Chapter 1 A New Assessment of the Transatlantic Slave Trade

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The transatlantic slave trade was the largest transoceanic forced migration in history. Peoples throughout time had been forced to relocate in response to natural disaster, military defeat, or exhaustion of resources. Not quite as old was the forced movement of individuals to be sold in markets far removed from their homelands. Wherever slavery existed, and there were few parts of the globe where it was unknown, a slave trade was usually necessary to sustain the long-term viability of the institution. But at the start of the sixteenth century, the shipment of a few slaves from the Iberian Peninsula to the New World initiated a new phenomenon in human experience. Slaves were crowded together in small ships and dispatched thousands of miles to plantations, where they generated large quantities of produce—none of which was vital to the nourishment, clothing, or shelter of the consumers who devoured it. Relatively small improvements to the quality of life of a people on one continent—stemming from cheaper sugar, alcohol, and tobacco (labor for cotton did not come from the slave trade)—were made possible by the removal of others from a second continent, and their draconian exploitation on yet a third. In the

process this third continent, the Americas, was comprehensively repeopled, not initially with Europeans but with Africans. Prior to 1820, about four Africans arrived in the Americas for every single European.

What made this unprecedented, coerced movement of peoples possible? It is almost inconceivable to those living today that for most of the Atlantic slave-trade era (and of course, for eons before this point), trading and forcibly moving people was in moral terms considered no different from buying and moving the merchandise such people might produce. From recorded time in most societies, slave trading had been as accepted an institution as slavery itself. If an expanded slave trade could reduce the price of sugar, then there was certainly no moral constraint to prevent the slave trade from expanding. What made the expansion of transatlantic slavery and the slave trade possible were new opportunities to obtain slaves rather than greater acceptance of servitude per se; such acceptance was a given. The new opportunities emerged first from a mastery of winds and ocean currents that greatly facilitated transoceanic transportation, and second from the collapse of the North American aboriginal populations as an alternative source of labor to migrants from Africa and Europe and the related emergence of large transatlantic differentials in labor productivity. Third and most important were intercontinental differences in conceptions of social identity. On the African coast, both Europeans and Africans traded in people that they looked upon as outsiders. Both sides in the transactions that put captives into the filthy below-deck environment of a slave ship had clear ideas of what made some peoples eligible for the status of captives, and what excluded others—by definition, "insiders." The exclusively African composition of the transatlantic slave flow stemmed from the fact that Europeans saw all other Europeans as insiders and therefore not potential slaves, whereas the African conception of "insidership" covered a geographic region somewhat smaller than sub-Saharan Africa.[1]

Fifty years ago the transatlantic slave trade was seen as marginal to the development of the Americas and certainly to the major patterns of global history. It was viewed as an unfortunate and minor episode, even within the context of the global movement of peoples. Since the 1950s, however, it has moved steadily toward the center of the consciousness of professional historians and the general public alike. Print publications, museums, television documentaries, and Web sites dedicated to the subject proliferate. Why? As the above summary suggests, the striking features of the transatlantic slave trade in global history terms are its scale, its racial basis, the uniquely awful below-deck conditions to which its victims were subjected, and the sheer distance it

spanned. Yet in the face of the many other horrors of history, these features in themselves seem inadequate to explain the recent explosion of interest. Perhaps more important is that interest in the past is always driven by the concerns of the present, the disclaimers of historians notwithstanding. While no counterpart to the slave trade exists today, the disconnect between the values that made the slave trade possible and modern concern with human rights, as well as the burgeoning multicultural composition of modern societies, appears ever more stark and demanding of explanation. It is, after all, less than 150 years since the last slave ship crossed the Atlantic in 1867.

Coupled with this compelling dichotomy between the present and a recent (yet ideologically remote) past is the fact that tools now exist for us to uncover so much about the subject. The evidentiary base is strong *because* the slave trade and slavery survived almost into the modern era. It is also strong because the slave trade was a business that involved accounts and careful record keeping, and it was a business, moreover, in which governments on both sides of the Atlantic took a keen interest. Far more records have survived for this branch of migration than for any other. We may know far more about the movement of Europeans to the Americas than we do about Africans in broad terms, but on the transoceanic phase of that movement, the situation is quite the reverse. The voyages of free migrants, convicts, and even indentured servants have by comparison largely disappeared from our view, at least in terms of their numbers, their direction, and what those on board endured, despite the fact that the last two of these three groups were in temporary servitude and thus subject to sale in the New World. The density of records on the slave trade is such that it is just conceivable that some documentary trace of every slaving voyage that occurred—at least after 1700, when 85 percent of the transatlantic slave trade took place—survives to the present. In the future it will be possible to retrieve ever larger shares of the information that has survived. It appears that more records on slavery and the slave trade remain than for most other institutions of historical interest. Interest in the slave trade has expanded not only as a result of the changing values of society, but more mundanely as a result of the evolution of personal computers and the large amounts of information that they can digest.[2]

Readers should be aware of the wider project to which the essays presented in this volume belong. Philip Curtin's well-known 1969 book *The Atlantic Slave Trade: A Census* initiated the modern era of slave-trade studies and triggered a wave of research into slave-trading records in Europe, Africa, and the Americas.[3] Almost forty years later, we are on the brink of a complete

reconstruction of the history of the transatlantic slave trade from the early sixteenth century through to its close in 1867. The level of detail now possible was unimaginable when Curtin published his book. Where Curtin sought to track slaving activities by centuries or quarter centuries, we can now do so on an annual basis, at least from the mid-seventeenth century onward. Where Curtin grouped ship departures to Africa by nationality, and embarkations and disembarkations of slaves by African coastal regions or American colonies, we can now do the same on a port-by-port basis. Where Curtin could only identify places of embarkation and disembarkation of slaves separately, we can now reveal links across the Atlantic and track how they changed through time. Where Curtin could only measure shipboard mortality through the percentage of losses of slaves in transit, we can now estimate shipboard mortality rates and the factors that helped to shape them. The evidential base for the study of the Atlantic slave trade (and the computational capacity for storing and interrogating it) has been revolutionized.

The density and range of the new discoveries have meant that a full synthesis and reassessment of the transatlantic slave trade must be preceded by additional groundwork. Three preliminary steps are necessary: (1) the organization and publication of the massive amount of new data on slave-trade voyages; (2) the production of a convenient and accessible reference to summary statistics derived from these data; and (3) sustained scholarly attention to several branches of the slave trade that were previously known only in outline (to complement what has been learned about the British, French, and Dutch slave trades). The first two of these preparatory phases are now complete. The raw data on the slave voyages are available on an open-access Web site based at Emory and Hull universities in the form of a permanent database. This tool enables both scholars and the general reading public to view the building blocks of new interpretations of the slave trade, as well as make their own contributions of new data and corrections. The new open-access Web site and Yale University Press's *Atlas of the Slave Trade* represent the second preliminary step, providing easily accessible statistical and cartographical representations of the Atlantic world's involvement in the slave trade, all of it derived directly from the new database.

The essays in this book complement the new database and the *Atlas,* and complete the foundations for new interpretations and a new version of Curtin's *Census.* Each of the essays deals with a branch of the slave trade that the new data have allowed scholars to explore systematically for the first time. In recent years new research on the South Atlantic slave traffic has not kept pace with the research efforts devoted to the major northern slave powers. The

present collection does much to redress this balance, especially for English-language readers.

While this volume is primarily an intermediate and preparatory step toward what we hope will be a new era of slave-trade studies, in this introduction we nevertheless go beyond merely setting a framework for the new essays. We offer in addition a preliminary reexamination of the overall volume of the slave trade by national flags, African regions, and destinations of slaves in the Americas. In terms of the last reassessment of the slave trade, made with the data as they stood in 1999, this introduction thus constitutes an update of several essays in the special issue of the 2001 *William and Mary Quarterly*, especially the first essay.[4] We also draw on the Eltis and Lachance chapter in this volume to attempt a reconciliation of the new estimates of the slave trade's volume with population data in one major region of the Americas: the Caribbean. Such an integration of two branches of the historiography—slave demography and the slave trade—was first tried by Curtin in his 1969 book but by surprisingly few of the many scholars who subsequently revised his slave-trade estimates.

We begin by reviewing the work carried out since the publication of the 1999 CD-ROM and the articles it made possible. Readers who wish to follow the earlier debates are referred to Per Hernaes's excellent 1997 summary, but it should be noted that the main conclusion of that overview was that slave ships had carried off 12.8 million Africans to the Americas over nearly four centuries.[5] The publication of *The Transatlantic Slave Trade: A Database on CD-ROM* in 1999, containing details of 27,233 voyages, formed the basis of a new overall assessment of the transatlantic slave trade.[6] At that point we thought that 9.66 million Africans had arrived in the Americas, the survivors of 11.06 million carried from Africa.[7] Thus, at first sight, the voyage data as they were in 1999 had apparently reversed the findings of thirty years' research by reducing the consensus estimates of the mid-1990s, essentially suggesting that Curtin had been correct all along. Closer examination of our revision of nine years ago also showed that, while the new findings for the volume of the slave trade were similar to Curtin's, the distributions of the slave trade over both time and space were markedly different from those of both Curtin and his critics. More important, however, our work on the CD-ROM database and since then has involved a shift in the way patterns of the slave trade, including its size, could be assessed. In broad terms, it is now possible to track these patterns with data on voyages alone, instead of with combinations of voyage information, contemporary opinion, and demographic research.

The essays in this book are all based on research completed since the publication of the 1999 database. They do not ignore either contemporary opinions on the size and direction of the trade or demographic data. Nevertheless, they could not have been written without recently discovered archival data. Collectively they represent a major shift toward reliance on shipping data. The reason for this shift lies in the strengths of the new database. Both versions of the transatlantic slave-trade database, the 1999 CD-ROM as well as the revised online version—henceforth called TSTD1 and TSTD2, respectively—are multisourced. By this we mean that the great majority of the voyages contain information that comes from more than one source.[8] While hard-copy published lists of voyages that were multisourced first appeared in 1978, TSTD1 was the first electronic data set on the slave trade that employed this basic strategy. Thus, if the same voyage appears in different records created, say, in Europe, Africa, or the Americas, the information is integrated and the different sources are listed. Indeed, we have allowed for seventeen separate sources of information per voyage, although only eight voyages have all seventeen source variables completed. A great part of our research effort has been directed to eliminating double and triple counting of the same voyage. Over 80 percent of the voyage entries in TSTD2 have more than one source, and on average there are between three and four sources of information for each voyage.[9] In short, the density and weight of the information now available on individual slave voyages have increased the database's reliability and comprehensiveness. Population data, vital rates, and the opinion of contemporaries are now useful chiefly for the independent checks they might provide for voyage-based assessments or, as the present essays show, helping to fill in gaps in the shipping records for the pre-1700 era before the slave trade's rapid expansion.

What has been added to TSTD1 in the last few years? It was clear in 1999 that the largest hole in the data comprised missing voyages that had sailed under the Portuguese flag. The compilers of the 1999 set were also aware of weaknesses in the coverage of the Spanish trade, which in its transatlantic manifestation was active only in the first 150 and the last 85 years of the slave-trade era—either side of the trade's eighteenth-century peak, in fact. Other potential gaps existed for the large trade based in London before 1662 and again between 1711 and 1779, the Dutch trade between the Brazilian interlude and the founding of the second West-Indische Compagnie in 1674, and the early French trade. Between 2001 and 2005, a group of scholars funded by an Arts and Humanities Research Board grant (UK) filled in or severely reduced most of these gaps.[10] Archives in Luanda, Rio de Janeiro, Bahia, Lisbon, Havana, Madrid, Seville, Ghent, Amsterdam, Copenhagen, London,

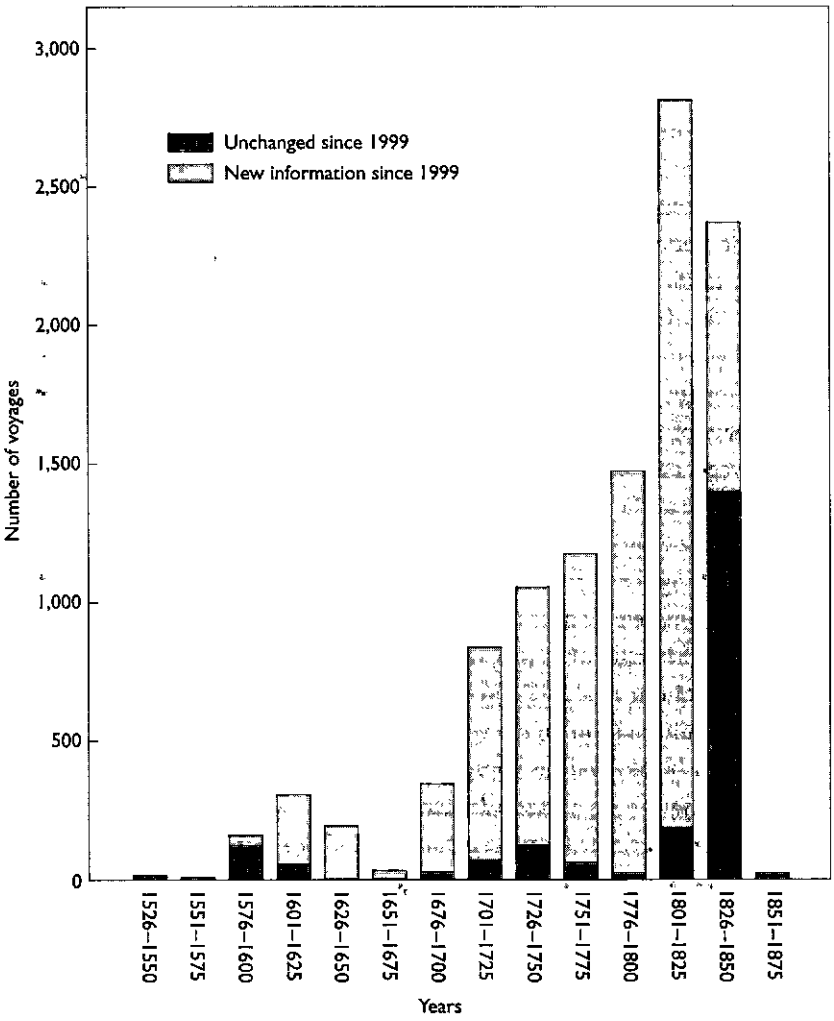

Figure 1.1 Portuguese and Brazilian Voyages with New Information since 1999
Source: Calculated from TSTD2.

and Middelburg, the Netherlands, as well as extensive eighteenth-century newspaper holdings in the Bodleian and British libraries, have been exploited. Scholars unconnected with the project have given generously of their time and the archival data that they themselves have collected.[11] This research effort has resulted in the discovery of 8,232 additional slave voyages that we were not aware of in 1999. Just as important, it has allowed us to modify 19,729 voyages that were already included in the 1999 database.

The enormous advance in our knowledge of the Portuguese and Brazilian trade is shown in figure 1.1. Whereas the first edition of the database contained 6,183 records of voyages under these two national flags, the new edition has 11,382 such entries. Of the 6,183 voyages in the 1999 edition, over two-thirds have had new information added in the last five years. Figure 1.1 shows how the distribution of this new information is concentrated in the years 1676 to 1830—the period when the Portuguese and then (after independence) the Brazilian traffic was at its height. Thus over 60 percent of the slave voyages added to the database since 1999 are Portuguese and Brazilian crossings that occurred when that trade was at its peak.

Each voyage in both TSTD1 and TSTD2 allows for 226 variables covering the identity of the ship, the major geographic and population characteristics of its voyage, and six different dates as the vessel tracked around the Atlantic. The structure of the database follows the voyage from its point of departure in Europe or the Americas through to its return to home base after first buying and then selling slaves.[12] It need hardly be said that while large, the new database is not complete. It does not include all the transatlantic slave voyages that ever sailed, although what proportion of all voyages it does include forms a central part of our new assessment of the volume and direction. Nor does it include full information on the voyages that it does contain. Many of the variables remain blank, and no voyage in either the new or the old database includes information on all 226 variables. Indeed, a few entries have little more than a date and a single location recorded. Table 1.1 summarizes what the new database offers by showing the coverage for eighteen of the most important of the 226 variables. Geographic information is particularly well represented. Rows 9, 11, and 13 indicate that almost all voyages are associated with a particular location, and two-thirds have transoceanic connections in the form of two or more place names specified. The table also shows that that coverage of ownership, shipboard mortality, and the age and sex composition of captives, while less abundant than the geographic variables, is still extensive. Clearly, major information gaps remain for some voyages already in the database and for those voyages that scholars have yet to discover. The traffic to Rio de Janeiro and Pernambuco prior to 1700 and to Bahia de Todos os Santos before 1678 is thinly represented. A greater share of the slaving expeditions to the British Caribbean before 1662, and to the French before 1710, are in the new database, but the data are still deficient. Thus the remaining gaps in the data are generally for the earlier phases of the slave trade, when the flow of traffic was much smaller than it eventually became.

