Low-Skilled Liberalizers:

Support for Free Trade in Africa *

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July 25, 2023

Abstract

Despite populist backlash to globalization in advanced industrialized countries, developing countries have recently sought to liberalize trade. To shed light on this phenomenon, we investigate mass attitudes toward free trade in 36 African countries. Using two rounds of Afrobarometer data and original survey data from Ghana and Uganda, we find that individuals hold views that are consistent with their economic self-interest. As factor endowment models predict for a sample of skill-scarce countries, low-skilled individuals are more likely than high-skilled individuals to support free trade. Moreover, the strongest negative effects of skill occur for the most skill-scarce countries in the sample and are driven by individuals in the labor force. Our results are robust to measuring variables more precisely in original surveys and controlling for other factors thought to shape attitudes. The findings suggest that previous evidence against factor endowment models may have partially resulted from inadequate data from the developing world.

Keywords: globalization, trade, factor endowment models, Africa, surveys

Word Count: 8,000

*We are grateful to Richard Clark, Kolby Hanson, David Kuenzel, Quynh Nguyen, Erica Owen, Duy Trinh, and members of the Tri-State IPE Working Group, and participants in IPES 2019 for helpful comments and conversations. Institutional Review Board approval was obtained from Princeton University (#6368).

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Globalization is under fire in advanced industrialized economies. But while the United States was withdrawing from the Trans-Pacific Partnership, re-writing the North American Free Trade Agreement, and launching a global trade war, developing countries were opening their borders. Developing countries are responsible for the majority of regional free trade agreements that have been signed since Brexit (*WTO Regional Trade Agreements Database* N.d.). These trends are particularly strong in Africa. The African Continental Free Trade Area (AfCFTA), which came into force in 2021, was signed by 54 African countries, making it the largest new free trade area since the creation of the World Trade Organization in 1994. This historic agreement embodies the idea that intra-regional trade liberalization is the way for African economies to grow and lift millions out of poverty.

This discrepancy in trade policies between the Global North and the Global South motivates us to investigate how explanations for mass attitudes toward trade travel to the developing world. Economists and political scientists have long turned to factor endowment models to explain variation in support for trade. Specifically, they argue that individuals support trade when they hold the relatively abundant factor of production. In relatively capital abundant (developed) countries, high-skilled individuals, who have high levels of human capital, should support free trade because their country specializes in products requiring skilled labor. In contrast, in capital-scarce (developing) countries, low-skilled individuals should support free trade because their country specializes in products requiring unskilled labor.

Initial evidence from the U.S. and Europe strongly supported the first prediction, but tests of the second have been challenging and mixed. Cross-national surveys heavily overrepresent developed countries (Mayda and Rodrik 2005; O'Rourke and Sinnott 2006). Analyses of the few developing countries in these samples find little evidence of the predicted negative relationship between skill and support for free trade — instead showing a null or even positive relationship (Mayda and Rodrik 2005; Baker 2005; Beaulieu, Yatawara and Wang 2005). These findings have given rise to what Margalit (2012) calls the "education puzzle" — why would skilled individuals prefer the free movement of goods even in skill-scarce economies? — and have reinforced a shift in the literature

away from the factor endowment model.

We argue that these debates have relied on evidence that underrepresents developing countries, and this evidence is crucial to understanding current events. We use data from two rounds of the Afrobarometer to analyze cross-national attitudes toward trade in 36 developing countries; we then use detailed original survey data from Ghana and Uganda to examine these patterns more precisely. Consistent with canonical models, we observe a negative and statistically significant relationship between education and support for trade, with the strongest negative relationship in the most skill-scarce countries and driven by labor force participants. We conclude that global observational evidence is not as inconsistent with factor endowment models as previously thought: African voters seem to be motivated by their economic interests.

1 Explaining Attitudes Toward Trade

What explains variation in support for free trade? Political economists have turned to the canonical factor endowment model Heckscher-Ohlin to explain variation in preferences. The theory holds that countries export goods that intensively use factors with which the countries are abundantly endowed. Therefore, owners of the abundant factor of production benefit from free trade, while owners of the scarce factor of production lose. Because skilled labor, which involves human capital, is relatively abundant in developed countries but scarce in developing countries, it predicts that free trade benefits high-skilled workers in the developed world and low-skilled workers in the developing world. This prediction, known as the Stolper-Samuelson theorem, has led political scientists to expect support for free trade from high-skilled workers in the developed world and low-skilled labor in the developing world (Rogowski 1987; Alt and Gilligan 1994).[1]

Evidence for the factor endowment model is mixed. Consistent with the theory, education (a proxy for skill) positively and significantly predicts support for free trade (Scheve and Slaughter 2001*a*,*b*) in advanced industrialized economies. Initially, survey data appeared to also support the

[1]Following previous works, we use "skill-abundant" and "skill-scarce" to refer to countries that are relatively more or less abundant in human capital, a factor of production.

idea that the relationship between skill and support for trade was stronger for skill-abundant than skill-scarce countries. Using cross-national data from the International Social Survey Programme (ISSP), Mayda and Rodrik (2005) find that education is associated with pro-trade views in skill-abundant countries but anti-trade views in skill-scarce countries.

However, these data include very few skill-scarce countries, and the only negative relationship they observe is for the Philippines. Excluding these countries limits the data in two ways: (1) we observe too few low-skilled workers to conduct robust sub-national analysis and (2) we observe too few skill-scarce countries to conduct robust cross-national analysis.

Efforts to include more skill-scarce countries in cross-national analysis have weakened support for Heckscher-Ohlin. Mayda and Rodrik (2005) and Baker (2005) examine patterns in the World Values Survey, which includes Bangladesh, Nigeria, Pakistan, India, and China. For these relatively skill-scarce countries, there appears to be no relationship between education and trade attitudes. Beaulieu, Yatawara and Wang (2005) using survey evidence from 1990s Latinobarometro surveys observe a positive relationship between skill and support for free trade for their sample of 17 developing countries in Latin America. However, more recent studies involving data from one or a few developing countries have found greater support for trade among low-skilled or low-caste individuals (Jamal and Milner 2013, 2019; Gaikwad and Suryanarayan 2019).

Many scholars have tried to explain mixed evidence for these models. For example, Baker (2003) argues that individuals are driven by their consumption preferences rather than their factor endowments. But explanations increasingly emphasize non-economic factors.[2] Many argue that education could impact attitudes not through labor markets but through learning, culture, and out-group anxiety (Hainmueller and Hiscox 2006; Mansfield and Mutz 2009; Hainmueller and Hiscox 2007).

Without challenging the significance of non-economic factors, we claim that economic models have not received fair tests. Beaulieu, Yatawara and Wang (2005, 943) wrote, "The main hurdle in resolving this debate is that the countries examined in the literature to date are limited in the cov-

[2]Economic explanations are primarily invoked when trade is especially salient, e.g. Margalit (2011); Autor, Dorn and Hanson (2016); Dancygier and Donnelly (2012); Malhotra, Margalit and Mo (2013).

erage of developing countries." There has been little improvement since their effort. We introduce new data to test old predictions, specifically:

Hypothesis 1. *In skill-scarce countries, low-skilled individuals are more likely than high-skilled individuals to support free trade.*

Hypothesis 2. *In countries that are relatively more skill-abundant, the gap between low-skilled and high-skilled individuals is smaller or may even reverse, with high-skilled individuals supporting trade more than low-skilled individuals.*

We note that if non-economic factors do lead educated individuals in all countries to hold more pro-trade preferences, then these factors could dominate economic factors and limit our ability to find evidence for hypothesis 1. This makes hypothesis 2 a more reliable test of Heckscher-Ohlin.

Hainmueller and Hiscox (2006) offer a third hypothesis: these patterns should be strongest for individuals who are employed or actively seeking work, as they are the ones affected by labor market dynamics. However, there individuals not in the labor market could also exhibit the relationships expected in hypotheses 1 and 2, as they may expect future employment or reside in households with similarly skilled labor force participants. We examine this hypothesis but find it a somewhat less compelling test of Heckscher-Ohlin.

Hypothesis 3. *The relationship between skill and support for free trade will be strongest for individuals in the labor force.*

If these hypotheses are supported, this simply means that cross-national evidence is more consistent with economic models than scholars previously thought. We think it a significant contribution to test the most straightforward but controversial economic models using newly available data from an often overlooked, low-income continent. However, we do not claim that non-economic factors are unimportant or provide evidence on the mechanisms of Heckscher-Ohlin at work.

2 Support for Factor Endowment Models from Afrobarometer

We use data from two rounds of the Afrobarometer (Afrobarometer 2017). The countries included in the survey account for about 85% of Africa's GDP and 75% of its population.[3] This region generally exports raw materials and intermediate goods (e.g. fuels and foods, which utilize low-skilled labor and land) and imports consumer and capital goods (*Worldwide Integrated Trade Solutions* N.d.). Afrobarometer avoids conducting surveys in countries with poor security conditions and limited freedom of expression. While countries included in Afrobarometer tend to be more democratic and have greater freedom of expression than other African countries, they do not trade more or less than excluded countries (Table A2).

We first use data from round 6 (2015-2016), which asked individuals in 36 countries about their attitudes toward the free movement of goods and people. This question reads: "Which of the following statements is closest to your view? Statement 1: People living in [West/South/East/North/Central] Africa should be able to move freely across international borders in order to trade or work in other countries. Statement 2: Because foreign migrants take away jobs, and foreign traders sell their goods at very cheap prices, governments should protect their own citizens and limit the cross-border movement of people and goods." We refer to this as support for globalization, and following previous studies, we dichotomize it, where 1 indicates openness to globalization (agrees with statement 1) and 0 indicates aversion to globalization (agrees with statement 2) (Scheve and Slaughter 2001*b*; Hainmueller and Hiscox 2006; Mayda and Rodrik 2005). We omit responses of don't know, agreed with neither, refused, and missing, although our results are robust to modeling these responses (Kleinberg and Fordham 2018).[4] Overall, 61% of round 6 respondents support globalization (Figure A1). However, this question wording conflates attitudes toward trade with attitudes toward migration. Specifically, respondents may fixate on whether traders should be allowed from neighboring countries (south-south migrants).

The round 8 (2019-2021) questionnaire asks more precisely about trade attitudes in 34 coun-

[3] Authors' calculations using World Development Indicators.

[4] See Tables A24-A27. About 5% answered "don't know," similar to 4% for the comparable ISSP question in 2013.

tries. It reads: "Statement 1: In order to develop, our country must rely on trade with the rest of the world, including by opening our borders to foreign imports. Statement 2: In order to develop, our country must rely on local production and protect local producers from foreign competition."[5] We refer to this variable as support for free trade. Overall support for free trade is 51% of the round 8 sample (Figure A1).

Following previous work, we use education as a proxy for individual skill.[6] First, we use an ordinal measure of education.[7] Education may capture more than just skill, as individuals may acquire economic knowledge or more cosmopolitan world views when they attend college. This appears as a non-linear effect of obtaining a college education in the U.S. (Hainmueller and Hiscox 2006). We use dummy variables to test for non-linearity.

Round 8 also includes the support for globalization question that appears in round 6. Support for globalization and support for free trade are highly correlated (Table A31). This improves our confidence that support for globalization, which we must rely on for our round 6 analysis, proxies for support for free trade.

To test the cross-national implications of the factor endowment model, we require a measure of the country's relative abundance in skilled labor. Following Mayda and Rodrik (2005) and others, we use the logged value of gross domestic product (GDP) per capita. We use data from the World Development Indicators for 2014 and 2019, the years immediately preceding each round of data collection.

Afrobarometer asks whether individuals are employed, looking for work, or not looking for work.[8]

As in nearly all previous studies, we estimate results using binary probit models. We regress the dummy dependent variable (1 = support for globalization or trade) on education, controlling

[5] About 2% responded "don't know," which we omit as before.

[6] Education has a normal distribution. Plots of this and all education/skill variables appear in the Appendix.

[7] Levels 1-10 include, in order, No formal schooling, Informal schooling only, Some primary schooling, Primary school completed, Some secondary school / high school, Secondary school / high school completed, Post-secondary qualifications, other than university, Some university, University completed, Post-graduate.

[8] Respondents report their occupations separately. Students and homemakers mostly identify as looking for work or not looking for work but some are employed. Consistent with Hainmueller and Hiscox (2006), we include these students and homemakers using the employment status they provide.

for age, gender, rural, and country fixed effects.[9] We cluster standard errors by region to account for relevant spatial correlation related to border regions and trade routes.

To test hypothesis 1, we pool each sample and estimate the relationship between education and our outcome measures. The results appear in Tables 1 (round 6) and 2 (round 8). In the full sample (model 1), more educated individuals are significantly less supportive of globalization (round 6) and of free trade (round 8). Since Afrobarometer countries are skill-scarce, this is in line with the expectations of the Heckscher-Ohlin model. This offers strong support for hypothesis 1, as we observe a negative relationship in a very large sample of respondents from skill-scarce countries across two different survey rounds.

We also find support for hypothesis 3. Factor endowment models expect the relationship between skill and attitudes to be strongest for labor market participants. Consistent with this theory, in round 6, our main finding is driven by individuals who are employed (Table 1, models 2-4). In round 8, our main finding is driven by individuals who are actively looking for work (Table 2, models 2-4). In neither round do we find results for individuals not looking for work. As theory expects, the results are driven by those for whom wage concerns exist.

Next, we investigate non-linearities in the relationship between education and our outcomes. We do not find evidence consistent with Hainmueller and Hiscox (2006)'s claims about trade attitudes that are learned through attending college. The only non-linearities we observe are for completing primary school, and these only exist in round 6 (Table 1, models 5-8. We believe education proxies for skill, not learned attitudes, in this sample.

Does the negative relationship between skill and support for trade vary with the country's relative factor endowment? Table 3 tests hypothesis 2 by interacting GDP per capita with the main education variable.[10] The Stolper-Samuelson theorem expects a positive coefficient on this interaction term, suggesting that the observed negative effect of skill attenuates (or becomes positive) for countries that are relatively more abundant in skilled labor. In both rounds, this coefficient is positive and statistically significant.

[9] Other relevant covariates, including political knowledge, import duties, and union membership, are unavailable.
[10] Full results by employment status and with non-linearities appear in the Appendix.

Table 1: Education predicts support for globalization (round 6)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.011**	−0.014*	−0.007	−0.009				
	(0.005)	(0.008)	(0.009)	(0.008)				
Primary					−0.082***	−0.131***	−0.067*	−0.058*
					(0.021)	(0.038)	(0.037)	(0.034)
Secondary					0.014	−0.025	0.031	0.045
					(0.025)	(0.038)	(0.043)	(0.042)
Any Higher Ed					−0.017	0.003	−0.098	0.083
					(0.035)	(0.044)	(0.072)	(0.079)
College					0.036	0.056	0.117	−0.094
					(0.037)	(0.048)	(0.084)	(0.078)
Female	−0.030**	−0.016	−0.037	−0.039*	−0.031**	−0.022	−0.038	−0.036
	(0.013)	(0.022)	(0.028)	(0.023)	(0.013)	(0.022)	(0.028)	(0.023)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	49,447	19,355	11,547	18,370	49,447	19,355	11,547	18,370

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the relationship between education and support for globalization. Controls include age, gender, rural, and country fixed effects. Standard errors are clustered at the region level. Observations are weighted by taking Afrobarometer's combinwt variable. *Source:* Afrobarometer.

