# Data Appendix for: "The Long-Term Effects of Africa's Slave Trades"

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## 1 Overview of the Construction Procedure

To construct estimates of the number of slaves from each country shipped during Africa's four slave trades, I rely on two kinds of data. The first kind are shipping records that report the total number of slaves exported from each port or region within Africa. Although these data provide an indication of the slaves' place of embarkation, they do not specify where the slaves were originally from. Slaves shipped from the coast of a country may not have necessarily come from that country. They may have come from countries located further inland. Because of this, I combine the shipping data with historic data that report the ethnic identities of the slaves shipped during the slave trades. These ethnicity data are from a variety of different documents from the countries where the slaves were shipped to. Examples include plantation inventories, slave runaway notices, records of sale, death records, marriage records, notarial records, and court records. I use the ethnicity data to provide an estimate of the number of slaves shipped from each coastal country that were from inland countries. Using this estimate I then calculate an estimate of the number of slaves shipped from all countries in Africa, coastal and landlocked. The exact procedure that I use is as follows.

- 1. Using the shipping data, I calculate the total number of slaves shipped from each coastal country.
- 2. I link the location of ethnicities to modern political boundaries. Using

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the ethnicity samples, I calculate the number of slaves that were from each country in Africa.

3. Using the distribution of slaves from each country from the ethnicity data, the proportion of slaves shipped from each coastal country that would have come from countries located inland of that country can be calculated. The total number of slaves shipped from a coastal country is then divided between slaves from the coastal country and slaves from inland countries.

The logic behind the procedure can be illustrated with a simple example. Figure 1 shows an artificial map of the west coast of Africa. The map shows five countries, labeled Country A to Country E.

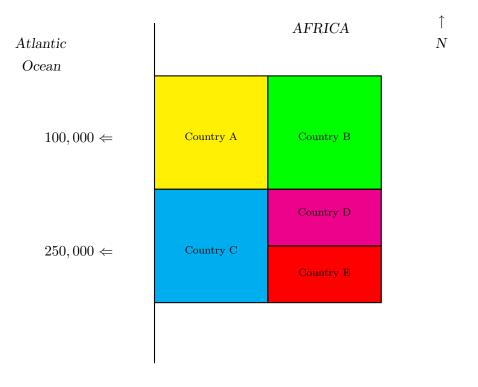


Figure 1: Artificial Map of the West Coast of Africa.

In the first step, from the shipping data I calculate the number of slaves shipped from the ports of each coastal country. Assume that, as shown in the figure, I find that 100,000 slaves are shipped from the coast of Country A and 250,000 are shipped from the coast of Country C.

In the second step, I use the samples of slaves for which I know their ethnic identity. I map the slaves' ethnicities to modern political boundaries using a concordance that I have constructed. Using the concordance I am able to calculate for my sample the distribution of slaves from all countries, coastal and interior. Assume that the distribution between each coastal country and the countries to the interior is as follows:

- 1. Country A : Country B = 4 : 1
- 2. Country C : Country D : Country E = 3 : 1 : 1

In the third step, I correct for the fact that slaves shipped from the coast may have been from the inland countries. I assume that slaves shipped from Country A are either from Country A or Country B, and that slaves shipped from Country C are either form Country C, Country D or Country E. Based on the distribution from the ethnicity data, I assume that 1 of every 5 slaves shipped from Country A would have been from Country B. Similarly, 1 of every 5 slaves shipped from Country C would have been from Country D, and 1 of every 5 would have been from Country E. Using this information, I calculate an estimate of the number of slaves that came from each country. For this example, the calculations are as follows:

Slave exports from Country A=  $100,000 \times 4/5 = 80,000$ Slave exports from Country B=  $100,000 \times 1/5 = 20,000$ Slave exports from Country C=  $250,000 \times 3/5 = 150,000$ Slave exports from Country D=  $250,000 \times 1/5 = 50,000$ Slave exports from Country E=  $250,000 \times 1/5 = 50,000$ 

In practice, I also use the ethnicity data to adjust for the fact that in reality countries are not shaped like blocks, as my stylized example assumes. Specifically, for Guinea and Zaire the majority of each country lies landlocked behind other countries. I also use the same procedure to estimate the number of slaves exported from these countries and the countries located between these countries and the coast.

## 2 Testing the Precision of the Construction Procedure

In my calculations I assume that slaves shipped from a port within a country are either from that country or from countries directly to the interior. One problem with this procedure is that slaves exported from a coastal country may come from countries that are not inland of the coastal country, such as adjacent coastal countries.

Three samples of slaves for which we know the slaves' ethnicity and the ports they were shipped from are available. For these slaves, I am able to calculate the margin of error if when my calculation procedure is applied to these data.

The first sample is from Nwokeji and Eltis (2002). The authors have begun to extract data from the Sierra Leone Liberated African Registers. They have identified with certainty the ethnicities of 886 slaves from six ships leaving from the Cameroons estuary between 1822 and 1837. Within the sample of 886 slaves, only 21 (2.4%) are from outside of Cameroon or from the interior (Central African Republic or Niger). Most of those from outside were either Igbo (from modern Nigeria) or from the Middle Belt (Niger). Therefore, my procedure would correctly identify 97.6% of the slaves in this sample.

Lovejoy (1994) provides data on 54 slaves shipped from the coast of Nigeria. Of the 54 slaves, 41 are from Nigeria, 6 from Cameroon, 2 each from Niger and Chad, and 1 each from Gabon, Kenya and Zaire. Because my procedure assumes that slaves shipped from Nigeria are from Nigeria, Niger or Chad, in this sample 83.4% of the slaves shipped from the ports would be properly identified.<sup>1</sup>

La Torre (1978) provides data on 657 slaves imported into Asante (located in modern Ghana) between 1837 and 1842.<sup>2</sup> Slaves imported into the kingdom can be taken as a rough indicator of the ethnicities of slaves that were exported from the ports of Ghana at this time. Of the 657 slaves, 152 (23.1%) were from areas within Ghana and 406 (62.2%) were from the Mossi and Gurma states of Burkina Faso. My procedure would attribute slaves exported from the ports of Ghana as coming from either Ghana or Burkina Faso and therefore, 84.9% of the slaves exported from Asante ports located in Ghana would be correctly identified.

