SUPPLEMENTARY MATERIAL

PREFERENCES OVER FOREIGN MIGRATION
Testing Existing Explanations in the Gulf

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Supplementary Material

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A1 Sample and population

The survey sought to obtain a representative sample of Qatari citizens. I here compare sample demographics with available population level statistics. I find evidence that the survey population is generally representative of the Qatari population at the time of the survey. The largest disparity is with respect to education: the survey sample skews slightly more educated than the reported statistics for the general population.

Statistic	**ALFB 2012**[a]	**QLFS 2014**[b]	**Survey Sample**
Gender			
Female	0.50	0.51	0.52
Highest Level of Education Completed			
Less than primary	0.12	-	0.06
Primary	0.09	-	0.09
Preparatory	0.15	-	0.11
Secondary	0.30	-	0.31
Post-secondary	0.33	-	0.43
Employment			
In Labor Force	0.51	0.52	0.55
Unemployed (in labor force)	0.03	-	0.06

Table A1: Demographics of survey sample compared to Qatari citizen population. All data represent proportions of respondents or individuals with the given attribute.

[a] Annual Labor Force Bulletin, 2012. Ministry of Development Planning and Statistics.
[b] Quarterly Labor Force Survey, January-March 2014. Ministry of Development Planning and Statistics.

Demographic statistics are shown in Table A1. Population indicators were obtained from publications by the Ministry of Development Planning and Statistics. Note that these indicators, unless otherwise indicated, refer to all adult Qataris; however, the government definition of an adult is individuals age 15 and over, while the survey sampled individuals 18 and over. The sample was well-balanced with respect to gender, with 52% female respondents compared to 51% in the Qatari population. The survey sample was somewhat more educated than the true population, with fewer respondents with no or less than primary education (6% compared to 12% in the general population) and more respondents with post-secondary education (43% compared to 33%). Finally, the sample was reflective of average participation in the labor force, with a slightly higher rate of unemployment (6% compared to 3% of individuals active in the labor force).

A2 Balance test

The following table presents a balance check on the randomized treatment assignment. Respondent attributes are very similar across the two treatment categories, with only one variable (having non-Qatari coworkers) generating a significant difference.

	Blue-Collar	White-Collar	Difference (Std. Dev.)
Female	0.53	0.51	-0.02 (0.03)
Age	39.61	38.57	-1.03 (0.66)
Graduated High School	0.75	0.74	-0.01 (0.02)
Graduated College	0.31	0.31	-0.00 (0.02)
Attended University outside Qatar	0.11	0.11	-0.00 (0.02)
Household Income > QR30,000	0.69	0.68	-0.01 (0.02)
Religiosity	1.47	1.46	-0.01 (0.03)
In Labor Force	0.56	0.55	-0.01 (0.02)
Unemployed	0.04	0.03	-0.01 (0.01)
Has non-Qatari Coworkers	0.82	0.86	0.04* (0.02)
Has non-Qatari Friends	0.51	0.53	0.02 (0.03)
Missingness...			
on Age	0.01	0.01	-0.00 (0.01)
on High School	0.01	0.01	0.00 (0.01)
on College	0.01	0.01	0.00 (0.01)
on University outside Qatar	0.69	0.69	-0.01 (0.02)
on Household Income	0.15	0.15	0.00 (0.02)
on Religiosity	0.00	0.00	0.00 (0.00)
on Labor Force	0.02	0.01	-0.01 (0.01)
on Unemployment	0.46	0.46	-0.00 (0.02)
on non-Qatari coworkers	0.50	0.49	-0.01 (0.03)
on non-Qatari Friends	0.00	0.00	-0.00 (0.00)

Table A2: Balance Check. Table presents sample means for each treatment category and the difference in means with standard error shown in parentheses. Asterisks indicate significance at the $\alpha = 0.05$ level.

A3 Education and measures of skill and openness

I use respondents' level of education as a measure of their skill level in order to test the predictions of the labor market hypothesis in Section 6.1. In Table A3, I demonstrate that education is a plausible metric of skill in the Qatari context, as it is positively linked to other measures of career achievement. First, I find that education is a strong predictor of both respondents' personal (employment-derived) income and their likelihood of owning their own business. A unit increase in the binned education variable is associated with roughly a unit increase in monthly employment income; with the income scale used in the questionnaire, this corresponds to an additional 5000 Qatari rials, or around $1400 USD.[1] Similarly, a unit increase in education level is associated with a 3.6 percentage point increase in the probability that a respondent owns their own company. Though the survey instrument did not include questions identifying respondent occupation, these findings suggest that education is a good predictor of skill level in the Qatari labor market.

Though several studies have used the same approach, education is a bundled metric that may incorporate other factors that influence respondent attitudes toward migrants. In many western contexts, education is shown to predict more positive attitudes toward both high and low-skill migrants (Hainmueller and Hopkins, 2014); scholars generally attribute this to education's effect in increasing cultural tolerance of foreigners.[2] Yet for Qataris, education is, in general, associated with reduced support for migration (model 3 in Table A3). From the main text, we can see that the only category for which education predicts increasing support for migration is blue-collar workers among respondents in the labor force (Figure 2).

Why is education negatively associated with support for migration in the Qatari context? There are two related explanations suggested by the data. First, educational attainment may be associated with increasing awareness of the economic and cultural ramifications of migration in Qatar. Though Qatar is exceptionally wealthy, its high dependence on natural resources and foreign labor make future economic development Increasing education may give citizens a greater understanding of the potential economic pitfalls ahead. To that end, I find that level of education is

[1] Note that only individuals active in the labor force were asked about their personal employment income.

[2] Some scholars have raised concerns that, in tests of the labor market predictions elsewhere, the positive sociotropic effect of education can cause upwardly biased results (Malhotra, Margalit and Mo, 2013).