Table 2: Education predicts support for free trade (round 8)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.012**	−0.007	−0.020**	−0.004				
	(0.005)	(0.007)	(0.008)	(0.008)				
Primary					−0.022	−0.018	−0.026	−0.013
					(0.021)	(0.032)	(0.039)	(0.029)
Secondary					0.018	0.018	−0.013	0.059
					(0.024)	(0.036)	(0.041)	(0.041)
Any Higher Ed					−0.082*	−0.057	−0.150**	−0.034
					(0.042)	(0.057)	(0.072)	(0.070)
College					0.025	0.025	0.065	−0.018
					(0.049)	(0.068)	(0.078)	(0.084)
Female	−0.032**	−0.044	−0.045*	−0.022	−0.029**	−0.042	−0.044*	−0.019
	(0.015)	(0.030)	(0.026)	(0.024)	(0.015)	(0.030)	(0.026)	(0.023)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	46,200	15,723	12,056	18,325	46,200	15,723	12,056	18,325

*p<0.1; **p<0.05; ***p<0.01

Note: See notes for Table 1. Observations are weighted by taking Afrobarometer's within-country weighting variable and standardizing so that all countries are weighted as if they have equal populations (replicating the combinwt variable). *Source:* Afrobarometer.

Table 3: Cross-national test of factor endowment model

	Dependent variable:	
	Support for globalization (0-1)	Support for free trade (0-1)
	(1)	(2)
Edu	-0.102^{*}	-0.193^{***}
	(0.055)	(0.058)
Edu*GDPpc (log)	0.012^{*}	0.025^{***}
	(0.007)	(0.008)
GDPpc (log)	-0.751^{***}	-1.315^{***}
	(0.039)	(0.039)
Sample	round 6	round 8
Observations	48,395	46,200

*p<0.1; **p<0.05; ***p<0.01

Note: See notes for Tables 1/2. Standard errors are clustered by country. *Sources:* Afrobarometer and World Development Indicators.

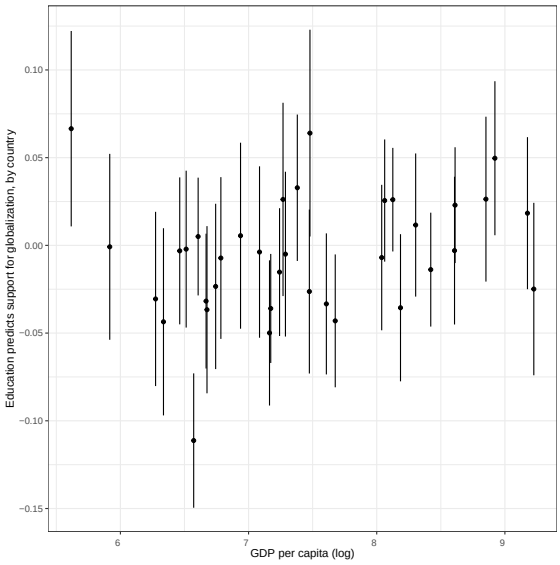
Figure 1 plots the relationship between education and our outcome variables by a country's GDP per capita. Visually, we observe a positive relationship between that country's level of GDP per capita and the size of the coefficient on education. In each round, we observe negative and statistically significant coefficients for 4-8 countries and positive and statistically significant coefficients for just 3-5 relatively richer countries. This is a relatively small number of countries in which it is possible to observe, in isolation, the negative relationship between skill and support for trade. Nevertheless, the positive slope of these figures is expected by factor endowment models, supporting hypothesis 2.

In the Appendix, we check two alternative measures of skill endowment: the ratio of skilled to unskilled labor within the country (Barro and Lee 2013) and the intensity with which the country's top export utilizes skilled labor (*Worldwide Integrated Trade Solutions* N.d.; Shirotori et al. 2010)). The round 6 findings are similar, although the round 8 findings are not robust to alternative (cruder) measures of skill intensity.[11] We also provide a cursory test of whether landowners

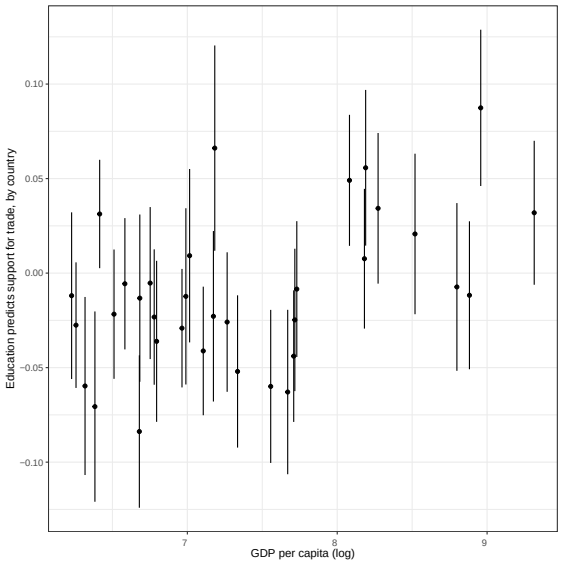
[11] See Tables A8-A11.

Figure 1: Relationship between skill and support for globalization and trade by country factor endowment

(a) Support for globalization (round 6)



(b) Support for free trade (round 8)



Note: Each point indicates the coefficient obtained from a country-specific regression and the bar indicates the 95% confidence interval. Regressions are identical to those in Table 1/2, Model 1, but subset to a single country and therefore omit country fixed effects. We do not cluster standard errors because there are few regions per country. *Sources:* World Development Indicators and Afrobarometer.

in land-abundant countries are more supportive of globalization.[12] We also present results for the round 8 question on globalization: while we find support for hypothesis 2, we do not for hypotheses 1 and 3. We discuss these findings and why they do not undermine our confidence in the factor endowment model in Appendix C.4. Last, we discuss pandemic-related considerations in Appendix Table A28.

Overall, cross-national and pooled patterns in Afrobarometer data are highly consistent with canonical factor endowment models. Education negatively predicts support for trade, and the relationship is strongest for skill-scarce countries and those in the labor force. Our findings are generally linear, suggesting education reflects skill rather than culture.

Nevertheless, education is an imperfect proxy for skill. In the Appendix, we show that the findings generally hold when we code skill using an individual's occupation[13] or income[14](Scheve and Slaughter 2001*b*; Mayda and Rodrik 2005; O'Rourke and Sinnott 2006; Hainmueller and Hiscox 2006). These measures, however, make assumptions about individuals' work or compensation, and so we measure skill directly in the next section by fielding original surveys in two countries.

3 Additional Evidence from Ghana and Uganda

We have illustrated a robust negative relationship between skill and support for globalization in 36 African countries, as well as cross-national patterns that accord with factor endowment models. This large sample benefits cross-national claims especially, but we are constrained in our measure of skill. We therefore complement the Afrobarometer data with original survey data collected in Ghana and Uganda.

Ghana has the 11th highest ($1670) GDP per capita in the Afrobarometer sample, while Uganda sits lower in 23rd place ($661). These two countries in different regions — Ghana in West Africa and Uganda in East Africa — are neither extremes nor identical in their economic development

[12] See Tables A12 and A13.
[13] See Tables A14-A16.
[14] See Tables A17 and A18.

relative to other countries in Afrobarometer. While Ghana is relatively wealthier than Uganda, both are poor and skill-scarce. Ghana's top exports are stone and glass, fuels, and food products, and Uganda's are vegetables, stone and glass, and food products (*Worldwide Integrated Trade Solutions* N.d.).

We draw on data from convenience samples in Ghana in 2016 and Uganda in 2017 as well as a national survey in Uganda in 2018. The surveys are similar but not identical, and the sampling procedures appear in the Appendix. Descriptive statistics suggest that the samples are similar to the Afrobarometer samples in terms of age, gender, education, poverty, and national identification.[15] But there are far fewer agricultural workers than in national surveys, and these individuals might be most supportive of free trade. Nevertheless, we benefit from the ability to measure skill more precisely than does the Afrobarometer, even if in just a convenience sample.

We measure individuals' attitudes toward trade. The dependent variable is the extent to which individuals agree with the statement, "It should be easier for other countries to buy and sell their goods and services in [COUNTRY]." Again, we code individuals as a 1 if they reply that they somewhat or strongly agree with this statement. The overall level of support for free trade is 75% in Ghana (2016), 60% in Uganda (2017), and 78% in Uganda (2018).

We first use education to proxy for skill. This variable is constructed almost identically as in Afrobarometer.[16]

We also measure skill directly, which Afrobarometer does not.[17] Individuals are asked about the duties their job requires of them. We create an ordinal variable valued at 1 if the individual lists no duties, manual labor only, or owning a business[18]; 2 if clerical or computer duties; and 3 if managing others. Since this measure pertains to the duties of an individual's job, it exists only for employed individuals.[19]

[15] See Tables A32, A40, and A48.

[16] Levels 1-8 include, in order, No schooling, Some primary, Completed primary, Some secondary school, Completed secondary, Some university or polytechnic, Completed university or polytechnic, Completed post-graduate training. The last level does not exist in Uganda 2018.

[17] In the Appendix, we present results when we use income to proxy for skill. See Tables A36, A44, and A52.

[18] Business owners in this context are more likely to be informal microentrepreneurs than they are to be formal business owners with administrative skills.

[19] Information about this variable and missingness appears in Figures A4 and A5.

These variables allow us to again test hypothesis 1.[20] Again, we estimate results using binary probit models. We regress the dummy dependent variable on education/skill and controls including age, gender, religion, ethnicity, and political knowledge. We cluster standard errors by the largest geographic cluster available, the constituency, which is unavailable in Uganda (2018). Since we cannot replicate the geographic sampling, controls, and clustering from the above analysis, any differences could result from these elements. Full results are reported in the Appendix, while we summarize our findings below, using the Afrobarometer results for these two countries as a benchmark.

Figure 2 presents the relationship between education and attitudes toward trade in our original samples. In both countries, we recover similar findings to Afrobarometer regarding education.[21] In Ghana, we replicate the negative and significant coefficient on education that we found in Afrobarometer, and it is even stronger than it was in Afrobarometer.[22] In Uganda, the coefficient on education is insignificant, as it was in the Uganda samples of the Afrobarometer.[23] Overall, the Afrobarometer results replicated in an original survey.

Figure 2 illustrates how our results change with an alternative measure of skill. In both Ghana and Uganda, skill negatively predicts support for free trade.[24] The relationship is even stronger for skill than it is for education. This suggests that education may be proxying for more than just skill in Uganda, and this caused us to observe some null effects. Although this finding is only for two countries, it implies that the cross-national Afrobarometer findings, if anything, understate the negative relationship between skill and support for free trade.

Public opinion on trade is sensitive to question wording. In the Uganda 2018 survey, we include a second measure of support for free trade by asking individuals, "Do you favor or oppose placing new limits on imports?" where 1 is favor new limits on imports and 0 is oppose. The results

[20] While we do measure individuals' employment status, there are too few individuals who are not at all in the labor force to permit us to test hypothesis 3.

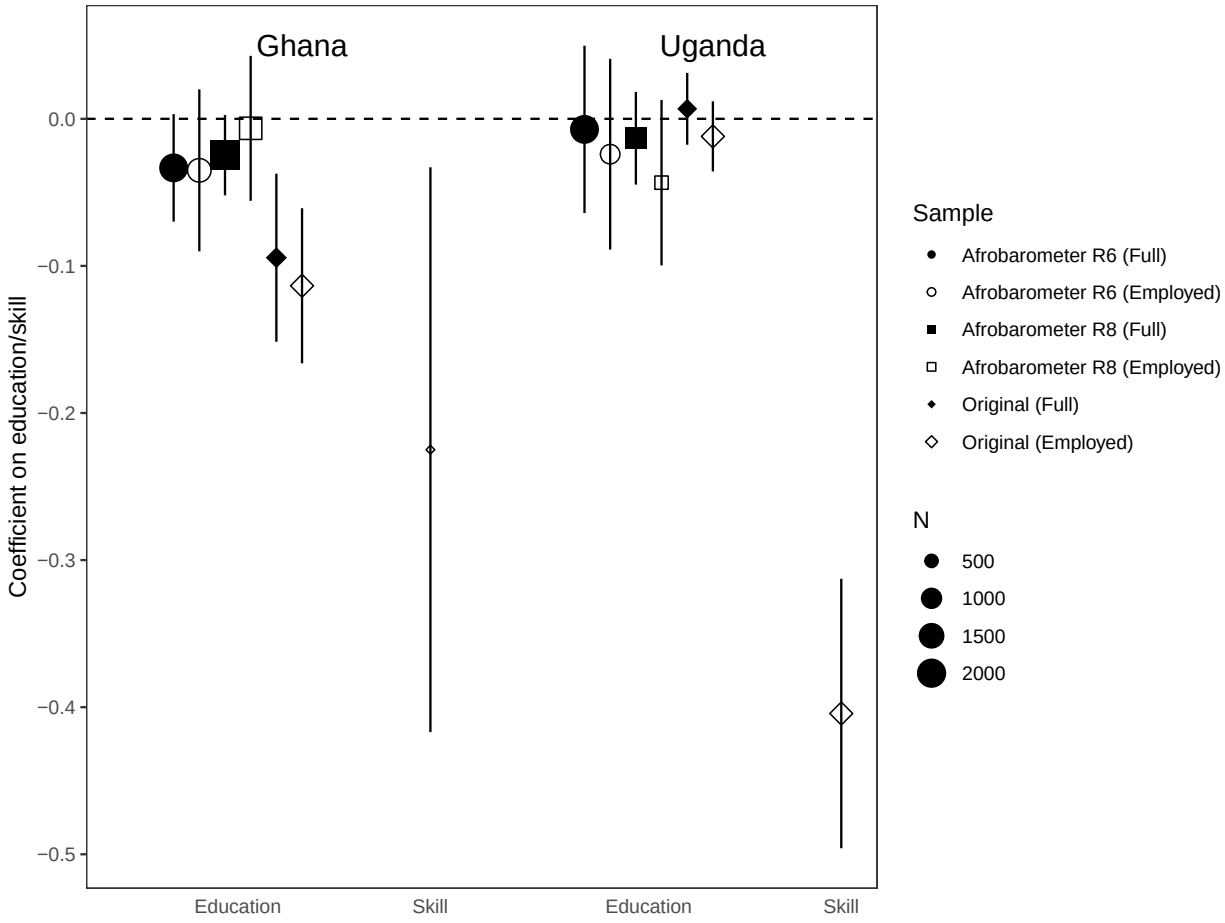
[21] Factor endowment models would expect a stronger negative relationship between skill and trade attitudes for Uganda than Ghana because it is more skill-scarce. But any draw of two countries from 36 will result in too much noise to test a cross-national hypothesis.

[22] See Table A34.

[23] See Table A42.

[24] See Tables A35 and A43.

Figure 2: Comparing measures of education and skill



Note: Each point indicates the coefficient obtained from a single regression, and the x-axis indicates the independent variable (education or skill). In Ghana, the skill measure was asked for only a subset of all employed individuals. Uganda data are from the 2017 survey only; the 2018 survey did not include this measure. Standard errors are clustered at the region for Afrobarometer and the constituency for the original surveys. *Source:* Author's data and Afrobarometer.

