

Web Appendix for The Slave Trade and the Origins of Mistrust in Africa

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I. Data Appendix

Estimates of the total number of slaves shipped from each ethnic group during the trans-Atlantic and Indian Ocean slave trade are constructed by disaggregating the country level estimates from Nunn (2008) to the ethnicity level. This is done separately for each century between 1400 and 1900. A full description of the data and their sources is provided in Nunn (2008).

The individual-level survey data used in our analysis is taken from the third round of the Afrobarometer survey, which was conducted in 2005. The data are publicly available and can be downloaded at: www.afrobarometer.org. The ethnicity-level slave export figures were merged with the Afrobarometer data using the self-reported ethnicity of each respondent (question q79 in the survey). The ethnicities from the two sources were matched using information on synonyms and alternative spellings and names of ethnic groups documented in Murdock (1959). Nearly all ethnic groups from the Afrobarometer survey could be matched to the slave exports data. One exception was European ethnic designations, which we omit from our analysis (there are 28 individuals for which this is the case). The ethnic designations for an additional 78 individuals from Ghana are reported as “Other northern languages”. These individuals are also omitted from our analysis. We also were unable to match eight ethnic groups in the Afrobarometer survey.

These are: Arabe (6 people), Gabawen (3), Garmug (1), and Mchegu (1), Ombuya (1).

We construct the average historic distance of each ethnic group from the coast using a digitized version of the map of the 19th century location of ethnic groups within Africa from Murdock (1959). Using ArcGIS software, we first determined the centroid of each ethnic group, and then calculated the distance from the centroid to the closest point along the coast. To construct measures of each respondent's current distance from the coast, we first identify the geographic location of each respondent using the respondent's village name recorded in the survey. For respondents that live in a city, the neighborhood of the city is also provided. With this information, we were able to determine the latitude and longitude of the respondents using the Geonames and Falling Rain gazetteers, both of which are publicly available: www.geonames.org and www.fallingrain.com.

The living condition fixed effects included as controls in our estimating equations are based on the respondent's view of their present living conditions: (i) very bad, (ii) fairly bad, (iii) neither good nor bad, (iv) fairly good, or (v) very good. The education fixed effects are for the following categories: (i) no formal schooling, (ii) informal schooling only, (iii) some primary schooling, (iv) primary school completed, (v) some secondary school/high school, (vi) secondary school completed/high school, (vii) post-secondary qualifications, but no university, (viii) some university, (ix) university completed, and (x) post-graduate. The ethnic fractionalization of each district, and the share of each ethnicity in a district, are calculated using the random sample of individuals from the Afrobarometer surveys. Ethnic fractionalization is calculated in the standard manner, (see e.g., Easterly and Levine, 1997).

The measure of the number of missions (Catholic and Protestant) in 1924 that were located on land that was inhabited by each ethnic group was constructed by combining data on the location of ethnic groups from Murdock (1959) with information on the location of missions from Roome (1924). Information of the location of railway lines during the colonial period are from Century Company (1911). Information on the routes of the principal European explorers during the pre-colonial and early colonial periods are from the same source. These are combined with the ethnic location information from Murdock (1959) to construct the measure of historic contact with European explorers and integration into the colonial railway network.

Information of the ethnographic characteristics of ethnic groups are from Murdock's (1967) *Ethnographic Atlas*. Indicator variables describing ethnicities' settlement patterns are based on

variable v30 from the Atlas. The variable measuring number of jurisdictional hierarchies beyond the local community is from variable v33. The measure of an ethnic group's dependence on fishing for subsistence is from variable v3.

The ethnicity-level urban indicator variable is constructed by combining information on the locations of cities with over 20,000 inhabitants in 1400 with the ethnicity map from Murdock (1959). The variable equals one if a city lies within the land traditionally inhabited by a given ethnic group. The ethnicity-level measure of the malaria ecology index is constructed by combining information from Kiszewski, Mellinger, Spielman, Malaney, Sachs and Sachs (2004) and the ethnicity map from Murdock (1959). The ethnicity-level measures of the minimum distance of an ethnic group from the routes and towns of the Saharan trade are constructed by combining the ethnic location data from Murdock (1959) with information on the historic locations of towns and routes, which are originally from Oliver (2000) and have recently been digitized by Ciolek (2001). The two variables are measured as the distance from the centroid of each ethnic group to the nearest town and to the nearest route of the Saharan trade.

