

Supplementary Appendix:
Discriminatory Immigration Bans Elicit
Anti-Americanism in Targeted Communities:
Evidence from Nigerian Expatriates

Aaron Erlich¹, Thomas Soehl¹, and Annie Y. Chen²

¹*McGill University*

²*Dartmouth College*

V1.0

Contents

A. Descriptive Statistics and Balance Table	1
B. Newspaper Information on Unexpected Announcement	3
C. Heterogeneous Effects by News Consumption	4
D. Analysis of Other News Events	5
E. Further Survey Information	7
F. Stability of Effect After Removing Poor Quality Responses	8
G. Sensitivity to Violations of Unconfoundedness	10
H. Difference in Satisfaction with Democracy between Expatriate and Afrobarometer Samples	12

A. Descriptive Statistics and Balance Table

	Pre-treatment Variable	Pre-ban Mean	Post-ban Mean	Difference	Adj. P-value
1	Age	30.68	31.20	0.52	0.73
2	Some university or more	0.65	0.71	0.06	0.73
3	Female	0.23	0.30	0.07	0.73
4	Christian	0.89	0.85	-0.04	0.73
5	Muslim	0.10	0.10	-0.00	0.73
6	Not religious	0.01	0.04	0.03	0.80
7	Other	0.00	0.01	0.01	0.73
8	Igbo	0.34	0.36	0.02	0.80
9	Other	0.35	0.31	-0.04	0.73
10	Yoruba	0.31	0.33	0.02	0.73
11	A village	0.05	0.04	-0.01	0.73
12	City (not capital)	0.25	0.31	0.06	0.73
13	The capital	0.70	0.66	-0.04	0.90
14	Children	0.79	0.92	0.13	0.73
15	News consumption	3.58	3.42	-0.16	0.73

Table A-1: Balance table for key demographics in the pre- and post-ban samples. P-values are adjusted for multiple testing with the Benjamini-Hochberg correction procedure. T-tests are conducted for the continuous variables, age and children. Wilcoxon Rank Sum tests are used for the nominal variables.

Variable		n	mean	sd	median	min	max
Outcomes	Choice	3034	0.50	0.50	0.50	0	1
	Rating	2788	4.51	1.89	5.00	1	7
Age	Age	388	31.10	8.19	29.00	18	73
Gender	Female	386	0.29	0.45	0.00	0	1
Children	Number of children	377	0.90	1.34	0.00	0	6
Ban	period	394	0.80	0.40	1.00	0	1
Cross-border engagement	Frequency call family in Nigeria	392	4.41	1.18	5.00	1	6
	Traveled to Nigeria within 5 years	394	0.77	0.42	1.00	0	1
City	Village	393	0.04	0.19	0.00	0	1
	City (not capital)	393	0.30	0.46	0.00	0	1
	The capital	393	0.67	0.47	1.00	0	1
Ethnicity	Igbo	394	0.35	0.48	0.00	0	1
	Yoruba	394	0.33	0.47	0.00	0	1
	Other	394	0.32	0.47	0.00	0	1
Religion	Christian	394	0.86	0.35	1.00	0	1
	Muslim	394	0.10	0.30	0.00	0	1
	Not religious	394	0.04	0.19	0.00	0	1
	Other	394	0.01	0.09	0.00	0	1
Occupation	Informal	341	0.09	0.29	0.00	0	1
	Managerial/Professional	341	0.16	0.37	0.00	0	1
	Manual/Clerical	341	0.14	0.35	0.00	0	1
	Small business/Entrepreneur	341	0.22	0.41	0.00	0	1
	Student	341	0.18	0.39	0.00	0	1
	Other	341	0.20	0.40	0.00	0	1
Education	Some university or higher degree	394	0.70	0.46	1.00	0	1
	Secondary completed	394	0.25	0.43	0.00	0	1
	Less than secondary	394	0.05	0.21	0.00	0	1
News consumption	I don't follow news	391	0.12	0.33	0.00	0	1
	15 minutes or less	391	0.17	0.38	0.00	0	1
	About 30 minutes	391	0.15	0.36	0.00	0	1
	About an hour	391	0.23	0.42	0.00	0	1
	More than an hour	391	0.32	0.47	0.00	0	1
Migration history and intentions	Move to another country	389	0.43	0.50	0.00	0	1
	Return to Nigeria	389	0.18	0.39	0.00	0	1
	Stay in Ghana	389	0.38	0.49	0.00	0	1
	Year left Nigeria	376	2013	5.29	2014	2000	2020