Table 4: Comparing relationship between education and trade attitudes across measures (Uganda 2018)

	Dependent variable:	
	Support for free trade (0-1)	Support for limiting imports (0-1)
	(1)	(2)
Edu	-0.054^{**}	0.058^{***}
	(0.023)	(0.022)
Age	0.005^{*}	-0.005^{*}
	(0.003)	(0.003)
Female	-0.129^{*}	0.042
	(0.072)	(0.067)
Controls	Ethnicity	Ethnicity
Observations	1,670	1,654

*p<0.1; **p<0.05; ***p<0.01

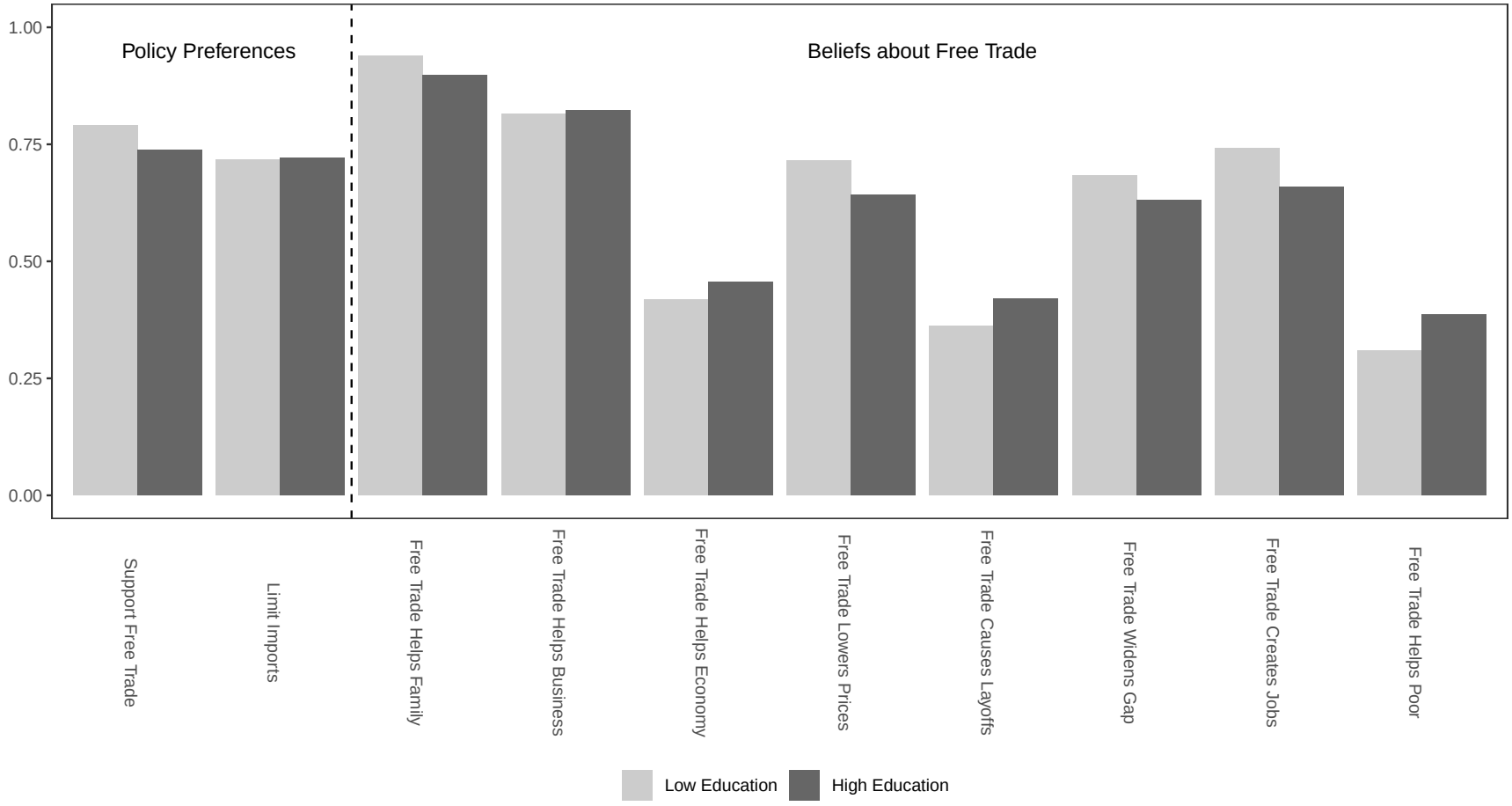
Note: Regressions use binary probit models to estimate the effects of education on trade attitudes. Unlike the other original surveys, religion and political knowledge were not asked of respondents, so are not included as controls. Standard errors are not clustered, as geographic data are missing. *Source:* Authors' data.

are identical and inverse when we frame our outcome measure differently (Table 4). This adds to confidence that individuals understand how trade works.

In factor endowment models, individuals are well-informed, rational, self-interested economic actors who accurately anticipate the distributional consequences of free trade. Although several studies cast doubt on the validity of these assumptions in U.S. and Europe, we find moderate evidence to support them in Africa.[25] The Uganda 2018 survey investigates respondents' beliefs about the consequences of free trade. Although high and low-skill (education) groups hold fairly homogeneous beliefs about how free trade will benefit their families, their businesses, and their economy, they diverge in expectations about the effect of free trade on jobs. Figure 3 shows that high-skilled individuals are more likely to believe that free trade causes layoffs, while low-skilled individuals are more likely to believe that free trade creates jobs. These are accurate perceptions according to Heckscher-Ohlin.

[25]For example, see Guisinger (2017); Rho and Tomz (2017).

Figure 3: Beliefs about free trade (Uganda 2018)



Note: N = 1,692. *Source:* Author's data.

4 Addressing Alternative Explanations

We address alternative explanations by controlling for variables thought to predict support for globalization and/or free trade. We present the complete tables in the Appendix and summarize our findings in Table 5.

First, our results are robust to controlling for price sensitivity. Baker (2003) claims individuals want low prices associated with globalization, which is why some in the developing world support free trade. Figure 3 suggests that Ugandans expect free trade to lower prices, and low-skilled individuals are more likely to believe this. However, this explanation carries most weight when there is a large middle class who consumes traded durable goods, and the middle class in Africa remains small (Shimeles and Ncube 2015). If this explains our result, then our finding should disappear when we control for how individuals feel about prices. Using an Afrobarometer question about how well the current government is doing at keeping prices down, we show that our findings hold when we account for price sensitivity.[26] We do not believe our results are explained by consumption dynamics.

Second, we test whether our results are driven by public sector employees. Many countries in the developing world have large public sectors that disproportionately absorb high-skilled workers; trade liberalization could contract these sectors, so this could account for our finding that high-skilled workers tend to oppose free trade. In Afrobarometer and Uganda (though not Ghana), we do find that public sector workers are higher skilled. However, there is still substantial variation in skill among public sector employees, so we simply control for whether an individual is a public sector employee. Doing so does not affect our main findings.[27]

Third, we consider whether political connections explain our findings. Individuals with ties to the regime, usually educated, may oppose trade liberalization that jeopardizes their preferential treatment. Our Ghana and Uganda surveys measure whether an individual is involved in a community association, has held political office, or has a family member who held political office.

[26] See Tables A20 and A21.

[27] See Tables A1, A19, A37, A45, and A53.

Table 5: Summary of controls added to test alternative explanations

	Alternative explanation			
	Consumption	Public sector	Political connections	Non-economic
Afrobarometer	Price sensitivity	Public sector		National identity Ethnocentrism Xenophobia Support for democracy
Ghana (2016)		Public sector	Community assn membership Held political office Family held political office	National identity National pride
Uganda (2017)		Public sector	Community assn membership	National identity
Uganda (2018)		Public sector		
	Results were robust to inclusion of all above controls.			

Controlling for these variables does not change our results.[28]

Fourth, non-economic factors influence attitudes toward globalization. While several cultural variables significantly predict support for globalization, including them in our models does not weaken the significance of education/skill. Following Mayda and Rodrik (2005), we consider national identification,[29] ethnocentrism, xenophobia, and support for democracy.

In the Afrobarometer analysis, we control for these variables (Tables A22 and A23). When individuals identify nationally rather than ethnically, they are somewhat more likely to support globalization in round 6, but behave no differently from others in round 8. Individuals who are more ethnocentric or xenophobic are less likely to support both globalization and trade, while democracy supporters are more likely.

Even when these non-economic factors are included, the factor endowment model performs admirably. Education negatively and significantly predicts attitudes toward globalization, and this result is stronger when controlling for these cultural factors. The interaction term between education and GDP per capita remains positive and significant.

We perform similar checks on the original surveys, where we have some limited data on national identification and national pride. Again, our core findings are not sensitive to including these variables.[30]

In all surveys, we observe a relatively weaker effect of gender than is observed in advanced industrialized countries, where women are less supportive of free trade. In round 6, women are somewhat more averse to globalization then men (Table 1), but this is model dependent, and there is no gender effect in round 8 (Table 2). In Uganda, we see only weak gender effects in the 2017 employed sample and the 2018 full sample, and they are not robust.[31] There is no gender effect in the original survey in Ghana.[32] Gender may play a less important role in shaping trade preferences in African countries.

[28] See Tables A38 and A46.

[29] National identification measures whether the individual identifies more with his or her ethnic group or national identity, similar to Mayda and Rodrik (2005).

[30] See Tables A39 and A47.

[31] See Tables A42 and A50.

[32] See Table A34.

We are unable to test two other leading economic theories of trade preferences. One is the Ricardo-Viner model of free trade, where individuals' preferences are shaped by the sector in which they are employed rather than their skill endowment. We lack a measure of the industry of employment precise enough to determine whether individuals are in exporting versus import-competing industries (see Appendix for further explanation). Collecting this granular industry-level information (as in Jamal and Milner (2019)) is costly, but should be a priority for future research.

We are also unable to address the so-called New New Trade Theory, which holds that preferences over free trade are determined by the extent to which the firm an individual works for participates in global value chains (GVCs). If a firm imports inputs from other countries in order to produce products it then subsequently exports, then its employees should favor free trade to support these linkages. But Africa lags the world in GVC integration, and GVC integration is currently on the decline rather than the upswing. Within Africa, Ghana and Uganda are below average in the percent of foreign value added in exports, with Ghana having almost no foreign value added (Dollar and Kitter 2017). Given such low overall levels, we find it unlikely that any minimal variation that exists within-country would explain the patterns we observe.

The support we find for Heckscher-Ohlin is noteworthy because there are many critiques, not only of Heckscher-Ohlin's power to explain public opinion, but of the underlying economic theory and its applicability to Africa. First, Heckscher-Ohlin assumes inter-industry labor mobility. While systematic data on labor mobility tend to cover only OECD countries (Hwang and Lee 2014), it does seem that switching costs between industries are higher in sub-Saharan Africa than elsewhere (Clemens 2010; Artuc, Lederman and Porto 2015). Without the ability to switch industries, it is puzzling why trade would affect people according to their factor ownership. Second, the presence of a large informal sector may complicate the predictions of Heckscher-Ohlin if there are high switching costs between the informal and the formal sector. In Ghana, 80 percent of workers are employed informally, and switching costs are high (Osei-Boateng and Ampratwum 2011; Burger and Fourie 2019). Third, trade liberalization may have actually increased the skill premium in de-

veloping countries, contrary to Heckscher-Ohlin (Sánchez-Páramo and Schady 2003; Ackah, Morrissey and Appleton 2012; Bigsten and Durevall 2006; Goldberg and Pavcnik 2007). Numerous explanations have been proposed; among them, African countries may have faced pressure from wealthier economies to selectively liberalize low-skill more than high-skill products. Regardless, the rising skill premium leads some to expect that trade will benefit relatively skilled workers in developing countries, contrary to Stolper-Samuelson (Menendez, Owen and Walter 2023).

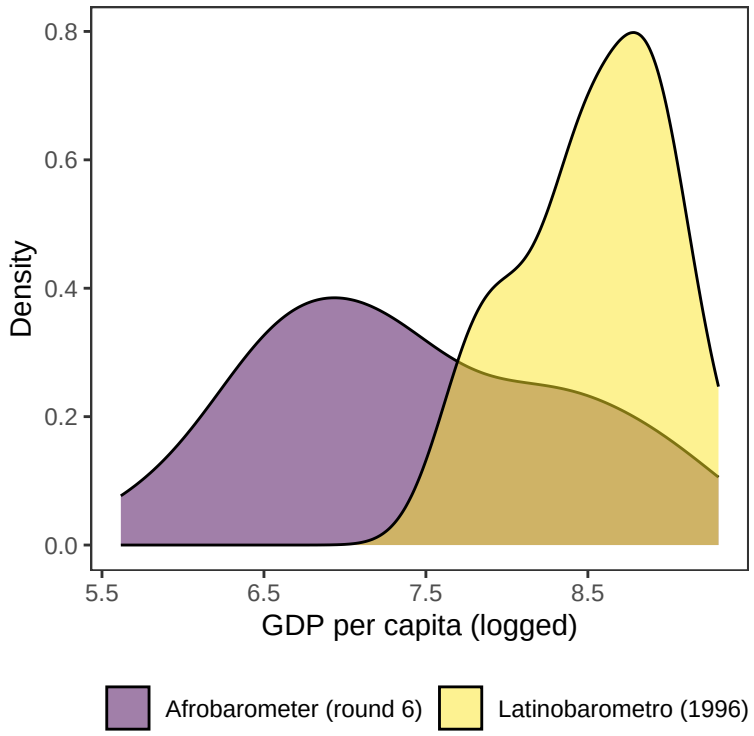
We are sympathetic to these critiques, and they make our results all the more interesting. We are not able in the scope of this paper to reconcile the logic of Heckscher-Ohlin with the context of African countries or to defend its predictions about the distributional effects of liberalization. What we show is that African public opinion exhibits the patterns we would observe if Heckscher-Ohlin did perform well in Africa and if individuals did base their attitudes toward trade on their positions in the economy, and alternative theories of public opinion are unable to account for these patterns. We find the strength and robustness of our findings surprising and hope future research will explain them in light of these objections.

5 Conclusion

Overall, public opinion data in Africa is strikingly consistent with the predictions of factor endowment models. In this skill-scarce sample, it is low-skilled individuals who are more likely than high-skilled individuals to support globalization and trade. These results are somewhat stronger for individuals who are engaged in the labor market, for whom wage concerns may matter most. Cross-national patterns within this sample support the predictions of trade theory: the negative effect we observe attenuates for the relatively higher-skilled countries in the sample. While we recognize measurement error associated with measuring skill and public opinion, the magnitude of our finding increases when we employ alternative measures in original surveys.

Without challenging the claim that non-economic factors matter for attitudes toward globalization, we show that public opinion data is more consistent with economic models than previously

Figure 4: Benchmarking the national income distribution of each sample



Note: Density plots are of the distribution of national income for the 36 countries in the Afrobarometer sample and the 17 countries in the Latinobarometro sample used in Beaulieu, Yatawara and Wang (2005). The African sample is substantially poorer than the Latin American sample. Data on the Africa sample comes from the World Development Indicators (using 2014 as the year) and data on the Latin American sample comes from the numbers reported by Beaulieu, Yatawara and Wang (2005) (they do not note the specific year of measurement, presumably 1996). Accounting for inflation would further separate these samples. *Source:* World Development Indicators.

thought. Previous scholars had concluded that skilled workers support globalization even in skill-scarce economies, a significant mark against factor endowment models. This claim was primarily advanced by Beaulieu, Yatawara and Wang (2005), who in focusing on Latin America in the 1990s provided evidence from a more skill-scarce sample than the U.S. or Europe. But Figure 4 shows even this sample is wealthy when compared to an African sample. Previous cross-national studies may have been unable to find cross-national evidence to support Heckscher-Ohlin because there was insufficient variance in skill. In leveraging multiple sources of data from this part of the world, we illustrate that once the sample is skill-scarce enough, the expected negative effect does exist, and the patterns are consistent with economic expectations.

Assuming that Heckscher-Ohlin correctly describes the distributive effects of trade in Africa, then how is it that Africans' preferences align so closely with their economic interests? There is substantial evidence from the U.S. and Europe that high-skilled workers fail to support globalization that benefits them, so why might Africans better adhere to an economic logic? We offer some preliminary thoughts before leaving this question to future research.

First, elites may introduce frames that highlight class-based interests to their citizens. This is in contrast the cultural frames politicians use to talk about trade and immigration in Europe and the U.S. For example, Tanzanian presidential candidate John Magufuli told supporters at a 2015 campaign rally that opening Tanzania's borders to boost trade with other countries would top his agenda.[33] Future research should explore whether these issues are salient in other African elections.