II. Additional Tables and Figures

This section provides the additional tables and figures referred to in the text of “The Slave Trade and the Origins of Mistrust in Africa” by Nathan Nunn and Leonard Wantchekon.

A. *Summary Statistics*

Summary statistics for the slave trade and trust variables are reported in table 11.

The distribution of responses for each question are reported in table 12. The exact wording of each question is reported in the table. For the question about other ethnic groups, the question was country-specific. For example, respondents from *Kenya* are asked how much they trust “*Kenyans* from other ethnic groups”.

In the table, the number of observations for each question is less than the number of potential observations, which is 21,702. The difference is explained by observations coded as “don’t know” or “missing”, and by the fact that the four interpersonal trust questions were not asked in the Zimbabwe survey; only the local council trust question was asked. This results in a reduction of the sample by 1,036 observations for the other four trust questions.

B. *Additional OLS Estimates*

Table 13 reports two robustness checks discussed in the paper. In columns 1 and 2, we report estimates using the specifications from columns 5 and 6 of Table 1 in the paper, but omitting respondents living in Kenya and Mali, the two countries in our sample that were significantly impacted by the trans-Saharan or Red Sea slave trades. Removing the countries results in point estimates that are nearly identical to the baseline estimates, showing that the results are not affected by the omission of slave data from the smaller Red Sea and Saharan slave trades. One also obtains similar results if the sample is further restricted to exclude Nigeria and Senegal, the only other countries in the sample that exported a non-zero number of slaves taken during the trans-Saharan or Red Sea slave trades.

An alternative strategy to equation (1) of the paper is to aggregate the data to the ethnicity level and estimate an equation where the unit of observation is an ethnic group. Columns 3 and 4 of table 13 report ethnicity-level estimates of the specifications from columns 5 and 6 of table 1 in the paper. The estimates control for ethnicity-level averages of the baseline control variables

from equation (1). As an example, the ethnicity-level age variable control is the average age of all individuals that belong to ethnicity e . We also include ethnicity-level averages of the fixed effects. For example, while the individual-level regression includes a Nigeria country fixed effect that equals one when individual i lives in Nigeria, in the ethnicity-level regressions we include a variable that equals the fraction of ethnic group e living in Nigeria. This is the mean of the fixed effect among individuals that belong to ethnic group e . We also construct similar ethnicity-level variables for all other fixed effects in the specification.

The ethnicity-level estimates confirm the findings at the individual level. The coefficient of interest β is negative and highly significant. Although the point estimates are slightly smaller in magnitude, this only reflects the fact that the variation in trust across ethnicities is less than the variation across individuals. Examining standardized ‘beta’ coefficients, we find that the ethnicity level estimates are actually 25 percent larger than the individual level estimates.

Our baseline estimates use slave intensity at the ethnicity-level as a measure of the exposure of an individual’s ancestors to the slave trade. If the correlations we have identified arise from our hypothesized mechanism, namely the transmission of behavioral norms across generations, then we expect to observe a stronger relationship among individuals for which ethnicity-level slave exports is a more accurate measure of their ancestors’ exposure to the slave trade. We test this by omitting from the sample individuals who are the children of parents from two different ethnic groups. Although the Afrobarometer does not report the ethnicity of the respondent’s parents, it does report, in addition to their own ethnicity, the primary language spoken, as well as the language of the interview. We assume that when these three are not the same, this provides evidence that the individual may be of mixed descent. We re-estimate equation (1) using the sample of individuals for which their ethnicity, primary language, and language of interview are the same. The estimates, which are reported in columns 1–5 of table 14, show that within the subsample the magnitudes of the point estimates are always greater than for the full sample, which is exactly what one expects if our hypothesized mechanism is correct, and if ethnicity-level slave exports is a more accurate measure of ancestor slave exports for individuals in the restricted sample.

The estimates reported in columns 6–10 of table 14 show that the estimates reported in table 3 in the paper are robust to the omission of the colonial population density control.

C. Ordered Logit Estimates

Table 15 re-estimates the specifications from table 1 of the paper using an ordered logit model. The estimated coefficients reported in the top panel of the table are negative and statistically significant. Marginal effects are reported in the bottom panel. Each row of the panel reports the marginal effect for each of the four possible responses to the trust questions. The estimates show that if an individual's ancestors were more heavily impacted by the slave trade, then he or she is more likely to answer "Not at all" or "Just a little" when asked whether they trust their neighbors, and less likely to answer "Somewhat" or "A lot".

