**Supplemental Appendix**

The Appendix provides additional details about the study not included in the main article due to word space limitations. Below, the appendix provides: (A) a codebook of survey questions for the dependent and independent variables; (B) descriptive statistics on independent and dependent variables; (C) robustness checks; (D) Predicted probabilities of the support for regularization with each theorized threat (economic, cultural, security and crime); (E) A discussion of possible social desirability bias in the survey.

**Appendix A: Codebook of Survey Questions**

**Table A1. Dependent Variable**

|  |  |  |
| --- | --- | --- |
| **Column 1** | **Column 2** | **Column 3** |
| **Variable Label** | **Dependent Variable Name** | **Definition and Coding** |
| var91 | Support for Morocco’s Regularization Campaign for Clandestine Migrants | - Recently, campaigns were launched to regularize some refugees and migrants living in Morocco without approval. About 40,000 were regularized. How much did you agree with these campaigns?  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |

*Note*: This question had a response rate of 94.9 percent, before independent variables were added into the model. While such a response rate may seem high for scholars accustomed to public opinion polling in the United States or Western Europe or online surveys, such response rates are not unusual for house-to-house polls conducted in the MENA region.[[1]](#footnote-1)

**Table A2. Description of how Independent Variables were constructed and coded**

|  |  |  |
| --- | --- | --- |
| **Column 1** | **Column 2** | **Column 3** |
| **Variable Label** | **Independent Variable Name** | **Definition and Coding** |
| var14 | Perceived labor market threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: Refugees and migrants generally take jobs away from Moroccan workers rather than helping to create new jobs.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var23 | Perceived fiscal threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: Refugees and migrants use more public services than they pay in taxes.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var15 | Perceived economic threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: It is generally bad for the Moroccan economy to allow refugees and migrants to live in Morocco.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var16 | Perceived cultural threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: Morocco’s cultural way of life is generally undermined by refugees and migrants.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var18 | Perceived terrorism threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: Morocco’s security is threatened by refugees and migrants. They could increase terrorism.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var19 | Perceived crime threat from migrants | - Do you Agree Strongly, Agree, Neither Agree nor Disagree, Disagree, or Disagree Strongly with these statements: Morocco's crime problem is worsened by refugees and migrants.  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var98 | Ideology on cultural identity (pan- Arabism) | - Generally speaking, how much do you generally agree with or support a political party or group with this type of ideology or belief system? - A party or group with a pan-Arab ideology  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var99 | Ideology on cultural identity (pan- Africanism) | - Generally speaking, how much do you generally agree with or support a political party or group with this type of ideology or belief system? - A party or group with a pan-African ideology  - 1: Disagree strongly; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Agree strongly |
| var3 | Gender | - Sex: (1) Male (2) Female |
| var2 | Age | - What is your age? |
| var102 | Education level | - What is your level of education? (1) illiterate (2) Primary education (3) Middle school education (4) some high school (5) high school diploma (6) University education (or greater) |
| var107 | Income | - How much approximately is your family’s monthly income? (1) Less than 2500 dirhams; (2) Between 2500 dirhams and 5000 dirhams; (3) Between 5000 dirhams and 10,000 dirhams; (4) More than 10,000 dirhams |
| var144 | Unemployed | - Are you employed currently? (1) Yes; (2) No |
| var117 | Family origin | - Which of the following expressions best describes your family’s origins? (1) Arab; (2) Amazigh; (3) Mixed Arab-Amazigh; (4) Black Moroccan |
| var132 | Religiosity | - To what extent do you do these activities: Pray daily  - 1: Never; 2: Rarely; 3: Sometimes; 4: Usually |
| var133 | Religiosity | - To what extent do you do these activities: Fast during Ramadan  - 1: Never; 2: Rarely; 3: Sometimes; 4: Usually |
| var134 | Religiosity | - To what extent do you do these activities: Listen to religious lectures at Mosque  - 1: Never; 2: Rarely; 3: Sometimes; 4: Usually |
| var135 | Religiosity | - To what extent do you do these activities: Read or Listen to the Koran  - 1: Never; 2: Rarely; 3: Sometimes; 4: Usually |
| var136 | Religiosity | - To what extent do you do these activities: Pray the morning *fajr* prayer on time  - 1: Never; 2: Rarely; 3: Sometimes; 4: Usually |