Table A-2: Summary statistics of key demographics for the sample of survey respondents who completed at least one conjoint task.

B. Newspaper Information on Unexpected Announcement

The *Vanguard* reported on February 1st that the Nigerian Information minister reported that the Nigerian government “had no warning of their inclusion on the list before it appeared in the media.”

- <https://www.vanguardngr.com/2020/02/nigerian-government-sets-up-committee-to-address-us-visa-ban/>

On February 5th, *This Day* reported that the Minister of Foreign affairs stated that Nigerian government was “blindsided.”

Speaking at a joint news conference in Washington with US Secretary of State, Mr. Mike Pompeo, Onyeama said Nigeria was ‘blindsided by the US decision on Friday to add it and five other nations to an expanded version of the US visa ban.’

- <https://www.thisdaylive.com/index.php/2020/02/05/onyeama-fg-working-to-have-us-travel-ban-lifted/>

C. Heterogeneous Effects by News Consumption

We expect a treatment effect only for respondents who were exposed to the news of the immigration ban. As a proxy for exposure to news of the immigration ban, we compare how the effect of the ban varies by those who indicated that they follow the news less than 15 minutes a day (low news consumers) versus those who spend 30 minutes or more reading news. The plot below shows that, as expected, the negative effect of the ban is observed for only those who report following the news for 30 minutes or more a day. We note that the large majority (70 percent of the sample) spend more than 30 minutes a day following news in Nigeria.

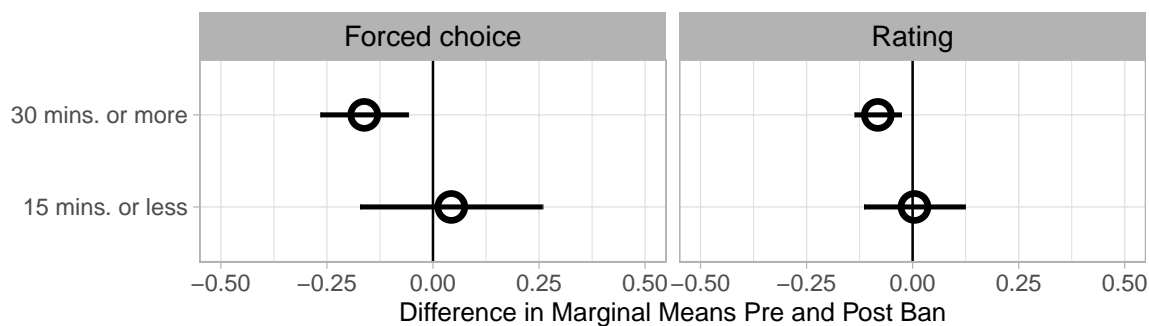


Figure C-1: Effect by news consumption levels

D. Analysis of Other News Events

To examine what other top headline news stories in Nigeria involved the United States, we conduct an analysis of *The Punch*, one of the most (if not the most) highly circulated national newspapers in Nigeria using the Wayback Machine. Using the Wayback Machine allows us to investigate what the front page of the online edition of *The Punch* newspaper looked like every day between December 1, 2019 and February 29, 2020 (with the exception of two days that were not crawled).¹

