the mainland distilleries undermined the British West Indian monopoly on rum, prompting planters to cut back on the export of molasses. On the other hand, French planters were discouraged from creating rum due to the brandy interest in the home market. The ready available of molasses in the French West Indies served as a

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100 Selesky, *War and Society in Colonial Connecticut*.  

magnet for mainland merchants, for by the period 1768–1772, almost all molasses imported into the mainland colonies came from the foreign West Indies.\textsuperscript{101}

That Connecticut merchants sought molasses in the French islands is unquestionable. However, this cannot explain the whole reason for the willingness of Connecticut merchants to risk trade with the French islands. For one thing, by 1770, there were only 5 rum distilleries operating in Connecticut.\textsuperscript{102} So, there was not a strong interest group of domestic distillers pushing for this trade. To be sure, molasses was an important commodity in Connecticut’s coastal trade. Even so, in the years 1768–1772, molasses constituted only 15\% of the total value of Connecticut’s coastal trade. This percentage only takes into account trade by sea. The transportation of livestock over land constituted a large and valuable export from Connecticut; thus, molasses exports represented a much smaller share of Connecticut’s coastal trade. Molasses did serve as a means for Connecticut merchants to discharge debts to merchants in neighboring colonies. However, the export of Connecticut provisions and draft animals constituted a much larger branch of Connecticut’s coastal trade.

It was higher prices that induced Connecticut to trade with the French West Indies. If prices were uniform throughout the West Indies, Connecticut merchants would not have risked the seizure of their vessels by trading with the French islands. These islands offered two incentives for Connecticut merchants, higher prices (except during occasional gluts) and hard cash. In 1765, Nathaniel Shaw’s brigantine

\textsuperscript{101} Gilman M. Ostrander, “The Colonial Molasses Trade,” \textit{Agricultural History} 30 (1956): 77-84.
\textsuperscript{102} McCusker, “Rum and the American Revolution,” 441.
Lucretia landed a cargo of oxen, fish, lumber, and other foodstuffs in Martinique, one amounting to £370 (sterling). The sale of this cargo in Martinique netted Shaw £563 (sterling). More important, 76% of the value of the return cargo was in the form of cash.

The main element in Connecticut’s trade with the French West Indies was the export of horses for the French sugar industry. Given that French planters relied on animal power to fuel their mills much more than the British islands, that the French plantation complex was the most dynamic in the Caribbean through 1789, and that supplies of livestock were not forthcoming from the rest of French America, the price of horses in the French islands was considerably higher than in the British West Indies. Figure 2.4 shows comparative prices in Barbados, Guadeloupe, and St. Domingue for the year 1766. With cargoes consisting of 25 or more horses, a difference in just £2 could mean considerably higher profits for Connecticut merchants. Few Connecticut vessels traded in the French West Indies without carrying horses, and those that did, like the above brigantine, always carried other livestock.

Overall, it is clear that Connecticut merchants engaged in a considerable trade with the French West Indies. At any given point, a large number of Connecticut vessels trading in the West Indies were employed in the French trade. In the late 1760s, when this trade became legal, Connecticut merchants were more open about their dealings. For instance, when Captain Perkins arrived in New London from Guadeloupe in January 1768, he openly reported to the *New London Gazette* the location of 12 other Connecticut vessels in the West Indies. Three of these vessels were trading at the British West Indies, 2 were at the Dutch West Indies, and the other 7 were at the French West Indies.104

Connecticut merchants also conducted an expansive trade with the Dutch West Indies. The Dutch West Indies consisted of 3 major types of colonies. First,

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104 *New London Gazette* 1/15/1768.
there were the colonies of Essequibo, Demerara, and Surinam, where factor endowments allowed the plantation complex to take root; these three colonies constituted the heart of Dutch sugar production. Second, there were the relatively barren colonies of Curacao, Aruba, and St. Eustatius, where the land was relatively unsuitable for plantation production. Resident Dutch merchants on these islands exploited their location between the major American empires to create entrepôts, or ports where goods from throughout the Atlantic world were procured for intra-empire trade. The raison d’être of these islands was to undermine European mercantilism in the Americas. Curacao and Aruba were gateways for smuggling into the Spanish Empire, while St. Eustatius served as a hub for trade between French and British America. Third, the island of St. Maarten, one without a substantial plantation complex, produced salt, a commodity necessary to the preservation of British North American barreled meat, fish, and dairy products. With the exception of Curacao and Aruba, Connecticut merchants traded with all of the Dutch West Indies throughout the eighteenth century.

The earliest commercial contact Connecticut merchants had with the Dutch West Indies was with Surinam. When the Dutch West Indian Company purchased Surinam in 1682, its intentions were clear: the colony would mimic Barbados and produce tropical commodities, particularly sugar, for export to the Netherlands.\textsuperscript{105} The production of sugar in Surinam was to serve as compensation for the lost Dutch

empire in Brazil and the ousting of Dutch trade in the French and British West Indies. In the late seventeenth century, the Dutch tried to implement a closed colonial system in Surinam when the colony was placed under the control of the Surinam Corporation. However, like all other plantation colonies, Surinam needed imports of foodstuffs and draft animals. In particular, given the geography of the colony, almost all plantations in Surinam relied on horses to power their sugar mills. A typical sugar plantation in Surinam with 200 slaves purchased at least 8 animals annually to maintain production levels.\textsuperscript{106} Surinam differed from the rest of the Caribbean plantation complexes in that it was not an island. The use of water-powered mills was only possible near the coast, where few plantations actually existed. Moreover, dense jungles in the interior limited the flow of wind, undermining the widespread use of windmills. According to a 1720 report to the Board of Trade:

> The Dutch Sugar Colony of Surinam lyes so low, and is so woody that they don’t build any windmills there for want of wind, and (except upon the banks of their river, where they have water-mills) all their sugar is made with mills turn’d round with horses, of which they do not breed any themselves, but are altogether supply’d from New England and Rhode Island.\textsuperscript{107}

Thus, Surinam plantation owners were forced to rely wholesale on \textit{beestework}, or animal-powered mills.\textsuperscript{108} Without a mainland empire, Surinam relied almost entirely on horse imports from British North America. This trade began in the last 25 years of the seventeenth century. In 1686, the ship \textit{Hopewell} was the first

\textsuperscript{107} CSP, 1720, 104.
\textsuperscript{108} Goslinga, \textit{Dutch in the Caribbean}, 331.
recorded vessel from Connecticut to trade with Surinam. Even though British North American provisions and horses helped to foster Surinam’s plantation complex, through 1700, the Surinam Corporation tried to restrict this commerce with sporadic decrees. Underlining the importance of British North American horses and foodstuffs in the production process, Surinam planters repeatedly petitioned the governor to request a relaxation of trade restrictions. Eventually, the Surinam Corporation relented and passed a new decree creating a limited opening in Surinam’s foreign trade in 1704. According to the new decree:

That from henceforth in the colony of Suranam, foreign vessels shall be suffered and admitted with horses from New England… and that the masters of such vessels for themselves and their ships and lading have liberty to trade with the inhabitants as they shall think meet observing and regulating themselves according to the laws and statutes of the country and usage of the place, namely that said foreign ships may not bring in or import any European manufacturies of gold, silver, copper, steel, woolens, silk or linens nor any [European] wheat, rye, barley, oats or beef. And, lastly that the aforesaid ship shall not land on board for transportation any sugar and the aforesaid vessel many only take or carry from hence molasses, Suranam brandy, saw’d wood, as beams, planks and heading and all other wares and merchandize brought from the United Netherlands to Suranam.

Thus, from 1704 onward, vessels from British North America were legally allowed to trade in Surinam, provided they brought horses in every cargo. Indeed, the authorities in Surinam insisted that horses had to be landed on every vessel from North America. If horses died in transit, their severed heads had to be shown to the

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109 Johannes Postma Data Collection.
110 The decree was published verbatim in Boston Newsletter 4/9/1705.
customs authorities upon arrival in the colony. At times, Connecticut vessels without horses were turned away upon entering Surinam.

Over the course of the eighteenth century, North American vessels landed a total of almost 35,000 horses in Surinam. Of this total, Rhode Island shipped about 50%, Massachusetts 33%, and Connecticut was the third largest supplier, with just under 10%. Connecticut’s place, however, is misleading. As demonstrated in the last chapter, a portion of Rhode Island exports to Surinam were, in fact, re-exported Connecticut horses. For example, on November 25, 1738, James Browne, merchant in Providence, Rhode Island wrote to Matthew Davis, in Pomfret, Connecticut, saying, “Please to get tan [ten] horsis for me that is sutabil to go to surray nam [Surinam].” The Brown family, one with extensive dealings with Surinam, procured horses from Connecticut residents throughout the colonial period. All of this suggests that Connecticut was probably a much larger source of horses for Surinam when the coastal trade is factored into the above figures. Figure 2.5 records the total number of vessels trading between Connecticut and Surinam.

111 Goslinga, Dutch in the Caribbean, 320.
Apart from horses, other commodities were also exported to Surinam. The cargo of the schooner *Jacky and Peggy* best exemplifies the range of commodities exported to Surinam:

Table 2.5 Cargo of Schooner *Jacky and Peggy* Exported to Surinam 1756

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 water casks</td>
<td>215.5 bushels oats</td>
</tr>
<tr>
<td>4 barrels flour</td>
<td>1,850 hoops</td>
</tr>
<tr>
<td>16 barrels beef</td>
<td>1,593 shingles</td>
</tr>
<tr>
<td>4,500 pounds hay</td>
<td>4,750 staves</td>
</tr>
<tr>
<td>18 horses</td>
<td>2,000 bunches onions</td>
</tr>
<tr>
<td>4,750 staves</td>
<td>4 bushels beans</td>
</tr>
<tr>
<td>20 sheep</td>
<td>4 pair shoes</td>
</tr>
<tr>
<td>2 boxes, 1 cask tobacco</td>
<td>4 shoats</td>
</tr>
<tr>
<td>2 boxes soap</td>
<td>4 bushels beans</td>
</tr>
<tr>
<td>2 boxes candles</td>
<td>4 pair shoes</td>
</tr>
</tbody>
</table>

Source: Connecticut State Library, RG 3, New London County County Court Files, Box 108, Folder 12, Case 65, Mackenzie vs. Galloway.

The Surinam trade involved considerable risks, as this colony was on the South American mainland and at a greater distance from Connecticut than most other islands in the Caribbean. Longer sailing routes imposed greater hardships on
livestock in transit. According to Johannes Postma, 56,000 horses were exported from British North America to Surinam, out of which only 36,000 actually survived, which amounted to a mortality rate of 36%.\footnote{Postma, “Breaching Mercantile Barriers,” 121.} The relatively longer voyage to Surinam involved even heavier mortality and often caused the termination of ventures to the colony. A few examples illustrate the point well. In February 1715, a Connecticut sloop on its way to Surinam was forced to stop in Nevis after losing all of its horses.\footnote{Boston Newsletter 3/19/1715.} More tragically, on September 14, 1748, an abandoned sloop was towed into Bermuda, having been found without a mast or sailors on board. Upon further examination, it was discovered that this sloop had departed Connecticut for Surinam carrying horses. A gale wind must have overset the vessel in transit, washing all sailors and horses overboard to their deaths.\footnote{New York Gazette 10/3/1748.} Other vessels embarked on voyages to Surinam were turned away due to weather constraints. In November 1756, the snow Fox departed New London for Surinam. During the voyage, bad weather forced Stephen Clay, the vessels master, to stop at Barbados, where its cargo was sold.\footnote{Connecticut State Library, RG 3, New London County County Court Files, Box 133, Folder 15, Case 310 Clay vs. Saltonstall.} In 1763, the schooner Fox, after having sold its cargo in Surinam, was chased by a Spanish privateer on its homebound passage to New London. During the chase, the schooner crashed off the coast of South Carolina.\footnote{New London Gazette 2/11/1763.}

Connecticut’s trade with Surinam often involved Atlantic-wide voyages. In August 1732, the brigantine London sailed to Ireland, carrying a cargo of 53,700
staves, 17 shaken casks, and 2,000 hoops. In exchange, the captain of the vessel purchased beef, herrings, and guns for the vessel. From Ireland, the brigantine departed for Madeira, where other cargo was exchanged for wine. From Madeira, the brigantine went to the Cape Verde Islands, to purchase 2 horses and as much salt as possible. From here, the brigantine departed for Surinam, to sell its cargo and obtain molasses, which was then exported to Boston before returning to New London. In 1738, the sloop Two Josephs made a similar journey, traveling from New London to Ireland and then to Surinam.

St. Eustatius was also a significant trading partner for Connecticut throughout the colonial period. The Dutch had taken the island in 1636, though it changed hands several times down to 1776. With lands mostly unsuited for sugar production, St. Eustatius became the emporium of the Atlantic world after 1720. Merchants from British, Danish, and French America freely traded at this island to obtain a whole range of commodities. Initially, planters in the British and French West Indies brought sugar to St. Eustatius for re-export to Europe. After 1720, St. Eustatius also served as a safe base for the exchange of North American foodstuffs for molasses from the French West Indies. This island proved particularly important during wartime, as the Dutch were usually neutral.

Figure 2.6 shows the number of

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120 Connecticut State Library RG 3, New London County County Court Files, Box 38, Folder 4, Case 97, Graves vs. Jube; Box 40, Folder 16, Case 70, Graves vs. Roe.
121 Connecticut State Library, RG 3, New London County County Court Files, Box 61, Folder 6, Case 363, Rogers vs. Dorsey.
vessels trading between Connecticut and St. Eustatius in the period 1758–1772. The sharp decline after 1770 can be attributed to the loosening of restrictions on Connecticut’s direct trade with the French West Indies.

Connecticut’s trade with St. Eustatius offered an outlet for the legal export of horses, lumber, and foodstuffs to the French West Indies, particularly during wartime. Just as Monte Cristi served as a depot for the exchange of Connecticut commodities for those of the French West Indies, so did St. Eustatius serve this role. An article in the New London Gazette neatly sums up the role of St. Eustatius:

It is said that the trade of St. Eustatius never flourished more than at present, being carried on to a very great extent not only to St. Domingo and other countries of the enemy, but even to Guadeloupe, Martinico, Grenada, and the other islands conquered by Britain; it having been (as we are informed) a

common practice to clear out vessels in the English Islands for these places which vessels afterwards went to St. Eustatius to load for a time their double papers afforded them a full protection…

This trade was particularly lucrative during the Seven Years War. In a letter written to Connecticut merchant Nathan Allyn on the eve of the Seven Years War, Statian merchant Thomas Allen wrote that several French vessels were moored in St. Eustatius. As these vessels flooded St. Eustatius with rum and molasses, their prices dropped substantially, while their demand for mainland provisions drove up their prices, creating very ideal market conditions for merchants from British North America. In June 1756, New London merchant Gordon Saltonstall’s ship Lyon landed in St. Eustatius, carrying a cargo consisting of 6 horses, 59.5 barrels of fish, 4 barrels of pork, 21 barrels of beef, 52 empty barrels, 1 barrel of bread, 12,100 hoops, 30,400 staves, 14,027 shingles, 22,000 feet of boards, and a few other goods. While in port, 8 merchants in St. Eustatius purchased this cargo, including the vessel itself. Undoubtedly, most of these goods were then re-exported to the French West Indies.

As in other branches of the West Indian trade, Connecticut merchants forged business networks with merchants living in St. Eustatius. Setting up connections with St. Eustatius’s merchant community was relatively easy given the fact that so many merchants from British North America had settled on the island. A census taken in 1781 just after the British capture found that 13% of the burghers on the island were

124 American Antiquarian Society, Worcester, Massachusetts, Allen Family Papers, Box 1, Folder 1, Thomas Allen to Nathan Allyn, December 6, 1755.
from British North America. For instance, the life of Thomas Allen exemplifies the business networks forged between the mainland and St. Eustatius. Allen was born in London in 1728. His family moved to Boston in 1734, where they ran a general retail shop. In 1749, Thomas moved to St. Eustatius, where he engaged in a large-scale mercantile career, trading with merchants throughout the Atlantic world. In 1752, he moved to New London, Connecticut, where he continued his deep involvement with the West Indian trade. While in St. Eustatius, Allen forged business ties with merchants in Connecticut, particularly Gordon Saltonstall, Thomas Modyford, and Nathan Allyn. It was from these merchants that Allen obtained many of his supplies for planters in the French West Indies. For instance, to Nathan Allyn, Allen suggested the following cargo for the next shipment: “300 bushels of oats, 30 or 40 barrels of provisions, good staves and a few shingles, 10 prime saddle horses, 4 fat oxen, and 50 sheep or hogs.” Allen’s market information proved excellent for minimizing risks in this trade for Connecticut merchants. On July 27, 1755, Allen wrote to Allyn regarding market conditions on St. Eustatius, saying “I shall not be able to sell horses at any price, they are so very low. Instead, send beef, mackerel, onions, cheese, potatoes, cattle, and shoats.” In addition, Allen helped to direct Connecticut cargoes to the best possible markets. Factors in St. Eustatius also helped Connecticut merchants obtain proper return cargoes, thus reducing transaction costs.

127 American Antiquarian Society, Worcester, Massachusetts, Allen Family Papers, Box 1, Folder 1, Thomas Allen to Nathan Allyn, March 23, 1755.
128 Allen Family Papers, Box 1, Folder 1, Thomas Allen to Nathan Allyn, July 27, 1755.
In October 1755, Gordon Saltonstall dispatched his sloop *Betsey* to St. Eustatius. He wrote to Thomas Allen, “I have shipped 16 likely horses, 9 barrels of mackerel, and 32 empty hogsheads for molasses. I have agreed with Captain Appleton [captain of the sloop] that he shall land the horses at Saint Christopher or Nevis, if you think it will be better for my interest, then to land them at Saint Eustatius.” For his return cargo, Saltonstall was unequivocal in his need for molasses. He wrote, “The molasses is to be of the best quality otherwise it can’t yield well at the distillery.”

Stationed in St. Eustatius, Allen was able to direct Connecticut commodities to markets in four empires: Danish St. Croix, Dutch Surinam and Curacao, British Nevis and St. Christopher, and French Guadeloupe and Martinique. Though as a commission agent for Connecticut merchants, Allen was serving his own interests in obtaining the highest prices. He also helped to foster efficiency in Connecticut’s West Indian commerce, as his market information served to reduce risk and port time.

While in St Eustatius, Allen owned several vessels with which he used to exchange commodities to surrounding islands, particularly Guadeloupe. One such vessel, the sloop *Betsey*, he purchased from Saltonstall in November 1756. Given his mercantile connections with Connecticut merchants, it is probable that a large portion of the commodities Allen exported to Guadeloupe was obtained from Connecticut. For instance, in September 1756, Allen exported 11 barrels of flour, 26 barrels of fish, and a cask of water to Guadeloupe. Through factors such as Allen, Connecticut

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129 Allen Family Papers, Box 1, Folder 1, Gordon Saltonstall to Thomas Allen, October 6, 1755.
130 Allen Family Papers, Oversize Volume 1, Thomas Allen Account Book, 1755-1758.
merchants were able to obtain market information that helped to reduce risk and lower transaction costs.

The final branch of Connecticut’s trade with the Dutch West Indies was with their portion of the island of St. Maarten. The first recorded vessel to trade between St. Maarten and Connecticut was the sloop *Sara*. In 1738, the Sloop departed St. Maarten for Connecticut, carrying only 189 gallons of rum.\textsuperscript{131} Thereafter, the trade escalated to 1765. St. Maarten was one of the largest sources of salt for Connecticut’s barreled meat and dairying industry at least until 1765. For most of this period, few vessels departed Connecticut directly for St. Maarten. Rather, Connecticut vessels usually departed for other islands in the West Indies and stopped at St. Maarten to load salt on their return to Connecticut. For instance, in 1761, the sloop *Industry* carried a cargo of horses to St. Kitts. Upon selling its cargo, the sloop traveled to St. Maarten and purchased 2,000 bushels of salt before returning to New London.\textsuperscript{132} Rather than exchanging commodities for the salt, the vessel’s captain purchased it using a bill of exchange. Figure 2.7 illustrates the number of vessels entering Connecticut from St. Maarten.

\textsuperscript{131} National Archives, The Hague, New West Indian Company Records, 621/243.
\textsuperscript{132} Connecticut State Library, RG 3, New London County County Court Files, Box 148, Folder 7, Case 158, Bryson vs. Packer.
Finally, Connecticut merchants traded extensively with the Danish West Indies. The Danish West Indies consisted of 3 major islands—St. Croix, St. Thomas, and St. John—and produced only 3% of the total exports of the plantation Caribbean in 1770. For the most part, St. Croix, purchased from the French in 1733, produced most of the Danish tropical commodities, while St. Thomas and St. John served as entrepôts between British North America and the French West Indies. Connecticut trade with the Danish West Indies was probably tiny before 1756. But during the Seven Years War, the Danish islands served as conduits, linking Connecticut merchants with buyers in the French West Indies. The large percentage of English settlers in St. Croix undoubtedly helped to foster trade with British North America. The first Danish census taken in 1736 listed several English settlers. After 1757, Connecticut’s trade increased with the Danish West Indies, and by 1770, 21% of the

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vessels clearing St. Croix for British North America left for Connecticut. Between 1757 and 1763, Connecticut supplied 46% of all horses exported to St. Croix, 47% of all sheep and hogs, and 38% of all poultry. After the war, the Danish government created a free port in St. Thomas, and Connecticut’s trade only escalated further. Figure 2.8 illustrates the number of vessels trading between Connecticut and the Danish West Indies.\textsuperscript{135}

Though the smallest of the Caribbean plantation complexes, Connecticut merchants used the Danish West Indies to expand the market opportunities and obtain the best prices. For instance, in 1768, the sloop \textit{Anne} sold 2 oxen in St. Croix, which

\textsuperscript{134} McCusker, “Rum and the American Revolution,” 389, note 203.

were supposed to be sold in Antigua.\textsuperscript{136} Horses often sold for considerably higher prices in St. Croix. In 1759, Nathaniel Shaw sold a cargo of horses in St. Croix for over £24 (sterling), which was almost £8 higher than prices current at Barbados in 1766.\textsuperscript{137} In addition, Connecticut merchants often obtained manufactured goods from the Danish West Indies. For instance, one Connecticut vessel carried thread, cottons, and other manufactured goods from St. Croix, a cargo amounting to £237 (Connecticut currency).\textsuperscript{138}

Connecticut’s trade with St. Croix was a constituent element in its coastal trade. The Sugar Act of 1764 ostensibly banned the importation of foreign rum into British North America. This new decree particularly affected New York, where sizable quantities of rum from St. Croix were imported.\textsuperscript{139} As discussed in the next chapter, Connecticut merchants forged inter-colonial networks to smuggle goods into the mainland colonies. The importation of rum from St. Croix was one of the elements in this smuggling trade after 1764. For one thing, like the French West Indies, St. Croix’s sugar plantations relied overwhelmingly on horses to power their mills. In 1766, 62% of St. Croix’s sugar plantations employed horses to power their mills. Almost half of the horses on these plantations were exported from Connecticut. In exchange, Connecticut merchants illegally imported rum, for later distribution to coastal markets. The main obstacle was to get past customs authorities

\textsuperscript{136} Connecticut State Library, RG 3, New London County County Court Files, Box 150, Folder 5, Case 152, Brockway vs. Dennison.

\textsuperscript{137} St. Croix prices were listed under the Schooner \textit{Adventure} manifest. Sterling Library, Yale University Department of Manuscripts and Archives, Nathaniel Shaw Papers.

\textsuperscript{138} Connecticut State Library, RG 3, New London County County Court Files, Box 150, Folder 13, Forbes vs. Shute.

\textsuperscript{139} McCusker, “Rum and the American Revolution,” 351-352.
in New London. In May 1765, the sloop *Polly* departed St. Croix for Connecticut, carrying a cargo primarily consisting of rum. Upon reaching Connecticut, the sloop did not bother entering its cargo at the customs house in New London, but instead it proceeded to Lyme on the Connecticut River. From Lyme, the rum was later re-exported elsewhere.¹⁴⁰

### 2.6 Value of Connecticut’s West Indian Commerce

Attempting to quantify the value of Connecticut’s West Indian commerce before 1768 is problematic. For most years, lack of data allows only partial computations. For the period 1768–1772, a set of customs records has survived, giving a more comprehensive picture of trade. James Shepherd and Gary Walton used this source to write the most comprehensive study of the trade of colonial British North America.¹⁴¹ Shepherd and Walton estimate that the annual average value of Connecticut’s commodity exports to the West Indies amounted to an annual average of £79,468 (sterling) in the years 1768–1772.¹⁴² Shepherd and Walton put the average annual value of Connecticut’s imports from the West Indies at £54,547 (sterling) for the years 1768–1772.¹⁴³

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¹⁴⁰ Connecticut State Library, RG 3, New London County County Court Files, Box 139, Folder 21, Bingham vs. Bradley.


Shepherd and Walton’s estimate of Connecticut’s West Indian commerce is too low. For one thing, they did not find prices for all 80 commodities exported from Connecticut to the West Indies between 1768 and 1772. In particular, they only provide price estimates for 2 of the 4 major types of livestock exports (cattle and horses) and no onion prices, 2 of the most valuable Connecticut exports to the islands. I have constructed a more comprehensive estimate of Connecticut’s trade with the West Indies, one that employs prices for 75 out of the 80 (94%) commodities exported. Table 2.6 presents a new estimate for this branch of the colony’s commerce.

Commodities in which no prices were found are oakknees, oak pieces, tannery, sassafras, and oxbows. For prices, I have relied primarily on Nathaniel Shaw’s account books. Sterling Library, Department of Manuscripts and Archives, Yale University, Nathaniel and Thomas Shaw Family Papers, Account Books 4 and 25. Account Book 4 lists all of Shaw’s invoices for vessels engaged in trade for the years 1764-1774, while Account Book 25 lists prices for all of Shaw’s dealings with producers in and around New London. Various other prices were derived from surviving Connecticut newspapers, John McCusker’s “Historical Statistics,” Table Eg688, various prices were found in the New London County County Court Files held at the Connecticut State Library, and surviving account books from the Connecticut State Library and Connecticut Historical Society. To convert prices from lawful money to sterling, I have relied on McCusker, Money and Exchange in Europe. For some years, commodities, such as beef and pork, were listed as tons rather than barrels. To convert these commodities into one single unit for the 5 year period, I have relied on John J. McCusker, “The Tonnage of Ships Engaged in British Colonial Trade During the Eighteenth Century,” in John J. McCusker (ed.) Essays in the Economic History of the Atlantic World (New York: Routledge Press, 1997): 70-75, Table 3.5, which provides a basis for converting liquid and solid measures into barrels, tons, and hogsheads.
Table 2.6 Annual Value of Connecticut's Trade with the West Indies, 1768–1772 (All Values in £ Sterling)

<table>
<thead>
<tr>
<th></th>
<th>Exports</th>
<th>Imports</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1768</td>
<td>107,842</td>
<td>53,065</td>
<td>54,777</td>
</tr>
<tr>
<td>1769</td>
<td>110,767</td>
<td>76,443</td>
<td>34,324</td>
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<tr>
<td>1770</td>
<td>129,577</td>
<td>79,415</td>
<td>50,162</td>
</tr>
<tr>
<td>1771</td>
<td>120,547</td>
<td>75,883</td>
<td>44,664</td>
</tr>
<tr>
<td>1772</td>
<td>127,760</td>
<td>77,517</td>
<td>50,243</td>
</tr>
</tbody>
</table>

Source: Data Derived from Customs 16/1.

The estimates presented in Table 2.6 show that the average annual value of Connecticut’s exports to the West Indies in the period 1768–1772 was £119,299 (sterling), which is 50% higher than Shepherd and Walton’s earlier estimate of £79,468 (sterling). The new estimate for imports is £72,465 (sterling), which is 33% higher than Shepherd and Walton’s earlier estimate of £54,547 (sterling). It is clear that Shepherd and Walton’s data considerably underestimates British North American–West Indian commerce for the years 1768–1772; the West Indian trade was a much larger branch of commerce for the mainland colonies.

The most recent estimate of Connecticut’s population in 1770 puts the figure at 181,583.¹⁴⁵ Therefore, per capita exports to the West Indies amounted to an annual average of £.66 (sterling) between 1768 and 1772. Connecticut per capita exports were significantly larger than the only other estimate of West Indian exports.

According to David Richardson, New England per capita exports to the West Indies

amounted to £0.50 in 1770. Overall, it is clear that the West Indies constituted a much more important branch of Connecticut’s commerce than we have been accustomed to believe.

In conclusion, the West Indian trade was an important branch of Connecticut’s trade. The demand for foodstuffs, lumber, and draft animals constituted one of the main driving forces in the commercialization process in Connecticut. Plantation production entailed the consolidation and clearing of most available land to create large sugar plantations employing African slave labor. Imported food was needed to feed the growing slave population, lumber for construction and casks for shipping tropical commodities, and draft animals for powering sugar mills and other services around the plantation. As will be seen in a later chapter, vast portions of Connecticut’s countryside were cleared and farmed in order to grow food for the West Indies. In addition, large parts of the northeastern region of Connecticut were completely devoted to raising primarily horses and other livestock for export to the West Indies.

Chapter Three: Connecticut and the Coastal Trade, 1636–1772

In the mid-eighteenth century, Ebenezer Plummer ran a general store in Glastonbury, Connecticut, a bustling farming community on the Connecticut River. Plummer, a Boston native, settled in Glastonbury around 1749, after which he set up a thriving retail shop, which sold West Indian commodities and a variety of British manufactured goods to consumers in Glastonbury and surrounding towns. Though his store ledger does not record payment, his customers paid sometimes in cash but mostly commodities, usually pork, onions, potash, wheat, and tobacco.¹ On June 24, 1752, 17 customers from central Connecticut visited Plummer’s shop, purchasing goods amounting to £111 (sterling). The bulk of the purchases consisted of British manufactured goods, such as paper, a range of textiles, buttons, and sugar boxes. On the same day, Plummer shipped 642 bushels of corn, 27 barrels of pork, 20 dozen brooms, and 1 bundle of furs to Boston, a shipment totaling £72 (sterling).² The bulk of these commodities shipped to Boston were probably collected as payment from customers over the previous days.

This series of one-day transactions underscores the complexities of the coastal trade, or the trade among the North American mainland colonies. The coastal trade linked British manufacturers with consumers throughout Connecticut’s countryside and Connecticut producers with consumers in food deficit regions of neighboring

¹ Though the account book does not delineate payment method, Plummer’s large shipments of commodities to Boston suggest that such large assortments were collected as payment for his stock.
colonies. Without a viable direct trade with Britain, Connecticut merchants exported surplus foodstuffs and raw materials to neighboring colonies to obtain British manufactured goods. Through the sale of imported manufactured goods for primary products, Connecticut’s merchants initiated a process of integration between Connecticut’s farmers and communities in neighboring colonies. The 17 customers visiting Plummer’s store this one day were contributing to the movement of vessels between Connecticut and Boston and supporting indirectly Boston’s trade with London.

This chapter examines Connecticut’s coastal trade, a branch of commerce that constituted the second largest element in the colony’s commercialization process. Section 3.1 examines the growth of the coastal trade from the seventeenth century to the eve of the American Revolution. Section 3.2 presents an analysis explaining why colonies with essentially similar factor endowments engaged in commerce with each other. This section situates the coastal trade within the context of the larger Atlantic economy. Section 3.3 illustrates how the business networks forged in the coastal trade fostered a regional economy at odds with the intentions of the Navigation Acts. Chapter Two demonstrated how the Atlantic economy developed into a quasi-common market regardless of imperial boundaries. This section illustrates how markets fostered networks to allow smuggling throughout the region. Section 3.4 presents a new estimate of the volume of Connecticut’s coastal trade before the American Revolution.
3.1 Connecticut’s Coastal Trade in the Seventeenth and Eighteenth Centuries

Before 1676, most of Connecticut’s trade can be classified as coastal trade (trade within Connecticut and with the other colonies in British North America), with boats moving up and down the Connecticut River facilitating the settlement of the colony. It is impossible to establish the volume of this trade. However, as pointed out in the previous chapter, incessant warfare in the period down to 1676 severely taxed the resources of the nascent colony, as labor and capital were diverted from the task of clearing and cultivating land and constructing the necessary infrastructure—such as roads, wharves, and sailing vessels—for commercial growth.

For this reason, it is safe to argue that Connecticut’s coastal trade was limited before 1676. There is some sparse information on intermittent ventures in the New Haven colony, which was settled in 1637 as a colony initially separate from Connecticut. To bolster the colony’s fortune and existence as a separate entity from the Connecticut colony, New Haven merchants experimented with several overseas ventures, all of which ended in financial disaster. The colony’s first known vessel was dispatched to the Delaware River, in an attempt to construct a trade in furs, a commodity suitable for export to England. This early venture ended abruptly when the Dutch in New Netherland and the nascent Swedish colony in Delaware barred entrance to this area for New Haven merchants, resulting in the eradication of a substantial portion of the colony’s scarce capital. Representing a sizable portion of the capital of New Haven merchants, these costly failures, for the most part, eroded the attempts of New Haven merchants in constructing a viable maritime economy.
Still, there is evidence to suggest that New Haven and Connecticut merchants sent several vessels to trade with Bermuda, Barbados, Virginia, and Massachusetts, though the records are lost. In this period of intermittent warfare, there began an export trade that would prove vital for Connecticut’s economy in the eighteenth century. In 1661, the Boston-owned Barque *Samuel* departed New London for Virginia, carrying 6 horses. This is the earliest documented case of a trade that would drive Connecticut’s maritime economy over the next century.

Overall, the spotty evidence indicates that sporadic commerce commenced between Connecticut and coastal markets, but no evidence of sustained networks of commerce. Part of the reason for the lack of data is that little commerce existed before 1676. Even if Native American wars did not check economic development in Connecticut, the question remains: why would consumers in Massachusetts, Rhode Island, and New York purchase Connecticut commodities when, for the most part, the same commodities could be produced domestically? Except in cases of bad harvest in one colony, there would not have been much of an incentive for Connecticut to export the same foodstuffs produced in neighboring colonies. Besides, much of the productive resources in each colony were devoted to subsistence production, which hampered the development of trade.

The only major inducement to the early coastal trade was for the re-export of Connecticut commodities to the West Indies. Merchants in neighboring colonies

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drew on Connecticut farmers to supply commodities to export to the West Indies in the seventeenth century. The earliest evidence for sustained coastal commerce from Connecticut exists in the several account books of the prominent merchant John Pynchon (1626–1702) of Springfield, Massachusetts. The Pynchon family exercised dominance over Springfield’s economy and society unmatched in any other colony by one family. William Pynchon founded Springfield in 1636. William’s son John expanded his mercantile operations, buying up a substantial percentage of the region’s land and eventually instituting tenancy arrangements with a large portion of the surrounding population. Reinforcing their hegemony of the region, the Pynchons eventually usurped Springfield’s local retail trade and the lucrative fur trade. As the supply of furs dwindled, the Pynchons diversified their operations, eventually embarking on the growing provisioning trade to the West Indies after 1651. By the mid-seventeenth century, planters in the West Indies were gradually shifting their resources into large-scale slave-based sugar production, creating new markets for food, lumber, and draft animal imports from the North American mainland. All goods exported to the West Indies from Springfield had to pass through Connecticut.

To facilitate his commercial endeavors with the West Indies, Pynchon made vital partnerships with many Connecticut merchants. The complexities of Pynchon’s West Indian trade drew producers and merchants throughout Connecticut into the nexus of commercial exchange, mirroring the developments of the next century.

Since only small boats could sail north from Hartford to Springfield, Pynchon invested in the construction of a land route between these 2 towns, from which goods
traveled south over land and then by ship overseas. Furthermore, assembling ship cargoes of foodstuffs and other provisions for the West Indies involved a long process of negotiation and transportation from Springfield down the Connecticut River. Pynchon constructed a warehouse at modern-day Enfield to collect commodities from the surrounding region of the Connecticut River and distribute West Indian commodities in exchange. To carry his commodities to the West Indies, Pynchon relied on 2 Connecticut-built vessels, the ship *Desire* (which cost £300 to build in Hartford) and the ketch *Northern Adventure*. Pynchon’s account books illustrate the symbiotic relationship between domestic production in Connecticut and Pynchon’s West Indian adventures. Farmers throughout Connecticut sold Pynchon peas, corn, wheat, barreled beef and pork, as well as horses, usually in exchange for sugar. These Connecticut products were usually exported to the West Indies. In the 1660s, the Connecticut horse trade to the West Indies began, as Pynchon purchased several horses from Wethersfield producers, most of which were exported to the West Indies. Pynchon, as would all eighteenth-century Connecticut merchants, assembled cargoes from many regions in Connecticut. Hence, the average vessels departing Connecticut for the West Indies carried a cargo consisting of foodstuffs and livestock supplied from many towns in the colony. Map 3.1 illustrates the regions of Connecticut from which Pynchon received cargoes for his West Indian ventures.

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In 1703, with the death of his father, John Pynchon Jr. carried on the family
businesses, albeit on a reduced scale. Rather than engaging in the West Indies trade,
Pynchon Jr. focused on a regional retail trade, an occupation that supplied consumers
with a range of commodities from considerable portions of Massachusetts and parts
of northern Connecticut. Between 1703 and 1709, Pynchon Jr. conducted business
with 7 people in Enfield and 10 in Suffield, 2 towns in northern Connecticut. Yet,
these transactions were very small, amounting to only a few shillings, with Pynchon
selling a range of textiles and metal goods, sugar, and books in exchange for cash and
farm produce.\(^6\)

After 1676, Connecticut merchants constructed the necessary commercial infrastructure (wharves, sailing vessels, overseas commercial contacts) for an independent overseas commerce, albeit on a small scale. With victory assured in King Philip’s War in 1676, the last barrier to settlement of most of eastern Connecticut was removed, inaugurating the massive settlement of the region. With internal security assured, the colony’s population grew and land prices increased by around 50%. After 1676, as the voyage of the Samuel and Pynchon’s operations show, it seems clear that Connecticut merchants were establishing business networks in neighboring colonies to foster coastal trade. Connecticut was transforming into a provisioning region, in which surplus goods were purchased for later re-export to the West Indies or southern continental colonies. The Connecticut governor’s report to the Board of Trade (1680) is revealing for the development of the colony’s coastal trade. In the report, the governor wrote:

The commodities of the country are wheat, peas, ry, barly, Indian corn, and porck and beif…but to say the yearly value of what is exported, or spent upon the place, we cannot. The most is transported to Boston and there bartered for cloathing…In our colony, there are about 20 petty merchants. Some trade only to Boston, som to Boston and the Indies, other to Boston and New York, others to Boston, the Indias and Newfoundland.