As a second check of the accuracy of my estimates I aggregate the slave export figures across countries by slave trade and by time period. These aggregate figures are shown in Table 1. These estimates correspond closely with the general consensus among African historians regarding the total volume of slaves shipped in each slave trade. The only exception is that

<sup>&</sup>lt;sup>1</sup>The misidentification comes primarily from the port of Calabar, which is only about 25 miles from the Cameroon border. Of the 5 slaves shipped from this port, none were from Nigeria, 4 were from Cameroon, and 1 was from Zaire.

<sup>&</sup>lt;sup>2</sup>The data are summarized in Lovejoy (2000, pp. 161–162).

the total exports for the trans-Atlantic slave trade are slightly less than the standard estimate of 12 million slaves (e.g., Lovejoy, 2000). The lower total is explained by the fact that the database only contains approximately 82% of all trans-Atlantic slaving voyages (Eltis and Richardson, forthcoming).

## 3 Ethnicity Data: General Description and Issues

To link the ethnicity of each slave to countries current political boundaries I consulted a number of resources that provide information on the location of ethnicities within Africa. Most sources provide detailed maps as well as descriptive information. I relied primarily on Murdock (1959) which provides the finest and most detailed coverage of African ethnicities. I also used extensively Hall (2005), Moseley and Asher (1994), Grimes (1996) and Curtin (1969). For a smaller number of ethnicities I also consulted Hunter (1956), Malherbe (2000) and Greenberg (1966).

Figure 2 reports a reproduction of the map of African ethnicities from Murdock (1959). The figure also shows current political boundaries. As is evident from the figure ethnicities tend to be much finer than countries. In the map, there are 53 countries and 865 ethnicities. As a result, in most cases an ethnicity lies within only one country. However, there are instances where an ethnicity is not contained within the borders of one country, e.g. the Kongo, Malinke, Ewe, and Fon. In these cases, I use the fraction of an ethnicity's land area in each country as weights when assigning the number of slaves from an ethnicity to the relevant countries.

## 4 Trans-Atlantic Slave Trade

#### 4.1 Ethnicity Data

The data that report the ethnicities of slaves shipped during the trans-Atlantic slave trade are from a number of different sources. A summary of the sources is reported in Table 2.

One potential problem with the sample of ethnicities that I have collected is that the sample may not be representative of the entire slave trade. My samples may over-sample some destination countries, some nationalities of the carriers, or certain time periods. Mis-representing the first two dimensions do not appear to be problematic for my calculations. Paul Lovejoy writes that the "destination in the Americas does not appear to have been a significant factor affecting the make-up of ship consignment of slaves" (Love-

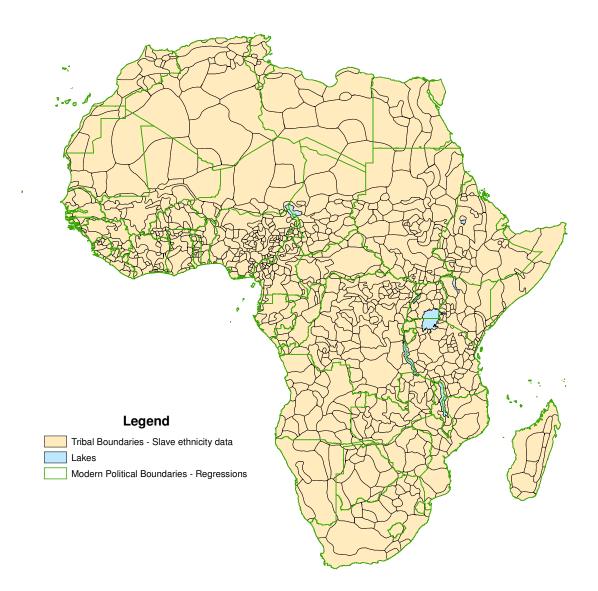


Figure 2: African Ethnicities and Current Political Boundaries. Source: Murdock (1959).

joy, 1994, p. 158), while Eltis and Engerman write that "in the nineteenth century, war and the illegal nature of the trade made national flags largely meaningless" (Eltis and Engerman, 1992, p. 239). However, the temporal dimension is important for my calculations. Overtime, slaves were taken from further and further inland. Because a key component of the estimates is the calculation of the proportion of slaves from inland countries, the time dimension is particularly important for the estimation procedure. For this reason, I group the ethnicity data and shipping data into the following five time periods: 1450–1521, 1527–1599, 1600–1699, 1700–1799, 1800–1866. I calculate slave exports separately for each time period.

#### 4.1.1 The Two Sierra Leone Censuses from the 1840s

During the 1840s the linguist Sigmund Koelle took an inventory of the languages of liberated slaves living in Sierra Leone (see Koelle, 1854). Among the information that Koelle recorded was the slave's ethnicity and the number of "fellow countrymen" also living in Sierra Leone. The shortcoming of this data is that for ethnicities with large populations only rough numbers are known. For these groups Koelle lists rough estimates such as "several thousand", "many" or "few".

A second census taken in 1848 by the British government also exists (see Great Britain, 1849). This census is complete, but it only categorizes individuals into the 19 most common ethnic categories, while the other ethnicities are all grouped under the heading "Other small tribes". Although, the less common ethnicities are not identified in this census, this information is available from Koelle's census, which was taken at approximately the same time. Augmenting the British census with Koelle's information, I am able to combine the information from the two sources to create a complete census of the population of Sierra Leone in 1848. This is one of the sources used in my ethnicity sample.

#### 4.2 The Re-Export of Slaves from Entrepôts

A number of African islands were used as entrepôts for shipping slaves. I am careful not to falsely attribute slaves imported and then exported from a country as originating from that country. The islands that were used as trans-shipment points are São Thomé and Principe, Canary Islands, Cape Verde, Mauritius, the Seychelles, and the Islands of Annobon and Corisco of modern day Equatorial Guinea.

Ships sailing from São Thomé and Principe carried re-exported slaves

rather than slaves from the island (Tardieu, 2001, p. 49). Curtin reports that in the sixteenth century 20% of imports into São Thomé were from the Bights of Benin and Biafra and that 80% were from the Congo-Angola area (Curtin, 1969, p. 100). I use these numbers to estimate the regions of origin for slaves shipped from the islands.

Slaves shipped from the Canary Islands and Cape Verde were originally from the area of modern day Gambia, Senegal and Guinea-Bissau (Curtin, 1969, pp. 103–104). I use the sample of 314 slaves from the Cape Verde from Carreira (1983) to estimate the origins of the slaves that were shipped from the Canary Islands and Cape Verde.

The origins of the slaves from Mauritius and Seychelles are estimated in the same manner as the origins of slaves shipped during the Indian Ocean slave trade. This is described in Section 5.