We create a database of all of the top-four stories on *The Punch*'s website for each day under consideration. We use the top-four stories, which are prominently highlighted on *The Punch*'s website, as a proxy for which stories were likely to be widely read. We then label each story as "U.S.-related" if the story is at all related to the United States. Of the 356 stories evaluated, we find a total of 15 stories with any connection to the United States. Of these, the only events mentioned multiple times and potentially having a negative impact on Nigerians' attitudes towards the United States, were the Nigerian immigration ban and the killing of General Qassem Soleimani by the United States on January 3, 2020.²

After examining the reception of the Soleimani assassination and its aftermath in Nigeria closely, we believe it is unlikely that this event caused a change in Nigerian's opinion towards Americans for three reasons. First, it appears the population most outraged by the Soleimani killing and who were protesting as a result of the killing were Nigerian Shi'a (who share the same branch of Islam as most Iranians). It is these protests that were a significant part of the Nigerian news coverage. Most coverage of these protests was critical of the protesters rather than voicing criticism of the United States. Moreover, Shi'a constitute a small percentage of Nigeria's population. While numbers are hard to come by, they are probably in the "low millions" (Thurston 2020, 3), with a high estimate being three to four million (Onapajo 2017). Based on these numbers, Shi'a constitute no more than two percent of Nigerians population and no more than five percent of all Nigerian Muslims. Finally, in addition to being a small group, the growth of Shi'ism is relatively recent in Nigeria, and Nigeria's Sunni establishment widely dislikes the Shi'a (Gray and Adeakin 2019), making it unlikely that Shi'a opinions were widely shared among Nigerians.

1. Such a front-page analysis is not available in Lexis-Nexis for Nigerian newspapers.

2. We supplemented this analysis with targeted Lexis-Nexis searches of Nigerian and Ghanaian papers, and these searches yield similar results.

Second, a poll in the newspaper *Premium Times* confirms our argument that, for most Nigerians, Soleimani’s assassination was not a moment that crystallized Anti-American sentiment. The poll asked respondents: “Should Nigeria take a position in the US–Iran face-off?” Out of more than 3500 respondents, only 12.3% endorsed taking a position while 68% said “No” and another 19% responded “don’t care” (Iroanusi 2020). Moreover, as one newspaper argued, many in Nigeria stood to benefit from increased oil prices as a result of the conflict (Sanyaolu 2020). Therefore, it is likely many Nigerians would have sided with the U.S. in the conflict if they had taken a side.

Third, if the killing of Soleimani had affected Nigerians’ attitudes towards Americans, it would likely have done so primarily for the Muslim population and not the Christian population. To see if the anti-American results were driven by the 10% of our sample that was Muslim, in a robustness check, we omit Muslim respondents from the sample and find the results substantively and statistically unchanged as shown in Figure D-1.