Second, individuals in Africa may behave even more "rationally" than those in advanced industrialized countries. Being relatively new to liberalization, Africans may evaluate the costs and benefits of these policies in more purely economic terms. There is growing evidence of economically sophisticated behavior among populations living in poverty.[34] Baseline levels of political knowledge in the Ghana and Uganda surveys are much higher than in the U.S. In the Ghana (2016)

[33]See Alvar Mwakyusa and Nelly Mtema, "Magufuli vows to end Longido, Arumero Land, Border Disputes," *All Africa*, October 7, 2015.

[34]For example, de la Cuesta et al. (2021) find that Ugandans can estimate even the hidden taxes they pay.

survey, 56% of respondents correctly named (in an open-ended response) the Chief Justice of the Supreme Court of Ghana. In the U.S. in 2012, only 34% of U.S. citizens identified the Chief Justice of the U.S. Supreme Court in a multiple choice question.[35] In the Uganda (2017) survey, 89% correctly named the speaker of Parliament without prompting, compared with 62% of U.S. citizens who correctly selected the Speaker of the U.S. House in a multiple-choice question.[36] This high level of political knowledge in this sample is consistent with our claim that attitudes toward globalization stem from individuals' knowledge of their own self-interest.[37]

These results boost our optimism about the virtuous cycle that may follow from the spread of democracy in Africa. Milner and Kubota (2005) argue that democratization can foster globalization because it tends to enfranchise low-skilled workers who benefit from free trade. We have shown that these low-skilled workers hold the political preferences they should, and we expect them to vote accordingly. Perhaps societal preferences and public awareness of the benefits of trade, are what allowed a trade agreement as historic as the AfCFTA to come into effect in Africa.

More research is needed to understand how democracy and public attitudes interact to shape trade policy in other regions. While there are some findings similar to ours in the Middle East (Jamal and Milner 2013) and India (Gaikwad and Suryanarayan 2019), we know of few studies of trade preferences in Asia more broadly. In other regions, such as Latin America, trade may contribute to labor market polarization, with both high and low (but not medium) skilled workers benefiting from trade and its ensuing technological upgrading. Additional research from a mix of regions will help to make sense of these global patterns. Nevertheless, our study suggests that greater democratization in the Global South may open the door to lowering economic barriers, all the while populism in the Global North is erecting them.

[35] https://www.pewresearch.org/fact-tank/2015/05/14/dim-public-awareness-of-supreme-court-

[36] https://www.people-press.org/2017/07/25/from-brexit-to-zika-what-do-americans-know/

[37] For a differing perspective, see Rudra, Nooruddin and Bonifai (2021), who argue that low skill workers in developing countries are in a "honeymoon phase" with globalization's ability to promote economic mobility.

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Appendix of Supplementary Information

A Measuring Support for Globalization

Previous questions that have been used to measure support for globalization appear here:

- International Social Survey Programme: "Now we would like to ask a few questions about relations between (respondent's country) and other countries. How much do you agree or disagree with the following statement: (Respondent's country) should limit the import of foreign products in order to protect its national economy." also "Should the number of immigrants to (respondent's country) be increased a lot / a little / remain the same / be reduced a little/ or reduced a lot."

- World Values Survey: "Do you think it is better if (1) goods made in other countries can be imported and sold here if people want to buy them, or that (0) there should be stricter limits on selling foreign goods here to protect the jobs of people in this country?"

- Latinobarometro: "Generally speaking, do you think that trade with other countries, both the buying and selling of products, helps [nation's] economy or harms [nation's] economy?"

B Public Sector Employees

Table A1: Comparing education levels of public sector and non-public sector employees

	Education level										
	1	2	3	4	5	6	7	8	9	10	Mean
Afrobarometer Round 6											
Not public sector	1733	562	2599	2887	3695	3147	1272	463	867	193	4.7
Public sector	59	19	112	126	419	717	739	330	821	180	6.9
Afrobarometer Round 8											
Not public sector	1556	567	1790	2130	2499	2540	940	522	853	177	4.8
Public sector	26	14	80	86	257	487	500	240	735	137	7.1
Ghana (2016)											
Not public sector	51	127	249	122	142	13	21	3			3.4
Public sector	1	2	3	0	3	0	1	0			3.6
Uganda (2017)											
Not public sector	22	149	111	304	86	28	35				3.7
Public sector	1	0	0	2	0	0	3				5
Uganda (2018)											
Not public sector	103	517	339	634	89	172	100				3.5
Public sector	0	1	1	9	4	14	21				5.8

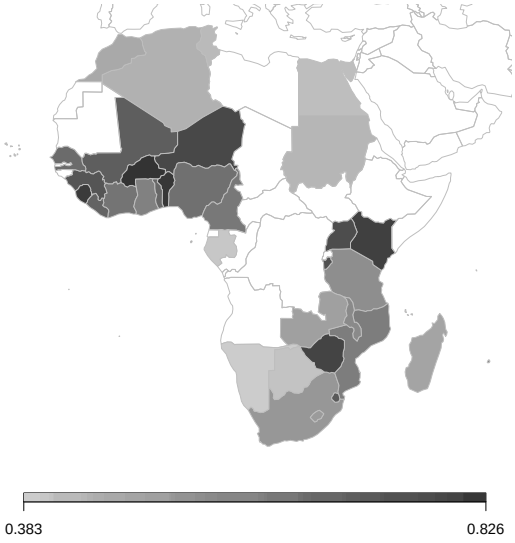
Note: Table reports frequency of observations in each cross-tabulation, along with the average level of education for each group. Only employed individuals reflected in this table. Afrobarometer coded using the question "Do you work for yourself, for someone else in the private sector or the non-governmental sector, or for government?" Original surveys coded using the question "In the past month, what was your primary source of income?" where one of the responses was "In a government job or a political position."

C Afrobarometer Findings

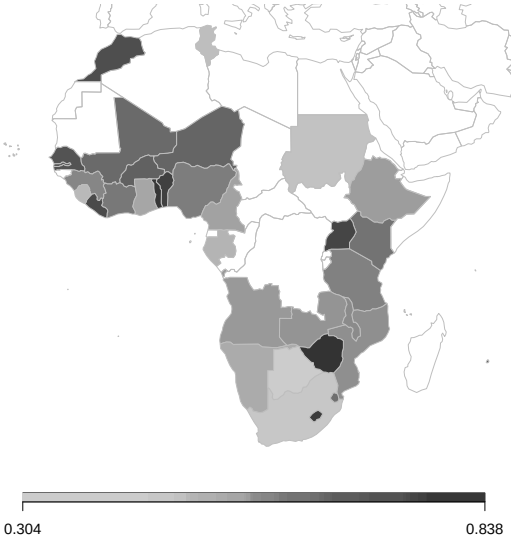
C.1 The Afrobarometer Sample

Figure A1: Average level of support for globalization/trade by country

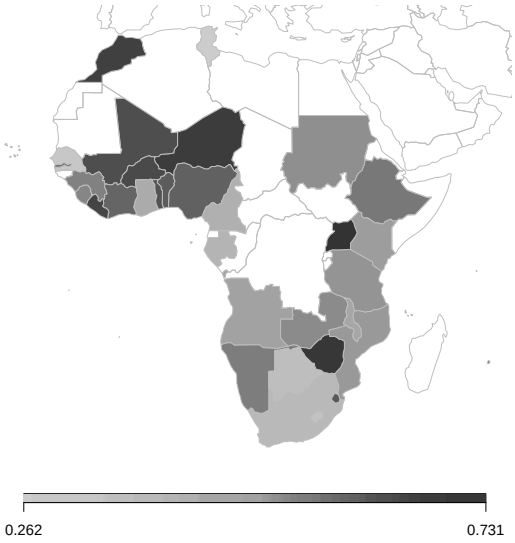
(a) Globalization (round 6)



(b) Globalization (round 8)



(c) Trade (round 8)



Note: Countries in white were not included in the Afrobarometer sample. *Source*: Afrobarometer.

Table A2: Selection into Afrobarometer sample

(a) Round 6

Characteristic	**Included**, N = 36[1]	**Excluded**, N = 18[1]
Democracy (Polity)	3.9 (4.8)	-0.3 (4.6)
(NA)	1	1
Conflict Incidence (UCDP)	8 / 36 (22%)	4 / 18 (22%)
Freedom of Expression (vDem)	0.71 (0.20)	0.45 (0.22)
(NA)	1	0
Trade as % of GDP (WDI)	75 (26)	83 (39)
(NA)	3	3

[1]Mean (SD); n / N (%)

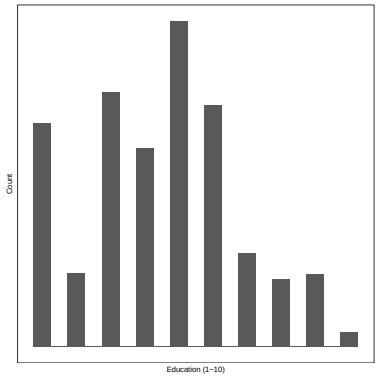
(b) Round 8

Characteristic	**Included**, N = 34[1]	**Excluded**, N = 20[1]
Democracy (Polity)	3.4 (5.1)	0.8 (4.7)
(NA)	0	2
Conflict Incidence (UCDP)	5 / 34 (15%)	7 / 20 (35%)
Freedom of Expression (vDem)	0.70 (0.21)	0.48 (0.22)
(NA)	0	1
Trade as % of GDP (WDI)	76 (26)	79 (39)
(NA)	2	4

[1]Mean (SD); n / N (%)

Figure A2: Distribution of education variable (Afrobarometer)

(a) Round 6



(b) Round 8

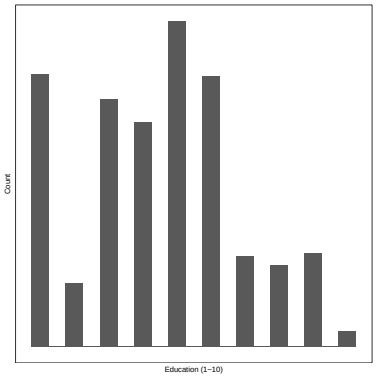
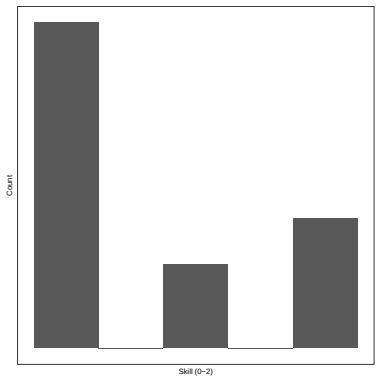
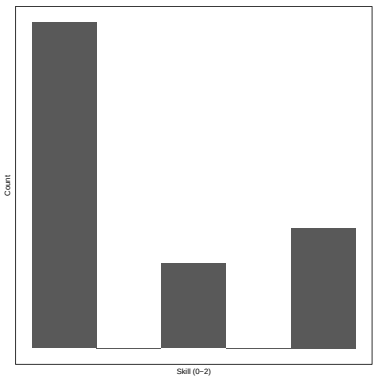


Figure A3: Distribution of skill variable (Afrobarometer)

(a) Round 6



(b) Round 8



C.2 Descriptive Statistics

C.3 Robustness Checks and Alternative Explanations

We report the full results of the cross-national test by employment status and with non-linearities. We do not report these in the main text because it is difficult to interpret how heterogeneity within the sample interacts with cross-national heterogeneity. Hainmueller and Hiscox (2006) investigate within-country heterogeneity but not cross-national heterogeneity, and Mayda and Rodrik (2005) investigate cross-national but not within-country heterogeneity. Table A5 and A6 break down the cross-national results by employment status. The round 6 results continue to be driven by employed individuals. The round 8 results are not driven by any particular group. Table A7 illustrates that

Table A5: Cross-national test of factor endowment model by employment status (round 6)

	Dependent variable:			
	Support for globalization (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.102*	−0.189***	−0.051	−0.062
	(0.055)	(0.071)	(0.068)	(0.093)
Edu*GDPpc (log)	0.012*	0.023***	0.006	0.007
	(0.007)	(0.009)	(0.009)	(0.013)
GDPpc (log)	−0.751***	−0.928***	−0.921***	−0.543***
	(0.039)	(0.052)	(0.059)	(0.060)
Sample	Full	Employed	Looking	Not Looking
Observations	48,395	19,033	11,242	17,954

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3.

there are not strong non-linearities of education in the cross-national test of the factor endowment model.

We replicate our cross-national test for alternative measures of a country's abundance of skilled labor. First, we use the ratio of skilled to unskilled labor, using education estimates from Barro and Lee (2013). All data are from 2014, as data from 2019 are not yet available. Table A8 illustrates similar results to those reported in the main text, with positive and statistically significant interaction terms. The round 8 results are not robust to this (Table A9).

Second, we use the revealed human capital intensity. We assume that a country is abundant in skill if it exports a product that intensively uses skilled labor. We identify each country's top export category (SITC1 classification). Next, we identify how intensively that category utilizes skilled labor. Shirotori et al. (2010) provide estimates of the "revealed human capital intensity" of product categories at the SITC1 level. There are only four top export categories among African economies: Food (RHCI=6.27), Ores and metals (RHCI=6.37), Fuel (RHCI=6.94), Manufactures/Textiles (RHCI=7.06). We assign them ordinal scores of 1, 2, 3, and 4 respectively. We then interact this ordinal measure of RHCI with education. The interaction between education and

Table A6: Cross-national test of factor endowment model by employment status (round 8)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	-0.193^{***}	-0.132^{*}	-0.108^{*}	-0.261^{***}
	(0.058)	(0.068)	(0.057)	(0.086)
Edu*GDPpc (log)	0.025^{***}	0.017^{*}	0.012	0.035^{***}
	(0.008)	(0.009)	(0.008)	(0.011)
GDPpc (log)	-1.315^{***}	-1.435^{***}	-1.616^{***}	-0.941^{***}
	(0.039)	(0.051)	(0.044)	(0.061)
Sample	Full	Employed	Looking	Not Looking
Observations	46,200	15,723	12,056	18,325

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3.

RHCI remains positive and statistically significant for round 6 (Table A10), although not for round 8 (Table A11).

Tables A12 and A13 test the factor endowment model by looking at landowner status and the country's land abundance. Landowner status is a dummy variable coded as 1 if the individual lists their industry as "Agriculture / farming / fishing / forestry" and also lists their employer as "Works for self." We have substantial concerns about this as a measure of landowner status because casual (day) laborers also meet these criteria, and there are likely to be far more of them than there are landowners. We calculate the land abundance of the country in a similar manner to Baker (2005): we create a ratio between the hectares of arable land (World Development Indicators) and the capital stock of the country (Penn World Table). The round 6 patterns generally match the expectations of the theory: landowners in land-abundant countries (land abundance above the median) are more supportive of globalization and landowners in land-scarce countries (below the median) are less supportive of globalization. None of these results are statistically significant at conventional levels. We do not put much stock in these findings because our measure of landowner status is particularly poor. If we are capturing mostly casual laborers, Heckscher-Ohlin would be

Table A7: Cross-national test of factor endowment model with non-linearities

	Dependent variable:	
	Support for globalization (0-1)	Support for free trade (0-1)
	(1)	(2)
Primary	0.125	−0.367
	(0.231)	(0.276)
GDPpc (log)	−0.700***	−1.246***
	(0.028)	(0.031)
Secondary	−0.139	−0.636***
	(0.222)	(0.214)
Higher Ed	−0.387	−0.127
	(0.336)	(0.422)
College	−0.053	0.019
	(0.323)	(0.557)
Primary*GDPpc (log)	−0.028	0.049
	(0.031)	(0.038)
Secondary*GDPpc (log)	0.020	0.087***
	(0.029)	(0.027)
Higher Ed*GDPpc (log)	0.047	0.006
	(0.041)	(0.055)
College*GDPpc (log)	0.012	−0.0004
	(0.041)	(0.072)
Sample	round 6	round 8
Observations	48,395	46,200

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3.