I assume that slaves shipped from Annobon and Corisco originated in Equatorial Guinea or Gabon. The ethnicity data are used to divide the slaves between these two countries.

#### 4.3 Details of the Construction Procedure

I use the ethnicity data to adjust the shipped data in the following ways (the order of adjustments in practice follow the order listed below):

- 1. In some instances the shipping records only report the region of departure, rather than the specific port. When the region encompasses more than one country, the ethnicity data are used to allocate the slaves exported from the region to the coastal countries of the region.
- 2. Because of the small size of Benin and Togo, I include both countries as belonging to one region and I use the ethnicity data to assign the slaves exported from the region to each country.
- 3. The ethnicity data are used to estimate the number of slaves originally from landlocked countries that were shipped from adjacent coastal countries. The exports of the coastal countries are adjusted accordingly.
- 4. The ethnicity data are used in cases where much of a country lies landlocked behind another country. Specifically, this is a concern for Guinea and Zaire.

Throughout the construction procedure I treat Senegal and Gambia as one country, Senegambia. I do this because the very small size of Gambia makes determining whether ethnicities from Senegambia were from Senegal or Gambia impossible. The map of ethnicities and countries in Figure 2 shows that no ethnicity can be uniquely mapped to Gambia only. Any ethnicity belonging to Gambia also belongs to Senegal. I construct an estimate for Senegambia and then disaggregate the slaves between Senegal and Gambia using the relative size of each country, measured using land area.

#### 4.3.1 Early Atlantic Slave Trade, 1450–1521

Data on the location and number of slaves shipped from Africa during this time period are from Elbl (1997). Elbl provides information on the number of slaves exported from four regions of Africa: the Mauritanian Coast, Upper Guinea, the Gulf of Guinea, and West-Central Africa.

I use the ethnicity samples from 1400 to 1599. The cross-country distribution of slave origins from the ethnicity samples is shown in the first two columns of Table 3. The distribution is consistent with the qualitative evidence of the origin of slaves during this time. For example, the data show that few slaves were exported from the Gold Coast (modern day Ghana). At the time, this area was an importer of slaves, rather than an exporter. The Portuguese would buy slaves from the Niger Delta, ship them to the Mina factory (located in the Gold Coast), where they would be traded for gold (Elbl, 1997, p. 44; Vogt, 1973).

Also consider the period 1500–1599 reported in column 2. Consistent with the qualitative evidence, the figures show that the a large proportion of the slaves taken from Africa during this time period were from the Portuguese controlled areas of Angola and Guinea Bissau. This is also consistent with the shipping data, which show that during this time most slaves were exported by the Portuguese.

#### 4.3.2 Atlantic Slave Trade, 1521–1866

The shipping data are from the second edition of the *Trans-Atlantic Slave Trade Database* (Eltis *et al.*, 1999; Eltis and Richardson, forthcoming). I construct estimates for each of the following periods: 1521–1599, 1600–1699, 1700–1799, and 1800–1866.

## 5 Indian Ocean Slave Trade

Data on the shipments of slaves during the Indian Ocean slave trade are from a variety of sources. Data on the number of slaves shipped to the Middle East from Africa are from Austen (1979) for the years prior to 1769, Martin and Ryan (1977) for 1770 to 1799, and Austen (1988) for 1800 to 1899. Data on the number of slaves shipped to the Mascarene Islands are from Lovejoy (2000). The data are reported in Table 4.

The data reporting slave ethnicities and their sources are shown in Table 5. The resulting cross-country distribution of slaves from the sample is shown in Table 6.

The two samples from Mauritius only distinguish between slaves that were originally from the island of Madagascar and slaves originally from mainland Africa. I use the data from the Mauritian samples to distinguish between slave who were originally from mainland Africa and those from Madagascar. The origin of all slaves from the mainland are estimated using the ethnicity data from Harris (1971), and from primary documents from the Zanzibar National Archives. The later data source is described in Sheriff (1988). The sample from Harris (1971) is of slaves shipped to Bombay, India, while the sample from the Zanzibar Archives are from slaving dhows departing from Zanzibar that were intercepted by British patrol ships in the 19th century (Sheriff, 1988), and from slaves freed in Zanzibar and Mombasa.

## 6 Trans-Saharan Slave Trade

Data on the volume of slaves shipped during the trans-Saharan slave trade are from Ralph Austen's estimated census for the trans-Saharan slave trade (Austen, 1992, pp. 219, 227). The data are disaggregated by the region that slaves were exported through: Egypt, Morocco, Algeria, Tunisia, and Libya. These data are summarized in Table 7. The data from Austen (1992) are a collection of information on "all significant [documented] observations of both slave trading and the presence of African slaves and/or ex-slaves in receiving Mediterranean areas" (Austen, 1992, pp. 214). In many cases, the data compiled by Ralph Austen not only provides information on the volume of trade, but also on the origins of the slaves, the route the slaves took, or the caravan in which the slaves arrived.

Austen has also collected information on slave movements within Saharan Africa. This information is summarized in Table 8, which reports the locations of departure and arrival for known shipments of slaves, as well as the year and the total volume of slaves shipped.

The possible trade routes during the Saharan slave trade were limited by the availability of water across the Saharan desert. In total, there were only 6 routes across the Saharan desert (see Lovejoy, 2000, p. 27). The limited number of routes, along with the information on the origins, routes taken, and caravans from Austen (1992) allows one to produce estimates of the origins of slaves shipped during the trans-Saharan slave trade. In addition, for certain parts of the trade detailed ethnicity data, like that used for the trans-Atlantic slave trade, are available.

## 6.1 Egyptian Exports

A summary of the additional information available for the slaves shipped to Egypt is provided in Table 9. The first column reports the additional information. The second column reports the implied source of the slaves from information in column 1. When the information in column 1 is sufficient to identify the country of origin of the slaves, then the second column reports the isocode of the country. In some instances the information in column 1 only indicates the route that the slaves arrived on, not the initial source of the slaves. But, using additional information on intra-Saharan shipments, one can estimate the original source of the slaves. These cases are indicated with an \*. In the table, the slaves from Central Sudan fall into this category. I use data from a sample of slaves from Central Sudan to estimate the origins of these slaves. The sample is summarized in Table 10. The distribution across countries is summarized in Table 11.

My estimation applies the same procedure that was used for the trans-Atlantic and Indian Ocean slave trades. I estimate Egyptian exports separately for three different periods: 1400–1599, 1600–1799, and 1800–1899. I disaggregate the total volume of slaves shipped to Egypt, reported in Table 7, using the more detailed information from Table 8.