	Dependent variable:		
	Income	Own Company	Support for Migration
Education	1.023***	0.036***	−0.081***
	(0.065)	(0.006)	(0.028)
Controls	Yes	Yes	Yes
Observations	709	1,557	1,438
Adjusted R^2	0.335	0.068	0.018
Note:			*p<0.1; **p<0.05; ***p<0.01

Table A3: Education as a predictor of skill and attitudes toward migration. Coefficients from OlS regression with standard errors in parentheses. Independent variable is a six-point measure of education, ranging from no education to post-secondary degree. All models include controls for gender and age. Dependent variables are as follows: personal income (in increments of 5000 Qatari rials); company ownership; and support for migration.

associated with greater concern about Qatar's economic future (Table A4).[3] The second explanation is simply that the Qatari educational experience may instill less cultural tolerance than, for example, the western liberal arts university system. Contrary to expectations from other contexts, education does not predict positive feelings about the impact of foreign influence in Qatar.[4] Interestingly, this seems to be driven by the local education system: respondents that attended a university outside Qatar (including both Western universities as well as those elsewhere in the Arab world) were more supportive of foreign influence. Though it is beyond the scope of this paper to fully characterize the specifics of the Qatari education system, this implies it may instill a set of values and beliefs that are distinct from those in the western context. And the intriguing finding that education does not predict support for immigration in Qatar suggests an additional reason for diversifying the range of contexts in which we study these questions.

[3]The outcome variable, "Economic Outlook," assesses responses to the question "Over the next two years, do you expect the economic situation in Qatar to improve a lot, improve a little, remain the same, worsen a little or worsen a lot?" Responses are on a 5-pt scale with higher numbers indicating more optimism about Qatar's economic future.

[4]Exact question wording for the "Foreign Openness" outcome variable: "Some people say that the Qatari way of life needs to be protected against foreign influence. Would you say you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with this?" Higher values indicate an increasingly favorable view of foreign influence (i.e. disagreement with the statement of interest).

	Dependent variable:			
	Foreign Openness		Economic Outlook	
Education	−0.016	−0.028	−0.083***	−0.081***
	(0.017)	(0.018)	(0.015)	(0.016)
Attended Foreign College		0.160**		−0.021
		(0.069)		(0.065)
Controls	Yes	Yes	Yes	Yes
Observations	1,538	1,555	1,523	1,539
Adjusted R^2	0.001	0.003	0.023	0.023
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A4: Education and foreign education as a openness to foreign cultures and general economic outlook. Coefficients from OlS regression with standard errors in parentheses. Independent variable is a six-point measure of education, ranging from no education to post-secondary degree. All models include controls for gender and age. Dependent variables are as follows: level of concern about foreign influence on the Qatari way of life and expectations about the future economic situation in Qatar.

A4 Additional Analyses - Labor Market Hypothesis

A4.1 Probit analysis

In Table A5, I replicate models 3-7 from Table 1 of Hainmueller and Hiscox (2010), using an ordered probit specification to allow for nonlinearity in dependent variable response categories. As in Table 2, the dependent variable is support for migration, here included as an ordered factor with values from a large reduction to a large increase.

Results are consistent with the OLS specifications reported in the main text with respect to both sign and significance of coefficients. Model 1 reports the main treatment effect with controls for gender and age: the coefficient is again null and substantively small. Models 2 and 3 interact the white-collar treatment with education, both linearly and as an ordered factor variable. The next two models replicate the interaction with education on respondents active in the labor force (model 4) or outside it (model 5). Notably, for the subsample of respondents in the labor force, the interaction term is negative and significant: respondents in the labor force reveal decreasing support for white collar migrants with increasing levels of education. For those not active in the labor force, the interaction term is close to zero and insignificant. Finally, model 6 replicates the triple interaction in Table 2 to confirm the finding that the education-specific attitudes toward skilled migrants is significantly different for respondents in the labor force versus those outside it.

A4.2 Labor market analysis by gender

I conduct a split-sample test of the labor market hypothesis by respondent gender. In particular, I replicate the specification interacting treatment frame, education, and presence in the labor force (identical to that in Model 6 of Table 2) for the subset of male and female respondents, respectively.

The results of the split sample test are very similar to those shown in the main results. In particular, the coefficient of interest - that on the triple interaction - is negative for both subsets and is of similar sign and significance to the results in the main text. This suggests that the primary finding upholding the labor market prediction that working respondents with more education are more opposed to more skilled workers is not driven by gender. Though women are less likely to be

active in the labor force, and more opposed to migration than men (as evidenced by the negative constant in model 2), women in the labor force react to migrants based on their own level of education and the skill level of the migrant in question.

A4.3 Split-sample direct effects – Labor market participation

In Table A7, I report the effect of the white-collar treatment frame on subsets of respondents in (models 1 and 2) and out (models 3 and 4) of the labor force. Effects are reported with and without controls. As with the results in the main text, the coefficient on "white-collar" is small and insignificant in all specifications. Interestingly, the coefficient on education is negative and significant for respondents outside the labor force, but smaller in magnitude and insignificant for respondents in the labor force. This effectively reflects the net effect of the diverging preferences with regards to different classes of migrant (see Figure 2): though attitudes toward white-collar migration decline with increasing respondent education, attitudes toward blue-collar workers improve.

A4.4 Robustness – Labor market participation and education coding

The main analysis is conducted using a six-category education variable. In this section, I test whether the main findings with respect to the labor market hypothesis are sensitive to this education coding. I adopt two additional variants of the education variable. The first is a three-category measure that divides the sample roughly into thirds: sub-secondary (26%), secondary degree (31%), and university graduate or higher (42%). The second is a binary indicator for whether a respondent has a high school degree (the median and modal outcome within the sample). I then replicate models 3-5 from Table 2 using these alternative coding of education. The results are consistent with those in the main text: the triple interaction effect of WC x Employ x Edu is negative and significant with both measures. Likewise, in the split-sample tests, the interaction of WC x Education is negative and significant for the sub-sample of respondents in the labor force. These results reinforce the findings in the main text and suggest they are not an artifact of the specific coding scheme used.