D. Additional IV Estimates

Tables 16–18 report additional IV robustness checks. Table 16 reports estimates of the specifications from table 5 in the paper, but with colonial population density not included as a control. Doing this results in a larger sample size and very similar IV estimates for the slave exports variable. Table 17 reports estimates of the specifications from table 6 after omitting ethnic groups located in coastal East Africa. The results are robust. Table 18 includes, as an additional control, the current distance from the coast of respondents in the Afrobarometer survey. The results remain robust. The point estimates remain nearly identical, although the coefficient for inter-group trust loses significance.

E. Additional Falsification Estimates

Table 19 shows the within-Africa reduced form estimates from columns 1 and 2 of tables 7 and 8 in the paper, except with current distance from the coast used rather than historic distance from the coast. As we report in the paper, the positive reduced form relationship between distance from the coast and trust are nearly identical (and even stronger) when current distance from the coast is used rather than historic distance from the coast.

F. Additional Channels Estimates

Table 20 reports estimates from tables 9 and 10, but without the control for colonial population density. Omitting the variable from the regression increases the sample size and the estimates of interest remain very similar.

G. Movers and Non-Movers

Figure 2 reports a map showing the location of respondents from the Afrobarometer surveys, as well as the historic locations of ethnic groups within Africa mapped by Murdock (1959). This is the information that is used to define ‘movers’ and ‘non-movers’, and to create the location-based slave export measure.

Differences between the ‘movers’ and ‘non-movers’ in the sample are reported in table 21. The two columns of the table report the mean difference, and the standard error of the difference, between the movers and non-movers from the same country.¹ Relative to non-movers, movers are more likely to live in an urban location that is more ethnically fragmented and has less co-ethnics. This is consistent with the general migration patterns observed within African countries, where individuals and families in search of better employment opportunities move from ethnically homogenous rural villages to larger, more ethnically diverse urban centers (Byerlee, 1974, Todaro, 1980). Movers do not exhibit systematically different levels of trust, although there is some evidence that movers may have higher levels of inter-group trust.² Movers also do not exhibit differences in other characteristics such as age, gender, education, religion, or the intensity of the slave trade among their ancestors or among the location in which they are currently living.

¹In practice, the differences are obtained by regressing the characteristic being examined on country fixed effects and an indicator variable that equals one if the individual is a ‘mover’ (i.e., lives in a location different from his/her ancestors).

²It may be that individuals are more likely to migrate if they are more trusting of those they do not know well.

Table 11: Summary statistics for the slave trade and trust variables.

	Summary Statistics				
	Obs.	Mean	S.d.	Min.	Max.
<u>Trust variables:</u>					
Trust relatives	20,618	2.19	0.96	0	3
Trust neighbors	20,580	1.74	1.01	0	3
Trust local council	20,210	1.66	1.10	0	3
Intra-group trust	20,502	1.67	1.00	0	3
Inter-group trust	20,301	1.36	1.00	0	3
<u>Slave trade variables:</u>					
slave exports (thousands)	21,702	93.17	205.28	0	854.96
ln (1 + slave exports)	21,702	1.95	2.31	0	6.75
exports/area	21,702	2.66	7.68	0	37.70
exports/historic pop	18,366	0.11	0.22	0	4.46
ln(1+exports/area)	21,702	0.53	0.95	0	3.66
ln(1+exports/historic pop)	18,366	0.09	0.17	0	1.70

Table 12: Overview of the responses to the Afrobarometer trust questions.

Response	How much do you trust each of the following:									
	Your relatives?		Your neighbors?		Your elected local government council?		People from your own ethnic group or tribe?		People from other ethnic groups?	
Not at all	1,402	7%	2,719	13%	3,981	20%	2,797	14%	4,471	22%
Just a little	3,705	18%	5,770	28%	4,869	24%	6,304	31%	7,278	36%
Somewhat	5,154	25%	6,317	31%	5,314	26%	6,119	30%	5,266	26%
A lot	10,357	50%	5,774	28%	6,046	30%	5,282	26%	3,286	16%
Total	20,618	100%	20,580	100%	20,210	100%	20,502	100%	20,301	100%

Notes : The table reports summary statistics for five measures of trust from the 2005 Afrobarometer survey. The variables are from questions 55d, 84a, 84b, 84c, and 84d of the survey. Respondents have the option of answering "Don't know". The number of respondents answering this to each of the five questions (in order from the left to right columns) are: 43, 78, 1,484, 156, and 353. For some observations, the data are also listed as "missing". The number of respondents for which this is the case is: 5, 8, 8, 8 and 12. The Zimbabwe survey only asks about individuals' trust in the local council, and therefore for the four interpersonal trust questions an additional 1,036 potential observations are missing.