To illustrate the procedure, consider the period 1400–1599. Of the sample of the 3,800 slaves for which information on the origins is available, 1,700 were from Takrur and 2,100 were a tax imposed on Upper Egyptian Bedouins. Because the information on movements of slaves within the Saharan desert (summarized in Table 8) does not indicate that any slave caravans brought slaves to Takrur, the slaves are assumed to be Tukulor, from modern day Senegambia (SEN-GMB) and Mauritania (MRT). Based on the information in Table 8, I assume that the slaves seized as tax were originally from Central Sudan. Therefore, 1,700/3,800 = 44.7% of slaves shipped during this period were from Takrur and 2,100/3,800 = 55.3% were from Central Sudan. The origins of the slaves shipped from Central Sudan are determined using the ethnicity sample from Central Sudan which is reported in Table 11.

The same procedure is also employed for Egyptian exports from 1600-

1799 and from 1800–1899. For the latter period, the source of the slaves shipped from Libya in the late 1870s is determined by using the information on the origins of slaves shipped to Libya, which I describe below in Section 6.2.

### 6.2 Libyan Exports

The detailed information on the sources of slaves for Libyan exports is summarized in Table 12.

From the data on the intra-Saharan trade reported in Table 8, the origins of slaves from Fezzan are: 2.1% from Katron (LBY); 39% from Borno (NGA); 3.4% from Kano (NGA); 55.5% from Sudan (TCD). Based on the information from Table 8, I assume that slaves from "Sudan" are from the region that is currently Chad (TCD).

### 6.3 Tunisian Exports

The detailed information on the sources of slaves for Tunisian exports is summarized in Table 13. From the data on the movement of slaves within the Saharan desert reported in Table 8, the origins of slaves from Ghadames are: 39.4% from Kano (NGA) and 60.6% from Borno (NGA).

### 6.4 Algerian Exports

Ghāt is located in western Libya, close to the Algerian border. From the data on the intra-Saharan trade reported in Table 8, the origins of slaves from Ghat are: 39.4% from Kano (NGA) and 60.6% from Borno (NGA). Slaves entering Algeria through Oran were from Morocco. As shown below in Section 6.5, all slaves exported into Morocco were from Timbuktu (MLI). Therefore, these slaves are assumed to have originated in Mali.

#### 6.5 Moroccan Exports

As reported in Table 15, according to the available evidence all slaves shipped to Morocco were from Timbuktu, which is located in Mali.

## 7 Red Sea Slave Trade

Estimates of the total number of slaves exported during the Red Sea slave trade are from a number of sources. For the period 1800 to 1899 the data are from Austen (1988). For this period a breakdown by port of embarkation

is provided. For the period from 1400 to 1799 the data are from Austen (1979). For this period only the aggregate number exported from the four Red Sea ports is known.

Data on the ethnic identity of slaves shipped in the Red Sea slave trade are summarized in Table 17. The data are from two samples of slaves, on to Bombay, Indian and the other to Jedda, Saudi Arabia.

The distribution of ethnicities across countries is reported in Table 18. According to the figures, the vast majority of slaves were from Ethiopia and Sudan. This is consistent with descriptive historical accounts of the sources of slaves in the Red Sea trade. The best evidence of the origins of the slaves is from (Harris, 1971, pp. 43–44). Harris writes that "the southern and western provinces of Ethiopia were major sources for the Red Sea traffic" and that "the major source of slaves in the heart of the continent was the Bahr el Ghazal, southwest of Ethiopia." Bahr el Ghazal is located in modern Sudan. Harris also provides more precise estimates of the volume and origins of slave in the Red Sea trade. Annual averages are as follows: (1) Ethiopia – Gurage (early 1800s) 3,000; Jimma (1870s) 4,000; Bonga (1880s) 8,000; Kaffa (1907) 6,000 to 8,000. (2) Sudan – Bahr el Ghazal (1875–1879) 20,000 to 25,000. According to Harris (1971) the majority of slaves were from Sudan and Ethiopia and slaves were taken from the two countries in roughly equal proportions. This is consistent with the distribution implied by the ethnicity data. Within the sample, most slaves are from Ethiopia and Sudan, with the remaining slaves from nearby areas or areas that were connected to Ethiopia and Sudan by caravans. As well, the sample is also consistent with slaves being taken from Ethiopia and Sudan in roughly equal proportions.

## 8 Slave Export Estimates

After the data have been constructed, I have estimates on the number of slaves shipped from each country in Africa during each of the four slave trades during four different time periods: 1400-1599, 1600-1699, 1700-1799, 1800-1900. Table 19 reports the estimated total number of slaves taken from each country in each slave trade.

Overall, the estimates are consistent with the general view among African historians of where the primary slaving areas were. During the trans-Atlantic slave trade, slaves were taken in greatest numbers from the 'Slave Coast' (Benin and Nigeria), West Central Africa (Zaire, Congo, and Angola), and the 'Gold Coast' (Ghana). All of these countries appear among the top exporting countries on the list. Ethiopia and Sudan are also among the top exporting countries because they were the primary suppliers of slaves shipped during the Red Sea and trans-Saharan slave trades. The low number of slave exports from South Africa and Namibia confirms the view of African historians that these areas exported "virtually no slaves" (Manning, 1983, p. 839). The relative magnitudes of exports from geographically close countries are also consistent with the qualitative evidence from the African history literature. Manning (1983, p. 839) writes that "some adjoining regions were quite dissimilar: Togo exported few slaves and the Gold Coast many; Gabon exported few slaves, and the Congo exported many." The estimates are consistent with Manning's observation. Exports from Togo are far less than from Ghana, and exports from Gabon are less than from the Republic of Congo.

Among the countries with zero slave exports are the small island countries of Seychelles, Mauritius, Cape Verde Islands, Comoros, and Sao Tome & Principe. This is consistent with the historical evidence. Because the islands (except for Comoros) were initially uninhabited prior to European arrival and because of suitable soil conditions, Europeans established plantations and imported slaves. Established property rights over slaves ensured that raiding for slaves did not occur on the islands.<sup>3</sup> As well, according to the estimates few slaves were taken from the North African countries of Morocco, Tunisia, Algeria, Libya, and Egypt. This is also consistent with the historical evidence. The large Islamic states of the Mediterranean basin, which also imported of slaves from south of the Saharan desert, were generally able to protect its citizens from being enslaved.