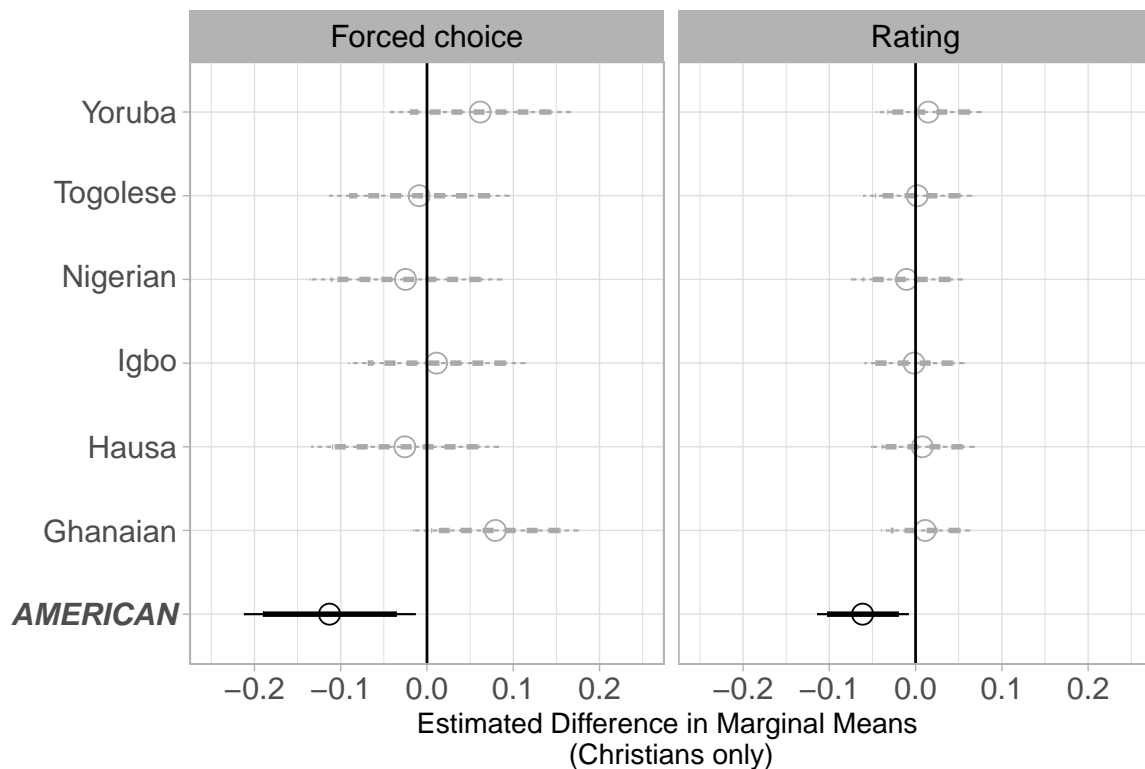


Figure D-1: Change in evaluation of potential neighbors by ethnicity/nationality between the pre-and post-ban periods for only the Christians in the sample. Thick horizontal lines represent 90% confidence intervals. Thin lines represent 95% confidence intervals.

E. Further Survey Information

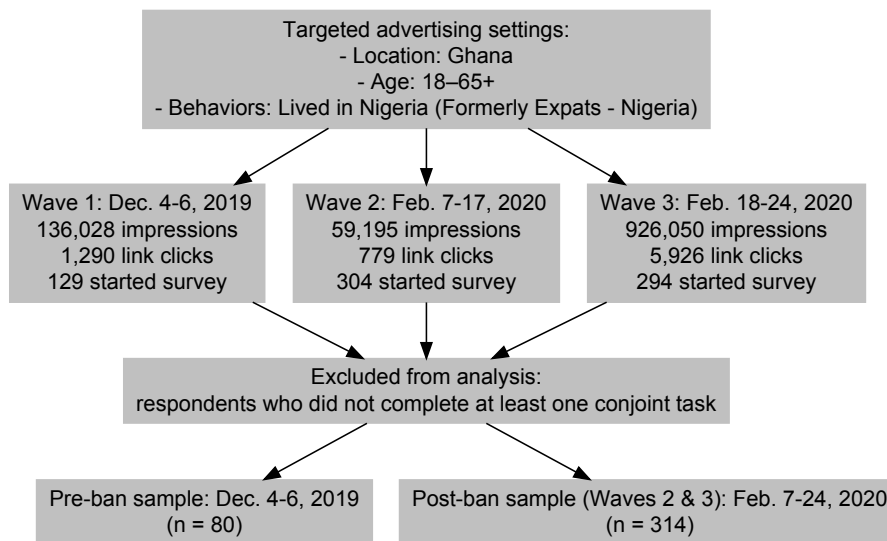


Figure E-1: The campaign objective was set to “Traffic” across all waves. The campaign daily budget was \$100.00 per day and ad delivery was optimized for Link Clicks (waves 1 and 3) and Landing Page Views (wave 2). The bidding strategy in all waves was “Lowest cost.”

F. Stability of Effect After Removing Poor Quality Responses

To investigate the response quality and any potential effects on our results, we create a set of dummy variable (flags), each of which indicates a potential problematic action for each respondent. Our primary quantity of interest is re-estimated after eliminating any respondents that trigger these flags. As Figure F-1 documents, our results remain both substantively and statistically nearly identical, regardless of whether or not we discard potentially problematic survey respondents. In addition, since the profiles seen are randomized and the timing of filling out the survey with respect to the ban is *as-if* random, it is most likely that any satisficing survey completion would merely add noise to our estimates.