Table 13: Robustness checks for the OLS estimates of the determinants of trust in neighbors.

	Dependent variable: Trust of neighbors			
	Individual level		Ethnicity level	
	Omitting Mali & Kenya		Full sample	
	$\ln(1+\text{exports} / \text{area})$	$\ln(1+\text{exports} / \text{historic pop})$	$\ln(1+\text{exports} / \text{area})$	$\ln(1+\text{exports} / \text{historic pop})$
	(1)	(2)	(3)	(4)
Estimated coefficient	-0.163 (0.036)	-0.777 (0.197)	-0.080 (0.031)	-0.457 (0.184)
Individual controls	Yes	Yes	Yes	Yes
District controls	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Number of observations	17,682	15,520	185	157
Number of ethnicities	151	127	n/a	n/a
Number of districts	1,090	1,052	n/a	n/a
R-squared	0.16	0.15	0.90	0.92

Notes: Columns 1 and 2 report OLS estimates, where the unit of observation is an individual. The sample excludes individuals living in Mali or Kenya. Coefficients are reported with standard errors adjusted for 2-way clustering within ethnic groups and within districts. The individual controls are for age, age squared, a gender indicator variable, 5 living conditions fixed effects, 10 education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, and an indicator for whether the respondent lives in an urban location. The district controls include a measure of ethnic fractionalization at the district level and the share of the district's population that is the same ethnicity as the respondent. Columns 3 and 4 report WLS estimates, where the unit of observation is an ethnicity. Observations are weighted by the size of the ethnic group, measured as the number of individuals of that ethnicity in the survey. Robust standard errors are reported in brackets.

Table 14: Robustness checks for the OLS estimates of the determinants of trust.

	Restricted Sample: Languages and ethnicity are the same					Full sample				
	Trust of relatives (1)	Trust of neighbors (2)	Trust of local council (3)	Intra-group trust (4)	Inter-group trust (5)	Trust of relatives (6)	Trust of neighbors (7)	Trust of local council (8)	Intra-group trust (9)	Inter-group trust (10)
ln (1+exports/area)	-0.157*** (0.045)	-0.212*** (0.040)	-0.148*** (0.030)	-0.171*** (0.043)	-0.140*** (0.044)	-0.147*** (0.035)	-0.166*** (0.033)	-0.110*** (0.022)	-0.138*** (0.033)	-0.081*** (0.028)
Colonial population density	No	No	No	No	No	No	No	No	No	No
Ethnicity-level colonial controls	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	7,309	7,298	6,803	7,263	7,168	18,949	18,917	18,738	18,857	18,676
Number of ethnicity clusters	71	71	71	71	71	173	173	173	173	173
Number of district clusters	869	869	862	867	867	1,231	1,231	1,254	1,231	1,229
R-squared	0.15	0.18	0.20	0.16	0.12	0.14	0.16	0.20	0.15	0.12

Notes: The table reports OLS estimates. The unit of observation is an individual. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. The individual controls are for age, age squared, a gender indicator variable, 5 living conditions fixed effects, 10 education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, and an indicator for whether the respondent lives in an urban location. The district controls include ethnic fractionalization in the district and the share of the district's population that is the same ethnicity as the respondent. Ethnicity-level colonial controls include the prevalence of malaria, a 1400 urbanization indicator variable, 8 fixed effects for the sophistication of pre-colonial settlement, the number of jurisdictional political hierarchies beyond the local community in the pre-colonial period, an indicator for integration with the colonial rail network, an indicator for contact with pre-colonial European explorers, and the number of missions per square kilometer during colonial rule. Colonial population density is the natural log of an ethnicity's population density during the colonial period. ***, **, * and * indicate significance at the 1, 5 and 10% level.

Table 15: Ordered logit estimates of the determinants of trust in neighbors.