Table A8: Cross-national test of factor endowment model using skilled labor ratio (round 6)

	Dependent variable:			
	Support for globalization (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.018*	−0.034**	−0.007	−0.008
	(0.010)	(0.013)	(0.012)	(0.015)
Edu*Skill Ratio	0.018***	0.035***	0.012*	0.004
	(0.007)	(0.010)	(0.007)	(0.014)
Skill Ratio	0.874***	0.892***	1.186***	0.718***
	(0.043)	(0.064)	(0.052)	(0.074)
Sample	Full	Employed	Looking	Not Looking
Observations	38,559	15,211	8,859	14,340

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3 *Sources:* Afrobarometer and Barro and Lee (2013).

Table A9: Cross-national test of factor endowment model using skilled labor ratio (round 8)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.012	−0.010	−0.018*	−0.009
	(0.010)	(0.012)	(0.009)	(0.014)
Edu*Skill Ratio	0.010	0.004	0.002	0.030*
	(0.010)	(0.009)	(0.010)	(0.018)
Skill Ratio	0.241***	0.289***	0.456***	0.062
	(0.046)	(0.046)	(0.050)	(0.078)
Sample	Full	Employed	Looking	Not Looking
Observations	34,653	11,870	8,962	13,760

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3 *Sources:* Afrobarometer and Barro and Lee (2013).

Table A10: Cross-national test of factor endowment model using revealed human capital intensity (round 6)

	Dependent variable:			
	Support for globalization (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.037**	−0.051**	−0.021	−0.035
	(0.016)	(0.022)	(0.018)	(0.024)
Edu*RHCI	0.009*	0.013**	0.004	0.010
	(0.005)	(0.006)	(0.007)	(0.009)
RHCI	−0.962***	−1.130***	−1.198***	−0.726***
	(0.026)	(0.035)	(0.045)	(0.042)
Sample	Full	Employed	Looking	Not Looking
Observations	45,235	18,069	9,963	17,094

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3. *Sources:* Afrobarometer and *Worldwide Integrated Trade Solutions* (N.d.).

Table A11: Cross-national test of factor endowment model using revealed human capital intensity (round 8)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.030*	−0.012	−0.032	−0.041*
	(0.015)	(0.020)	(0.020)	(0.021)
Edu*RHCI	0.007	0.001	0.005	0.016
	(0.007)	(0.007)	(0.007)	(0.010)
RHCI	−0.175***	−0.162***	−0.257***	−0.156***
	(0.026)	(0.036)	(0.031)	(0.031)
Sample	Full	Employed	Looking	Not Looking
Observations	37,398	12,720	9,215	15,406

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table 3. *Sources:* Afrobarometer and *Worldwide Integrated Trade Solutions* (N.d.).

Table A12: Cross-national test of factor endowment model using land abundance (round 6)

	Dependent variable:		
	Support for globalization (0-1)		
	(1)	(2)	(3)
Landowner	−0.016	0.065	0.010
	(0.100)	(0.065)	(0.036)
Landowner*Land Abundance (log)	0.018		
	(0.033)		
Land Abundance (log)	0.322***		
	(0.003)		
Sample	Full	Land Abundant	Land Scarce
Observations	48,501	24,263	24,238

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the relationship between landowner status and support for globalization. Controls include age, gender, rural, GDP per capita, and country fixed effects. Standard errors are clustered at the country level. Weights described in Table 1. *Sources:* Afrobarometer and World Development Indicators. *Sources:* Afrobarometer, World Development Indicators, and Penn World Table.

agnostic about how their attitudes toward trade relate to the land abundance of their country, so this null result would be consistent.

We use occupation to generate an alternative measure of skill in the Afrobarometer data (Mayda and Rodrik 2005; O'Rourke and Sinnott 2006; Hainmueller and Hiscox 2006). Individuals are asked "What is your main occupation?" Table A14 provides the category mappings we applied. Using this new measure of skill (0-2), we replicate the main findings in Tables A15 and A16. In the round 6 results, the coefficients on skill are no longer statistically significant, slightly weakening support for hypothesis 1 (models 1-4). We do observe a positive and statistically significant coefficient on the interaction term for employed individuals, improving support for hypothesis 2 (model 6). In the round 8 results, the relationship between skill and support for trade is negative and statistically significant for the full sample and for employed individuals, improving support for hypothesis 1 (models 1-2). We see a strong positive and statistically significant coefficient on the

Table A13: Cross-national test of factor endowment model using land abundance (round 8)

	Dependent variable:		
	Support for free trade (0-1)		
	(1)	(2)	(3)
Landowner	−0.052	0.052*	0.040
	(0.060)	(0.028)	(0.027)
Landowner*Land Abundance (log)	0.032		
	(0.020)		
Land Abundance (log)	0.202***		
	(0.004)		
Sample	Full	Land Abundant	Land Scarce
Observations	46,332	22,820	23,512

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the relationship between landowner status and support for globalization. Controls include age, gender, rural, GDP per capita, and country fixed effects. Standard errors are clustered at the country level. Weights described in Table 2. *Sources:* Afrobarometer and World Development Indicators. *Sources:* Afrobarometer, World Development Indicators, and Penn World Table.

Table A14: Coding an alternative measure of skill in Afrobarometer

skill	response to occupation
0	Agriculture / farming / fishing / forestry
	Unskilled manual worker
	Trader / hawker / vendor
	Never had a job
1	Security services
	Artisan or skilled manual worker
	Retail / shop
2	Supervisor / Foreman / Senior Manager
	Clerical or secretarial
	Mid-level professional
	Upper level professional
	Student
NA	Housewife / homemaker

interaction term, improving support for hypothesis 2 (models 5-8). Taken together, these findings are largely similar to what we report in the main text using education to measure skill.

We also try using income to proxy for skill in Tables A17 and A18. In round 6, the asset index negatively predicts support for globalization, consistent with hypothesis 1. The result is statistically significant in the full and employed samples, although it is also significant in the sample of people not looking for work, which is not consistent with hypothesis 3. There is also a negative and statistically significant (at the .1 level) interaction term for individuals not looking for work, the opposite of what hypothesis 2 expects, and for the wrong subgroup. The results from round 8 are more in line with Heckscher-Ohlin. There is a negative and statistically significant coefficient on the asset index for individuals who are looking for work, consistent with hypotheses 1 and 3. There is a statistically significant and positive coefficient on the interaction term for the full sample, consistent with hypothesis 2. We suspect the asset index may be a poorer proxy in round 6 than round 8 because the question wording involved immigration. Immigration affects tax burdens, and so an individual's income may independently shape their preferences over immigration. All told, we view these results as mostly consistent with our main findings.

We also consider whether our results change when we model "don't know" responses. Kleinberg and Fordham (2018) point out that ignorance and indifference are in fact part of foreign policy

Table A15: Substituting an alternative measure of skill (round 6)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Skill	−0.014	−0.025	−0.026	0.008	−0.030	−0.403**	0.161	0.180
	(0.011)	(0.019)	(0.019)	(0.020)	(0.113)	(0.179)	(0.190)	(0.155)
GDPpc (log)					−0.694***	−0.840***	−0.864***	−0.429***
					(0.014)	(0.018)	(0.025)	(0.027)
Skill*GDPpc (log)					0.002	0.050**	−0.025	−0.023
					(0.014)	(0.021)	(0.024)	(0.020)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	42,937	18,189	9,955	14,663	42,037	17,902	9,705	14,307

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 1 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *Sources:* Afrobarometer and World Development Indicators.

Table A16: Substituting an alternative measure of skill (round 8)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Skill	−0.030**	−0.050**	−0.010	−0.012	−0.455***	−0.262	−0.300*	−0.670***
	(0.013)	(0.021)	(0.018)	(0.018)	(0.097)	(0.174)	(0.168)	(0.147)
GDPpc (log)					−1.119***	−1.388***	−1.474***	−0.662***
					(0.017)	(0.022)	(0.031)	(0.028)
Skill*GDPpc (log)					0.057***	0.028	0.039*	0.089***
					(0.013)	(0.024)	(0.023)	(0.019)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	40,628	15,248	10,593	14,724	40,628	15,248	10,593	14,724

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 2 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *Sources:* Afrobarometer and World Development Indicators.

Table A17: Using income to proxy for skill (round 6)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Asset Index	−0.018**	−0.033**	0.002	−0.026**	0.048	−0.074	0.111	0.155
	(0.008)	(0.013)	(0.015)	(0.013)	(0.084)	(0.119)	(0.085)	(0.134)
GDPpc (log)					−0.650***	−0.793***	−0.853***	−0.425***
					(0.031)	(0.049)	(0.032)	(0.046)
Asset Index*GDPpc (log)					−0.009	0.006	−0.014	−0.025
					(0.011)	(0.015)	(0.012)	(0.018)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	49,556	19,375	11,568	18,422	48,501	19,053	11,263	18,004

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 1 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *Asset Index:* Includes whether the individual (1 point) or household member (2 points) owns a radio, television, motor vehicle (car or motorbike), and mobile phone, so the variable ranges between 0 (none) and 8 (all). *Sources:* Afrobarometer and World Development Indicators.

Table A18: Using income to proxy for skill (round 8)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Asset Index	−0.005	−0.008	−0.016***	0.007	−0.090**	−0.080	−0.069	−0.082
	(0.004)	(0.005)	(0.006)	(0.005)	(0.038)	(0.055)	(0.059)	(0.059)
GDPpc (log)					−1.231***	−1.404***	−1.518***	−0.848***
					(0.033)	(0.059)	(0.056)	(0.049)
Asset Index*GDPpc (log)					0.011**	0.010	0.007	0.012
					(0.005)	(0.008)	(0.008)	(0.008)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	46,332	15,755	12,083	18,378	46,332	15,755	12,083	18,378

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 2 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *Asset Index:* Includes whether the individual (1 point) or household member (2 points) owns a radio, television, motor vehicle (car or motorbike), computer, bank account, and mobile phone, so the variable ranges between 0 (none) and 12 (all). *Sources:* Afrobarometer and World Development Indicators.

Table A19: Controlling for the public sector

	Dependent variable:			
	Support for globalization (0-1)		Support for free trade (0-1)	
	(1)	(2)	(3)	(4)
Edu	−0.018**	−0.194***	−0.003	−0.128*
	(0.008)	(0.071)	(0.009)	(0.068)
GDPpc (log)		−0.938***		−1.432***
		(0.051)		(0.052)
Public Sector	0.059*	0.058	−0.065	−0.065
	(0.036)	(0.036)	(0.062)	(0.069)
Edu*GDPpc (log)		0.023***		0.017*
		(0.009)		(0.009)
Round	Round 6	Round 6	Round 8	Round 8
Sample	Employed	Employed	Employed	Employed
Observations	19,355	19,033	15,723	15,723

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 1 (model 1), 2 (model 3, and 3 (models 2, 4). Standard errors are clustered by region in models 1 and 3 and country in models 2 and 4.*Sources:* Afrobarometer and World Development Indicators.

Table A20: Testing the consumption model (round 6)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.009*	−0.013	−0.008	−0.006	−0.097*	−0.183**	−0.058	−0.051
	(0.005)	(0.008)	(0.009)	(0.008)	(0.056)	(0.074)	(0.069)	(0.092)
GDPpc (log)					−0.745***	−0.922***	−0.923***	−0.532***
					(0.039)	(0.052)	(0.060)	(0.059)
High Prices	−0.034	−0.024	−0.023	−0.054	−0.031	−0.015	−0.013	−0.061
	(0.021)	(0.032)	(0.036)	(0.034)	(0.026)	(0.032)	(0.043)	(0.039)
Edu*GDPpc (log)					0.012*	0.022**	0.007	0.006
					(0.007)	(0.009)	(0.009)	(0.012)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	48,367	18,852	11,370	17,987	47,315	18,530	11,065	17,571

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 1 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *High Prices:* "How well or badly would you say the government is doing at keeping prices down?" Variable is 1 if individuals reply badly or very badly, and a 0 otherwise. *Sources:* Afrobarometer and World Development Indicators.

Table A21: Testing the consumption model (round 8)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.011**	−0.007	−0.019**	−0.004	−0.196***	−0.131*	−0.114**	−0.265***
	(0.005)	(0.007)	(0.008)	(0.008)	(0.058)	(0.067)	(0.057)	(0.085)
GDPpc (log)					−1.362***	−1.450***	−1.639***	−1.017***
					(0.041)	(0.052)	(0.045)	(0.062)
High Prices	0.032	0.010	0.046	0.035	0.032	0.010	0.046	0.035
	(0.020)	(0.037)	(0.035)	(0.030)	(0.021)	(0.035)	(0.042)	(0.031)
Edu*GDPpc (log)					0.025***	0.017*	0.013	0.036***
					(0.008)	(0.009)	(0.008)	(0.011)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	45,296	15,491	11,813	17,904	45,296	15,491	11,813	17,904

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Tables 2 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *High Prices:* "How well or badly would you say the government is doing at keeping prices down?" Variable is 1 if individuals reply badly or very badly, and a 0 otherwise. *Sources:* Afrobarometer and World Development Indicators.

Table A22: Testing non-economic models (round 6)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.021***	−0.019**	−0.023**	−0.022**	−0.129***	−0.189***	−0.075	−0.084
	(0.006)	(0.009)	(0.010)	(0.009)	(0.046)	(0.066)	(0.069)	(0.067)
GDPpc (log)					−0.064	−0.241	0.924***	−0.958***
					(0.131)	(0.207)	(0.125)	(0.246)
National ID	0.035*	0.015	0.055*	0.035	0.043*	0.024	0.068**	0.041
	(0.019)	(0.026)	(0.029)	(0.029)	(0.023)	(0.033)	(0.032)	(0.028)
Ethnocentrism	−0.137**	−0.032	−0.170***	−0.185**	−0.129*	−0.039	−0.146**	−0.185*
	(0.054)	(0.061)	(0.065)	(0.080)	(0.069)	(0.076)	(0.057)	(0.099)
Xenophobia	−0.176***	−0.170***	−0.170***	−0.191***	−0.178***	−0.171***	−0.180***	−0.189***
	(0.031)	(0.040)	(0.050)	(0.043)	(0.032)	(0.044)	(0.043)	(0.038)
Supports Democracy	0.095***	0.104***	0.100**	0.086**	0.085***	0.091***	0.096**	0.073*
	(0.025)	(0.035)	(0.040)	(0.037)	(0.025)	(0.034)	(0.040)	(0.038)
Edu*GDPpc (log)					0.015**	0.023***	0.007	0.008
					(0.006)	(0.008)	(0.009)	(0.010)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	39,008	15,416	9,471	14,012	38,084	15,129	9,203	13,649

*p<0.1; **p<0.05; ***p<0.01

Note: See notes for Tables 1 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *National ID:* "Let us suppose that you had to choose between being a [NATIONALITY] and being a [R's ETHNIC GROUP]." Variable is a 2 if individual reports "I feel only (national identity)" or "I feel more (national identity) than (ethnic group)", a 1 if individual reports "I feel equally (national identity and (ethnic group)", and a 0 if individual feels more or only ethnic group. *Ethnocentrism:* "Please tell me whether you would like having people from this group as neighbors, dislike it, or not care: people from other ethnic groups." Variable is a 1 if individual reports strongly or somewhat disliking people from this group, and a 0 if they don't care or strongly or somewhat like people from this group. *Xenophobia:* Same construction as ethnocentrism, except group is "immigrants or foreign workers." *Democracy:* "Which of these three statements is closest to your own opinion? Statement 1: Democracy is preferable to any other kind of government. Statement 2: In some circumstances, a non-democratic government can be preferable. Statement 3: For someone like me, it doesn't matter what kind of government we have." 1 if respondent supports statement 1, 0 otherwise. *Sources:* Afrobarometer and World Development Indicators.