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Though vague, this report does indicate the direction of Connecticut’s commerce by the late seventeenth century. As resident merchants were constructing a West Indian trade, the dominant market for Connecticut’s commodities was Boston, the center of early New England’s economy. Connecticut merchants engaged in intermittent trade with New York and the northern fisheries, but the volume was small. New York was not a food deficit colony, essentially negating any advantage that Connecticut had in trade to that colony before the expansion of flaxseed exports after 1730. The Newfoundland fisheries were a dynamic market for fresh foodstuffs, but it is unlikely that Connecticut merchants engaged in any considerable trade there before 1700.⁹ Even so, the seventeenth century coastal trade was probably very small. By 1680, Connecticut’s population consisted of 21,013 people dispersed along the Connecticut River and most of Long Island Sound.¹⁰ Thus, despite fertile soils in the river valley, Connecticut simply lacked sufficient population to embark on a large-scale overseas trade at this point. In a very rough estimate, the Connecticut governor estimated the value of the colony’s imports at £9,000 in 1680. If we assume a rough parity in the balance of payments, Connecticut exports amounted to £9,000 for the same year. Of this total, exports to Boston probably amounted to £5,000, while exports to the West Indies probably totaled £3,000, while the remainder went to New York and Newfoundland. Though rough estimates to be sure, they do indicate a trend in the direction of Connecticut’s overseas commerce.

The seventeenth century consisted of sporadic vessels sailing between Connecticut and coastal markets; the eighteenth century witnessed a rapid expansion only interrupted by wars and economic recessions. For one thing, the internal settlement and development of Connecticut proceeded apace after 1700. By 1675, the colony of Connecticut consisted of 25 towns, mostly located on the coast and along the Connecticut River. After 1700, the process of settlement of the backcountry commenced, as more towns were founded deeper into the interior of the colony. By 1770, there were 74 towns in the modern state of Connecticut.  

The population of the colony grew from 31,502 people in 1700 to 181,583 in 1770. The expansion of population and settlement in the colony shifted outward the production possibility curve substantially, allowing for a much larger coastal trade.

After 1700, surviving data give a much better indication of the size of the coastal trade. It is after 1700 that an almost complete run of British North American newspapers have survived. For a variety of reasons, the newspapers represent the only major source from which to study the coastal trade. The following data is

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11 For an excellent discussion of the process of settlement in Connecticut, see Daniels, *Connecticut Town*, 8-44.
12 Daniels, *Connecticut Town*, 47, Table 1.
13 The main source for the study of British American commerce, the Naval Office Shipping Lists (NOSL hereafter) tend to underreport the volume of the coastal trade. The intricacies of the coastal trade—a large number of very small vessels entering and clearing ports (from or for markets in a small geographic area either within a colony or between neighboring colonies) with a myriad of cargoes—probably overwhelmed the naval officer, leading to outright ignorance of the volume of this branch of trade. The size of the vessels and cargoes varied considerably in the coastal trade. In 1738, the Sloop Ranger carried 56 barrels of beef to Rhode Island, while the Sloop Flying Fish carried only 29 barrels of beef and one barrel of tallow to Rhode Island in 1747. In 1747, the very small Sloop Beaver carried a cargo to Boston consisting of only 181 lb. of cheese, whereas an unnamed Schooner crashed on its voyage from New London to Boston carrying 5,000 lb of cheese. Connecticut State Library RG3 New London County County Court Files, for Sloop Ranger, Box 78, Folder 16, Case 146, Smith vs. Stewart; For Sloop Flying Fish, Box 84, Folder 6, Case 68, Edgerton vs. Cleveland. For Sloop Beaver, Connecticut State Library RG3 New London County County Court Files Box 84, Case 76, Stewart vs.
based on an extensive examination of all extant colonial newspapers from 1704–1772, supplemented with account books, mercantile correspondence, and Connecticut court records. For unnamed Schooner, Connecticut Journal 11/13/1767. For some unknown reason, however, the naval officer listed the vessels engaged in the coastal trade in the colonial newspapers. There are some important points about the nature of the surviving evidence. Recorded to ensure compliance with the Navigation Acts, the NOSL record vessel name, tonnage, cargo, and port of origin or destination. In each major colonial port, a certified Naval Officer wrote down all of the details of vessels entering and departing their respective port district. A comparison of the Massachusetts NOSL for the years 1714-1716 (with the exception of the first quarter of 1714, all returns are intact for these 3 years) and the shipping lists reported in the Boston Newsletter for the same years reveals a stark example of under-reporting. The Massachusetts NOSL list one vessel, the sloop Speedwell, that made one trip from New Haven to Boston and back to New Haven in these three years. If the NOSL were the only source available, we would be misled into believing that little trade existed between Boston and Connecticut. However, the same Naval Officer recording the NOSL advertised each colony’s overseas trade in the local newspapers, under an advertisement for the Customs House. Boston’s first newspaper the, Boston Newsletter, contains naval lists reporting 218 vessels that entered Boston from Connecticut and 226 vessels that cleared Boston for Connecticut for this 3-year period. If we assume that each vessel displaced 15 tons, shipping capacity amounting to 6660 tons went unrecorded by the Naval Officer, substantially reducing the actual volume of trade. To be sure, most of these entrances and clearances consisted of the same vessel making repeat voyages. But, that does not reduce the volume of cargo they carried. For the Massachusetts NOSL, See National Archives, PRO CO 5/848; all issues of the Boston Newsletter were consulted from April 5, 1714-December 3, 1716. Rather than a deliberate falsification, the under-reporting is a reflection of the inability of customs officers to record the magnitude of the coastal trade and the fact that most of these commodities were not taxable making their reporting superfluous. Most of these vessels were small sloops, or vessels with one mast, usually no larger than 20 tons burden. Many of these small vessels made several coastal voyages per annum between Connecticut and Boston. For instance, between 1707 and 1716, James Browne’s Sloop Speedwell made twenty five trips between New Haven and Boston, exchanging foodstuffs grown throughout Connecticut for British manufactured goods, which were imported into Boston. Yale University Department of Manuscripts and Archives, Account Book Collection. Oversize, Francis Browne Account Book. The absence of much of the coastal trade in the NOSL is not unique to the Connecticut-Massachusetts route, but instead was one instance of under-reporting plaguing the NOSL for all of the mainland colonies. Furthermore, the haphazard collection of trade data continued throughout the eighteenth century. In an attempt to present the most accurate picture of colonial commerce, Thomas Irving called on all customs officers in British North America to submit precise accounts of their ports’ trade in the period 1768-72. While compiling data into one single volume, Irving reported that prior to 1768, “accounts of imports and exports…to and from the neighboring colonies (which commonly pass under the denomination of the coasting trade) being seldom or ever inserted in the accounts and even such goods and commodities as were brought into account were not arranged in any order or method nor were the real quantity thereof ascertained with proper precision”. Irving’s comment quoted in John J. McCusker, “Colonial Civil Servant and Counterrevolutionary, Thomas Irving (1738?-1800) in Boston, Charleston, and London,” Perspectives in American History 12 (1979): 322.
Based on all extant colonial newspapers, Figures 31 and 3.2 present a detailed picture of the number of vessels engaged in the coastal trade. These two figures present as accurate a picture of the coastal trade as possible. However, until 1758, they seriously understate the volume of trade as no records have survived for trade with Rhode Island and New York, even though a large number of vessels traded between Connecticut and these markets. Moreover, in certain years, colonial newspapers are missing. The sailing routes of Connecticut vessels also present awkward challenges to estimating the number of vessels engaged in the coastal trade.


15 For most of the eighteenth century, estimating the actual volume of Connecticut’s coastal trade is severely constrained since few records survived on the trade with Rhode Island and New York’s NOSL record few vessels trading with Connecticut. Until 1768, there is little quantitative evidence of this commerce since neither the Rhode Island or the New York newspapers record much trade with Connecticut. Yet, qualitative evidence does survive, which suggests this branch was substantial. In the most comprehensive diary of colonial Connecticut, New London resident Joshua Hempstead recorded the daily life of his community, particularly the movement of sailing vessels into and out of the bustling port. On June 5, 1716, though spending most of the day working hard, Hempstead noted that a sloop entered New London from Newport, carrying 2 tierces and 3 hogsheads of rum. See Patricia Shaefer (ed.) The Diary of Joshua Hempstead: A Daily Record of Life in New London, Connecticut, 1711-1758 (New London: New London Historical Society, 1999): 56. This entry is one of many that Hempstead recorded in his diary between 1711 and 1758. It is not until the years 1768-1772 that we have a full picture of the volume of Connecticut’s coastal trade.

16 The newspapers present several problems. First, though the newspapers list the number of vessels entering and clearing each port, they do not list cargoes. Also, at times, the newspapers either do not exist or have spotty coverage of the customs data. The data assembled in Figures 2.1 and 2.2 show spastic fluctuations at some points, 1709, 1745-47, and 1757-59 in particular. These fluctuations are not business contractions, but reflect years in which no colonial newspapers have survived or the surviving newspapers contain few shipping lists. For the year 1709, few newspapers have survived, while in 1745-47, the Boston newspapers contain only records for vessels entering Boston from Connecticut, but none clearing Boston for Connecticut. Moreover, Connecticut’s first newspaper with Customs House data does not appear until the fall of 1758, which further reduces the potential to measure this trade.
The case of the sloop *Florence* exemplifies the complex nature of some Connecticut vessels engaged in the coastal trade. This relatively small vessel, measuring only 28 tons, departed New London, Connecticut in December 1763 for North Carolina. The vessel arrived in Newbern, North Carolina at the end of the month. For the next four months, the vessel traded between 6 ports around the Carolina coast, buying lumber products cheap in one port and selling it dear in other ports. Eventually, in April 1764, the sloop sailed to the West Indies. In June 1708, John Harris, master of the sloop *Guilford*, departed Connecticut for Boston. In October 1708 Harris departed Boston for Antigua, probably carrying a cargo of commodities from both Connecticut and Massachusetts. It would not be uncommon for Connecticut vessels to stop at Philadelphia or ports southward to pick up cargoes for further export to the West Indies. Since the records are so thin, it is difficult to estimate the total volume of trade. Because precise dates of departure or arrival in Connecticut ports cannot be ascertained in most cases, these multilateral voyages are left out in the following discussion. In sum, at any given point in the

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17 The sailing routes of many Connecticut vessels further complicate studying the volume of coastal trade. For years that NOSL do survive, there are dozens of Connecticut vessels trading between two colonies without entering or clearing Connecticut. Over the course of the eighteenth century as markets around the Atlantic Economy became more integrated with prices moving towards convergence around the basin, merchants often embarked on multi-port voyages in order to minimize risk and obtain better prices. See Thomas M. Truxes, “Transnational Trade in the Wartime North Atlantic: The Voyage of the Snow Recovery,” *Business History Review* 70 (2005): 751-780. During the Seven Years War, the Snow Recovery departed New York in 1760 for Ireland. After which, the Snow left Ireland for Curacao. The Snow left Curacao for Monte Cristi, from which is intended on visiting Hamburg, Germany. During this last branch, a British cruiser captured the vessel on the way.

18 Connecticut State Library: RG 3 New London County County Court Files, Box 135, Folder 16 Hopson vs. Clark.

19 *Boston Newsletter* 6/27/1708, 10/18/1708.

20 In other words, without Connecticut NOSL, it is only possible to measure direct trade between Connecticut and the port with surviving lists. If a Connecticut vessel entered Jamaica and then cleared
eighteenth century, there were far more Connecticut vessels engaged in the coastal trade than are represented in Figures 3.1 and 3.2.

for another location, the vessel is lost if that other colony does not have NOSL. The return trip to Connecticut is hidden in the records.
Figure 3.1 Total Number of Vessels Entering and Clearing Connecticut from and for Coastal Markets, 1704-1757
Figure 3.2 Total Number of Vessels Entering and Clearing Connecticut Ports for Coastal Markets, 1758-1772

- **Blue line**: entrance, 1758-1772
- **Pink line**: clearance, 1758-1772
Incomplete data notwithstanding, some general conclusions can be reached about the coastal trade. Connecticut trade with coastal markets remained at a rather stable rate for most of the colonial period and accelerated rapidly in the final decades of the colonial period. Second, there were quite sharp fluctuations in peace time. The brief expansion of trade after the war of 1739–1748 was checked by 6 years of stagnation. Scholars have long recognized that the Stamp Act Crisis (1764) disrupted colonial commerce. Boycotts in the major colonial ports checked the growth of trade in British North America. More marked, the massive expansion of trade after 1765 fell with a decline in 1768, as a result of the strident non-importation movement sparked by the Townsend Acts. Third, the 2 major Atlantic wars between 1739 and 1776 had differing impacts on Connecticut trade. Though started as a means to improve the commercial prospects for the British Empire, the 1739–1748 war proved to be an unmitigated disaster for Connecticut’s coastal trade and other parts of the empire. Enemy privateers interdicted British imperial trade routes, capturing around 650 British Empire vessels, and mobilization in British North America further shifted resources out of commerce. Over the course of the war, over 36,000 sailors served on privateers and 14,000 men volunteered for the various campaigns in

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Canada and the West Indies. The 1756–1763 war, on the other hand, proved more beneficial to Connecticut commerce, since a brief disruption following the outbreak of the war was followed by an impressive expansion.

Wartime disruptions and economic downturns notwithstanding, another more surprising factor constrained the growth of the coastal trade. With such close distances involved (compare the route from Connecticut to Rhode Island or Boston with that of the route to Barbados or Jamaica), it would seem that the coastal trade would be relatively safe. Yet, Connecticut vessels engaged in the coastal trade suffered shipwrecks to a considerable degree. Throughout the eighteenth century, the coasts of Narragansett and Cape Cod were littered with the debris of countless wrecked vessels coasting between Connecticut, Boston, and Rhode Island. In 1739, after selling his cargo of provisions in Boston, Captain Joseph Goreham of Connecticut departed for New London, undoubtedly carrying a cargo of British manufactured goods. While passing Cape Cod, a gale forced Goreham’s vessel ashore, destroying it and most of the cargo. While on shore, Goreham witnessed several other vessels driven ashore, most of which were probably trading between Connecticut and Boston. The route to Boston also proved treacherous. While carrying “a very valuable cargo of molasses, pork, beef, cheese &c” to Boston, the 100-ton schooner Unity ran on the banks of Cape Cod on the night of March 2, 1732, after which the vessel and cargo were lost and the crew survived.

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are only a few of the many lost vessels on these short routes that passed through many shoals making the trip relatively difficult.  

From the statistics in Figures 3.1 and 3.2, drawn mainly from the *Boston Newsletter*, one can also make some comparison with a dominant argument in the literature. A dominant argument in the literature holds that after 1750, Connecticut’s trade with Massachusetts essentially disappeared due to new currency regulations in the latter colony. After the Massachusetts legislature passed the 1750 Currency Act, Rhode Island, New Hampshire, and Connecticut bills of credit could no longer circulate in Massachusetts. This act essentially destroyed the quasi-New England currency that had been in place since the seventeenth century. As a result, it became much more expensive for Connecticut merchants to conduct business in Boston and, by contrast, relatively cheaper in New York. As Gaspar Saladino noted, “Before 1750, Boston had almost completely controlled Connecticut’s inter-colonial trade but after this date, New York City, for several reasons, wrested the control from Boston.” Saladino’s argument is shared by many others. The view echoes that of “A Connecticut Farmer,” or an anonymous writer commenting on the economic condition of Connecticut on the eve of the Revolution. According the author, “From the earliest times, Boston had almost the whole of our [Connecticut] trade till the

injurious act that altered the currency of that province in 1750…This much incensed them [Connecticut merchants] against Boston for the injudicious treatment they met with; they turned their trade generally to New York.”

This dominant argument has not been tested with commercial data. If the 1750 Currency Act did indeed undermine trade between Connecticut and Massachusetts, the number of vessels trading between the 2 colonies would drop after 1750, given the higher transaction costs attendant by the changing currency. Figure 3.3, however, tells a different story.

From Figure 3.3, it is clear that, except for 1752, Connecticut’s trade with Boston remained relatively stable and that the 1750 Act had little impact on this branch of the coastal trade. While it is not possible to ascertain ownership of these vessels, it is clear that the number of vessels trading between Boston and Connecticut

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30 New London Gazette 8/17/1770.
31 Figure 3.3 is based on a tally of all vessels trading between Connecticut and Massachusetts as listed in the extant issues of the Boston Newsletter for the years 1748-1772.
did not decline in any appreciable way. In 1758 and 1759, the naval officer for Boston ceased reporting clearances—vessels leaving Boston for Connecticut, for instance—which accounts for the very small number of entrances shown for those 2 years. The year 1768 proved to be a low year for all of Connecticut’s trade. By the end of the colonial period, trade with Boston was booming. There is no doubt that the 1750 Currency Act imposed hardships on Connecticut’s trade with Boston. To be sure, New York became a larger trading partner by the end of the colonial period. In the years 1768–1772, an annual average of 144 vessels entered Connecticut from New York City compared to 125 from Massachusetts. For the same years, an annual average of 144 vessels cleared Connecticut for New York City, while 112 cleared Connecticut for Massachusetts. In the final years of the colonial period, New York became Connecticut’s largest trading partner in the coastal trade. However, the data does not suggest that New York obtained total control over the trade. Figure 3.3 clearly shows that Connecticut’s trade with Massachusetts did not experience absolute decline, but only a relative decline toward the end of the colonial period.

Colonial newspapers have allowed for a detailed examination of Connecticut’s coastal trade for the years before 1768. However, these newspapers, for the most part, favor Massachusetts, as this branch was the only one recorded in the data and most newspapers were based there before 1740. As a result, Connecticut’s trade with the other mainland colonies is downplayed. However, Customs 16/1 allows for a more comprehensive examination of the markets for Connecticut’s coastal trade. What were the major markets for Connecticut
commodities on the eve of the Revolution? In the period 1768–1772, 87% of the total tonnage entering Connecticut and 84% of the total tonnage clearing Connecticut for coastal markets traded with Rhode Island, Massachusetts, and New York.\textsuperscript{32} Only intermittent vessels departed or entered Connecticut for or from the southern colonies, such as Maryland, Virginia, and South Carolina. There was also a sporadic trade to the fisheries in Canada and a very insignificant trade to Pennsylvania. Overall, during the 1700s, most of Connecticut’s coastal trade was confined to the immediate neighboring colonies.

\textbf{3.2 Coastal Trade in the Atlantic World}

Of all branches of commerce in British North America, the coastal trade has not received much attention. The few works on the coastal trade have tended to separate it from the larger commodities chains of Atlantic commerce. The coastal trade, a trade consisting of hundreds of relatively small vessels sailing between the mainland colonies on voyages usually lasting no more than two weeks, involved considerably less risk and significantly lower costs than transatlantic commerce. Expenses in engaging in the transatlantic trade were far higher given the longer length of voyages, the larger size of vessels, the need for more complex merchant networks, the need for insurance due to the hazards of war and sailing and the risk of price swings due to incomplete information. We can understand the temptation to separate the two branches of trade. Yet, taking a wider Atlantic approach reveals the connection between the two.

\textsuperscript{32} Calculated from PRO Customs 16/1.
How did the Atlantic economy foster Connecticut’s coastal trade? Why would colonies with essentially the same factor endowments and producing similar commodities trade with each other? The solution to this puzzle is the Atlantic economy. Engagement with the Atlantic economy opened up market opportunities for Connecticut farmers to export their surplus commodities to neighboring colonies. Connecticut’s coastal trade consisted of three major branches: the provisions trade, the importation of manufactured goods from New York and Massachusetts, the export of commodities, mainly raw materials like flaxseed and potash, foodstuffs and draft animals, for further re-export to Europe and the West Indies.

By far the largest branch of the coastal trade was Connecticut’s export of foodstuffs to neighboring colonies. Integration into the Atlantic economy affected structural changes on its participants. Regions in the northern colonies that specialized in trade with the Atlantic economy soon underwent relative urbanization, as business operations induced linkages diversifying the regions economy, and outstripped the ability of local farmers to supply the burgeoning domestic population.

It has long been a truism that Massachusetts, Rhode Island, and New Hampshire could not achieve sufficiency in foodstuffs in the colonial period. From Rhode Island to Maine, rocky soils constrained the growth of surplus grain production on the one hand and urbanization in the growing port towns increased the demand for foodstuffs on the other hand.\footnote{Percy Well Bidwell and John I. Falconer, \textit{History of Agriculture in the Northern United States, 1620-1860} (New York: Peter Smith, 1941): 142-44; Max George Schumacher “The Northern Farmer and His Markets During the Late Colonial Period,” (unpublished Ph. D. Dissertation, University of California 1948).} The specialization in these colonies aggravated the food
shortages. Producers in Maine and New Hampshire shifted their labor away from farming to concentrate on the more lucrative lumber trade. Specialization in sectors connected with maritime activities such as whaling, shipbuilding, the West Indies trade, the slave trade, and fishing in Rhode Island and Massachusetts fostered the concentration of population in large urban port towns. On the eve of the American Revolution, the island of Nantucket, Salem, Boston, Newport, and Providence had evolved into highly specialized port economies, requiring vast supplies of foodstuffs. Yet, farms in Rhode Island and Massachusetts were unable to supply these growing port towns both for domestic consumption and re-export to overseas markets. Merchants in these port towns faced a conundrum: cut back on specialized maritime activities in the Atlantic economy and shift resources into domestic food production or seek external sources of food. Ultimately, the decision was made to resort to food imports. Rice from the Lower South, grains from the Chesapeake, and flour and bread from the Middle Colonies fed the growing New England urban population. In the food deficit regions of Massachusetts and Rhode Island, Connecticut farms found a ready market for their surplus commodities.

In a series of articles, economic historian David Klingaman underscored the importance of Chesapeake grain exports to the food deficit regions of New England, particularly Massachusetts. Based on a thorough examination of the NOSL, Klingaman demonstrated the gradual transformation in which the Chesapeake became a major source of foodstuffs for Massachusetts. His studies, however, overlook Connecticut’s vital contribution since Connecticut trade is almost entirely missing in
Massachusetts NOSL. This absence clearly inflates the importance of the colonies south of Connecticut. Klingaman analyzed the Massachusetts NOSL for 1714–1717 and 1761–1765, and concluded that though vessels may have gone unreported, Massachusetts imported few commodities in the coastal trade before 1720. It was after that date that the Chesapeake became a major source of food for Massachusetts.

To support his claim, Klingaman posited that Massachusetts only imported an annual average of 2,100 bushels of grain and 142 barrels of meat in the period 1714–1717. And yet, for these years, the Massachusetts NOSL do not report Connecticut vessels, even though many traded between the two colonies. According to the customs house reports listed in the *Boston Newsletter* for these years, 218 Connecticut vessels cleared Connecticut for Boston, but the paper does not record cargoes. A single shipping invoice from the sloop *Speedwell* records exports of 385.5 bushels of corn, 127.5 bushels of wheat, 237 bushels of rye, 22.5 barrels of pork, and 4 barrels of beef exported from New Haven to Boston. If we assume this cargo is representative of all 218 vessels trading to Boston in these three years, then average annual imports of grain to Massachusetts amounted to 54,500 bushels and average annual imports of meat amounted to 1,925 barrels. With Connecticut vessels included, it is clear that Massachusetts’ reliance on food imports from coastal markets began much earlier.

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35 Yale University Department of Archives and Manuscripts, Oversize Account Book Collection, Account Book of Francis Browne (Sloop Speedwell).
And the importance of the Chesapeake in the supply of foodstuffs was relatively less important given the larger role of Connecticut producers.

Unlike the rest of New England, Connecticut enjoyed soils with relatively greater fertility, particularly in the Connecticut River Valley and coastal regions of Long Island Sound. Indeed, over the course of the eighteenth century, a variety of food was channeled from Connecticut to Boston, Nantucket, Salem, Providence, and Newport. Connecticut was a net exporter of onions, barreled meat, wheat, bread, flour, corn, and a variety of other grains. Almost all this food was exported to Rhode Island and Massachusetts. Connecticut food exports reached such a crescendo that shopkeepers in Boston and Rhode Island regularly advertised Connecticut foodstuffs, particularly pork and onions. The coastal trade was a means for branding surplus commodities produced in the Connecticut countryside. For example, along with English and Indian manufactured goods, Providence shopkeepers Richard Jackson and John Updike advertised Connecticut flax and onions.\textsuperscript{36} Along with Jamaican rum, Giles Tidmarsh’s store on Long Wharf in Boston advertised “Connecticut Indian Corn.”\textsuperscript{37} Connecticut commodities such as “choice Connecticut pork,” “Connecticut oats, by large or small quantities,” “best Connecticut Indian corn,” “choice Connecticut cheese,” and “good Connecticut onions,” adorned the shelves of general stores from Philadelphia to New Hampshire throughout the eighteenth century.\textsuperscript{38}

\textsuperscript{36} Providence Gazette 8/27/1768.
\textsuperscript{37} Boston Evening Post 6/17/1751.
Connecticut pork, in particular, was a popular food item for the northern colonies, for most general stores seemed to advertise this commodity. A general store in Providence, Rhode Island, advertised pork “just imported from South-Carolina, and equal in quality to any brought to market from Connecticut.” Based on only meat, dairy products, and grains, Klingaman has estimated that in the period 1768–1772, Massachusetts imported 13.8% of all its food needs, whereas Rhode Island imported 8.1%, and Maine and New Hampshire 5.4% each. This estimate, however, largely downplays the actual percentage for each colony. It ignores other major food—such as onions, bran, barley, tallow, lard, peas, beans, oats, and rye—that Connecticut exported in abundance to other New England markets. With these calorie-rich foodstuffs, the actual percentage of foods supplied in the coastal trade for New England was much larger than the above figures.

Connecticut’s trade with Massachusetts is relatively easy to track, given the lists contained in Boston’s newspapers. On the other hand, Connecticut’s trade with Rhode Island is almost invisible in the records, for the surviving newspapers usually do not list vessels engaged in this branch. This omission downplays an important branch of the coastal trade, however. Connecticut vessels supplied a range of foodstuffs to Rhode Island over the course of the eighteenth century. The Connecticut–Rhode Island trade often involved very small vessels carrying small cargoes. For instance, in 1747, the sloop *Flying Fish* carried 29 barrels of beef and 1
barrel of tallow from New London to Newport. In February 1732, the sloop
*Thankful and Ann* transported 116 bushels of oats to Rhode Island. In January
1767, William Potter shipped 8 barrels of beef and pork and 1,000 pounds of cheese
from New London to Newport. These few examples exemplify the range of
foodstuffs carried from Connecticut to Rhode Island. Given that Rhode Island ports
were situated right next to New London, there was probably a large volume of trade
that existed beyond the scrutiny of naval officers. Some of this food was probably
imported and then immediately re-exported to the West Indies. This begs the
question of how much of Rhode Island’s West Indian trade was really a re-export
trade in Connecticut products. However, given the sheer volume of “Connecticut
pork” being advertised in Rhode Island newspapers, it is clear that a substantial
portion of this food was consumed in the domestic market. Connecticut merchant
Jonathan Trumbull engaged in a small, but lucrative trade with Newport from the late
1740s to the mid-1750s. The predominant commodities that Trumbull exported to
Newport consisted of barreled pork and beef. Most, if not all, of Trumbull’s
shipments seemed to have been consumed in Newport, as each letter written by
Newport merchant Ebenezer Gray to Trumbull warn of shortages of barreled meat in
the town.43

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40 Connecticut State Library, RG 3, New London County County Court Files, Edgerton vs. Cleveland.
41 Connecticut State Library, RG 3, New London County County Court Files, Box 32, Folder 22, Case
229, Whittlesee vs. Doty.
42 Connecticut State Library, RG 3, New London County County Court Files, Box 145, Folder 10,
Case 24 Gardiner vs. Potter.
to Jonathan Trumbull, December 23, 1754, January 23, 1755”, Box 1, Folder 16.
Connecticut was a particularly important source of provisions for Nantucket, the whaling center of Massachusetts. From the early settlement of the island, settlers knew the sandy soils would not prove conducive to large-scale farming, and other economic activities would be needed. Thus, in 1690, or thereabouts, the islanders undertook the capture of whales swimming by the shore. Eventually, over time, this industry transformed into deep-sea whaling. The concentration of shipbuilding, cooperage, and processing industries on an island without a sufficient domestic supply of foodstuffs forced the islanders to import foods from the coastal trade. Because of the short distance between Connecticut and Nantucket, often times, very small vessels made the voyage. In 1761, the schooner *Eagle* carried only 20 barrels of cider to Nantucket. Yet, at times, the individual vessels carried substantial cargoes. Lebanon, Connecticut, merchant Jonathan Trumbull dispatched his sloop *Speedwell* to Nantucket in 1751 carrying 88 barrels of beef, 32 barrels of pork, 187 pounds of cheese, and butter and lard. This cargo valued at £3346 (Old Tenor) was traded for 200 barrels of spermaceti oil.

Connecticut merchants used commercial contacts with Nantucket to construct a complex transatlantic trade. Lebanon, Connecticut, merchant Jonathan Trumbull Sr., along with his business partners, maintained a continuing commercial relationship with Sylvanus Hussey, a Nantucket merchant, in the 1750s. Throughout that decade, Trumbull and his partners exported barreled beef and pork to Hussey, in

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44 Connecticut State Library, Hartford, Connecticut, RG3 New London County County Court Files Box 115, Folder 16, Case 2, Woodward vs. Avery.
45 Connecticut Historical Society, Hartford, Connecticut, Jonathan Trumbull Sr Papers, Box 6, Folder 1, Edward Bacon Receipt to Jonathan Trumbull Sr, 10/31/1751.
exchange for massive cargoes of whale oil, most of which was then exported to London to pay for manufactured goods. In September 1751, Hussey notified Trumbull & Co, “I have had a quantity of oil ready for your sloop…as for the provisions, I would have no small cattle…but hope you will put up what shall be fat and good, I think the season will allow it such, I shall crave if may get 20 or 30 barrels of pork, it being early to kill, but shall want some this fall.” In response to this letter, Trumbull & Co. assembled close to 200 barrels of meat and some cattle for export to Nantucket. Trumbull & Co. either directly exported the whale oil to London from Connecticut or sent it to neighboring ports for re-export to England. In 1754, Trumbull sent 59 casks of spermaceti oil, purchased in Nantucket, to Boston for further export to London on the snow Apollo, a payment for further manufactured goods.

It was only after 1749 that Connecticut engaged in a significant coastal trade outside of the orbit of New York, Rhode Island, and Massachusetts, but one based on a similar export of foodstuffs to a colony with a significant deficit. Upon acquiring Nova Scotia in 1748, Britain lavished substantial funds amounting to a total of £529,861 (sterling) between 1749 and 1756 to bolster that colony’s defenses against the French in neighboring Canada. In addition, 5,000 settlers were sent to the colony, including a stream of Connecticut settlers who migrated to Nova Scotia, setting up kinship networks for trade. Parliament’s generous outlays and the large British

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military presence in Nova Scotia generated a large market for food, draft animals, and lumber, a market that Connecticut merchants readily exploited. In 1749, only 3 vessels cleared Connecticut for Nova Scotia. By 1755, 27 vessels cleared Connecticut for Nova Scotia. After 1755, the number of clearances steadily declined, amounting to only 8 in 1760. The decline in Connecticut trade to Nova Scotia mirrored the decline in British government spending in the colony, which fell to a total of £112,375 (sterling) in the period 1757–1762. Trade with Nova Scotia mirrored Connecticut’s trade with the West Indies, in that cargoes were largely similar. In 1750, the New Haven sloop Dolphin carried a cargo to Nova Scotia consisting of 200 pounds of cheese, 300 ropes of onions, 50,000 shingles, 2 barrels of beef, 110 sheep, 26 barrels of cider, and 100 geese. Aside from supplying foodstuffs to the nascent settlements in the new colony, Connecticut merchants exported foodstuffs to Nova Scotia to feed the Royal Navy vessels stationed there. In particular, merchants in Nova Scotia with contracts to supply the Royal Navy with provisions constructed commercial contacts with Connecticut merchants to obtain

49 PRO TNA, CO 221/28-35.
The Nova Scotia market also served as a means of increasing Connecticut production of capital goods, albeit on a small scale. In 1764, John Trumbull Sr. dispatched his sloop *Susannah* carrying 16 barrels of flour, 1 sawmill crank, 2 sawmill crossbars, and sundry other sawmill irons, all of which were produced in Connecticut. Connecticut also supplied Nova Scotia with West Indian commodities. For example, in August 1764, the sloop *Bachelor* shipped 2 barrels of sugar, 1 barrel of rum, and 1 barrel of molasses to Nova Scotia.

Occasionally, Connecticut also dispatched vessels for the fisheries at Newfoundland. For instance, in October 1761, the sloop *Wheel of Fortune* exported a cargo of cattle, sheep, onions, beans, pine boards, water hogsheads, tallow, bread, beef, cider, and cheese to Newfoundland. Unlike the local coastal trade, the northern trade took much longer and usually involved larger vessels. Whereas the small sloops trading between Connecticut and Boston could make 2 or 3 trips a month, the trade between Connecticut and Nova Scotia and Newfoundland usually took several months per voyage. The snow *Lark* left New London on August 6, 1754, for Newfoundland and did not return until November 3, 1754.

Aside from the trade to direct neighbors, Connecticut merchants traded infrequently with the southern colonies. For most of the eighteenth century,
Connecticut did not have much commercial contact with the Chesapeake colonies. For instance, the sloop *Dove* embarked on a voyage for Maryland in August 1756, though the desertion of some of the crew derailed the intended voyage.\textsuperscript{55} This intended voyage was one of only a few undertaken. Almost all of Connecticut’s trade with the southern colonies was with the Lower South. The cargoes carried south varied considerably. On one voyage in July 1757, a Connecticut vessel carried 31.5 gallons of molasses and 30 empty bottles to North Carolina.\textsuperscript{56} In the 1760s, Connecticut vessels exported a range of foodstuffs, particularly cider, and horses to South Carolina, as between 1 and 4 entered Charleston in those years.\textsuperscript{57} For example, in 1763, the brigantine *Unicorn* entered Charleston from New London, carrying a cargo consisting of oats, sugar, molasses, rum, onions, and cheese. Return cargoes invariably consisted of rice and naval stores. Such was the cargo of the schooner *Content*, which entered New London from Charleston carrying rice, deerskins, and thousands of oranges.\textsuperscript{58} However, given the rising volume of Chesapeake grain exports and Lower South rice exports, it is clear that Connecticut food imports were merely a means for diversifying diets. Connecticut onions, cider, and dairy products constituted the chief commodities exported; though, to be sure, this trade was minute.

The export of foodstuffs to coastal markets cannot be exaggerated, as it constituted a substantial portion of Connecticut’s coastal trade. In the years 1768–

\textsuperscript{55} Connecticut State Library RG 3, New London County County Court Files, Box 105, Folder 13, case 122 Mackenzie vs. Lewis.

\textsuperscript{56} Connecticut State Library, New London County County Court Files, Box 109, Folder 12, Barhat vs. Clark.

\textsuperscript{57} PRO CO 5/511.

\textsuperscript{58} National Archives, London PRO CO 5/508-511.
1772, food exports to these deficit regions amounted to an annual average of £40,877 (sterling) and represented 61% of the value of Connecticut’s coastal trade as a whole.\textsuperscript{59} With a population of just over 184,000 around 1770, Connecticut farms were producing 177 billion calories annually to feed the domestic population, assuming every person ate a 2,500-calories-a-day diet. Connecticut food exports in the coastal trade amounted to an annual average of 13.5 billion calories in the period 1768–1772.\textsuperscript{60} If we assume that all of these calories were exported to Boston, Providence, and Newport, Connecticut food would have fed about 47% of those populations annually, assuming a 2,500-calorie diet.\textsuperscript{61} To be sure, not all Connecticut commodities were consumed in these 3 cities, but this rough estimate does suggest an order of magnitude that is quite substantial. Given the number of advertisements in neighboring colonies, it is clear that Connecticut pork, rye, corn, and onions had developed a considerable reputation in British North America. In 1775, when hostilities broke out with the British, the Connecticut government issued an embargo on all food and livestock exports, to ensure sufficient supplies for the raising of an army. In response, the Massachusetts government leaned on Connecticut to obtain a

\textsuperscript{59} Figures derived from Customs 16/1. Connecticut’s coastal trade was measured using commodities produced in Connecticut only. As such, this estimate does not include West Indian commodities re-exports, a category that was covered in the previous chapter.

\textsuperscript{60} This estimate is based on multiplying the commodities listed in PRO CO 16/1 by calorie data listed on \url{www.nutritiondata.com}. All grain bushels were estimated to weigh 70 lbs, except wheat which weighed only 60 lbs. All barreled meat was assumed to weigh 220 lbs, as were the barrels of apples. All weights were derived from John J. McCusker, “The Tonnage of Ships Engaged in British Colonial Trade During the Eighteenth Century,” in John J. McCusker (ed.) \textit{Essays in the Economic History of the Atlantic World} (London: Routledge Press, 1997): Table 3.5, 70-75.