Table 1.1 Select Summary Information Contained in the Revised Transatlantic Slave Voyage Data Set (TSTD2)

Number of slave voyages in the data set	34,808
Voyages with a record of the name of the vessel	33,207
Voyages with name of captain(s)	30,755
Voyages with name of at least one ship owner	20,978
Number of Africans imputed to have embarked on slave ships	10,125,456
Number of Africans imputed to have disembarked from slave ships	8,733,592
Size of crew provided on one or more legs of voyage	13,253
Voyages showing tonnage of vessel	17,592
Voyages reporting place of ship departure in Europe or the Americas	28,505
Date of ship departure in Europe or the Americas	25,265
Voyages reporting place(s) of embarkation on the African coast	26,939
Voyages reporting specific numbers of Africans embarked	8,547
Voyages reporting place(s) of disembarkation	28,985
Dates of arrival at place(s) of disembarkation	23,478
Voyages reporting numbers of Africans disembarked	18,473
Voyages reporting number of Africans died on board	6,382
Voyages with age or gender of Africans disembarked reported	3,570
Outcome of voyage indicated	31,077
Evidence of slave revolt or attacks from shore-based Africans	530

Source: TSTD2.

To convert this mass of new data into new interpretations of the slave trade, it is necessary to make some assumptions and inferences. Two major types of inferences are required. Because few voyages in the historical record contain complete information on the routes taken and the captives carried, we have to surmise where the vessel went and how many slaves it carried. Often we know where the voyage intended to go but not whether it actually arrived. For other voyages we might know the numbers purchased but not the number sold or vice versa, or in some cases we know only the number the captain intended to buy. In the case of 3,600 voyages—10 percent of the new data set—we know only that the slaving venture set out for Africa.

The first set of estimates—or more accurately, inferences—relate to missing information for a given voyage. The extent of the missing information for the key variables is indicated in table 1.1. It would be wasteful to set aside all such voyages, and we have chosen instead to create a number of additional variables that use historical data when they are available and inferences when they are not. Thus we assume that all vessels reached the Americas with slaves, unless information to the contrary exists. Similarly, on the geography

of the trade, we have assumed that a vessel actually reached the port to which it intended to sail, again unless information to the contrary has been found in the historical record. Finally, if no information on the number of captives put on board a vessel exists, an average mortality rate is used to infer that number on the basis of numbers disembarking. The same procedure is used if the missing number is for those disembarking when the number embarked is known. Where no information on numbers exists, an estimate is derived from either the rig of the vessel, or if that is not available, the route and time period of the voyage. To make this estimate as accurate as possible, we have distributed those voyages for which the number of slaves carried was available over 158 categories of different combinations of rig, route, and time period, calculating a separate average of number of captives embarked and disembarked for each one. Thus we have imputed variables for outcome of voyage, place of trade in Africa, place of disembarkation (usually in the Americas), and numbers of slaves who embarked, disembarked, and died on board. These "imputed" variables form the basis of the estimates presented below.

The second type of estimate required—in addition to information missing about known voyages—is how many voyages are missing. To put this central question differently, how can we know what proportion of the total slave trade is represented by the voyages in the new data set? Answering this question is virtually the same as assessing the quality of the sources, but a good starting point is to recognize the significance of a multisource database. TSTD2 incorporates records created at the point of each voyage's organization in Europe or the Americas; records created in Africa when the vessels purchased captives; and records at the point of sale in the Americas. The existence of diverse and dispersed sources for the same voyage encourages confidence in the internal consistency of the surviving records and reduces the possibility of missing data. Slave vessels did make voyages without leaving any historical trace of their activities, but after 1700 this did not happen often.

A closer look at new research on some major branches of the slave trade will demonstrate these points. The two-volume Mettas–Daget catalogue of slave voyages sailing from French ports contains captains' reports of sightings of other French slave ships. These sightings constitute as random a sample of French slave voyages as is possible to obtain. No less than 95 percent of the vessels named in these individual summaries are already in the database from other sources. We might conclude that the Mettas–Daget catalogue is therefore 95 percent complete. A second indication is the tiny number of new voyages

that newly discovered sources now add to the data set. Thus, by far the largest destination of French ships carrying slaves to the Americas in the eighteenth century was the colony of Saint-Domingue. This traffic reached its peak between 1784 and 1791, when an average of eighty-four slave ships a year set sail for the colony. Since work on TSTD2 began, we have located 488 new references to voyages to Saint-Domingue in these nine years. Only seven of these turned out to have been voyages that were not already in the Mettas–Daget catalogue. In the British case, Stephen Behrendt has recently combed through the sailors' and widows' petitions at the Society of Merchant Venturers in Bristol, England.[13] This is a source that covers voyages from Bristol to all parts of the world, not just Africa, and is not connected in any way to the major sources of shipping movements and records of state or the newspapers that support the bulk of the records in the data set. Again, it constitutes a random sample of slave-trade voyages. Of forty-six references to slave ships in its records, only one was to a vessel that was not already in the database.

A third example is the massive Portuguese slave trade to Rio de Janeiro between 1795 and 1830 at the height of the coffee boom. Pre-1999 databases included 1,187 voyages arriving in Rio, assembled by Manolo Florentino for the years 1811 to 1830; 889 by Herbert S. Klein covering arrivals in 1795–1811 and 1825–30; and a list of 170 vessels leaving Angola for Rio between 1795 and 1808, put together by Corcino Medeiros dos Santos.[14] After integrating these separate sources, we found that almost all vessels in the Angola list were also in the Rio de Janeiro records, and that all the Klein records for 1825–30 were also in the Florentino data set. In total, records of 1,536 slave voyages existed for Rio de Janeiro between 1795 and 1830. Since 1999 we have added new information to almost every one of these 1,536 voyages but have found only 357 completely new voyages for this branch of the slave trade. And many of these ships were captured or destroyed before reaching their destination. We think it highly unlikely that significantly more voyages sailed to Rio de Janeiro in this period than are contained in TSTD2.

Sources explored since 1999 that *have* yielded significant numbers of new voyages usually helped to fill gaps that we always suspected. English newspapers for the period before 1750, as well as the Royal African Company's duty books for 1698–1712, neither of which were included in TSTD1, turned up 178 new slave voyages leaving or returning to London between 1700 and 1750. London, indeed, was the Atlantic port that organized and dispatched the most slaving voyages anywhere between the mid-seventeenth and mid-eighteenth

centuries.[15] How important was this new information? In 1999 we published records of 1,117 slaving expeditions based in London, but we were sufficiently aware of the gaps that we suggested that the CD was missing perhaps 10 percent of the actual total.[16] In terms of actual voyages, the new information appears to have added 13.7 percent more voyages to what we knew about in 2001. Our estimate of the missing voyages was thus on the low side, but not by much. A similar situation exists for arrivals in the United States after 1782, where we also suspected that our database was somewhat deficient. James McMillin's careful combing of newspaper sources in the post-1782 period has yielded only 147 voyages not previously known—or a 9 percent increment over those already in the database in 2004, when his database was published.[17] In both these cases, however, the London and U.S. newspapers turned up many hundreds of voyages that were already in the TSTD1 database. The pattern of new research into independent sources uncovering relatively small increments of previously unknown voyages is now a well-established feature of ongoing investigations into the slave trade.

Nevertheless, if we want an accurate estimate of the size and direction of the full slave trade and not just the sample of it in TSTD2, then a carefully calibrated port-by-port, region-by-region evaluation of how large that sample is becomes necessary. Our reassessment has been constructed around the national flags that slave traders used to cross the Atlantic. Overall, at the time of this writing, the data set identifies the national affiliations of 25,569, or 73 percent, of the voyages in the set. For a further 7,711, the context of the voyage and the name of the ship, owner, or captain make possible inferences about place of registration. An imputed variable of national flag—which contains national affiliations for 33,229 voyages, or 95 percent of the voyages in the database—was accordingly created. Almost all the voyages that lack an indication of the flag under which they sailed plied their trade either at the very beginning of the slave trade, when the probability that the vessel was Spanish or Portuguese was extremely high, or at the very end, when the slave trade was illegal. Illegality meant that owners and captains went to great lengths to avoid or to change national affiliation as part of an attempt to avoid detention. We thus distributed totals for national flags across regions in Africa and the Americas according to the ratios calculated from TSTD2. While discussions of our judgments of completeness for the larger branches of the trade form a central part of the present volume, if we were to explain all the details here, the rest of this introduction would read even more like a manual for a piece of computer hardware than it already does. All these judgments are posted on the slave-trade

Web site and are accompanied by an interface that permits the derivation of a series for any combination of years, national flag, African region of departure, and American region of arrival.[18] Scholars who disagree with the allowances we have made for missing voyages for particular years, regions, or ports will be able to see exactly what allowance we have made and to use our posted work as a basis for making their own calculations. Almost all the essays in this book either provide or draw on voyage information from TSTD2 or the estimates page that is an extension of TSTD2.

The earliest transatlantic slave traders were the first Europeans to assume control of parts of the New World. The Spanish brought in the first slaves to be carried as part of a commercial venture, probably in 1501. The vessel set sail from Seville and embarked its slaves not in Africa but in Spain, which had absorbed several thousand African captives in the second half of the fifteenth century. The ship discharged its human cargo in the New World on the island of Hispaniola, well before the inception of the Spanish mainland empire. The first transatlantic slaving voyage (if we ignore the several hundred Amerindians that Columbus brought to Europe when he returned from his second voyage) was thus bilateral rather than triangular. The broad patterns of the subsequent movement of slaves across the Atlantic to the early Spanish Americas are described in António Mendes's chapter and will not be repeated here. Suffice it say that it is not possible to separate the early Spanish from the early Portuguese voyages, although it is apparent that, especially during the union of the Iberian crowns (1580–1640), the Portuguese came to dominate this branch of the slave trade. The first column of table 1.2 shows a series of slave departures from Africa to the Spanish Americas in ten-year groupings taken directly from TSTD2. These were slaves for whose departure some historical record exists. The second column does the same for Mendes's estimates of what the true volume of departures was likely to have been—in other words, it incorporates an allowance for slave departures missing from the historical record. Both series constitute upward revisions of Enriqueta Vila Vilar's thirty-year-old work.[19] The last two columns simply divide these estimates between Portuguese and Spanish traders.

A systematic and steady slave trade to Brazil began only in the 1560s, several decades after its Spanish American counterpart. From the beginning it was entirely Portuguese, becoming Brazilian for a time in the aftermath of Brazilian independence, and operating sometimes without a flag of any kind during the decade before it finally shut down in 1851. Its volume before the Dutch conquest of Pernambuco in 1630, and indeed before 1700, has attracted little

Table 1.2 Slaves Carried from Africa to the Spanish Americas on Portuguese and Spanish Slave Vessels by Decade, 1501–1641

Decades	*Slave Departures for the Spanish Americas in TSTD2*	*Estimated Slave Departures for the Spanish Americas*	*Estimated Share of Column 2 Carried in Portuguese Vessels*	*Estimated Share of Column 2 Carried in Spanish Vessels*
1501–10	0	1,900	950	950
1511–20	237	8,807	4,404	4,404
1521–30	227	10,990	5,495	5,495
1531–40	833	14,409	7,204	7,204
1541–50	434	27,395	13,697	13,697
1551–60	172	5,651	2,826	2,826
1561–70	1,527	37,500	18,760	18,760
1571–80	926	26,080	13,040	13,040
1581–90	2,785	47,390	23,695	23,695
1591–1600	33,834	59,812	29,906	29,906
1601–10	22,724	50,664	25,332	25,332
1611–20	47,929	61,957	30,979	30,979
1621–30	47,931	72,340	36,170	36,170
1631–41	41,743	54,655	27,327	27,327
1501–1641	201,303	479,550	239,785	239,785

Sources: Calculated from estimates page at http://www.slavevoyages.org and António de Almeida Mendes, "The Foundations of the System: A Reassessment of the Slave Trade to the Spanish Americas in the Sixteenth and Seventeenth Centuries," this volume (chap. 2), tables 2.4 and 2.5, adjusted for mortality on the voyage of 30 percent of those embarked.

new work beyond the secondary sources such as Goulart and Lopes that Philip Curtin used in 1969 to support an estimate of 50,000 slaves transported to Brazil before 1600 and 120,000 in the first three decades of the seventeenth century, all carried under the Portuguese flag.[20] As already indicated, TSTD2 contains insufficient records of voyages to form an estimate of any branch of the slave trade to Brazil prior to 1678. For one of the four branches of the Brazilian slave trade, however—that to Pernambuco—there is some documentation on the scale of the traffic. As this port was the most active of the pre-1630 connections with Africa, it follows that there is some basis for using it as a template for the rest of the early Brazilian traffic. The Domingues and Eltis chapter in this volume presents the details of the estimates for Pernambuco from 1561 to the early 1850s, and they are incorporated into the aggregate slave-trade estimates used here without further discussion. Note, however, that the data in table 1.3 for Pernambuco are for departures from Africa rather

than for arrivals in the Americas as shown in the appendix 3.1, and therefore table 1.3 allows for mortality on the ocean crossing.[21] Space constraints dictated that only the decadal series could be shown in the table. A comparison of the totals in the TSTD2 and the "estimated" columns for Pernambuco suggests that just over half of our estimates of slave departures for this region are rooted in voyage data.

The estimates for the rest of Brazil shown in table 1.3 require a little more discussion. For Bahia, abundant new data on voyages are presented in Ribeiro's chapter in this volume, although almost all of them are for post-1677. Obviously, our discussion here attempts to go beyond these data and allows for what might be missing from these new sources. The first slaves brought into Bahia arrived as early as 1538 and were set to work cutting wood.[22] We think that the Recôncavo of Bahia, the second major sugar-producing captaincy, as well as the smaller São Vicente and Rio de Janeiro producing areas to the south, began a steady slave trade from 1580. Appropriately, TSTD2's first arrival of slaves in Pernambuco, in 1574, predates its Bahian counterpart by eight years, though voyage data are generally scarce for these early years.[23] Africanization of the work force of American indigenes proceeded a bit more quickly in Bahia and the southerly regions, and was complete in both Pernambuco and Bahia at least by 1620, according to Stuart Schwartz.[24] Pernambuco had quickly become the premier sugar-producing area of the world in these years, and the other regions lagged behind prior to the Dutch invasion. Our estimated departures from Africa for Bahia are set at four-fifths of the Pernambuco figure through to the Dutch invasion in 1630, and for the southern regions of São Vicente and Rio de Janeiro, departures are considered to have been 70 percent of the Bahia estimates.[25] Thus the estimates for Brazilian regions in table 1.3 are centered on Pernambuco, as developed in chapter 3. Before 1620, when the first reliable assessment of the level of slave arrivals by a contemporary observer becomes available, the estimate series assumes a constant annual growth of arrivals from 100 in 1560 (1580 in the case of Bahia and Rio de Janeiro) to 4,640 in Pernambuco (3,631 and 2,541 in Bahia and Rio de Janeiro, respectively). The total volume of slaves leaving Africa for Brazil prior to the Dutch invasion by this reckoning would have been 262,400—about 50 percent greater than the estimate Curtin derived from his survey of Portuguese and Brazilian historians.