- **IP Address** – IP address is not in Ghana.
- **Not living in survey country** – In response to “What country are you living in now,” participant reports not living in Ghana.
- **Speeding** – Survey is completed in less than 63 seconds (90% of participants take more than 1 minute to complete the survey).
- **Illogical departure date from Nigeria given age** — Age is younger than the year they left Nigeria. I.e., selected “Before 2000” and is 18 years old.
- **Age & # of children** – Respondent is less than 25 years old and has more than five children.
- **Education & occupation** – Respondent’s highest level of education is “Secondary school/high school completed” or lower, and occupation is “Upper-level professional (e.g. banker, doctor, lawyer)”.
- **Conjoint speeding** – Respondent spent less than 15 seconds on the conjoint instruction page (90% of participants took more than 15 seconds).

Difference between pre- and post-ban favourability towards American neighbours by varying samples.

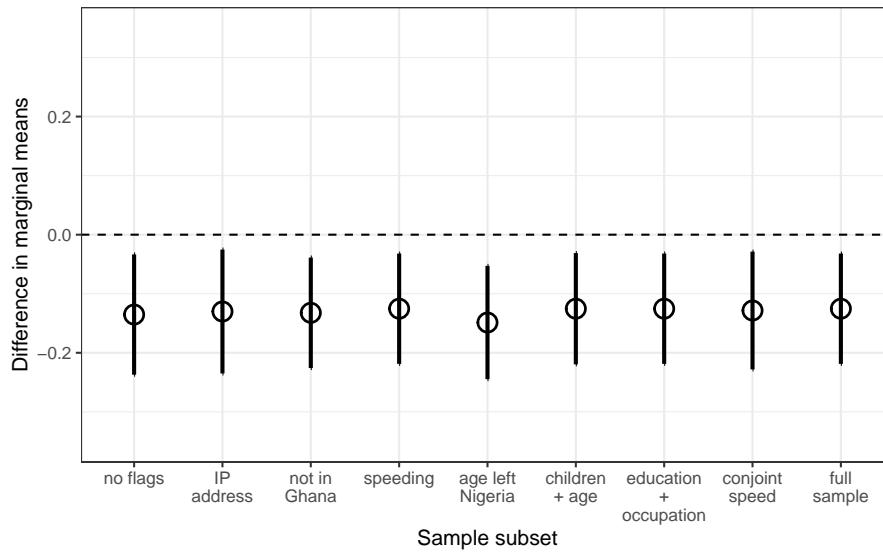


Figure F-1: Effect of ban removing low-quality responses

G. Sensitivity to Violations of Unconfoundedness

One way to assess the influence of possible unobserved selection is to simulate treatment effects easing the unconfoundedness assumption. Confounding occurs when an unmeasured or unobserved covariate is associated with both the treatment and the outcome. Following Imbens (2003), we plot curves that illustrate the hypothetical degree of confounding that would be required to reduce our effect by a half, a third, and a quarter. We would be most concerned about potential factors that lie in the shaded region of Figure G-1, because this indicates an unobserved variable strongly influences both the treatment (post-ban) and our outcome (choosing to live beside an American neighbor) such that it would materially diminish the treatment effect we observed.

We plot observed relationships between the outcome and treatment for news consumption and Muslim respondents as benchmarks. For the former, the horizontal axis is the standardized coefficient value of a regression of news consumption on our treatment, post-ban. The vertical axis shows the absolute value of the estimated difference in favorability towards Americans between high and low news consumers. We estimate that respondents would need to select into the post-ban sample on an unobserved attribute that is at least six times as influential as the observed relationship between news consumption on post-ban and six times as influential than the observed relationship between news consumption and favorability towards Americans in order to reduce our treatment effect by a quarter.