	Dependent variable:					
	Support for Migration					
	(1)	(2)	(3)	(4)	(5)	(6)
White-Collar (WC)	0.038	0.170	0.060	0.687**	−0.141	−0.168
	(0.055)	(0.193)	(0.060)	(0.349)	(0.239)	(0.239)
Education (Edu)		−0.059*		0.030	−0.123***	−0.131***
		(0.034)		(0.057)	(0.045)	(0.045)
Secondary (Sec)			−0.140*			
			(0.077)			
Post-secondary (Post)			0.060			
			(0.088)			
BA or higher (BA)			−0.038			
			(0.094)			
In Labor Force (Labor)						−0.677**
						(0.310)
WC x Edu		−0.032		−0.154**	0.054	0.062
		(0.046)		(0.079)	(0.061)	(0.061)
WC x Sec			−0.044			
			(0.108)			
WC x Post			−0.043			
			(0.121)			
WC x BA			−0.118			
			(0.132)			
WC x Labor						0.822*
						(0.422)
Edu x Labor						0.163**
						(0.073)
WC x Edu x Labor						−0.209**
						(0.100)
Labor Force				In	Out	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,471	1,452	1,452	801	627	1,428
Note:						*p<0.1; **p<0.05; ***p<0.01

Table A5: Testing the Labor Market Hypothesis - Ordered Probit. Coefficients from ordered probit regression with standard errors in parentheses. All models include controls for gender and age (coefficients not shown). Base category for factored education is no high school diploma.

	Dependent variable:	
	Support for Migration	
	(1)	(2)
White-collar (WC)	−0.050	−0.107***
	(0.062)	(0.041)
Education (Edu)	−0.599*	−0.429
	(0.350)	(0.385)
In Labor Force (Labor)	−0.458	0.077
	(0.379)	(0.224)
WC x Edu	0.074	0.138*
	(0.078)	(0.080)
WC x Labor	0.110	0.013
	(0.089)	(0.055)
Edu x Labor	0.846*	1.029*
	(0.490)	(0.552)
WC x Edu x Labor	−0.188*	−0.246**
	(0.110)	(0.114)
Constant	0.311	−0.232
	(0.327)	(0.242)
Gender	Male	Female
Controls	Yes	Yes
Observations	676	740
Adjusted R^2	0.002	0.023
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table A6: Testing the Labor Market Hypothesis by Gender. Coefficients represent estimates from OLS regression on the primary outcome variable; positive coefficients indicate increased support for migration. Standard errors are shown in parentheses. Models include controls for respondent age in addition to reported coefficients. Model 1 is estimated on the subset of male respondents; model 2 is estimated on the subset of female respondents.

	Dependent variable:			
	Support for Migration			
	(1)	(2)	(3)	(4)
White-Collar (WC)	0.021	0.013	0.073	0.068
	(0.083)	(0.083)	(0.100)	(0.098)
Gender		-0.203^{**}		-0.477^{***}
		(0.087)		(0.110)
Age		-0.002		0.002
		(0.004)		(0.003)
Education (Edu)		-0.041		-0.112^{***}
		(0.044)		(0.038)
Constant	-0.270^{***}	0.050	-0.279^{***}	0.408
	(0.058)	(0.261)	(0.071)	(0.257)
Labor Force	In	In	Out	Out
Observations	836	836	635	635
Adjusted R^2	-0.001	0.003	-0.001	0.039
Note:				*p<0.1; **p<0.05; ***p<0.01

Table A7: White-Collar Treatment Frame - In/Out of Labor Market. Coefficients represent estimates from OLS regression on the primary outcome variable; positive coefficients indicate increased support for migration. Standard errors are shown in parentheses. Models 1 and 2 are estimated on the subset of respondents in the labor force; models 3 and 4 are estimated on the subset of respondents outside the labor force.

	Dependent variable:					
	Support for Migration					
	(1)	(2)	(3)	(4)	(5)	(6)
White-Collar (WC)	0.611**	−0.143	−0.157	0.540**	−0.084	−0.092
	(0.282)	(0.263)	(0.256)	(0.218)	(0.164)	(0.160)
Education (3-pt)	0.059	−0.266***	−0.272***			
	(0.085)	(0.092)	(0.090)			
Education (High School)				0.185	−0.487***	−0.502***
				(0.169)	(0.152)	(0.147)
In Labor Force			−0.757***			−0.601***
			(0.278)			(0.200)
WC x Edu-3	−0.260**	0.112	0.119			
	(0.120)	(0.130)	(0.127)			
WC x Labor			0.763**			0.620**
			(0.385)			(0.273)
Edu-3 x Labor			0.341***			
			(0.125)			
WC x Edu-3 x Labor			−0.376**			
			(0.176)			
WC x Edu-HS				−0.617***	0.235	0.248
				(0.235)	(0.205)	(0.201)
Edu-HS x Labor						0.716***
						(0.224)
WC x Edu-HS x Labor						−0.852***
						(0.312)
Constant	−0.257	0.427	0.394*	−0.253	0.359	0.290
	(0.256)	(0.265)	(0.230)	(0.233)	(0.227)	(0.184)
Labor Force	In	Out		In	Out	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	825	627	1,452	836	635	1,471
Note:						*p<0.1; **p<0.05; ***p<0.01

Table A8: Labor Market Hypothesis - Alternate Education Coding. Coefficients represent estimates from OLS regression on the primary outcome variable; positive coefficients indicate increased support for migration. Standard errors are shown in parentheses. Models 1-3 use a 3-category coding of education; models 4-6 include a binary indicator for whether respondent was a high school graduate.