The Dutch invasion of the Portuguese Atlantic affected more than just Pernambuco. The attack on Bahia in 1624 was repulsed, but Dutch occupation of Luanda in the 1640s and attacks on Portuguese shipping in the Atlantic

Table 1.3 Slaves Carried from Africa to Non–Spanish American Destinations on Portuguese and Brazilian Vessels, Major Importing Regions by Decade, 1561–1860: TSTD2 Sample Compared to Our Estimated Totals

	Amazonia		*Pernambuco*		*Bahia*		*Southeast Brazil*		*Africa, Europe, Other*	
Decades	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*
1561–70	0	0	0	1,623	0	0	0	0	0	0
1571–80	0	0	451	3,110	0	118	0	82	0	0
1581–90	0	0	0	5,959	166	1,944	0	1,361	0	0
1591–1600	0	0	0	11,415	0	4,582	334	3,209	183	183
1601–10	0	0	334	21,871	244	10,810	0	7,566	0	0
1611–20	0	0	0	41,734	118	25,484	0	17,837	969	969
1621–30	0	0	1,450	48,679	1,241	36,310	0	25,414	284	284
1631–40	0	0	0	1,469	0	36,310	0	25,414	0	0
1641–50	0	0	0	0	4,776	26,753	0	18,725	3,378	3,378
1651–60	0	0	1,794	12,000	1,300	42,976	0	30,083	4,042	4,042
1661–70	0	0	0	22,078	1,762	48,665	382	36,179	3,437	3,437
1671–80	0	283	0	24,838	5,847	38,465	0	27,378	2,659	2,659
1681–90	0	0	118	27,780	13,497	34,423	504	24,094	316	316
1691–1700	1,264	1,761	7,787	41,064	50,063	63,819	3,574	44,675	2,207	2,207
1701–10	431	1,202	623	54,350	54,841	68,501	2,697	46,939	410	410
1711–20	1,384	2,045	6,948	42,573	82,691	91,607	9,379	62,334	1,119	1,119
1721–30	1,892	2,552	41,347	40,520	95,587	102,812	36,999	55,629	3,815	3,815
1731–40	987	1,648	22,088	21,374	99,059	103,846	25,065	72,479	1,236	1,236
1741–50	589	1,359	30,137	30,471	99,430	104,663	53,640	69,364	3,017	3,017
1751–60	6,344	6,091	32,821	32,822	78,180	82,296	17,635	91,959	2,766	2,766
1761–70	13,838	13,839	28,912	29,163	68,908	72,534	37,410	95,364	386	386

1771–80	14,334	14,470	22,344	23,270	79,937	84,144	17,135	87,938	211	211
1781–90	18,345	18,940	18,399	28,625	84,247	87,806	31,976	119,080	0	0
1791–1800	17,669	20,123	14,009	39,208	99,243	104,577	104,271	131,015	11,769	11,769
1801–10	33,891	35,674	37,322	57,628	107,163	112,272	157,257	157,259	26,833	26,833
1811–20	22,537	23,822	83,338	83,336	127,628	126,371	246,297	246,297	30,585	30,585
1821–30	12,968	13,399	59,858	58,620	105,378	104,577	372,883	377,153	27,139	27,139
1831–40	2,414	2,534	21,667	42,670	14,513	39,896	204,474	329,837	23,889	23,889
1841–50	2,320	2,443	12,751	24,345	72,241	72,240	223,580	382,387	35,663	35,663
1851–60	0	0	1,642	1,642	1,023	1,146	7,110	7,228	497	497
1561–1860	151,208	162,182	439,443	873,234	1,349,082	1,730,055	1,552,604	2,594,280	187,299*	187,299*
TSTD2 %	93.2		47.6		78.5		60.6		100.0	

Sources: TSTD2, and calculated from estimates page at http://www.slavevoyages.org.
*Includes 673 to Europe in 1511–20.

throughout this period disrupted (though never came close to shutting down) the slave trade to the whole of Brazil. Arrivals in Bahia are set at 2,000 (or 2,353 departures) a year between 1641 and 1648; after the Dutch were expelled from Angola, it is assumed that the slave trade increased once more. Almost all slaves arriving in Bahia until 1678 came from Angola. TSTD2 has occasional records of Bahia vessels sailing to Southeast and West Africa in the 1660s and 1670s, but the data set indicates that continual trade with West Africa began only in 1678. None of the English or French records for the Gold and Slave Coasts of West Africa mention vessels from Brazil prior to this point. For the years 1666 to 1672, a document in the AHU, cited by Luiz Felipe de Alencastro, lists annual totals of slave departures from Angola on Portuguese ships, and the Bahian share of this series, set at 55 percent of Angolan departures, is taken as the complete slave traffic into Bahia for the years covered by the document.[26] For 1650 to 1665, when the Angola series began, and for 1673 to 1677, the years immediately after it ended, we use the annual average for 1666–72 as calculated above. From 1678, Bahia vessels tapped a hitherto unknown demand for rolls of tobacco coated in molasses, and by the years 1698–1700, the Costa da Mina, as the Portuguese called the Gold Coast, Slave Coast, and Bight of Biafra, was supplying two-thirds of the slaves destined for Bahia.[27] The influence of Pierre Verger's work on the cultural connections between Bahia and the Bight of Benin is so great that historians have often assumed that Bahia drew almost all its slaves from the Costa da Mina. In fact, Angola continued to supply about one-third of Bahia's slaves through to the end of the slave trade—one reason why Bahia's slave trade has been underestimated in the past.[28]

For most years after 1677, two and usually three separate recorded series of ships leaving Bahia for Africa have survived. Vessels leaving Bahia for the African coast had to obtain a license to export tobacco, given the normal mercantilist requirement that colonial produce could be exported only to the mother country—in this case, Portugal—but vessels sailing to Angola were also recorded in one of these series. From 1698 on, these records begin to mesh with those kept at São Tomé in the Gulf of Guinea, where vessels sailing from the Costa da Mina normally called, as well as with the scattered reports of slave vessels disembarking slaves in Bahia.[29] We assume that some part of the voyage of 90 percent of the slave ships coming into Bahia from 1698 to 1728 entered the historical record and is thus included in the database. After 1728, when stronger information on arrivals begins, we assume that the database includes 95 percent of all actual voyages. For 1811 to 1830, the best-documented

period of the Bahia slave trade, our assumption is that all slave vessels are included, and for the illegal period we rely on the estimates of the British consul and other contemporary observers, as discussed in an earlier essay.[30] This leaves the period 1678 to 1698, when the coverage of the sources is less certain. For 1678 to 1689, the TSTD2 estimates are doubled, and from 1690 to 1697, voyage data are divided by 0.7 to arrive at an estimate; both procedures reflect our assessment of the gradual improvement in the range and complementary nature of the sources during the last two decades of the seventeenth century. The end result of this mixture of assumptions and hard data is that we have voyage-based data of 1,349,082 slaves leaving Africa for Bahia and, on the basis of this, project an actual total of 1,715,888 captives.[31] Thus the voyage data comprise nearly 79 percent of the final estimates.

Amazonia was the last of the major Brazilian regions developing a slave trade direct from Africa, and the earliest to bring it to an end. Maranhão and Pará were not settled until the late seventeenth century, with the first slaves recorded arriving directly from Africa in 1680 and the last in 1846. Slaves coming from other parts of Brazil likely preceded the first transatlantic voyage and possibly continued after the last arrivals from Africa. Indeed, of the four major Brazilian importing regions, Amazonia drew most heavily on the intra-American slave trade. Much of the small early export trade was in cacao, collected in the wild rather than cultivated and channeled through Pará. Rice expanded between the 1750s and 1770s, but it was cotton from the 1760s that pulled Amazonia into the Atlantic economy, a development that came only after one of the Pombalinas companies, the Companhia Geral do Grão-Pará e Maranhão, began to bring in slaves after 1755 as part of an attempt to kick-start significant commodity exports.

The slave trade reflects commodity trade patterns. No more than a few hundred captives a year, and often none at all, arrived in either Pará or Maranhão before the 1750s, and not until the 1760s did the annual average rise above 1,000 slaves.[32] Amazonia ports were remote from the sites of the first Brazilian gold discoveries and were not a conduit for the interior until the late eighteenth century. In addition, like most minor slave-importing regions of the Americas, Amazonia was able to draw on the intra-American slave trade via Pernambuco. It is highly unlikely that slaves arrived in the region directly from Africa before 1680, and from this point to the mid-1750s we have assumed that, in those years for which TSTD2 records no slaves, 100 slaves arrived. The Pombalinas company years are well documented, and from 1755 to 1778, when the company monopoly ended, TSTD2 probably includes all

arrivals. However, the Companhia Geral do Grão-Pará e Maranhão remained involved in the slave trade until 1788, and company accounts record the traffic in slaves carried on by "private" traders. When the company ceased activities, other sources from the Torre do Tombo and the AHU, Maranhão, and Guiné became available. This was the only branch of the traffic to Brazil in which Lisbon continued to play a major role as a port of organization, and voyages in this period are often documented in Europe, in Portuguese Guinea in Africa, and in the Amazonian ports.[33] As a consequence, from 1778 through to the end of the trade, we feel justified in arguing that TSTD2 contains some record of 95 percent of the slaves who actually disembarked in Maranhão and Pará. Table 1.3, adjusted for voyage mortality as shown in the spreadsheet linked to the slave voyages' Web site estimates page, reflects this judgment. Overall, table 1.3 also shows that Amazonia is the best-represented Brazilian region in TSTD2, with recorded departures of slaves leaving Africa for the region amounting to 94 percent of the estimated departures.

For Rio de Janeiro, the voyage-based documentation is very strong for the nineteenth century but weaker than the rest of Brazil for the seventeenth century. It is comprehensive enough for us to assume 100 percent coverage somewhat earlier than for the traffic to Bahia—in 1793. During the illegal period of slaving, after 1830, British Foreign Office officials and their spies paid close attention to Rio, so that assessments of the illegal Rio traffic are more complete than for other parts of Brazil.[34] Before 1710, however, albeit a period when Rio was the least important of the three major Brazilian slave-importing centers, TSTD2 contains only thirty-one slave voyages connected in any way to the port. Based on André João Antonil's assessment of the relative importance of these three, we estimate annual arrivals into early Rio de Janeiro at 70 percent of the Bahian figures between 1620 and 1709, as noted above.

For 1710 to 1793, we lack data on either arrivals or departures for Rio de Janeiro, but the good quality of the information on vessels and slaves leaving Angolan ports provides an alternative residual route to an estimate. In short, if we know the total departures from Angola and the numbers arriving from Angola in Bahia, Pernambuco, and eventually the Amazonian ports, then the size of the slave traffic to Rio de Janeiro (except for the small share of it coming from West Africa) must approximate the Angolan total minus the totals for the other three regions—adjusted, of course, for shipboard mortality. Brazilian-bound slaves left from only two Angolan ports during this period: Luanda, and later Benguela. For Luanda, José Curto has compared separate series constructed by Birmingham, Klein, and Goulart with figures he himself

extracted from the archives, and has selected his own preferred series of annual departures for 1710 to 1810. Curto has also constructed a separate series for Benguela.[35] Except for Klein's estimates, none of these data are based on voyages but rather on the annual reports of officials stationed in the two Angolan embarkation points. A comparison of voyage data from TSTD2 with the reports of the colonial officials shows that, except for 1710–22, the officials' series is about 10 percent greater. Our own preferred series for Angolan exports uses voyage data from 1710 to 1722, a period when the voyage data seem more complete, and Curto's preferred series thereafter, with some minor adjustments to allow for voyages known to be missing. The number of slaves carried off to other Brazilian ports is calculated above, and departures from Angola to Rio de Janeiro are the residual after deducting the sum of the traffic to other ports and allowing for voyage mortality.[36] However, Angola was not the only source of slaves coming into Rio de Janeiro, and Nireu Cavalcanti has recently presented a breakdown of slaves arriving in Rio from Angola and the Costa da Mina for the 1731–35 period. His figures indicate that one in ten Rio slaves arrived from regions other than Angola—mainly the Costa da Mina.[37] There are occasional voyages in TSTD2 from the Costa da Mina into Rio throughout the eighteenth century, and Cavalcanti's ratio is accepted for 1710 to 1792. The final series for departures and arrivals into Rio is shown in table 1.3, where a comparison of TSTD2 and our estimated totals indicates a voyage record for six out of ten slaves included in our estimate.[38]

Finally, there are records of Portuguese voyages to four other groupings of destinations. A few Portuguese slave voyages went to Europe, and many more went to parts of the Americas other than Brazil and the Spanish Americas. A much larger third group of slave voyages disembarked slaves in Africa, mainly in Sierra Leone, after having been captured. This group is discussed more fully below in the section on the Spanish trade. Finally, for a fourth group, we know only that the vessel embarked or intended to embark slaves, but we do not as yet have any information on port of arrival (or intended port of arrival) beyond, in a few cases, Brazil unspecified. Slaves carried on all these four categories of voyages are grouped together in the final columns of table 1.3 and total almost 150,000. Adding this to the totals for Brazilian regions shown in the rest of table 1.3, together with the Portuguese share of the traffic to the Spanish Americas before 1642 shown in column 3 of table 1.2, gives us an aggregate of close to 5.8 million over the whole period.

The early slave trade to the Spanish Americas was surpassed not only by the Brazilian trade but also by a massive new traffic to the Caribbean organized by

northern Europeans. The Dutch led the North European incursion, but the basic fact is that they had no sugar plantation colonies for much of the seventeenth century. Their attempt to take Pernambuco from the Portuguese was temporarily successful, but they were never able to generate sugar exports (nor to attract slave arrivals) at levels that matched those achieved by the Portuguese before the conquest. After their final expulsion from Brazil in 1654, the Dutch spent a decade without a major plantation colony, and even after acquiring Surinam from the English in 1664, they brought in only 35,000 slaves during the rest of the century to the Dutch Guianas, compared with the 150,000 that the British carried into Barbados alone during the same period. Of course, historians have traditionally defined the Dutch role as carriers and suppliers for the other early Caribbean empires, particularly the French and the English, but such a role probably never existed, and if it did, Colbert's *exclusif* policy and the English Navigation Acts had effectively excluded the Dutch from the Caribbean sugar complex by the last third of the seventeenth century.[39] Between 1673 and 1698, the Dutch carried almost no slaves into the French and British Caribbean, and for every slave they sold in the Dutch Guianas, they carried two to Spanish markets, most via Curaçao. When the *asiento* (see chapter 2) went to Portugal, France, and then England in turn between 1698 and 1713, the Dutch first attempted to run a slave bazaar for the whole Caribbean. When this strategy had clearly failed by the 1720s, they concentrated on supplying their South American colonies for the rest of the slave-trade era.[40]

TSTD2 permits a firmly rooted reckoning of the relative importance of the Dutch in the transatlantic slave trade.[41] Prior to the conquest of Pernambuco, the Dutch carried few slaves to the Americas. Except for a single voyage in 1630, their slave trade to Pernambuco operated only between 1637 and 1650. TSTD2 contains only three Dutch slave voyages in these years linked with any part of the Americas other than Pernambuco, and we think TSTD2 includes all, or almost all, Dutch voyages before midcentury. From 1650 on, we rely heavily on the database assembled by Franz Binder, which is both extensive and multisourced.[42] Further research into new sources, both Dutch and non-Dutch, has generated additional information on some of Binder's voyages but very few that were not already in the Binder database. We feel safe in assuming that TSTD2 includes 90 percent of slave voyages sailing under the Dutch flag between 1650 and 1674. In 1674 the Dutch established a second West India Company that, until 1730, held the sole right to trade on the African coast—at least as far as Dutch citizens were concerned. The documentation

from this period is dense, and we accept Postma's contention that some information about every Dutch voyage that sailed has survived. After 1730, the era of "free trade," the documentation is almost as comprehensive as before: the archives of the Middelburg Company and the Coopstad and Rochussen partnership are perhaps the most complete slave-trade archive in existence. In summary, we think TSTD2 includes all Dutch slave-trading voyages with the exception of a very few before 1630 and about 10 percent that are missing from the 1651–73 period.

How many slaves did the Dutch carry? As described in this book's Vos, Eltis, and Richardson essay (chapter 8), we estimate 3,200 taken from Africa before 1631. During the Pernambuco venture, the Dutch carried away an estimated 30,900 slaves from Africa and disembarked 25,500 in the Americas for the thirteen years through to 1650—less than 2,500 a year on average.[43] From 1651 to the operational beginnings of the second West India Company in 1674, the annual average increased substantially to just over 4,000, or nearly 5,000 in the 1660s alone, as the Dutch supplied slaves to most markets in the Americas, ranging from New Amsterdam in the north to Río de la Plata in the south. This was the period, before the exclusif policies were fully in place, in which the Dutch came closest to the role assigned to them in the traditional historiography, but they never threatened Portuguese dominance of the slave trade and were soon overtaken by the English.[44] Between 1674 and 1730, West India Company vessels and various interlopers carried off 176,400 slaves by our reckoning, or 3,100 a year. This was actually one-quarter fewer than the annual average between 1651 and 1673, despite the fact that the West India Company era was one of rapid expansion in the slave trade as a whole. Our total for both the West India Company and free-trade periods is similar to Postma's recently revised estimate,[45] so that the new material is confined mainly to the pre-1674 era.[46] Overall we project a volume of 554,300 slaves carried from the African coast in Dutch vessels in 1596–1829. This contrasts with Postma's latest aggregate estimate of 501,409 slaves. The peak of the Dutch slave trade came in the fifteen years before the American Revolution, when the Dutch average reached 6,200 a year. This was not greatly different from the 1660s a century earlier.

The largest of the North European national traders, the English, initially faced the same problem as the other colonial powers in the early seventeenth century: a shortage of slave markets in the Americas. The largest English slave colony in the 1630s, Providence Island in the western Caribbean, was populated with slaves taken from the Spanish rather than with Africans brought in

on English slave ships, and in any event the island refused to take additional slaves well before the Spanish drove out the English in 1641.[47] Apart from the well-known John Hawkins voyages of the 1560s, there is no hard evidence of vessels leaving England to buy slaves, as opposed to gold and produce, until the *Star* showed up in Barbados in 1641.[48] Like the French, the English established one monopoly chartered company after another.[49] Unlike the French (and indeed the Dutch), private English merchants dispatched many voyages in defiance of the state monopoly once Barbados was established as a major slave market. The best known of these was the Royal African Company, but its charter was issued by the Crown rather than Parliament and was of uncertain legal standing. The Glorious Revolution of 1688–89 destroyed any hope of parliamentary sanction, and when Parliament finally took action, it was to destroy the monopoly rather than enforce it. From 1698 any English citizen could trade in Africa upon payment of 10 percent of the value of the outbound cargo to the Royal African Company, a requirement that was removed in 1711. The company began a long decline and ceased trading slaves in the 1720s. Where London had been the only important slave trading port before 1700, Bristol now expanded rapidly and then gave way to both Liverpool and, later, a resurgent London. Lancaster and Whitehaven were briefly important. The English plantation sector was already the largest in the Americas by 1700, and the annual value of British plantation produce increased between four- and fivefold in the 1700–1770 period (around fourfold in real terms).[50] But English slave traders also dominated markets in the Spanish and, eventually, Dutch Americas. Perhaps as many as one-quarter of the slaves on British vessels finished their journeys in the non-English Americas.[51] Except for a few thousand slaves sold in the Río de la Plata region by Luso-Brazilian traders from Rio de Janeiro, no other European slaving power played this intra-American trade role between 1730 and 1790. The English, in short, dominated the slave trade when it was at its peak.