<sup>&</sup>lt;sup>3</sup>Historical accounts indicate that slave raiding on the Comoros Islands did occur (Campbell, 1988, p. 168; Lovejoy, 2000, pp. 79–80; Shepherd, 1980, pp. 74–75). However, because my ethnicity sample of slaves from the Indian Ocean slave trade does not include slaves from Comoros, the calculated number of slaves from Comoros is zero. Because Comoros is a poor country, actually the poorest country in the sample with zero slave exports, this error will bias my estimates towards zero.

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Slave Trade	1400 - 1599	1600 - 1699	1700 - 1799	1800-1900	1400-1900
trans-Atlantic	230,516	861,936	5,687,051	3,528,694	10,308,197
trans-Saharan	675,000	450,000	900,000	1,099,400	3,124,400
Red Sea	400,000	200,000	200,000	505,400	1,305,400
Indian Ocean	200,000	100,000	260,000	379,500	939,500
Total	1,505,516	1,611,936	7,047,051	5,512,994	15,677,497

Table 1: Total Slave Exports from Africa, 1400–1900

<b>D</b>		Num.	Num.		9
Region	Years	Ethnic.	Obs.	Record Type	Source
Valencia, Spain	1482 - 1516	77	$2,\!675$	Crown Records	Hair (1980)
Puebla, Mexico	1540 - 1556	14	115	Notarial Records	Boyd-Bowman $(1969)$
Dominican Republic	1547 - 1591	26	22	Records of Sale	Blanco (1967)
Peru	1548 - 1560	16	202	Records of Sale	Lockhart (1968)
Mexico	1549	12	80	Plantation Accounts	Aguirre Beltran (1940)
Peru	1560 - 1650	30	6,754	Notarial Records	Bowser $(1974)$
Havana, Cuba	1578 - 1585	9	32	Notarial Records	Boyd-Bowman (1969)
Lima, Peru	1583 - 1589	15	288	Baptism Records	Tardieu (2001)
Colombia	1589 - 1607	9	19	Various Records	Pavy (1967)
Mexico	1600 - 1699	28	102	Records of Sale	Aguirre Beltran (1940)
Dominican Republic	1610 - 1696	33	55	Government Records	Blanco (1967)
Chile	1615	6	141	Sales Records	Mellafe (1959)
Lima, Peru	1630 - 1702	33	409	Parish Records	Tardieu (2001)
Peru (Rural)	1632	25	307	Parish Records	Tardieu (2001)
Lima, Peru	1640 - 1680	33	936	Marriage Records	Tardieu (2001)
Colombia	1635 - 1695	6	17	Slave Inventories	Pavy (1967)
Guyane (French Guiana)	1690	12	69	Plantation Records	Debien (1974)
Colombia	1716 - 1725	33	59	Government Records	de Granda Gutierrez (197
French Louisiana	1717 - 1769	23	223	Notarial Records	Hall (2000)
Dominican Republic	1717 - 1827	11	15	Government Records	Blanco (1967)

Table 2: Overview of the Ethnicity Data for the Trans-Atlantic Slave Trade

Region	Years	Num. Ethnic.	Num. Obs.	Record Type	Source
South Carolina	1732 - 1775	35	681	Runaway Notices	Littlefield (1981)
Colombia	1738 - 1778	11	100	Various Records	Pavy (1967)
Spanish Louisiana	1770 - 1803	79	$6,\!615$	Notarial Records	Hall (2000)
St. Dominique (Haiti)	1771 - 1791	25	$5,\!413$	Sugar Plantations	Geggus (1999)
Bahia, Brazil	1775 - 1815	14	581	Slave Lists	Lovejoy (2003)
St. Dominique (Haiti)	1778 - 1791	36	1,280	Coffee Plantations	Geggus (1993)
Guadeloupe	1788	8	45	Newspaper Reports	Debien (1974)
St. Dominique (Haiti)	1788 - 1790	21	1,297	Fugitive Slave Lists	Geggus (1993)
Cuba	1791 - 1840	59	3,093	Slave Registers	Valdez (1986)
St. Dominique (Haiti)	1796 - 1797	56	$5,\!632$	Plantation Inventories	Geggus (1978)
American Louisiana	1804 - 1820	62	223	Notarial Records	Hall (2000)
Salvador, Brazil	1808 - 1842	6	456	Records of Manumission	Nishida (1993)
Trinidad	1813	100	12,460	Slave Registers	Higman (1984)
St. Lucia	1815	62	2,333	Slave Registers	Higman (1984)
Bahia, Brazil	1816 - 1850	27	2,666	Slave Lists	Lovejoy (2003)
St. Kitts	1817	48	2,887	Slave Registers	Higman (1984)
Senegal	1818	17	80	Captured Slave Ship	Curtin (1975)
Berbice (Guyana)	1819	66	$1,\!127$	Slave Registers	Higman (1984)
Salvador, Brazil	1819 - 1836	12	871	Manumission Certificates	Reis (1993)
Salvador, Brazil	1820 - 1835	11	1,106	Probate Records	Reis (1993)

Table 2: Overview of Slave Ethnicity Data: Trans-Atlantic Slave Trade, continued

		Num.	Num.		
Region	Years	Ethnic.	Obs.	Record Type	Source
Sierra Leone	1821–1824	68	605	Child Registers	Jones (1990)
Rio de Janeiro, Brazil	1826 - 1837	31	772	Prison Records	Karasch $(1987)$
Anguilla	1827	7	51	Slave Registers	Higman $(1984)$
Rio de Janeiro, Brazil	1830-1852	190	2,921	Free Africans' Records	Karasch (1987)
Rio de Janeiro, Brazil	1833 - 1849	35	476	Death Certificates	Karasch (1987)
Salvador, Brazil	1835	13	275	Court Records	Reis (1993)
Salvador, Brazil	1838 - 1848	7	202	Slave Registers	Nishida (1993)
St. Louis/Goree, Senegal	1843 - 1848	21	189	Emancipated Slaves	Curtin $(1975)$
Bakel, Senegal	1846	16	73	Sales Records	Curtin $(1975)$
d'Agoué, Benin	1846 - 1885	11	70	Church Records	Byll-Cataria (2002)
Sierra Leone	1848	132	$12,\!425$	Linguistic and British Census	Curtin (1969)
					& Great Britain (1849)
Salvador, Brazil	1851 - 1884	8	363	Records of Manumission	Nishida (1993)
Salvador, Brazil	1852 - 1888	7	269	Slave Registers	Nishida (1993)
Cape Verde	1856	32	314	Slave Census	Carreira (1983)
Kikoneh Island, Sierra Leone	1896 - 1897	11	185	Fugitive Slave Records	Grace (1975)
Total			80,656		

Table 2: Overview of Slave Ethnicity Data: Trans-Atlantic Slave Trade, continued

*Notes*: The reported number of ethnicities is the number of ethnicities that could be identified in each sample. As well, the sample size reported is the number of slaves whose ethnicities could be identified and mapped to modern countries.