\textsuperscript{61} The population of Boston in 1775 was 16,000 and that of Newport, 11,000, see McCusker, “Colonial Statistics,” Eg 60-64; For Providence, the 1774 population amounted to 4,310, see Lynne Withey, \textit{Urban Growth in Colonial Rhode Island: Newport and Providence in the Eighteenth Century} (Albany: State University Press of New York, 1984): 115, Table A-2.
partial lifting of the embargo, owing to the dearth of foodstuffs in the eastern towns in the former colony.\textsuperscript{62}

The second branch of the coastal trade was the import trade in manufactured goods. For British North America as a whole, the coastal trade served as a means to redistribute imported manufactured goods among the mainland colonies, particularly for those without a large direct trade to England. Among the mainland colonies, a symbiotic relationship emerged in the coastal trade. Consumers throughout British North America wanted British manufactured goods. However, given the higher costs attendant with transatlantic trade, economies were realized in concentrating the dry goods trade in only a few central ports, mainly Boston, New York, Philadelphia, and Charleston.\textsuperscript{63} Consumers in Connecticut, Rhode Island, New Hampshire, Georgia, North Carolina, New Jersey, and Delaware relied on merchants in neighboring colonies to supply their demand for British manufactured goods, as their respective

\textsuperscript{62} CCR 15, 105-106.

merchants failed to develop a direct trade to Britain sufficient to satisfy demand.

Connecticut merchants failed in their repeated attempts to create a direct trade with Britain. Therefore, the British manufactured goods Connecticut consumers purchased in the retail shops throughout the colony were invariably the re-exports from merchants in Boston, New York City, and, to a lesser extent, Rhode Island. Vessels entering Connecticut from neighboring colonies carried a variety of British manufactured goods. The cargo on the schooner Polly exemplifies the typical cargo of manufactured goods imported into Connecticut. From Halifax, this vessel exported into New London on March 13, 1753, 1 trunk and 3 boxes containing sewing silk, various lace, linens, several dozen coats, hats, cotton textiles, and various cloth, a total cargo amounting to £170 (sterling). In May 1734, New London merchant James Gardiner purchased a cargo of manufactured goods from Boston.

64 Despite strident efforts—the 1732 “New London Society United for Trade and Commerce” and the 1747 “Act for the Regulation and Encouragement of Trade in this Colony” for example—to construct a direct trade to Britain and Ireland, at most between one and three vessels engaged in Trans-Atlantic trade from Connecticut ports, with a similar number trading with Southern Europe and the Wine Islands. In many years, there was no direct trade at all. Intermittent experiments with exporting tobacco, hemp, silk, and vessel masts to England all ended in failure. Early in the eighteenth century, Connecticut merchants stocked large vessels with commodities and sold both the vessel and cargo in England. For example, the recently built Ship Adventure (100 tons) was loaded with 46,000 staves, 14 anchor stocks, naval stores, and other lumber products in 1726 and dispatched to Bristol, where it was sold with the cargo. Later in the eighteenth century, Connecticut merchants conducted a more recurrent trade with England, sending vessels to England and having them return with manufactured goods. In 1770, the brigantine William called on producers throughout Connecticut to supply potash, lumber, and flaxseed for its imminent voyage to England. For the period 1768-1772, the annual average percentage of tonnage entering and clearing Connecticut from and for the West Indian and Coastal trade amounted to 96% of the total. See Bruce P. Stark, “‘A Factious Spirit’: Constitutional Theory and Political Practice in Connecticut. c. 1740,” William and Mary Quarterly 47 (1990): 391; “The New London Society and Connecticut Politics,” Connecticut History 25 (1984): 11-13; Hooker, Colonial Trade, 32-33; Andrew MacFarland Davis, “A Connecticut Land Bank of the Eighteenth Century,” Quarterly Journal of Economics 13 (1898): 70-84; P. Bradley Nutting, “Colonial Connecticut’s Search for a Staple: A Mercantile Paradox,” The New England Journal of History 57 (2000): 59-69; CHS MSS, Miscellaneous Shipping Microfilm Reel; Connecticut Journal 11/9/1770.

65 Connecticut Historical Society, Jonathan Trumbull Sr. Papers, MSS, Box 6, Folder 1, Invoice of Schooner Polly.
merchant William Williams, consisting of 13.5 pieces of various textiles, 20
handkerchiefs, ribbons, and 33 yards of linen amounting to £39 (sterling). These 2
cargoes are representative of the types of manufactured goods channeled from
neighboring colonies to the tens of thousands of consumers throughout Connecticut.
At times, merchants in neighboring colonies simply re-exported manufactured goods
on their own risk. In other words, a merchant importing manufactured goods in
Boston would exchange a portion of them for Connecticut foodstuffs or other
commodities. At other times, a portion of the cargo of large vessels entering
neighboring colonies belonged outright to Connecticut merchants. For instance, in
1754, Jonathan Trumbull purchased textiles, metal goods, and powder amounting to
£506 (sterling) from London merchant Thomas Lane. This relatively small cargo was
shipped on board the ship Rhode Island, which landed in Newport in August 1754. Trumbull’s small cargo was only a small portion of a much larger cargo shipped on
the Rhode Island to Newport.

The small sloops and schooners entering Connecticut from New York,
Massachusetts, and Rhode Island carried the latest imported manufactured goods
from Britain. In September 1727, Norwich shopkeeper Joseph Lathrop received a
shipment of manufactured goods from Boston merchant Thomas Simpson, consisting
of various metal goods and pottery amounting to £15 (sterling). The cargo of the

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66 Connecticut State Library, RG 3, New London County County Court Files, Box 47, Folder 1, Case
6, Gardiner vs. Williams.
67 Connecticut Historical Society, Hartford, Connecticut, Jonathan Trumbull Sr. Papers, Box 6, Folder
4, Invoice of Sundry Merchandize Shipped in Good Condition on board the Rhode Island.
68 Connecticut State Library, RG 3, New London County County Court Files, Box 27, Folder 19, Love
vs. Lathrop.
schooner *Liter* is representative of the commodities carried into Connecticut from neighboring colonies. In March 1758, the schooner departed Boston for Norwich, carrying pewter plates, handkerchiefs, cutlery, and various textiles. In total, the cargo amounted to about £64 (Old Tenor). 69

The Connecticut residents taking part in what many scholars have termed “the consumer revolution” in part drove the coastal trade. One of the main proponents of this revolution, T.H. Breen, has argued that after 1740 England’s consumer revolution spread to British North America, as the quantity and quality of manufactured goods purchased in the colonies rose and more people participated in the consumption bonanza regardless of class. After 1740, as colonial newspapers carried advertisements for more diverse and higher-quality manufactured goods, general stores sprang up all over the countryside bringing the latest fashions to eager consumers, and peripatetic peddlers carried European goods to the deeper reaches of the colonial backcountry. 70 Consumers throughout Connecticut readily participated in this consumer revolution, especially those in backcountry towns. In their exhaustive studies on southern New England probate records, Gloria and Jackson Turner Main have demonstrated that over the colonial period, inhabitants in the coastal regions and Connecticut River basin of southern New England obtained an

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69 Connecticut State Library, RG 3, New London County County Court Files, Box 109, Folder 6, Wetmore vs. Fitch.
increasing variety of consumer goods, a trend that spread to the upland communities in the closing decades of the colonial period.\textsuperscript{71}

Indeed, the shoe buckles, punch bowls, china, teacups, and various textiles that the hundreds of consumers in New Hartford, Connecticut, a backcountry town in northwest Connecticut some distance from the Connecticut River, purchased in the Kellogg and Austin General Store between 1771 and 1773 were undoubtedly imported in the coastal trade. On July 24, 1771, Ephraim Parker’s purchase of 2 sets of tea dishes, 2 wine glasses, 1 teapot, various textiles, and ribbons, and sundry other British manufactured goods was one small purchase driving the larger coastal trade.\textsuperscript{72} The daily transactions at retail shops throughout Connecticut were small actions that cumulatively drove Connecticut’s involvement in the coastal trade. The coastal trade allowed Connecticut merchants to obtain the latest fashions popular in Europe. For example, on April 15, 1768, a Boston merchant wrote Connecticut merchant Ebenezer Grant saying, “By some of the last ships we have received and are now open the principal part of our spring assortment and are in daily expectation of having it complete and your supply being an object of consequence to us that take great pleasure in waiting for you at our store.”\textsuperscript{73}


\textsuperscript{73} Wood Memorial Library, South Windsor Connecticut, Ebenezer Grant Papers MSS, John Barret to Ebenezer Grant, April 15, 1768.
Connecticut’s import trade in manufactured goods from New York and Massachusetts was one branch of trade fostering maritime specialization in the latter two colonies. After 1640, Boston transformed into a regional entrepôt. Starting with the fish trade and provisioning trade to the West Indies, Boston’s merchant community soon dominated the import of British manufactured goods and their regional distribution among the neighboring colonies. From Boston, dozens of vessels supplied New England and the southern colonies with British manufactured goods. In much the same way, New York functioned as an entrepôt for neighboring colonies. Merchants with lesser means exported surplus manufactured goods to neighboring ports, essentially fostering the spread of the consumer revolution.

The third branch of the coastal trade was Connecticut’s export of certain commodities for further re-export elsewhere. Connecticut exports to neighboring colonies were often re-exported to other Atlantic world markets, such as the West Indies, Southern Europe, Ireland, and England. The West Indian market was quite complex, requiring merchants to assemble a variety of commodities to maximize profits. Therefore, a merchant in Boston would often have to assemble a cargo of commodities from several ports. With fertile soil in the Connecticut River Valley and a longer pasturage period on the coast, Connecticut boasted a comparative advantage in onion production and livestock raising, commodities in demand on West Indian

plantations. As a result, merchants in neighboring colonies often procured part of their cargoes from Connecticut producers for re-export to the West Indies.

Perhaps the most significant commodity that merchants in neighboring colonies sought from Connecticut for further re-export to the West Indies was livestock. For example, Rhode Island merchant Captain James Browne purchased livestock from Connecticut producers, which was exported to the West Indies, particularly the Dutch colony of Surinam. Browne’s letterbook illustrates that horses “fit for shipping” were purchased from producers in Pomfret, Connecticut, an interior town in the eastern half of the colony. Matthew Davis and a Mr. Cutler, two Pomfret producers, procured several assortments of between 10 and 12 horses, which were sold to Brown in exchange for rum and molasses. There is evidence that other Rhode Island merchants purchased horses in Connecticut in these years. In a letter dated February 28, 1738, Brown asked Davis to “send me ten horsis down next week send them that you brought down for Hopkins.” The reliance of Rhode Island merchants on Connecticut producers to supply horses for their West Indian trade continued throughout the eighteenth century. Nicolas Brown & Company—a conglomerate with dealings in the slave trade, provisioning trade to the West Indies, retail trade, iron making, and candle manufacturing—signed several articles of agreement with Connecticut producers to supply horses suitable for export to Surinam. On July 31, 1764, in one of several transactions, Amos Babcock, a Connecticut producer in

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Ashford, signed an article of agreement with Nicolas Brown & Company to supply 30 Surinam horses no later than September 15, 1764. Payment was made partially in cash and the rest in kind, consisting of 400 pounds of coffee, 200 pounds of sugar, 6 bushels of salt, and 220 gallons of rum. Nicolas Brown & Company purchased horses throughout Connecticut, from John Peck in Bristol, Nathan Angell in Pomfret, and John Christian Miller in Simsbury, Connecticut. Connecticut’s supply of horses to Rhode Island for export to the islands is particularly important in assessing Connecticut’s place in the West Indian trade in general, as discussed in the previous chapter.

Judging from the lists for the years 1768–1772, Connecticut does not appear to be a significant supplier of livestock to neighboring colonies, as only a handful of different types were recorded for the coastal trade. Connecticut’s export of livestock to neighboring colonies was mostly conducted overland, a branch of the coastal trade that has not received much attention in the literature. Scholars have invariably argued that, except in border towns, inter-colonial trade on the mainland was confined to sea transport owing to the terrible condition of colonial roads. According to one of the few scholars examining the coastal trade, David Klingaman, “Since land transportation at this time was both difficult and costly, it seems reasonably safe to assume that most of the market surpluses would have been carried by ship.”

Klingaman’s several studies focus only on sea transportation in the coastal trade.

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78 John Carter Brown Library, Brown University, Brown Family Papers, Box 356, Folder 8, Nicolas Brown & Co. to John Peck, 2/7/1763; Folder 10, Nicolas Brown & Co. Article of Agreement with Amos Babcock; Box 7/31/1764 357, Folder 3 Nicolas Brown & Co. to John Christian Miller, 5/23/65; Folder 5 Nicolas Brown & Co. to Mr Robinson, 6/30/1765.
79 Klingaman, “Food Deficits and Surpluses,” 555.
Colonial travel diaries provide an unflattering image of colonial roads, supporting scholars’ beliefs in the lack of land trade between mainland colonies. For example, during her journey from Boston to New Haven in 1704, Madame Knight commented on the road to Old Saybrook saying “the Rodes all along this way are very bad. Incumbred [with] Rocks and Mountainos passages [which] were very disagreeable to my timid carcass.”\(^{80}\) Traveling on horseback from Pennsylvania to Massachusetts in 1725, Philadelphia merchant Isaac Norris rated Connecticut roads as good to worse, but commented that most were “hilly & stony.”\(^{81}\) However, when New Haven merchant William Gregory traveled from New Haven to Hartford in 1771, he made no mention of terrible roads. Rather, it was not until Gregory passed through Springfield, Massachusetts that he noted “this is a very mountainous country and bad roads.”\(^{82}\)

Even if poor colonial roads constrained overland trade, Connecticut boasted a major advantage that allowed producers to export goods overland regardless of the nature of the roads. Connecticut exported a range of livestock to coastal markets, all of which could walk themselves to neighboring markets. It is clear that many of the horses exported from Connecticut to Rhode Island were, in fact, driven overland. In 1712, owing to difficulties in traveling from Plainfield, Connecticut, to Boston and Providence, Rhode Island, the Connecticut government approved two roads out of the

town. One road led toward Boston, while the other would go to Providence. Letters from James Brown, a merchant from the well-known Brown family of Rhode Island, to his Connecticut correspondents indicate that his horse purchases were completed via overland trade. To Mr. Cutler, Brown wrote, “I beg that you would get me teen [10] or a dusin [12] horses and send them down or bring them the Next Week.” Interestingly, it is even clearer that Brown’s payment in West Indian commodities was carried overland to Connecticut. In a letter to Matthew Davis on June 17, 1736, Brown wrote, “I should not have Charged you so deer for the hogsheads, but your carteres went and took two of my best hhds, knoct the lids of them out before I saw them.”

The transportation of Connecticut livestock overland also went to Massachusetts and New York, as well as Rhode Island. Between September 1765 and November 1767, Truman Hinman, a merchant in Southbury Connecticut, on 8 trips drove a total of 77 cows and 10 oxen to New York City overland, with total sales amounting to £279 (sterling). Furthermore, iron produced at the Salisbury furnace in northwestern Connecticut was carted to the Hudson River and counted as exports out of New York. On October 3, 1741, Lebanon merchant John Trumbull Sr.

83 CCR 5, 351.
85 Letterbook of James Brown, 60.
86 Letterbook of James Brown, 34.
87 Yale University Department of Manuscripts and Archives, Shadrach Osborn Papers, Box 1, Folder 1.
88 Archibald S. Alexander Library, Special Collections and University Archives, Rutgers University, New Brunswick, New Jersey, Jared Lane Papers, Box 1, Folder 6. In September, 1768, the Salisbury...
delivered 47 oxen, 7 cows, and 2 steers to Boston overland, the total venture amounting to £212 (sterling).\textsuperscript{89} To put this sum in perspective, on a single trip from New London to Barbados in 1743, the brigantine \textit{Abigail} sold a cargo of onions, shoats, corn, lumber, and 25 horses amounting to £141 (sterling).\textsuperscript{90} Between July 1735 and October 1736, Trumbull hired Joseph Owen to make 12 overland journeys to Boston in order to drive livestock to market.\textsuperscript{91} To illustrate the potential magnitude of the overland trade, in a letter to Connecticut’s agent in London, Joseph Trumbull estimated the total size of Connecticut’s external trade. Joseph was the son of Jonathan Trumbull Sr. who conducted many overland ventures. In this letter, Joseph estimated that Connecticut farmers drove 6,000 oxen and 10,000 sheep to Boston (one-third of the total value of all exports to Boston) and 23,000 oxen and 3,000 sheep to New York City (over 40% of the total value of exports to New York).\textsuperscript{92} A letter to the editor written by “A Connecticut Farmer” discussing Connecticut balance of trade mentions the commodities that Connecticut shipped to neighboring colonies and the “fat cattle, which they take of our Drovers.”\textsuperscript{93}

Overland trade was not confined to livestock, however. In James Brown’s transactions with a Mr. Davis, he mentions hogsheads of rum being carted to

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\textsuperscript{91} Connecticut Historical Society Hartford, Connecticut, Jonathan Trumbull Account Book.
\textsuperscript{92} Connecticut Historical Society, Hartford, Connecticut, Joseph Trumbull Papers, Box 1, Folder 2 Joseph Trumbull to Richard Jackson, 1/24/1764.
\textsuperscript{93} \textit{New London Gazette} 8/17/1770.
Connecticut. In the 1740s, Jonathan Trumbull employed oxen to cart barreled lard to Newport.\textsuperscript{94} Barreled meat was also carted from Connecticut to Boston. In the 1750s and 1760s, Ebenezer Plummer ran a retail store in Glastonbury, Connecticut, where he sold manufactured goods—such as paper, textiles, and metal goods—to hundreds of consumers in north-central Connecticut. Though his account book does not denote payment method, it seems that Plummer accepted payment in kind as well as cash. Payment in kind consisted of live hogs, pork, potash, and tobacco. Upon assembling a large assortment of these commodities, Plummer shipped them to Boston in payment for new supplies of British manufactured goods. Many of these shipments were carted overland from Glastonbury to Boston. In April 1752, Plummer’s exports to Boston consisted of 1 hogshead of rum, 3 barrels of pork, and 242.5 bushels of corn all transported by sea, while 20 barrels of pork were driven overland to Boston.\textsuperscript{95} During his career, as demonstrated by many payments in his account books, Plummer constantly hired carters to carry a variety of these foodstuffs to Boston. In October 1750, the Boston trading company, Green & Walker, wrote to Jonathan Trumbull and partners regarding the shortage of barreled meat, wheat, and fat cattle in Boston, among other things. In the letter, Green & Walker direct Trumbull & Co. to “order what you can by drovers” and ensure the proper exchange rates “before they set out.”\textsuperscript{96}

\textsuperscript{94} Connecticut Historical Society, Jonathan Trumbull Sr. Papers, Ebenezer Gray to Jonathan Trumbull, February 18, 1747, Box 1, Folder 8.
\textsuperscript{96} Connecticut Historical Society, Hartford, Connecticut, Jonathan Trumbull Sr. Papers, Green and Walker to Jonathan Trumbull, October 15, 1750, Box 1, Folder 11.
Connecticut farmers also exported very small shipments of food and raw materials to neighboring colonies. This trade was probably far more prevalent particularly when the distances were much shorter. Killingly farmer Nathaniel Key and his wife made at least 16 trips to Providence Rhode Island between June 1714 and March 1720. On each of their stops, they visited the shop of Joseph Whipple and purchased small parcels of West Indian commodities (like a gallon of rum or a few pounds of sugar) and various other manufactured goods. The sum of all of their purchases amounted to £17 (lawful money). On most trips, however, they paid with small parcels of foodstuffs, like 64 pounds of pork and 17 pounds of butter or raw materials like 21 pounds of flax. All of these transactions were undertaken overland. The Key transactions were a microcosm of the manner that countless other Connecticut farmers living on the borders with Rhode Island, Massachusetts, and New York engaged in the overland coastal trade. However, all of these transactions, except in the cases where they were followed by litigation, are lost in the historical record. The individual shipment of 18 pounds of butter, a parcel worth only 8 shillings (lawful money) in itself is not very valuable. But, if hundreds of farmers living on Connecticut’s borders undertook similar journeys, this overland trade could have been very valuable indeed.

Connecticut was also a major supplier for lumber products to neighboring colonies, most of which were probably re-exported to the West Indies. Along with foodstuffs and draft animals, West Indian plantations required a range of lumber

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97 Connecticut State Library, RG 3, New London County County Court Files, Box 21, Folder 4, Whipple vs. Key.
products—plank for construction, staves, shingles, and hoops to make barrels to ship sugar, rum, and molasses to overseas markets—that mainland colonies supplied. Connecticut, it seems, supplied a range of lumber to Rhode Island merchants contrary to Connecticut law. In an attempt to boost its own West Indian trade, the Connecticut legislature erected taxes on all lumber exported to neighboring colonies, but none were imposed on exports to the West Indies. This tax, called “An Act for the Better Encouragement of Trade in this Colony,” went into effect in 1747, but it failed to stop lumber shipments to neighboring colonies. As a form of mercantilism on a small scale, this action would ostensibly prevent neighboring merchants from obtaining cargoes for their West Indian voyages in Connecticut. Such a scenario would ensure all of the benefits of the West Indian trade would accrue to Connecticut’s merchant community. Despite this act, Connecticut vessels continued to bring lumber products to neighboring colonies without paying duties. Customs officers in Connecticut connived in the functioning of this trade, despite its illegal nature. For the first 2 years of the institution of taxes on lumber exports to neighboring colonies, the Connecticut collector of taxes, Jedidiah Dudley, did not submit the proper accounting of the amount of lumber exported in the coastal trade. Eventually, Dudley was found guilty of withholding over £439 (sterling) in collected taxes.

Evidence exists that suggests Connecticut exported a range of lumber products to Rhode Island. This trade was often conducted using small vessels carrying tiny

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98 CCR 9, 283.
99 Connecticut State Library RG 3 New London County County Court Files, Box 95, Folder 18, Case 9 Dudley vs. Connecticut.
cargoes of lumber products. At least some of this commerce was driven by Newport’s acute shortage of lumber for heating, a situation common to most colonial port towns to some extent.\textsuperscript{100} For instance, a small coasting vessel carried 13 cords of good wood to Rhode Island, a cargo amounting to only £7 (Connecticut currency).\textsuperscript{101} In 1752, the sloop \textit{Diamond} carried 20,750 staves and 2,035 heading to Rhode Island, while another Connecticut sloop carried 30,000 staves and 1,000 feet of plank.\textsuperscript{102} In 1734, the sloop \textit{Greyhound} carried 7,161 hoops, 440 poles, and 3,428 staves to Rhode Island.\textsuperscript{103} Connecticut also supplied ports in Massachusetts with lumber products. This trade is interesting since Massachusetts’ and Rhode Island’s lumber exports to the West Indies consisted of the same commodities imported from Connecticut. Thus, to some degree, Connecticut lumber exports in the coastal trade probably served to fill cargoes of vessels departing Rhode Island and Massachusetts for the West Indies.

Connecticut also became a significant source of supply for New York’s transatlantic commerce. The re-export of commodities obtained in the coastal trade constituted a substantial portion of New York’s exports to England, essentially allowing the colony to achieve a positive balance of trade with the mother country.\textsuperscript{104} After 1730, New York merchants increasingly relied on Connecticut farmers to

\textsuperscript{101} Connecticut State Library RG 3 New London County County Court Files, Box 147, Folder 6, Harvey vs. Roland.
\textsuperscript{102} Connecticut State Library: RG 3 New London County County Court Files, Box 94, Folder 9, Case 4, Cocker vs. Kelsey, Box 94, Folder 14, Case 73, Harris vs. Gallantry.
\textsuperscript{103} Connecticut State Library, RG 3, New London County County Court Files, Box 47, Folder 1, Case 79, Minor vs. Edey.
\textsuperscript{104} Price, “Economic Function,” 158.
supply flaxseed, a raw material crucial to the Irish linen industry. Thomas Truxes has studied the Connecticut–New York–Ireland flaxseed trade. The foundations for this trade were laid after 1731, when the British Parliament allowed Ireland to directly import non-enumerated commodities from British America. Over the course of the eighteenth century, the burgeoning Irish linen industry consumed an increasing volume of flaxseed. Irish Parliamentary bounties on flaxseed imports encouraged British North American merchants to exploit this market. Merchants in New York City and Philadelphia assembled cargoes of flaxseed throughout the 13 colonies for export to Ireland. Connecticut was one of the larger producers of flaxseed in British North America, so that after 1750, a symbiotic relationship developed between New York City and Connecticut akin to the food trade of Massachusetts. Connecticut merchants exchanged flaxseed for manufactured goods with their counterparts in New York City, who sold the seed in Ireland. New York merchants then used remittances from this trade to buy shipments of manufactured goods from England.\textsuperscript{105} Though a lucrative trade, the study of the flaxseed trade is difficult since the New York City NOSL, despite being one of the most complete records available, list almost no Connecticut vessels bringing in flaxseed. This is despite the fact that there were dozens of vessels carrying flaxseed from Connecticut to New York. Therefore, we know little about the vessels carrying flaxseed. The cargoes ranged from 250 bushels (£31 sterling) carried on the sloop \textit{Swallow} in 1767 to 1700 bushels (£212 sterling) on

Norwich merchant John Allen’s sloop in 1760. Merchants from New York, Philadelphia, and Ireland controlled almost all of Connecticut flaxseed exports to Ireland. For example, the 7 vessels that cleared Connecticut for Ireland between 1768 and 1772 carried 10,288 bushels of flaxseed. On the other hand, Connecticut exported 567,465 pounds of flax and 112,241 bushels of flaxseed to coastal markets, almost all of which went to Philadelphia and New York. Most of Connecticut flaxseed was later re-exported from New York and Philadelphia to Ireland. By the period 1768–1772, flaxseed amounted to an annual average of £9,359 (sterling) and represented 14% of the total value of Connecticut exports to coastal markets.

Aside from flaxseed, Connecticut exported other crucial raw materials, mainly pearl ash and potash, most of which were exported to New York. Like flaxseed, ash was a major northern commodity that could be shipped to England. By the years 1768–1772, Connecticut ash exports amounted to an annual average of £7,126 (sterling) and represented 11% of the total value of Connecticut coastal exports. The export of ash to New York City was a means for Connecticut merchants to obtain cash, a scarce resource for British North America. In October 1766, the schooner Industry exported 16 barrels of potash to New York City, a cargo valued at just over £75 (sterling). Aside from 12 pounds of indigo, 40 pounds of candles, and a barrel of

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106 For the Sloop Swallow, Connecticut State Library: RG 3 New London County County Court Files, Box 149, Folder 13, Case 186 Dean vs. Devison; For John Allen’s sloop Boston Newsletter 1/24/1760; Prices taken from McCusker, “Historical Statistics,” Table Eg688.
107 Figures derived from Customs 16/1.
108 Figures calculated from Customs 16/1.
109 Figures calculated from Customs 16/1.
Aside from ash, a small percentage of New York exports of flour and other provisions was also the produce of Connecticut farms. According to New York merchant James Watt, “I should imagine this Port exports about Eighty Thousand Barrels Flour per Annum, a great deal of the Wheat brought from Maryland & Virginia & Manufacturd, besides we export a Moity at least of the Produce of Connecticut & N Jersy included in that number.”

Connecticut merchants also procured cargoes for their West Indian trade from coastal markets. In 1765, the New London sloop *Dolphin*, a vessel owned by Jeremiah Whitmore and Isaac Solomon, departed Savannah, Georgia, with 46 barrels of rice, 600 pounds of bacon, 3,000 feet of lumber, and hoops for Montserrat. North Carolina was often a stopping point for Connecticut vessels on their way to the West Indies, where supplies of lumber to export to the islands could be obtained. In December 1763, the sloop *Florence*, a 28-ton vessel, left New London for Newbern, North Carolina. Such a small vessel was able to navigate the shallow waters around the colony. From Newbern, the sloop went to Woodstock, and then Ocrehok, Bath, the Pongo River, back to Ocrehok, and eventually back to Newbern. At each port, the

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110 Sterling Library, Yale University Department of Manuscripts and Archives, Leffingwell Family Papers, Box 4, Folder 1, Christopher Leffingwell Letterbook.
112 National Archives, London PRO CO 5/709-710.
sloop picked up lumber. Finally, in April 1764, the sloop departed for the West Indies.\footnote{Connecticut State Library RG 3, New London County County Court Files, Box 135, Folder 16 Clark vs. Southworth.}

It seems that the 2 main items sought in the coastal trade for later re-export to the West Indies were lumber and fish. For instance, on August, 14, 1770, after selling a cargo of molasses in Boston, Nathaniel Shaw purchased 50 hogsheads of codfish, 70 barrels of mackerel, and 10 hogsheads of unnamed fish, all of which were to be put on a vessel Shaw was about to dispatch to another market.\footnote{Ernst E. Rogers (ed.) \textit{Connecticut’s Naval Office at New London During the War of the American Revolution} (New London: New London County History Society, 1933): 213. hereafter \textit{Shaw Letterbook}. This excellent volume contains a copy of Nathaniel Shaw’s mercantile letterbook.} In November 1764, upon learning that St. Dominigue was now allowing vessels from British North America to legally to trade there provided they carry lumber, horses, and fish, Norwich merchant intended to send his brigantine \textit{Betsey} almost immediately. Before dispatching his vessel, Leffingwell wrote Boston merchant, Nathaniel Green saying “ship by the very first opportunity 20 hds of fish or more not to exceed 30.”\footnote{Sterling Library, Department of Manuscripts and Archives, Yale University, Leffingwell Family Papers, Box 4, Folder 1, Christopher Leffingwell Letterbook, November 20, 1764.} In the period 1768–1772, fish imports constituted about 24% of the total value of Connecticut imports from coastal markets. Lumber was also a considerable re-export for Connecticut merchants. In July 1767, Nathaniel Shaw dispatched his sloop \textit{Dove} to Newbern, North Carolina, to purchase staves, 100 barrels of tar, 120 barrels of turpentine, and any available lumber. After obtaining this cargo, the sloop then proceeded directly to Martinique.\footnote{\textit{Shaw Letterbook}, 195.} The coastal trade also fostered Connecticut’s...
West Indian commerce in other ways. In March 1769, Shaw’s brigantine *Nancy* exported 213 casks of molasses to Boston. In exchange, the brigantine’s captain obtained 40,000 boards, 12,000 bricks, and 150 empty hogsheads, which Shaw would use when buying molasses in the West Indies on upcoming voyages.\(^{117}\)

The Atlantic economy fostered Connecticut’s coastal trade. The coastal trade also served to spread information throughout the mainland colonies, increasing awareness of market information, decreasing risk, and ultimately fostering market efficiency. Along with commodities, mainland merchants sent information in all of the dozens of coasting vessels plying the waters each day among the mainland colonies. In a series of letters, written by Boston merchant Thomas Brookfield to the Wethersfield merchant Peter Verstille, the prices of commodities are specified and future market conditions are stipulated based on firsthand accounts. Thus, in August 1762, Brookfield directed Verstille to export as many white onions to Boston, as red onions were facing a dull market. Furthermore, Verstille was asked to send as much pork as possible before the end of February, as vessels were expected daily from South Carolina and Virginia, which would flood the market.\(^{118}\) In May 1771, after sending his schooner *Pompeii* to Philadelphia with a cargo of molasses, Nathaniel Shaw notified his correspondents that he had a shipment of sugar, which could be exported if the Philadelphia market was good.\(^{119}\) To Boston merchant George Erving, Shaw suggested not exporting green tea as it would not sell in New London.

\(^{117}\) Shaw Letterbook, 204.
\(^{118}\) Sterling Library, Yale University Department of Manuscripts and Archives, Verstille Family Papers, Box 1, Folder 1 Thomas Brookfield to Peter Verstille, 8/19/1762, 2/7/1763.
\(^{119}\) Shaw Letterbook, 221.
since only 3 families in the town consumed the product. The operations of merchants in the colonial trade fostered the integration of markets among the colonies in British North America. Down to the American Revolution, the exchange of market information worked, in no small way, to foster the creation of a unified market economy and forged inter-colonial business networks.

Connecticut merchants used these business networks in the redistribution of West Indian imports among the mainland colonies. At various times, there existed wide divergences in the prices of West Indian groceries throughout the mainland colonies. All mainland colonies imported commodities directly from the West Indies. However, regional gluts and scarcities often existed at the same time depending on the commodities. For example, often a rise in the importation of molasses lowered its price in one colony in relation to another. In January 1770, a gallon of molasses sold for 2 shillings in Philadelphia and New York City, but only 1.46 shillings in Boston. February saw even wider divergences, as molasses sold for 1.67 shillings in Philadelphia, 2 shillings in New York City, and 1.4 shillings in Boston. The integration of markets and the spread of business networks and information allowed for the quick transfer of surpluses to deficit regions. Price shifts in one colony served as signals for colonial merchants. In other words, a rise in the price of molasses in Boston relative to that in New London prompted merchants in both ports to dispatch vessels to exploit the market opportunity. Over the period 1768–1772, Connecticut

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120 Shaw Letterbook, 214.
merchants re-exported 51% of the sugar, 51% of the rum, and 57% of the molasses imported from the West Indies. In this way, the coastal trade fostered arbitrage in the mainland colonies, as prices of commodities tended toward convergence due to the actions of merchants engaged in the coastal trade.

The diffusion of market information and price signals among the neighboring colonies often prompted Connecticut merchants to re-export recently arrived cargoes of West Indian goods. For instance, if a vessel arrived in Connecticut with a cargo of sugar and molasses when domestic prices were relatively lower than those in, say, Boston, Connecticut merchants would dispatch the cargo to exploit the higher price. In this context, Connecticut re-exports of West Indian commodities fostered price convergence among the mainland colonies. Nathaniel Shaw’s activities exemplify the role of the coastal trade in fostering the integration and conditions for price convergence. Shaw’s network of business correspondents spanned Philadelphia, New York City, and the British and French West Indies. The coastal trade demanded precision in the distribution and sale of cargoes for the exploitation of rapid price swings. On December 27, 1765, Shaw notified New York merchant Peter Vandevoort that he had exported 12 hogsheads and 9 tierces of molasses that Vandevoort was to “dispose of as soon as they come to hand as I imagine that article will not be much higher.”122 Shaw’s activities tended to focus on the export trade to New York City, but in April 1767, Shaw wrote to Philadelphia merchant Thomas Wharton to send a list of prices for West Indian commodities and if molasses was higher he would send

122 Shaw Letterbook, 170.
his supply there rather than New York.\footnote{Shaw Letterbook, 191.} In March 1769, Shaw wrote to Mr. Stewart in Boston, saying he would direct his molasses from New York City to Boston if the price was higher.\footnote{Shaw Letterbook, 204.} The activities of 2 of Shaw’s vessels, the schooner \textit{Hawk} and the sloop \textit{Sally}, best illustrate the coastal trade in fostering price convergence. Between July 1771 and June 1775, these 2 vessels made a total of 25 voyages to coastal markets. During these 25 voyages, these 2 vessels exported a total of 24,090 gallons of molasses, 74,284 pounds of sugar, and 5,187 gallons of rum.\footnote{New London County Historical Society, New London, Connecticut, Thomas Shaw Account Book, 1771-1775.} The export of commodities from a glutted market (New London) to deficient markets (in this case Boston, New York City, and Philadelphia) worked to foster a degree of price convergence among the 4 colonies.

The coastal trade was not merely a means for Connecticut merchants to export West Indian commodities, but also a way of obtaining them and other commodities given price fluctuations. In July 1766, Shaw dispatched his sloop to New York City, which carried 19 hogsheads 4 tierces of molasses and 6 casks of ale. In the return cargo, Shaw purchased 10 tierces of ship bread and as much corn as the sloop could carry, either Virginian grown or Connecticut corn. Corn prices had clearly spiked in Connecticut relative to New York City.\footnote{Shaw Letterbook, 178.} The sailing orders given to the master of the sloop \textit{Recovery} illustrate the speculative nature of the coastal trade. The sloop was loaded with 15 hogsheads of molasses, 11 of which were to be sold in New York City. The remaining hogsheads were to be exported to Cape May, New Jersey, where
the master would pick up a cargo of lumber. The lumber was to be shipped to New York City and exchanged for 300 bushels of salt before returning to New London.\textsuperscript{127}

The size of shipments of West Indian commodities to neighboring colonies varied considerably, from Shaw’s large shipments to the 5 hogsheads of sugar carried on a small sloop on a voyage to New York City in October, 1769.\textsuperscript{128} In June 1767, Shaw shipped 30 hogsheads of rum that were traded for 12 loaves of sugar.\textsuperscript{129}

The price convergence and information produced by the coastal trade was, therefore, crucial in the movement of factors among the mainland colonies. At various times, certain colonies boasted a surplus of various factors of production in relation to neighboring colonies. The coastal trade served to even out these relative price divergences, making mainland business operations more efficient and spreading the overall market economy. Surpluses in one colony were exported to deficit regions, boosting the overall market. Connecticut shipyards incessantly displaced thousands of tons worth of shipping annually. At various times, Connecticut served as a net exporter of shipping capacity to neighboring colonies (see Chapter 4). In May 1771, Nathaniel Shaw dispatched his schooner \textit{Pompeii} to Philadelphia, which he informed his correspondents to sell “for two hundred pounds.”\textsuperscript{130} New York served as the nucleus for insurance for Connecticut’s peripatetic shipping fleet. In March 1766, Shaw wrote to New York merchant Peter Kettle to procure an

\textsuperscript{127} Connecticut State Library RG 3 New London County County Court Files, Box 123, Folder 8 Griffith vs. Wellman.
\textsuperscript{128} Connecticut State Library RG 3, New London County County Court Files, Box 158, Folder 15 Farthin vs. Mather. The unnamed sloop did not fulfill its voyage, however. It overturned in the Connecticut River, eventually spilling its cargo in the water.
\textsuperscript{129} Shaw Letterbook, 194.
\textsuperscript{130} Shaw Letterbook, 221.
insurance policy worth £900 on his sloop *Rodney* from Martinique to Haiti and finally to New London. Furthermore, Connecticut imported a range of production inputs to support her burgeoning shipbuilding industry, such as masts, pig and bar iron, and various other wooden implements.