While there are substantial differences in perceptions of Americans among Muslim and non-Muslim respondents, our pre- and post-ban samples are balanced with respect to numbers of Muslim and non-Muslim respondents. Selection into the post-ban sample on an unobserved factor that is as different as Muslims' and non-Muslims' attitudes towards Americans would also have to increase the likelihood of being in the post-ban period by 0.23 standard deviations (for a standard deviation shift in the covariate) to induce confounding reducing our effect size by a quarter. We believe this sensitivity analysis demonstrates that it is unlikely that we would have a confounder large enough to substantively change our results.

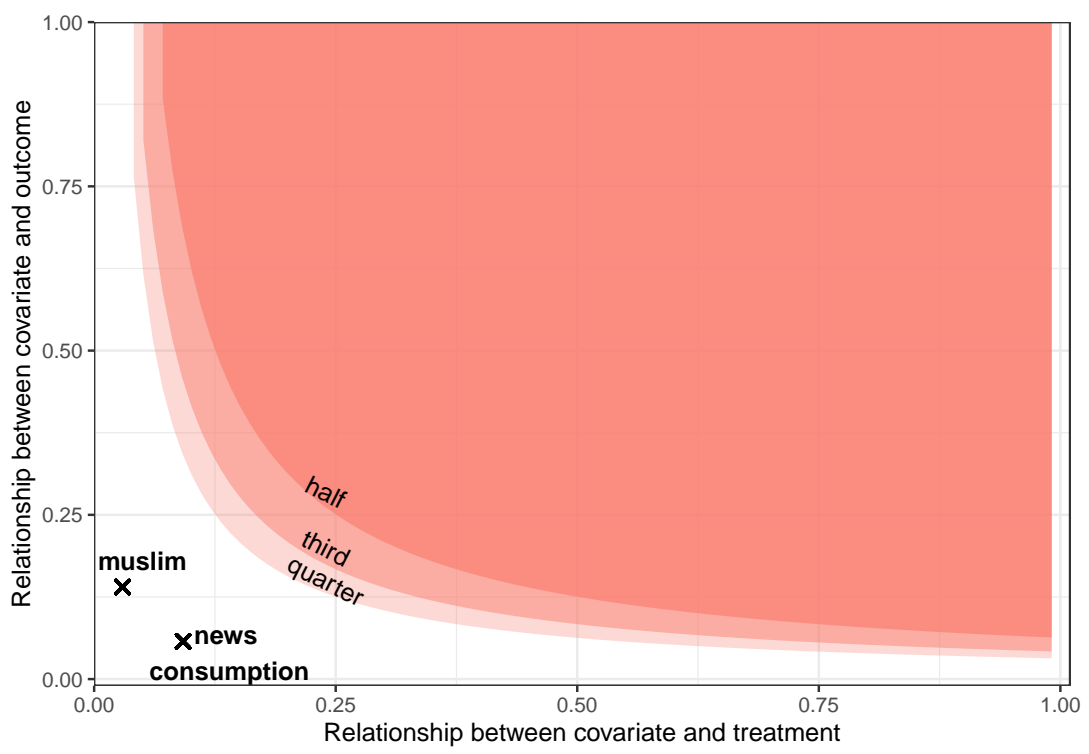


Figure G-1: Sensitivity to confounding

H. Difference in Satisfaction with Democracy between Expatriate and Afrobarometer Samples

We investigated how the Nigerian expatriates in our sample differs than Nigerians residing in Nigeria by contrasting their respective attitudes towards democracy in Nigeria. In both surveys, respondents were asked: “Overall, how satisfied are you with the way democracy works in Nigeria?” To make the two samples more comparable, we matched the groups on age, gender, and religion using propensity score matching. All 450 Nigerian expatriates who answered these demographic questions were matched to Afrobarometer respondents with similar characteristics.