Table A23: Testing non-economic models (round 8)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	−0.015***	−0.013*	−0.025***	−0.005	−0.180***	−0.136**	−0.108*	−0.226***
	(0.005)	(0.007)	(0.009)	(0.008)	(0.058)	(0.068)	(0.065)	(0.086)
GDPpc (log)					−1.430***	−1.652***	−1.531***	−1.095***
					(0.035)	(0.051)	(0.046)	(0.058)
National ID	0.002	−0.006	0.014	0.006	0.003	−0.005	0.014	0.006
	(0.013)	(0.022)	(0.023)	(0.020)	(0.014)	(0.023)	(0.024)	(0.021)
Ethnocentrism	−0.028	−0.043	−0.027	−0.015	−0.025	−0.043	−0.025	−0.010
	(0.043)	(0.063)	(0.076)	(0.061)	(0.052)	(0.071)	(0.083)	(0.069)
Xenophobia	−0.107***	−0.080	−0.129**	−0.111**	−0.106***	−0.080	−0.128**	−0.110*
	(0.037)	(0.058)	(0.059)	(0.049)	(0.039)	(0.061)	(0.050)	(0.059)
Supports Democracy	0.143***	0.149***	0.130***	0.144***	0.141***	0.147***	0.129***	0.144***
	(0.021)	(0.035)	(0.035)	(0.031)	(0.025)	(0.041)	(0.040)	(0.034)
Edu*GDPpc (log)					0.022***	0.016*	0.011	0.030***
					(0.008)	(0.009)	(0.009)	(0.012)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	39,317	13,582	10,182	15,485	39,317	13,582	10,182	15,485

*p<0.1; **p<0.05; ***p<0.01

Note: See notes for Tables 2 (models 1-4) and 3 (models 5-8). Standard errors are clustered by region in models 1-4 and country in models 5-8. *National ID:* "Let us suppose that you had to choose between being a [NATIONALITY] and being a [R's ETHNIC GROUP]." Variable is a 2 if individual reports "I feel only (national identity)" or "I feel more (national identity) than (ethnic group)", a 1 if individual reports "I feel equally (national identity and (ethnic group)", and a 0 if individual feels more or only ethnic group. *Ethnocentrism:* "Please tell me whether you would like having people from this group as neighbors, dislike it, or not care: people from other ethnic groups." Variable is a 1 if individual reports strongly or somewhat disliking people from this group, and a 0 if they don't care or strongly or somewhat like people from this group. *Xenophobia:* Same construction as ethnocentrism, except group is "immigrants or foreign workers." *Democracy:* "Which of these three statements is closest to your own opinion? Statement 1: Democracy is preferable to any other kind of government. Statement 2: In some circumstances, a non-democratic government can be preferable. Statement 3: For someone like me, it doesn't matter what kind of government we have." 1 if respondent supports statement 1, 0 otherwise. *Sources:* Afrobarometer and World Development Indicators.

Table A24: Modeling don't knows in pooled results (round 6)

	Dependent variable:			
	Support	Support	Neither	DK
	(1)	(2)	(3)	(4)
Edu	-0.017^{***}	-0.016^{***}	-0.040^{**}	-0.298^{***}
	(0.006)	(0.006)	(0.019)	(0.013)
Age	-0.0001	-0.0001	0.007^{**}	0.005^{***}
	(0.001)	(0.001)	(0.003)	(0.002)
Female	-0.050^{**}	-0.053^{**}	-0.121^{*}	0.419^{***}
	(0.022)	(0.022)	(0.073)	(0.047)
Rural	0.036	0.034	0.150^{*}	0.148^{***}
	(0.024)	(0.024)	(0.080)	(0.052)
Model	Without DKs	With DKs	With DKs	With DKs
N	49447	53479	53479	53479

*p<0.1; **p<0.05; ***p<0.01

Note: Note: Regressions use multinomial logit models to estimate the relationship between education and support for globalization. Controls include country fixed effects. Standard errors are not clustered. Observations are weighted by taking Afrobarometer's combinwt variable. *Source:* Afrobarometer.

public opinions and should not be treated simply as missing data. We follow suit by modeling our results using a multinomial logit model, first by omitting "don't know" and "agree with neither" responses, and then including them. The results in Tables A24-A27 indicate that including these responses in our model does not change our findings. This is unsurprising given the infrequency of these responses in the Afrobarometer data.

Last, we consider the role of the pandemic. Half of the round 8 sample interviews occurred before the pandemic, but the other half occurred after Afrobarometer resumed operations in November 2020. We do not have a theory for how the pandemic may have changed the relationship between skill and support for trade, but we imagine that a major global health crisis that affected employment could be relevant for the issues we study. As such, we present our results for both the

Table A25: Modeling don't knows in cross-national results (round 6)

	Dependent variable:			
	Support	Support	Neither	DK
	(1)	(2)	(3)	(4)
Edu	−0.165***	−0.162***	−0.291*	−0.530***
	(0.045)	(0.045)	(0.159)	(0.113)
Edu*GDPpc (log)	0.020***	0.019***	0.033	0.031**
	(0.006)	(0.006)	(0.021)	(0.015)
GDPpc (log)	−0.303***	−0.302***	0.052	−0.070
	(0.027)	(0.027)	(0.076)	(0.057)
Age	0.0002	0.0002	0.007***	0.006***
	(0.001)	(0.001)	(0.003)	(0.002)
Female	−0.049**	−0.053**	−0.130*	0.423***
	(0.022)	(0.022)	(0.074)	(0.048)
Rural	0.040*	0.038	0.168**	0.138***
	(0.024)	(0.024)	(0.082)	(0.053)
Model	Without DKs	With DKs	With DKs	With DKs
N	49447	53479	53479	53479

*p<0.1; **p<0.05; ***p<0.01

Note: Note: Regressions use multinomial logit models to estimate the relationship between education and support for globalization. Controls include country fixed effects. Standard errors are not clustered. Observations are weighted by taking Afrobarometer's combinwt variable. *Source:* Afrobarometer and World Development Indicators.

Table A26: Modeling don't knows in pooled results (round 8)

	Dependent variable:			
	Support	Support	Neither	DK
	(1)	(2)	(3)	(4)
Edu	-0.020^{***}	-0.019^{***}	-0.011	-0.302^{***}
	(0.005)	(0.005)	(0.024)	(0.022)
Age	0.001	0.001^{*}	0.009^{***}	0.010^{***}
	(0.001)	(0.001)	(0.003)	(0.003)
Female	-0.050^{**}	-0.050^{**}	0.122	0.520^{***}
	(0.021)	(0.021)	(0.095)	(0.081)
Rural	0.085^{***}	0.086^{***}	-0.378^{***}	0.085
	(0.023)	(0.023)	(0.105)	(0.087)
Model	Without DKs	With DKs	With DKs	With DKs
N	49447	53479	53479	53479

*p<0.1; **p<0.05; ***p<0.01

Note: Note: Regressions use multinomial logit models to estimate the relationship between education and support for trade. Controls include country fixed effects. Standard errors are not clustered. Observations are weighted by taking Afrobarometer's within-country weighting variable and standardizing so that all countries are weighted as if they have equal populations (replicating the combinwt variable). *Source:* Afrobarometer.

Table A27: Modeling don't knows in cross-national results (round 8)

	Dependent variable:			
	Support	Support	Neither	DK
	(1)	(2)	(3)	(4)
Edu	-0.311^{***}	-0.310^{***}	-0.219	-0.482^{**}
	(0.044)	(0.044)	(0.182)	(0.190)
Edu*GDPpc (log)	0.040^{***}	0.040^{***}	0.028	0.024
	(0.006)	(0.006)	(0.024)	(0.024)
GDPpc (log)	-0.128^{***}	-0.129^{***}	0.075	0.353^{***}
	(0.017)	(0.017)	(0.056)	(0.044)
Age	0.001^{*}	0.001^{**}	0.010^{***}	0.010^{***}
	(0.001)	(0.001)	(0.003)	(0.003)
Female	-0.054^{**}	-0.053^{**}	0.119	0.518^{***}
	(0.021)	(0.021)	(0.095)	(0.081)
Rural	0.076^{***}	0.077^{***}	-0.385^{***}	0.080
	(0.023)	(0.023)	(0.105)	(0.087)
Model	Without DKs	With DKs	With DKs	With DKs
N	49447	53479	53479	53479

*p<0.1; **p<0.05; ***p<0.01

Note: Note: Regressions use multinomial logit models to estimate the relationship between education and support for globalization. Controls include country fixed effects. Standard errors are not clustered. Observations are weighted by taking Afrobarometer's within-country weighting variable and standardizing so that all countries are weighted as if they have equal populations (replicating the combinwt variable). *Source:* Afrobarometer and World Development Indicators.

Table A28: Splitting results by pre/post COVID (round 8)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.020***	−0.247***	−0.004	−0.157***
	(0.005)	(0.039)	(0.005)	(0.038)
Edu*GDPpc (log)		0.030***		0.021***
		(0.005)		(0.005)
GDPpc (log)		−0.774***		3.582***
		(0.062)		(0.707)
Sample	Pre-COVID	Pre-COVID	Post-COVID	Post-COVID
Observations	25,466	25,466	20,734	20,734

*p<0.1; **p<0.05; ***p<0.01

Note: Sources: Afrobarometer and World Development Indicators.

pre- and post-COVID round 8 samples.

We find that the round 8 results are stronger for the pre-COVID than the post-COVID sample. The results appear in Table A28. In Models 1 and 2, we see the same results in the main text in the prepandemic sample: education negatively predicts support for trade, and there is a positive and statistically significant interaction term with GDP per capita. In the postpandemic sample, there is no relationship between education and support for free trade (Model 3). There continues to be, however, a positive and statistically significant interaction term in the postpandemic sample (Model 4), in line with the factor endowment model.

A possible explanation for our findings is that the postpandemic countries are somewhat wealthier than the prepandemic countries by about $200 per capita. The logic behind the sequence of country operations in Afrobarometer is not clear but is unlikely to be random. Since the result that fails to replicate in the postpandemic sample is the one that is driven by the composition of the sample, this could explain our findings. We are reassured that we continue to observe the

cross-national patterns associated with Heckscher-Ohlin.

C.4 Round 8 Support for Globalization Results

In addition to the new question on support for free trade, round 8 of the Afrobarometer also fielded the same question on support for globalization that appeared in round 6. In this section, we present the round 8 results for this question.

We do not find that the results testing hypothesis 1 and hypothesis 3 replicate very well when we use this as the outcome measure. Table A29 shows that education does not predict support for globalization in the full sample. Education is positively related to support for free trade for employed individuals at the .1 level of statistical significance. These models are identical to the ones we used to analyze the round 6 data, and the questions are worded identically, so it is surprising that we do not observe our round 6 findings very robustly in round 8. Since the questions and our specifications are identical, this means that our results can only be explained by changes in the world. In 2015-16, education strongly predicted support for globalization. In 2019-21, it did not, but it did predict support for trade, as we report in the main text.

We do find that our results for hypothesis 2 mostly replicate. We continue to observe a positive coefficient on the interaction between education and GDP per capita as a predictor of support for globalization, and it is statistically significant at the .1 level (Table A30). This is reassuring to us, because for reasons note in the main text, hypothesis 2 is in fact the stronger test of Heckscher-Ohlin. In both 2015-16 and 2019-21, education becomes a more positive predictor of support for globalization as the country's skill endowment increases.

Why do our tests of hypothesis 1 and 3 hold with support for globalization in round 6, support for trade in round 8, but not support for globalization in round 8? Our best guess is that the true relationship between skill and support for trade in the pooled sample of African respondents was more negative in 2015-16 than it was in 2019-21 because of over-time improvements in development, consistent with Heckscher-Ohlin. This would make it harder to empirically observe a negative and statistically significant coefficient on education in the later survey round. However,

Table A29: Education does not predict support for globalization (round 8)

	Dependent variable:							
	Support for globalization (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Edu	0.007	0.012*	−0.0002	0.009				
	(0.005)	(0.007)	(0.007)	(0.007)				
Primary					−0.023	−0.022	−0.023	−0.015
					(0.022)	(0.039)	(0.041)	(0.032)
Secondary					0.001	0.018	−0.030	0.006
					(0.023)	(0.038)	(0.036)	(0.049)
Any Higher Ed					0.051	0.022	0.050	0.093
					(0.038)	(0.054)	(0.058)	(0.074)
College					0.054	0.076	0.063	0.016
					(0.038)	(0.050)	(0.072)	(0.082)
Female	−0.071***	−0.135***	−0.077***	−0.016	−0.072***	−0.138***	−0.076***	−0.018
	(0.015)	(0.027)	(0.029)	(0.027)	(0.014)	(0.027)	(0.029)	(0.026)
Sample	Full	Employed	Looking	Not Looking	Full	Employed	Looking	Not Looking
Observations	45,885	15,643	12,033	18,116	45,885	15,643	12,033	18,116

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the relationship between education and support for globalization. Controls include age, gender, rural, and country fixed effects. Standard errors are clustered at the region level. Observations are weighted by taking Afrobarometer's within-country weighting variable and standardizing so that all countries are weighted as if they have equal populations (replicating the combinwt variable). *Source:* Afrobarometer.

Table A30: Cross-national test of factor endowment model holds (round 8)

	Dependent variable:			
	Support for globalization (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.091*	−0.074	−0.021	−0.130*
	(0.051)	(0.073)	(0.060)	(0.069)
Edu*GDPpc (log)	0.013*	0.012	0.003	0.019**
	(0.007)	(0.010)	(0.008)	(0.009)
GDPpc (log)	−1.618***	−2.072***	−1.856***	−1.191***
	(0.045)	(0.069)	(0.049)	(0.062)
Sample	Full	Employed	Looking	Not Looking
Observations	45,885	15,643	12,033	18,116

*p<0.1; **p<0.05; ***p<0.01

Note: See table notes for Table3. *Source:* Afrobarometer.

the trade question is far more precise than the globalization question. This added precision allowed us to detect a negative relationship in round 8, even though the relationship is attenuating over time. Table A31 shows that support for globalization and support for trade are highly correlated, which improves our confidence that the round 6 support for globalization results reported in the main text are picking up on something meaningful about individuals' trade attitudes.

D Original Surveys

D.1 Survey Samples

The original data in this paper comes from intake surveys of participants in lab experiments in Ghana and Uganda (2017) and a large survey fielded in Uganda in (2018). The experiments were on different topics than those raised in this paper, and we do not discuss them. These surveys, especially those collected in lab settings in a few central locations, are convenience samples. These responses should not be taken as nationally representative of Ghana or Uganda, but we nevertheless

Table A31: Correlation between outcome variables (round 8)

	Dependent variable:
	Support for free trade (0-1)
Support for globalization (0-1)	0.467***
	(0.012)
Observations	44,949

*p<0.1; **p<0.05; ***p<0.01

Note: Source: Afrobarometer.

feel them to be informative.

The Ghana (2016) survey was administered June 18-July 28, 2016 to 1,235 participants in a lab experiment. The survey and subsequent experiment took place in Accra and recruited participants from eight constituencies, which were chosen to be a mix of "low" and "medium/high" constituencies. Individual subjects were selected using a random walk method that originated at a randomly selected polling station, and then they were transported to visit a field site on the following day, where they took the survey and participated in the experiment. When benchmarked against both a larger sample of households in Greater Accra (Fink, Weeks and Hill 2012) and the Afrobarometer surveys, the sample we study is remarkably representative. The questions on trade were asked at the end of the post-experimental survey.

The Uganda (2017) survey was administered January 28-March 2, 2017 to 1,245 participants in a lab experiment. The study took place at a set of field sites in and around Kampala, and participants were recruited from the surrounding neighborhoods, yielding a convenience sample. There are 23 constituencies represented in the data, but most of the respondents are from just four constituencies. The questions on trade were asked at the end of the post-experimental survey.

The Uganda (2018) survey was administered July 17-October 20, 2018 to 2,551 respondents. Unlike the previous surveys conducted in a lab-in-the-field setting, this survey was fielded as a survey to a national sample. Participants were drawn using a modified area probability sample that

oversampled urban areas. The questions on trade were asked at the end of the survey.