The British slave trade estimated here encompasses voyages originating in the British Isles, the British Caribbean, and foreign ports conducted under the British flag. Voyages from mainland North America are counted as part of the U.S. slave trade. TSTD2 contains 12,029 British ventures. The twenty-one of these voyages that are scattered over the 1556–1640 period are accepted as a complete record, partly because the size of the trade—and thus any error generated by such an assumption—could only be very small, and partly because it is not certain that all these vessels were seeking slaves as opposed to African produce.[52] TSTD2 contains eighty-seven British slave voyages from 1641 to

1661. Nevertheless, this is the period where the evidentiary basis of the English trade is weakest. The slave population of Barbados grew from perhaps 400 in 1640 to an estimated 27,000 in 1660, and there can be no doubt that natural rates of population growth were negative at this time (despite the relatively balanced sex ratios). British slave vessels at this time left Africa with only 154 slaves on average, and one-quarter of the above TSTD2 sample of eighty-seven went to markets other than Barbados. These vessels could not have accounted for as many as 10,000 slaves arriving in Barbados. Given that the Dutch supplied few slaves to the British Caribbean, then the English slave trade must have been substantially greater than the TSTD2 sample suggests. A negative rate of natural population growth of −4 to −5 percent a year would have meant arrivals in Barbados of three times the level that TSTD2 suggests, implying an annual average of about 2,300, or 3,000 a year leaving Africa to all destinations.[53]

From 1662 the British Caribbean expanded strongly beyond Barbados, and English merchants began to make major inroads into Spanish American markets for the first time. For the period 1662–97, TSTD2 includes most English slave voyages, but certainly not all. A full discussion of the adjustments for missing voyages and the resulting estimates for this period is presented elsewhere.[54] Suffice it to say here that 312,000 slaves are estimated to have been carried from Africa on English slave ships in this thirty-six-year period, or 8,700 per year. From 1698 to 1712, as already noted, owners of English ventures to Africa (slave and produce vessels alike) were required to pay 10 percent of the outbound cargo to the Royal African Company. A complete record of the revenues from this levy has survived, including all those ventures setting out from colonial as well as home ports, broken down by vessel and intended destination. It is therefore likely that every slave vessel under the English flag in these years is included in TSTD2. As we might expect, given the continued expansion of the British Caribbean at this time, especially Jamaica and Antigua, the English slave trade jumped to even higher levels. Departures from Africa in English vessels in 1698–1712 are estimated at 227,116 or just over 15,000 a year, a 70 percent increase from the previous period.

Further expansion occurred in the aftermath of the Treaty of Utrecht. From the 1720s onward, the sources for the English slave trade, like that of its French counterpart, are rich indeed. Port books, a range of London newspapers reporting shipping movements, colonial sources, records of forts on the African coast, seamen's sixpences records (a levy on wages paid into a fund to support infirm seamen), registers of Mediterranean passes (issued to protect

vessels from the Barbary powers), and many private papers both overlap and compensate for each other when these record series are discontinuous. It is safe to assume that TSTD2 contains all slave vessels originating from 1713 to 1779 in Bristol, and 95 percent of the ventures leaving all other English ports. For the final period, from 1780 to 1807, the assumption we have made is that TSTD2 includes all British slave voyages from all ports. The result of these procedures is that 2,643,460 slaves are estimated to have left Africa on British vessels between 1713 and 1807. The annual average increased from just over 15,000 in the first decade of the century to 22,200 in the second quarter, and to nearly 32,500 in the years 1751–1807. Levels fell off during the frequent periods of wars, and the peak of the British trade came as abolition approached, when in 1799–1803 British ships carried off 46,300 slaves a year.

A summary of the three preceding paragraphs produces an overall estimate of the British slave trade. We estimate that, for the whole period from 1556 to 1810 inclusive, British owners carried off over 3.2 million slaves from Africa. Included in this estimate are all voyages from the British Caribbean and foreign ports. Voyages leaving from the mainland North American colonies that became the United States are allocated to the U.S. flag.

Documentation on the French slave trade divides into two periods: before 1710, when coverage is less than comprehensive, and then from 1710, when it surpasses what is available for the British slave trade. French plantation colonies, founded about the same time as those of the English, grew relatively slowly, so that at the end of the seventeenth century they produced only one-third of the exports of the British Caribbean.[55] Attempts to establish a systematic and permanent traffic at this time produced a catalogue of missteps and financial disasters. In fact, the Dutch probably supplied most slaves brought to the French Americas before 1673, and many others came on enemy slave ships captured in wartime. If the French could not supply their own colonies, they were not likely to make inroads into non-French slave markets. Only one of the many government-sponsored companies formed at this time, the Guinea Company—transformed into the Royal Asiento Company in 1701—supplied significant numbers of slaves outside the French Americas, though the 16,000 slaves it carried off to the Spanish Americas between 1703 and 1713 was less than half of the 38,000 it contracted to supply. Independent merchants began sending out slaving expeditions from Nantes in the early eighteenth century, and in 1713 this activity was formally sanctioned when the Guinea trade was effectively opened to all.[56] The ancien régime supported the slave trade with subsidy schemes to such an extent that foreign ships registered

in France in the 1780s to take advantage of them. Shut down by war in 1793, the slave traffic revived briefly in 1802–4 during the Peace of Amiens, and then, after disappearing again, experienced a much larger revival between 1813 and 1831, this time without subsidy and, for the most part, without legal sanction.

The result of all this activity in terms of the number of unwilling people brought across the Atlantic is well documented, though less well for the seventeenth than for later centuries.[57] For the pre-1716 period, Pritchard, Eltis, and Richardson in this volume (chapter 7) estimate that close to 96,000 slaves were carried off on French vessels, and that close to 72,000 were disembarked. Growth over time was dramatic, with only 1,800 slaves embarking before 1651, rising to 7,100 in the third quarter and to 29,500 in the fourth quarter of the seventeenth century. But even in the fourth quarter, the volume of departures was still only just over 1,000 slaves a year, increasing to 3,800 in the first years of the eighteenth century. Both these figures are well short of later levels. From 1716 to 1793, as already noted, we argue that 95 percent of French slave voyages are included in TSTD2. Allowing for the missing 5 percent, French vessels carried off 1,081,000 slaves and landed 916,400 in the Americas. Exports increased from an average of 6,400 before 1726 to 10,400 between 1726 and 1750, 13,100 in the third quarter of the century, and an extraordinary 24,000 a year between 1776 and 1793.

The nineteenth-century French slave trade is more complicated. For its 1802–4 revival, we rely on Eric Saugera's work, supplemented by other sources.[58] Saugera suggests sixty-five slaving voyages from metropolitan France, but about one-third of these headed for the Mascarene Islands and thus lie outside the mandate of our analysis. TSTD2 points to 10,900 slaves carried from Africa to transatlantic markets and 9,700 arrivals in these years. The French slave trade resumed even before Napoleon reached the island of Elba. Serge Daget's catalogue of the last phase of the traffic is not quite as comprehensive as its eighteenth-century Mettas–Daget counterpart, even when supplemented by sources that Daget did not consult.[59] Our assumption for the post-1813 era is that 10 percent of the voyages are missing. Allowing for these, it is possible to compute an average of 11,300 slaves per year embarked on French ships from Africa between 1814 and 1830, the peak years of the French nineteenth-century trade. Thereafter, the French traffic never attained as many as 1,000 a year for any five-year period. With arrivals in the French Caribbean effectively closed in 1832, slaves went to Brazil or Cuba with ships that used the French flag as a subterfuge to escape detection, rather than because the

vessel was authentically French. Overall, from 1796 to the end of the traffic, 203,900 are estimated as departing Africa—152,000 in the 1820s alone. For the whole period, the French took just over 1.38 million slaves from Africa, of whom 1.16 million reached the Americas.

The trade organized in the ports of mainland North America (not to be confused with the slave trade that delivered slaves there) is not as well documented as in the rest of the English Atlantic world. Conducted in vessels that were among the smallest in the slave trade—carrying on average only 118 captives as they left Africa—and operating outside the major record-gathering institutions of the large cities, its dimensions are less certain than that of any branch of the traffic except the early Brazilian trade.[60] It breaks into three distinct phases. The first began in Boston in the mid-1640s and ended shortly after independence. Based mainly in New England, it drew heavily on the Gold Coast and carried slaves mainly to the sugar plantations of the British Caribbean. A second phase began with the gradual shutting down of the slave trade by state laws after U.S. independence and continued to the federal abolition of the slave trade in 1807. This period saw South Carolina emerge as a major organizing center—though New England continued to predominate—and a shift away from the Gold Coast to Upper Guinea and Angola as a source of slaves. On the Americas side, South Carolina, Georgia, and Cuba replaced the British Caribbean markets. Indeed, U.S. slave vessels went anywhere slaves were sold, except for Brazil. A third phase began in the 1830s, when ships delivering slaves to Cuba and Brazil often displayed the U.S. flag in order to discourage British naval vessels from interfering with their activities. Companies owning slave ships certainly operated from U.S. soil at this time, and slave ships flying the U.S. flag certainly plied the Atlantic—usually on the voyage to Africa rather than on the return haul when slaves were on board—but in most cases these ships were actually owned by Cuban or Portuguese slave traders.[61] However, the true nationality of slave vessels becomes so unclear in these late years that TSTD2 makes no attempt to assign nationality on a ship-by-ship basis after 1835. Instead, slave vessels sailing to Brazil are assumed to have been Portuguese, and those going to Cuba are taken as Spanish. With the exception of two voyages, the U.S. slave trade is treated as having ended by 1836.

Estimates of the U.S. slave trade are thus required only for pre-1836. For this era, TSTD2 contains records of 1,923 U.S. voyages trading in slaves across the Atlantic. These include the 920 Rhode Island ventures that Coughtry listed. Indeed, the Rhode Island trade is far better documented than that from any other region in the Americas.[62] TSTD2 also includes 148 voyages from a

recently published set of 1,781 ventures sailing in the 1783–1808 period that includes slave voyages arriving in the United States under foreign flags, as well as vessels plying the intra-American trade that the present analysis ignores.[63] There are two central questions on the overall volume of the U.S. trade. The first is, how complete is our knowledge of Rhode Island–based voyages? The second is, how big was the rest of the North American slave trade relative to that based in Rhode Island ports? On the first, the new data-set incorporates some sources that are not specific to any single port and that appear equally likely to have recorded voyages from any port in the English-speaking Americas. Thus the second largest European presence in West Africa from 1670 and for most of the eighteenth century was at Cape Coast Castle. Probably more than 80 percent of the slave vessels from the English Americas called at or sailed past this Gold Coast fort, and the fort logs that recorded such movements have survived for some years.[64] London newspapers did not record the movements of all such vessels, but there was no known geographic bias toward one North American port over another among those that were recorded. Finally, TSTD2 draws heavily on sources created in the Caribbean—the destination for most U.S. slave ships.[65] All such sources are quite independent of most of the North American–based information that Coughtry and McMillin used, and the extent to which they contain evidence of voyages that these scholars did not pick up provides a check on the completeness of their data.

Strikingly, new sources from around the Atlantic have added further information on existing Rhode Island voyages, but little about previously unknown voyages. Apart from the corrections noted above, only twenty-eight additional Rhode Island voyages have emerged from these and other sources upon which the new TSTD2 data set has drawn. The twenty-eight are just 3 percent of Coughtry's total. Thus, while not every Rhode Island voyage is included in the set, it seems highly unlikely that the complete total for Rhode Island could have exceeded Coughtry's list by much. The new Atlantic-based sources also suggest that for every slave voyage organized on the North American mainland before 1730, there were five that set sail from the British Caribbean. After 1730, by contrast, this ratio was reversed. In other words, the sparse records of mainland colonial slave voyages before 1730 are the result of few voyages, not few records. A second conclusion suggested by the new sources is that Rhode Island was clearly *not* "synonymous with the North American mainland slave trade," as Coughtry suggested. If only 948 slaving ventures out of 1,923 in TSTD2 under the U.S. flag left from Rhode Island (920 from Coughtry plus 28 new voyages), then Rhode Island must have sent

out less than half the traffic from all U.S. ports.[66] The range of sources now available is such that the voyage sample for ports outside Rhode Island is likely almost as complete as that for Rhode Island. But it remains less than 100 percent for either group. We have assumed a 10 percent allowance for missing voyages during the 1730–76 period. Before 1730 the sources are less rich, and after independence several states in the Union banned the trade well in advance of the 1807 federal prohibition. Some slave vessel owners therefore had an incentive to make their activities less obvious. For pre-1730 and post-1776, we have increased the allowance for missing voyages to 20 percent.[67]

Two further adjustments are necessary for the postabolition period. Effective January 1, 1808, Congress made the introduction of slaves into the United States illegal and subject to forfeiture, confiscation, and fines. Punishment beyond this was left up to the states. In 1820, however, Congress took the further step of declaring slave trading by U.S. citizens anywhere a capital offense. Just prior to this, in 1819 Amelia Island near the Georgia-Florida border, which had acted as a conduit for smuggled slaves, came under U.S. control with the cession of Florida.[68] Between these measures and even beyond this period, some slaves were introduced illegally by U.S. citizens. There is no evidence in nineteenth-century U.S. Census documents of significant numbers of African-born individuals consistent with large number of arrivals.[69] Nor is there much indication of slave vessels heading for the United States in the abundant reports from either slaving establishments on the African coast or naval patrols after 1808. We thus have allowed for 1,000 slaves a year carried off from Africa to the United States between 1809 and 1820, of which 500 arrived in U.S. vessels. After 1820 there are documented cases of U.S. slavers sailing to Cuba in the late 1820s, and several instances of captives arriving directly from Africa—the *Wanderer* in 1859 and the *Clotilda* in 1860 being the best known. Some additional slaves may have arrived in the United States from other parts of the Americas, but they are not accounted for in TSTD2.

We can now summarize the estimate of the mainland North American carrying trade. As column 8 in table 1.4 shows, before 1701 North American mainland vessels carried off just 4,150 slaves, mainly in the 1640s in vessels departing from Boston and at the very end of the century in New York–based vessels trading in Mozambique. The colonial-based slave trade remained at low levels for the next quarter century, accounting for only 3,280 departures. Rhode Island's involvement from 1730 expanded the traffic to 34,000, or 1,360 a year on average, in 1726–50, jumping to 84,600 in the third quarter of the eighteenth century. The Revolution initiated a shutdown of the traffic lasting

almost eight years, after which, despite an increasing degree of legal proscription, the traffic recovered to its pre-Revolution level and was responsible for a further 67,450 unwilling individuals leaving Africa between 1783 and 1800. The overall peak of the U.S. trade, however, was during 1804–7, when South Carolina reopened its ports to the transatlantic trade at the same time that Cuba was attracting huge numbers of captives. The volume of the U.S. trade surged to an average of over 20,000 a year, including 36,200 in 1807 alone. Overall, U.S. vessels carried off from Africa an estimated 305,350 slaves, of which voyages we think TSTD2 contains about 82 percent.