A5 Mediation analysis specifications

Table A9 presents results from estimating equations 1 and 2 on the six proposed mediators to identify constituent terms of the indirect effect transmitted by each mediating variable. Models (1) - (6) generate estimates of the effect of the white-collar frame on mediators (a_j), while model (7) identifies the relative contribution of each mediator to respondents' preferences over migration (b_j), taking into account treatment assignment as well as a battery of controls. Together, output from these models allows for estimation of mediated effects $a_j b_j$, reported in Figure 3.

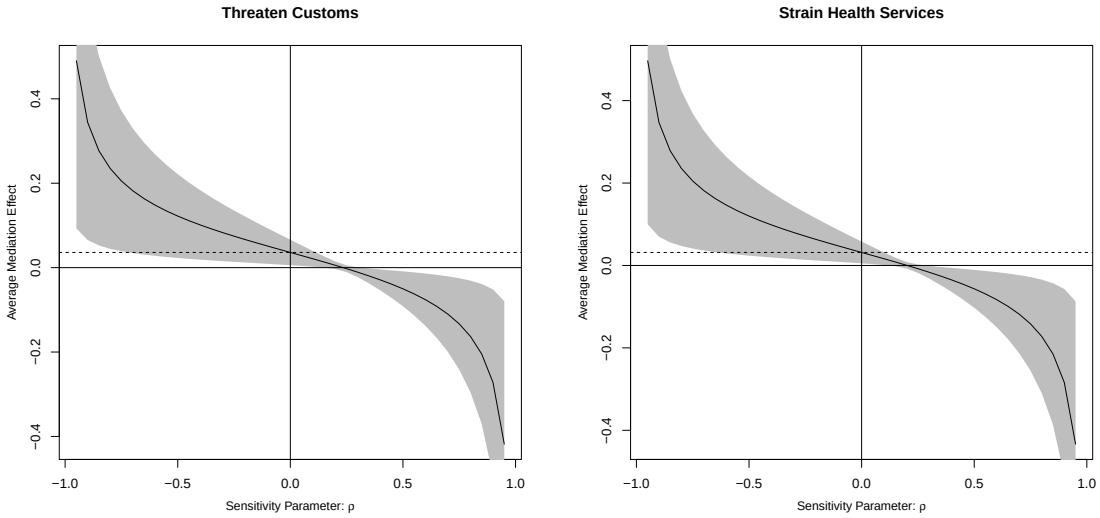
	Equations 1a-1f						Equation 2
	Customs	Non-Arab	Health Services	Resources	Social Services	Take Jobs	Support for Migration
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
White-Collar	0.140***	−0.022	0.152***	0.108**	−0.279***	−0.427***	0.047
	(0.052)	(0.049)	(0.053)	(0.054)	(0.052)	(0.058)	(0.066)
Customs							0.114***
							(0.034)
Non-Arab							0.065*
							(0.035)
Health Services							0.047
							(0.035)
Resources							0.110***
							(0.031)
Social Services							0.145***
							(0.037)
Take Jobs							0.086**
							(0.039)
Constant	1.854***	1.651***	1.894***	2.591***	2.482***	2.618***	−1.267***
	(0.037)	(0.034)	(0.038)	(0.038)	(0.037)	(0.041)	(0.228)
Controls	No	No	No	No	No	No	Yes
Observations	1,579	1,573	1,576	1,536	1,524	1,569	1,381
Adjusted R^2	0.004	−0.001	0.005	0.002	0.018	0.032	0.108
Note:							*p<0.1; **p<0.05; ***p<0.01

Table A9: Mediation Analysis. Coefficients represent estimates from OLS regression on the specified outcome variable. Models 1-6 present basic treatment effects without controls. Model 7 includes controls for respondent gender, age, level of religiosity, employment status, education, and whether or not respondent has non-Qatari friends. Standard errors are shown in parentheses.

A6 Sensitivity testing for mediation analysis

In this section, I examine the dependence of the results in Figure 3 on the sequential ignorability assumption - that is, that there are no unobserved confounders influencing both mediating and outcome variables. Per Imai, Keele and Yamamoto (2010), I conduct a test to examine the sensitivity of results to violations of this assumption. Define ρ_j as the correlation in error terms from equations 1 and 2 for each mediating variable. One implication of the required assumption is that, in the absence of confounders, $\rho_j = 0$. I examine the dependence of results on this strict assumption by varying ρ_j from -1 to 1 and examining the resulting ACME and 95% confidence interval. I conduct this test on each of the mediating variables for which a significant effect was found, using the medsens function from the mediate package in R.

Results are shown in Figure A1. For the mediator "threaten customs," the estimated ACME remains positive for $\rho \in [-1, 0.25)$, and significant at the $\alpha = 0.05$ level for $\rho \in [-1, 0.20)$. For "strain health services," the ACME is positive for $\rho \in [-1, 0.20)$ and significant for $\rho \in [-1, 0.15)$. Finally, for "take jobs from Qataris," the ACME is negative and significant for $\rho \in [-1, 0.20)$. Collectively, these results suggest that the findings presented in Section 6.2 are somewhat robust to violations of the sequential ignorability assumption. In particular, they hold so long as error terms are negatively correlated, or have a relatively small positive correlation. Though this implies a relaxation of the strict sequential ignorability assumption, I nevertheless prefer to consider the findings with respect to indirect effects as suggestive rather than conclusive causal evidence. A follow-on study might seek to more directly study the mediated relationships by experimentally manipulating the mediators themselves.