The assumption that colonial commerce was a zero-sum game between the 13 colonies can blur the significance of inter-colonial economic relationships. Traditionally, scholars have taken regional or colony-wide paradigms in their study of the economic history of early America. Taking a more Atlantic-wide approach, one can see the pivotal role of the coastal trade for the functioning of the whole system. Massachusetts, Rhode Island, and to a much lesser extent New Hampshire relied on food imports from Connecticut, in order to specialize in their mercantile operations since their resources were concentrated in their respective trades. These food imports were crucial to feeding their maritime population and also served as cargoes in their lucrative West Indian trade. As a whole, the evolving Atlantic economy devolved specific roles onto certain regions. Connecticut, in this respect, specialized as a supplier of livestock, barreled meat, and onions. To be sure, Connecticut consumers paid higher prices for manufactured goods since almost all of them were imported from Boston and New York merchants, who undoubtedly marked up their wares. A direct import trade from Britain to Connecticut would have removed these markups. In that respect, the coastal trade was a burden for Connecticut as a whole and yet, Connecticut was vital in the functioning of the Atlantic economy, as the rest of the

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131 *Shaw Letterbook*, 173-174.
New England—most notably Massachusetts and Rhode Island—were fed, in no small way, by Connecticut foodstuffs. Though decrying its dependence on Massachusetts and New York, Joseph Trumbull’s letter on improving Connecticut trade clearly articulates the process of integration:

> Our whole Trade to Boston & New York where is not equal [Connecticut deficit] to the advance price they charge us [higher prices of manufactured goods] as they have us entirely in the Power both to what we take from them, & what they have from us in return. In Boston, they are & must be obliged to us for our Provisions so long as their Cod & Whale fisheries as that province does not produce sufficient of Pork, Beef, & Corn to supply its own Inhabitants exchange of Boston, Salem, Marblehead, Plymouth & Nantucket.¹³²

Finally, and somewhat related, the coastal trade was pivotal in linking more peripheral coastal regions of British North America with each other on the one hand and to the larger Atlantic economy on the other hand. In the study of British American commerce, prominence has been given to the larger transatlantic trades and the mainland trade to the West Indies. As has been noted, the coastal trade has not received much attention in the literature. Still, within the literature on the coastal trade, preference has been given to the regional coastal trade, such as Massachusetts trade with the Carolinas and Chesapeake. David Klingaman’s multifarious works have uncovered the pivotal role of the Chesapeake in feeding Massachusetts’ maritime economy. The more localized coastal trade, however, has not been adequately studied. Along with the coastal trade to the large centers of Boston and New York City, Connecticut merchants also conducted a commerce centered in Long

¹³² Connecticut Historical Society, Hartford, Connecticut, Joseph Trumbull Papers, Box 1, Folder 2, Joseph Trumbull to Richard Jackson, 1/24/1764.
Island Sound. This trade linked all of the smaller port towns of the Sound’s littoral into the larger Atlantic economy. For the most part, this trade was conducted in the smallest vessels in Connecticut’s fleet. Vessels engaged in this commerce usually carried very small cargoes that mostly escaped the attention of customs officials. The cargoes of these vessels, while very small in comparison to other branches of the coastal trade, in aggregate represented a significant commerce.

The activities of several vessels can be used to demonstrate this more regional coastal trade. In September 1766, the sloop *Lucy & Rhoda* transported 1,000 chestnut rails to Block Island, a small cargo valued at only £20 (lawful money). In 1767, a small coasting vessel transported 3 cords of firewood from Lyme, Connecticut, to Rhode Island, a cargo valued at only £7 (lawful money). The most revealing example is that of the sloop *Dolphin*, a 25-ton vessel operating out of Killingworth, Connecticut, in the summer of 1751. Throughout the summer, the vessel made 1 voyage to New York, carrying 400 bushels of flaxseed and 10 barrels of pork, 2 voyages to Milford, Connecticut carrying a total of 20,000 feet of boards, and 2 voyages to New London carrying a total of 20,000 staves. In one summer, this small vessel made 5 separate voyages carrying small cargoes to neighboring ports, most of which were never recorded in any NOSL.

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133 Connecticut State Library, RG 3, New London County County Court Files, Mitchell vs. Snow, Box 145, Folder 3.
134 Connecticut State Library, RG 3, New London County County Court Files, Harvey vs. Roland, Box 147, Folder 6.
135 Connecticut State Library, RG 3, New London County County Court Files, Lane vs. White, Box 116, Folder 16, Case 65.
Even though the total value could not have represented a large total given the small cargoes involved, this more localized coastal trade is very important for a number of reasons. For one thing, as the case of the sloop *Dolphin* shows, this trade involved more frequent voyages between the various ports around Long Island Sound. In other words, at any given time, there were far more smaller vessels trampling around Long Island Sound than trading between Connecticut and Boston or New York City. The constant flow of these vessels was not only integrating the regions involved economically, but also spreading information. Merchants trading throughout the Sound were constantly moving from port to port, gaining and transmitting information on regional market conditions and culture. The more frequent movement of vessels would tend to make this transmission much more pronounced in the region.

In addition, this trade calls into question the validity of past efforts at quantification of colonial American commerce. Most efforts at quantifying early American commerce have focused on the much larger transatlantic and West Indian trades. Yet, there was a fairly widespread trade that operated outside the confines of colonial customs service. The few voyages mentioned above were all conducted without entering or clearing at the customs houses in any of the colonies. In the case of the *Dolphin*, 2 markets were in the colony. But the point is that though New London was the port of entry and embarkation for Connecticut, the smaller ports engaged in a regional coastal trade without entering their vessels in the customs records. We only know that this trade existed due to civil lawsuits over non-payment
of wages and other disputes. In the quantification of early American commerce, this branch of trade remains invisible. We may never know the actual value of this branch, given the missing records. True, most cargoes were small. But the constant moving of the same vessel between ports and the large number of these vessels means that this trade in the aggregate must have been substantial. The main point is that a very large branch of maritime trade existed, but one that will always elude historians given the nature of its operation. It is clear that maritime trade was a much larger percentage of early America’s economy.

3.3 Smuggling in the Coastal Trade

Connecticut’s coastal trade also served as a means for widespread smuggling, a fact that makes estimating the value of this commerce complicated. Connecticut’s system of customs emerged early in 1661 when the attempt to regulate the importation of alcohol led the Connecticut government to establish legal ports of entry/clearance at Wethersfield, Fairfield, Stratford, New London, Old Saybrook, and Norwalk.¹³⁶ Rather than ensuring compliance with the Navigation Acts, this early system of legal ports was created to ensure the collection of import taxes for the Connecticut government. The 1670s were replete with reports indicating that Connecticut merchants illegally sold Virginia tobacco to Dutch vessels in exchange for European manufactured goods. Such trade circumvented the constraints stipulated in the Navigation Acts on the export of enumerated commodities outside of

¹³⁶ CCR I, 332.
the empire. Connecticut’s illicit trade and irregularities throughout British North America prompted the British government to appoint Edward Randolph to the position of surveyor general of colonial customs, in order to shake up the colonial customs system. In 1680, Randolph exhorted Connecticut Governor William Leete to erect the sufficient institutional foundations to enforce the Navigation Acts and install a customs officer in several Connecticut ports.\footnote{CCR III, 49, 297; Calendar of State Papers: America and the West Indies (hereafter CSP), 1677-1680, 57.} Despite Randolph’s exhortations, after 1680, Connecticut’s customs service was anarchic down to 1707.\footnote{CSP, 1696-1697, 214.} Randolph wrote several letters to England, depicting New London as a base overrun with “fraud and confusion” and one that allowed illegal entry for Dutch vessels.\footnote{Edward Randolph, His Letters and Official Papers from the New England, Middle, and Southern Colonies in America, and the West Indies, 1678-1700 (Boston, Prince Society, 1909): Vol 5: 233, 241, Vol 7: 417, 433-434, 477.} According to Randolph, around 1700, Connecticut served as a conduit for illicit trade, importing West Indian sugar and Virginia tobacco, which was later re-exported to Newfoundland for further illegal re-export to Dutch and French merchants.\footnote{Lounsbury, “Yankee Trade at New Foundland,” 610.}

Though estimating the order of magnitude is impossible, it is clear that Connecticut merchants actively undermined mercantile barriers, fostering the free flow of colonial commodities to foreign nations. Connecticut’s status as a proprietary colony, one that leading politicians in the state jealously guarded, served to confuse the jurisdiction over maritime matters in the colony.

The early years of the eighteenth century entailed a substantial restructuring of Connecticut’s customs system. A 1707 report on the colony detailed the defunct
nature of Connecticut’s customs system. According to Robert Quary, the new surveyor general of customs for British North America, the appointed customs officer in New London, the ostensibly pious Mr. Wetherell, allowed Virginia tobacco to enter his port for later illegal re-export to the Netherlands. To disguise this commerce, Wetherell issued false certificates to foreign merchants creating a veneer of legality. Quary also reported that New London merchants engaged in a rather widespread smuggling trade with the foreign West Indies, noting “It would tire your Lordships, whould [sic] I give you the history of the illegal trade carried on and encouraged in this Government [Connecticut] from Curacoa [sic], Surinam, and other places.” Ultimately, Quary’s report led to the immediate imposition of a new system of organization whereby New London was instituted as the sole port of entry and clearance of the colony. To ensure strict adherence to the Navigation Acts, John Shackmaple was installed as the naval officer for Connecticut. Under this new commercial system that Shackmaple judiciously directed, New London became the sole legal port of entry and clearance from which any vessel engaging in commerce had to obtain the proper bond, an official document assuring compliance with the Navigation Acts. In other words, a vessel clearing New Haven or Middletown for a coastal or West Indian venture had to first stop at New London to obtain the proper certificates; from thence, the vessel was legally allowed to depart for its intended destination. Such a system was cumbersome and fraught with bottlenecks and delays,

141 CSP 1706-1708, 636; CSP 1708-1709, 11.
imposing extra expenses for Connecticut merchants in the form of higher wage costs for sailors, lost advantages in market information, and long delays in sailing to the West Indies to capture markets.\textsuperscript{143} These costs undoubtedly encouraged Connecticut merchants outside of New London to evade the customs officer and trade illegally without certification, though estimating the actual volume of this illicit traffic remains elusive.

Despite several attempts by Connecticut governors between 1710 and 1718 to create legal ports of entry and clearance in several other ports (most notably New Haven, Stratford, Stamford, Milford, Guilford, Old Saybrook, and Fairfield), from 1708 to 1764, New London served as the only legal port for Connecticut.\textsuperscript{144} In 1764, owing to the expansion of commerce throughout the entire colony, British policymakers divided Connecticut into two naval districts: New Haven and New London. The New London district covered the entire region from the border with Rhode Island to Killingworth, while that of New Haven extended from Guilford to the New York border.\textsuperscript{145} Also, Stamford, Connecticut, was established as a port of entry and clearance only for the coastal trade with New York.\textsuperscript{146}

\textsuperscript{143} Herbert C. Bell, “The West India Trade Before the American Revolution,” \textit{AHR} 22 (1917): 283-284. For specific branches of trade, this system was especially cumbersome and costly. For instance, a vessel departing from New Haven intending on trading to New York City, had to first sail East to New London, obtain the proper bonds, and sail west, past New Haven, to New York City. Thus, a one day venture became a one week venture due to these delays. Ian K. Steele, \textit{The English Atlantic, 1675-1740: An Exploration of Communication and Community} (Oxford: Oxford University Press, 1986): 78-93.

\textsuperscript{144} CCR IV, 374-375; CCR V, 149, 513; CCR VI, 95.

\textsuperscript{145} British Museum, Add. Mss. 15484.

Connecticut’s customs shakeup was a microcosm of the sweeping changes taking place throughout British America. From 1696 to 1710, English officials erected the institutional foundations to enforce the Navigation Acts in the British North American colonies. In 1710, 34 customs districts were set up for the mainland colonies, covering a territory from Newfoundland to South Carolina. At the height of the customs service, the number of districts increased to 45 for this expansive territory. In each of these customs districts, a single port was set up as the legal port of entry and clearance for all vessels in the district. Given the many bays, inlets, rivers, and creeks, the sheer size of British North America, and the ever-increasing volume of vessels entering and clearing the mainland colonies, the few officials were insufficient for the task demanded of them.\textsuperscript{147}

The customs officials were charged with substantial duties in ensuring adherence to the Navigation Acts, such as ensuring proper bonds, reviewing documents for forgeries, collecting and forwarding duties to London, recording all entrances and clearances in naval lists, issuing and recording all bonds for vessels built in the empire, and generally inspect all trade in the port district. Larger ports like Boston and New York City had several customs officials like a collector, comptroller, naval officer, and a surveyor to physically examine the unloaded cargoes, often times a tidewaiter to board incoming vessels, and a landwaiter to watch vessels moored in harbor.\textsuperscript{148} In most ports, however, all of these tasks were delegated


\textsuperscript{148} Barrow, \textit{Trade and Empire}, 76-78.
to one person. Even though there were several potential ports of entry and exit, the port of New London was established as the official port of Connecticut for most of the 1700s. All of the required duties associated with the commercial system of the empire were entrusted to one person in Connecticut. It would not be a stretch to argue that this official was overwhelmed in this colony, even if the trade was not as large as in Boston or New York City. By 1760, roughly 500 voyages were made between Connecticut and the rest of the Atlantic world annually, suggesting that this one person was overstretched in his duties.

One significant branch of smuggling was in European manufactured goods. British efforts to create a uniform empire devoid of foreign commercial interference, codified in the Navigation Acts, were meant to secure the mainland colonies as a market for British manufactured goods. Under this mercantile system, only British merchants could export British and European manufactured goods to the mainland colonies. As such, the mainland colonies had to pay artificially high prices for these goods due to the British merchants that limited supply.149 Since the end of the seventeenth century, British customs authorities were concerned with the level of smuggling in Long Island Sound, where the geography allowed for the easy transport of contraband goods from sailing vessels to the mainland. The geography of Long Island Sound, many towns on the coast where a larger vessel’s cargo of contraband could be unloaded in many smaller coastal towns in Connecticut, allowed for

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widespread smuggling. A 1708 report from the governor of New York to the Board of Trade neatly summarized this Long Island network of smuggling:

I know there has been illegal trade carried on between New England, Connecticut, and the East end of Long Island, the only way we have to prevent it is, to send a small sloop to cruise in the Sound, between Connecticut, and the East End of Long Island, we have some times had the good luck to meet with some of their vessels, but those cruisers have proved chargeable, and the Revenue here is not able to bear it; Col. Quary has lately settled an Officer at New London in Connecticut, whose Commission likewise extends to the East End of Long Island, I hope that will in some measure checque that illegal trade, though I am well satisfied that the poor gentlemen who goes there, will meet with very great difficulties.\(^{150}\)

Despite institutional changes aimed at its suppression, this trade expanded after 1707. Merchants in New York City and Connecticut colluded in the construction of a transatlantic network of smuggling designed to bring European manufactured goods and Indian tea to the colonies illegally. As such, colonial merchants could obtain European manufactured goods much cheaper if purchased directly on the continent, a commercial opportunity enticing many of these merchants to engage in smuggling to bring these goods to their markets.

Colonial merchants throughout British North America undoubtedly engaged in this type of smuggling, using their local geographic features to facilitate it. For many merchants, business networks forged in the coastal trade were employed to engage in widespread smuggling operations. The Connecticut–New York smuggling network relied on the geography of Long Island Sound.

\(^{150}\) CSP 1708, 11.
The voyage of one vessel exemplifies how these merchants exploited their local geography to contravene the Navigation Acts. In late 1755, New York merchant John Ludlow dispatched a vessel to Amsterdam loaded with logwood. Ludlow advised the captain, Richard Jeffery, to obtain a cargo of manufactured goods from trustworthy people, or merchants who would not report these transactions to British imperial bureaucrats. The vessel was to proceed home and enter “by way of the [Long Island] Sound and if speak with by any vessels you may answer from the [you are entering from] Isle of May and if any fishermen or others comes on board, you treat them with civility and proceed down off Stamford [Connecticut] but don’t anchor nearer the Connecticut Shore then about the middle of the Sound.” Once in Long Island Sound, Jeffery was to dispatch a small boat, one that could escape detection, with the contraband goods to Stamford, Connecticut. Once ashore, Connecticut merchant John Lloyd was waiting for the goods, which would be concealed in his shop; eventually the goods would be clandestinely transported to New York City once a favorable opportunity presented itself.151

Stamford merchant John Lloyd used his store to conceal many cargoes of contraband goods for several merchants. In the 1750s, Stamford, though over 100 miles on the other side of the Sound, was a part of the New London district, a district covering all of Connecticut’s shoreline. Even with the utmost diligence, any naval officer would be hard-pressed to impose the Navigation Acts on such a large terrain. This trade became so successful that New York Governor Charles Hardy was forced

151 The entire transaction is in Columbia University Libraries, New York, New York, John Ludlow Letterbook, John Ludlow to Captain Richard Jeffery, January 5, 1756.
to impose a severe crackdown on it. Over the course of 1756, it became almost impossible to conduct the Stamford-to-New York City smuggling trade.\textsuperscript{152} Even if only a few vessels engaged in this trade, it was quite lucrative. For example, on its clandestine voyage from Amsterdam to New York City, the sloop \textit{Oswego} carried a cargo of tea and European manufactured goods amounting to £6827 (New York currency).\textsuperscript{153}

By creating inter-colonial business networks, Connecticut merchants were able to create a more flexible system of smuggling, one capable of adapting to changing British methods of enforcement. While the efforts of a zealous governor may have undermined the smuggling trade in the western half of Long Island Sound, the eastern half remained rather lawless for most of the colonial period. In a series of orders spread over several months, Gordon Saltonstall, a New London merchant heavily steeped in the West Indian trade, purchased 5000 pounds of spermaceti candles from the Nicolas Brown & Company. Saltonstall notified the company that New London had few naval officers, which created a fortuitous situation for the candles to be imported without paying any duties. Even so, Saltonstall proposed that the company “give the boatman orders to deliver them [candles] to Joshua Babcock Esq at Westerly [a Rhode Island town on the Connecticut border], which will be in your district and take of the Trespass against any Act of Parliament that should any cutter boat or other examine him, he may make that excuse that is he is on this side,

\textsuperscript{153} Ludlow Letterbook, Invoice of Sundrys Shipped by Daniel Crommolin on board the Sloop Oswego.
Westerly, he may say he’s fishing or overrun his port.”154 There is little evidence of a sustained effort of the naval officers based in New London to close the smuggling trade other than several newspaper advertisements. Throughout the 1760s, the naval officers based in New London incessantly posted advertisements in the local newspaper cajoling domestic merchants to adhere to the Navigation Acts. For example, Thomas Oliver, New London’s naval officer advertised that “all vessels that whatever shall come into the harbour of New London, and there enter at the Customs House, before they proceed to any other part of the colony, within this district; and that no Masters of vessels or others, presumed to unlade any vessel, or break bulk before Entry is made, and a permit granted for that purpose.”155 A little later, naval officer Duncan Stewart took out an advertisement saying “all vessels from foreign voyages, are directed to come into New London harbour [where Stewart was stationed] and there enter at the Customs House, before they proceed to any other part of the colony.”156 These 2 examples are part of many that admonished Connecticut merchants to adhere to the Navigation Acts.

The second way Connecticut merchants used the coastal trade was in evading customs duties on trade. For the most part, there was little incentive to smuggle goods in the coastal trade, as duties on most foodstuffs, livestock, and lumber products were low or nonexistent. At times, colonies imposed duties on the import/export of lumber and food to secure West Indian trade or prevent food

156 Connecticut Courant 6/3/1765.
shortages during times of war. Several Connecticut merchants were fined for exporting lumber to coastal markets without paying the colony tax on this trade. For instance, in 1762, a vessel named Minerva carried 25,000 staves to Nantucket, an action that landed the vessel’s captain in court for not paying the proper duties on lumber exports to neighboring colonies. The major commodities smuggled in the coastal trade were West Indian goods that had to pay duties on importation. Only 2 major acts imposed taxes on West Indian commodities: the Molasses Act (1733) and the Sugar Act (1764). Scholars concur that the Molasses Act failed in its intentions of curtailing the importation of foreign molasses into the mainland colonies. After 1733, the major source of molasses for the mainland continued to be the French and Dutch West Indies.

Scholars have argued that 1700–1764 was a period of neglect in the colonial customs service, in which the Navigation Acts were observed more in the breech.

It is likely that Connecticut merchants relied on their own means to smuggle West Indian commodities before the imperial reorganization undertaken after 1764. However, the coastal trade was a means for smuggling these goods without paying duties after the Seven Years War when the colonial customs system was shaken up to ensure proper adherence. The 1764 Sugar Act imposed new duties on West Indian sugar, coffee, and pimento, forbade the importation of foreign rum, and revised duties

158 Connecticut State Library: RG 3 New London County County Court Files, Box 120, Folder 13 Harris vs. Chadwick.
on molasses in an attempt to raise new revenue in the colonies.\textsuperscript{160} After the Seven Years War, Britain’s growing national debt and the evidence of widespread commerce between British North America and the French West Indies prompted British officials to revamp the enforcement of the Navigation Acts. After the war, more customs officials were stationed in British North America, the Admiralty courts received new powers, naval vessels were stationed to patrol the waters around British North America, and more checks were imposed on officials to prevent malfeasance in office. In addition, the Sugar Act imposed duties on foreign West Indian commodities.\textsuperscript{161} These measures were intended to tighten the system of control and ensure the proper collection of taxes. British customs officials attempted to close all avenues for smuggling. On May 15, 1769, indicating his inability to export illegally landed indigo, Shaw informed Boston merchant John Stoddard that the sloop \textit{Liberty}, a vessel employed to police Long Island Sound, “is now stationed here and searches every vessel in ye most strictest manner.”\textsuperscript{162} In this new environment colonial merchants used their coastal networks to undermine the effectiveness of the Navigation Acts.

Despite the rigorous effort to impose the Navigation Acts, British North America was too large and the enforcement machinery was simply inadequate for the task. After 1764, the British customs service in North America became akin to an octopus, with several arms ready to reach out and stop smugglers. But there were

\textsuperscript{161} Barrow, \textit{Trade and Empire}, 186-188.
\textsuperscript{162} Shaw Letterbook, 205.
only so many arms capable of patrolling all of the waters of British North America. It was in this context that the coastal trade offered Connecticut merchants the opportunity to evade the newly imposed duties and restrictions on smuggling. To effectively evade the tightening customs service, colonial merchants used their connections in the coastal trade to erect inter-colonial networks, systems that could overwhelm customs officials. The forging of inter-colonial networks was at the heart of smuggling in the coastal trade. In an attempt to solidify inter-colonial smuggling ties, Shaw constructed networks with merchants in neighboring colonies. Shaw informed New York merchant Alexander Mcdougale in December 1766 that he (Shaw) will land all foreign rum as English, thus reducing the duties collected. And, from New London, Shaw would export the illegally landed rum in small quantities to New York City. 163 With this confirmation, Mcdougale shipped Shaw a quantity of foreign sugar, all of which was illegally landed. Shaw committed to re-export all of it in small quantities later to New York. To Tom and Isaac Wharton, merchants in Philadelphia, Shaw wrote on July 20, 1770, “I have a quantity of sugar on hand, but am at a loss to get them to your markets. In case I should ship them with molasses, do you think their would be much danger?” 164 On July 18, 1766, Shaw shipped 4 hogsheads of molasses to New York City. These hogsheads were declared as carrying only 60 gallons of molasses each. But Shaw notified his New York City correspondent to sell the hogshead immediately as they were far larger than the 60-gallon declaration. Hogsheads of molasses usually contained around 110 gallons.

163 Shaw Letterbook, 188.
164 Shaw Letterbook, 213.
each. This one transaction escaped duty on 200 gallons of molasses. Furthermore, Shaw employed another tactic that would prove far more damaging to estimates on the value of the coastal trade. On his schooner *Pompeii*, Shaw dispatched 19 bags of coffee, which were declared as being cocoa. On another vessel, Shaw declared 13 hogsheads of sugar as being molasses.¹⁶⁵ On this vessel, the cargo of sugar was valued at £217 (sterling), but the NOSL would only show a cargo of molasses worth £74 sterling.¹⁶⁶ These various tactics were intended to avoid payment of the full duties stipulated by the law.

Shaw’s activities represented only one of many Connecticut merchants constructing inter-colonial networks employing flexible tactics to bypass the British colonial customs service. Norwich merchant Christopher Leffingwell maintained similar commercial contacts with neighboring merchants. These connections proved crucial in Leffingwell’s attempts to smuggle molasses into Connecticut without paying duties. In the fall of 1764, one of Leffingwell’s vessels arrived in Connecticut, carrying foreign molasses, a cargo that was intended to be smuggled into the colony. Regarding the vessel, Leffingwell wrote Boston merchant Nathaniel Green,

> Captain Billings arrived in Our Brigg, he came directly into this harbor [Norwich] expecting no other than to pay the duties of his molasses---at same time ha dependence on screening [concealing] a great part---as there is a very little probability of doing it and a possibility of doing something at New Haven have dispatched an express there this forenoon to know if the vessel can be entered there with part of her cargo paying the dutys on that and

¹⁶⁵ Shaw Letterbook, 178-179, 223-224.
¹⁶⁶ See footnote 163 for information on prices, for the conversion rate from lawful money to sterling, I have relied on McCusker, *Money, Trade, Exchange*, 184, Table 3.7.
wheather could obtain a clearance for the other part to Boston, here as British produce imported sometime ago. Wheather this might be done in a snugg manner without any considerable or no risqué shall not make any trial to enter here until that express returns shall only report that the Brigg is bound either to New York or Boston and that [I] am not determined which, that there is no possibility of paying the duties here at present and shall be obliged to send her to one or other of the above places.  

Ultimately, New Haven proved elusive, as that port’s collector was particularly diligent in this month. Instead, Leffingwell paid a bribe consisting of 50 johannes to Mr. Stewart, the collector stationed at New London. This allowed Leffingwell to unload his cargo without paying exorbitant duties. This episode further demonstrates how one merchant, using neighboring connections, worked to avoid paying customs duties on illegally imported molasses.

Colonial merchants throughout British North America used the coastal trade as a means for evading the Sugar Act of 1764. Business networks spanning several colonies helped to overwhelm customs officials and allow for the free flow of contraband commodities. Through inter-colonial networks, Connecticut merchants fostered a flexible system of smuggling goods and evading the new duties. These networks helped Connecticut merchants to exploit the size of British North America and ensure evasion of customs naval patrols. Diligence in New York City could be checked by sending contraband to New Haven, Boston, or Philadelphia, and vice versa. Secure networks ensured the rapid spread of not only price information but also information on nearby customs enforcement.

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167 Sterling Library, Department of Manuscripts and Archives, Yale University, Leffingwell Family Papers, Box 4, Folder 1, Christopher Leffingwell Letterbook, 1764-1767, “Christopher Leffingwell to Nathaniel Green, November 15, 1764”.
Perhaps the best illustration of this is a report made on the customs service on the eve of the Revolution. In a comprehensive study by the customs service in British North America conducted in 1770 that was meant to demonstrate the proper functioning of the collection of colonial trade data, Connecticut’s two legal ports—New London and New Haven—received less than flattering praise in respect to their adherence to the Navigation Acts. The author noted that aside from the port of New London, many vessels based in the New London district (i.e., Stonington, Hartford, and Weathersfield) load and unload commodities outside the purview of the naval officers. Like many regions of British North America, Connecticut’s coast consisted of many deepwater ports. In the New London district, ocean-going vessels could depart or land at most towns on the Connecticut River, Groton, Stonington, Norwich, and New London. Any vessel leaving or entering a town on the Connecticut River was far enough away from the naval officer based in New London to be detected. The New Haven district was even worse, consisting of “harbours, rivers, and creeks [sufficient] for smuggling, where many vessels load and unload without the inspection of any officer.” Although Stamford was established as a certified port of entrance and clearance for the coastal trade, the study noted that up to 30 vessels cleared from western Connecticut to New York each week without declaring with the officer in this new district.\textsuperscript{168} The coastal trade had served as the means for Connecticut’s breaking through the confines of the Navigation Acts. Furthermore, all

\textsuperscript{168} British Museum, Add. MSS 15484 “Ports, Districts, and Towns in of America about 1770”.
of this evidence on the existence of widespread smuggling makes estimating the value of Connecticut’s coastal trade complicated.

### 3.4 Value of Connecticut’s Coastal Trade

Given the nature of the evidence, constructing estimates of the value of Connecticut’s coastal trade is almost impossible for most of the eighteenth century. Since the NOSL for Massachusetts and New York do not record trade with Connecticut, the actual cargo of vessels is unknown. Though the major commodities that Connecticut vessels were carrying are known, the actual volume of those goods in transit is not. There is, however, a set of data from which a more reliable estimate can be made. The Inspector General’s Ledger of Import and Exports for the period 1768–1772 contains a breakdown of all commodities shipped in the coastal trade. Under the orders of Thomas Irving, most customs officials sent their NOSL to Boston to be compiled into a complete ledger of British North American commerce, which spanned the years 1768–1772.\(^{169}\) James Shepherd and Samuel Williamson have already constructed an estimate of the coastal trade for Connecticut in these years. Shepherd and Williamson estimated that the annual average value of exports from Connecticut to coastal markets amounted to £40,000 and imports £16,000. Given their range of price data, however, their estimate is too low.

In the years 1768–1772, Customs 16/1 records a total of 196 commodities passing either in or out of Connecticut in the coastal trade, ranging from foodstuffs, lumber, iron, and West Indian commodities. However, Shepherd and Williamson’s

\(^{169}\) For an excellent discussion of Irving and the ledger, see McCusker, “Thomas Irving,” 197-201.
estimate is based on prices for only 15 commodities traded from Connecticut, or only about 10% of the total. Combing dozens of account books, shipping invoices, and newspaper price advertisements, I have collected price information for 172 out of the 196 commodities, or 86%. Needless to say, Connecticut’s coastal trade was larger than even the estimate in Table 3.1, given the existence of smuggling detailed in the previous section.

170 Shepherd and Williamson, “Coastal Trade of British North America,” 808-809, Appendix Table 2. Shepherd and Williamson use price data for Train oil, pine boards, potash, turpentine, tar, pitch, West Indian rum, New England rum, corn, wheat, rye, molasses, brown sugar, bread, flour, and dried fish. Their price list, therefore, does not include onions, tallow, cheese, butter, and particularly flax and flaxseed (two very lucrative exports) that Connecticut exported in abundance. All of these commodities are included in the new estimate in Table 2.1.

171 Commodities for which no prices were found are fustick, braziletto, packages (unknown contents), square stones, horns, walnut blocks, the category “various furs”, tiles, pickles, oxbows, oaker, mint water, gravestones in tons, iron bars, spruce essence, sassafras, racks, drugs, copper ore, annatto, snuff in barrels, linen rags, clay, and beef carcasses. For prices, I have relied primarily on Nathaniel Shaw’s account books. Sterling Library, Department of Manuscripts and Archives, Yale University, Nathaniel and Thomas Shaw Family Papers, Account Books 4 and 25. Account Book 4 lists all of Shaw’s invoices for vessels engaged in trade for the years 1764-1774, while Account Book 25 lists prices for all of Shaw’s dealings with producers in and around New London. Various other prices were derived from surviving Connecticut newspapers, John McCusker’s “Historical Statistics,” Table Eg688, various prices were found in the New London County County Court Files held at the Connecticut State Library, and surviving account books from the Connecticut State Library and Connecticut Historical Society. To convert prices from lawful money to sterling, I have relied on McCusker. Money and Exchange in Europe. For some years, commodities, such as beef and pork, were listed as tons rather than barrels. To convert these commodities into one single unit for the 5 year period, I have relied on McCusker, “The Tonnage of Ships Engaged in British Colonial Trade,” which provides a basis for converting liquid and solid measures into barrels, tons, and hogsheads.
### Table 3.1. Comparison of Estimates of the Total Value of Connecticut's Coastal Exports and Imports, 1768–1772 (£ Sterling).

<table>
<thead>
<tr>
<th></th>
<th>Coastal Exports</th>
<th>Coastal Imports</th>
<th>Balance of Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S+W     New</td>
<td>S+W     New</td>
<td>S+W     New</td>
</tr>
<tr>
<td>1768</td>
<td>40,000  24,768</td>
<td>16,000  5,950</td>
<td>24,000  18,818</td>
</tr>
<tr>
<td>1769</td>
<td>40,000  89,401</td>
<td>16,000  31,043</td>
<td>24,000  58,358</td>
</tr>
<tr>
<td>1770</td>
<td>40,000  86,432</td>
<td>16,000  29,162</td>
<td>24,000  57,270</td>
</tr>
<tr>
<td>1771</td>
<td>40,000  63,930</td>
<td>16,000  31,805</td>
<td>24,000  32,125</td>
</tr>
<tr>
<td>1772</td>
<td>40,000  71,278</td>
<td>16,000  36,830</td>
<td>24,000  34,448</td>
</tr>
</tbody>
</table>

**Sources and Notes:** All quantities of goods exported and imported are derived from National Archives, Customs 16/1. S+W refers to Shepherd and Williamson “Coastal Trade of British North America”. The new estimates are based only on commodities produced in Connecticut and not West Indian commodities. Their estimates are an annual average value for the five years. The figure for 1772 includes the estimate for New London and the average value of New Haven’s trade for the years 1768-1771. For some reason, New Haven’s records were not reported in the ledger for 1772.

Based on more price data, the new estimates of Table 3.1 suggest that Connecticut’s coastal trade was much larger and that in 1769–1770 Connecticut’s coastal commerce was worth more than double the estimate that Shepherd and Williamson offer. The new estimate’s average annual value of Connecticut’s exports, £67,162 (sterling), is 67% larger than Shepherd and Williamson’s estimate and the average annual value of imports, £26,958 (sterling), is 68% higher. From Table 3.1, it appears that Connecticut enjoyed a substantial trade surplus in the coastal trade. The surplus is more illusory, however. Scholars have long recognized that the largest shortcoming of Customs 16/1 lies in the lack of reporting of British manufactured goods in the coastal trade. Since Connecticut received most British manufactured
goods in the coastal trade and these goods were not recorded for these 5 years, the estimate of coastal imports presented in Table 3.1 is seriously understated.

Even so, the value of Connecticut’s coastal trade was substantially larger than we have been accustomed to believe, which has serious repercussions for the study of the economy of British North America. Customs 16/1, on which Table 3.1 is based, only records exports and imports transported by sea. Scholars have long argued that water transportation was the dominant form of trade in the colonial period. However, Connecticut had one commodity that could be cheaply exported by land: livestock. Connecticut drivers marched thousands of livestock overland to Boston and New York City. In a letter to Connecticut’s agent in London proposing methods to encourage trade with England, Joseph Trumbull presented a detailed estimate of the value of the colony’s balance of payments for the year 1763. Trumbull was the son of a merchant with decades of experience in the coastal trade, so his figures have a relatively sound footing. In his estimate, he put the value of Connecticut exports to Boston and New York at around £107,353 (sterling). Of this total, £28,676 (sterling), or 27%, consisted of livestock driven overland to both markets. As we have seen, livestock was driven overland to Massachusetts, Rhode Island, and New York over the course of the colonial period. We may never know the exact volume of commodities and livestock traded overland. To give an order of magnitude, if we assume, the conservative figure of 20% of the value of exports by water was driven overland to just assign a total, then the average annual value of Connecticut exports in

\[172\] Connecticut Historical Society, Hartford, Connecticut, Joseph Trumbull Papers, Box 1, Folder 2, Joseph Trumbull to Richard Jackson, 1/24/1764.
the coastal trade amounted to an annual average of £80,594 (sterling) in the years 1768–1772. The upward revision in Connecticut’s coastal trade suggests that this branch was much larger for all of British North America and previous impressions on the extent of overseas trade for early America are based on figures that understate its actual volume.

In addition to domestically produced commodities, Connecticut earned credits in the re-export of West Indian groceries to coastal markets. Most of these imported commodities were re-exported to Massachusetts, Rhode Island, and New York. Table 3.2 breaks down the annual value of West Indian commodities imported and exported to coastal markets. Between 1768 and 1772, the average annual value of West Indian re-exports to coastal markets amounted to £30,159 (sterling).

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1768</td>
<td>5,193</td>
<td>4,921</td>
<td>-272</td>
</tr>
<tr>
<td>1769</td>
<td>8,525</td>
<td>36,473</td>
<td>27,948</td>
</tr>
<tr>
<td>1770</td>
<td>9,339</td>
<td>36,077</td>
<td>26,738</td>
</tr>
<tr>
<td>1771</td>
<td>9,021</td>
<td>30,508</td>
<td>21,487</td>
</tr>
<tr>
<td>1772</td>
<td>10,817</td>
<td>42,814</td>
<td>31,997</td>
</tr>
</tbody>
</table>

Source: All commodities imported and exported PRO Customs 16/1. For 1772, data is missing for New Haven's coastal trade. Therefore, the figure for 1772 constitutes the average of New Haven’s trade for the years 1768–1771.

In total, the average annual value of Connecticut’s coastal trade (including re-exports of West Indian commodities) amounted to £97,321 (sterling) between 1768 and 1772. The per capita value of the coastal trade amounted to an annual average of
£.53 (sterling) between 1768 and 1772. Though smaller in value than the West Indian trade, Connecticut’s coastal trade was a much larger trade.
Chapter Four: Shipbuilding in Colonial Connecticut

The previous 2 chapters analyzed the 2 branches of trade integrating Connecticut into the Atlantic economy. One considerable spread effect of this integration was the development of shipbuilding in the colony. As Connecticut merchants became more involved in the coastal and West Indian trades, the volume of shipbuilding grew commensurately. Over time, Connecticut transformed into a net exporter of vessels to markets in parts of the Atlantic world. On the eve of the Revolution, the export of sailing vessels to Atlantic markets was the third largest branch of Connecticut’s trade.

Shipbuilding was the largest industry in colonial Connecticut, but one that has left few records. Indeed, shipbuilding was the largest industry in colonial British North America. On the eve of the American Revolution, British North American shipyards annually launched a fleet totaling 40,000 measured tons and valued at £300,000 (sterling). Of this total, around 18,600 tons were sold abroad, netting British North America over £140,000 (sterling) in their balance of payments with the Atlantic world. ¹ At this time, close to one-third of Britain’s shipping fleet was constructed in the 13 colonies. ² West Indian merchants also purchased British North America-built vessels in their coasting trade throughout the Caribbean basin.