Country	Isocode	1400 - 1499	1500 - 1599	1600 - 1699	1700 - 1799	1800 - 1899
Country	Isocode	1400-1499	1000-1099	1000-1099	1100-1199	1800-1899
Angola	AGO	6	477	1,723	5,499	9,660
Benin	BEN	2	10	280	1,585	2,15
Burkina Faso	BFA	1	1	0	357	2
Central African Rep.	CAF	0	0	0	4	1
Ivory Coast	CIV	9	27	41	221	1,02
Cameroon	CMR	1	39	18	53	3,110
Rep. of Congo	COG	0	20	24	3	68
Cape Verde	CPV	0	1	15	0	18
Gabon	GAB	0	1	3	3	22
Ghana	GHA	1	1	40	884	1,308
Guinea	GIN	28	99	257	743	1,76
Guinea Bissau	GNB	9	1,732	2,075	50	22
Equitorial Guinea	GNQ	0	, 0	, 0	1	
Kenay	KEN	0	0	0	1	
Liberia	LBR	4	0	0	3	9
Madagascar	MDG	0	0	0	1	
Mali	MLI	14	52	91	1,329	1,41
Mozambique	MOZ	0	0	0	93	43
Mauritania	MRT	0	1	0	109	7
Malawi	MWI	0	0	0	0	11
Namibia	NAM	1	1	0	0	
Niger	NER	0	1	0	0	
Nigeria	NGA	63	124	452	4,540	22,31
Sudan	SDN	0	0	0	1	) -
Senegambia	SEN, GMB	2,519	406	533	1,324	1,92
Sierra Leone	SLE	18	205	166	46	65
São Thomé and Principe	STP	0	7	18	4	1
Chad	TCD	0	0	1	2	
Togo	TGO	1	3	97	1,251	1,13
Tanzania	TZA	0	0	0	5	,
Uganda	UGA	0	0	0	1	
South Africa	ZAF	ů 0	1	8	0	
Dem. Rep. of Congo	ZAR	$\overset{\circ}{2}$	50	115	1,757	2,53
Zambia	ZMB	0	0	2	1,101	-,00
Zimbabwe	ZWE	0	0	- 0	1	1

Table 3: Ethnicity Sample for the Trans-Atlantic Slave Trade

*Notes*: The sources of the data are given in Table 2. The numbers have been rounded up to the whole person.

	Shipped to the I	Middle East	Shipped to the Mascarenes	
	From	From		
Period	Mainland Africa	Madagascar		Total
1400 - 1499	100,000	0	0	100,000
1500 - 1599	100,000	0	0	100,000
1600 - 1699	100,000	0	0	100,000
1700 - 1799	145,000	0	$115,\!000$	260,000
1800 - 1899	$278,\!250$	$6,\!250$	95,000	379,500
1400–1899	723,250	6,250	210,000	939,500

Table 4: Indian Ocean Slave Exports, 1400–1899

*Notes*: Data are from Austen (1979), Martin and Ryan (1977), Austen (1988), and Lovejoy (2000). Slaves shipped from Mainland Africa are from Kilwa and Mozambique.

		Num.	Num.	
Region	Years	Ethnic.	Obs.	Source
Mauritius	1825 - 1835	2	1,523	St-Amour and Vencatachellum (2005)
Mauritius	1835	2	9,742	Valentine (2000)
Mombasa Slaves	1860 - 1861	15	277	Zanzibar National Archives $AB/12/5$
Zanzibar Slaves	1863 - 1874	37	5,506	Zanzibar National Archives $AB/12/3^*$
Bombay, India	1884 - 1888	6	9	Harris (1971)
Zanzibar Slaves	1874 - 1907	72	$3,\!991$	Zanzibar National Archives AA/71/9
Total			$21,\!048$	

Table 5: Summary of the Ethnicity Data for the Indian Ocean Slave Trade

Notes: \* See Sheriff (1988) for a description of this data.

Country	Isocode	Number
Burundi	BDI	-
Djibouti	DJI	-
Ethiopia	$\operatorname{ETH}$	
Kenya	KEN	142
Madagascar	MDG	(
Mozambique	MOZ	2,799
Malawi	MWI	430
Sudan	SDN	2
Somalia	SOM	e e
Tanzania	TZA	$6,02^{2}$
Uganda	UGA	42
South Africa	ZAF	-
Zaire	ZAR	81
Zambia	ZMB	247
Zimbabwe	ZWE	7
Total		9,783

 Table 6: Ethnicity Sample of Slaves from Mainland Africa Shipped During the Indian Ocean Slave Trade

*Notes*: Data are from Harris (1971) and Zanzibar National Archives: AB/12/3, AB/12/5, and AA/71/9. The numbers have been rounded up to the whole person.

Table 7: Trans-Saharan Slave Exports, 1400–1913

Period	Egypt	Libya	Tunisia	Algeria	Morocco	Total
1400 - 1599	600,000	75,000	0	0	0	675,000
1600 - 1699	300,000	150,000	0	0	0	450,000
1700-1799 1800-1913	300,000 422,500	270,000 290,700	$80,000 \\ 45,700$	$50,000 \\ 58,500$	200,000 282,000	900,000 1,099,400
1000-1915	422,000	290,100	40,700	38,300	282,000	1,099,400
1400 - 1913	$1,\!622,\!500$	785,700	125,700	108,500	482,000	$3,\!124,\!400$

Notes: Data are from Austen (1992).