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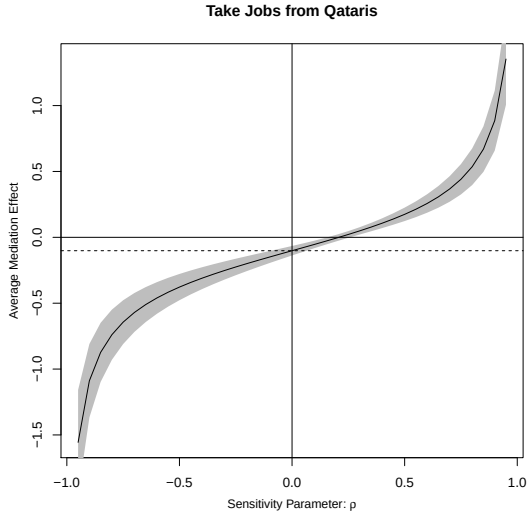
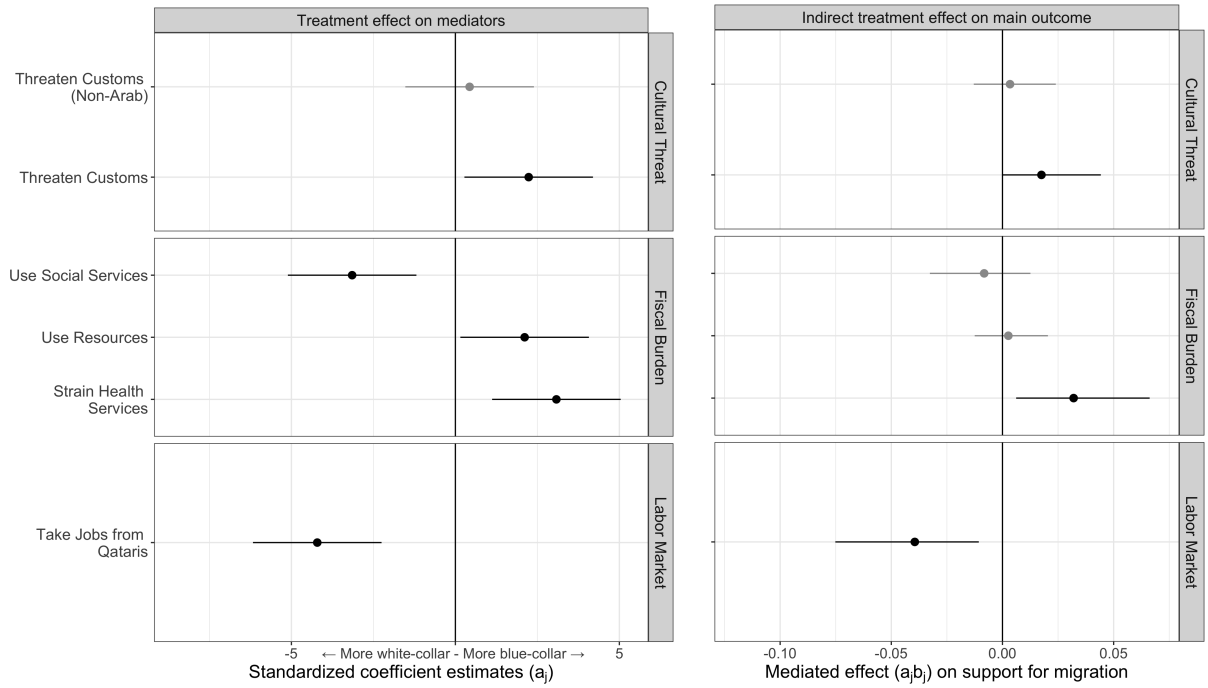


Figure A1: Sensitivity analysis for the mediation results in Section 6.2. Solid lines represent the estimated ACME for the given mediator under different values of ρ, the correlation in error terms from equations 1 and 2. The gray area indicates the 95% confidence interval around the ACME estimate, and the horizontal dotted line indicates the estimated ACME at $\rho = 0$.

A7 Mediation Analysis by Respondent Education

The mediation analysis in the main text is conducted on the full sample of respondents. Though I control for respondent attributes, I do not model interaction effects with the proposed mediators of interest. Yet it is plausible that individual attributes make certain sociotropic concerns more salient for the respondent – that is to say, if a respondent is worried about her own job prospects, she is more cognizant of the problems facing Qataris as a group. To address this possibility, I have replicated the mediation analysis in Figure 3 on subsamples split by respondent education level (Figure A2). Overall, the results reinforce the findings in the main text – the sign/direction of both direct and mediated effects is generally consistent with those in Figure 3. For Qataris with less education (defined in this case as secondary or below – top panel), concern about blue-collar migration is shaped by the fear that such workers threaten customs and strain health services. Likewise, as with results in the main text, they view white-collar migration as a threat to Qatari jobs – suggesting that even individuals who are not directly competing with white-collar workers see them as posing a sociotropic labor threat. For Qataris with more education (post-secondary and above – bottom panel), the emphasis on jobs as a differentiator is more stark. Though they view white-collar workers as using social services as well as taking jobs from Qataris, only the job effect is significant in predicting migration preferences (and has the largest magnitude of any of the mediated effects).

a) Subsample - Low Education (n = 926)



b) Subsample - High Education (n = 670)