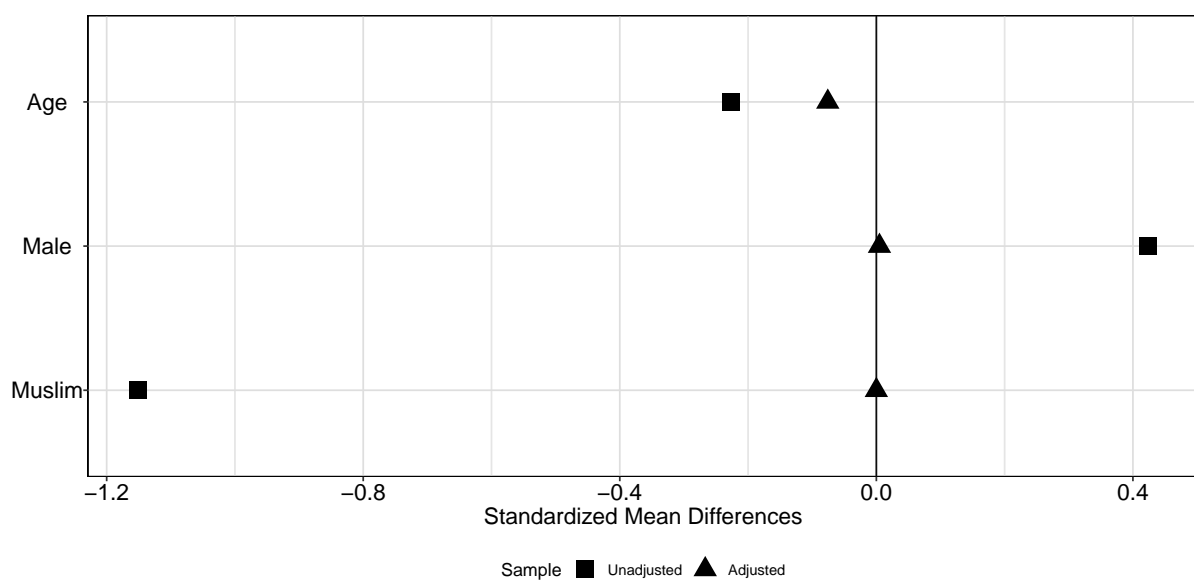


Figure H-1: Covariate balance before and after matching

With our matched sample, as seen in Table H-1, we performed both least squares and ordinal logistic regression to estimate differences in views on democracy between Nigerians who moved to Ghana (our sample) and those who remain in Nigeria (Afrobarometer sample). Figure H-2 visualizes results from our ordinal logistic regression and shows that those who left Nigeria (our Nigerians in Ghana sample) tend to be less satisfied with the quality of democratic governance in Nigeria than those in Nigeria with similar demographic profiles.

	OLS	Ordinal Logit
(Intercept)	3.00 [2.91; 3.10]	
Nigerians in Ghana	-0.78 [-0.93; -0.63]	-1.46 [-1.73; -1.19]
very satisfied fairly satisfied		-2.45 [-2.70; -2.20]
fairly satisfied not very satisfied		-0.58 [-0.76; -0.41]
not very satisfied not at all satisfied		0.63 [0.45; 0.81]
not at all satisfied not democracy		2.52 [2.19; 2.84]
R ²	0.12	
Adj. R ²	0.12	
Num. obs.	826	826
AIC		2333.05
BIC		2356.63
Log Likelihood		-1161.52
Deviance		2323.05

95% confidence intervals in parentheses.

Table H-1: Difference in satisfaction with democracy between Nigerians in Ghana and Nigerians in Nigeria