The trade rooted in northern Europe, principally Denmark and to a lesser extent northern Germany, may be dealt with more quickly. At the same time that larger western European powers such as England and France broke Spanish control of the Caribbean and established their own plantation complexes complete with slave routes from Africa and sugar production, several Baltic polities attempted a similar strategy with less success. In the half century after 1640, the Duke of Courland (with territories now mainly in Latvia), the Elector of Brandenburg, and the Swedish and Danish crowns tried at various times to ship captives across the Atlantic as part of their colonial ambitions. Each country established monopoly companies, each sought forts on the Gold Coast—the Danes at Christiansborg, the Brandenburgers at Gross Friedrichsburg just west of Cape Three Points—and each acquired access to territory in the Virgin Islands on which they grew sugar, all in miniature emulation of the large western European powers.[70] Only the Danes, however were able to maintain a transatlantic plantation structure for any length of time. Brandenburg's American presence was the island of St. Thomas, access to which they rented for thirty years starting in 1685. The Danish West India Company survived longer than any of its counterparts in western Europe, and the Danish Caribbean islands of St. Thomas, St. Croix, and St. John remained a slave market not only for Danish vessels, but also for North German and Dutch slave vessels, for most of the eighteenth century. Indeed, before 1730, the Baltic companies were, to a degree, a front for Dutch interlopers.[71]

Estimates of the scale of this activity are well supported by archival work over the last two decades. For the Danish trade, Svend Holsoe, focusing on Caribbean sources, and Per Hernaes, working quite independently on primarily Danish and African sources, have collected what they consider to be close to comprehensive data on this branch of the traffic.[72] Encouragingly, their estimates are similar. They include not only Danish but also Brandenburg vessels, most of which sold their slaves at St. Thomas. Hernaes estimates 97,850 slaves

Table 1.4 Slaves Carried from Africa under the Flags of the British, French, Dutch, U.S., and Minor Slave-Trading Powers by Decade: TSTD2 Sample Compared to Our Estimated Totals

	British		*French*		*Dutch*		*American Colonies/ United States*		*Minor Powers*	
Decades	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*	*TSTD2*	*Estimate*
1551–1630	2,062	2,062	59	66	3,186	3,520	0	0	0	0
1631–40	381	381	0	0	6,452	6,452	0	0	0	0
1641–50	11,057	33,174	1,644	1,826	24,572	24,952	660	824	1,053	1,053
1651–60	6,928	26,720	636	707	23,382	25,982	0	0	653	653
1661–70	36,377	67,469	2,261	2,513	43,732	48,589	0	0	0	0
1671–80	49,765	71,689	8,238	9,149	42,413	43,953	499	623	316	316
1681–90	102,413	112,193	12,853	14,281	40,481	40,478	358	974	3,364	3,729
1691–1700	92,123	116,495	8,965	9,961	26,881	27,367	1,383	1,729	19,344	21,640
1701–10	151,938	151,877	24,476	27,195	35,505	35,589	96	120	4,316	4,319
1711–20	162,317	167,409	55,762	60,279	22,466	22,464	1,499	2,020	652	652
1721–30	220,385	226,192	70,625	74,353	32,009	31,794	3,463	5,365	1,563	1,561
1731–40	237,255	243,929	95,694	100,730	29,647	29,455	15,523	17,504	1,090	1,178
1741–50	173,607	175,232	111,601	117,477	37,607	37,607	11,046	12,273	2,455	2,915
1751–60	252,938	255,345	94,171	99,128	41,039	41,039	20,874	23,066	6,863	8,157
1761–70	356,357	360,786	131,303	138,216	59,795	59,795	33,703	37,444	5,359	6,108
1771–80	297,681	301,323	156,519	164,757	47,706	47,706	22,184	24,838	6,156	6,541
1781–90	277,274	277,276	269,700	283,897	16,772	16,772	12,169	16,330	17,470	18,307
1791–1800	337,058	385,927	69,382	72,983	7,775	7,775	35,510	50,344	13,023	17,597
1801–10	284,263	283,959	10,393	10,942	1,604	1,604	82,016	103,922	11,786	16,316

1811–20	0	0	34,860	38,744	734	734	819	5,276	0	0
1821–30	0	0	137,565	152,595	686	686	1,758	2,197	0	0
1831–40	0	0	1,609	1,609	0	0	0	0	0	0
1841–50	0	0	0	0	0	0	0	0	0	0
1851–60	0	0	0	0	0	0	476	476	0	0
1551–1860	3,052,178	3,259,440	1,302,577	1,381,404	544,458	554,336	244,036	305,326	95,463	111,041
TSTD2 %	92.6		94.2		98.2		79.9		86.3	

Source: TSTD2. For estimates, see estimates page at http://www.slavevoyages.org, and text of present essay.

leaving Africa for the Danish Americas, which likely comprised the entire slave trade to Danish territory in the years 1660–1806, and we have incorporated most of Hernaes's adjustments into our own estimates.[73] This figure includes some but not all vessels sailing under the Brandenburg flag. A more complete representation of Brandenburg voyages is provided by Andrea Weindl in this volume, and her estimates are also incorporated into the minor carriers section of table 1.4.[74] TSTD2 has 68,391 captives carried from Africa under the Danish flag, 25,169 in Brandenburg vessels, and 2,239 in Swedish and Courland vessels, for a combined TSTD2 total of 95,798 during the whole period of the slave trade. We assume that all Brandenburg, Swedish, and Courland voyages are included in the new data set, and we largely accept Hernaes's adjustments for the Danish traffic. These decisions generate a total for the Danish slave trade of 83,618 and for the slave trade of all the minor powers of 111,041 slaves carried from Africa over the entire trade period. Thus TSTD2 contains records of 86.3 percent of our estimate of the slave trade of the minor powers. After allowing for voyage mortality, 91,743 are estimated to have reached the Americas.

Compared to our estimates for all other national groupings, the series for the minor carriers in table 1.4 displays a highly unusual bimodal distribution. This supports an argument made earlier about the changing structure of the trade over time. The minor carriers were chiefly significant when the traffic was expanding most rapidly in the last quarter of the seventeenth century and again in the late eighteenth century. The second peak came with the general easing of trade restrictions in the Atlantic world, which applied to slaves just as much to goods. The impact of the Bourbon reforms on the Spanish Americas from 1788 on is one example of this effect. Abolition put an end to this minor surge. Between 1700 and the 1780s, the role of the minor carriers diminished considerably, in response to the exclusionary economic policies of the larger European powers.

We now return to the Iberian traffic, which we had left in the mid-seventeenth century just as the rest of the European maritime powers were making inroads into the transatlantic slave traffic for the first time. The Spanish bookended 367 years of slave trading. They initiated the business, albeit from Europe rather than from Africa, and they also carried the last African slaves into the Americas. But for a century and a half, when the slave trade was reaching its zenith, they were little involved in either the African or the transatlantic phase of the business.

After 1640 and down to the 1648 Treaty of Westphalia, the Spanish crown issued some contracts, but none as far as we know were to Portuguese, Dutch,

or English nationals. Yet of only nine voyages to the Spanish Americas included in TSTD2 for this decade (compared with 191 between 1631 and 1640), four were English, one was Dutch, and two were Portuguese. Clearly the volume of the traffic declined, and unlicensed trading increased. With the breakup of the Iberian union, Spain was shut out of the Portuguese factories on the African coast, and Spanish involvement in the traffic fell. Between 1648 and 1662, no asiento arrangements of any kind appear to have been in place.[75] TSTD2 contains records of seventy-one slave vessels sailing to the Spanish Americas between 1650 and 1662—between five and six ventures a year, bringing in about 1,500 slaves. Just over half were Dutch, but there were thirteen Portuguese and fourteen Spanish, as well as other Swedish and English voyages. In 1663 a new asiento with the Genoese partnership of Grillo and Lomelin provided for the delivery of 3,500 slaves a year, of which less than two-thirds actually arrived. The volume of the trade between 1642 and the end of 1662 was certainly below the 3,100 a year brought in during the final five years of the pre-1641 Portuguese period, and perhaps was also below the 2,100 that Grillo and Lomelin supplied. For the 1642–62 period, we estimate 2,000 slaves a year arriving in the Spanish Americas, or 2,677 leaving Africa, on average, after allowing for shipboard mortality. Thus total departures for the Spanish Americas from Africa in this period were likely to have reached 56,000, as opposed to the just over 8,000 supported by TSTD2.[76] We have assumed that one-third of the 56,000 were carried in Spanish vessels, except for three years—1651, 1654, and 1656—when TSTD2 shows departures in excess of the annual estimate provided by our procedures. Our estimated Spanish exports for 1642–62 are thus 19,705, or one-third of all slaves carried to the Spanish Americas, plus an additional 1,499 for 1651, 1654, and 1656.[77]

After 1662, direct voyages from Africa to the Spanish Americas became uncommon through to the end of the century, given that Grillo and Lomelin and succeeding *asientistas* drew on markets within the Americas to meet their asiento commitments—mainly the new Dutch entrepôt at Curaçao. We have records of only eight transatlantic voyages to the Spanish Americas between 1663 and 1674, none of them Spanish.[78] From 1674 to the early nineteenth century, the Dutch, Portuguese, French, and English in turn dominated this branch of the slave trade, sometimes sailing directly from Africa and sometimes from Curaçao, Jamaica, Barbados, and other intermediary slave markets in the non-Spanish Americas. The occasional Spanish transatlantic voyages that show up in TSTD2 both in this period and subsequently to 1788 are accepted as the sum total of Spanish involvement in the transatlantic traffic.[79]

The transatlantic traffic picked up again in 1766, when the Companhia Gaditana began its ultimately unsuccessful attempt to channel all slaves to the Spanish Americas through the gateway of Puerto Rico, but disappeared once more between 1770 and 1788, despite the Spanish government's purchase of the island of Fernando Po from Portugal and their dispatch of merchants to London and Liverpool to learn the latest techniques.[80]

The trade-liberalizing Bourbon reforms allowed foreign slave merchants virtually free access to the Spanish Americas from 1789 onward, and subsidies from the Spanish government to Spanish slavers eventually brought the Spanish flag back into the traffic in 1792, an event usually associated with the successful voyage of *El Cometa* from Havana in 1792 (voyageid 13,252). But the Spanish made no significant new inroads into the transatlantic slave trade until war, revolution, and abolition removed first the French and then the Danes, English, and Americans from the slave-trading scene between 1791 and 1808. It was only in 1808 that the Spanish finally reentered the business in any significant way, and even then the operational base of activities was in Cuba rather than Spain itself. The Spanish shared the large traffic to Cuba with the French when the latter came back into business between 1814 and 1831. Thereafter Spanish traders had the Cuban trade to themselves, though they certainly used the Portuguese flag as a cover in the Cuban trade after the 1835 Anglo-Spanish treaty made life more complicated for them. The sources for TSTD2 are strong on both sides of the Atlantic for the period before 1820, when a treaty made Spanish slave trading subject to interference by British antislavery patrols. With a small exception, we think it likely that TSTD2 contains all the Spanish slave ventures between 1808 and 1820. The exception is Puerto Rico, for which TSTD2 contains few primary records before 1832, when the British opened their first consular office in San Juan. Francisco Scarano's research on Ponce, the main sugar-producing area of the island is quite helpful, but in the absence of complete documentation for the whole island, we have set the volume of the Puerto Rican arrivals at 5 percent of those of Cuba between 1811 and 1842, and we have assumed that all these captives arrived in Spanish vessels.

The central question for the nineteenth-century Spanish trade is, how complete are the records for its illegal phase, beginning in 1821 and ending in 1867? Spanish slave vessels disembarked African slaves in four parts of the Atlantic world during this period. The major market was obviously Cuba. Here TSTD2 has drawn on extensive Spanish, Cuban, British, and African sources, and while we cannot fully identify every ship that arrived with slaves,

we are confident that we have some record of almost all landings. Indeed, given that owners went to great lengths to disguise their activities, the risks of double counting are such that we may have overestimated the number of slaves disembarked in some years. However, an upper-limit estimate of the volume can be derived by dividing the TSTD2 total by 0.9 for the first ten years of arrivals in the illegal period, 1821–30, thus assuming that the TSTD2 series is 10 percent short of the true number. After 1830 the range of sources improves, and the TSTD2 series can be divided by 0.97, thus assuming a 3 percent shortfall.

A second entry point in the Americas was the British Caribbean, where Spanish slaving vessels regularly shipwrecked, or to which they were conducted if captured in the Americas by a British naval vessel. TSTD2 likely contains all such cases. A third entry point was Montevideo, where in 1835 and 1836 Spanish, or more accurately Uruguayan, merchants introduced African "colonists" that were really slaves.[81] Again we believe that all such arrivals are included in TSTD2. Finally, most Spanish slave vessels that the British captured were taken to courts in Sierra Leone, the Cape of Good Hope, and St. Helena; the court and naval records are such that all these vessels are included in TSTD2.

One problem remains: after the 1835 Anglo-Spanish treaty, which made the use of the Spanish flag more difficult, Spanish owners used a number of flags of convenience, especially those of Portugal and the United States, and sometimes no flag at all. Few if any slaves were actually brought into the Spanish Americas by Portuguese or U.S. owners. Between 1836 and 1851, the British navy captured about two slavers sailing to Brazil for every one going to Cuba and Puerto Rico. We have therefore assigned 35 percent of all such captured vessels to the Spanish, and 65 percent to Portuguese/Brazilian owners.[82] Table 1.5 summarizes these various decisions into a decadal series of departures of slaves from Africa on Spanish vessels between 1642 and 1867, and compares the results with hard data in TSTD2. The latter contribute 94.1 percent of the estimated total.

Table 1.6 integrates the estimates columns from table 1.2 through table 1.5 to present our assessment of the overall size of the trade in decadal groupings from 1501 to 1867. We estimate that all national carriers together took just over 12.5 million slaves from Africa. This is over one and a quarter million more captives than one of us estimated after the first edition of the data set was published in 1999.[83] TSTD2 has thus resulted in a 13 percent increase over what we believed to have been the size of the transatlantic slave trade six years ago.

Table 1.5 Slaves Carried from Africa by Spanish Vessels, 1642–1867

Years	*TSTD2*	*Estimated*
1642–50	1,613	8,001
1651–60	5,469	10,389
1661–70	879	1,778
1671–80	4,001	4,001
1681–90	2,294	2,294
1691–1750	0	0
1751–60	284	284
1761–70	3,855	3,955
1771–80	0	0
1781–90	510	510
1791–1800	5,906	5,906
1801–10	13,419	13,419
1811–20	124,236	124,236
1821–30	95,262	105,847
1831–40	231,389	245,849
1841–50	77,004	79,464
1851–60	157,085	161,633
1861–67	52,859	54,191
1642–1867	776,065	821,755
Col. 1/col. 2	94.1%	

Source: TSTD2. For estimates, see estimates page at http://www.slavevoyages.org, and text of present essay.

Most of the rise derives from our increased estimates of the Portuguese traffic (11.2 percent), particularly in the pre-1700 era, and from a doubling in the size of the Spanish traffic—amounting to about an extra half million slaves in each case. It should be noted, however, that most of the Spanish increase is the result of reclassifying the nationality of slave ships that we had thought were Portuguese during the pre-1642 and post-1830 eras. The new estimated totals for the much smaller U.S., Danish, and North German traffics are also substantially higher (25 percent on average), but these increases explain only a small part of the rise in the overall total. The estimates for French, British, and Dutch involvement are not greatly different from what they were after 1999, and in the British case the small increase is explained largely by new information on British vessels leaving not from England, but rather from the British Caribbean. The gaps that have been filled in here are gaps that we knew about and made some, though apparently not enough, allowance for six years ago.

Overall, the picture of shifts between slave-trading nations over the entire slave-trade era is similar to what it was at the time of TSTD1, except that the pattern can now be seen to have been even more pronounced. As the consolidated database developed in the early 1990s, it became apparent that, despite the lack of exploitation at the time of sources for Portuguese shipping, the English were not in fact the leading shippers of slaves in the era of the slave trade, as many had supposed.[84] Brazil, defined as both colony and nation, received far more slaves than any other polity in the Americas. It now appears that the British dominance of the slave trade was confined to eight of the thirteen decades between 1681 and 1807. Such dominance was sandwiched between two long periods of Portuguese preeminence, during which the British slave trade was trivial. Portuguese hegemony, both before and after the British interlude, was even greater than we thought five years ago. As noted, of course, there were in fact two Portuguese slave trades, determined by the wind patterns of the Atlantic.[85] Together they accounted for double the volume of slaves carried by vessels leaving metropolitan British ports. Liverpool has often been viewed as the quintessential slave-trading port, but in fact the ports of Bahia and Rio de Janeiro were individually responsible for far more slaves reaching the Americas. Moreover, within the British slave-trading sector, London now appears to have been twice as important as Bristol and not far behind Liverpool, albeit with a trade that endured over a longer period.

A second significant finding relates to the neglected topic of the relationship between independent estimates of departures of slaves from Africa and those for arrivals—mainly but not exclusively—in the Americas (over 200,000 slaves sent out to the Americas actually disembarked in Africa and the Atlantic islands). As explained in the Eltis and Lachance essay in this volume (chapter 12), Curtin used shipping records to estimate that the British, Portuguese, and French, the three major carriers, carried off nearly 5.5 million slaves from Africa during the peak slave-trade period—the "long" eighteenth century (ca. 1701–1810).[86] He then derived two independent pictures of arrivals in the Americas, the first by deducting losses in transit from his estimated departures, and the second from a combination of shipping data and estimates of arrivals implied by demographic evidence. He uncovered a major discrepancy between these two methods of estimating arrivals. While for Brazil, supplied entirely by the Portuguese, the difference between the two was negligible, for the Caribbean, voyage records indicated that the French carried half a million fewer than the arrival figure estimated from demographic data, while the English carried over 400,000 more. When Curtin allowed for

Table 1.6 Slaves Carried off from Africa for Transatlantic Markets by National Flag and Decade*

	Spanish	*Portuguese*	*English*	*French*	*Dutch*	*Mainland North America/ USA*	*Minor Powers*	*Total*
1501–10	950	950	0	0	0	0	0	1,900
1511–20	4,404	5,041	0	0	0	0	0	9,444
1521–30	5,495	5,495	0	0	0	0	0	10,990
1531–40	7,197	7,204	0	0	0	0	0	14,402
1541–50	13,693	13,697	0	0	0	0	0	27,390
1551–60	2,823	2,826	94	0	0	0	0	5,742
1561–70	18,760	20,374	1,591	0	0	0	0	40,725
1571–80	13,040	16,350	0	66	0	0	0	29,456
1581–90	23,695	32,959	237	0	0	0	0	56,891
1591–1600	29,906	49,295	0	0	1,365	0	0	80,566
1601–10	25,332	65,716	0	0	878	0	0	91,926
1611–20	30,979	117,003	0	0	951	0	0	148,932
1621–30	36,170	146,857	141	0	326	0	0	183,494
1631–40	25,089	88,278	381	0	6,452	0	0	120,199
1641–50	10,240	51,275	33,173	1,827	24,951	824	1,053	123,342
1651–60	10,389	91,236	26,720	706	25,983	0	653	155,687
1661–70	1,778	109,188	67,469	2,512	48,592	0	0	229,539
1671–80	4,001	92,660	71,689	9,149	43,953	623	316	222,391
1681–90	2,293	86,613	112,193	14,280	40,482	974	3,729	260,564
1691–1700	0	162,368	116,495	9,961	27,363	1,730	21,640	339,557
1701–10	0	175,140	151,877	27,196	35,589	120	4,319	394,241

1711–20	0	200,583	167,409	60,279	22,465	2,021	651	453,408
1721–30	0	209,128	226,192	74,353	31,793	5,364	1,563	548,392
1731–40	0	205,206	243,929	100,730	29,457	17,504	1,178	598,003
1741–50	0	221,086	175,232	117,477	37,607	12,272	2,915	566,589
1751–60	284	215,934	255,346	99,127	41,044	23,066	8,157	642,958
1761–70	3,955	212,655	360,785	138,216	59,797	37,444	6,109	818,960
1771–80	0	210,497	301,323	164,756	47,712	24,838	6,542	755,667
1781–90	510	254,899	277,276	283,897	16,775	16,331	18,304	867,993
1791–1800	5,905	307,875	385,928	72,983	7,775	50,344	17,597	848,407
1801–10	13,419	393,392	283,959	10,942	1,605	103,922	16,316	823,554
1811–20	124,236	516,854	0	38,744	734	5,276	0	685,843
1821–30	105,847	594,421	0	152,595	687	2,197	0	855,747
1831–40	245,849	438,826	0	1,609	0	0	0	686,284
1841–50	79,464	517,078	0	0	0	0	0	596,542
1851–60	161,633	9,309	0	0	0	476	0	171,418
1861–67	54,191	0	0	0	0	0	0	54,191
1501–1867	1,061,527	5,848,268	3,259,439	1,381,405	554,336	305,326	111,042	12,521,334

Source: Estimated columns of tables 1.2 to 1.5 and estimate page of Voyages Web site. Totals may not add up due to rounding.
*Prior to 1526, African slaves carried to the Americas left from Europe, not Africa.

estimated imports into Spanish America, the Danish and Dutch colonies, and the United States after independence during this period, and then compared it with the size of the slave trades of these minor carriers, he arrived at over 1.2 million more slaves coming into the Americas than could have been carried by the British "surplus."[87] Added to the half-million "shortfall" in the French case, this figure comprised 20 percent of his estimate of the total slave trade in the long eighteenth century.