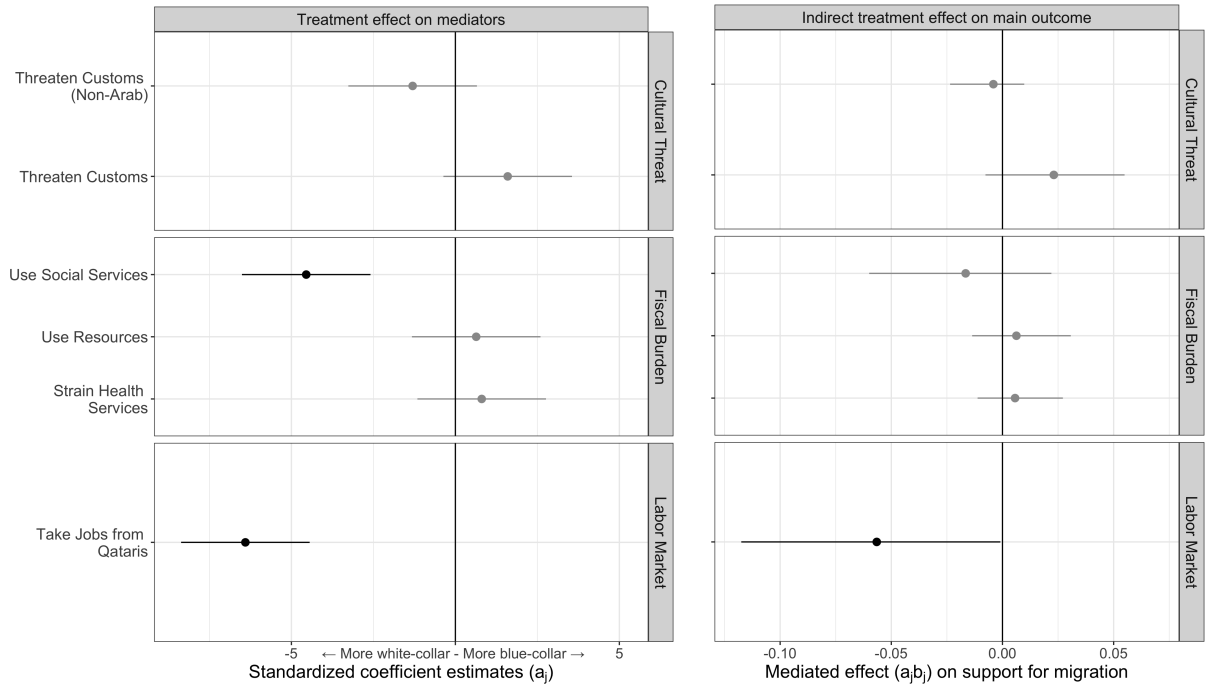


Figure A2: Mediation Analysis by Respondent Education. Figure depicts effects of white collar treatment frame on mediators (left panel) and estimates of mediated (indirect) effects from multiple mediator analysis (right panel) for respondents with low or high education (top and bottom panels, respectively).

A8 Foreign Migration: Relative Size and Respondent Attitudes

The fact that the labor market predictions find support in the Qatari context but have failed in other settings raises the question of what aspects of the Qatari experience make individualized labor market competition a more salient consideration. One interpretation discussed in the main text is that Qataris' high degree of personal exposure to foreign migrants – experienced through their extensive permeation of the labor force – make personal employment a more salient concern. In other words, because all sectors have foreign workers, instead of needing to use a "magnifying glass" to examine specific sectors with high foreign exposure (Malhotra, Margalit and Mo, 2013), we can see the effects of labor market competition across the broader population.

This explanation is certainly plausible, given the particulars of the Qatari labor market: foreign workers are a majority in both public and private sectors. Yet does this predict attitudes on a cross-national basis? Existing data makes it challenging to test such a proposition; cross-national surveys do not include the particular high/low-skill framing that is important for the relevant hypotheses. Likewise, global coverage is sometimes lacking. For example, Facchini and Mayda (2009) use 1995 ISSP survey on national identity to test fiscal exposure predictions; yet this wave includes only one Global South country – the Philippines – out of twenty-three surveyed. More recent studies have gathered a more representative cross-section of data yet lack the specific questions required for identification.

Though it is not possible to test the labor market predictions specifically on a cross-national basis, I offer evidence that exposure in the form of a greater proportional number of foreign migrants is linked to concerns about those migrants' impact on the labor market – though not to increased opposition to migration in general. I use data from Round 7 of the World Values Survey (WVS), administered from 2017-2020, which asks respondents in 51 countries about their attitudes toward and perceptions about the effects of migration in their country. I combine this with UN estimates of the migrant population in the given country – specifically, the migrant population as a percentage of the total population in 2019. The WVS covers a broad subsection of the globe. In Figure A3, I show the distribution on the migrant population variable for all countries and territories included in the UN statistics (top panel) and for the countries included in the WVS sample (bottom panel).

The comparison demonstrates that the WVS sample broadly reflects global trends. Additionally, it demonstrates that the distribution of the migrant population is right-skewed: the majority of states host a small number of migrants relative to total population, yet roughly a quarter of UN-recognized states and territories host a large (greater than 20%) minority or even majority bloc of foreigners. At the highest end, these comprise primarily lower-population countries with strong economies, including GCC states, small European principalities such as Liechtenstein and Luxembourg, and wealthy East Asian regions such as Macau and Singapore, as well as a number of island nations in the Caribbean and elsewhere.