	Dependent variable: Trust in neighbors					
	slave exports	ln(1+exports)	exports/area	exports/historic pop	ln(1+exports/area)	ln(1+exports/historic pop)
	(1)	(2)	(3)	(4)	(5)	(6)
Estimated coefficient	-0.00138*** (0.00030)	-0.0776*** (0.0284)	-0.0382*** (0.0108)	-1.163*** (0.334)	-0.327*** (0.071)	-1.586*** (0.400)
Response to: How much do you trust your neighbors						
	Marginal effects, dP_i/dx :					
Not at all	0.00013*** (0.0003)	0.0076*** (0.0028)	0.0037*** (0.0010)	0.107*** (0.030)	0.032*** (0.007)	0.146*** (0.036)
Just a little	0.00020*** (0.00004)	0.0110*** (0.0040)	0.0054*** (0.0016)	0.170*** (0.050)	0.046*** (0.010)	0.232*** (0.060)
Somewhat	-0.00007*** (0.00002)	-0.0038*** (0.0014)	-0.0019*** (0.0006)	-0.060*** (0.017)	-0.016*** (0.004)	-0.082*** (0.021)
A lot	-0.00026*** (0.00006)	-0.0147*** (0.0054)	-0.0072*** (0.0020)	-0.217*** (0.064)	-0.062*** (0.013)	-0.296*** (0.077)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
District controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	20,027	20,027	20,027	17,644	20,027	17,644
Number of ethnicities	185	185	185	157	185	157
Number of districts	1,257	1,257	1,257	1,214	1,257	1,214
Pseudo R-squared	0.07	0.06	0.07	0.06	0.07	0.06

Notes: The table reports estimates from an ordered logit model, where the unit of observation is an individual. Each column reports an estimate from a regression with a different slave export measure. The top panel reports estimated coefficients and standard errors adjusted for 2-way clustering within ethnicities and districts. The second panel reports the marginal effects for each of the four values of the dependent variable. Reported is the change in the probability of the respondent choosing the category from an increase in the slave export variable. The individual controls are for age, age squared, a gender indicator variable, 5 living conditions fixed effects, 10 education fixed effects, 18 religion fixed effects, 25 occupation fixed effects, and an indicator for whether the respondent lives in an urban location. The district ethnicity controls include a measure of ethnic fractionalization at the district level and the share of the district's population that are the same ethnicity as the respondent. ***, **, * and * indicate significance at the 1, 5 and 10% level.

Table 16: IV estimates of the effect of the slave trade on trust, without colonial population density as a control.

	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Second stage: Dependent variable is an individual's trust					
ln (1+exports/area)	-0.153*** (0.072)	-0.175*** (0.073)	-0.163*** (0.056)	-0.150* (0.083)	-0.151** (0.076)
Hausman test (p-value)	0.94	0.90	0.31	0.88	0.30
R-squared	0.14	0.16	0.20	0.15	0.12
First stage: Dependent variable is ln (1+exports/area)					
Historic distance of ethnic group from coast	-0.0014*** (0.0003)	-0.0013*** (0.0003)	-0.0013*** (0.0003)	-0.0014*** (0.0003)	-0.0010*** (0.0003)
Colonial population density	No	No	No	No	No
Ethnicity-level colonial controls	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes
District controls	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	18,949	18,738	18,738	18,857	18,676
Number of clusters	173 / 1,231	173 / 1,231	173 / 1,254	173 / 1,231	173 / 1,229
F-stat of excl. instrument	22.3	22.3	22.2	22.3	22.4
R-squared	0.75	0.75	0.75	0.75	0.75

Notes: The table reports IV estimates. The top panel reports the second stage estimates and the bottom panel reports first stage estimates. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. The individual controls, district controls, ethnicity-level colonial controls, and colonial population density measures are described in table 3. The null hypothesis of the Hausman test is that the OLS estimates are consistent. ***, **, and * indicate significance at the 1, 5 and 10% levels.

Table 17: IV estimates of the effect of the slave trade on trust, omitting coastal East African ethnic groups.

	East Africa Omitted				
	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Second stage: Dependent variable is an individual's trust					
ln (1+exports/area)	-0.242*** (0.061)	-0.361*** (0.080)	-0.240*** (0.073)	-0.384*** (0.090)	-0.342*** (0.095)
Hausman test (p-value)	0.17	0.01	0.13	0.00	0.00
R-squared	0.14	0.16	0.21	0.15	0.11
First stage: Dependent variable is ln (1+exports/area)					
Historic distance of ethnic group from coast	-0.0020*** (0.0004)	-0.0020*** (0.0004)	-0.0020*** (0.0004)	-0.0020*** (0.0004)	-0.0020*** (0.0004)
Reliance on fishing	Yes	Yes	Yes	Yes	Yes
Distances to Saharan city, route	Yes	Yes	Yes	Yes	Yes
Colonial population density	Yes	Yes	Yes	Yes	Yes
Ethnicity-level colonial controls	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes
District ethnicity controls	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	12,790	12,762	12,191	12,731	12,613
Number of clusters	103 / 973	103 / 973	103 / 982	103 / 972	103 / 970
F-stat of excl. instrument	22.7	22.6	23.1	22.7	22.3
R-squared	0.84	0.84	0.84	0.84	0.84