In assessing the size of the trade, Curtin had to choose between totals taken from the African side (using shipping records) and totals from the American side (using a combination of shipping and demographic data). He chose the latter and then projected what the departures from Africa must have been if mortality had averaged 15 percent of those taken on board. On this basis, he estimated just under 9.6 million arrivals in the Americas and then about 11.25 million departures from Africa. Curiously, the debate and extensive research activity that Curtin's book triggered concentrated primarily on his total estimates, rather than on the implicit challenge he had thrown down to scholars to reconcile the differences between his arrivals and departures estimates.

One of the main contributions of recent research on shipping data, both transatlantic and intra-American, has been to eliminate these discrepancies between African departures and American arrivals. First, more detailed information on individual voyages has shown significant losses of ships before they embarked slaves at the African coast. Such losses stemmed from natural hazard and from the actions of Africans, privateers, pirates, and European rivals.[88] Second, much more is now known about the forced movement of slaves after their arrival in the Americas.[89] The largest intra-American movement of slaves before the nineteenth century was in Brazil and was by land, but in the Caribbean the British organized a large water-borne traffic that also redistributed slaves from the British to the Spanish and French Americas. Thanks to the new data in TSTD2, discrepancies in shipping data between departures and arrivals no longer exist. Scholars may now use migration estimates derived from demographic data as an independent check on the voyage-based data, rather than as a method for filling in gaps in the shipping records—at least after 1700.

A summary of our assessment of the completeness of the current database is presented in figure 1.2, which lays out a crude time profile of the transatlantic slave trade over three and a half centuries. The top function in figure 1.2 is taken from the new estimates in table 1.6, grouped in twenty-five-year rather than ten-year intervals. The lower function, by contrast, is based on the data taken directly

from TSTD2. The difference between the two functions represents our present assessment of the voyages that occurred but which have not left a record. The major gaps in the coverage of TSTD2 are shown to be in the sixteenth and seventeenth centuries, when it appears that TSTD2 may contain less than half the slave voyages that actually occurred. A smaller gap appears in the nineteenth century during the illegal phase of the traffic. But nearly two out of every three slaves forced to leave Africa left between 1700 and 1825, and for this period we believe that TSTD2 probably includes over 95 percent of all slave voyages. Thus the new estimates—as shown in the final column of table 1.6 and in figure 1.2—support a rather flatter time profile of the slave trade than was apparent in 2001. The pre-1700 era now accounts for 17 percent of the trade, as opposed to 13.5 percent. The post-1800 traffic has also gained slightly in relative importance. For the entire slave-trade era, 1501 to 1867, TSTD2 provides evidence of 9,654,319 slaves leaving Africa for the Americas, compared with a total of 12.5 million estimated in table 1.6. We conclude that, at the present time, TSTD2 contains some record of 77.2 percent of all slaves leaving Africa for the Americas.

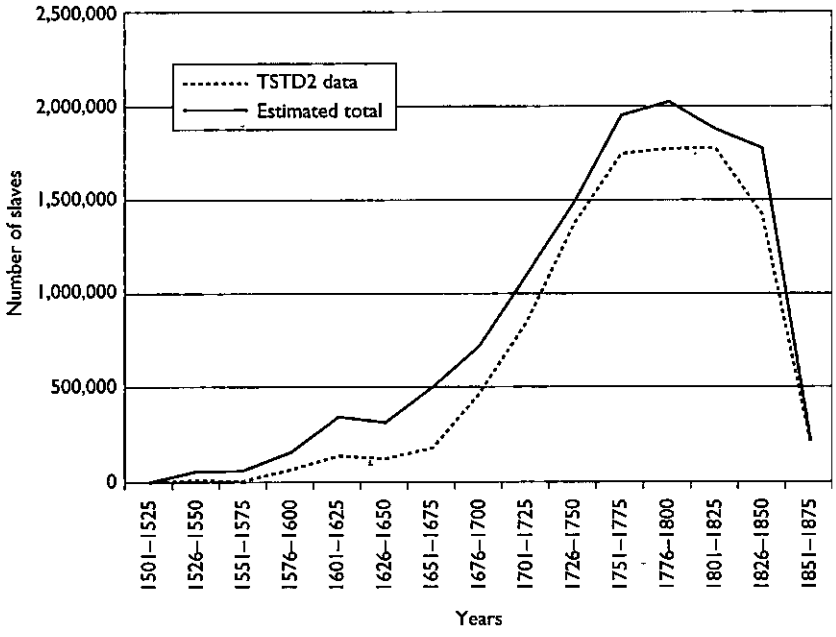

Figure 1.2 Slaves Leaving Africa by Quarter Century: Estimated, Compared to Recorded in TSTD2

Sources: Table 1.6 and TSTD2.

Table 1.6 provides summaries of national participation. Portuguese vessels are now thought to have accounted for 46.5 percent of the traffic, and the British around 26 percent. The difference between the two is largely explained by the late arrival of the British into the trade and their early departure with the 1807 abolition act. As long as they continued in the business, they dominated the northern wind and current system almost as much as the Portuguese dominated the traffic south of the equator. Of the others, the Spanish pattern of involvement was the inverse of that of the British. After major involvement with the Portuguese prior to the separation of the Iberian crowns in 1640, the Spanish carried almost no slaves in the eighteenth century prior to the last decade. They then reentered the traffic to the point where they came to dominate the northern wind and current routes as effectively as the British had in the previous century. For the French, the major determinant of participation was war. From 1689 to 1831, the French flag frequently disappeared altogether during hostilities. This apart, the trajectory of their trade was similar to the British, except that it continued for a further quarter century after British withdrawal. The Dutch, by contrast, were most important in the seventeenth century and carried few slaves after the British destroyed a good part of their merchant marine between 1780 and 1784.

The annual breakdowns for the participation of each national group across 350 years also provide a basis for estimating the departure of slaves from Africa and the arrival of slaves in the Americas. As table 1.1 shows, the database provides information on where voyages obtained slaves in Africa as well as where they sold slaves in the Americas. While this information is less than complete, for most years—or in the case of the African regions, for five-year periods—it provides a good basis for deriving shares of a nation's slave traffic with each of eight African and thirty-two American regions that dispersed or received slaves between 1525 and 1867. The national totals can then be distributed across regions in Africa and the Americas according to these regional shares. Departures for any given African region, or arrivals in any given American region, are thus the sum of the disaggregated national totals. Table 1.7 shows the results of this procedure for the eight African regions that are conventionally used to evaluate the slave trade. Table 1.8 does the same for the thirty-two regions in which slaves disembarked, one of which, it should be noted, was in fact Africa rather than the Americas, given the large numbers of detained vessels taken into Sierra Leone, Liberia, Luanda, and St. Helena in the abolitionist era.[90] Again the breakdown is provided for decadal intervals.

Such a distribution of captives on both sides of the Atlantic returns us to this chapter's point of departure. How do the new totals compare with the 2001 attempt to provide an overall assessment of the slave trade's size?[91] As already noted, in 2001 one of us estimated total slave departures from Africa at 11.062 million. We now think that 12.521 million were carried off—an increase of 13 percent. At the time of this writing, aggregate arrivals in the Americas are thought to have been 10.703 million, an 11 percent increase over 2001's estimate of 9.657 million. On the African side, the infusion of new material has not changed the regional distribution by much. Upper Guinea and the Gold Coast are now seen to have been slightly more important relative to the rest of Africa, and the Bights of Benin and Biafra slightly less. West Central and Southeast Africa, by contrast, remain in the same relative positions. On the American side of the Atlantic, the relative distribution has shifted toward Bahia and away from the British Caribbean, especially Jamaica, with most of the other major regions keeping the shares that they held in 2001. The new data thus have not threatened the dominance of West Central Africa and Brazil, but this is hardly surprising. The major benefit of the new information has been to increase our understanding of the links between Africa and the Americas and, of course, to provide much more detail about those links. Space constraints mean that a fuller explication of this facet of the trade must be reserved for a different occasion. Our major hope is that the revised data set will be used for purposes far beyond estimating the size of the slave trade. Most debates over issues of agency, identity, cultural patterns, gender, and resistance would not exist without an often implicit quantitative component.

The present volume of essays is in three parts. The first, "Origins and Destinations," groups five chapters that provide new information and interpretations for branches of the trade that have received less attention than they should. In addition to the Ribeiro, Domingues and Eltis, and Mendes essays already mentioned, this section includes Philip Misevich's analysis of slaves from Sierra Leone. He uses the new database to identify the coastal origins of vessels that were captured and condemned in the courts of mixed commission in Sierra Leone and Havana, and then exploits detailed information now available on the Africans onboard these vessels to construct a profile of enslaved peoples not hitherto possible. In an essay that overturns much of the traditional historiography, Oscar Grandío Moráguez argues for the central importance of Angola as a source of slaves arriving in nineteenth-century Cuba.

Table 1.7 Departures of Slaves from Major African Regions

	Senegambia	*Sierra Leone*	*Windward Coast*	*Gold Coast*	*Bight of Benin*	*Bight of Biafra*	*West Central Africa*	*Southeast Africa*	*All Regions Combined*
1501–10	1,900	0	0	0	0	0	0	0	1,900
1511–20	8,807	0	0	0	0	0	637	0	9,444
1521–30	10,990	0	0	0	0	0	0	0	10,990
1531–40	12,229	0	0	0	0	719	1,453	0	14,402
1541–50	23,257	0	0	0	0	1,361	2,771	0	27,390
1551–60	4,796	0	0	0	0	282	664	0	5,742
1561–70	32,277	1,168	0	0	0	1,867	5,412	0	40,725
1571–80	22,206	0	0	0	0	1,883	5,367	0	29,456
1581–90	25,448	237	0	0	0	0	31,206	0	56,891
1591–1600	5,370	0	2,482	0	0	2,346	70,368	0	80,566
1601–10	9,991	0	0	0	0	0	81,936	0	91,926
1611–20	8,541	0	0	68	1,873	1,142	137,308	0	148,932
1621–30	6,652	0	0	0	1,655	2,247	172,595	345	183,494
1631–40	4,562	0	0	0	1,988	1,630	112,020	0	120,199
1641–50	24,476	1,372	0	2,429	4,092	31,442	59,530	0	123,342
1651–60	17,723	752	351	1,437	12,163	24,791	95,382	3,088	155,687
1661–70	6,407	154	0	19,193	29,926	37,668	126,758	9,432	229,539
1671–80	13,267	0	0	28,835	29,813	34,394	108,966	7,116	222,391
1681–90	21,927	1,894	0	16,274	79,890	21,709	109,373	9,497	260,564
1691–1700	22,558	2,671	999	40,443	108,412	31,299	130,939	2,237	339,557
1701–10	16,344	1,217	3,059	81,144	136,943	21,979	133,434	120	394,241

1711–20	22,669	3,114	4,365	97,287	149,463	34,615	131,867	10,029	453,408
1721–30	34,933	9,419	4,532	113,877	194,430	41,830	145,437	3,934	548,392
1731–40	44,816	1,468	9,392	106,723	145,805	56,583	231,989	1,226	598,003
1741–50	24,210	8,004	25,202	61,626	108,220	93,891	245,436	0	566,589
1751–60	50,555	17,419	44,083	88,174	122,566	93,294	223,830	3,036	642,958
1761–70	52,405	42,296	76,521	108,658	110,383	146,542	280,240	1,916	818,960
1771–80	51,267	36,551	65,186	112,562	109,887	109,997	267,293	2,924	755,667
1781–90	37,944	31,378	36,067	135,036	113,692	151,242	333,888	28,746	867,993
1791–1800	28,043	51,119	21,176	109,441	93,197	154,642	371,789	19,000	848,407
1801–10	53,702	42,627	25,241	75,746	95,428	140,385	339,975	50,450	823,554
1811–20	29,166	22,624	7,190	1,712	74,093	65,870	407,491	77,697	685,843
1821–30	13,073	43,543	7,867	5,362	59,250	163,525	441,968	121,158	855,747
1831–40	4,626	43,926	3,155	3,293	73,081	97,829	343,464	116,910	686,284
1841–50	8,375	21,023	0	0	108,943	27,554	387,008	43,640	596,542
1851–60	0	4,795	0	0	22,528	2	113,927	30,167	171,418
1861–67	0	0	0	0	11,339	0	42,852	0	54,191
1501–1867	755,512	388,771	336,868	1,209,320	1,999,060	1,594,560	5,694,573	542,668	12,521,334

Source: TSTD2. For estimates, see estimates page at http://www.slavevoyages.org. Totals may not add up due to rounding.