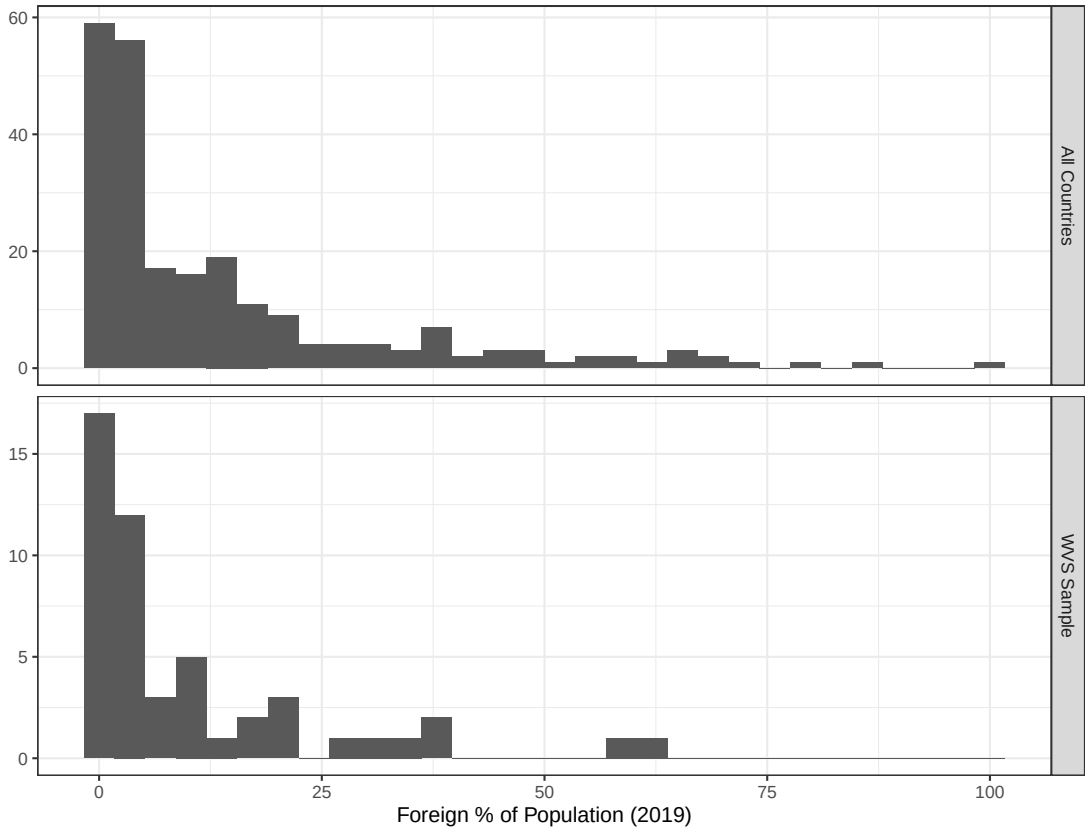


Figure A3: Distribution of foreign migrants as a percentage of total population, 2019 - Global (top panel) and WVS Round 7 (bottom panel). Data on international migrant stock from the UN Population Division, Department of Economic and Social Affairs.

Though the WVS data do not facilitate a direct test of the labor market predictions,[5] they

[5]Unfortunately, the WVS questionnaire does not distinguish between migrants of different skill levels or active in different sectors, which prevents a heterogeneous analysis relative to respondent characteristics.

include a number of questions about respondent perceptions of foreign migrants and their local impact. In Table A10, I use OLS regression to look at the link between the state-level migrant population and respondent attitudes. Because of the skewness of the distribution on the IV (Figure A3), I measure migrant population as a raw percentage and as a log transform. In all models, I control for respondent characteristics (gender, age, and education level), country population, and region fixed effects. Standard errors are clustered at the country level.

	Dependent variable:					
	Favors Migration Restrictions		Migrants Increase Unemployment			
	(1)	(2)	(3)	(4)	(5)	(6)
Migrant % of Pop	0.001		0.007**		0.007**	
	(0.003)		(0.003)		(0.003)	
Log Migrant %		0.003		0.077***		0.076***
		(0.022)		(0.025)		(0.026)
Unemployed			0.020	0.020	−0.023	0.002
			(0.028)	(0.026)	(0.031)	(0.030)
Migrant % x Unemployed					0.007***	
					(0.002)	
Log Migrant % x Unemployed						0.022
						(0.018)
Controls	✓	✓	✓	✓	✓	✓
Observations	65,493	65,493	68,559	68,559	68,559	68,559
Adjusted R^2	0.029	0.029	0.057	0.064	0.057	0.064
Note:						*p<0.1; **p<0.05; ***p<0.01

Table A10: Attitudes toward migrants as a function of migrant population. Table includes output from OLS regression of migrants perceptions on country-level migrant population as a percentage of total population. All models include controls for respondent attributes (age, gender, and education), country population, and region fixed effects. Standard errors are clustered in all cases at the country level.

I first look at whether the relative size of the migrant population conditions attitudes toward migration policy (models 1 and 2). I find that while migrant population is associated

with increasing support for restrictions,[6] the coefficient is small and insignificant in both normal and logged specifications. In other words, it is not the case that a proportionately larger migrant population induces mass opposition to foreign workers – perhaps reflecting an awareness of those workers' importance for the local economy.

I next test the proposition that increasing the proportion of migrants increases sensitivity to their effect on the local job market, using responses to the question "From your point of view, what have been the effects of immigration on the development of [this country]? Increases Unemployment [0. Disagree/1. Hard to say/2. Agree]." The results (models 3 and 4) suggest that more migration leads to increasing concern about the native job market; respondents in countries with a proportionately larger migrant population are more likely to believe migrants contribute to unemployment. The effects are positive and significant on both the raw and log transformed IV.

A direct test of the labor market hypotheses in the manner used in the main text is not possible using WVS data, which did not differentiate attitudes toward migrants of different skill levels. However, I attempt to examine possible heterogeneous effects based on respondent vulnerability in the labor market. In models 5 and 6, I report the results from an interaction model of migrant population and respondent unemployment. In both specifications, the base effect on migrant population (i.e. the effect among employed respondents, or those outside the labor force) is positive and significant. The interaction term is also positive, and significant in the specification with raw migrant percentage, suggesting that the migrant population effect is increased among unemployed respondents.