**Appendix B: Descriptive statistics**

**Table B1. Descriptive statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Number of observations | Mean | Standard deviation | Minimum | Maximum |
| Support for the regularization program | 1,424 | 3.37 | 1.18 | 1 | 5 |
| Labor market threat: Migrants take jobs | 1,427 | 3.57 | 1.19 | 1 | 5 |
| Fiscal threat: Migrants use public services | 1,291 | 3.61 | 1.23 | 1 | 5 |
| Economic threat: Migrants are bad for the Moroccan economy | 1,404 | 3.14 | 1.24 | 1 | 5 |
| Cultural threat: Migrants undermine culture | 1,425 | 2.97 | 1.26 | 1 | 5 |
| Pan-Arab ideology | 1,245 | 0.23 | 0.42 | 0 | 1 |
| Pan-African ideology | 1,245 | 0.12 | 0.32 | 0 | 1 |
| Security threat: Migrants threaten security | 1,443 | 2.87 | 1.25 | 1 | 5 |
| Security threat: Migrants worsen crime | 1,478 | 3.20 | 1.29 | 1 | 5 |
| Female | 1,500 | 0.50 | 0.50 | 0 | 1 |
| Age | 1,500 | 48.80 | 13.75 | 19 | 78 |
| Education level | 1,500 | 3.84 | 1.81 | 1 | 6 |
| Income | 1,315 | 2.33 | 0.90 | 1 | 4 |
| Unemployed | 1,500 | 0.42 | 0.49 | 0 | 1 |
| Arab/Mixed | 1,500 | 0.78 | 0.41 | 0 | 1 |
| Black Moroccan | 1,500 | 0.14 | 0.35 | 0 | 1 |
| Religiosity | 1,496 | 3.24 | 0.59 | 1 | 4 |

**Appendix C: Robustness checks**

We run additional robustness check models and report the results. First, migrants to a certain country tend to have a lower level of education and skill.[[2]](#footnote-2) Thus, native citizens with a lower education or skill level are found to be more concerned about the labor market effect of migration and thus more opposed to migration.[[3]](#footnote-3) Thus, we add an interaction term of labor market threat and education level in model 1 of Table C1 to see whether the labor market threat effect falls particularly on people with a lower education level, but no significant interactive effect is found.

Second, literature disagrees on whether the fiscal burden effect falls equally on the rich and the poor. On the one hand, the concern on the fiscal effect of migration may activate negative attitudes toward migrants among the rich more strongly because these people expect that their tax burden would be increased.[[4]](#footnote-4) On the other hand, poorer native citizens may believe that they have to compete with increasing number of migrants over social services, and this may cause benefit cuts that limit their access.[[5]](#footnote-5) However, the statistically insignificant coefficient of the interaction term of fiscal threat and income level in model 2 of Table C1 implies that the fiscal threat effect does not fall exclusively on either the rich or the poor.

**Table C1. Robustness checks**

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| ***Labor market threat: Migrants take jobs*** | 0.01 | -0.03 |
|  | (0.14) | (0.07) |
| ***Labor market threat*** x Education | -0.01 |  |
|  | (0.03) |  |
| ***Fiscal threat: Migrants use public services*** | -0.06 | -0.12 |
|  | (0.07) | (0.16) |
| ***Fiscal threat*** x Income |  | 0.02 |
|  |  | (0.06) |
| ***Economic threat: Migrants are bad for the Moroccan economy*** | -0.15\*\* | -0.15\*\* |
|  | (0.07) | (0.07) |
| ***Cultural threat: Migrants undermine culture*** | -0.17\*\*\* | -0.17\*\*\* |
|  | (0.06) | (0.06) |
| ***Security threat*** |  |  |
| ***Migrants threaten security*** | -0.11\* | -0.11\* |
|  | (0.06) | (0.06) |
| ***Migrants worsen crime*** | -0.12\* | -0.13\* |
|  | (0.07) | (0.07) |
| Female | 0.23\* | 0.22\* |
|  | (0.12) | (0.12) |
| Age | -0.00 | -0.00 |
|  | (0.00) | (0.00) |
| Education level | 0.04 | 0.01 |
|  | (0.12) | (0.04) |
| Income | 0.26\*\*\* | 0.17 |
|  | (0.07) | (0.22) |
| Unemployed | 0.01 | 0.02 |
|  | (0.13) | (0.13) |
| Arab/Mixed | 0.39 | 0.40 |
|  | (0.24) | (0.24) |
| Black Moroccan | 1.11\*\*\* | 1.10\*\*\* |
|  | (0.28) | (0.28) |
| Religiosity | 0.15 | 0.14 |
|  | (0.11) | (0.11) |
| Cut point1 | -3.33\*\*\* | -3.69\*\*\* |
|  | (0.77) | (0.81) |
| Cut point2 | -1.48\* | -1.84\*\* |
|  | (0.76) | (0.80) |
| Cut point3 | -0.96 | -1.31\* |
|  | (0.76) | (0.79) |
| Cut point4 | 1.55\*\* | 1.19 |
|  | (0.76) | (0.80) |
| **-2 x Log likelihood** | 2668.9 | 2668.8 |
| **Number of observations** | 1,029 | 1,029 |