Notes: The table reports IV estimates. The sample excludes coastal East African ethnicities. The top panel reports the second stage estimates and the bottom panel reports first stage estimates. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. The individual controls, district controls, ethnicity-level colonial controls, and colonial population density measures are described in table 3. The reliance on fishing variable is the proportion of an ethnic group's subsistence from fishing. The distances to Saharan city, route variables include the minimum distance from an ethnic group to the nearest city involved in the Saharan trade, and minimum distance to the nearest route of the Saharan trade. The null hypothesis of the Hausman test is that the OLS estimates are consistent. ***, **, and * indicate significance at the 1, 5 and 10% levels.

Table 18: IV estimates of the effect of the slave trade on trust, controlling for the respondent's current distance from the coast.

	Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)
Second stage: Dependent variable is an individual's trust					
ln (1+exports/area)	-0.178** (0.079)	-0.200*** (0.072)	-0.168*** (0.065)	-0.184** (0.097)	-0.097 (0.089)
Hausman test (p-value)	0.99	0.95	0.43	0.92	0.97
R-squared	0.13	0.16	0.20	0.15	0.12
First stage: Dependent variable is ln (1+exports/area)					
Historic distance of ethnic group from coast	-0.0015*** (0.0003)	-0.0015*** (0.0003)	-0.0015*** (0.0003)	-0.0015*** (0.0003)	-0.0015*** (0.0003)
Current distance from coast	Yes	Yes	Yes	Yes	Yes
Colonial population density	Yes	Yes	Yes	Yes	Yes
Ethnicity-level colonial controls	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes
District ethnicity controls	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Number of observations	16,312	16,283	15,515	16,240	16,082
Number of clusters	146 / 1,147	146 / 1,147	145 / 1,154	146 / 1,146	146 / 1,144
F-stat of excl. instrument	21.2	21.1	22.0	21.4	21.3
R-squared	0.81	0.81	0.82	0.81	0.81

Notes: The table reports IV estimates. The top panel reports the second stage estimates and the bottom panel reports first stage estimates. Standard errors are adjusted for two-way clustering at the ethnicity and district levels. The individual controls, district controls, ethnicity-level colonial controls, and colonial population density measures are described in table 3. The null hypothesis of the Hausman test is that the OLS estimates are consistent. ***, **, and * indicate significance at the 1, 5 and 10% levels.

Table 19: Within-Africa reduced form estimates using current distance from the coast, rather than historic distance from the coast.

	Trust of local government council		Inter-group trust	
	Afrobarometer sample		Afrobarometer sample	
	(1)	(2)	(3)	(4)
Distance from the coast	0.00045*** (0.00006)	0.00033*** (0.00006)	0.00052*** (0.00006)	0.00048*** (0.00005)
Country fixed effects	Yes	Yes	Yes	Yes
Individual controls	No	Yes	No	Yes
Number of observations	19,873	19,580	19,634	19,634
Number of clusters	2,699	2,697	2,579	2,579
R-squared	0.16	0.18	0.09	0.10

Notes: The table reports OLS estimates. The unit of observation is an individual. Standard errors are clustered at the village level. When the dependent variable is trust in the local government council, the individual controls are for age, age squared, a gender indicator, education fixed effects, and religion fixed effects. When the dependent variable is inter-group trust, the individual controls are for age, age squared, a gender indicator, an indicator for living in an urban location, and occupation fixed effects. ***, **, and * indicate significance at the 1, 5, and 10% levels.

Table 20: Identifying channels of causality, without colonial population density as a control.