D.2 Ghana (2016)

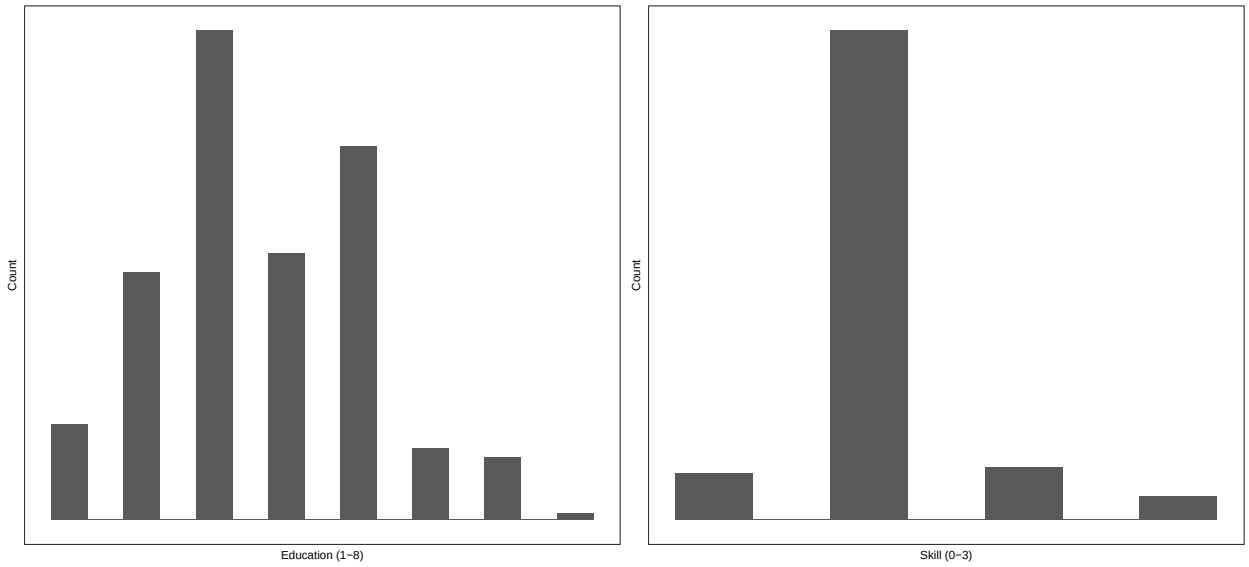
Table A32: Descriptive statistics for Ghana samples in Afrobarometer and original surveys

Characteristic	**Afrobarometer round 6**, N = 2,400[1]	**Afrobarometer round 8**, N = 2,400[1]	**Ghana (2016)**, N = 1,235[1]
Age			
Mean (SD)	38 (15)	39 (15)	32 (12)
[Minimum,Maximum]	[18,105]	[18,112]	[18,75]
(NA)	25	2	22
Education			
Mean (SD)	4.45 (2.07)	4.61 (2.17)	3.67 (1.47)
[Minimum,Maximum]	[1.00,10.00]	[1.00,10.00]	[1.00,8.00]
(NA)	10	1	22
Female	1,202 / 2,400 (50%)	1,203 / 2,400 (50%)	630 / 1,213 (52%)
(NA)	0	0	22
Lacked Cash Income			
Mean (SD)	2.35 (1.34)	2.59 (1.30)	2.90 (1.40)
[Minimum,Maximum]	[1.00,5.00]	[1.00,5.00]	[1.00,5.00]
(NA)	16	3	321
Lacked Food			
Mean (SD)	1.55 (0.98)	1.44 (0.86)	1.40 (0.90)
[Minimum,Maximum]	[1.00,5.00]	[1.00,5.00]	[1.00,5.00]
(NA)	7	1	242
National ID			
Mean (SD)	1.44 (0.68)	1.25 (0.62)	1.49 (0.54)
[Minimum,Maximum]	[0.00,2.00]	[0.00,2.00]	[0.00,2.00]
(NA)	44	0	71
Works in Agriculture	638 / 2,400 (27%)	682 / 2,400 (28%)	9 / 340 (2.6%)
(NA)	0	0	895

[1]n / N (%)

Note: Education is 1-10 in Afrobarometer and 1-8 in the original survey. Across all surveys, the mean response falls between "Completed primary school" (4 in Afrobarometer and 3 in original survey) and "Intermediate or some secondary school" (5 in Afrobarometer and 4 in original survey). *Works in Agriculture* is coded a 1 if an individual lists their occupation as in agriculture, fishing, or farming, and a 0 otherwise. The alternative occupations listed differ between Afrobarometer and the original survey. In the original survey, this question was only asked of employed individuals. For all other variables, scales and responses are identical between the Afrobarometer and original surveys.

Figure A4: Distribution of education/skill variable (Ghana 2016)



Note: We have data on skill for 321 of 688 employed individuals in Ghana (2016), where the total sample size was 1,130. *Source:* Author's data.

Table A34: Relationship between education and support for free trade (Ghana 2016)

	Dependent variable:						
	Support for free trade (0-1)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Edu	−0.094***		−0.114***		−0.071*		−0.111***
	(0.029)		(0.027)		(0.043)		(0.027)
Primary		−0.048		−0.057		−0.035	
		(0.075)		(0.081)		(0.180)	
Secondary		−0.297***		−0.231***		−0.358**	
		(0.083)		(0.084)		(0.159)	
College		0.175		−0.170		0.439***	
		(0.125)		(0.202)		(0.142)	
Occ:Student							−0.589
							(0.429)
Occ:Retired							0.546
							(0.871)
Occ:Unemployed							−0.208
							(0.180)
Occ:Other							0.671*
							(0.355)
Age	−0.003	−0.002	−0.007**	−0.006*	0.002	0.001	−0.005
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Female	−0.009	0.009	0.014	0.029	−0.049	−0.021	−0.004
	(0.099)	(0.099)	(0.120)	(0.121)	(0.125)	(0.120)	(0.097)
Pol Knowledge	0.412***	0.400***	0.416***	0.397***	0.414***	0.399***	0.416***
	(0.087)	(0.086)	(0.083)	(0.079)	(0.116)	(0.115)	(0.088)
Edu*Occ:Student							0.156***
							(0.058)
Edu*Occ:Retired							−0.049
							(0.284)
Edu*Occ:Unemployed							0.022
							(0.049)
Edu*Occ:Other							−0.183**
							(0.082)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Employed	Employed	Not Employed	Not Employed	Full
Observations	1,130	1,130	688	688	442	442	1,130

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A35: Alternative measure of skill (Ghana 2016)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	-0.114^{***}	-0.222^{***}		
	(0.027)	(0.035)		
Skill (0-3)			-0.225^{**}	
			(0.098)	
High Skill (0-1)				-0.312^{**}
				(0.131)
Age	-0.007^{**}	-0.002	0.003	0.002
	(0.003)	(0.006)	(0.007)	(0.007)
Female	0.014	-0.036	0.096	0.094
	(0.120)	(0.223)	(0.223)	(0.214)
Pol Knowledge	0.416^{***}	0.484^{***}	0.388^{***}	0.383^{***}
	(0.083)	(0.145)	(0.143)	(0.139)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Employed	Employed (subset)	Employed (subset)	Employed (subset)
Observations	688	321	321	321

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level. *Source:* Author's data.

While the main contribution of our original surveys is that we are able to measure skill directly, we do investigate the relationship between income and trade attitudes, since income is frequently used to proxy for skill. Our results are quite sensitive to the measure of income used (Table A36). We first measure income using the frequency of internet use. This is meant to be as similar as possible to the asset index we generated for the Afrobarometer surveys. We do observe the expected negative relationship between internet use and support for trade attitudes. Next we use household income. We create this variable by taking the sum of the cash a respondent earned in the past month plus that earned by the household primary earner, if not the respondent. We find no relationship between this measure and trade attitudes. Last, we consider a different measure of income, which is the frequency with which the individual has lacked cash or food. This variable also does not predict trade attitudes. The variation in these results suggests that measures of income may be quite specific to context, and we do not have great confidence that they proxy for skill. In any case, we prefer the direct measure of skill that the original survey contributes.

Table A36: Using income to proxy for skill (Ghana 2016)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Internet Use	−0.112***				−0.183**			
	(0.035)				(0.084)			
HH Income (log)		0.011				−0.029		
		(0.030)				(0.045)		
Lacked Cash			−0.028				−0.016	
			(0.041)				(0.037)	
Lacked Food				−0.019				−0.036
				(0.051)				(0.036)
Age	−0.003	−0.0001	−0.0003	−0.002	−0.009*	−0.004	−0.008	−0.004
	(0.002)	(0.003)	(0.003)	(0.003)	(0.005)	(0.004)	(0.005)	(0.004)
Female	0.006	0.061	0.139	0.070	0.004	0.079	0.183	0.093
	(0.096)	(0.101)	(0.115)	(0.091)	(0.116)	(0.116)	(0.148)	(0.113)
Pol Knowledge	0.387***	0.359***	0.389***	0.406***	0.396***	0.369***	0.386***	0.436***
	(0.086)	(0.087)	(0.096)	(0.077)	(0.086)	(0.089)	(0.109)	(0.066)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Full	Full	Employed	Employed	Employed	Employed
Observations	1,130	1,130	848	927	688	688	510	566

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the relationship between income and support for trade. The survey asks about TV use frequency, phone ownership, and internet use frequency. Only internet use frequency exhibits a normal distribution, as most individuals use a TV frequently and own a phone. We code internet use as an ordinal variable that best maps this distribution (1 = Never; 2 = Less than once a month, Once a month, 2-3 times a month, Once a week, or 2-3 times a week; 3 = Daily). Household income is the logged sum of the cash a respondent earned in the past month plus that earned by the household primary earner, if not the respondent. Lacked cash/food are ordinal variables indicating the frequency that this happens. Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A37: Controlling for the public sector (Ghana 2016)

	Dependent variable:	
	Support for free trade (0-1)	
	(1)	(2)
Edu	-0.114^{***}	-0.114^{***}
	(0.027)	(0.027)
Public Sector		0.421
		(0.443)
Age	-0.007^{**}	-0.007^{**}
	(0.003)	(0.003)
Female	0.014	0.016
	(0.120)	(0.121)
Pol Knowledge	0.416^{***}	0.410^{***}
	(0.083)	(0.082)
Addtl Controls	Rel, Eth	Rel, Eth
Sample	Employed	Employed
Observations	688	687

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level. *Source:* Author's data.

D.3 Uganda (2017)

Table A38: Controlling for political connections (Ghana 2016)

	Dependent variable:	
	Support for free trade (0-1)	
	(1)	(2)
Edu	-0.114^{***}	-0.119^{***}
	(0.027)	(0.031)
Community Member:Inactive		0.202
		(0.176)
Community Member:Active		0.066
		(0.265)
Community Member:Leader		4.456^{***}
		(0.197)
Holds Political Position		0.626
		(0.448)
Family Holds Political Position		-0.074
		(0.141)
Age	-0.007^{**}	-0.006^{**}
	(0.003)	(0.003)
Female	0.014	0.006
	(0.120)	(0.135)
Pol Knowledge	0.416^{***}	0.416^{***}
	(0.083)	(0.081)
Addtl Controls	Rel, Eth	Rel, Eth
Sample	Employed	Employed
Observations	688	664

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level.
Source: Author's data.

Table A39: Testing non-economic models (Ghana 2016)

	Dependent variable:					
	Support for free trade (0-1)					
	(1)	(2)	(3)	(4)	(5)	(6)
Edu	−0.094***	−0.084***	−0.114***	−0.104***		
	(0.029)	(0.026)	(0.027)	(0.023)		
Skill					−0.225**	−0.238**
					(0.098)	(0.104)
Natl ID		0.133		0.054		0.238**
		(0.086)		(0.085)		(0.120)
Pride		0.098**		0.136***		0.148***
		(0.043)		(0.037)		(0.034)
Age	−0.003	−0.002	−0.007**	−0.007	0.003	0.004
	(0.002)	(0.002)	(0.003)	(0.004)	(0.007)	(0.006)
Female	−0.009	−0.021	0.014	0.009	0.096	0.022
	(0.099)	(0.105)	(0.120)	(0.134)	(0.223)	(0.225)
Pol Knowledge	0.412***	0.351***	0.416***	0.335***	0.388***	0.225
	(0.087)	(0.077)	(0.083)	(0.066)	(0.143)	(0.162)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Employed	Employed	Employed (subset)	Employed (subset)
Observations	1,130	1,087	688	667	321	314

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the effects of education, skill, assets, and income on attitudes toward free trade. *Natl ID:* "I feel only (national identity)" or "I feel more (national identity) than (ethnic group)." Variable is 2 if feels only national identity, 1 if equally national and ethnic identity, and 0 if ethnic identity only. *Pride:* "How proud are you to be Ghanaian?" Variable is 1-10. Standard errors are clustered at the constituency level. *Source:* Author's data.

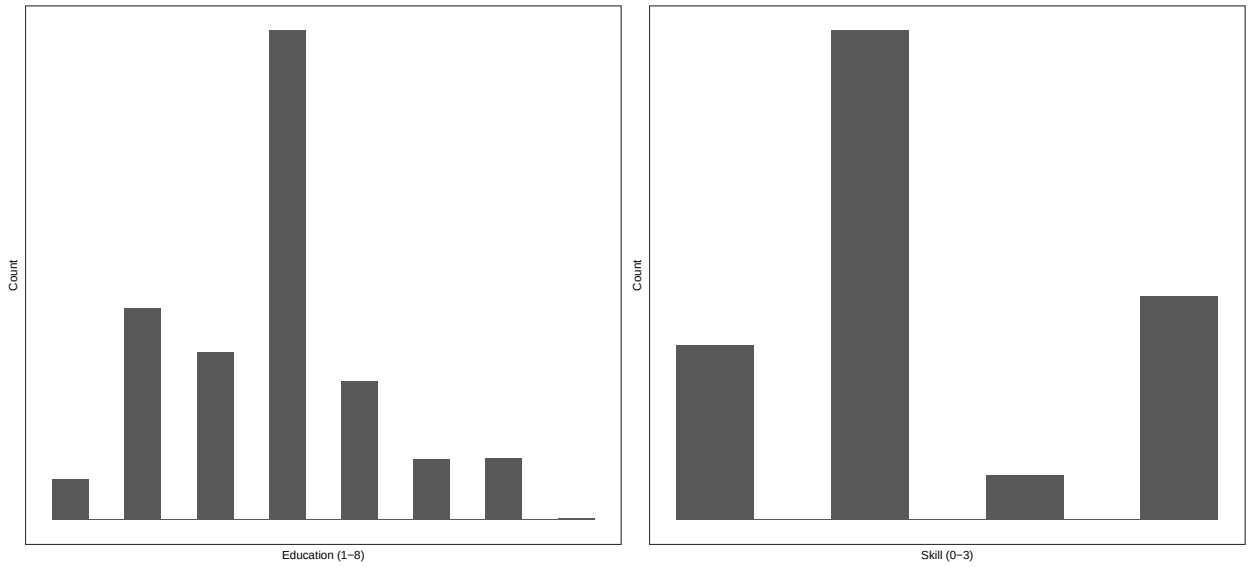
Table A40: Descriptive statistics for Uganda samples in Afrobarometer and 2017 original survey

Characteristic	**Afrobarometer round 6**, N = 2,400[1]	**Afrobarometer round 8**, N = 1,200[1]	**Uganda (2017)**, N = 1,245[1]
Age			
Mean (SD)	37 (15)	36 (15)	31 (9)
[Minimum,Maximum]	[18,96]	[18,96]	[12,87]
(NA)	13	0	0
Education			
Mean (SD)	3.95 (1.85)	4.21 (1.86)	3.78 (1.40)
[Minimum,Maximum]	[1.00,10.00]	[1.00,10.00]	[1.00,8.00]
(NA)	3	1	0
Female	1,203 / 2,400 (50%)	599 / 1,200 (50%)	640 / 1,241 (52%)
(NA)	0	0	4
Lacked Cash Income			
Mean (SD)	3.18 (1.23)	3.21 (1.24)	3.10 (1.08)
[Minimum,Maximum]	[1.00,5.00]	[1.00,5.00]	[1.00,5.00]
(NA)	4	2	6
Lacked Food			
Mean (SD)	1.80 (1.06)	2.18 (1.14)	2.50 (1.14)
[Minimum,Maximum]	[1.00,5.00]	[1.00,5.00]	[-7.00,5.00]
(NA)	1	1	15
National ID			
Mean (SD)	1.13 (0.69)	0.93 (0.58)	1.33 (0.68)
[Minimum,Maximum]	[0.00,2.00]	[0.00,2.00]	[0.00,2.00]
(NA)	17	0	24
Works in Agriculture	1,108 / 2,400 (46%)	535 / 1,200 (45%)	29 / 975 (3.0%)
(NA)	0	0	270

[1]n / N (%)

Note: Education is 1-10 in Afrobarometer and 1-8 in the original survey. Across all surveys, the mean response is "Completed primary school" (4 in Afrobarometer and 3 in original survey). *Works in Agriculture* is coded a 1 if an individual lists their occupation as in agriculture, fishing, or farming, and a 0 otherwise. The alternative occupations listed differ between Afrobarometer and the original survey. For all other variables, scales and responses are identical between the Afrobarometer and original surveys.