Despite the size, few records have survived for most of British North America. This

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chapter is based on an extensive examination of all extant Naval Office Shipping Lists (NOSL hereafter). The surviving NOSL record thousands of Connecticut-built vessels owned in the colony and throughout the Atlantic world. In addition, all extant shipping registers were examined for Connecticut-built vessels. Finally, Connecticut court cases and merchant correspondence were examined to find Connecticut-built vessels. These sources have allowed for the presentation of the general order of magnitude of Connecticut shipbuilding.

This chapter is organized into 5 sections: the first section analyzes the dominant works on shipbuilding in Connecticut and the nature of the surviving data; the second examines the demand for vessels generated in Connecticut and how Connecticut merchants obtained their vessels; the third analyzes the export of Connecticut vessels to merchants throughout the Atlantic world; the fourth quantifies the volume of vessels constructed in Connecticut over the course of the eighteenth century and estimates the value of this industry in the 1760s; and the fifth section assesses shipbuilding in Connecticut’s economy.

4.1 Sources on Shipbuilding in Colonial North America

Despite the centrality of colonial shipbuilding in the economy, sources are very scarce, which largely accounts for the lack of attention. There are 2 sources for quantifying shipbuilding in colonial British North America: shipping registers and NOSL. Shipping registers are the most comprehensive source for quantifying the number of vessels constructed in British North America. The Act for Preventing Frauds and Regulating Abuses in the Plantation Trade (1696) stipulated that all
vessels trading in British America had to register and declare an oath in writing
testifying to the place of its construction and ownership and that no foreigner had an
interest in the vessel. The captains of all vessels had to carry this registration as a
form of license to trade in the British Empire. So serious was this restriction that
captains would not depart Connecticut for other colonies within the British Empire if
their oath was missing. For example, in December 1764, Benjamin Mather, captain
of the schooner *Lydia & Fanny*, stored the clearance certificate, bill of lading, and
registration bond in a solid chest on board the vessel. However, before he departed,
one of the vessel owners, Benjamin Griffin, stormed on board and seized the chest,
thinking it had a note for a fraudulent debt. Without the registration bond, Captain
Mather was compelled to remain in port, canceling the voyage. For each individual
port, transcripts of all certificates were recorded into a single book or shipping
register, which was later sent to London. The shipping registers recorded the vessel
name, vessel type, registered tonnage, place and date of construction, and name of
owner. These shipping registers would allow historians to quantify the number of
vessels constructed in the 13 colonies and estimate the overtime growth and value of
this industry. However, all of the shipping registers deposited in London were
destroyed in a fire in the early nineteenth century. A few copies of the shipping

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3 Connecticut State Library, RG 3, New London County County Court Files, Box 139, Folder 6, Case 4, Griffin vs. Mather.
registers have survived for Massachusetts (1697–1714), Philadelphia (1726–1776), North Carolina (1725–1751), and South Carolina (1735–1774). Yet, even for these colonies, significant gaps remain.

The only other source for quantifying shipbuilding in British North America is the NOSL. Each vessel trading in the British Empire had to carry copies of its certificate upon clearing or entering any port. The vessel’s information—name, size, date and place of construction, and ownership—was recorded in the NOSL, along with cargo and port of origin or destination. These lists would have served as a replacement for ship registers. However, many of these were also destroyed in the same fire. Connecticut’s NOSL and shipping register were destroyed during the Revolutionary War.

The surviving NOSL and ship registers have served as the underpinnings for a few excellent studies on colonial shipbuilding. Without a shipping register or NOSL, the only available source for studying Connecticut shipbuilding exists in the few surviving governor reports to the Board of Trade. Intermittently, Connecticut governors, as well as their counterparts in British North America, submitted responses to queries from the Board of Trade regarding maritime affairs in the colony of which only 4 have survived. The Board of Trade meant these reports to ensure

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adherence to the Navigation Acts and obtain a political arithmetic of conditions in the empire. Aside from commodities exported and major markets, one of the questions asked for a breakdown of the shipping fleet in Connecticut. Connecticut governors responded to this query by tallying the tonnage of vessels listed in the shipping register. One report from 1774 states, “The number of shipping [in Connecticut] is One Hundred and Eighty—their tonnage 10,317—seafaring men 1,162—besides upwards of twenty sail coasting vessels that employ about ninety seamen—The increase since the Year 1762 in Number of shipping 76—their tonnage 6,790—seafaring men 601.” Because these reports clearly indicate the volume of shipbuilding in the colony, as recorded in the shipping register, their importance is obvious.

The two dissertations written on colonial Connecticut’s economy relied on the figures stated in the governor’s reports to the Board of Trade to demonstrate the volume of shipbuilding in the colony. Gaspar Saladino cited these governor reports to argue that shipbuilding increased 500% between 1748 and 1774. Van Dusen’s argument that shipbuilding commanded a major investment is based mostly on the governor reports. Table 4.1 breaks down the growth of registered shipping at Connecticut ports in the colonial period, as depicted in the governor reports and the 2 dissertations on the colony.

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Table 4.1: Total Number of Vessels Owned in Connecticut, 1680–1774, Based on Reports to the Board of Trade

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Vessels</th>
<th>Total Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1680</td>
<td>27</td>
<td>1000</td>
</tr>
<tr>
<td>1730</td>
<td>42</td>
<td>1305</td>
</tr>
<tr>
<td>1756</td>
<td>74</td>
<td>3202</td>
</tr>
<tr>
<td>1763</td>
<td>114</td>
<td>3527</td>
</tr>
<tr>
<td>1774</td>
<td>180</td>
<td>10317</td>
</tr>
</tbody>
</table>


Taken at face value, the reports to the Board of Trade do suggest an impressive rate of growth, particularly in the last 30 years of the colonial period. The 2 dissertations mentioned have used these reports without much scrutiny. For example, Bruce Daniels’s survey of the literature on the economic history of colonial Connecticut has relied on these dissertations and governor reports in his discussion of shipbuilding in the colony.¹⁰ A more recent book examining shipbuilding on the Connecticut River has reproduced these reports to indicate the volume of shipbuilding during the colonial era.¹¹ If these reports are accurate, then any further examination of Connecticut shipbuilding would be superfluous. However, there is reason to believe the reports employed to estimate the magnitude of shipbuilding in the colony are not accurate. There are several problems with the reports to the Board of Trade,

problems that make this a less reliable source for gauging the volume of shipbuilding in the colony.

First, the nature of the surviving reports tends to distort the actual volume of Connecticut shipbuilding. For one thing, only 4 reports have survived, 2 of which are for the last 20 years of the colonial period.\textsuperscript{12} None of the reports indicate the year of construction of vessels. In addition, the reports only indicate vessels engaged in overseas trade, leaving out the coastal trade. Certain small vessels were not required to register with the customs collector if they were only trading locally in the coastal trade.\textsuperscript{13} Thus, these vessels would not be included in the shipping register. The Navigation Act of 1696 declared that all vessels had to register declaring proof of English or colonial build. Vessels not having proof of registration were to be seized, except for small boats trading within the colonies “whose Navigation is confined to the Rivers and coasts of the…place where they trade.”\textsuperscript{14} Differences in opinion regarding the 1696 Act meant that officers stationed in some colonies recorded coasting vessels, while others did not. In general, this coastal trade escaped the attention of customs officers (see Chapter 3). The coastal trade encompassing voyages between Connecticut and Rhode Island or Massachusetts, for example, tended to be ignored or seriously under-reported. The 1774 report listed above is telling. The report indicated the tonnage of vessels trading overseas but only

\textsuperscript{12} The data for the year 1763 that appears in Table 4.1 is not derived from a report for that year. In the report for 1774, the Governor merely indicates that shipbuilding increased by 6,790 tons, which when subtracted from 10,317 equals 3,527.


mentions in passing “upwards of twenty sail coasting vessels” without giving their total tonnage. Given the large size of Connecticut’s coastal trade, it is clear that the governor reports downplay the actual volume of shipbuilding in the colony.

Second, the Connecticut governor reports are based on the registered tonnage of Connecticut vessels, as reported to naval officers. In the colonial period, there were 3 tonnage figures applicable to individual sailing vessels. Registered tonnage referred to tonnage declared to the customs officer for inclusion in the NOSL and shipping register. A range of port duties were assessed on vessels based on their registered tonnage. Measured tonnage refers to the size of a vessel contracted between a merchant and a shipwright. Finally, cargo tonnage refers to the actual carrying capacity of individual vessels. Of the 3 measurements, registered tonnage was the smallest for most of the eighteenth century. Given that a range of duties were levied on all vessels registered in colonial America, a precedent was established whereby all owners of vessels were allowed to register their vessels at a discounted tonnage rate. Before 1700, the cargo tonnage (the actual tonnage a vessel could carry to another port) was smaller than the measured tonnage (the actual tonnage of vessels at the time of construction). British merchants petitioned for the establishment of a discount rate, so that duties were only charged on the actual carrying capacity of vessels, rather than the actual displacement of vessels. In other words, if a 50-ton (measured) vessel could only carry 30 tons in cargo, then the duties should only be levied for 30 tons.

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When Parliament allowed for the discounted rate, this procedure became the norm for the entire British Empire. Even though cargo tonnage increased over the course of the eighteenth century, the discounting procedure remained in place. In other words, over the course of the eighteenth century, 50 ton vessels were able to carry cargoes weighing 50 tons or more, but these vessels continued to be registered as only 30 tons. The differences in measuring tonnage among the colonies and the desire of colonial merchants to reduce port duties by minimizing declarations of tonnage mean that registered tonnage is substantially lower than the actual displacement of colonial vessels. In the most comprehensive study on the issue, John McCusker examined the records of vessels trading out of Philadelphia, Virginia, and several West Indian islands. McCusker discovered that the registered tonnage of these vessels was, on average, 34.8% lower than the measured tonnage. In other words, the merchants employing vessels in colonial trade under-reported the tonnage of their vessels by more than a third of their actual displacement, and in some cases as high as 70%!

Why does any of this confusing mathematics matter? For one thing, all of the Connecticut governor reports were based on the shipping register, which recorded the lower registered tonnage. Therefore, the actual measured tonnage of vessels constructed in Connecticut was much larger than that reported as registered tonnage in the governor reports. As mentioned earlier, in his 1730 Report to the Board of Trade, Connecticut Governor Talcott reported that there were 42 vessels in the colony displacing a total of 1,305 tons. He further noted, however, that this figure is derived

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16 McCusker, “The Tonnage of Ships,” Table 3.2, 53.
from the shipping register and, as such “many of them [the vessels] are registered less than their measure.” For 1774, the Connecticut governor reported that the Connecticut shipping fleet amounted to 10,317 registered tons. If we apply McCusker’s average discount rate of 34.8%, then the actual displacement of Connecticut vessels amounted to 15,476 tons in 1774. In assessing the impact of shipbuilding on colonial economic development, measured tonnage is clearly the preferred figure, as this more accurately demonstrates the volume of raw materials and labor required to construct a colony’s shipping fleet. Indeed, this is the figure shipwrights used in assigning value to vessels and the measure used when merchants sold vessels to counterparts in other colonies. In addition, measured tonnage constituted the value that shipbuilders charged merchants for vessels. Moreover, measured tonnage more accurately reflects the value of a colony’s shipping fleet. Table 4.2 shows the difference in the value of Connecticut’s shipping fleet as reported in the governor reports based on the 2 separate measurements. It is clear that the 2 dissertations on Connecticut shipbuilding have downplayed the value of this industry.

17 CCR 7, 583.
Table 4.2 Difference in the Value of Connecticut's Fleet of Vessels between Registered Tonnage and Measured Tonnage. (All Values in £ Sterling).

<table>
<thead>
<tr>
<th>Year</th>
<th>Registered Tonnage</th>
<th>Measured Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1680</td>
<td>6,250</td>
<td>9,375</td>
</tr>
<tr>
<td>1730</td>
<td>8,156</td>
<td>12,234</td>
</tr>
<tr>
<td>1756</td>
<td>20,012</td>
<td>30,018</td>
</tr>
<tr>
<td>1763</td>
<td>22,044</td>
<td>33,066</td>
</tr>
<tr>
<td>1774</td>
<td>64,481</td>
<td>96,722</td>
</tr>
</tbody>
</table>

Source: For Registered Tonnage, Van Dusen, "Trade of Revolutionary Connecticut," 90. Measured tonnage was derived by assuming a discount rate of one-third. The price of vessels was assumed to be £6:16s:6d per ton, see Jacob M. Price, “A Note on the Value of Colonial Exports of Shipping,” Journal of Economic History 36 (1976): 721.

The third problem arises from the purposes of the information contained in the governor responses to the Board of Trade. Connecticut governors were not reporting on how many vessels were constructed in the colony, but rather on the number of vessels owned in the colony. Thus, their reports do not indicate the number of vessels constructed in Connecticut and sold to other parts of the British Empire nor the number of vessels constructed in other colonies but owned in Connecticut. As discussed later in the chapter, Connecticut shipwrights not only built vessels for the overseas commerce of resident merchants, but also for merchants in neighboring colonies, the West Indies, and Britain. The export of Connecticut vessels was a rather large trade, but one largely absent in the literature on this colony’s economic history.
Overall, the Connecticut governor reports have shaped the few studies on shipbuilding in the colony. Examining a much larger source of data has allowed for a more comprehensive discussion of Connecticut’s shipbuilding. Quantifying the number of vessels constructed in Connecticut is fraught with many difficulties. The rest of the chapter is based on an extensive and intensive examination of all extant NOSL and shipping registers, as well as Connecticut court cases dealing with shipbuilding, Connecticut Colonial Records, tallies of shipping in the Trumbull papers at the Connecticut State Library, colonial newspapers, merchant correspondence, and Lloyd’s Lists for 1756 and 1776. Since wide gaps remain in the surviving NOSL particularly for the years before 1740, data on shipbuilding in

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19 No shipping register or NOSL have survived for Connecticut. Moreover, the NOSL for the rest of British America are not complete, making it impossible to gauge the number of ships constructed in the colony as represented by trading with other colonies. Moreover, often times, a Connecticut-built vessel sold to another colony changed names, making tallying the total number impossible.

20 For records derived from the Annapolis NOSL, see Vaughan Brown, Shipping in the Port of Annapolis, 1748-1775 (Annapolis: US Naval Institute, 1965); Antigua and Montserrat CO 157/1, Bahamas CO 27/12-23, Barbados CO 33/13 - 17, Bermuda CO 41/6-7, Dominica CO 76/4, Grenada CO 106/1, Jamaica CO 142-13-21, Leeward Islands CO 157/1, St Vincent CO 265/1, Tobago CO 290/1, Virginia CO 5/1441-1450, South Carolina CO 5/508-511, Nova Scotia CO 221/28-35 CO 217/44, New York CO 5/1222-1229, New Jersey CO 5/1035-1036, New Hampshire CO 5/967-969, Massachusetts CO 5/848-851, Maryland CO/ 749-750, Georgia CO 5/709-710, Florida CO 5/570.

21 For the South Carolina shipping register, Olsberg, “Ship Registers in the South Carolina Archives,” 189-279; for the Philadelphia shipping register, the Pennsylvania Magazine of History and Biography 23-28 (1899-1904) reprinted the entire register; for Massachusetts, Bailyn, Massachusetts Shipbuilding, has a tally of the register.

22 For 1730 and 1756, the Governor Reports list the actual vessels owned in the colony including vessel’s name and tonnage. See CCR VII, X. These two lists, however, do not indicate ownership or year of construction. For these vessels, 1730 and 1756 are taken as years of construction.

23 Connecticut State Library, Photostat copies of Massachusetts Historical Society, Trumbull Papers, Volume 24, Part 1, Document 4a, 4b, List of Vessels Registered at New London 1761, List of Vessels Registered at New Haven 1761. These two lists do not indicate ownership or year of construction. As such, all were assumed to be built in the year 1761.

24 Colonial newspapers were filled with information on vessels construction in Connecticut, though usually these reports do not indicate year of construction. In all of these cases, the year was assumed to be the year of the article. Furthermore, the newspapers are filled with advertisements for vessels built in Connecticut for sale, in which case the year of construction was assumed to be the year of the advertisement. In some cases, tonnage is not stated, so a simple formula was applied, whereby all sloops were assumed to be 35 tons, schooners 40 tons, brigantines 50 tons, snows and ships 100 tons.
Connecticut is quite limited. Steps were taken to eliminate double counting from all of these sources, such as analyzing ownership, reported tonnage, and year of construction. In most cases, the tonnage of vessels was reported in registered tonnage. For example, Daniel Goodwin and John Bigelow were business partners in Hartford, Connecticut, engaging in retail trade and shipping cargoes back and forth to the West Indies. In October 1763, the partners purchased the sloop *Gull* from Eleazar Talcott. The articles of agreement stated that the measured tonnage of the vessel was 70 tons. However, when the vessel was engaged in trade, it was registered at only 40 tons, indicating a discount rate of 57% or a rate much higher than 33%. Without further evidence on the difference between measured and registered tonnage in Connecticut, it is impossible to know the exact discount percentage. To compensate for this shortcoming, all of the following figures, except where otherwise stated, were increased by 50%, as suggested by John McCusker and much earlier by Thomas Irving.

Moreover, assessing the sale of Connecticut vessels to other colonies is complicated. Most of the data on these sales is derived from the NOSL. These lists

26 McCusker’s two studies on this issue offer conflicting conclusions. On average, every two registered tons equaled three registered tons, or a difference of about 33%. However, the differences in individual vessels could be as high as 70% and many were in the 40-45% range. The problem becomes even more complicated when taking a colony-by-colony approach. New York was known to have rates of registered tonnage far lower than other colonies. McCusker, “The Tonnage of Ships,” 49, footnote 17. Given that Connecticut sold a considerable number of vessels to New York merchants, it is clear that Tables 4.4 and 4.5 greatly understate the total tonnage of Connecticut-built vessels sold to New York. To err on the side of caution, 33% is used as the discount between registered and measured tonnage. In other words, this assumes that all registered tonnage was two-thirds the size of measured tonnage. Therefore, all figures for registered tonnage are increased by 50%. Using a sample of vessels from Virginia, Gary Walton earlier study is slightly higher than McCusker’s estimate, finding that the average discount rate was 41%. Gary M. Walton, “Colonial Tonnage Measurements: A Comment,” *Journal of Economic History* 27 (1967): 392-397.
record vessel size, new ownership, and year of construction, but they do not indicate when the vessel was sold. For instance, the brigantine *Grenada Packet* was built in Connecticut in 1754, but sold in Boston in 1766.\(^{27}\) Though the year of sale is usually indicated in the few surviving shipping registers, it is not recorded in any of the NOSL. To compensate for this significant shortcoming, all vessels sold elsewhere are recorded by the year of their construction, rather than by the more elusive year of sale. This imperfect procedure is the only method for quantifying the number of vessels sold elsewhere. Finally, in many cases, a vessel sold to a New York merchant was often sold to another colony. For instance, the brigantine *Nancy*, a Connecticut-built vessel, was sold in 1766 to a Boston merchant who ultimately sold the vessel to South Carolina merchant Anthony LaMotte in the same year.\(^{28}\) In cases where this can be determined, the final colony of sale has been recorded, to prevent double counting.

### 4.2 Development of Shipbuilding in Connecticut

From its start, shipbuilding developed in Connecticut as a backward linkage in response to market opportunities from the Atlantic economy, though records on the early years of construction are extremely sparse. What is clear is that the various colonial governments in Connecticut (New Haven and the river towns) enacted policies to foster shipbuilding in these early years, particularly in New Haven and the

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\(^{27}\) Vessel was listed in the South Carolina shipping register, see Olsberg, “Shipping Registers in the South Carolina Archives,” 230.

\(^{28}\) Vessel was listed in the South Carolina shipping register, see Olsberg, “Shipping Registers in the South Carolina Archives,” 230.
Connecticut River colony. Attempting to foster the underpinnings of a successful maritime economy, in 1640, the New Haven government passed a series of laws forbidding vessels from dumping ballast into the harbor to allow for the easy movement of vessels and, more important, excusing shipwrights from militia duty to free their time to construct vessels, and allowing “Brother Leeke” to sell wine to shipwrights while they build their vessels.\(^{29}\) In 1640, the Connecticut government stipulated that since economic development would proceed if a trade in cotton wool could be fostered, taxes were allocated to the construction of the first vessel, which would be used to obtain the raw material.\(^{30}\) In 1666, the colonial government further stipulated that all vessels under construction would be exempt from estate taxes and all vessels already constructed above 30 tons shall be exempt from the estate tax.\(^{31}\) These initial efforts were made to create the necessary sinews to develop Connecticut’s maritime economy.

The settlement of Connecticut after 1637 shaped the evolution of shipbuilding in the colony. In 1776, the colony of Connecticut comprised the amalgamation of 4 colonies settled in the second quarter of the seventeenth century. The initial Connecticut colony, consisting of the towns of Hartford, Windsor, and Wethersfield on the Connecticut River that formed the nucleus of the entire colony, was founded in 1637. New Haven (1638) and 2 smaller colonies, established at Saybrook (1635) and New London (1646), constituted the rest of the settlement, all of which were

\(^{29}\) Trowbridge, “Ancient Maritime Interests of New Haven,” 95.
\(^{30}\) CCR I, 59-60.
\(^{31}\) CCR II, 38, 47.
eventually absorbed by the colony of Connecticut. As part of the initial wave of migration, shipwrights flocked to each of the 4 colonies. Within only a few years, shipyards began constructing vessels in each of the colonies that would later make up Connecticut. Thus, rather than an industry concentrated in 1 or 2 towns, shipyards emerged in most regions of Connecticut that touched water, particularly the towns on Long Island Sound and on the Connecticut River.

Proximity to New Amsterdam meant that Dutch influence shaped the early evolution of shipbuilding in Connecticut, particularly in Saybrook. From the Saybrook colony, in November 1636, Lion Gardiner wrote to John Winthrop in Boston saying:

Here is 2 men and their wives come from the Dutch plantation [New Amsterdam], a taylor and a shipp write, and I sett them boath to worke, but I have neither money nor victuals to pay them. I doe intend to sett the Dutch man to worke to make a smackle sayle, which shall carry 30 or 40 tun of goods, and not draw 3 foote and a halfe of water, principally to tranceport goods and passengers up the river in safety.\(^{32}\)

The first vessels constructed in Connecticut were built as early as 1642, though no records have survived of these or subsequent ones. More precise records exist for the *Tryall*, which was constructed in Wethersfield in 1649.\(^{33}\) It is likely that the first vessel recorded as owned in the New Haven colony, the *Cock*, was also the first vessel constructed in that colony sometime around 1640.\(^{34}\) In New London, John

\(^{32}\) “Lion Gardiner to John Winthrop, November 6, 1636,” *Collections of the Massachusetts Historical Society Volume 7, Fourth Series* (Boston: Massachusetts Historical Society, 1865): 54.


Coit established the first shipyard in 1651, one that lasted until around 1735. 35 Despite these scattered bits of evidence, estimating the number of vessels constructed in Connecticut before 1680 is impossible, given the paucity of information. Given the small volume of shipping trade between Connecticut and the Atlantic world before 1680, shipbuilding could not have been large in the first few decades of the colony’s existence.

Shipbuilding in New Haven developed in response to the commercial endeavors of its early settlers, who sought to create an economically sound religious experiment. Not long after settlement, New Haven merchants dispatched vessels to coastal markets, such as Rhode Island, Newfoundland, Virginia, and Massachusetts. Trade was also conducted with Barbados and a few ventures were made to England. Scant records do not allow for a comprehensive accounting of where these vessels were built, but it was probably New Haven. Nonetheless, aside from the West Indian and coastal trade, all of these endeavors failed, wiping out a considerable amount of wealth. The loss of the 100-ton “Great Ship,” a massive joint investment to start trade with England, cost the nascent colony £5,000, or by some accounts almost one-seventh of the colony’s wealth. 36 or the rest of the seventeenth century, no part of Connecticut was able to develop a sustained direct trade to England. Rather, as the last 2 chapters have shown, Connecticut merchants focused on the coastal trade and the West Indian trade, the 2 major branches that would foster the evolution of

shipbuilding in the colony. Between 1680 and 1776, almost all of the Connecticut-owned vessels were engaged in these 2 trades. In the period 1768–1772, 98% of the tonnage clearing Connecticut departed for coastal and West Indian markets, while 97% of the tonnage entering Connecticut arrived from the same 2 regions. Figure 4.1 shows the total tonnage of vessels built and owned in Connecticut.

![Figure 4.1 Total Tonnage of Vessels Built and Owned in Connecticut by Decade](image)

There was an impressive growth in shipbuilding for domestic merchants. In the absence of a Connecticut shipbuilding register, it is almost impossible to estimate the total volume of shipbuilding. Likewise, it is difficult to estimate the exact percentage of Connecticut merchant vessels actually built in the colony. My search of all extant records indicates that at least 1,103 vessels owned in the colony were built there, while only around 20 vessels (or 2% of the total) owned in the colony

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37 Figures calculated from Customs 16/1.
were built in either Massachusetts or Long Island, or the origin is unclear. Between September 1762 and June 1767, there was a total of 341 clearances from the New Haven harbor for Atlantic markets. Of this total, only 18 vessels (5% of the total) were constructed elsewhere and the rest (95% of the total) were built by Connecticut shipyards. In other words, it is difficult to determine how Connecticut merchants obtained vessels from shipwrights in other colonies, but a few examples will suffice to show the method. In the autumn of 1766, Nathaniel Shaw dispatched one of his sloops to the French West Indies. Upon arriving in Martinique, the sloop foundered while arriving in port, forcing Shaw’s captain to purchase a schooner built elsewhere to return home. At times, neighboring shipwrights advertised vessels for sale in Connecticut, such as the sloop Phoenix, an 80-ton vessel constructed at Sag Harbor on Long Island. My own research suggests that 2% of vessels owned in the colony were constructed elsewhere. Since this estimate is based only on surviving records, it would not be a stretch to assume that more than 95% of Connecticut merchant-owned vessels were constructed in domestic shipyards. Though records are not complete, it is telling that those that do survive indicate that almost all of these vessels were constructed in domestic shipyards. Connecticut shipyards may have been unique in that they were able to supply close to all of the requirements for domestic merchant activities.

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While establishing the exact percentage of Connecticut-owned vessels constructed domestically is impossible, the size of vessels employed in different trades can be ascertained. The largest vessels, snows and ships usually measuring more than 100 tons, were employed in transatlantic voyages. For example, Andrew Huntington’s 120-ton ship *London Packet* repeatedly advertised cargo space for voyages to London.\(^{41}\) Since Connecticut produced few commodities that could bear the freight charges associated with longer distance travel, transatlantic trade did not develop in the colony. The West Indian trade involved medium-scale vessels, like brigantines, larger schooners and sloops, but rarely ships or snows. Finally, the smallest vessels, usually sloops and schooners only, were employed in the coastal trade, like the sloop *Betsey*, a 12-ton vessel that made many voyages around Long Island Sound in the 1760s.\(^{42}\) Table 4.3 shows the average size of vessels trading between Connecticut and the major Atlantic world markets in the late colonial period. Given the dominance of the West Indian and coastal trades, Connecticut-built vessels tended to be relatively small.

<table>
<thead>
<tr>
<th></th>
<th>Clearances</th>
<th>Entrances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>64</td>
<td>72</td>
</tr>
<tr>
<td>West Indies</td>
<td>39</td>
<td>43</td>
</tr>
<tr>
<td>Coastal Markets</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: PRO Customs 16/1.

\(^{41}\) *New London Gazette* 5/29/1767.

\(^{42}\) Connecticut State Library, RG 3, New London County County Court Files, Box 160, Folder 5, Reed vs. Beckwith.
How did Connecticut merchants purchase the vessels to conduct their trades? The most common method was through the signing of a contract with shipwrights to construct a specific type and size of vessel. According to Joseph Goldenberg, the foremost authority on shipbuilding in British North America, contracts increased efficiency and reduced transaction costs as these legally binding instruments allowed shipwrights to devote their resources, time, and labor to building vessels for a secure transaction on the one hand, and merchants were able to obtain the means securely to transact their operations with overseas markets on the other hand.\(^{43}\) Contracts formed the basis of Connecticut’s shipbuilding. The 1766 contract signed between Alexander Stott, a merchant from Old Saybrook, and Charles Chase, a shipwright from the same town, exemplifies how the bulk of Connecticut’s shipbuilding was transacted. The contract read:

This indenture made the 26\(^{th}\) day of June, 1766 between Alexander Stott of ye Town of Saybrook in ye Province of Connecticut Mariner on ye one part, and Charles Chase of said town in Colony of Connecticut Ship Wright witnessed, that ye said Charles Chase for and in consideration of ye covenant and agreements, hereafter mentioned to be done and performed on ye part of Charles and Alexander doth hereby covenant agree to and with said Charles Chase to build a vessel and launch her by ye last of September and said Alexander Stott to find Timber, Plank, Trunnels, Iron, Oakhum, Pitch, and Spars, and said Charles Chase to furnish all ye carpenters and caulkers work on board said sloop, to complete as usual, and deliver her afloat in ye River of Connecticut, to said Alexander Stott, by ye last of September next ensuing and in consideration for building said vessel to be paid 30/ per tons Lawful Money of Connecticut, to be paid one quarter in cash, one quarter in West India goods, or tea, corn, wheat at cash price, and ye other half in dry goods.\(^{44}\)


\(^{44}\) Connecticut State Library, RG 3, New London County County Court Files, Box 146, Folder 3, Case 183, Stott vs. Chase.
To fulfill contracts, merchants often had to collect the proper building materials, such as timber, plank, iron, cordage, oakhum, booms, masts, spars, bowsprits, anchors, and naval stores, all of which were delivered to shipwrights for final assembly. It was not for nothing that colonial shipbuilding was the most complex industry given that supplies were required from a large geographic area. The work of shipwrights was often confined to the building of a vessel’s frame. When John Arnold, a New London merchant, signed a contract with Joseph Wells and John Williams, Groton shipwrights, to build a sloop in 1771, Arnold had to supply the shipwrights with “all manner of iron work belonging to the said vessel, timber and plank and trunnels and all other materials suitable for the carrying on of said work.”45 The requirements of merchants to assemble needed materials fostered, in part, Connecticut’s coastal trade. In particular, by the late colonial period, Connecticut was a net importer of spars, masts, cordage, oakhum, anchors, booms, and naval stores from neighboring colonies. Between 1768 and 1771, Connecticut imports of miscellaneous raw materials for shipbuilding amounted to a total of £5,727 (sterling), which represented about 4% of Connecticut imports from coastal markets.46 For example, on October 17, 1764, Lyme merchant Joseph Harvey contracted with Samuel Louden, a New York City merchant, to purchase “cordage and other goods he should want for a new sloop.”47 It was not uncommon for a

45 Connecticut State Library, RG 3, New London County County Court Files, Box 8, Folder 13, Arnold vs. Williams.
46 Figures derived from Chapter 3.
47 Connecticut State Library, RG 3, New London County County Court Files, Box 149, Folder 14, Case 51 Louden vs. Harvey.
Connecticut-built vessel to consist of New York sails, Boston oakum, North Carolina naval stores, and a Rhode Island mast. To be sure, the small volume of these goods listed as imported from coastal markets meant that most vessels consisted of raw materials derived from Connecticut sources.

Some merchants who engaged in overseas trade also opened up their own shipyards. Jonathan Trumbull Sr., the later governor of Connecticut, while in partnership with his son and Eleazer Fitch after 1764, focused his operations in the coastal trade and whale oil trade to England. Facilitating the firm’s operations, a shipyard was set up at East Haddam, which was run by other family members. This shipyard built several vessels to be used in the firm’s trade and as exports to Ireland and England. In July 1764, Saybrook merchant Sam Mack contracted with shipwrights Morris Smith and John Pellet to build a 60-ton schooner. Mack’s only part of the contract was to supply 225 barrels of fish as payment for the schooner, whereas Smith and Pellet were charged to acquire all of the needed raw materials to build the vessel. Though there is no evidence on the ultimate disposal of this fish, it was probably exported by Smith and Pellet to the West Indies. In July 1744, shipwright Ichabod Rogers agreed to acquire all of the needed raw materials to build an 85-ton schooner on contract for James Burnett, for which Burnett agreed to pay 1

49 Connecticut State Library, RG 3, New London County County Court Files, Box 139, Folder 1 Tripp vs. Smith.
barrel of rum and 1 barrel of sugar, which were probably sold in a Connecticut retail shop.\footnote{Connecticut State Library, RG 3, New London County County Court Files, Box 78, Folder 15, case 136 Rogers vs. Burnett.}

\section*{4.3 Atlantic World Markets for Connecticut-Built Vessels}

While Connecticut shipyards supplied almost all of the vessels for the maritime operations of the colony’s merchants, they also exported ships to markets throughout the Atlantic world. Previous works on Connecticut’s economy overlooked the export of vessels from Connecticut to overseas markets. They focused exclusively on the export of commodities and livestock. This is surprising, since contemporaries noted the large number of vessels sold from Connecticut abroad. Connecticut Governor Talcott, in his 1730 Report to the Board of Trade, wrote, “There hath been no sensible addition or diminution for ten years last past, only that we have built considerable more in the ten years last past than heretofore, though most of said shipping so lately built have been sold at the province of Boston, West Indies, and to his Majesty’s subjects of Great Britain, Bristol, etc.”\footnote{CCR 7, 583.} Though Talcott was reporting on conditions as they were in 1730, this report is applicable to the entire colonial period. Throughout the 1700s, Connecticut was a net exporter of vessels to Atlantic world markets. Connecticut was not unique as other colonies in British North America exported vessels to overseas markets, which was a considerable source of earnings for the balance of payments.\footnote{Jacob M. Price, “A Note on the Value of Colonial Exports of Shipping,” \textit{Journal of Economic History} 36 (1976): 704-724.} The surviving sources indicate that the most vessels were sold to merchants throughout British North
America. Table 4.4 shows the total sale of Connecticut vessels to markets in British North America over the course of the eighteenth century.

Table 4.4 Total Number of Connecticut-built Vessels Sold to Markets in British North America, 1698–1767 (All Tonnage Figures are in Measured Tonnage)

<table>
<thead>
<tr>
<th>Market</th>
<th>Sloop</th>
<th>Schooner</th>
<th>Brigantine</th>
<th>Snow</th>
<th>Ship</th>
<th>Total # of Vessels</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia</td>
<td>8</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>9</td>
<td>545</td>
</tr>
<tr>
<td>South Carolina</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>19</td>
<td>1455</td>
</tr>
<tr>
<td>Georgia</td>
<td>3</td>
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<td></td>
<td>3</td>
<td>150</td>
</tr>
<tr>
<td>New Jersey</td>
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<td></td>
<td></td>
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<td></td>
<td>10</td>
<td>318</td>
</tr>
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<td>New Hampshire</td>
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<td>1</td>
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<td></td>
<td>5</td>
<td>360</td>
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<td></td>
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<td>3</td>
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</tr>
<tr>
<td>Canada*</td>
<td>3</td>
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<td>2</td>
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<td></td>
<td>6</td>
<td>401</td>
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<td>North Carolina</td>
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<td>7</td>
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<td>Florida</td>
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<td>1</td>
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<td>Pennsylvania</td>
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<td>3</td>
<td>2</td>
<td></td>
<td>17</td>
<td>1115</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>43</td>
<td>3</td>
<td>7</td>
<td></td>
<td></td>
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<td>2285</td>
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<td>Massachusetts</td>
<td>65</td>
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<td>10</td>
<td>3</td>
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<td>New York</td>
<td>158</td>
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<td>36</td>
<td>11</td>
<td>23</td>
<td>247</td>
<td>15093</td>
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<tr>
<td>Total</td>
<td>320</td>
<td>49</td>
<td>61</td>
<td>14</td>
<td>30</td>
<td></td>
<td>31782</td>
</tr>
</tbody>
</table>

Sources: All figures on vessel sales are from available NOSL, various shipping registers, court cases, and merchant correspondence. The tonnage figures were mostly cited in Registered tonnage, whereas only the merchant correspondence was cited in measured tons. To convert Registered tonnage to Measured tons, figures from NOSL and shipping registers were increased by 50%. See McCusker, "The Tonnage of Ships". *Canada includes Quebec, Nova Scotia, and Newfoundland.

Of British North America, New York was the largest for Connecticut-built vessels through the Revolution. The major works on New York’s maritime economy have not examined the origin of the port’s shipping fleet.53 Cathy Matson’s study on

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53 In Virginia Harrington’s perennial work on the maritime activities of New York’s merchants, shipbuilding is treated as a more incidental operation. Indeed, she mentions shipbuilding only in passing. Virginia Harrington, The New York Merchant on the Eve of the Revolution (Gloucester: Peter Smith, 1964): 65;
New York merchants does highlight the fact that, at times, shipbuilding in the city had declined to perilously low levels, with shipyards in other colonies supplying a portion of the city’s fleet. But Matson does not say from where New York merchants obtained their vessels or what portion was obtained elsewhere. Evidence from New York’s NOSL shows that New York merchants relied on Connecticut shipwrights for a considerable percentage of their sailing vessels. After 1720, New York was one of the foremost ports in British North America, but one without the means to construct vessels for carrying on their trade. In the period 1768–1772, New York City was the third largest commodity exporter among northern ports. Despite the volume of New York’s maritime trade, it built few ships and its merchants relied on shipyards elsewhere to supply most of their vessels. This dependence was not lost on contemporary writers. In a 1736 editorial to the New York Weekly Journal, George Clarke noted that “Shipbuilding, which in some of your neighboring provinces is carried on to a large extent, and is become a considerable part of their returns to Great Britain, has, for many years, been much neglected and little used in this province.” Despite Clarke’s appeal to the colonial government of New York to enact policies geared at fostering this industry, domestic shipyards were never able to build more than 50% of the colony’s fleet (at least not in the 2 periods covered in Table 4.5) and by the end of the colonial period, New York shipyards were launching

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only 6% of the vessels annually launched in British North America in the years 1769–1772.  