Table 1.8 Arrivals of Slaves in Major Atlantic Markets

Decades	*Europe*	*Northern Mainland Colonies/ States*	*Chesapeake*	*Carolinas/ Georgia*	*Mississippi/ Alabama/ Florida*	*Guadeloupe*	*Martinique*
1501–10	0	0	0	0	0	0	0
1511–20	452	0	0	0	0	0	0
1521–30	0	0	0	0	0	0	0
1531–40	0	0	0	0	0	0	0
1541–50	0	0	0	0	0	0	0
1551–60	0	0	0	0	0	0	0
1561–70	0	0	0	0	0	0	0
1571–80	0	0	0	0	0	0	0
1581–90	0	0	0	0	0	0	0
1591–1600	188	0	0	0	0	0	0
1601–10	0	0	0	0	0	0	0
1611–20	85	0	0	0	0	0	0
1621–30	0	0	100	0	0	0	0
1631–40	0	0	0	0	0	0	0
1641–50	0	0	0	0	0	0	545
1651–60	0	434	630	0	0	632	1,222
1661–70	916	682	1,607	0	0	1,560	5,422
1671–80	1,503	56	2,399	0	0	890	2,556
1681–90	0	193	2,228	0	0	268	4,427
1691–1700	477	1,461	5,223	0	0	0	4,367
1701–10	0	96	12,808	227	0	215	8,130
1711–20	0	823	9,025	2,223	607	1,008	13,788
1721–30	1,081	709	21,588	7,851	6,386	563	24,871
1731–40	2,640	5,725	28,374	27,860	0	104	20,717
1741–50	405	5,521	12,094	2,982	222	218	32,692
1751–60	1,090	5,140	14,589	22,856	362	11,557	21,752
1761–70	0	5,367	12,953	28,044	327	16,532	7,245
1771–80	0	149	3,874	24,905	2,256	1,573	5,378
1781–90	23	0	106	13,363	829	2,461	3,472
1791–1800	0	260	0	13,085	672	9,552	22,253
1801–10	0	338	68	66,682	5,733	8,054	6,942
1811–20	0	0	0	95	4,190	8,243	7,932
1821–30	0	0	0	0	91	9,109	22,760
1831–40	0	0	0	0	0	333	441
1841–50	0	0	0	0	0	0	0
1851–60	0	0	0	303	110	0	0
1861–67	0	0	0	0	0	0	0
1501–1867	8,860	26,954	127,666	210,476	21,785	72,872	216,912

Saint Domingue	*French Guiana*	*Dutch Caribbean*	*Dutch Guianas*	*Río de la Plata**	*Spanish Caribbean Mainland**	*Puerto Rico**	*Cuba**	*Amazonia*
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	655	0	0	0
0	0	0	0	0	1,249	0	0	0
0	0	0	0	0	324	0	0	0
0	0	0	0	0	2,610	0	0	0
0	0	0	0	0	1,240	0	0	0
0	0	0	0	0	9,719	0	0	0
0	0	0	0	0	34,313	0	0	0
0	0	0	0	0	32,091	0	0	0
0	0	0	0	0	39,250	0	0	0
0	0	0	0	0	45,827	0	0	0
0	0	0	0	0	32,118	0	0	0
0	0	0	0	699	9,311	0	0	0
0	0	4,083	4,578	2,560	15,042	305	0	0
0	853	18,429	5,879	2,929	3,685	0	0	0
491	268	28,258	6,162	192	3,969	0	336	250
2,855	563	20,964	12,568	0	3,868	0	0	0
1,578	862	12,295	10,942	0	6,703	0	0	846
2,154	440	13,601	11,234	3,885	10,863	0	623	1,072
26,207	625	7,473	8,886	6,838	7,029	0	538	1,041
28,724	1,796	12,544	12,947	8,878	1,571	0	1,559	600
61,066	151	5,148	20,795	5,541	510	147	350	669
65,782	854	3,365	30,471	2,758	2,234	236	338	799
64,144	913	4,857	31,373	940	193	0	0	5,559
104,712	2,320	6,283	47,883	0	357	9,757	8,386	12,144
137,258	2,248	9,199	33,503	0	236	0	0	13,547
236,848	886	2,382	12,999	2,180	1,154	0	14,516	17,540
40,916	3,430	1,194	19,077	4,522	741	477	41,723	18,767
0	2,076	0	21,012	21,521	285	544	54,167	31,938
808	2,300	0	812	0	353	1,238	115,188	21,229
0	10,014	0	3,532	2,142	0	3,925	136,381	11,776
0	0	0	0	1,659	0	9,310	186,179	2,285
0	0	0	0	0	0	943	54,309	2,169
0	0	0	0	0	0	0	126,823	0
0	0	0	0	0	0	0	37,124	0
773,543	30,599	150,075	294,653	67,244	267,500	26,882	778,540	142,231

(*continued*)

Table 1.8 (continued)

Decades	*Pernambuco*	*Bahia*	*Southeast Brazil*	*Danish West Indies*	*Africa*	*Other Americas**	*Barbados*	*St. Kitts*
1501–10	0	0	0	0	0	1,340	0	0
1511–20	0	0	0	0	0	6,170	0	0
1521–30	0	0	0	0	0	7,693	0	0
1531–40	0	0	0	0	0	9,428	0	0
1541–50	0	0	0	0	0	17,922	0	0
1551–60	0	0	0	0	0	3,697	0	0
1561–70	1,365	0	0	0	0	24,770	0	0
1571–80	2,612	100	70	0	0	17,070	0	0
1581–90	5,005	1,652	1,157	0	0	23,619	0	0
1591–1600	9,589	3,895	3,543	0	0	7,838	0	0
1601–10	18,658	9,189	6,432	0	0	3,369	0	0
1611–20	35,202	21,659	15,163	0	0	5,675	0	0
1621–30	42,494	30,860	21,600	0	0	5,056	0	0
1631–40	6,721	30,860	21,600	0	0	3,337	0	0
1641–50	18,964	22,949	15,917	0	172	4,597	25,877	762
1651–60	11,392	36,530	25,571	0	1,970	5,396	16,212	0
1661–70	19,992	42,433	31,118	0	206	6,052	32,496	984
1671–80	22,379	32,693	23,273	196	281	3,651	29,831	270
1681–90	25,000	29,975	20,981	2,152	0	4,046	40,296	1,463
1691–1700	45,721	56,325	39,428	15,798	493	1,350	36,877	0
1701–10	52,861	60,798	41,609	4,061	0	4,341	34,366	166
1711–20	40,000	81,357	55,360	1,941	0	2,979	48,169	2,286
1721–30	38,714	91,074	51,207	2,887	259	5,611	34,233	13,211
1731–40	23,176	91,494	64,017	1,013	166	2,266	27,817	24,770
1741–50	29,427	91,322	69,268	2,672	90	3,651	24,536	18,088
1751–60	30,207	74,749	81,391	7,921	308	6,091	37,666	17,639
1761–70	28,166	66,645	84,673	7,180	92	10,687	49,837	27,082
1771–80	21,799	78,639	79,410	6,513	29	9,330	22,558	19,727
1781–90	27,256	82,622	109,660	12,301	281	17,879	4,711	5,129
1791–1800	37,730	97,204	119,965	22,118	1,093	16,041	20,434	2,892
1801–10	53,869	101,933	140,860	14,185	6,254	26,952	6,813	2,678
1811–20	81,460	115,337	223,161	0	13,809	15,483	0	0
1821–30	69,092	97,926	337,888	7,782	38,216	12,513	0	0
1831–40	35,158	34,133	265,909	277	32,054	5,744	433	0
1841–50	19,475	65,022	308,114	0	41,800	5,429	0	0
1851–60	350	981	5,568	0	8,987	0	0	0
1861–67	0	0	0	0	9,011	0	0	0
1501–1867	853,834	1,550,355	2,263,913	108,997	155,571	307,073	493,162	134,147

Source: TSTD2. For estimates, see estimates page at http://www.slavevoyages.org.

* "Other Americas" in part 2 of this table includes voyages arriving in broad regions in the Americas such as Thus, the pre-1641 series presented here for "Spanish Caribbean mainland," "Puerto Rico," and "Cuba" are category in this early period. Table 2.7 provides some indication of the true distribution of captives arriving in

Montserrat/ Nevis	*Antigua*	*Jamaica*	*Dominica*	*Grenada*	*St. Vincent*	*Trinidad/ Tobago*	*British Guiana*	*Total*
0	0	0	0	0	0	0	0	1,340
0	0	0	0	0	0	0	0	6,622
0	0	0	0	0	0	0	0	7,693
0	0	0	0	0	0	0	0	10,083
0	0	0	0	0	0	0	0	19,171
0	0	0	0	0	0	0	0	4,021
0	0	0	0	0	0	0	0	28,745
0	0	0	0	0	0	0	0	21,092
0	0	0	0	0	0	0	0	41,152
0	0	0	0	0	0	0	0	59,366
0	0	97	0	0	0	470	0	70,306
0	0	0	0	0	0	0	0	117,034
0	0	0	0	0	0	0	0	145,937
0	0	0	0	0	0	0	0	94,636
0	0	0	0	0	0	0	0	99,793
0	0	94	0	0	0	391	0	127,043
214	0	12,139	0	230	0	1,083	0	188,909
7,111	1,234	14,491	0	0	0	0	0	182,740
10,704	1,826	28,659	0	0	0	0	0	213,037
3,950	2,924	35,623	0	0	0	0	0	283,242
5,061	11,956	53,947	0	233	0	0	0	334,747
4,491	8,901	51,442	0	0	0	0	0	383,038
5,401	16,268	75,467	0	217	0	0	0	466,218
3,820	14,735	72,365	0	462	0	0	0	502,899
1,076	10,908	69,977	0	0	0	0	0	481,986
3,009	21,232	84,857	0	1,100	0	0	0	551,495
359	26,389	81,290	17,658	30,629	3,826	0	0	696,825
1,046	6,488	106,047	30,804	27,888	10,754	4,682	0	659,841
0	8,324	97,184	40,735	30,791	14,612	7,579	0	767,823
151	2,034	164,626	12,276	31,443	21,279	8,395	30,647	764,997
450	1,755	68,901	8,573	4,596	8,436	20,128	41,725	727,471
0	3,063	0	0	0	0	0	0	614,700
0	0	0	0	0	0	1,078	0	764,222
0	0	2,390	0	1,100	0	196	0	577,601
0	0	0	0	0	0	0	314	497,574
0	0	0	0	0	0	0	0	143,122
0	0	0	0	0	0	0	0	46,135
46,843	138,037	1,019,596	110,046	128,689	58,907	44,002	72,686	10,702,656

the Spanish Americas and Brazil, especially before 1700, without any further indication of port or region. biased downward because such regions in reality received most of the slaves assigned to the "Other Americas" the Spanish Americas before 1685.

The book's second part, entitled "National Slave Trades," reassesses the organization and structure of some European-based national traffics. James Pritchard, Eltis, and Richardson attempt new estimates of the early French slave trade. Jelmer Vos, Eltis, and Richardson reevaluate the Dutch role in the early modern Atlantic world. Andrea Weindl explores the little-known North German slave trade. All the essays in these first two parts provide underpinning for the estimates presented in this introduction.

Part III, "Some Wider Consequences and Implications of the New Data," examines some of the broader influences on and effects of the slave trade. Manolo Florentino places the Brazilian slave traffic within a broader geographic context by tracking the shifting patterns of African origins on one side of the Atlantic and then tracing the long slave routes within Brazil that slaves followed to their ultimate destinations. There is much need for similar work for slaves arriving in the Caribbean and the North American mainland, where captives have tended to disappear from the view of the historian after disembarking. Roquinaldo Ferreira traces the impact of abolition on the traffic from Angola. Finally, Eltis and Paul Lachance combine the new estimates of the transatlantic traffic with recent research on the intra-American slave trade and population data to reevaluate the demographic experience of Caribbean slave populations.

These essays constitute no more than a beginning to the task of digesting the new data. A host of other issues await analysis, including the implication of huge numbers of black females relative to white taken to the Americas before 1820; the vast numbers of children drawn into the traffic; the striking, indeed close to absolute, separation of the North and South Atlantic systems, which was determined not by politics but by the natural environment; and the closer interplay that is now possible to track between fluctuations in the transatlantic slave trade and events in both Africa and the Americas.

Another striking feature of the new database is the degree to which it has been built and reinterpreted by a generation of new scholars. Whereas Eltis, Lachance, Pritchard, and Richardson have been combing the archives and publishing on slavery and the slave trade for thirty years and more, and Manolo Florentino is an established scholar still in midcareer, more than half the contributors to the present volume are either publishing for the first time or publishing for the first time in English. These essays thus herald a changing of the guard, an Atlanticization of the pool of talent working on the slave trade, and a shift in the focus of interest from the more northerly branches of the slave trade to the South Atlantic. Many of the major participants in the

earlier debates have now retired or moved on to other topics. Indeed, most of the new contributions of data before the 1999 CD-ROM appeared were made in the 1968–88 period. Even those whose work had focused on reinterpreting the slave trade rather than bringing new data to the table did not return to the subject after the mid-1990s and, as a group, have not engaged in either evaluation or reinterpretation of the masses of new information now available.[92] With the appearance of a renewable voyage-based data source, and the major infusion of younger blood as represented in the present essays, we hope that a new era of engagement, debate, and critical evaluation is about to begin.

But the issues of this new work will no doubt differ from past concerns. It may seem that the major thrust of the research presented here is to add weight to Curtin's critics. This is, of course, a central part of the present volume, although we expect that the Hernaes and Inikori estimates of close to or in excess of 13 million transported slaves are too high to find support in voyage-based evidence. The main contribution of the new work in quantitative issues should be viewed as reconciling the discrepancies to which Curtin pointed between the estimates of arrivals in the Americas and estimates of departures from Africa—an issue that few of Curtin's critics engaged. For the first time in forty years, it is possible to see a broad picture that offers mutually reinforcing data on both sides of the Atlantic. We argue that there is a now a high degree of internal consistency and reliability about the aggregate estimates of the slave trade. More important, we would like to think that TSTD2 will shift attention away from the overall assessment of the slave trade and toward a tighter focus on individual branches of the slave trade and the thousands of ports that were involved in the business. Researchers now have the means with which to both draw on and add details to voyages for all branches of the slave trade. In the process, they will find it possible to address issues of far greater import than merely the size of the slave trade. Perhaps this book will be the last to devote a major part of its thrust to assessing the overall size of the slave trade.

NOTES

1. For a fuller presentation of this argument, see David Eltis, *The Rise of African Slavery in the Americas* (Cambridge, 2000), chap. 3.
2. For those of similar age to the authors, it is a constant source of amazement that small flash drives can store the complete records of all transatlantic slave voyages that historians have discovered in the archives since 1966.
3. Philip D. Curtin, *The Atlantic Slave Trade: A Census* (Madison, Wis., 1969).

4. David Eltis, "The Volume and Structure of the Transatlantic Slave Trade: A Reassessment," *William and Mary Quarterly* 58 (2001): 17–46. See also the chapter by David Eltis, Stephen D. Behrendt, and David Richardson, "National Participation in the Transatlantic Slave Trade: New Evidence," in José C. Curto and Renée Soulodre-LaFrance, eds., *Africa and the Americas: Interconnections during the Slave Trade* (Trenton, N.J., 2005), 13–42, for fuller information on the derivation of the 2001 national breakdowns.
5. Per O. Hernaes, *Slaves, Danes, and African Coast and Society: The Danish Slave Trade from West Africa and Afro-Danish Relations on the Eighteenth-Century Gold Coast* (Trondheim, 1997), 129–71.
6. David Eltis, Stephen D. Behrendt, David Richardson, and Herbert S. Klein, *The Transatlantic Slave Trade: A Database on CD-ROM* (Cambridge, 1999), henceforth referred to as TSTD1.
7. Eltis, "Volume and Structure."
8. David Eltis, Stephen D. Behrendt, David Richardson, and Manolo Florentino, *The Transatlantic Slave Trade: An Enhanced and On-line Database.* The revised database is available via an open-access Web site at http//www.slavevoyages.org and will be periodically updated as new data become available.
9. These figures take into account that sources such as Mettas–Daget (Jean Mettas, *Répertoire des expéditions négrières françaises au XVIIIe siècle,* ed. Serge Daget, 2 vols. [Paris, 1978–84]) and David Richardson, *Bristol, Africa, and the Eighteenth-Century Slave Trade to America,* 4 vols. (Bristol, 1986–96), call on more than one source per voyage, but when we entered the volumes in our database we simply use "Mettas–Daget" or "Richardson" as the reference, rather than listing all the references that such volumes draw on.
10. These scholars were Jelmer Vos, Roquinaldo Ferreira, Mariana Candido, Alexandre Vieira Ribeiro, Oscar Grandío Moráguez, Daniel Barros Domingues da Silva, Philip Misevich, Pedro Machado, and Richard Birkett.
11. These scholars have included Franz Binder, Ernst van den Boogaart, Henk den Heijer, Johannes Postma, James Pritchard, Andrea Weindl, António de Almeida Mendes, Manuel Barcia Paz, and José Capela, drawing on archival records in the Netherlands, Spain, Cuba, Portugal, and Mozambique.
12. For a list of the variables, see http://www.slavevoyages.org.
13. Bristol Record Office, SMV/9/3/3.
14. Described in Manolo Florentino, *Em costas negras: Uma história do tráfico atlântico de escravos entre a Africa e o Rio de Janeiro (séculos XVIII e XIX)* (São Paulo, 1997), 12–13; Herbert S. Klein, *The Middle Passage: Comparative Studies in the Atlantic Slave Trade* (Princeton, 1978), 51–94; and Corcino Medeiros dos Santos, "Relações de Angola com o Rio de Janeiro (1736–1808)," *Estudos Históricos* 12 (1973): 7–68.
15. The duty books recorded all departures to Africa from every British port in the Atlantic world between 1698 and 1712. They were a direct result of the 1698 act that destroyed the Royal African Company's monopoly and allowed all British investors access to the slave trade on payment of a duty worth 10 percent of the outgoing cargo. They may be found in the British National Archives, series T70, pieces 349–58.