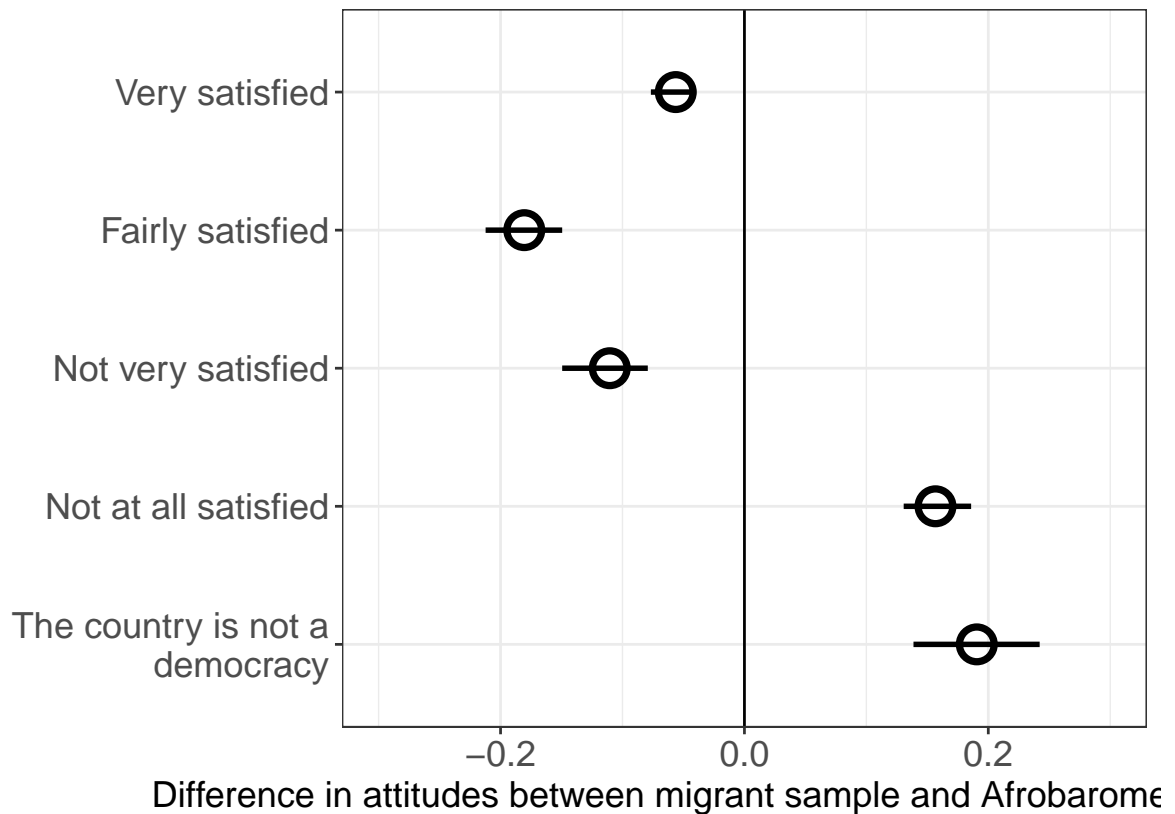


Figure H-2: Ordinal logistic regression of satisfaction with Nigerian democracy on sample (Nigerian participant living in Ghana versus Afrobarometer respondent). Point estimates are differences in predicted probabilities between the sample groups. Error bar represent 95% bootstrapped confidence intervals.

References

- Gray, Simon, and Ibikunle Adeakin. 2019. Nigeria's Shi'a Islamic Movement and Evolving Islamist Threat Landscape: Old, New and Future Generators of Radicalization. *African Security* 12 (2): 174–199.
- Imbens, Guido. 2003. Sensitivity to exogeneity assumptions in program evaluation. *American Economic Review* 93:126–132.
- Iroanusi, QueenEsther. 2020. U.S - Iran Crisis: Don't take sides, Nigerians urge Buhari administration. *Premium Times*.
- Onapajo, Hakeem. 2017. State Repression and Religious Conflict: The Perils of the State Clamdown on the Shi'a Minority in Nigeria. *Journal of Muslim Minority Affairs* 37 (1).
- Sanyaolu, Adewalu. 2020. US-Iran feud divides stakeholders on benefit to Nigeria. Section: Business, *The Sun*.
- Thurston, Alexander. 2020. Sectarian Triangles: Salafis, the Shi'a, and the Politics of Religious Affiliations in Northern Nigeria. *Politics and Religion*: 1–28.