Table 8: Caravan Information for Intra-Saharan Slave Trade						
Caravan	Caravan	Time	Total			
Origin	Destination	Period	Number			
Fezzan	Egypt	1701 - 1702	2,500			
Ethiopia	Sudan	1800 - 1860	$15,\!000$			
South of Fezzan	Fezzan	1821	6,000			
Borno	Fezzan	1843	$1,\!550$			
Katron	Murzuk	1844	315			
Borno	Murzuk	1844	618			
Sudan	Murzuk	1844	576			
Borno	Murzuk	1844	576			
Sudan	Murzuk	1844	377			
Borno	Murzuk	1846	494			
Sudan	Murzuk	1846	561			
Kano	Ghat	1846	800			
Kano	Ghat & Murzuk	1846	500			
Fezzan	Egypt & Libya	1847	1,200			
Borno, Sudan	Murzuk	1848	1,257			
Borno	Ghat	1849	2,000			
Sudan	Borno	early $1850s$	$5,\!000$			
Borno	Murzuk	1853	450			
Bahr-El Ghazal	Bahr-El Ghazal	1870	80,000			
Borno	Fezzan	1872	$1,\!400$			
Waday	Tripoli & Egypt	1873	$15,\!000$			
Waday	Senussi	1891	2,000			
Waday	Senussi	1891	2,000			
Sudan	Ghat	1893 - 1903	$25,\!000$			
Waday	Senussi	1896	100			
Waday	Cyrena	1903	2,000			

Notes: Data are from Austen (1992).

Caravan or	Implied	Time	Tota
Other Info.	Origin	Period	Number
	1400-1599		
Takrur	Toucouleurs*	1416	1,700
Tax on Upper Egypt Bedouins		1419	300
Tax on Upper Egypt	Central Sudan <sup>*</sup>	1420	1,800
	<u>1600-1799</u>		
Sennar Caravan	Central Sudan <sup>*</sup>	1692 - 1708	2,500
Nubian Caravan	Ethiopia (ETH)	1777 - 1780	1,75
Sennar Caravan	Central Sudan <sup>*</sup>	1783 - 1785	$1,\!10$
Darfur exports	Central Sudan <sup>*</sup>	1788	4,00
Sennar Caravan	Central Sudan <sup>*</sup>	1798 - 1800	1,05
Darfur Caravan	Central Sudan <sup>*</sup>	1799	5,50
Sennar Caravan	${\rm Central}~{\rm Sudan}^*$	1799	15
	1800-1899		
Darfur Caravan	Central Sudan <sup>*</sup>	1817	3,000
Darfur Caravan	Central Sudan <sup>*</sup>	1820	20
Sudanese Slaves	Central Sudan <sup>*</sup>	1820 - 1875	5,00
Sennar & Darfur Caravans	Central Sudan <sup>*</sup>	1821	6,00
Darfur Caravan	Central Sudan <sup>*</sup>	1838	7,80
Darfur Caravan	Central Sudan <sup>*</sup>	1850	94
Darfur Caravan	Central Sudan <sup>*</sup>	1852	1,25
Caravan from Sudan	Central Sudan <sup>*</sup>	1866	10,00
Caravan along Nile	Central Sudan <sup>*</sup>	1867	12,50
Darfur Caravan	Central Sudan <sup>*</sup>	1867	2,00
Darfur-Kordofan Imports	Central Sudan <sup>*</sup>	early 1870s	1,50
W. Desert Imports via Siwa	Libya*	late 1870s	2,00
Darfur Caravan	Central Sudan <sup>*</sup>	1872	1,20
Absynnian traders	Ethiopia (ETH)	1874	50

Table 9: Caravan Information for Egyptian Exports of the Trans-Saharan Slave Trade

*Notes*: Data are from Austen (1992). \* indicates that the slaves were originally from elsewhere, and additional information about the slaves' origins is available.

Region	Years	Num. Ethnic.	Num. Obs.	Source
Central Sudan Western Sudan (Timbuktu Region)	$\begin{array}{c} 1910 - 1930 \\ 1908 - 1911 \end{array}$	$\begin{array}{c} 17\\5\end{array}$		Spaulding (1988) Klein (1992)

Table 10: Summary of the Ethnicity Data for the Trans-Saharan Slave Trade

 Table 11: Ethnicity Sample from Central Sudan

*Notes*: Data are from Spaulding (1988). The numbers have been rounded up to the whole person.

Caravan or	Implied	Time	Total
Other Info.	Origin	Period	Number
	<u>Pre 1700</u>		
Fezzan	$Fezzan^*$	1626	66
Fezzan	$Fezzan^*$	1633 - 1649	$1,\!120$
Borno	Nigeria (NGA)	1638	200
Borno	Nigeria (NGA)	1653	125
Borno via Fezzan	Nigeria (NGA)	1696	7,000
Fezzan	Nigeria (NGA)	1698	200
	<u>1700-1799</u>		
Fezzan, Ghadames	$Fezzan^*$	1700 - 1799	2,250
Fezzan	Fezzan <sup>*</sup>	1766	2,500
Fezzan	Fezzan*	1770	50
Fezzan	$Fezzan^*$	1779	750
Fezzan	Fezzan <sup>*</sup>	1782	600
Fezzan	$Fezzan^*$	1788	7,500
Fezzan	$Fezzan^*$	1788 - 1799	8,250
	1800-1899		
Fezzan, Ghadames	$Fezzan^*$	1800-1820	450
Fezzan	Fezzan <sup>*</sup>	1818	1,300
Hausa from Sokoto	Hausa (NGA)	1825	2,000
Ghadames	Fezzan*	1842	600
Ghadames	Fezzan <sup>*</sup>	1845	155
Sudan via Fezzan	Chad (TCD)	1846	2,500
Waday	Chad (TCD)	1846	470
Waday	Chad (TCD)	1846	2,000
Fezzan	Fezzan*	1848	500
Waday	Chad (TCD)	1849	1,200
	· · · · ·	1850	2,000
Murzuk	$Fezzan^*$	1000	2,000
U	Fezzan <sup>*</sup> Chad (TCD)	$1850 \\ 1850$	2,000 2,400

Table 12: Caravan Information for Libyan Exports of the Trans-Saharan Slave Trade

 $\it Notes:$  Data are from Austen (1992). \* indicates that the slaves were originally from elsewhere, and additional information about the slaves' origins is available.

 Table 13: Caravan Information for Tunisian Exports of the Trans-Saharan

 Slave Trade

Caravan or	Implied	Time	Total
Other Info.	Origin	Period	Number
Ghadames	$Ghadames^*$	1789	1,000
Ghadames	$Ghadames^*$	1810	1,100
Ghadames	$Ghadames^*$	1814	400
Ghadames	$Ghadames^*$	1840s	3,500

*Notes*: Data are from Austen (1992). \* indicates that the slaves were originally from elsewhere, and additional information about the slaves' origins is available.