Table 4.5 shows the tonnage of vessels owned in 1715–1719 and 1763–1764, and where they were built. From this table, it is clear that New York merchants relied heavily on shipyards in other colonies for their vessels. Of these external shipyards, Connecticut was the largest supplier. If prize vessels are taken out of estimates—most of these vessels were captured from either the French or the Spanish—then Connecticut’s share in the construction of New York’s shipping fleet is 28% for the years 1715–1719 and 23% for the years 1763–1764. Or, to put it another way, around 1 in 4 vessels in New York’s shipping fleet was constructed in Connecticut for these 2 periods. New York’s maritime economy, in other words, relied in no small way on Connecticut shipyards.

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57 Estimate derived from Price, “A Note on the Value,” Table 1, 707.
Table 4.5 Place of Construction for New York's Shipping Fleet, 1715–
1719 and 1763–1764 (All Figures in Registered Tonnage)

<table>
<thead>
<tr>
<th>Place</th>
<th>1715-1719</th>
<th>% of total</th>
<th>1763-1764</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bermuda</td>
<td>152</td>
<td>3</td>
<td>615</td>
<td>5</td>
</tr>
<tr>
<td>Britain</td>
<td>95</td>
<td>2</td>
<td>420</td>
<td>3</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1444</td>
<td>26</td>
<td>2434</td>
<td>18</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>80</td>
<td>1</td>
<td>560</td>
<td>4</td>
</tr>
<tr>
<td>Maryland</td>
<td>n/a</td>
<td>0</td>
<td>240</td>
<td>2</td>
</tr>
<tr>
<td>New England*</td>
<td>762</td>
<td>14</td>
<td>1616</td>
<td>12</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>n/a</td>
<td>0</td>
<td>60</td>
<td>1</td>
</tr>
<tr>
<td>New Jersey</td>
<td>171</td>
<td>3</td>
<td>295</td>
<td>2</td>
</tr>
<tr>
<td>New York</td>
<td>2180</td>
<td>39</td>
<td>2726</td>
<td>20</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>35</td>
<td>1</td>
<td>780</td>
<td>6</td>
</tr>
<tr>
<td>Prize*</td>
<td>315</td>
<td>6</td>
<td>2745</td>
<td>21</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>247</td>
<td>4</td>
<td>300</td>
<td>2</td>
</tr>
<tr>
<td>South Carolina</td>
<td>n/a</td>
<td>0</td>
<td>60</td>
<td>.5</td>
</tr>
<tr>
<td>unclear*</td>
<td>n/a</td>
<td>0</td>
<td>80</td>
<td>.5</td>
</tr>
<tr>
<td>Virginia</td>
<td>55</td>
<td>1</td>
<td>373</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5536</strong></td>
<td></td>
<td><strong>13304</strong></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Kew Gardens, National Archives, PRO CO 5/1222-1228. New York's shipping fleet estimate was based on all vessels listed as owned in New York for the years 1715-1719 and 1763-1764. This assumption probably discounts a considerable number of coasting vessels. *Several vessels were listed as constructed in New England, without specifying the colony. It is likely that most of these vessels were built in Massachusetts, while some were probably built in Connecticut. In addition, New York privateers captured a large number of French vessels during the various wars of the eighteenth century. Thus, several vessels, particularly larger one, are listed as prizes. It is probable that most of these vessels were constructed in either France or the French empire. In the period 1763-1764, two vessels were owned in New York, but their colony of construction is not clear, so they are listed as unclear.

The ship trade between Connecticut and New York reflects the growing integration of the Atlantic economy. Connecticut’s exports of vessels to New York
were, in part, the response of domestic shipwrights to market opportunities elsewhere. New York City’s commerce dwarfed that of Connecticut, for in the years 1760–1762, an annual average of 9,980 tons cleared New York City for Atlantic world markets, while only 4,528 tons cleared Connecticut. Since New York’s transatlantic commerce was much larger than that of Connecticut’s, the demand for vessels displacing more than 100 tons was much larger in New York than Connecticut. Because New York shipwrights were unable to supply all of the demand in the domestic market, New York remained a net importer of vessels, a market the Connecticut shipwrights exploited. Indeed, when building larger vessels, Connecticut shipwrights often redirected their sales from established contracts with Connecticut merchants to those in New York. For instance, in the fall of 1766, John Pellet and Morris Smith, Saybrook shipwrights, finished constructing a 100-ton vessel, which was supposed to be sold to Saybrook merchant John Buck. However, Smith and Pellet broke the contract by selling the vessel instead to New York merchant Mr. Ives, for probably a much larger sum. Many of the vessels that Connecticut sold to New York were of the larger class, usually above 100 tons. The building of this class of vessels depended entirely on export demand. There was no domestic demand for them as earlier evidence in the chapter shows. Thus, shipbuilding in Connecticut was a hybrid industry responding to domestic and external demand.

58 Shepherd, “British America and the Atlantic Economy,” 42-44. Appendix Table 2.
59 Connecticut State Library, RG 3, New London County County Court Files, Box 146, Folder 3, Case 165, Smith vs. Buck.
Furthermore, Connecticut shipwrights engaged in a more speculative trade with their vessels in New York City. While most vessels in Connecticut were built under contract with domestic merchants, some were built on speculation. In other words, shipwrights built vessels without a contract to sell to the highest bidder either in the colony or elsewhere. This type of trade must have yielded higher returns, as contracts ensured a sale for a specific size and type of vessel, whereas speculative sales were based on perceived market conditions. With an eye toward the New York market, Connecticut shipwrights took out many advertisements in the city’s newspapers to sell newly constructed vessels. For instance, in the spring of 1747, Middletown shipwright Thomas Phillips advertised 2 vessels almost ready to be launched for sale. In April 1752, Thomas Tyler advertised a 70-ton sloop ready to be launched in May. Along with vessels for the merchant marine, Connecticut shipwrights also speculated on sales of vessels to be used as privateers. At the start of the Seven Years War, Saybrook shipwright Noah Toveker advertised to New York merchants his shipyard’s ability to construct vessels of any kind for privateers. Fairfield shipwright Daniel Bradley advertised 2 Brigantines set up to be privateers in September 1756. The speculative sale of Connecticut vessels indicates the increasing integration of the economy of British North America, as Connecticut shipwrights supplied vessels to neighboring merchants for their business operations.

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60 New York Gazette 4/6/1747.
63 New York Mercury 9/6/1756.
After New York, Massachusetts was the second largest market for Connecticut-built vessels. That Connecticut shipyards built vessels for Massachusetts merchants is more surprising, as throughout the colonial period, Massachusetts shipyards launched more vessels than any other colony in British America. By the eve of the Revolution, Massachusetts shipyards launched almost 50% of all vessels constructed in British North America. 64 And yet, despite the dominant position of Massachusetts shipyards in British North America, they were never able to fully supply domestic merchant demand for vessels. Between 1678 and 1714, out of more than 1,600 vessels registered as owned in Massachusetts, 364 of them were built outside the colony. Out of this total, Connecticut shipyards built 114, or 31%, of the externally built vessels. 65

Given the dominance of Massachusetts shipyards in British North America, it is probable that most Connecticut vessels were not sold to Massachusetts merchants on contract, but were sales transacted in the daily operations of Connecticut merchants with their counterparts in and around Boston. Massachusetts merchants would have contracted with domestic shipwrights for vessels. As we saw in the last chapter, Connecticut merchants funneled a growing volume of foodstuffs to feed the burgeoning maritime economy of Massachusetts. Each year, between 50 and 100 vessels departed Connecticut for Massachusetts carrying a range of foodstuffs. At times, some of these vessels were sold in Massachusetts along with their cargo. For

64 Price, “A Note on the Value,” Table 1, 707.
instance, in December 1737, Connecticut merchant Samuel Doty dispatched his brigantine *Ann* to Boston carrying foodstuffs. Upon arrival, the vessel and its cargo were sold to Boston merchant James Griffin.\(^66\) Indeed, some Boston general stores advertising Connecticut foodstuffs often advertised Connecticut vessels for sale as well. In 1732, Boston shopkeeper Mr. Watts advertised a 5-year-old Connecticut sloop to potential buyers in Boston.\(^67\)

The most common way that Massachusetts merchants obtained Connecticut-built vessels was in exchange for debts incurred. The reliance of Connecticut merchants on their counterparts in Massachusetts for British manufactured goods entailed the accumulation of onerous debts, which were mostly paid off through the export of foodstuffs. However, Connecticut-built vessels were also exported to Massachusetts to settle debts as well. For instance, in 1737, Connecticut merchant James Wright drew a bill of exchange totaling £97 (sterling) on Boston merchant Jeremiah Finny to cover debts incurred through the importation of British manufactured goods. As partial payment, Wright transferred title to his 25-ton sloop *Dove* to Finny.\(^68\) Likewise, in June 1760, Boston merchant Tom Eden seized Connecticut merchant John Lowden’s 60-ton sloop *Judith* for a debt.\(^69\)

After New York and Massachusetts, Rhode Island was the largest market for Connecticut-built vessels. Probably only a few of these vessels were sold on contract

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\(^66\) Connecticut State Library, RG 3, New London County County Court Files, Box 53, Folder 5, Case 283, Doty vs. Harris.
\(^68\) Connecticut State Library, RG 3, New London County County Court Files, Box 62, Folder 11, Case 65, Wright vs. Finny.
\(^69\) Connecticut State Library, RG 3, New London County County Court Files, Box 115, Folder 3, Case 2, Landon vs. Eden.
to merchants in Rhode Island. For instance, in July 1751, Andrew Stanton of Stonington used his sloop to tow a frame of a sloop to Newport to fulfill a contract order. Yet, aside from a few contract sales, most vessels were sold along with their cargoes as speculative ventures. Vessels were also sold throughout British North America. In October 1746, New London merchant John Daton dispatched his sloop *Squirrel* to Egg Harbor, New Jersey, where the vessel along with its cargo were sold to William Homan, a resident merchant. In July 1764, John Chatfield and Abner Kelsey, both of Killingworth, entered into a covenant, whereby the schooner *Kingfisher* was purchased and outfitted with materials needed for a fishing voyage. In July 1764, the schooner was to depart New London for Nova Scotia, where the captain would ascertain the best waters for a fishing voyage and spend the rest of the summer and fall at sea fishing. Serving as captain of the vessel, John Chatfield received a substantial offer for the schooner from a merchant residing in Nova Scotia, which he accepted and broke his covenant with Abner.

Over the course of the eighteenth century, Connecticut shipyards supplied a growing number of vessels to merchants throughout British North America. Connecticut shipbuilding was an adjunct to the coastal trade. Connecticut’s coastal trade was driven by the demand for foodstuffs in the burgeoning port towns in New England. In much the same way, Connecticut shipyards exported vessels to the same

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70 Connecticut State Library, RG 3, New London County County Court Files, Box 115, Folder 7, Case 57, Stanton vs. Richardson.
71 Connecticut State Library, RG 3, New London County County Court Files, Box 84, Folder 6, Case 67, Daton vs. Brockway.
72 Connecticut State Library, RG 3, New London County County Court Files, Box 142, Folder 10, Chatfield vs. Abner.
port towns in response to market opportunities. It is interesting to note that the sale of Connecticut vessels to merchants in British North America corresponds perfectly to the colony’s coastal trade in general. In the period 1768–1772, 84% of the tonnage clearing Connecticut ports for coastal markets traded with New York, Massachusetts, and Rhode Island. Table 4.4 shows that 84% of the tonnage of Connecticut-built vessels sold to British North America was sold to Rhode Island, New York, and Massachusetts.

Many Connecticut-built vessels were also sold throughout the British and foreign West Indies. Why would Connecticut vessels be exported to the West Indies? The literature on the West Indian economy has focused overwhelmingly on the plantation complex, overlooking many other aspects. In particular, we know very little about the development of merchant communities throughout the West Indies. For the most part, European merchants dominated the maritime economies of the West Indies, supplying the islands with slaves and manufactured goods and carrying their tropical commodities to Europe. However, merchants and planters in the Caribbean owned many vessels, which they sent to Africa for slaves on their own account.73 Furthermore, merchants based in the West Indies conducted intra-American trade on their own account, using their own vessels. Connecticut, like the rest of British North America, supplied the vessels for the operations of West Indian merchants. Table 4.6 shows the number of vessels sold to West Indian markets. The

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relatively large number of vessels recorded for Barbados, Jamaica, and St. Kitts is more a reflection of surviving NOSL for these islands.

Table 4.6 Total Number of Connecticut-built Vessels sold to Markets in the West Indies, 1700–1767 (All Tonnage figures are in Measured Tonnage)

<table>
<thead>
<tr>
<th>Colony</th>
<th>Sloop</th>
<th>Schooner</th>
<th>Brigantine</th>
<th>Snow</th>
<th>Ship</th>
<th>Total # of Vessels</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anguilla</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>158</td>
</tr>
<tr>
<td>Antigua</td>
<td>10</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td>16</td>
<td>951</td>
</tr>
<tr>
<td>Bahamas</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>338</td>
</tr>
<tr>
<td>Barbados</td>
<td>30</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
<td>37</td>
<td>2241</td>
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<td>Bermuda</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>323</td>
</tr>
<tr>
<td>Grenada</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>195</td>
</tr>
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<td></td>
<td>2</td>
<td>203</td>
</tr>
<tr>
<td>Havana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>90</td>
</tr>
<tr>
<td>Jamaica</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>14</td>
<td>720</td>
</tr>
<tr>
<td>Montserrat</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>153</td>
</tr>
<tr>
<td>Nevis</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>St. Croix</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td>125</td>
</tr>
<tr>
<td>St. Kitts</td>
<td>17</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td></td>
<td>29</td>
<td>2018</td>
</tr>
<tr>
<td>St. Thomas</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>St. Vincent</td>
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<td></td>
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<td></td>
<td></td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>St. Eustatius</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>338</td>
</tr>
<tr>
<td>Tortola</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>465</td>
</tr>
<tr>
<td><strong>Total WI</strong></td>
<td><strong>93</strong></td>
<td><strong>19</strong></td>
<td><strong>16</strong></td>
<td><strong>2</strong></td>
<td></td>
<td><strong>130</strong></td>
<td><strong>8511</strong></td>
</tr>
</tbody>
</table>

Sources: All figures on vessel sales were derived from all available NOSL, various shipping registers, court cases, and merchant correspondence. The tonnage figures derived from these sources were mostly cited in Registered tonnage, whereas only the merchant correspondence was cited in measured tons. To convert Registered tonnage to Measured tons, all figures derived form the NOSL and Shipping Registers were increased by 50%. See McCusker, "The Tonnage of Ships".

Despite the dominance of exports to Europe in the West Indian economy, resident merchants in the islands conducted a vibrant trade throughout the basin and
Connecticut vessels, like those from the rest of British North America, were vital in these operations. Merchants residing in the West Indies usually required smaller vessels for their operations. For one thing, West Indian merchants often used their vessels to smuggle goods between empires. Merchants residing on Jamaica conducted a vibrant trade with the Spanish Main, a trade that provided much of the capital for the development of the plantation complex on the island. Much of this trade was conducted with very small vessels to avoid detection. Merchants residing in the West Indies also sent their small sloops and schooners on tramp trades, sailing from island to island conducting small-scale exchanges. While residing on St. Eustatius in 1755, Thomas Allen continuously dispatched small sloops filled with very small cargoes, usually consisting of 1 or 2 draft animals, small parcels of lumber, and foodstuffs, to Guadeloupe, Nevis, and elsewhere. At least some of his vessels, like the 16-ton sloop Betsey, were built in Connecticut. Furthermore, West Indian merchants also dispatched their vessels to British North America to obtain supplies. With the exception of Jamaican smuggling into Spanish America, most of this commerce was on a much smaller scale. However, the small-scale nature of these trades, with many small vessels sailing throughout the islands searching for the best markets for their various cargoes, meant that merchants residing in the West Indies probably owned many small sailing vessels.

Connecticut shipwrights sold few vessels to West Indian merchants on contract. Indeed, there are very few cases when West Indian merchants contracted for Connecticut vessels. In the spring of 1744, Joseph Burnett arrived in New London, commanding a vessel owned by Anguillan merchant Benjamin Gumms. Upon arriving in New London, Burnett completed a contract with Ichabod Rogers, a Connecticut shipwright, to construct a 70-ton schooner on behalf of Gumms. For a bill of exchange amounting to £126 (sterling), Rogers agreed to build the schooner. However, when complications arose over the supply of raw materials for the vessel, the contract fell through. In the spring of 1765, Norwich merchant Christopher Leffingwell dispatched his brigantine Betsey to Guadeloupe, carrying a cargo of fish, horses, and lumber. While in port, French merchant Isaac Lyons offered to purchase the brigantine, for a price “so far les than her value.” As a result, Lyons contracted with Leffingwell to build a 100-ton sloop.

The most common manner for the sale of Connecticut vessels was through speculative sales. As Connecticut merchants dispatched their vessels to the West Indies laden with foodstuffs, lumber, and draft animals, they instructed their captains to sell the vessel as well if the price was right. Wethersfield merchant Silas Deane’s letter to David Webb, captain of his sloop Rainbow, exemplifies this speculative trade. Deane instructed Webb to sail to Barbados or any other market that may be better. Upon reaching the West Indies, Webb was to sell the sloop if he could get

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76 Connecticut State Library, RG 3, New London County County Court Files, Box 79, Folder 13, Case 10, Burnett vs. Lattimore, Box 78, Folder 10, Burnett vs. Rogers.
77 Sterling Library, Yale University Department of Manuscripts and Archives, Leffingwell Family Papers, Box 4, Folder 1, Christopher Leffingwell Letterbook, 1764-1767.
£281 (sterling).\textsuperscript{78} Connecticut merchant correspondence is replete with similar instructions regarding the sale of their vessels if the price was right. In the summer of 1763, the Trumbull family’s sloop \textit{Alliance} was supposed to be sold somewhere in the West Indies. However, the only offer received was £353 (sterling) on St. Eustatius, which proved too low.\textsuperscript{79} The case of the schooner \textit{Delight} further illustrates the speculative nature of the sale of Connecticut vessels to the West Indies. In 1749, 8 Connecticut merchants shared ownership of the Norwich-built schooner \textit{Delight}. In June 1749, the schooner was loaded with a very expensive cargo consisting of draft animals, lumber, soap, and foodstuffs, all of which was intended for sale in the West Indies. The owners agreed that the vessel should be sold along with the cargo. So, the captain of the schooner, David Hosman, was instructed to sail to Antigua and sell the vessel along with the cargo. Should the market prove poor in Antigua, Hosman was to dispatch the vessel and cargo anywhere else in the British West Indies where market conditions would prove better. In the end, Hosman sold the vessel in Jamaica in August 1749.\textsuperscript{80}

The activities of New London merchant Thomas Allen exemplify how vessels were sold to West Indian merchants. Upon moving to New London from St. Eustatius, in August 1758, Allen purchased the brigantine \textit{Defiance}, a one-year-old privateer for £1247 (sterling). In early 1759, Allen loaded his new brigantine with a large cargo and dispatched it to St. Kitts, where it would sell the cargo and try to

\textsuperscript{78} Connecticut Historical Society, Deane Family Papers, microfilm collection.
\textsuperscript{79} Connecticut Historical Society, Joseph Trumbull Papers, Box 1, Folder 1.
\textsuperscript{80} Connecticut State Library, RG 3, New London County County Court Files, Box 90, Folder 11, Case 3, Stewart vs. Homan.
capture French vessels sailing in the area.\textsuperscript{81} In March 1759, Allen exchanged the brigantine for 2 vessels, the schooner \textit{Charming Sally} and the schooner \textit{Betsey}. Later, Allen sold the schooner \textit{Charming Sally} to Thomas Fanning of Long Island and the schooner \textit{Betsey} to another merchant in St. Kitts.\textsuperscript{82} In October 1758, Allen purchased the 165-ton snow \textit{Gallant Schemer}, which he then loaded for a voyage to St. Kitts. In June 1759, Allen sold the snow along with its cargo.

Connecticut shipwrights also sold a number of vessels to merchants in Europe. Table 4.7 shows the number of vessels sold to European merchants. To be sure, compared to other New England colonies, Connecticut never exported a large number of vessels to Europe and this trade probably did not begin until the 1720s. And, most vessels were sold to British merchants. In July 1726, the Wethersfield-built ship \textit{Anstico}, a 90-ton vessel, left New London, carrying lumber, anchor stocks, and naval stores, for Bristol where it was sold to Samuel Marks. In January 1727, the ship \textit{Adventure}, a 100-ton vessel built in Connecticut, left New London for Bristol carrying lumber, naval stores, and anchor stocks. Upon arrival in Bristol, the ship was sold to Hugh Vans.\textsuperscript{83}

\textsuperscript{81} In December, 1758, Allen advertised the imminent sailing of the Brigantine to any “Gentlemen Sailors and others that have a Mind to proceed said Voyage”. \textit{New London Summary} 12/8/1758.
\textsuperscript{82} American Antiquarian Society, Worcester, Massachusetts, Allen Family Papers, Box 14, Account Book of Vessels.
\textsuperscript{83} The clearance papers for both vessels are in Connecticut Historical Society, Miscellaneous Shipping Papers, microfilm reel.
Table 4.7 Total Number of Connecticut-Built Vessels Sold to Markets in Europe, 1700-1776 (All Tonnage Figures Are in Measured Tonnage)

<table>
<thead>
<tr>
<th>Market</th>
<th>Sloop</th>
<th>Schooner</th>
<th>Brigantine</th>
<th>Snow</th>
<th>Ship</th>
<th>Total # of Vessels</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bristol</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>18</td>
<td>2142</td>
<td></td>
</tr>
<tr>
<td>Britain</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>15</td>
<td>2141</td>
<td></td>
</tr>
<tr>
<td>Gibraltar</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>1197</td>
<td></td>
</tr>
<tr>
<td>Lisbon</td>
<td></td>
<td>4</td>
<td>3</td>
<td></td>
<td>7</td>
<td>2985</td>
<td></td>
</tr>
<tr>
<td>Liverpool</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>1412</td>
</tr>
<tr>
<td>London</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>11</td>
<td>27</td>
<td>54</td>
<td>10563</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>4</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td>5</td>
<td>32</td>
<td>26</td>
<td>45</td>
<td>120</td>
<td>21290</td>
</tr>
</tbody>
</table>

Sources: All figures on vessel sales were derived from all available NOSL, various shipping registers, court cases, and merchant correspondence. The tonnage figures derived from these sources were mostly cited in Registered tonnage, whereas only the merchant correspondence was cited in measured tons. To convert Registered tonnage to Measured tons, all figures were increased by 50%. See McCusker, "The Tonnage of Ships". For many vessels listed in the NOSL, only the label Britain or Great Britain was used.

Connecticut exports of vessels to Europe became noteworthy, however, when John Jeffrey, a shipwright from Portsmouth, England, moved to Groton, Connecticut, around 1720. With merchant contacts in England and experience constructing large vessels, Jeffrey set out to construct larger vessels to sell to British merchants. It was in 1723 that English merchant James Sterling contracted with Jeffrey to build the
“Great Ship,” a massive 720-ton vessel for England’s trade with Portugal. Jeffrey’s “Great Ship” was the largest constructed in British North America before 1776. While under construction, the “Great Ship” became a spectacle that most New London residents viewed with awe. On October 11, 1725, New London shipwright Joshua Hempstead “and all the family went to see the great ship at ye ferry launched. She went off as upright as possible, a great concourse of people she is above 700 tons.” In August 1726, the “Great Ship” finally sailed for Lisbon, where it was sold to Sterling. It is ironic that though this vessel was the largest one constructed in British North America, there is little information on it, including its name and what trades it engaged in. From 1720 to 1738, Jeffrey constructed several large vessels for British merchants, including a ship for an Irish merchant, the 570-ton ship Don Carlos for James Sterling in 1734, the hull of a vessel for Liverpool merchant Caldwalder Williams in 1735 valued at £333 (sterling), a ship for an English merchant in 1736, and a snow for an English merchant in 1738. As Table 4.7 shows, Connecticut’s export of vessels to Europe consisted primarily of the largest classes of vessels. For instance, in 1760, New London merchant Thomas Mumford constructed the 250-ton snow Leonard, loaded it with sugar, coffee, and lumber, and dispatched it to Gibraltar, where it was sold to Joseph and Peter Lynch.

85 Diary of Joshua Hempstead, 235, 266, 308, 337; Connecticut State Library, RG 3, New London County County Court Files, Box 48, Folder 20, Jeffrey vs. Williams.
86 Connecticut State Library, RG 3, New London County County Court Files, Box 119, Folder 19, Mumford vs. Lynch.
The sale of vessels to Ireland constituted an ancillary operation to the flaxseed trade. After 1730, when Ireland was legally allowed to trade in British North America, Connecticut exported a number of vessels to Ireland as part of its trade in flaxseed. Though most Connecticut flaxseed was sent to New York for re-export to Ireland, occasionally Connecticut merchants sent large vessels to Ireland laden with flaxseed and sold both vessel and cargo in Ireland. For instance, in early 1764, the Trumbull family constructed a 100-ton vessel, which was loaded with flaxseed, lumber, and naval stores and sold in Ireland. Sale of vessels to Ireland was one of the ways that the Trumbull family had planned on saving the family’s fortunes.

4.4 The Volume and Value of Connecticut Shipbuilding

Table 4.8 illustrates the total number and tonnage of vessels constructed in Connecticut and sold to domestic and foreign merchants. Estimating the precise volume and value of Connecticut shipbuilding is difficult given the sparse nature of the sources. Significant gaps in surviving records account for the rapid declines for the years 1718–1722 and 1738–1742. The surviving data indicate that Connecticut shipbuilding expanded 20-fold between 1693 and 1767. Real rapid expansion is clear around 1715, when the volume of shipbuilding tripled. The rapid increase between 1748 and 1767 is more a reflection of better surviving data. Table 4.8 also reflects the nature of Connecticut’s trade, as sloops represented 61% of all vessels constructed and brigantines and schooners were the next 2 largest classes constructed.

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87 Connecticut Historical Society, Joseph Trumbull Papers, Box 1, Folder 1, Joseph Trumbull to Jonathan Trumbull Jr. 12/24.1763, 4/19/1764.
### Table 4.8 Total Number and Tonnage of Vessels Constructed in Connecticut, 1693–1767 (All Figures Represent Total Number of Vessels Constructed in Each 5-year period and are in Measured Tonnage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sloop</th>
<th>Schooner</th>
<th>Brigantine</th>
<th>Snow</th>
<th>Ship</th>
<th>unclear*</th>
<th>Total # of Vessels</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1693–97</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>21</td>
<td>28</td>
<td></td>
<td>28</td>
<td>1209</td>
</tr>
<tr>
<td>1698–02</td>
<td>25</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>41</td>
<td></td>
<td>72</td>
<td>3549</td>
</tr>
<tr>
<td>1703–07</td>
<td>9</td>
<td>5</td>
<td>1</td>
<td>18</td>
<td>33</td>
<td></td>
<td>47</td>
<td>1949</td>
</tr>
<tr>
<td>1708–12</td>
<td>25</td>
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<td>20</td>
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<td></td>
</tr>
<tr>
<td>1713–17</td>
<td>76</td>
<td>6</td>
<td>2</td>
<td>9</td>
<td>9</td>
<td></td>
<td>103</td>
<td>6782</td>
</tr>
<tr>
<td>1718–22</td>
<td>40</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>52</td>
<td>2463</td>
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<td>1723–27</td>
<td>61</td>
<td>8</td>
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<td>1</td>
<td></td>
<td></td>
<td>85</td>
<td>6548</td>
</tr>
<tr>
<td>1728–32</td>
<td>83</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td>107</td>
<td>5732</td>
</tr>
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<td>5</td>
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<td>76</td>
<td>6059</td>
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<td>1738–42</td>
<td>47</td>
<td>7</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td></td>
<td>63</td>
<td>3933</td>
</tr>
<tr>
<td>1743–47</td>
<td>63</td>
<td>13</td>
<td>17</td>
<td>1</td>
<td></td>
<td></td>
<td>94</td>
<td>6183</td>
</tr>
<tr>
<td>1748–52</td>
<td>117</td>
<td>17</td>
<td>25</td>
<td>6</td>
<td>5</td>
<td></td>
<td>170</td>
<td>11085</td>
</tr>
<tr>
<td>1753–57</td>
<td>119</td>
<td>38</td>
<td>12</td>
<td>12</td>
<td>7</td>
<td></td>
<td>188</td>
<td>12560</td>
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<tr>
<td>1758–62</td>
<td>220</td>
<td>53</td>
<td>56</td>
<td>9</td>
<td>16</td>
<td></td>
<td>354</td>
<td>25229</td>
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<tr>
<td>1763–67</td>
<td>132</td>
<td>48</td>
<td>77</td>
<td>13</td>
<td>23</td>
<td></td>
<td>293</td>
<td>24441</td>
</tr>
<tr>
<td>Total</td>
<td>1075</td>
<td>199</td>
<td>236</td>
<td>57</td>
<td>87</td>
<td>111</td>
<td>1765</td>
<td>120032</td>
</tr>
</tbody>
</table>

Source for Table: All figures on vessel sales were derived from all available NOSL, various shipping registers, court cases, and merchant correspondence. The tonnage figures derived from these sources were mostly cited in Registered tonnage, whereas only the merchant correspondence was cited in measured tons. To convert Registered tonnage to Measured tons, all figures were increased by 50%. See McCusker, "The Tonnage of Ships". *For many years, the NOSL do not record the type of vessel.

Using the data assembled in Table 4.8, it is possible to estimate the value of shipbuilding in Connecticut. In the past, scholars have measured the importance of overseas trade to the economies of British America by focusing on the per capita value of exports and imports. Focusing only on commodity exports is insufficient in assessing the importance of the Atlantic economy to the economic development of British America. New England and the Middle Colonies constructed vessels for

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domestic use and export elsewhere, which was also a significant factor in the commercialization process. For Connecticut, practically all of the commodities exported to Atlantic world markets were carried on vessels built in the colony. In other words, the demand for Connecticut commodities in the Atlantic basin stimulated the development of shipbuilding in the colony. Table 4.9 shows the value of Connecticut shipbuilding for domestic merchants and export to Atlantic world Markets between 1760 and 1767.

<table>
<thead>
<tr>
<th>Year</th>
<th>Connecticut</th>
<th>Europe</th>
<th>West Indies</th>
<th>North America</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1760</td>
<td>13,652</td>
<td>2,867</td>
<td>7,750</td>
<td>6,296</td>
<td>30,565</td>
</tr>
<tr>
<td>1761</td>
<td>27,600</td>
<td>9,982</td>
<td>3,225</td>
<td>5,733</td>
<td>46,540</td>
</tr>
<tr>
<td>1762</td>
<td>40,541</td>
<td>2,662</td>
<td>1,638</td>
<td>12,326</td>
<td>57,167</td>
</tr>
<tr>
<td>1763</td>
<td>21,816</td>
<td>6,245</td>
<td>1,229</td>
<td>13,104</td>
<td>42,394</td>
</tr>
<tr>
<td>1764</td>
<td>19,267</td>
<td>10,493</td>
<td>1,454</td>
<td>9,163</td>
<td>40,377</td>
</tr>
<tr>
<td>1765</td>
<td>14,619</td>
<td>2,938</td>
<td>2,396</td>
<td>6,583</td>
<td>26,536</td>
</tr>
<tr>
<td>1766</td>
<td>17,394</td>
<td>410</td>
<td>1,229</td>
<td>2,334</td>
<td>21,367</td>
</tr>
<tr>
<td>1767</td>
<td>18,172</td>
<td>13,104</td>
<td>3,890</td>
<td>973</td>
<td>36,139</td>
</tr>
</tbody>
</table>

Sources: All shipbuilding figures are derived from Table 4.8. All tonnage was converted to Measured Tonnage. See McCusker, "The Tonnage of Ships". For the price of vessels, the sum of £6.825 (Sterling) per ton was used. See Price, "A Note on the Value of Colonial Exports of Shipping," 721.

Between 1760 and 1767, Connecticut merchants invested an annual average of £21,633 (sterling) in newly constructed sailing vessels for domestic use.
Furthermore, earnings on the export of sailing vessels to Atlantic world markets netted Connecticut an annual average of £16,003 (sterling). Vessel sales constituted the third largest export earning for Connecticut. Therefore, the Atlantic economy created market opportunities for Connecticut shipbuilders amounting to an annual average of £37,636 (sterling) or a per capita average of £0.21 (sterling). 89 There is no question that shipbuilding was the largest industry in colonial Connecticut, one that was created by market opportunities in the Atlantic economy.

4.5 Shipbuilding in Connecticut’s Economy

Assessing the role of shipbuilding in Connecticut’s economy is difficult owing to the lack of available sources. There are no surviving account books for shipwrights and most sources are the NOSL or court cases involving disputed contracts or faulty craftsmanship on vessels. Neither of these sources is very detailed on the volume or origins of raw materials involved in shipbuilding, the number and wages of workers, or the overall value of this industry. Nevertheless, it is clear that shipbuilding was the largest and most complex industry in the colony.

Joseph Goldenberg has provided the most detailed explanation of how a vessel was constructed. First, each shipyard was capable of launching between 1 and 2 vessels per year. Between 1 and 6 shipwrights were employed for each vessel’s construction. The shipwright(s) worked on the very complex task of constructing the hull of the vessel. As Goldenberg wrote,

89 This estimate is derived by dividing the average annual value of Connecticut shipbuilding between 1760 and 1767 by the most recent population estimate for 1770 (181,583). For the recent population estimate, see Bruce C. Daniels, The Connecticut Town: Growth and Development, 1635-1790 (Middletown: Wesleyan University Press, 1979): 47, Table 1.
While the shipwrights were busy with these details, nearly twenty additional craftsmen were also at work on the ship. Joiners smoothed the outside planking, built rails and did interior cabin work. Caulkers filled seams with oakhum to make the ship watertight. With iron more plentiful in the colonies than in England, colonial builders often used more iron on masts, blocks, and deckware than British shipwrights did; occasionally they even went to the trouble of bolting the butt, or end, of every plank instead of using only treenails. Responsible for all the iron work on the vessel, smiths also had the task of forging anchors. A mason laid bricks to support the galley, a tinman lined the scuppers, and a glazier installed glass ports. Mastmakers, sailmakers, blockmakers, and ropemakers supplied their respective products. Other tradesmen included painters, riggers, boatmakers, coopers, tanners, and carvers. Before sailing, the ship required the services of instrument makers, chairmakers, and upholsterers to complete the officers’ quarters, and brewer, bakers, and butchers to supply provisions.  

There was positive correlation between the size of the vessel and the number of workers involved in its construction. Likewise, there was a positive correlation between the vessel’s size and the volume of raw materials required for its construction. As a general framework, a 100-ton vessel required 2,000 trees, 1 ton of iron, miles of rope, yards of canvas, and many gallons of naval stores.

If we take these as averages, we can create a quantitative estimate of the size of the shipbuilding sector in colonial Connecticut in 1770. According to a 1784 report, Connecticut shipyards launched 46 vessels totaling 1,522 tons in 1770. Depending on how many vessels could be built per shipyard, there could have been from 23 to 46 shipyards in operation in 1770. Quantifying the number of workers employed in building these vessels is more problematic, as many specialized artisans could work on several vessels during the year. Assuming an artisan worked on 2

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90 Goldenberg, *Shipbuilding*, 70–71, quote from 89.
92 The 1784 report was quoted in Price, “A Note on the Value of Shipping,” 707.
vessels per year, there could have been as many as 460 artisans working in the shipyards in 1770 and 23 shipwrights. The capital invested in ship construction amounted to £10,388 (sterling) in 1770.\textsuperscript{93} This only represents the total capital invested in shipbuilding for one year. There is no indication that external merchants took shares in Connecticut vessels. Therefore, the total value invested in measured shipping tonnage (newly built vessels and those in operation) amounted to £105,620 (sterling) in 1774.\textsuperscript{94}

The importance of shipbuilding to Connecticut’s economy went beyond capital investments, exports of vessels, and employment in constructing vessels. Merchants incurred a variety of outfitting expenses (dieting sailors during the voyage, various repairs for vessels, a variety of items for the vessel’s use like candles, rum, buckets, pails, and shovels, loading charges for cargo, and wharfage and portage charges, for instance) each time a vessel engaged in a voyage either to coastal or West Indian markets. At times, merchants had to replace spars, masts, and oars. Or, the vessel had to be corked again or repainted. Nathaniel Shaw’s expenses for his sloop \textit{Dove} exemplify the range of potential outfitting expenses. In preparation for its second voyage to the West Indies, Shaw had to hire a number of laborers and purchase a range of items to repair the vessel, such as cordage, pine and oak boards, 3 barrels of tar, 500 pounds of oakhum, 4 barrels of pitch, 1 barrel of turpentine, 1.5 tons of iron, 1 yard of canvas, several hundred pounds of nails, papers, rum and

\textsuperscript{93} Estimate is derived by multiplying the number of tons stated for Connecticut shipbuilding in 1770 by the price of £6.825 (sterling) per ton as stated in Prices, “A Note on the Value,”721.

\textsuperscript{94} Tonnage is derived from the Governor’s Report to the Board of Trade in 1774, \textit{CCR} 14, 502. The Governor reported that the colony’s total tonnage was 10,317. This total was increased by 50% to represent measured tonnage and multiplied by £6.825 (sterling) per ton.
molasses (for laborers), a mast, spar, boom, twine, thread, barrels, scrapers, 86 hides, oars, 36 pounds of candles, shovels, buckets, chalk, and a variety of other goods. In total, Shaw spent £201 (lawful money) to get the sloop into shape for sailing again.\(^{95}\) To be sure, this very high expense suggests that the sloop suffered considerable damage in its first voyage. But this list gives a range of items needed for repairing and outfitting vessels for voyages. Even if one vessel made several trips in a year, these charges were incurred for each voyage due to wear and tear suffered during the voyage, the need to provide sustenance for sailors, and the cargo loading charges. For instance, Nathaniel Shaw’s brigantine *Lucretia* made 2 trips to the West Indies in 1763. Outfitting expenses on the first voyage amounted to £100 (lawful money), while the second voyage cost £111 (lawful money).\(^{96}\) The length of voyages, destination, size of vessel, and cargo determined the size of outfitting expenses. Longer voyages would tend to increase the wear and tear on sailing vessels, while voyages to the West Indies exposed hulls to toredo worms. Larger vessels required more sailors and other items facilitating the voyages (more candles, pails, shovels, or cordage, for instance), making the outfitting expenses larger. Also, along with dieting the sailors, vessels carrying livestock to the West Indies (something every Connecticut vessel carried) had to carry larger foodstuffs to keep animals alive in transit. Finally, vessels surviving hurricanes and other mishaps in transit required greater repairs before sailing again. Overall, it is clear that measuring outfitting

\(^{95}\) Sterling Library, Yale University, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Account Book 4.