	Trust of local council		Within town		Within district		Within province		Trust of relatives	Trust of neighbors	Trust of local council	Intra-group trust	Inter-group trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)					
Ethnicity based slave export measure (baseline measure)	-0.070*** (0.016)	-0.071*** (0.016)	-0.067** (0.027)	-0.082*** (0.028)	-0.065** (0.027)	-0.092*** (0.028)	-0.123*** (0.031)	-0.083*** (0.021)	-0.113*** (0.038)	-0.068** (0.032)			
Average slave export measure among other ethnicities in the same location			-0.041 (0.025)	-0.068** (0.027)	-0.113*** (0.035)								
Location based slave export measure						-0.083*** (0.017)	-0.072*** (0.023)	-0.064*** (0.016)	-0.063** (0.029)	-0.060** (0.029)			
Council trustworthiness fixed effects	Yes	Yes	No	No	No	No	No	No	No	No			
Five public goods fixed effects	No	Yes	No	No	No	No	No	No	No	No			
Colonial population density	Yes	Yes	No	No	No	No	No	No	No	No			
Ethnicity-level colonial controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Number of observations	15,058	14,327	11,374	14,453	18,202	19,279	19,248	18,979	19,176	18,994			
Number of clusters	173 / 1,237	172 / 1,191	173 / 748	173 / 760	173 / 1,172	184 / 274	184 / 274	184 / 277	184 / 274	184 / 274			
R-squared	0.37	0.37	0.11	0.12	0.12	0.14	0.16	0.20	0.14	0.11			

Notes: The table reports OLS estimates. The unit of observation is an individual. Standard errors are adjusted for two-way clustering at the ethnicity level and at the location-based ethnicity level. 'Ethnicity based slave export measure' is our baseline measure of slave exports used throughout the paper; it is the log of the number of slaves taken from an individual's ethnic group (normalized by land area). 'Location based slave export measure' is our alternative measure of slave exports, which is the log of the number of slaves taken from the location where an individual is currently living (normalized by land area). 'Average slave export measure among other ethnicities in the same location' is the average slave export measure of respondents in the Afrobarometer survey living in the same village, district or region as the respondent. The 'Five public goods fixed effects' are for the existence of the following public goods in the respondent's town/village: school, health clinic, sewage, piped water, and electricity. See table 3 for a description of the baseline controls, the ethnicity-level colonial controls, and the colonial population density variables. ***, ** and * indicate significance at the 1, 5 and 10% levels.

Table 21: Differences between movers and non-movers.

Dependent variables	Mover indicator variable	
	Coefficient	Standard error
<u>Trust measures:</u>		
Trust of relatives	-0.0088	(0.0277)
Trust of neighbors	0.0043	(0.0335)
Trust of local council	0.0066	(0.0337)
Intra-group trust	0.0515	(0.0374)
Inter-group trust	0.0631**	(0.0317)
<u>Slave export measures:</u>		
Ethnicity based slave export measure (baseline measure)	-0.071	(0.066)
Location based slave export measure	-0.206	(0.137)
<u>Control variables:</u>		
Currently living in an urban city indicator	0.054**	(0.027)
Ethnic fractionalization in current district	0.108***	(0.021)
Share of ethnic group in current district	-0.192***	(0.024)
Age	-0.446	(0.340)
Male indicator	0.0005	(0.0053)
Some secondary school education or higher indicator	0.0213	(0.0133)
Christian religion	0.0047	(0.0186)

Notes: The table reports the within-country difference in means between movers and non-movers in the sample. A mover is defined as a person who lives in a location today that is different from where their ethnic group lived in the 19th century. Non-movers are those living in the same location. 'Ethnicity based slave export measure' is our baseline measure of slave exports used throughout the paper. It is the log of the number of slaves taken from an individual's ethnic group (normalized by land area). 'Location based slave export measure' is our alternative measure of slave exports, which is the log of the number of slaves taken from the location where an individual is currently living (normalized by land area). Standard errors are adjusted for 2-way clustering within ethnic groups and within districts. ***, **, and * indicate significance at the 1, 5, and 10% levels.