This analysis is descriptive and is intended to serve as suggestive evidence that respondent attitudes toward migrants – and especially on considerations related to the job market – vary as a function of the relative size of the migrant population. Though, admittedly, this is a quite different test than the one in the main text, the results suggest that a) a larger migrant population is associated with increasing concerns about the job market and b) this effect is sensitive to respondents' own vulnerabilities within the labor force.

[6]The exact WVS question wording was as follows: "How about people from other countries coming here to work: which one of the following do you think the government should do? [1. Let anyone come who wants to/2. Let people come as long as there are jobs available/3. Place strict limits on the number of foreigners who can come here/4. Prohibit people coming here from other countries]."

A9 Data Usage and IRB

The data used in the analyses in the main text come from a restricted access dataset collected by the Social and Economic Survey Research Institute (SESRI) at Qatar University and provided in de-identified form to the author. The data usage agreement (DUA) governing access and usage is documented in this section. Additionally, the protocol for data use and security for this study was reviewed and approved by the Columbia University Institutional Review Board, protocol number IRB-AAAO8450.

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QATAR UNIVERSITY

SESRI

Social and Economic Survey Research Institute – Qatar University

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To request data[1] from the Social and Economic Survey Research Institute, Qatar University, please complete all parts of this application. **Incomplete applications will not be processed.**

1. Applicant[2] / investigator information

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Email	

[1] *DATA* are the data files and materials provided by SESRI, any copies or backups of those files and materials, and any product (whether electronic, hard copy, or otherwise) derived from them.

[2] The *APPLICANT* is the individual who serves as the primary point of contact for all communications involving the application and any resulting agreement. The applicant must hold a permanent faculty appointment at his/her institution and assumes all responsibility for compliance with all terms of any resulting agreement.

[3] The *INSTITUTION* is the organization employing the *APPLICANT*. The Institution must have an Institutional Review Board/Human Subjects Review Committee either in the State of Qatar or outside it. Contact information of the Review Board/Human Subjects Review Committee must be provided.

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Fax number (please include country code if outside Qatar)	

2. **Requested Data**

Name of Survey	QATARIS' ATTITUDES TOWARDS FOREIGN WORKERS
Year of Survey	2012
List of Variables	I'd like to get all available variables except those (if any) with identifying information about survey respondents.
Any Other Specifications or descriptions you would like to provide	

3. **Use of Requested Data:**

Please Indicate what the data will be used for	1. **classroom teaching** 2. **student research project associated with grant** 3. **student research associated with class** 4. **personal research** 5. **other, please describe in detail**_____ Student Research associated with class/ Personal research
Who will this data be shared with? **PLEASE NOTE THAT EVERY PERSON LISTED HERE MUST BE A SIGNATORY TO THIS AGREEMENT**	1. **Co-investigators:** **Please list names, titles, and contacts of all co-investigators who will have access to the data** 2. **QU Students:** **Please list names, student IDs, and contacts of all QU students who will have access to the data**

	3. **Any other party:** **Please give names, titles, contacts, and reasons for sharing requested data with any other party** Microdata will not be shared with any other individuals. Any results will be presented only in the aggregate.
What is your substantive area of expertise?	Political Science/Political Economy

4. AGREEMENT:

By signing below, you agree and commit to the following:

1. The Investigator (applicant) shall ensure that only Permitted Users (i.e. the users declared and approved in this form, including the Investigator) may access the data and that data will be used solely for scientific and public policy research, and not for any administrative or law enforcement purpose.
2. The Investigator (applicant) shall supervise the use of the data by Permitted Users' to ensure that their use of data conforms to all articles listed in this agreement.
3. The Investigator (applicant) shall maintain physical control of the data at all times and shall ensure that each Permitted User follows the security precautions set forth in this agreement
4. Each Permitted User shall use the data to generate only statistical summary information that does not permit the identification, either directly or inferentially, of any individual person, family, or household.
5. Each Permitted User shall not make any attempt to identify any individual person, family, household, or employer. If any Permitted User inadvertently identifies an individual person, family, household, or employer or discovers a technique for doing so, the Permitted User shall promptly report the identification or discovery to SESRI but shall not reveal it to any other person who is not a Permitted User under this Agreement.
6. In any presentations or publications, Investigators (applicant) and Research Staff will use only statistical information that does not permit the identification of any individual person, family, household, or employer.
7. The Investigator (applicant) and Research Staff agree to exclude from any type of publication or presentation the listing and description of individual cases, as well as data or quotations from individual cases.
8. The Investigator (applicant) and Research Staff will not present the results of any analysis that could potentially identify respondents, either directly or indirectly.
9. Only aggregate statistical data may be distributed.
10. Cell sizes, marginal data, and strata must be of sufficient size to avoid disclosure.
11. the Investigator will ensure that the data will be stored securely (including electronic files, printouts, notes, removable storage devices, portable media, and backups) and will be transmitted between authorized users in a secure manner (this does not include email or internet transfer)
12. Each Permitted User, individually or through the Investigator, shall submit to SESRI copies of all publications that make use of the data.
13. Any publication that makes use of the data must acknowledge SESRI, and its funders, as appropriate, as the source of the data. .
14. Changes to this Agreement require prior written SESRI approval and are at SESRI' sole discretion.
15. nobody can be added to this agreement without the pre-approval of SESRI

Name (in print) Erin York

Signature E—L

Date December 18, 2014

Institution must sign off: ~~**Dean of the College**~~ Department Chair V. Page Fortna, 12/23/14

data management plan: how do you plan to store the data physically and in the computer

I am applying for access to the data for only myself. I will store the data on my laptop, which is always kept in a secure location, and to which a password is required for access. If further security measures are required, I am happy to discuss additional procedures.

Abdulaye Sing

Jan 13, 2015

SESRI
معهد البحوث الاجتماعية والاقتصادية المسحية
The Social & Economic Survey Research Institute

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