\(^{96}\) Shaw Account Book 4.
expenses is based on a number of variables. To give an order of magnitude, outfitting expenses for coastal clearances are assumed to amount to £20 (sterling) per voyage, while outfitting expenses for clearances to the West Indies amounted to £55 (sterling). Based on the number of voyages clearing Connecticut for coastal and West Indian markets, outfitting expenses amounted to an annual average of £20,812 in the years 1768–1772.

Shipbuilding, outfitting expenses, and annual repairs gave rise to an expansive industry in and around Connecticut’s port towns. Each vessel built in a shipyard required rope works, iron works, sawmills, carters to transport raw materials, and a variety of other artisan works. Vessels waiting in dock required a similar range of repair services. The loading and unloading of cargoes required dozens of dock workers. The storage of commodities waiting for export or imported commodities waiting to be redistributed to the countryside required carters and storage sites in port towns. Sailors and livestock on overseas voyages required a range of food suppliers from the countryside, as well as coopers to create barrels to hold food and water in transit. In conclusion, the building of vessels and the export and import of commodities were fostering the creation of several industries to facilitate the maritime economy.

These estimates are based on over 50 observations of Nathaniel Shaw’s vessels departing for coastal and West Indian voyages, Shaw Account Book 4. If anything, these estimates err on the side of caution, as some expenses were as high as £200 (lawful money) for a West Indian voyage. Since Shaw’s expenses were quoted in Lawful Money, conversion to Sterling was necessary. I have relied on John J. McCusker Money and Exchange in Europe and America, 1600-1775: A Handbook (Chapel Hill: University of North Carolina Press, 1978): 142, Table 3.1.
Chapter Five: The Spread of the Market Economy in Colonial Connecticut

The previous chapters have outlined the evolution of the Atlantic economy, the West Indian and coastal trades, and the expansion of shipbuilding in Connecticut. This final chapter examines the causal relationship between Connecticut’s integration into the Atlantic Economy and the spread of the market economy within the colony. It is the contention of this dissertation that the Atlantic economy was the central factor in the development and spread of the market economy throughout the Connecticut countryside. This chapter shows how the initial predominantly subsistence economy of the colony was transformed into a market based economy. Two mechanisms fostered Connecticut’s transformation: the Vent-for-Surplus and the “industrious revolution”.

The last few chapters have examined the Vent-for-Surplus in the coastal and West Indian trade, as well as shipbuilding. The growth in exports to Atlantic markets fostered the evolution of the market economy. However, it was not just the export trade that changed the structure of Connecticut’s economy. As the volume of Connecticut’s exports grew, there was a commensurate increase in imported goods, predominantly European manufactures and West Indian commodities. These imports induced the spread of the market economy in Connecticut. Like their counterparts throughout British North America, Connecticut consumers were a part of the Atlantic
World consumer revolution, as manufactured goods and tropical groceries flooded the basin, reaching virtually every household.¹

The desire to obtain these goods and to participate in the consumer revolution induced the “industrious revolution” in Connecticut. In sum, consumers’ desire for imports induced a greater effort to produce for market exchange by a reallocation of household labor. Though first articulated by David Hume, more recently, Jan de Vries argued that “northwestern Europe and British North America experienced an ‘industrious revolution’ during a long eighteenth century, roughly 1650-1850, in which a growing number of households acted to reallocate their productive resources (which are chiefly the time of their members) in ways that increased both the supply of market-oriented, money-earning activities and the demand for goods offered in the marketplace.”²

Section 5.1 highlights the process of transformation in the seventeenth century. During the first several decades of its existence, Connecticut was relatively isolated from the Atlantic economy. But, after 1680, the colony was increasingly integrated into the burgeoning Atlantic economy, which fostered the spread of the market economy. Section 5.2 examines the deepening of the spread of the market economy after 1700. Connecticut’s increasing integration into the Atlantic economy


affected a transformation that drew all of the regions in the colony into the market economy.

5.1: The Development of the Market Economy, 1636–1700

The period from 1638 to 1676 consisted of Connecticut settlers searching for commodities to sell on the market. Despite assertions that early colonists in New England expressed an ideology antithetical to the market, the early settlers flocking to Connecticut in the late 1630s and early 1640s were interested in producing for market exchange. At this early stage, the only markets available were Boston and England. According to Bruce Daniels, “The strong potential for trade offered by the location on New England’s greatest river and the excellence of the surrounding lands for farming motivated the founder of these towns—not any desire to begin a religious experiment contrary to the Massachusetts one”.3 From the original towns, settlers expanded outwards, seeking better opportunities for production and trade.

Early Connecticut settlers’ search for a vent, however, was undermined by tensions with Native Americans and the Dutch in New Netherlands. In June 1636, rumors about the Pequot tribe harboring hostile Indians forced the nascent colony’s government to institute mandatory watches and force all settlers to purchase shot and gunpowder. Though Massachusetts first invaded Pequot lands in August 1636, Connecticut was forced into a state of war readiness for the rest of the year. All males had to meet once a month for militia training, while the settlers sat in a precarious position, waiting for what seemed like an imminent attack. Finally, on

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April 23, 1637, the Pequot attacked the town of Wethersfield, killing nine settlers and kidnapping two women. This attack shifted the Connecticut government into a full-scale mobilization for war. Ultimately, 75% of adult males were raised to fight the Pequot, while new taxes were levied to raise £620 (Connecticut currency), a sum equivalent to £5 (Connecticut currency) per adult male.

Though removing a potentially hostile threat, Connecticut’s victory in the Pequot War imposed economic burdens on the nascent colony lasting for the next four decades that did not prove conducive to economic expansion. The destruction of Pequot settlements created a lasting distrust between the colony and the remaining tribes in the colony. This situation forced the government to devote resources to defense. Mandatory watches were imposed, adult men were compelled to serve in militia duties, and taxes were devoted to defense spending and construction of fortifications rather than public works. England’s wars with the Dutch (1652, 1664, and 1672) imposed further demands on Connecticut’s budget, as militia were forced to defend Long Island sound from a potential Dutch assault from New Netherlands. Connecticut was later drawn into King Philip’s War (1675), the final protracted war against Native Americans. In this final victory that removed Native American resistance to the colony’s expansion, Connecticut committed 25% of its militia and the great sum of £24,215 (sterling) to the war effort. Even so, victory in this costly
war finally removed the last direct threat to Connecticut’s expansion until the American Revolution.4

The threat of a Dutch or Native American attack, nevertheless, undermined the expansion of the market economy in Connecticut. Much needed labor was diverted into the militias, while public resources were spent on the war effort and fortifications rather than transportation improvements. Nevertheless, even without the wars and threat of invasion, the question remains: where could surplus commodities be sold? Transportation was rather poor in the colony down to 1670, hampering the development of the domestic market. Connecticut was, for the most part, a closed economy before 1670 with only marginal trade with overseas markets. A further barrier was the relative symmetry of production throughout the nascent colony. David Grayson Allen’s study of four towns in the seventeenth century (Hartford and Windsor on the Connecticut River and Guilford and Milford on Long Island Sound) is revealing for the similar commodities early settlers produced, mainly livestock, corn, wheat, and dairy products. To be sure, there were slight variations, such as Windsor focusing somewhat more on the dairy industry, Milford on horse raising, and Hartford and Guilford on small-scale cloth production.5 But, despite some specialization, the range of crops and commodities were all similar in each town.

There can be little doubt that most resources in Connecticut before 1680 were devoted to subsistence production and defense. High expenses incurred in defending the colony undermined Connecticut’s ability to trade with Atlantic markets. Therefore, the division of labor had not developed constraining the development of a domestic market. Without greater regional specialization, there was no need for internal trade between farmers in these towns. After 1680, Connecticut producers found these markets in the West Indies and the coastal trade.

The early trade to coastal and West Indian markets fostered the evolution of a division of labor in Connecticut. By the late seventeenth century, several towns along Long Island Sound and on the Connecticut River transformed from small settlements into larger market towns. In Hartford, New Haven, Fairfield, Milford, and New London, the growth of Atlantic trade coincided with the expansion of the resident population, the emergence of groups (shop owners, sailors, shipbuilders, artisans preparing commodities for export, for example) largely disassociated with farming, and the concentration of wealth by merchants. By 1680, merchants controlled 25% of the colony’s total wealth, and mostly lived in these few market towns. Merchants in Hartford and New Haven owned about 66% of the colony’s total retail goods. Furthermore, many other artisan groups lived in these towns by the end of the seventeenth century, such as shipwrights, silversmiths, joiners, and masons.\(^6\)

Shipbuilding statistics are sparse for the seventeenth century, but there were at least

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29 vessels owned in the colony in 1680, mostly constructed in these towns.\textsuperscript{7} By the late seventeenth century, the development of these market towns encouraged the creation of a domestic market, as a growing urban population began living off the produce of farmers in the countryside. By 1700, these five market centers had a combined population of around 5,000, part of which relied on farmers in the countryside for their food.\textsuperscript{8}

Though data are sparse on the economy of seventeenth-century Connecticut, detailed tax data do indicate an increase in the total value of estates between 1676 and 1700.\textsuperscript{9} After 1650, all Connecticut towns had to submit their annual lists of estates (assessments on the value of each person, their property, and livestock) to the government, which was compiled to an annual grand list. Annual taxes were based on a percentage of the grand list. Figure 5.1 depicts the growth in the value of Connecticut’s grand list over the course of the seventeenth century.\textsuperscript{10} No tax data has survived for 1662 or 1689, which explains the decline for those years. The incorporation of the New Haven Colony in 1662 into the Connecticut colony explains the rapid increase after 1663. Furthermore, in certain years, the lists do not include all of the towns due to negligence in submitting the lists on time. Nevertheless, the

\textsuperscript{7} \textit{CCR} 3, 299.
\textsuperscript{8} Main, \textit{Society and Economy}, 86.
\textsuperscript{9} In 1650, the Connecticut government passed a Code of Laws that created a uniform system of direct taxation on all towns in the colony. Every resident in each town had to submit a list consisting of polls, faculties, people, land, livestock, houses, ships, mills, and all other visible estates. The sum of these lists was reported annually in the grand list. Lists have survived from 1651 until this system was abolished in the early nineteenth century. See Alvin Rabushka, \textit{Taxation in Colonial America} (Princeton: Princeton University Press, 2008): 178-180.
\textsuperscript{10} Figures derived from Rabushka, \textit{Taxation in Colonial America}, 185, Table 7.1, 385, Table 13.5.
trend for the rising value of Connecticut’s taxable property is clear, particularly after 1690. Between 1680 and 1700, the value of the grand list increased by one-third.

Connecticut’s involvement in Atlantic trade introduced resident consumers to a growing volume of British manufactured goods (some clothes and utensils to subdue this country) imported from Boston and tropical commodities from the West Indies, mainly (sugar and rum to refresh the spirits of such as labor in the extreme heat and cold). These imports induced the “industrious revolution” in the colony, prompting producers to shift more labor into production for market exchange. Data on imports is lacking, but there are sources indicating an increase in consumption of imports throughout the colony. Between 1680 and 1681, Wethersfield merchant Peter Bulkeley conducted business with farmers in and around the town. Almost all of his sales consisted of sugar, salt, cotton, rum, or molasses, which were exchanged

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11 Quotes were taken from the Connecticut Governor’s Report to the Board of Trade for 1680, CCR 3 308.
for grains, labor, or livestock. For instance, on June 28, 1681, Bulkeley sold John Curtis 2 bushels of salt, 11 lbs of sugar, and 18.5 lbs of cotton, for which payment consisted of 3 pecks of wheat, 2 bushels of corn, and 4 bushels of oatmeal. In his extensive study of surviving probate records, Jackson Turner Main estimated that the mean value of consumer goods appearing in all seventeenth century probate records amounted to £52 (country pay) before 1650 and rose to £63 (country pay) by 1700. Moreover, Main found that the proportion of the living population obtaining a level of comfort (at least owning £50 country pay worth of consumer goods) rose from 26% of the population before 1650 to 42% of the population between 1690 and 1699.

To facilitate production for market exchange, farmers throughout Connecticut petitioned the Connecticut government to allow for the construction of roads to improve internal transportation and prospects for moving commodities to market. By a law passed in 1643, the Connecticut government devolved responsibility for financing, constructing, and maintaining all country roads, or roads passing through two or more towns. Two surveyors were to be picked by each town to ensure proper maintenance of the roads and all able bodied males were required to provide at least one day of labor annually in clearing the roads. Poor conditions on several country roads compelled the government to pass repeated instructions throughout the seventeenth century to the towns to ensure proper labor was committed to

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13 Main, Society and Economy, 73.
14 Main, Society and Economy, Appendix 3B, 102.
15 CCR 1, 91.
In 1650, another law stipulated that each able bodied male had to provide at least two days of labor annually for road maintenance. The first country road was constructed between Hartford and Windsor, and by 1700, there were seven country roads in the colony. Bridges were constructed throughout the colony where rivers interfered with town or country roads as well. The following map illustrates the country roads constructed by 1700.

Map 5.1 Colonial Connecticut Roads 1700

Official Map Title: “To the right honourable, the Earl of Shelbourne, His Majesty's principal Secretary of State for the Southern Department. This plan of the colony of Connecticut in North-America. Is humbly dedicated by his lordships most obedient humble servt. Moses Park. Novr. 24, 1766.” Source: Library of Congress, The American Revolution and Its Era: Maps and Charts of North America and the West Indies, 1750-1789, website: http://memory.loc.gov/ammem/gmdhtml/armhtml/armhome.html. I have added the roads in dark black. The road parallel to Long Island Sound is the Post Road, which linked Boston with New York. Note: roads not drawn to scale and map represents Connecticut in 1766.

16 CCR 4, 85, 246-247.
17 CCR 1, 527.
In addition, there were petitions to invest in the construction of ferries to link towns divided by rivers in the countryside and along Long Island Sound. In 1660, the first ferry was granted for Niantic.\textsuperscript{19} In 1668, another ferry approved to operate over the Connecticut River and to be located in Windsor. Two years later, another ferry was approved between Stratford and Milford on Long Island Sound.\textsuperscript{20} By 1700, there were nine ferries operating in the colony.\textsuperscript{21}

By 1700, the country roads and ferries were improving transportation in the colony, further increasing the division of labor. From Map 5.1, it is clear that most of the early roads were linking farmers in the countryside with market towns, mainly Hartford and New London. To be sure, these roads were not always well kept and early travel accounts speak to treacherous conditions and the ferries were often dangerous.\textsuperscript{22} However, by 1700, the foundations for increased internal market expansion were laid. There were 31,500 settlers scattered throughout the colony.\textsuperscript{23} The five market towns, or those with direct access to overseas markets, in the colony had a combined population of around 5,000.\textsuperscript{24}

\begin{flushleft}
\footnotesize
\begin{itemize}
\item \textsuperscript{19} CCR 1, 357.
\item \textsuperscript{20} CCR 2, 86, 136.
\item \textsuperscript{21} Mitchell, \textit{Roads and Road-Making}, 19.
\item \textsuperscript{22} In 1684, the Connecticut government issued a report declaring, “whereas there is great neglect found in maintaining of the highways, between town and town, the ways being encumbered with dirty slowes, bushes, trees and stones and etc…CCR 3, 157.
\item \textsuperscript{23} Daniels, \textit{Connecticut Town}, 25, 33, 47, Table 1.
\item \textsuperscript{24} Main, \textit{Society and Economy}, 86.
\end{itemize}
\end{flushleft}
5.2: The Development of the Market Economy, 1700-1772

After 1700, Connecticut’s involvement in the Atlantic economy deepened, as new markets opened up in the West Indies, the scale of the coastal trade expanded, and the volume of shipbuilding in the colony grew. This increase in Atlantic trade further boosted the level of specialization and the development of the division of labor in the colony. Though farmers continued to engage in mixed farming and produce the same commodities as the seventeenth century, there was a shift in the colony towards more diversification and regional specialization. For one thing, farmers produced several cash crops in different parts of the colony. Experiments with hemp and silk had largely failed, but two notable successful crops were flax and tobacco. In 1640, the Connecticut government decreed that all farms should keep a patch in flax. But, it was not until the opening of Ireland to direct trade with the 13 colonies in 1730 that the flax industry really took root in Connecticut. After 1730, farmers growing flax concentrated in Fairfield and Hartford Counties. Farmers in the Windsor area focused on growing tobacco for export to the West Indies and coastal markets. Middletown focused on wheat production and flax. Furthermore, livestock raising primarily for export, though a practice found throughout the colony, was becoming more concentrated in specific parts of the colony. Sheep and hog raising was concentrated in the salt meadows along Long Island Sound, while shipping horses and oxen were being raised in Windham County and driven overland to New

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25 See Chapters 2-4.
27 See Chapter 3.
London and Rhode Island. A sizeable overland trade in livestock also existed from Litchfield County to New York. The dairy industry was concentrated around the lower reaches of the Connecticut River and the towns of Lyme and Stonington. In particular, Wethersfield underwent the most marked transformation, becoming the onion capital of the Atlantic World. In 1744, one traveler referred to Wethersfield as a town “with plantations of onions”. Finally, Potash works spread throughout the colony after 1750.

In addition, the expansion of Atlantic commerce gave rise to the development of several market towns in Connecticut. The classification of towns in the colony is a complicated subject and requires further comment. In his seminal work on Connecticut towns on the eve of the Revolution, Bruce Daniels, using as a measure the “quantity of economic services a center performed and by the center’s position relative to other centers”, classified each of Connecticut’s 73 towns into one of three categories: urban towns, secondary market towns, or country towns. Daniels identified five urban towns in Connecticut: New London, Hartford, New Haven, Middletown, and Norwich. Each town engaged in extensive overseas trade and acted as entrepots for surrounding towns. Daniels identified 25 secondary markets towns. 21 of these towns engaged in overseas trade, but at a reduced level and had limited trade with surrounding towns. The remaining four were interior towns without direct

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access to overseas trade. The remaining 43 towns were countryside farming towns, located deeper in the interior of the colony, lacking access to direct overseas trade.\textsuperscript{30}

It was Connecticut involvement in the Atlantic economy that fostered the development of the five urban towns and 21 secondary market towns. 26 out of the 30 urban and secondary market towns were located on either the Connecticut River or Long Island Sound and engaged directly in overseas trade. Only New Haven and New London could be termed port towns, however. Under the British Navigation Acts, New London and New Haven were the only legal ports of entry and clearance in Connecticut. Therefore, vessels stationed in any other Connecticut town had to first obtain the proper clearance and entrance certificates from either port before engaging in overseas trade. Despite this imperial stipulation, merchants in any town in Connecticut located on Long Island Sound or the Connecticut River from Windsor southwards could engaged in Atlantic commerce.

Exports to Atlantic markets fostered the development of the five urban and 21 secondary market towns through the spread of linkages. The largest linkage was shipbuilding. As we have seen in Chapter 4, all of these urban and secondary market towns had shipyards constructing vessels for domestic use and sale overseas. Shipbuilding spawned several ancillary industries in these towns, such as rope works, caulkers, iron works, and sail works. Building a vessel also employed joiners, block makers, carvers, cabinet makers, small-boat builders, riggers, coopers, glaziers,

\textsuperscript{30} Daniels, \textit{The Connecticut Town}, Chapter 6.
painters, braziers, bricklayers, and chandlers.\textsuperscript{31} The stationing of vessels in each market town further spawned linkages. Voyages to the West Indies and coastal markets took their toll on Connecticut’s sailing vessels. After each voyage, merchants incurred various costs for repair and replacement of shipping inputs. For instance, New London merchant Nathaniel Shaw’s Sloop \textit{Dove} required several repairs and other inputs before embarking on its second voyage to the French West Indies in June 1769. In addition to repairs to the sails and rigging and cork work, the sloop needed various items to carry out its intended voyage, such as cordage, iron, nails, oakum, naval stores, and oars, various types of lumber, oil, shovels, brooms, and candles. All together, the bill for these repairs and sailing items amounted to £155 (sterling). Before departing on its third voyage in March 1770, the sloop required less repairs and inputs, as the total bill amounted to only £46 (sterling).\textsuperscript{32}

There was a strong correlation between the growth of Atlantic trade and the volume of shipbuilding in Connecticut on the one hand and the development of the five urban and 21 secondary market towns on the other hand.

Moreover, exports to Atlantic markets induced investments in other linkages leading to the further development of these 26 towns. The export trade fostered the construction of infrastructure such as wharves and docking facilities, for the landing of vessels and the loading and unloading of cargoes. Export commodities also required the construction of warehouses for storage before carriage overseas and the

\textsuperscript{32} Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw Account Book 4.
redistribution of imports inland, such as John Watts’s warehouse on Long Wharf in New Haven where rum, molasses, sugar, and grains were stored.\textsuperscript{33} The export of each commodity entailed the creation of processing industries to facilitate its final sale to overseas markets. Lumber mills operated throughout the urban and secondary market towns to supply timber for export to the West Indies and for ship construction and repair. Some of this timber was fashioned into staves, shingles, and hoops for export to the West Indies. Coopers set up shops in all of these towns to create wooden casks to export foodstuffs to Atlantic markets. Connecticut’s meat exports required the creation of slaughterhouses throughout these towns. For instance, in the late 1750s, one lot of land located on Norwich’s landing had two slaughterhouses in operation.\textsuperscript{34} Furthermore, flour mills and baking houses opened in the market towns to facilitate the export of flour and bread, such as Christopher Miller’s New London shop that offered loaf and ship bread for sale.\textsuperscript{35} In addition, the export of livestock fostered the development of holding pens in these towns, where animals could feed before being shipped to the West Indies.

Imports from Atlantic markets also fostered the development of linkages in these 26 towns. The importation of West Indian molasses induced investments in rum distilleries in the colony. There were at least 5 rum distilleries operating in the colony by the Revolution. For example, in 1768, the “New London Distillery” offered customers “choice new rum” made in Connecticut at prices comparable to

\textsuperscript{33} Connecticut Journal 1/20/1769.
\textsuperscript{34} New London Summary 8/10/1759.
\textsuperscript{35} New London Gazette 1/8/1768.
those in Boston or New York City.\textsuperscript{36} Imports from Atlantic markets also led to the development of retail stores in these towns, where domestic consumers could purchase commodities from all over the world. The advertisements of general stores in Connecticut are almost identical in their stock listings. In the mid-1760s, stores in Hartford (urban town) and Rocky Hill (secondary market town) offered English loaf sugar, snuff, pepper, Irish linens, Barcelona handkerchiefs, ribbons, silk mitts, Calamanco shoes, coffee, indigo, ginger, pewter, and many other goods.\textsuperscript{37} In 1760, Aaron Bull’s Hartford store offered a very neat assortment of European as well as India goods suitable for the season, as well as lead, glass, nails, and various other metal goods.\textsuperscript{38} Richard Wait’s New London (urban town) store offered a range of textiles, hats, glass, nails, and tea, an assortment of goods identical to that offered in Peter Verstille’s Wethersfield (secondary market town) store in 1769.\textsuperscript{39}

Moreover, decades of importing manufactured goods from Atlantic markets prompted domestic merchants to invest in small-scale import substitution industries, a process that really accelerated after 1750 and was concentrated in the five urban towns. In 1715, New Haven began producing wooden clocks and by 1750 there were clockmakers in Hartford, all of which supplied at least a portion of the colony’s market. In Norwich, Christopher Leffingwell, a merchant with extensive dealings in the West Indian trade, opened a paper mill (1766), a stocking loom (1766), a fulling

\textsuperscript{36} \textit{New London Gazette} 7/22/1768.
\textsuperscript{37} \textit{Connecticut Courant} 9/1/1766.
\textsuperscript{38} \textit{New London Summary} 8/15/1760.
\textsuperscript{39} \textit{Connecticut Courant} 9/4/1769.
mill (1770), a dye house (1770), and a chocolate mill (1770). Moreover, there were scattered industries in the urban towns, such as three paper mills and one pottery works by the Revolution. Connecticut also boasted a considerable number of silversmiths, mostly working in the urban towns. There were only 13 in operation before 1750 and 125 operating between 1750 and 1790. Most wagons purchased in Connecticut were made in Boston. But, in the mid-1760s, two merchants set up wagon making shops in Hartford and Middletown. Nicolas Brown’s Hartford shop built carriages cheaper than those available in Boston or New York City. In Hartford, merchants developed leather works to limit the volume of imports from neighboring colonies, particularly Boston and New York.

The development of these urban and secondary market towns created a large urban population not producing its own sustenance, particularly in the five urban towns. The population of the five urban towns was 22,487 in 1756. According to the 1774 census, the total population of these five towns was 31,419, representing 16% of the colony’s population of 197,856. The development of linkages in the market towns, retail trades, and small-scale import substitution industries led to changes in the composition of Connecticut’s workforce. According to Jackson Turner Main’s estimates, the proportion of adult males that could be classified as farmers was 60%
in the period 1700-1729, only 30% of adult males consisted of artisans for the same period. By 1770, the proportion of farmers had declined to 55% and the artisan class rose to 35% of the much larger population of adult males.\footnote{Main, \textit{Economy and Society}, 271, Appendix 7A.} The development of the five urban towns and 21 secondary market towns in the colony deepened the development of the division of labor and the growth of the domestic market. Trends evident after 1680 had intensified as involvement in the Atlantic Economy accelerated after 1700.

This is the fundamental relationship between countryside towns and the urban towns. The function of urban towns, mainly engaging in Atlantic trade, depended on the countryside towns for its export commodities. Lumber for export, barrel making, and ship construction and repair, grains, and meat were produced throughout the countryside. As the scale of Connecticut’s involvement in the Atlantic economy increased, merchants in market towns had to search further inland for sources of supply for export commodities. Moreover, as the market towns became more urbanized, the growing resident population required foodstuffs from the countryside towns. Overall, involvement in the Atlantic economy pulled producers in Connecticut’s countryside towns into market production for export markets. The process was deepened as involvement in Atlantic trade fostered the development of the 26 urban and secondary market towns in Connecticut, where a growing population came to rely on producers in the countryside towns for their sustenance.
Throughout the eighteenth century, there was an increase in agricultural productivity within Connecticut and a gradual shifting of available resources out of subsistence production and into market exchange, though measuring both trends is impossible due to the lack of statistics. However, there is much evidence suggesting that the colony did experience productivity growth and an extensive shift of resources into production for market exchange down to the Revolution. For one thing, the population of Connecticut was growing astronomically, while the area claimed by the colony remained stable. In 1700, there were 31,502 settlers in the colony and 181,583 by 1770.\textsuperscript{47} Given the fixed total acreage of the colony (1,988,668 according to a 1790 survey), the per capita acreage available to settlers declined from 63 acres in 1700 to only 11 acres per settler in 1770.\textsuperscript{48} Such a clear diminution of available land has led scholars to the conclusion that yields on farms were declining and prospects for obtaining farms were declining leading to diminished economic opportunities for remaining settlers and ultimately to a net outflow of people to other regions of North America.\textsuperscript{49} Though Connecticut did experience an outflow of people after 1760, the population continued to increase from 145,217 in 1760 to 181,583 in 1770.\textsuperscript{50} Nevertheless, despite the decline in available lands and the rising population, Connecticut farms were always able to feed the domestic population.

Table 5.1 highlights the net imports (imports minus exports and re-exports to the

\textsuperscript{47} Daniels, \textit{Connecticut Town}, 47, Table 1.
\textsuperscript{48} The statistic on total acreage is derived from Percy Wells Bidwell and John I. Falconer, \textit{History of Agriculture in the Northern United States, 1620-1860} (New York: Peter Smith, 1941): 120, Table 16.
\textsuperscript{49} This is the major thrust of Albert L. Osborn, \textit{Agricultural Economy and the Population in Eighteenth Century Connecticut} (New Haven: Yale University Press, 1935).
\textsuperscript{50} Daniels, \textit{The Connecticut Town}, 47, Table 1.
West Indies) of foodstuffs into New England from the rest of British North America. With the exception of rice (a commodity grown only in the Lower South) and dried fish, Connecticut farms were able to meet all of the needs of the domestic population. This point requires further emphasis. With declining acreage per settler throughout the colony, a population growing astronomically, and a growing urban population in the urban towns requiring sustenance, Connecticut farms were able to feed the domestic population and provide a sizeable surplus for export that ranked among the highest in certain commodities. This is clear evidence that productivity grew and resources were shifted out of subsistence production and into production for market exchange.

### Table 5.1 New England’s Net Import of Foodstuffs from Coastal Markets, 1770

<table>
<thead>
<tr>
<th></th>
<th>Rhode Island</th>
<th>Massachusetts</th>
<th>New Hampshire</th>
<th>Connecticut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn (bushels)</td>
<td>14,072</td>
<td>156,748</td>
<td>17,833</td>
<td>0</td>
</tr>
<tr>
<td>Oats (bushels)</td>
<td>0</td>
<td>21,882</td>
<td>1,190</td>
<td>0</td>
</tr>
<tr>
<td>Rye (bushels)</td>
<td>3,022</td>
<td>21,883</td>
<td>955</td>
<td>0</td>
</tr>
<tr>
<td>Wheat (bushels)</td>
<td>9,522</td>
<td>79,294</td>
<td>729</td>
<td>0</td>
</tr>
<tr>
<td>Onions (ropes)</td>
<td>0</td>
<td>50,562</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bread &amp; Flour (tons)</td>
<td>812</td>
<td>4,170</td>
<td>392</td>
<td>0</td>
</tr>
<tr>
<td>Beef &amp; Pork (tons)</td>
<td>49</td>
<td>899</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>Butter (lbs)</td>
<td>265,712</td>
<td>31,950</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cheese (lbs)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Dried Fish (quintals)</td>
<td>2,341</td>
<td>0</td>
<td>0</td>
<td>2,445</td>
</tr>
<tr>
<td>Pickled Fish (barrels)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Peas (bushels)</td>
<td>485</td>
<td>5,260</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>Potatoes (bushels)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rice (barrels)</td>
<td>1,843</td>
<td>1,716</td>
<td>60</td>
<td>233</td>
</tr>
<tr>
<td>Tallow (lbs)</td>
<td>0</td>
<td>118,590</td>
<td>2,766</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: All data was derived from Customs 16/1. To arrive at net imports, all coastal exports of foodstuffs were subtracted from the volume of imports. In addition,
because many of these coastal imports were re-exported to the West Indies, all food exports to the West Indies were subtracted from coastal imports.

Connecticut’s involvement in the Atlantic economy explains the creation of markets in the coastal and West Indian trade and domestically in the rising urban towns for producers in the countryside towns. Connecticut’s involvement in the Atlantic economy also explains the impetus to greater market production in the countryside towns. The growth in Connecticut’s export trade included an attendant increase in the volume of imported manufactured good and tropical groceries. Whether in market towns or countryside towns, Connecticut residents shared the common desire to purchase manufactured goods and tropical groceries. To obtain imported manufactured goods and West Indian commodities, household intensified their work effort all over the colony, shifting resources into production for market exchange. Like their counterparts throughout British North America, Connecticut consumers were taking part in the Consumer Revolution, a wave of consumption that was propelled by the desire to obtain the latest fashions of British-produced cloth, ceramics, glassware, paper, and cutlery, as well as tropical groceries. The desire to consume imported commodities was driving the expansion of the market economy in Connecticut.

The evidence on the widespread consumption of imported commodities throughout Connecticut is unequivocal. From their examination of the probate

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records, Jackson Turner Main and Gloria Main have compiled an index of amenities, or a class of twelve types of consumer imports found in most surviving inventories. The Main’s index encompasses time pieces, bedding, household furniture and linens, books, tableware, and earthenware, commodities all imported from England. From their compilations, they found that the consumption of these commodities was highest in the urban and secondary market towns in 1700. But, by 1770, there was a colony-wide convergence in the consumption of these items, as the countryside towns registered increases commensurate with the urban and secondary market towns.\(^{52}\)

The Main’s evidence from probates clearly demonstrates that all consumers in Connecticut were participating in the Consumer Revolution. However, their data only examines manufactured imports. West Indian imported groceries also spread throughout the colony. In 1770, the per capita consumption of rum (West Indian and New England) had reached 3 gallons per year, while per capita consumption of sugar amounted to .94 lbs.\(^{53}\) Per capita consumption was probably much higher, considering the large population under the age of 10 (31% of the population in 1774) and the roughly 6,000 slaves in the colony, which probably did not consume any rum and only limited sugar. Such a large sum meant that all regions of the colony were consuming this imported spirit and sugar.


\(^{53}\) Rum imports derived from John J. McCusker, “Rum and the American Revolution: The Rum Trade and the Balance of Payments in the 13 Continental Colonies, 1650-1770” unpublished Ph D. Dissertation, University of Pittsburgh, 1970, 472, Table 8.1, 474, Table 8.2. For Sugar, statistics were based on retained imports of muscovado and loaf sugar (imports from the West Indies and coastal markets minus re-exports to coastal markets) reported in Customs 16/1.
The desire to consume imported commodities induced a greater willingness to work harder in individual households to obtain the means to pay for them. To obtain the means to pay for imports, households in countryside towns had to produce for market exchange. The need to raise more livestock and focus on producing surpluses beyond family needs prompted a reallocation of household labor towards market production. The male heads of households employed wives and children in various tasks to increase production for market exchange and bolster family purchasing power.

Recent research on colonial New England has emphasized how household increasingly employed children in farm labor, which helped to augment household purchasing power. At an early age, children were charged with watching over their younger siblings, opening time for their mothers to engage in other market activities (see below). Around the age of 6 or 7, children began working directly with their parents. There was a clear gender division of labor among children, with boys working with their fathers in the fields and girls employed in cooking, household duties, spinning cloth, and candle making.

The Hempsted family of New London offers a detailed picture of the employment of children. The head of the family, Joshua Hempsted (1678-1758) had nine children born between 1699 and 1716. Hempsted held a series of occupations, including farmer, carpenter, shipbuilder, merchant in the West Indian trade, and

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served as a business agent for others. Hempsted employed his boys on the family farm once they reached 10 years of age. By employing his children on the family farm, Hempsted was able to specialize in other jobs, while minimizing the opportunity costs of lower production. For example, while Hempsted was working for Connecticut Governor Gurdon Saltonstall on October 16, 1712, his son Nathaniel (11 years old) was home making 8 barrels of cider, the sale of which earned the family 10 shillings (Connecticut currency). On December 12, 1712, while Hempsted was working as a business agent for Mr. Winthrop, his sons Nathaniel (11 years old) and Joshua (10 years old) drove 40 sheep to market. In March 1714, while Hempsted cut trees in a nearby forest, his sons transported them to the family farm. Even when Hempsted worked on his farm, his sons’ labor increased overall output. On July 28, 1714, while Hempsted mowed hay, his sons raked and stacked it. Employing his sons in ancillary operations (transporting commodities to market and producing goods on the farm), Hempsted was able to increase the productivity of the family farm and specialize in other tasks (shipbuilding and working as a business manager for others), effectively raising his household’s purchasing power.

In addition to working on their family fields and in their households, Connecticut children were often hired out to neighbors for wages. The Graves family of Guilford, Connecticut exemplifies this trend. John Graves IV had six children, who were all hired out to neighbors for a variety of day work once they turned the age

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of 10. Over the course of the eighteenth century, the wages paid to boys throughout New England increased from 10.3 pence (sterling) per day in 1700 to 16.2 pence (sterling) per day in 1770. Joshua Hempsted also hired out his sons for day labor. For example, on July 20, 1714, his three sons, Nathaniel (11), Joshua (10), and Steven (9), worked at a neighboring farm gathering corn. The presence of children in families pushed the household demand curve for market commodities outwards, particularly for clothing. On the other hand, the employment of children on family farms, in the household, and for day work on other farms pushed the supply curve outwards, increased household earnings somewhat, and boosted productivity as parents’ time was freed to specialize in more productive tasks.

For adults, the development of the gender division of labor fostered household specialization and productivity. The gender division of labor essentially involved the allocation of work into specific tasks: men primarily tended to the clearing, mowing, and reaping of the fields, clearing timber, and employing livestock with only marginal help from females. Women, on the other hand, specialized in raising poultry and other small animals, overwhelmingly controlled the dairy industry, ran the household, and tended to the garden. For other regions of British North America, it has been argued that women did not usually produce marketable commodities, but rather focused more on family subsistence. For Connecticut, women served a dual role. On

57 Main, Peoples of a Spacious Land, 149.
59 Diary of Joshua Hempsted, 36.
the one hand, their labor certainly bolstered household sustenance. On the other hand, they dominated the production of two significant export commodities: onions and dairy products. In Connecticut, women were integral to increasing farm output and productivity, as well as allowing men to specialize in other field work. As women focused on producing commodities to feed the household, men could devote more of their labor to produce market commodities, now that at least part of their family’s sustenance was achieved. One of the keys to their ability to produce household sustenance was the kitchen garden, usually a one acre plot of land devoted to raising vegetables, fruits, and roots. Working the garden required year round labor, usually consisted of young daughters and adult women. Over the course of the year, the garden’s produce supplied at least a portion of family food needs, allowing the rest of the farmland to be devoted to market production.