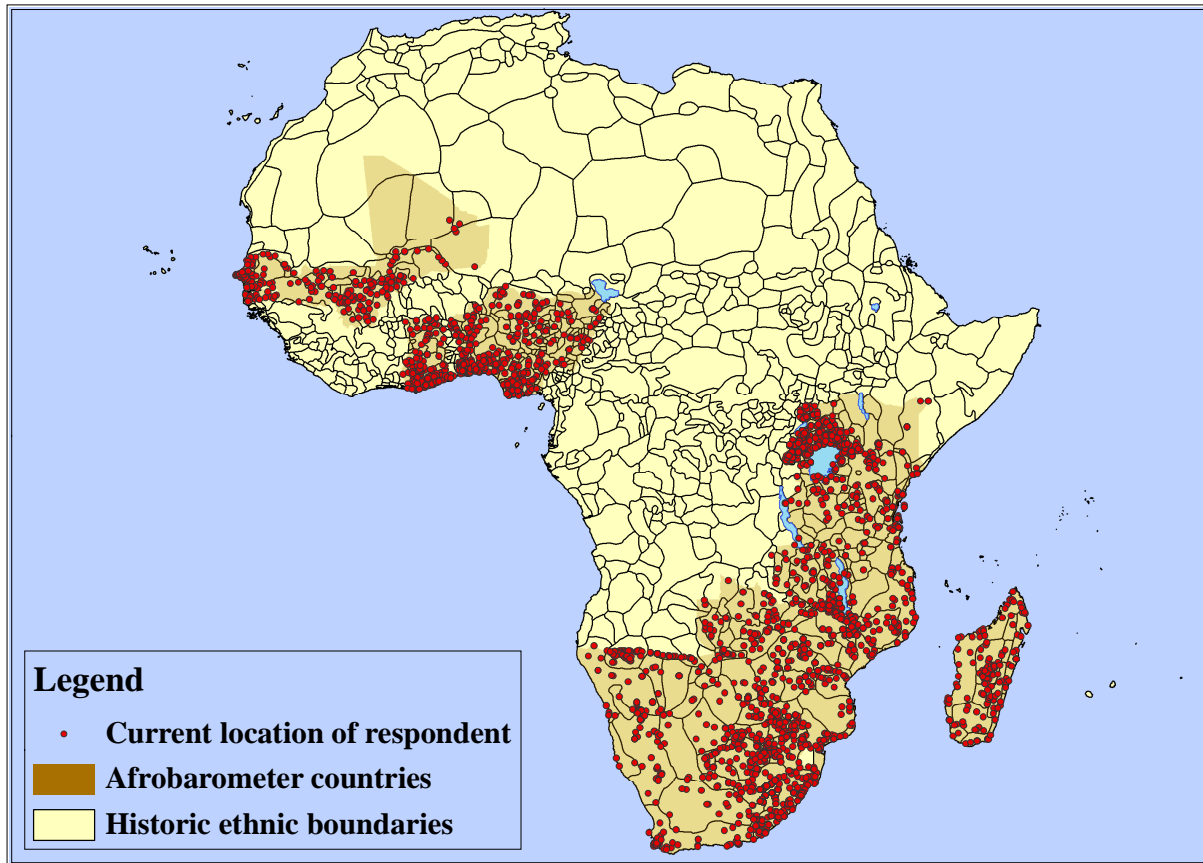


Figure 2: Map showing the historic location of ethnic groups and the current locations of respondents in the Afrobarometer surveys.

References

- Byerlee, Derek**, "Rural-Urban Migration in Africa: Theory, Policy and Research Implications," *International Migration Review*, 1974, 8 (4), 543–566.
- Century Company**, "The Century Atlas: Africa [map]," 1911. Buffalo, NY: Matthews-Northrup Company (470 English statute miles to 1 inch).
- Ciolek, Matthew T.**, "Georeferenced Data Set (Series 1 - Routes): NW African Trade Routes 500-1900 CE," OWTRAD Dromographic Digital Data Archives (ODDDA). Old World Trade Routes (OWTRAD) Project, Asia Pacific Research Online 2001.
- Easterly, William and Ross Levine**, "Africa's Growth Tragedy: Policies and Ethnic Divisions," *Quarterly Journal of Economics*, 1997, 112, 1203–1250.
- Kiszewski, Anthony, Andrew Mellinger, Andrew Spielman, Pia Malaney, Sonia Ehrlich Sachs, and Jeffrey Sachs**, "A Global Index Representing the Stability of Malaria Transmission," *American Journal of Tropical Medicine and Hygiene*, 2004, 70 (5), 486–498.
- Murdock, George Peter**, *Africa: Its Peoples and Their Cultural History*, New York: McGraw-Hill Book Company, 1959.
- , *Ethnographic Atlas*, Pittsburgh: University of Pittsburgh Press, 1967.
- Nunn, Nathan**, "The Long-Term Effects of Africa's Slave Trades," *Quarterly Journal of Economics*, 2008, 123 (1), 139–176.
- Oliver, Roland**, *The African Experience: From Olduvai Gorge to the 21st Century*, London: Phoenix Press, 2000.
- Roome, William R.M.**, "Ethnographic Survey of Africa: Showing the Tribes and Languages; Also the Stations of Missionary Societies [map]," 1924. (1:5,977,382).
- Todaro, Michael P.**, "Internal Migration in Developing Countries: A Survey," in Richard A. Easterlin, ed., *Population and Economic Change in Developing Countries*, Chicago: University of Chicago Press, 1980, pp. 361–390.