16. Eltis, "Volume and Structure."
17. James A. McMillin, *The Final Victims: Foreign Slave Trade to North America, 1783–1810* (Columbia, 2004). McMillin's database comprises 1,764 voyages but does not distinguish between intra-American vessels and transatlantic expeditions. Our own database is concerned only with the latter, and we have attempted to separate the two categories in the McMillin collection. A larger problem with *Final Victims* is the extensive double and triple counting of voyages. Among the transatlantic voyages alone, 254 voyages are entered twice (in most cases once when the vessel left port and once when it returned), a further twenty-two are entered three times, and a single voyage appears as five separate entries. If the intra-American data in the set exhibit the same characteristics, then this is not a minor problem. Though not always recognized as such by their authors, duplicate entries are the largest single problem with any multisource database (which historians are now creating in increasing numbers) and for our own database—both first and second editions—elimination or at least reduction of such double counting absorbed more resources than the initial collection of the data. We cannot claim to have eliminated all.
18. To encourage transparency, Paul Lachance and David Eltis have constructed a set of spreadsheets that generate annual estimates for the major ports and countries involved in the trade, and have written an essay explaining the development of the worksheets. The estimates page of the database Web site contains the details of the new estimates and links to supporting material.
19. Enriqueta Vila Vilar, *Hispanoamérica y el comercio de esclavos* (Seville, 1977). For our detailed calculations of the early Spanish trade and the Portuguese and Spanish shares, see the Web site worksheets and essay.
20. Curtin, *Atlantic Slave Trade,* 116–17. See also Daniel Barros Domingues da Silva and David Eltis, "The Slave Trade to Pernambuco, 1561–1851," this volume (chap. 3).
21. For estimated arrivals, see the estimates page of the Web site and the supporting essay and spreadsheets by Lachance and Eltis.
22. Affonso de Escragnolle Taunay, "Subsídios para a história do tráfico africano no Brasil colonial," in *Anais do Terceiro Congresso de História Nacional,* vol. 3 (Rio de Janeiro, 1941), 533.
23. Voyageids 40,788 and 49,522, respectively. The first record of a Rio de Janeiro slave vessel in TSTD2 is not until 1597.
24. Stuart B. Schwartz, "A Commonwealth within Itself: The Early Brazilian Sugar Industry, 1550–1670," in Stuart B. Schwartz, ed., *Tropical Babylons: Sugar and the Making of the Atlantic Worlds, 1450–1680* (Chapel Hill, 2004), 156–200.
25. These procedures are described more fully in Domingues and Eltis, "Slave Trade to Pernambuco." For the Excel files that lay out the calculations, see the worksheets for Pernambuco and Bahia on the Web site.
26. Luiz Felipe de Alencastro, *O trato dos viventes: Formação do Brasil no Atlântico Sul, séculos XVI e XVII* (São Paulo, 2000), 378. The document is cited as AHU, Angola, caixa 10/64, documento estudado por A. L. A. Ferronha, "Angola," vol. 1, 119–20. According to Antonil, Bahia was much the largest sugar-producing region in Brazil by this time, and we have assigned 55 percent of the Angola figure to Bahia. See André João Antonil,

Cultura e opulência do Brasil (São Paulo, 1982; first published 1711), 140–43. We thank Daniel Domingues da Silva for drawing this to our attention.

27. Calculated from TSTD2. The African origins of Bahian vessels are reasonably complete for these years.
28. Calculated from TSTD2. See Pierre Verger, *Flux et reflux de la traite des nègres entre le Golfe de Benin et Bahia de Todos os Santos, du XVIIe au XIXe siècles* (Paris, 1968). For an overestimate of the Costa da Mina role, see Eltis, "Volume and Structure."
29. Arquivo Público do Estado da Bahia (henceforth APEB), cod. 439; Biblioteca Nacional do Rio de Janeiro (henceforth BNRJ), *Documentos históricos da Biblioteca Nacional do Rio de Janeiro,* 110 vols. (Rio de Janeiro, 1929–55), vol. 58, 132.
30. David Eltis, "The Nineteenth-Century Transatlantic Slave Trade: An Annual Time Series of Imports into the Americas Broken Down by Region," *Hispanic American Historical Review* 67 (1987): 109–38.
31. Alexandre Ribeiro's essay in this volume ("The Transatlantic Slave Trade to Bahia, 1582–1851," chap. 4) has 1,349,724 slaves going to Bahia based on an earlier version of TSTD2.
32. This paragraph is based on the Web site's Amazonia worksheet 9 and Daniel Barros Domingues da Silva, "The Atlantic Slave Trade to Maranhão, 1684–1846: Volume, Roots, and Organization," *Slavery and Abolition,* forthcoming.
33. Readers are invited to inspect the source variables of TSTD2 on the Web site to see the basis for this comment.
34. Eltis, "Nineteenth-Century Transatlantic Slave Trade."
35. David Birmingham, *Trade and Conflict in Angola: The Mbundu and Their Neighbours under the Influence of the Portuguese, 1483–1790* (Oxford, 1966), 137, 141, 154–55; Herbert S. Klein, "The Portuguese Slave Trade from Angola in the Eighteenth Century," *Journal of Economic History* 32 (1972): 898, 917; Klein, *Middle Passage,* 254–55; Maurício Goulart, *Escravidão africana no Brasil: Das origens à extinção do tráfico* (São Paulo, 1975), 203–5; José C. Curto, "A Quantitative Reassessment of the Legal Portuguese Slave Trade from Luanda, Angola," *African Economic History* 20 (1992): 1–25; and idem, "The Legal Portuguese Slave Trade from Benguela: A Quantitative Reappraisal," *Africa,* 16 (1993): 101–16. Only Klein has provided voyage data for his series.
36. See the relevant worksheets on the TSTD2 Web site for the detailed derivation of this series.
37. "O comércio de escravos novos no Rio setecentista" (unpublished paper, March 2003), table VIII. We thank Nireu Cavalcanti for permission to cite this work.
38. The complete derivation of the series is shown in the Rio de Janeiro worksheet on the TSTD2 Web site.
39. Russell R. Menard, *Sweet Negotiations: Sugar, Slavery, and Plantation Agriculture in Early Barbados* (Charlottesville, 2006), 49–66.
40. Han Jordaan, "The Curaçao Slave Market: From Asiento Trade to Free Trade," in Johannes Postma and Victor Enthoven, eds., *Riches from Atlantic Commerce: Dutch Transatlantic Trade and Shipping, 1585–1817* (Leiden, 2003), 219–59; Henk den Heijer, "West African Trade of the Dutch West India Company," in Postma and Enthoven,

Riches from Atlantic Commerce, 161. The distribution of slaves carried on Dutch vessels was calculated from TSTD2.

41. The estimates of the Dutch traffic presented here are more fully developed in Jelmer Vos, David Eltis, and David Richardson, "The Dutch in the Atlantic World: New Perspectives from the Slave Trade with Particular Reference to the African Origins of the Traffic," this volume (chap. 8). For their detailed derivation, see the relevant worksheet on the TSTD2 Web site.
42. See Johannes Menne Postma, *The Dutch in the Atlantic Slave Trade* (Cambridge, 1990), chap. 1, for a discussion of the significance of Binder's work. See also the source variables of TSTD2 for its impact on our work.
43. The disembarkation number differs slightly from the total of 26,286 imported slaves calculated by Ernst van den Boogaart and Pieter C. Emmer, "The Dutch Participation in the Atlantic Slave Trade, 1596–1650," in Henry A. Gemery and Jan S. Hogendorn, eds., *The Uncommon Market: Essays in the Economic History of the Atlantic Slave Trade* (New York, 1979), 369. The differences are accounted for first by the fact that we included in our calculations all slave ships reported on the African coast but for which there is no further information on the arrival side, while Van den Boogaart and Emmer counted purely on the basis of recorded imports in Brazil. Second, unlike them we have excluded the 1,326 slaves captured from Portuguese ships in 1630 and 1636.
44. Wim Klooster recently argued that the Dutch dominated the Atlantic slave trade between 1663 and 1688. See Klooster, "An Overview of Dutch Trade with the Americas, 1600–1800," in Postma and Enthoven, *Riches from Atlantic Commerce,* 376.
45. See Johannes Postma, "A Reassessment of the Dutch Atlantic Slave Trade," in Postma and Enthoven, *Riches from Atlantic Commerce,* 115–38.
46. The differences are explained in Vos, Eltis, and Richardson, "The Dutch in the Atlantic World."
47. Karen Ordahl Kupperman, *Providence Island, 1630–1641: The Other Puritan Colony* (Cambridge, 1993).
48. See voyageid 21,876, although the *Dragon* cleared London for Angola in 1633 on a voyage that, if successful, must have targeted slaves (voyageid 99,021).
49. Eltis, *Rise of African Slavery,* 140–42; Hilary Jenkinson, "The Records of the English African Companies," *Transactions of the Royal Historical Society* 6 (1912): 185–220.
50. David Eltis, "The Slave Economies of the Caribbean: Structure, Performance, Evolution, and Significance," in *General History of the Caribbean—UNESCO,* 2nd ed., Franklin W. Knight, ed., vol. 3, *The Slave Societies of the Caribbean* (New York, 2007).
51. See David Eltis and Paul Lachance, "The Demographic Decline of Caribbean Slave Populations: New Evidence from the Transatlantic and Intra-American Slave Trades," this volume (chap. 12).
52. The most recent primary research shows that slaves were present in Barbados prior to the sugar boom in the 1640s, but they may have arrived from some other part of the Americas. See Menard, *Sweet Negotiations,* 46–47.
53. In the 1660s (when the earliest solid data on sex ratios are available), the proportion of male slaves going to Barbados was 54 percent. For anecdotal evidence of a balanced sex ratio among Barbados slaves in the mid-seventeenth century, see Hilary

McD. Beckles, *Natural Rebels: A Social History of Enslaved Black Women in Barbados* (New Brunswick, N.J., 1989). For the estimate here, we have assumed a negative rate of natural increase of 4.5 percent and that 10 percent of new arrivals died in their first year in Barbados.

54. David Eltis, "The British Transatlantic Slave Trade before 1714: Annual Estimates of Volume and Direction," in Robert L. Paquette and Stanley L. Engerman, eds., *The Lesser Antilles in the Age of European Expansion* (Gainesville, 1995), 191–215; David Eltis, "The Volume and African Origins of the Seventeenth-Century English Transatlantic Slave Trade: A Comparative Assessment," *Cahiers d'Etudes Africaines* 138 (1995): 617–27. Note that the estimates in these publications for the years between 1698 and 1712 have been superseded by new research into T70/352–56, mentioned above.
55. This paragraph is based on James Pritchard, David Eltis, and David Richardson, "The Significance of the French Slave Trade to the Evolution of the French Atlantic World before 1716," this volume (chap. 7); James Pritchard, "An Incidental Slave Trade: The French in Africa during the Seventeenth Century" (unpublished paper, 2004); James Pritchard, *In Search of Empire: The French in the Americas, 1670–1730* (Cambridge, 2004), 215–20, 369; and TSTD2.
56. Robert Louis Stein, *The French Slave Trade in the Eighteenth Century: An Old Regime Business* (Madison, Wis., 1978), 13–15.
57. See the estimates page of the TSTD2 Web site for the annual breakdowns.
58. Eric Saugera, "Pour une histoire de la traite française sous le Consulat et l'Empire," *Revue Française d'Histoire d'Outre-Mer* 76 (1989): 203–29.
59. Mettas's *Répertoire des expéditions négrières françaises* is the foundation of TSTD2 for the eighteenth-century French trade; Serge Daget, *Répertoire des expéditions négrières françaises à la traite illégale (1814–1850)* (Nantes, 1988) has the same status for the nineteenth century.
60. TSTD2, number of cases = 646, standard deviation = 66.8.
61. The data set contains records of 251 U.S. registered slave ships between 1811 and 1861.
62. Jay Coughtry, *The Notorious Triangle: Rhode Island and the African Slave Trade, 1700–1807* (Philadelphia, 1981), 241–84, lists 930 voyages. As the author has never provided the voyage-by-voyage sources on which his appendix is based, his work must be taken on trust. Further, his list obviously includes some imputed numbers of slaves, as opposed to data extracted from the historical record. Thus, for example, the number of 114 slaves carried appears far more often in the list than one would expect if it had an evidentiary base. The team of scholars working on TSTD2 has verified some of these voyages, and indeed added information to 709 of Coughtry's voyages, but we have not been able to verify all. In addition, we have identified ten voyages that are included in Coughtry's appendix twice and have therefore merged them, reducing Coughtry's list to 920 voyages.
63. McMillin, *Final Victims,* CD-ROM.
64. In the T70 series of the BNA, vols. 1540–56.
65. These include the CO28 series (BNA) of Barbados treasurer's reports of duties paid on slaves disembarked on the island, as well as the better-known Naval Office shipping lists and, for the seventeenth century, the reports of Royal African Company agents

stationed in the Caribbean. See the source variables listed for U.S. voyages in TSTD2 for precise references.

66. This ratio is almost identical to that estimated by David Richardson from a Senate document for the years 1804–7. See Richardson, "Slave Exports from West and West-Central Africa, 1700–1810: New Estimates of Volume and Distribution," *Journal of African History* 30 (1989): 8–9.
67. See the U.S. worksheet on the TSTD2 Web site for the details of this calculation.
68. One of the best-documented cases was the *Jesus Nazareno,* Capt. Mariano Ferrar (id 41,884), ninety-five captives from which were taken into Georgia in late 1817 via Amelia Island. See the Georgia State Archives, Governor Clayton Papers, 678.364, 3710. See also W. E. B. Du Bois, *The Suppression of the African Slave Trade to the United States of America, 1638–1870* (New York, 1896) for the role of Amelia Island, though our own assessment of the size of this trade is well below that of Du Bois.
69. See Sylviane Diouf, *Dreams of Africa in Alabama: The Slave Ship Clotilda and the Story of the Last Africans Brought to America* (New York, 2007).
70. Adam Jones, *Brandenburg Sources for West African History, 1680–1700* (Stuttgart, 1985), 1–11. The Gross Friedrichsburg fort was virtually moribund for the first two decades of the eighteenth century, before the Dutch took it over. Note that Courland briefly attempted a factory in the Gambia.
71. See Jones, *Brandenburg Sources,* and Andrea Weindl, "The Slave Trade of Northern Germany from the Seventeenth to the Nineteenth Centuries," this volume (chap. 9). For the Swedish slave trade, see Göran Skytte, *Det kungliga svenska slaveriet* (Stockholm, 1986). We would like to thank Eva Lachance for assistance in translating sections of this book.
72. Hernaes, *Slaves, Danes,* 170–233; Svend Holsoe, personal communication (note that Holsoe's work on this has not been published). See also Weindl, "Slave Trade of Northern Germany."
73. Not all these voyages had known outcomes, and many have incomplete information on numbers of slaves carried. Slightly different assumptions on both outcomes and imputed numbers on these voyages have resulted in TSTD2's generating estimates that vary slightly from those of Hernaes. Hernaes did not include in his total those Dutch vessels that carried slaves to St. Thomas for both Brandenburg and Danish companies, apparently under the Dutch flag. These vessels are included as Danish company ships, however, in Waldemar Westergaard, *The Danish West Indies under Company Rule* (New York, 1917). In the present study, such vessels are included under the Dutch designation.
74. Note that Holsoe's focus is region of arrival in the Americas, whereas Hernaes's concern is the size of the Danish trade. The minor carriers section of table 1.4 is not directly comparable with Hernaes's estimates.
75. See António de Almeida Mendes, "The Foundations of the System: A Reassessment of the Slave Trade to the Spanish Americas in the Sixteenth and Seventeenth Centuries," this volume (chap. 2).
76. For all counts of voyages see TSTD2, and for estimates of slaves carried see the estimates page of the slave voyages Web site and the accompanying spreadsheets. Note that

Portuguese slave ships were still arriving in 1641 under the asiento that had expired in 1640, so that 3,134 are estimated for that year.

77. The roughly two-thirds of the slave trade to the Spanish Americas that was not Spanish between 1642 and 1662 is taken to have been Dutch, Portuguese, and English and is accommodated in the estimates for those flags elsewhere in this essay.
78. Mendes, "Foundations of the System."
79. The many African sources for this period contain little evidence of Spanish transatlantic slave vessels.
80. Bibiano Torres Ramírez, *La isla de Puerto Rico (1765–1800)* (San Juan, 1968). For a summary of Spanish attempts to reenter the trade, see ibid., 111–18, and David Eltis, *Economic Growth and the Ending of the Transatlantic Slave Trade* (New York, 1987), 51.
81. Alex Borucki, "The 'African Colonists' of Montevideo: New Light on the Illegal Slave Trade to Rio de Janeiro and Río de la Plata (1830–1842)," forthcoming.
82. See the "Africa >1830" worksheet of the estimates page of the slave voyages Web site, which applies this assumption for captured vessels; also the Spanish worksheet, which integrates the resulting estimates of slaves removed from captured Spanish vessels with the estimates of other branches of the nineteenth-century Spanish traffic.
83. Eltis, "Volume and Structure."
84. For a recent restatement of the older position by Saugera, however, see the Web document *La traite des Noirs en 30 questions par Eric Saugera,* at http://ww3.ac-creteil.fr/hgc/spiparticle.php3?id_article=284 (posted January 5, 2003).
85. Domingues da Silva, "Atlantic Slave Trade to Maranhão."
86. Curtin, *Atlantic Slave Trade,* 211, table 1.63.
87. Ibid., 212, table 1.64; 219–20.
88. It now seems that about one in ten ventures that actually left port failed to return after selling slaves in the New World. The lowest loss ratios—at least before the privateering activity associated with nineteenth-century independence movements in the Iberian Americas—were on the South Atlantic routes between Angola and Brazil. For the importance of this issue, see Stephen D. Behrendt, "The Annual Volume and Regional Distribution of the British Slave Trade, 1780–1807," *Journal of African History* 38 (1997): 187–211.
89. Greg O'Malley, "The Intra-American Slave Trade: Forced African Migrations within the Caribbean and from Islands to the Mainland" (paper presented at the annual meeting of the American Historical Association, Philadelphia, 2006).
90. For a full discussion of the procedures that have generated tables 1.7 and 1.8, see the slave voyages Web site.
91. Eltis, "Volume and Structure."
92. Some scholars have turned to world history, others have switched to the burgeoning industry of microhistorical studies of individual slave voyages and case studies of single slaves, and a third group has treated the pre-1999 work as set in amber, using it to pursue links between the slave trade and other historical phenomena such as industrialization and demographic trends in populations of African descent.