In addition, recent research has shown how women’s labor further augmented household purchasing power through spinning and weaving. An examination of Connecticut probate records around 1774 has revealed that 80-89% of households owned a spinning wheel, suggesting that domestic spinning was quite widespread in the colony. By spinning and weaving textiles for the household, women and young daughters were able to meet at least part of their family’s requirements for these goods. However, this new trend was not a reflection of the family turning away from the market, but rather a deeper engagement with it. Laurel Thacher Ulrich has shown

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that by producing textiles, such as aprons and towels, mothers and daughters reallocated the household budget towards finer textiles and other market commodities. Moreover, the eventual dominance of females over spinning and weaving allowed men to specialize in farming and other tasks. Furthermore, by selling their output on the market, Women’s small-scale textile production in Connecticut further augmented household income. Homespun textiles could be exchanged at retail shops for other commodities. And, women could sell their labor for store bought goods. For instance, between October 1738 and November 1741, the widow Sarah Butler purchased “merchandize” valued at £.77 (sterling) from Elisha Williams’s general store in Wethersfield. Payment was made in four homespun bags and 102 bunches of onions. Between October 1738 and October 1742, Sarah Kilborn purchased £1.5 (sterling) worth of merchandize at Williams’s store. To pay part of her bill, Kilborn spun 8 lbs. of tow cloth and tied 224 bunches of onions. At Thomas Caldwell’s Guilford retail shop, Deborah Lee purchased several pieces of earthenware, rum, molasses, ginger, sugar, and several other goods amounting to just under £2.3 (sterling) between October 1757 and August 1760. She paid almost half of her bill by spinning cloth for Caldwell. Likewise, Abigail Dorwen’s paid for her purchases of earthenware and textiles between April 1759 and July 1761 by spinning

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for Caldwell. These examples reveal how women were able to augment purchasing power in households in order to increase the consumption of imported commodities.

The industrious revolution was fostering the expansion of production for market exchange; transportation improvements were facilitating this process by increasing the access of farmers in the countryside towns to markets. After 1700, as market opportunities increased, Connecticut merchants had to obtain export commodities and livestock from a wider region in the colony. Likewise, producers deeper in the countryside required access to port towns to vent their commodities and livestock. Overcoming this bottleneck was the central aim of most petitions to the Connecticut government for the construction of new country roads, bridges, and ferries after 1700. Over the next 70 years, several dozen petitions for such improvements were granted by the government, creating a vast transportation linking most regions of the countryside with market centers. The construction of new roads opened vast stretches of the colony to the Atlantic economy, further developing the creation of a domestic market and the market economy. In addition to roads, dozens of ferries and bridges were approved throughout the colony over the course of the eighteenth century. Map 5.2 illustrates Connecticut’s system of roads down to 1770.

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65 Guilford Keeping Society, Ledger Book Collection, Guilford Public Library, Guilford, Connecticut, Thomas Caldwell Account Book.
66 The volumes of the Connecticut Colonial Records are inundated with granted petitions between volumes 5 and 13, which cover the period 1700-1770.
The activities of a few Connecticut merchants gathering livestock for export to the West Indies exemplify the geographic spread of commercial activities throughout the countryside. Between 1768 and 1772, New London merchant,
Nathaniel Shaw, dispatched dozens of vessels to the West Indies, all of which carried livestock and other commodities. To obtain shipping livestock, Shaw traded with producers in nine Connecticut towns. All together, Shaw’s account shows that he purchased 194 horses, 162 oxen, 12 cows, and 64 sheep from producers in these towns. The accounts of Hartford merchant Charles Caldwell also indicate an expansive range of operations. Caldwell was a general importer and exporter primarily to the West Indies, but he also engaged in a widespread wholesale trade in beaver hats. Between 1761 and 1764, Caldwell sold these hats to retail stores throughout Connecticut, exchanging them for shipping livestock for his West Indian ventures. In sum, Caldwell acquired livestock from fifteen towns in the colony, purchasing a total of 66 horses and 49 cows. Map 5.3 illustrates the range of Caldwell and Shaw’s activities assembling livestock for export to the West Indies.

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67 Shaw’s purchases were derived from Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Account Book 25.
Map 5.3 Nathaniel Shaw and Charles Caldwell’s Purchases of Livestock for Export to the West Indies, 1761-1768

Source: Map taken from www.about.com/geography/free maps. Blackened areas represent towns in which Shaw and Caldwell obtained shipping livestock.

Incomplete records from other merchants furnish further evidence on the growth in the geographic range of assembling livestock for shipment overseas.

Stonington merchant John Doan purchased horses from Preston farmers throughout
the eighteenth century. In preparation for an upcoming voyage to the West Indies, Joseph Trumbull purchased one horse in Colchester, two in Haddam, and some in Lebanon, all of which were driven down to Norwich for export. In 1768, Preston store keeper, Moses Morse, sold two horses to Norwich merchant John Safford for 47 pair of shoes.

The question is were these livestock being raised on farms specializing in their breeding? It is clear that specialized plantations in Narragansett, Rhode Island were raising livestock and other commodities specifically for export to the West Indies. Surviving records do not indicate that livestock were raised on such specialized farms in Connecticut. What the records do reveal is that farms all over the colony raised some livestock for export to the West Indies. In particular, farmers in Windham County raised the largest number of horses and oxen for export to the islands. Map 5.4 illustrates the dominant region of Connecticut horse raising. Scattered evidence suggests that horse raising was widespread in the county, rather than concentrated on a few large farms. The export of livestock involved a two-tier system of organization. Merchants in the port towns handled the export of the animals overseas and the importation of commodities for consumers in the countryside. In the countryside, a second tier of merchants travelled around to farms, taverns, and retail stores to

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69 Connecticut State Library, Hartford, Connecticut, RG 3 New London County County Historical Files, Box 52, Folder 7, case 137 Doan vs. Gates.
70 Connecticut Historical Society, Hartford, Connecticut, Joseph Trumbull Family Papers, Box 1, Folder 1, Joseph Trumbull to Captain Charles Clark,” December 14, 1762.
71 Connecticut State Library, Hartford, Connecticut, RG 3, New London County County Court Files, Box 153, Folder 12, Case 246, Morse vs. Safford.
assemble groups of livestock for export and to distribute imported commodities in exchange. In 1768, Nathaniel Shaw wrote to correspondents throughout the county requesting shipping horses and oxen for an upcoming voyage to the West Indies. In response, Edmund Badger of Windham wrote, “I received your letter for horses in 3 weeks. I can supply 5 or 6, maybe more…I will take a ride around to see how many I can get”.

Map 5.4 Center of Horse Raising, Windham County, Connecticut 1766

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73 Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, “Edmund Badger to Nathaniel Shaw,” July 18, 1768.
We have seen how livestock were crucial to the sugar making industry in the West Indies. In much the same way, the sugar industry was crucial to livestock raising in Connecticut. To obtain cargoes of livestock for export to the West Indies, Connecticut merchants paid farmers mostly in West Indian commodities. For example, in 1770, Preston farmer, John Coggeshall, sold his horse to a New London merchant for 106 gallons of West Indian rum. Table 5.2 shows New London merchant, Nathaniel Shaw’s sales and purchases with merchants throughout Windham County. The raising of livestock for export to the West Indies was crucial for the production of sugar, molasses, and rum. Those same commodities were crucial in the raising of livestock in the Connecticut countryside.

<table>
<thead>
<tr>
<th>Windham Purchases</th>
<th>Windham Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar (lbs)</td>
<td>42,414</td>
</tr>
<tr>
<td>Rum (gallon)</td>
<td>16,728</td>
</tr>
<tr>
<td>Molasses (gal)</td>
<td>14,234</td>
</tr>
<tr>
<td>Indigo (lbs)</td>
<td>414</td>
</tr>
<tr>
<td>Salt (bushel)</td>
<td>50,160</td>
</tr>
<tr>
<td>Cotton (lbs)</td>
<td>319</td>
</tr>
</tbody>
</table>

Source: Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw Account Book 25.

74 Connecticut State Library, Hartford, Connecticut, RG 3 New London County County Court Files, Box 154, Folder 2, Case 168.
Scattered correspondence from Windham County merchants confirms the primacy of West Indian commodities in daily transactions for shipping livestock. In July 1766, Zebulon Case of Lebanon sold Nathaniel Shaw several shipping horses, all of which were to be paid for entirely in sugar. In August 1767, Windham merchant John Elderkin visited Shaw’s New London house requesting three hogsheads of rum, two hogsheads of molasses, and 30 lbs of indigo. In exchange, Elderkin promised to send down shipping oxen and horses in several months time. To Windham merchant, James Flint, Shaw ordered two shipping horses in July 1768, a request Flint easily filled for one hogshead of “good rum”.75

Transportation improvements opened up the towns in the countryside to the Atlantic economy; the spread of retail shops and taverns solidified the process of market expansion. These two institutions were fundamental in linking the countryside towns to the Atlantic economy. Retail shops, whether in major port towns or in the countryside, offered consumers the latest manufactured imports and tropical groceries. Though their primary offering was alcohol, taverns also supplied manufactured goods and other tropical groceries. Furthermore, stores and taverns collected goods from farms throughout the countryside, shipping them to New Haven or New London for export to overseas markets.76

75 Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, “Zebulon Case to Nathaniel Shaw, July 1766”, “John Elderkin to Nathaniel Shaw, 8/12/1767,” “James Flint to Nathaniel Shaw, 7/28/1768”.
Connecticut retail shops were not very sophisticated in their appearance. A few Connecticut retail shops have survived from the colonial period allowing for an examination of their layout. According to historian Glenn Weaver

The equipment of the eighteenth century store was most rudimentary. Walls were shelved for the storing and display of small items. Bins held grains and powders. Goods shipped in barrels or buckets were merely left in the opened containers. Each store had a ledger desk at which the shopkeeper kept his accounts and which served as the ‘office’. There were always several scales. A small and accurate scale was used to weigh coins so as to make sure that they had not been ‘clipped’ or ‘sweated’. Steelyards of various sizes were used to weigh merchandise for sale or purchase…Always there was a small counter or wrapping table across which passed a great variety of goods, some of which came from the far parts of the earth.\(^77\)

Despite their unassuming appearances, Connecticut retail shops offered the latest variety of manufactured imports from Europe (metal goods, textiles, ceramics, for example) as well as tropical groceries, regardless of their location in the colony. Examining the spread of retail shops in the countryside is rendered impossible owing to scant sources. Licenses were not needed to operate retail shops and account books have survived for only a few before the Revolution. An examination of surviving colonial town maps and town records suggests that each town had between one and five retail shops.\(^78\) Assuming that the average was three retail shops for every town, and then there were 219 retail shops in operation in Connecticut’s 73 towns by 1770. Retail shops were stationary institutions spreading the market to towns in the countryside.

\(^78\) Daniels, *The Connecticut Town*, 156.
Selling commodities from all over the Atlantic World, retail stores brought the consumer revolution to Connecticut’s countryside towns. An examination of sales in one month in 3 countryside town retail stores reveals that these resident consumers had direct access to the same range of commodities available to their counterparts in the urban towns. In April 1760, Nathan Hubbell had 147 customers visit his retail store in Wilton, Connecticut. Textiles of all varieties constituted the largest single category of goods sold. In total, Hubbell sold 201 yards of various textiles, 10 sticks of mohair, 19 skeins of silk, 18 skeins of thread, 2 handkerchiefs, 2 bonnets, 5 stockings, and 2 pairs of gloves. West Indian commodities were the second largest group of commodities sold. In total, Hubbell’s customers purchased two cakes of chocolate, one pint of rum, 81.5 lbs of sugar, 40 gallons of molasses, and 1.5 lbs of ginger. Metal goods constituted the third largest group of commodities. Hubbell’s total metal sales encompassed 2,268 lbs of steel, 1,596 lbs of iron\textsuperscript{79}, and 16 hoes. In addition to these items, Hubbell sold a variety of household goods, including one set of tea ware, one set of knives and forks, one almanac, two thimbles, three wine glasses, 18 punch bowls, 1,678 buttons, five lbs of soap, four glass panes, 12 lbs of nutmeg, five combs, 3.5 lbs of powder, and 1.5 lbs of chalk. What is more telling is that Hubbell’s only sales of domestically-produced commodities were three brooms, five deerskins, 23 lbs of tobacco, two bushels of wheat, and five bushels of beans.

\textsuperscript{79} It is not clear if the iron and steel sales were imported commodities or domestically produced in Killingworth and Salisbury.
Over 99% of commodities sold to customers constituted imported commodities from Britain or the West Indies.  

In April 1760, William Williams had only 18 customers visit his retail store in Lebanon, Connecticut. However, like Hubbell, Williams primarily sold textiles. Total textile sales amounted to 27 sticks of mohair, five skeins of thread, five handkerchiefs, one bonnet, three pairs of stockings, two skeins of silk, and 136.5 yards of various textiles. Furthermore, Williams sold six sets of shoe buckles, 347 buttons, one snuff box, and two ink pots. Williams sold only limited quantities of domestically-produced commodities, including 1 lb of bread, one broom, and two reams of paper. Over 99% of the sales at Williams store were from Britain.

In April 1773, Ebenezer Punderson’s retail store in Preston, Connecticut had the largest volume of sales of the three. 363 customers visited Punderson’s store during this one month. Like Williams and Hubbell, Punderson’s primary sales were textiles. Total textiles sales amounted to nine handkerchiefs, two skeins of silk, eleven hats, three blankets, two pairs of mittens, nine sticks of mohair, and 465 yards of various textiles. Total sales of metal goods amounted to 8 lbs of lead, three files, four locks, two pots, six knitting pins, two knives, 169 lbs of iron, and five candlesticks. Total sales of various household goods amounted to six plates, eight platters, two sets of cups, five teapots, one fan, four packs of pins, three buckles, seven book, one pane of glass, four bowls, twelve spoons, three basins, four combs.

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two sets of playing cards, one cake of soap, 271 buttons, and 13 giblets. Total sales of West Indian commodities amounted to eleven bushels of salt, 10 lbs of coffee, 92.5 lbs of sugar, 55 gallons and one pint of rum, and 86 gallons and two quarts of molasses. Punderson also sold a total of four gallons of brandy. Sales of domestically-produced commodities totaled 1.5 lbs of tobacco, 36.5 bushels of oats, one bushel of beans, and six pairs of shoes. Like Hubbell and Williams, imported commodities represented more than 99% of Punderson’s sales.  

The evidence from just one month of sales at three countryside town retail stores is clear. Imported commodities constituted the overwhelming majority of sales, and the two largest categories were textiles and West Indian commodities. Thus, retail stores helped to bring the consumer revolution to Connecticut’s countryside towns. By the end of the colonial period, Connecticut consumers had access to another source of imports: travelling peddlers. Moving across the countryside selling small quantities of imports, travelling peddlers extended the market place further into the countryside, particularly in regions with marginal access to country shops.  

Retail shops in countryside towns helped to distribute imported commodities for sale and also helped to collect and ship commodities produced on local farms for export to overseas markets. In the mid-1760s, Charles Hinkley ran a retail shop in the countryside town of Lebanon, selling a variety of imported goods. At times, Hinkley

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82 Sales were compiled from Connecticut Historical Society, Hartford, Connecticut, Ebenezer Punderson Daybook, 1772-1774.
purchased part of his stock from New London merchant Nathaniel Shaw. Between April 1766 and September 1767, he purchased from Shaw a range of textiles, a cask of raisons, a barrel of rice, a tierce of claret, 4,788 lbs of sugar, 65 lbs of indigo, 538 gallons of molasses, and 107 lbs of coffee. In payment for these supplies, Hinkley shipped Shaw four horses, four oxen, 9.5 tons of hay, two barrels of pork, 4,354 lb of shoats, 71 bushels of corn, and 772 lbs of cheese. These items represented the exchanges that Hinkley made for imports with surrounding farmers and most of them were further exported by Shaw to the West Indies. To the Kennedy and Badger retail shop in the countryside town of Windham, Shaw supplied 559 gallons of molasses, 4,184 lbs of sugar, 40 lbs of indigo, 109 lbs of cotton, and one dozen lemons, receiving payment in 19 horses and 1,300 hoops.  

Taverns were fundamental in spreading the market economy into Connecticut countryside towns. Providing lodging for travelers, postal services, and entertainment and drink for local residents, taverns were fundamental institutions in the lives of early Americans. Scholars have recently argued that taverns were also vital to spreading the market economy to towns throughout the countryside in colonial British North America by linking surrounding farmers with the Atlantic economy. Even though tavern licenses required that the owner cater primarily to travelers, these institutions often served as general stores as well. Taverns sold imported

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84 Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw Account Book 25.
commodities to local farmers, taking surplus commodities in payment. These surplus goods were then transported to every major port for export to overseas markets.  

The number of taverns operating in Connecticut underwent a considerable increase over the course of the 1700s. Quantifying the number of taverns operating in Connecticut is relatively easy given that all operations required a license from the county court. There are some caveats however. Records before 1720 are incomplete on tavern licenses. Also, scholars have generally agreed that many taverns were operating illegally without obtaining a license. In Philadelphia, illegal taverns (those without license to operate) may have represented two-thirds the number of legal taverns. Thus, surviving licenses can only be taken as a minimum of how many taverns existed in the colony. Of the legally licenses taverns, there was impressive growth over the course of the eighteenth century. In 1720, there were 75 licensed taverns operating in Connecticut. The number of licensed taverns in operation in 1770 was 429, an almost six-fold increase over 1720. Figure 5.2 illustrates the breakdown of taverns by county in 1770.


87 Thorp, “Taverns and Tavern Culture,” 668.

88 Number based on tally of tavern licenses granted. No record existed for Fairfield County, so the total for New Haven (14) was used. Connecticut State Library, Hartford, Connecticut, RG 3, Hartford County County Court Records, Volume 3; New London County County Court Records, Volume 12; New Haven County County Court Records, Volume 12.

89 Based on tally of tavern licenses granted. Hartford had no records for 1770, so 1772 was used and New London had no records for 1770, so 1768 was used. Fairfield had no records for 1770, so 1764 was used. Connecticut State Library, Hartford, Connecticut, RG 3, Hartford County County Court Records, Volume 18; Fairfield County County Court Records, Volume 11; Litchfield County County Court Records, Volume 4; New Haven County County Court Records, Volume 7; New London County County Court Records, Volume 24; Windham County County Court Records, Volume 12.
The location of these taverns is revealing for the spread of the market economy throughout the countryside. In 1770, there were 73 towns in Connecticut, of which 26 were urban and secondary market towns. A total of 174 taverns operated in these 26 towns. The 47 countryside towns had a total of 262 taverns in operation. Therefore, the growth of taverns took place throughout the colony and was not just an urban phenomenon. The two most rural counties, Windham and Litchfield, had a combined total of 141 taverns in 1770, or 32% of the total in the colony. Figure 5.3 displays the growth of taverns operating in Windham County, the dominant region of Connecticut livestock raising for export. Along with serving alcohol to local farmers, these taverns were also providing stabling services for the thousands of oxen and horses being shipped out of the colony each year.

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90 Daniels, *The Connecticut Town*, 146. This tally only represents towns that were located on bodies of water.
Connecticut taverns in countryside towns not only catered to travelers, but also served as bars for local residents. Scholars have concurred that alcohol was central to the diet and social activities of early Americans. Alcohol was seen as healthy and nutritious. In a sense, alcohol supplemented daily caloric intake, relieved the taxing demands of daily labor, and often cured certain ailments. Aside from hard cider and beer, most of the alcohol consumed in Connecticut was imported. It is difficult to quantify the percentage of distilled beverages served in all of the taverns, but three dominated: rum, wine, and brandy. Of these three, rum constituted the drink of choice at every tavern. In 1769, at John Owen’s tavern in the countryside town of Simsbury, total alcohol sales amounted to a total of 55 gallons of rum, 1 gallon of brandy, and 3 gallons of cider. In 1769, at his tavern in the countryside town of

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Suffield, Isaac Owen sold over 300 gallons of rum, 200 gallons of molasses, and only 10 gallons of brandy. In addition, both Owen taverns sold sugar, soap, men’s suits, shoes, paper, pins, and tape, along with alcohol.

The role of taverns and alcohol in spreading the market economy throughout the Connecticut countryside cannot be exaggerated. By the Revolution, every Connecticut town had at least two, and many had much more. Moreover, alcohol was a powerful inducement to production for market exchange. Even if it proved ruinous to social mores, marriages, and long-term health, Connecticut residents drank copious amounts of it. The consumption of three gallons of rum per person in 1770 does not include the consumption of wine, brandy, beer, or locally produced cider. The lure of this addictive import attracted farmers all over the colony to engage in market production to obtain the means to imbibe at the local tavern. In a sense, taverns helped to further break down the subsistence economy in the deeper countryside in Connecticut. Moreover, the purchase and consumption of alcohol was a year long process. On January 2, 1769, the local farmer Israel Foster was the first customer to enter John Isaac’s tavern in Simsbury, Connecticut. Over the course of the year, Foster visited Owen’s tavern a total of 20 times, purchasing small quantities of rum that in the aggregate amounted to almost two gallons for the year. The second customer visiting the tavern on January 2, 1769, Jacob Davis Sr., visited the tavern a

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total of 12 times purchasing a total of 1.5 gallons of rum and 1 gallon of cider.\textsuperscript{93} Isaac Owen’s tavern in Suffield sold alcohol in much larger quantities each year. For instance, in 1768, local resident John Southwell visited the tavern 30 times, purchasing 8 gallons of rum, 1 gallon of molasses, and 14 lbs of sugar. During his 14 visits in 1768, local resident Aaron Phelps purchased 3 lbs of raisins, 4.5 gallons of rum, and 3 gallons of molasses, while over the course of 18 visits in 1768, William Thrall purchased 6.5 gallons of rum and 1 lb of sugar.\textsuperscript{94} Selling alcohol and other imports, collecting surplus commodities from local farmers, and transporting these commodities to market, taverns were central in the expansion of the market economy. Furthermore, taverns were sites of information for local farmers, where posts could be collected and colony newspapers were read. Farmers visiting countryside taverns could read stories indicating market conditions throughout the Atlantic. For instance, hurricanes, droughts, and other calamities could signal market opportunities (or the lack thereof) for farmers in the countryside. In addition, Connecticut merchants used local newspapers to advertise their desire to purchase “shipping horses” or “horses fit for shipping”.\textsuperscript{95} Taverns were the site for the spread of this market information throughout countryside towns. Alcohol played a role that scholars have not yet recognized in this process of market expansion. It was not for nothing that an advertisement for the Salisbury Iron Furnace noted that it was difficult to feed workers at the furnace owing to the scarcity of people in the region. But, if the

\textsuperscript{94} Connecticut Historical Society, Hartford, Connecticut, Isaac Owen Account Book.
\textsuperscript{95} New London Gazette 2/2/1759, 11/19/1762, 1/4/1767; New London Summary 9/19/1760.
furnace offered local residents English and West Indian commodities for sale, food and livestock would be forthcoming to feed the workers producing iron.  

The ubiquity of taverns and alcohol in the Connecticut countryside was not lost on contemporaries. Indeed, it was billed as one of the more pernicious customs in the colony. After the passage of the Townshend Acts in 1767, the countryside town of Preston held a meeting to pass laws aimed at halting the growing volume of imports. Among the commodities listed were spirituous liquors of all kinds. The meeting’s resolution stated, “With the detestable and odious practices of creating taverns debts; the too plentiful use of rum by the farmers in prosecuting farming business and all the like imprudences”. In a stronger pronouncement against rum, Incutius Americanus wrote

Spirituous liquors have been a pernicious instrument in effecting our present calamities. Taverns have been overstocked with tipplers from morning till morning; drinking clubs, the bane of society, formed in every part of the country…Our corn, our cattle and horses, the fat of our land have been exported for rum and wines, those promoters of vice, sickness and want. This folly has become so prevalent, that it is now an established custom among our day laborers, that their employers afford not less than an half pint of the choice West India spirits for one day’s consumption, so that every workday sinks not less than 3 pence of the wealth of this country.

Along with selling alcohol, taverns connected farmers to the Atlantic economy, by storing and transporting commodities to ports for export markets. In October, 1767, Eliakim Demming’s tavern in the countryside town of Farmington caught fire, destroying the 200 bushels of wheat and an unknown quantity of corn

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97 New London Gazette 4/1/1768.
98 New London Gazette 1/20/1769.
More important than the storage of grains and other foodstuffs, taverns provided sustenance to livestock awaiting shipment to the West Indies. Given Connecticut’s dominance of the livestock trade to the West Indies and the need to ship healthy animals overseas, taverns served a very crucial role in Connecticut. As livestock were assembled in the countryside, they needed proper feeding and protected enclosures in case of storms or other predators lurking in the woods. Connecticut taverns supplied both good pasture lands for temporary feeding as well as lots and barns for housing animals overnight. In 1769, John Owen’s Simsbury tavern charged local resident William Morrill 3 shillings for keeping 6 oxen before their final shipment to market. In 1768, William Bingham opened a new tavern in the countryside town of Canterbury, Connecticut. Aside from being a good house of entertainment for travelers and gentlemen, the new tavern offered “good keeping for horses, cattle, etc”. Taverns in urban towns also supplied this vital role, particularly when livestock reached New London or New Haven for final shipment overseas. For instance, in March 1751, the owners of the Sloop Sarah drove a number of horses and pigs from Windham County to New London, where the vessel awaited to transport them to the West Indies. Before the vessel was fully loaded for sailing, the livestock had to be housed and fed at John Braddock’s tavern in New London for several days.

99 Connecticut Courant 10/26/1767.
100 New London Gazette 4/15/1768.
101 Connecticut State Library, Hartford, Connecticut, RG 3, New London County County Court Files, Box 91, Folder 12, Case 160 Abell vs. Fanning.
Ascertaining how farmers settled their accounts with tavern owners is more complicated, as the surviving account books are merely daybooks indicating sales and only occasional payments. Tavern owners John Owen of Simsbury and Isaac Owen of Suffield accepted payment in cash, grains, and day labor. For instance, at Isaac Owen’s tavern, local resident John Granger purchased a total of 24 gallons of rum and one gallon of molasses between 1766 and 1771. His total bill of £6 11 shillings (lawful money) was settled by exchanging wheat and corn and 13 shillings in cash. Local resident John Drake’s bill of £2 18 shillings (lawful money) was settled with £1 3 shillings (lawful money) in cash and the rest in wheat and rye.\(^{102}\)

Whether taverns in countryside towns were paid in cash or commodities is inconsequential. What is clear these countryside taverns supplied the market towns with commodities either purchased from resident farmers or received as payment for tavern bills. The exchange operations whereby taverns received their supplies of alcohol and other commodities further indicate their role in spreading the market economy in Connecticut. Windham tavern owner, Eleazar Cary, purchased 80 gallons of rum and 15 kegs of brandy from New London merchant Nathaniel Shaw between February 1769 and September 1770. In exchange for these imports, Cary paid Shaw with 1,134 lbs of beef, 51 bushels of oats, and two horses. These commodities represent part of the payment that Cary received for his services in his tavern and additionally his own purchases from farmers with cash. Shaw sold Norwich tavern owner, Elisha Lord, 116 gallons of molasses and one keg of brandy,

\(^{102}\) Isaac Owen Account Book.
for which payment was made with one yoke of oxen, two horses, and 800 hoops. To Windham tavern owner, Abner Flint, Shaw sold 1,328 gallons of molasses, 4,086 gallons of rum, 2,144 lbs of sugar and 36 lbs of indigo between October 1767 and March 1770. Flint paid for these commodities with 103 horses, four oxen, five barrels of beef, and 29 sets of trust hoops.  

On the eve of the Revolution, Connecticut had transformed into a market economy. The spread of the market economy can be illustrated by looking at the increase in the value of Connecticut’s grand lists after 1700. Figure 5.4 shows the growth in the value of Connecticut’s grand list. Overall, there was a nine-fold increase in the value of the list over the course of the eighteenth century. In the last twenty years of the colonial period, the value of the grand list increased by £600,000 (lawful money), indicating the increasing economic complexity of the colony and the spread of the domestic market.  

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103 Yale University, Sterling Library, Department of Manuscripts and Archives, Nathaniel and Thomas Shaw Family Papers, Nathaniel Shaw Account Book 25.  
104 Rabushka, *Taxation in Colonial America*, 385, Table 13.5, 475, Table 12.6, 605, Table 21.8, 781, Table 26.6.
Figure 5.4 Value of Connecticut's Grand List, 1700-1772
(all values in £000 Connecticut Currency)
The spread of the market economy in Connecticut proceeded down to the Revolution. Scholarship has largely overlooked Connecticut’s colonial economy. Nevertheless, Connecticut’s role in supplying foodstuffs and livestock for the Continental Army has received much more attention. During the Revolution, Connecticut became known as the “Provisions State” owing to the extraordinarily large supplies of foodstuffs the state produced for the war effort between 1775 and 1783. Connecticut farms supplied provisions for its own forces, privateers operating in the colony, French forces between 1780 and 1782, and became a major supplier for the Continental Army. In addition, Connecticut remained self-sufficient during the war, except in salt. According to the Congressional Requisition of 1780, Connecticut was the largest supplier of beef, oxen, and horses, the second largest supplier of bacon, and the third largest supplier of flour and grain. All of this was accomplished while a large number of adult males were away from their farms serving in the army.105 Connecticut’s recognized role in the Revolution yet backwards image during the colonial period presents a major disconnect in the scant literature on the colony. How could a colony supposedly disconnected from the larger Atlantic economy with unproductive farming practices suddenly awaken in 1775 and provide the Continental Army with so much food and livestock?

The development of the market economy in the colony down to 1775 accounts for this role. With the outbreak of hostilities in 1775, army contractors relied on supply chains in the countryside, one used for the transport of food and livestock for

export to the West Indies. Instead of exporting these commodities, the contractors merely redirected their sale to the Continental Army. Perhaps the best example of this is the activities of Henry Champion, a Connecticut Commissary of supplies during the early stages of the war. Between July and December 1778, Champion collected 1,265 cattle and 768 sheep, most of which were derived from suppliers in Colchester, Norwich, Hebron, Lebanon, and East Haddam. These were also major centers where Nathaniel Shaw derived most of his shipping livestock.

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Conclusion

The preceding chapters have examined colonial Connecticut’s integration into the Atlantic economy and how this process led to the development of a market economy in the colony. The Atlantic economy united producers and consumers throughout the basin in complex networks of exchange. Like a powerful magnet, the Atlantic economy drew the resources devoted to subsistence production throughout the basin into production for market exchange.

Trade with the West Indies represented the largest branch of Connecticut’s involvement in the Atlantic Economy. After 1680, Connecticut merchants began dispatching vessels to the West Indies, carrying livestock, foodstuffs, and lumber. Return cargoes consisted primarily of sugar, molasses, and rum and smaller quantities of cocoa, chocolate, ginger, coffee, cotton, and indigo. After 1700, there was an enormous increase in the volume of Connecticut’s trade to the West Indies. In particular, Connecticut vessels, in contravention of the Navigation Acts, traded with foreign colonies in the West Indies, particularly the French, Dutch, and Danish. On the eve of the Revolution, over 260 vessels left Connecticut annually for the West Indies.

It was after 1700 that Connecticut specialized in the export of livestock to the West Indies. Connecticut vessels always carried myriad commodities to the islands, but livestock constituted the most valuable cargo after 1700. On the eve of the Revolution, Connecticut led the rest of British North America in the supply of
livestock to the West Indies. Horses and oxen that spent the first several years of their lives grazing on farms throughout Connecticut toiled on plantations in the British and foreign West Indies, powering mills to crush cane, transporting items around plantations and tropical commodities to port for export, and spreading dung to rejuvenate overworked fields. Pigs and sheep that spent their first years grazing on the salt marshes on Long Island Sound also provided dung to revitalize fields on sugar plantations throughout the West Indies before they were slaughtered for fresh sources of protein for plantation consumption. Onions grown in Wethersfield, meat prepared and barreled in Norwich, corn raised throughout the Connecticut River Valley, and butter and cheese produced on Long Island Sound provided a portion of the daily diet of slaves and white overseers throughout the West Indies. Many of the tens of thousands of wooden casks carrying tropical groceries to Atlantic World markets and the buildings in the islands were made from Connecticut trees.

Connecticut’s trade to the rest of British North America constituted the second largest branch. After 1680, Connecticut vessels exported foodstuffs primarily to Boston, the dominant port of British North America. The Atlantic economy created Connecticut’s coastal trade. As New England ports, such as Boston, Salem, Nantucket, Newport, and Providence, developed maritime economies, urban populations rose that required foodstuffs beyond the capabilities of domestic sources. The largest branch of Connecticut’s coastal trade was the supply of these burgeoning ports with domestically produced foodstuffs. Every year, the hundreds of vessels departing Connecticut for the rest of New England exported a portion of the daily
calories consumed by the urban population of New England. Shoppers entering retail shops in Boston, Nantucket, or Newport would find stocks of “choice Connecticut” peas, onions, butter, corn, and cheese. By the mid-eighteenth century, flaxseed that was grown throughout Connecticut filled the holds of vessels departing New York for Ireland, where this vital raw material was used in the linen industry. Likewise, Connecticut potash filled the holds of vessels departing Boston and New York for Britain. While Connecticut supplied essential commodities to neighboring colonies, the coastal trade provided the means for Connecticut merchants to obtain manufactured imports. Because Connecticut never developed a sizeable direct trade to England, Connecticut imported British manufactured goods from Boston and New York.

Connecticut’s integration into the Atlantic economy fostered the development of shipbuilding in the colony. As the West Indian and coastal trades developed, shipyards were constructed in most Connecticut towns on the Connecticut River and along Long Island Sound. Connecticut shipyards constructed almost all of the vessels domestic merchants used in their mercantile activities. Furthermore, Connecticut shipyards constructed vessels for merchants in Boston, Newport, and New York. Close to one out of four vessels owned in New York were built in one of the many shipyards operating in Connecticut. Furthermore, many Connecticut-built vessels were sold in the West Indies, where they engaged in tramp trades among the various islands of the basin. Finally, a small number of Connecticut-built vessels were sold to
Britain. Connecticut-built vessels could be found in most ports of the Atlantic World throughout the eighteenth century.

Connecticut’s integration into the Atlantic economy fostered the development of a market economy in the colony. Before 1680, hostilities with Native Americans and the Dutch in New Amsterdam siphoned Connecticut’s resources into defense spending. After 1680, however, Connecticut began the process of integration into the Atlantic economy. This initial integration led to the development of several market towns, where commodities were exported and imports were distributed throughout the colony. It was this period that witnessed the development of a division of labor within Connecticut. An urban population developed in these market towns requiring foodstuffs from producers in countryside towns. Facilitating this division of labor, investments were made in transportation improvements, particularly country roads and ferries, to link the market towns with producers in the countryside.

After 1700, Connecticut involvement in the Atlantic economy accelerated, deepening the development of the market economy in the colony. Trade to Atlantic markets fostered the development of urban market towns in the colony through the creation of backward and forward linkages. The export of commodities created shipyards, lumber mills, flour mills, and other processing industries, all of which were concentrated in the 26 market towns along Long Island Sound and the Connecticut River. Imports fostered the development of retail shops, rum distilleries, and eventually small-scale import substitution industries in these market towns. The development of these market towns deepened the division of labor in the colony, as
the growing urban population required increased supplies of foodstuffs from
countryside towns.

It was the industrious revolution, or the reallocation of household labor to
produce for market exchange in order to obtain imported commodities, that
underscored the development of a market economy in the countryside towns of
Connecticut. Whether in market towns or countryside towns, Connecticut residents
shared a common desire to consume the flood of manufactured goods and tropical
groceries entering British North America over the course of the eighteenth century.
Connecticut households in countryside towns devoted more labor, mainly that of
children and women, towards production for market exchange in order to obtain the
means to consume imported manufactured goods and West Indian groceries.

Facilitating the expansion of the market economy, merchants and farmers all
over Connecticut petitioned the colonial government for investments in transportation
improvements. Throughout the eighteenth century, investments in roads, bridges, and
ferries linked every countryside towns with the market towns easing the movement of
farm goods to market and the distribution of imported commodities throughout the
colony. The diffusion of retail stores and taverns further solidified the process of
market expansion, as consumers throughout the countryside found ready access to a
vent for their surplus commodities and imported commodities. These countryside
retail stores and taverns collected farm goods and livestock and sent them to market
towns for consumption among the urban population and export to Atlantic markets.
This dissertation has contributed to the growing body of literature analyzing the impact of the Atlantic economy on the various regions of the basin. By analyzing Connecticut, this dissertation has shed light on one of the neglected colonies in the literature on the Atlantic World. Over the past several decades, scholars have devoted increased attention to the study of the Atlantic World. However, there remains a considerable imbalance. For one thing, the focus has been on the larger colonies (South Carolina, New York, Virginia, and Massachusetts), while only passing attention has been devoted to smaller colonies like Connecticut.

This dissertation has presented a Cis-Atlantic model for Connecticut’s history, though with some qualifications. David Armitage argued that Cis-Atlantic approaches focus on how the Atlantic world shaped the historical development of smaller regions.\(^1\) It is clear that the Atlantic world shaped the evolution of a market economy in Connecticut. Connecticut producers shifted production into market exchange to obtain Atlantic imports.

However, Connecticut’s export of these commodities also shaped the evolution of other regions of the Atlantic economy. The West Indian sugar plantations relied on livestock to increase production. The functioning of the maritime economies in New York, Massachusetts, and Rhode Island relied on producers in Connecticut to sustain operations through imports of foodstuffs and commodities to re-export. As Jack Green and Philip Morgan recently stated, “Events

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in one corner of the Atlantic world reverberated thousands of miles away.” And those reverberations could ricochet and influence the original source.

Moreover, this dissertation has confronted one of the larger criticisms of Atlantic history: the national focus. Most works on Atlantic history continue to focus on national histories: such as the Dutch Atlantic or the British Atlantic, for instance. Connecticut’s integration into the Atlantic economy, however, involved the crossing of several imperial boundaries. Connecticut livestock were exported to sugar plantations throughout the West Indies regardless of nationality. The greater reliance of planters in the foreign West Indies on livestock meant that a large share of Connecticut’s exports to the West Indies crossed national boundaries. The horse trade to the West Indies was driving the expansion of a market economy in Connecticut and sustaining production in the British and foreign West Indies.

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