Figure A5: Distribution of education/skill variable (Uganda 2017)



Note: We have data on skill for 687 of 691 employed individuals in Uganda (2017), where the total sample size was 1,012.

As in Ghana, we also investigate the relationship between income and support for trade. We measure income as internet use, household income, and the frequency of lacking cash or food. We find no evidence that these variables are significant predictors of trade attitudes. As with the Ghana survey, we prefer our direct measure of skill rather than using income to proxy for skill. Income may not be a reliable predictor of skill.

D.4 Uganda (2018)

Table A42: Relationship between education and support for free trade (Uganda 2017)

	Dependent variable:						
	Support for free trade (0-1)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Edu	0.007		−0.012		0.054		−0.019**
	(0.012)		(0.012)		(0.045)		(0.008)
Primary		0.052		0.072		−0.002	
		(0.077)		(0.081)		(0.131)	
Secondary		0.206		0.121		0.371	
		(0.139)		(0.111)		(0.394)	
College		−0.056		−0.209		0.388***	
		(0.090)		(0.135)		(0.133)	
Postgrad		−5.086***				−5.509***	
		(0.233)				(0.256)	
Occ:Student							−0.183
							(0.676)
Occ:Homemaker							0.666
							(0.604)
Occ:Retired							−9.683***
							(0.410)
Occ:Unemployed							−0.201
							(0.215)
Occ:Other							−0.104
							(0.645)
Age	0.003	0.004	0.009*	0.010**	−0.002	−0.003	0.002
	(0.003)	(0.003)	(0.005)	(0.005)	(0.003)	(0.004)	(0.002)
Female	−0.146	−0.127	−0.215**	−0.212*	−0.082	−0.032	−0.165
	(0.107)	(0.120)	(0.109)	(0.109)	(0.157)	(0.197)	(0.132)
Pol Knowledge	0.089***	0.086***	0.117**	0.117**	0.059	0.053	0.093***
	(0.024)	(0.025)	(0.049)	(0.051)	(0.112)	(0.112)	(0.026)
Edu*Occ:Student							0.045
							(0.115)
Edu*Occ:Homemaker							−0.660***
							(0.122)
Edu*Occ:Retired							2.082***
							(0.074)
Edu*Occ:Unemployed							0.068**
							(0.034)
Edu*Occ:Other							0.158
							(0.130)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Employed	Employed	Not Employed	Not Employed	Full
Observations	1,012	1,012	691	691	321	321	1,012

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A43: Alternative measure of skill (Uganda 2017)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Edu	−0.012	−0.012		
	(0.012)	(0.012)		
Skill (0-3)			−0.404***	
			(0.047)	
High Skill (0-1)				−0.799***
				(0.101)
Age	0.009*	0.009*	0.009	0.008
	(0.005)	(0.005)	(0.006)	(0.006)
Female	−0.215**	−0.215**	−0.295**	−0.313**
	(0.109)	(0.109)	(0.140)	(0.137)
Pol Knowledge	0.117**	0.117**	0.045	0.033
	(0.049)	(0.049)	(0.053)	(0.051)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Employed	Employed	Employed	Employed
Observations	691	691	687	687

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level.
Source: Author's data.

Table A44: Using income to proxy for skill (Uganda 2017)

	Dependent variable:							
	Support for free trade (0-1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Internet Use	0.029				0.096*			
	(0.025)				(0.050)			
HH Income (log)		0.017				0.022		
		(0.021)				(0.034)		
Lacked Cash			0.005				−0.012	
			(0.117)				(0.109)	
Lacked Food				−0.072				−0.059
				(0.071)				(0.053)
Age	0.004	0.005	0.003	0.004	0.011**	0.010**	0.009**	0.010**
	(0.003)	(0.004)	(0.003)	(0.003)	(0.005)	(0.005)	(0.004)	(0.004)
Female	−0.137	−0.136	−0.149	−0.131	−0.169	−0.212*	−0.210**	−0.192*
	(0.109)	(0.106)	(0.095)	(0.112)	(0.117)	(0.110)	(0.106)	(0.115)
Pol Knowledge	0.089***	0.083***	0.090***	0.075**	0.121**	0.107**	0.121**	0.111**
	(0.024)	(0.027)	(0.026)	(0.032)	(0.052)	(0.050)	(0.049)	(0.044)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Full	Full	Employed	Employed	Employed	Employed
Observations	1,012	984	1,010	1,005	691	679	690	687

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the effects of education, skill, and non-economic factors on attitudes toward free trade. The survey asks about TV use frequency, phone ownership, and internet use frequency. Only TV and internet use frequency exhibit a normal distribution, as most individuals own a phone. We use internet use to be consistent with the Ghana survey. Household income is the logged sum of the cash a respondent earned in the past month plus that earned by the household primary earner, if not the respondent. Lacked cash/food are ordinal variables indicating the frequency of this. Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A45: Controlling for public sector (Uganda 2017)

	Dependent variable:	
	Support for free trade (0-1)	
	(1)	(2)
Edu	−0.012	−0.009
	(0.012)	(0.014)
Public Sector		−0.574
		(0.383)
Age	0.009*	0.009*
	(0.005)	(0.005)
Female	−0.215**	−0.220**
	(0.109)	(0.109)
Pol Knowledge	0.117**	0.116**
	(0.049)	(0.049)
Addtl Controls	Rel, Eth	Rel, Eth
Sample	Employed	Employed
Observations	691	690

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A46: Controlling for political connections (Uganda 2017)

	Dependent variable:	
	Support for free trade (0-1)	
	(1)	(2)
Edu	−0.012	−0.021
	(0.012)	(0.015)
Community Member:Inactive		−0.254
		(0.456)
Community Member:Active		0.230***
		(0.079)
Community Member:Leader		4.808***
		(0.151)
Age	0.009*	0.007
	(0.005)	(0.005)
Female	−0.215**	−0.235**
	(0.109)	(0.116)
Pol Knowledge	0.117**	0.115***
	(0.049)	(0.039)
Addtl Controls	Rel, Eth	Rel, Eth
Sample	Employed	Employed
Observations	691	690

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are clustered at the constituency level.
Source: Author's data.

Table A47: Testing non-economic models (Uganda 2017)

	Dependent variable:					
	Support for free trade (0-1)					
	(1)	(2)	(3)	(4)	(5)	(6)
Edu	0.007	0.010	−0.012	−0.009		
	(0.012)	(0.016)	(0.012)	(0.014)		
Skill					−0.404***	−0.419***
					(0.047)	(0.045)
Natl ID		−0.098		−0.089		0.009
		(0.060)		(0.058)		(0.044)
Age	0.003	0.004	0.009*	0.008*	0.009	0.010*
	(0.003)	(0.003)	(0.005)	(0.005)	(0.006)	(0.006)
Female	−0.146	−0.169*	−0.215**	−0.222**	−0.295**	−0.312**
	(0.107)	(0.102)	(0.109)	(0.106)	(0.140)	(0.134)
Pol Knowledge	0.089***	0.083***	0.117**	0.103**	0.045	0.033
	(0.024)	(0.026)	(0.049)	(0.046)	(0.053)	(0.051)
Addtl Controls	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth	Rel, Eth
Sample	Full	Full	Employed	Employed	Employed	Employed
Observations	1,012	995	691	679	687	675

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the effects of education, skill, and non-economic factors on attitudes toward free trade. *Natl ID:* "I feel only (national identity)" or "I feel more (national identity) than (ethnic group)." Variable is 2 if feels only national identity, 1 if equally national and ethnic identity, and 0 if ethnic identity only. Standard errors are clustered at the constituency level. *Source:* Author's data.

Table A48: Descriptive statistics for Uganda samples in Afrobarometer and 2018 original survey

Characteristic	**Afrobarometer round 6**, N = 2,400[1]	**Afrobarometer round 8**, N = 1,200[1]	**Uganda (2018)**, N = 2,551[1]
Age			
Mean (SD)	37 (15)	36 (15)	36 (13)
[Minimum,Maximum]	[18,96]	[18,96]	[-8,87]
(NA)	13	0	0
Education			
Mean (SD)	3.95 (1.85)	4.21 (1.86)	3.64 (1.58)
[Minimum,Maximum]	[1.00,10.00]	[1.00,10.00]	[1.00,7.00]
(NA)	3	1	29
Female	1,203 / 2,400 (50%)	599 / 1,200 (50%)	1,174 / 2,551 (46%)
Owns Phone	1,538 / 2,400 (64%)	923 / 1,200 (77%)	1,942 / 2,551 (76%)
Works in Agriculture	1,108 / 2,400 (46%)	535 / 1,200 (45%)	693 / 2,551 (27%)

[1] n / N (%)

Note: Education is 1-10 in Afrobarometer and 1-8 in the original survey. Across all surveys, the mean response is "Completed primary school" (4 in Afrobarometer and 3 in original survey). *Works in Agriculture* is coded a 1 if an individual lists their occupation as in agriculture, fishing, or farming, and a 0 otherwise. The alternative occupations listed differ between Afrobarometer and the original survey. For all other variables, scales and responses are identical between the Afrobarometer and original surveys.

Table A50: Relationship between education and support for free trade (Uganda 2018)

	Dependent variable:						
	Support for free trade (0-1)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Edu	−0.054**		−0.053**		−0.090		−0.050*
	(0.023)		(0.026)		(0.055)		(0.026)
Primary		−0.029		−0.030		−0.056	
		(0.084)		(0.093)		(0.206)	
Secondary		−0.165		−0.177		−0.192	
		(0.113)		(0.126)		(0.274)	
College		−0.239		−0.278		−0.207	
		(0.148)		(0.169)		(0.326)	
Occ:Homemaker							−0.746
							(1.211)
Occ:Other							0.640
							(0.418)
Occ:Retired							4.256
							(381.527)
Occ:Student							−0.403
							(1.190)
Occ:Unemployed							0.149
							(0.297)
Age	0.005*	0.005*	0.002	0.003	0.015**	0.012*	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.007)	(0.006)	(0.003)
Female	−0.129*	−0.120*	−0.110	−0.103	−0.219	−0.165	−0.110
	(0.072)	(0.071)	(0.081)	(0.081)	(0.169)	(0.166)	(0.074)
Edu*Occ:Homemaker							0.069
							(0.339)
Edu*Occ:Other							−0.090
							(0.087)
Edu*Occ:Retired							0.041
							(74.398)
Edu*Occ:Student							0.054
							(0.235)
Edu*Occ:Unemployed							−0.040
							(0.078)
Addtl Controls	Eth	Eth	Eth	Eth	Eth	Eth	Eth
Sample	Full	Full	Employed	Employed	Not Employed	Not Employed	Full
Observations	1,670	1,692	1,333	1,349	337	343	1,670

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are not clustered due to missing geographic data. *Source:* Author's data.

Table A51: Relationship between education and opposition to free trade (Uganda 2018)

	Dependent variable:						
	Support for free trade (0-1)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Edu	0.058***		0.048**		0.103**		0.052**
	(0.022)		(0.024)		(0.050)		(0.024)
Primary		0.029		0.0002		0.170	
		(0.078)		(0.086)		(0.190)	
Secondary		0.236**		0.192		0.467*	
		(0.105)		(0.118)		(0.250)	
College		0.265*		0.266		0.223	
		(0.140)		(0.162)		(0.304)	
Occ:Homemaker							0.061
							(1.194)
Occ:Other							0.200
							(0.337)
Occ:Retired							−2.375
							(2.438)
Occ:Student							−0.268
							(1.127)
Occ:Unemployed							−0.015
							(0.278)
Age	−0.005*	−0.005**	−0.004	−0.004	−0.008	−0.008	−0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.006)	(0.006)	(0.003)
Female	0.042	0.026	0.014	−0.008	0.004	−0.012	0.041
	(0.067)	(0.066)	(0.076)	(0.076)	(0.153)	(0.153)	(0.069)
Edu*Occ:Homemaker							0.080
							(0.336)
Edu*Occ:Other							0.017
							(0.074)
Edu*Occ:Retired							0.328
							(0.422)
Edu*Occ:Student							0.090
							(0.221)
Edu*Occ:Unemployed							−0.007
							(0.074)
Addtl Controls	Eth	Eth	Eth	Eth	Eth	Eth	Eth
Sample	Full	Full	Employed	Employed	Not Employed	Not Employed	Full
Observations	1,654	1,676	1,318	1,334	336	342	1,654

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are not clustered due to missing geographic data. *Source:* Author's data.

Table A52: Using income to proxy for skill (Uganda 2018)

	Dependent variable:			
	Support for free trade (0-1)			
	(1)	(2)	(3)	(4)
Phone Access	−0.051		−0.049	
	(0.085)		(0.095)	
Income (log)		0.009		−0.038
		(0.013)		(0.024)
Age	0.006**	0.003	0.003	0.003
	(0.003)	(0.003)	(0.003)	(0.003)
Female	−0.105	−0.072	−0.089	−0.094
	(0.070)	(0.077)	(0.081)	(0.083)
Addtl Controls	Eth	Eth	Eth	Eth
Sample	Full	Full	Employed	Employed
Observations	1,692	1,412	1,349	1,270

*p<0.1; **p<0.05; ***p<0.01

Note: Regressions use binary probit models to estimate the effects of education, skill, assets, and income on attitudes toward free trade. The survey asks about cell phone ownership, access to a smartphone, and access to the internet; however, the latter two variables are missing for a majority of the sample. Although most have a cell phone, this is the only asset for which we have complete data. Income is the logged cash a respondent earned divided by the period of time, scaled to a per day ratio (the survey does not ask about the partner's income). Standard errors are not clustered due to missing geographic data. *Source:* Author's data.

Table A53: Controlling for public sector (Uganda 2018)

	Dependent variable:	
	Support for free trade (0-1)	
	(1)	(2)
Edu	−0.053**	−0.061**
	(0.026)	(0.027)
Public Sector		0.363
		(0.294)
Age	0.002	0.002
	(0.003)	(0.003)
Female	−0.110	−0.118
	(0.081)	(0.082)
Addtl Controls	Eth	Eth
Sample	Employed	Employed
Observations	1,333	1,333

*p<0.1; **p<0.05; ***p<0.01

Note: Standard errors are not clustered due to missing geographic data. *Source:* Author's data.