Caravan or	Implied	Time	Total
Other Info.	Origin	Period	Number
Wargla, Touggart	Algeria (DZA)	1700 - 1830	$5,\!850$
Touggart	Algeria (DZA)	1820s	500
Touggart	Algeria (DZA)	1844	500
enter Algeria via Oran	$Morocco^*$	late $1840s$	3,300
Ghat	$Ghat^*$	1846	300
Ghadames, Ghat via Touggart	$Ghat^*$	1848	160
Touggart	Algeria (DZA)	1846	470
Southwest (Ghat)	Ghat*	1846	1,750
Wargla	Algeria (DZA)	1880	450

 Table 14: Caravan Information for Algerian Exports of the Trans-Saharan

 Slave Trade

Notes: Data are from Austen (1992). \* indicates that the slaves were originally from elsewhere, and additional information about the slaves' origins is available.

Caravan or	Implied	Time	Total
Other Info.	Origin	Period	Number
	Post $1700$		
Timbuktu	Mali (MLI)	1789	$3,\!500$
Timbuktu	Mali (MLI)	1790 - 1791	4,000
Timbuktu	Mali (MLI)	1810	2,000
Tuat	Mali (MLI)	early $1830s$	4,000
Timbuktu	Mali (MLI)	1850	200
Timbuktu to Tuat	Mali (MLI)	1864	750
Timbuktu	Mali (MLI)	1865 - 1870	$3,\!500$
Timbuktu	Mali (MLI)	1873 - 1881	500
Timbuktu	Mali (MLI)	1875 - 1888	750

Table 15: Caravan Information for Moroccan Exports of the Trans-Saharan Slave Trade

Notes: Data are from Austen (1992). \* indicates that the slaves were originally from elsewhere, and additional information about the slaves' origins is available.

Period	Gulf of Aden (N. Somalia)	Massawa (Ethiopia)	N. Danikil (Ethiopia)	Suakin (Sudan)	Total
$1400-1599 \\1600-1699 \\1700-1799 \\1800-1899 \\1400-1899$	268,500	110,900	24,000	102,000	$\begin{array}{c} 400,000\\ 200,000\\ 200,000\\ 505,400\\ 1,305,400\end{array}$

Table 16:	Red Se	a Slave	Exports.	1400 - 1899
<b>T</b> (0)10 <b>1</b> 0.	rica pe		Enports,	1100 1000

Notes: Data are from (Austen, 1979, p. 68) and (Austen, 1988, p. 33).

Region	Years	Num. Ethnic.	Num. Obs.	Source
Bombay, India Jedda, Saudi Arabia	$1837 – 1882 \\1892 – 1924$	$2 \\ 32$	$5\\62$	Harris (1971) League of Nations (1936, 1937)
Total			67	

Table 17: Summary of the Ethnicity Data for the Red Sea Slave Trade

Country	Isocode	Number
Ethiopia	ETH	33
Kenya	KEN	1
Niger	NER	1
Nigeria	NGA	3
Sudan	SDN	23
Somalia	SOM	1
Chad	TCD	6
Total		62

Table 18: Ethnicity Sample for the Red Sea Slave Trade

*Notes*: Data are from Harris (1971) and League of Nations (1936, 1937). The numbers have been rounded up to the whole person.

		Trans-	Indian	Trans-	Red	All slave
Isocode	Country name	Atlantic	Ocean	Saharan	Sea	trades
AGO	Angola	3,607,020	0	0	0	3,607,020
NGA	Nigeria	1,406,728	0	555,796	59,337	2,021,859
GHA	Ghana	1,614,793	0 0	0	00,001	1,614,793
ETH	Ethiopia	1,011,100	200	813,899	633,357	1,447,455
SDN	Sudan	615	174	408,261	454,913	863,962
MLI	Mali	331,748	0	509,950	0	841,697
ZAR	Dem Rep of Congo	759,468	7,047	000,000	0	766,515
MOZ	Mozambique	382,378	243,484	0	0	625,862
TZA	Tanzania	10,834	523,992	0	0	534,826
TCD	Chad	823	020,002	409,368	118,673	528,862
BEN	Benin	456,583	0	0	0	456,583
SEN	Senegal	278,195	0	98,731	0	376,926
GIN	Guinea	350,149	0	0	0	350,320 350,149
TGO	Togo	289,634	0	0	0	289,634
GNB	Guinea-Bissau	180,752	0	0	0	180,752
BFA	Burkina Faso	160,752 167,201	0	0	0	167,201
MRT	Mauritania	417	0	164,017	0	164,434
MWI	Malawi	88,061	37,370	104,017	0	104,434 125,431
MDG	Madagascar	36,349	88,927	0	0	125,431 125,275
COG	Congo	94,663	00,921	0	0	94,663
KEN	Kenya	303 303	12,306	60,351	13,490	86,448
SLE	Sierra Leone	69,607	12,300	,	13,490	
CMR	Cameroon	66,719	0	0 0	0	69,607 66 710
DZA	Algeria	00,719	0	61,835	0	66,719
CIV	Ivory Coast		0	01,855	0	61,835 52,646
SOM	Somalia	$52,646 \\ 0$	229	26,194	5,855	32,040 32,277
ZMB	Zambia	6,552	229 21,406	20,194 0	5,855 0	27,958
GAB	Gabon	27,403	21,400 0	0	0	27,938 27,403
GMB	Gambia	16,039	0	5,693	0	21,403 21,731
NER	Niger	10,039	0	5,095 0	19,779	19,912
LBY	Libya	155	0	8848	19,779	8,848
LBR	Liberia	6,790	0	0040 0	0	$^{0,040}_{6,790}$
UGA	Uganda	0,790 900	-	0	0	
			3,654			4,554
ZAF	South Africa	1,944	87	0	0	2,031
CAF	Central African Republic	2,010	0	0	0	2,010
EGY	Egypt	0	0	1,492	0	1,492
ZWE	Zimbabwe	554	536	0	0	1,089
NAM	Namibia	191	0	0	0	191
BDI	Burundi	0	87	0	0	87
GNQ	Equatorial Guinea	11	0	0	0	11
DJI	Djibouti	0	5	0	0	5
BWA	Botswana	0	0	0	0	0
CPV	Cape Verde Islands	0	0	0	0	0
COM	Comoros	0	0	0	0	0
LSO	Lesotho	0	0	0	0	0
MUS	Mauritius	0	0	0	0	0
MAR	Morocco	0	0	0	0	0
RWA	Rwanda	0	0	0	0	0
STP	Sao Tome & Principe	0	0	0	0	0
SWZ	Swaziland	0	0	0	0	0
SYC	Seychelles	0	0	0	0	0
TUN	Tunisia	0	0	0	0	0

 Table 19: Estimated slave exports from 1400 to 1900 by country.