*Note:* Positive coefficients denote higher support for migrant regularization; negative ones denote opposition; Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Appendix D: Predicted probabilities**

**Table D1. Economic threat and predicted probabilities of the support for regularization**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Economic threat | Attitudes toward regularization | | | | |
| Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
| Strongly disagree | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 |
| Disagree | 0.16 | 0.18 | 0.20 | 0.22 | 0.24 |
| Neither agree nor disagree | 0.10 | 0.11 | 0.11 | 0.12 | 0.13 |
| Agree | 0.53 | 0.52 | 0.50 | 0.48 | 0.46 |
| Strongly agree | 0.17 | 0.15 | 0.13 | 0.12 | 0.10 |

**Table D2. Cultural threat and predicted probabilities of the support for regularization**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Cultural threat | Attitudes toward regularization | | | | |
| Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
| Strongly disagree | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 |
| Disagree | 0.17 | 0.18 | 0.20 | 0.22 | 0.24 |
| Neither agree nor disagree | 0.10 | 0.11 | 0.12 | 0.12 | 0.13 |
| Agree | 0.53 | 0.51 | 0.50 | 0.48 | 0.46 |
| Strongly agree | 0.17 | 0.15 | 0.13 | 0.12 | 0.10 |

**Table D3. Security threat and predicted probabilities of the support for regularization**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Security threat | Attitudes toward regularization | | | | |
| Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
| Strongly disagree | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 |
| Disagree | 0.17 | 0.19 | 0.20 | 0.22 | 0.24 |
| Neither agree nor disagree | 0.11 | 0.11 | 0.12 | 0.12 | 0.12 |
| Agree | 0.52 | 0.51 | 0.50 | 0.48 | 0.46 |
| Strongly agree | 0.16 | 0.14 | 0.13 | 0.12 | 0.10 |

**Table D4. Crime threat and predicted probabilities of the support for regularization**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Crime threat | Attitudes toward regularization | | | | |
| Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
| Strongly disagree | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 |
| Disagree | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 |
| Neither agree nor disagree | 0.10 | 0.11 | 0.11 | 0.12 | 0.12 |
| Agree | 0.52 | 0.51 | 0.50 | 0.49 | 0.47 |
| Strongly agree | 0.16 | 0.15 | 0.13 | 0.12 | 0.11 |

**Appendix E: Assessing Possibilities of Social Desirability Bias**

In survey research, topics vulnerable to social desirability bias are often those including questions of a controversial, taboo, or embarrassing nature that encourage respondents to provide answers that do not reflect or capture their true beliefs. That is, respondents convey attitudes to enumerators that are *socially desirable* not those that are their genuinely held opinions. Particularly for the United States, for instance, survey research has often encountered social desirability bias among respondents when surveying about topics related to racism towards African Americas.[[6]](#footnote-6) Other topics that encounter social desirability bias include surveys related to self-reporting of drug and alcohol use.[[7]](#footnote-7)

This study is not likely to be vulnerable to social desirability bias for a number of reasons. First, the status of migrants, generally, and the regularization campaign, specifically, have been covered extensively in the local Arabic media. A quick overview of Arabic and French online newspapers appearing on Moroccan websites in spring 2017 before our survey was conducted showed that over 40 articles discussed the regularization program. More generally, 45 articles and 47 articles appeared, respectively, discussing the situations of sub-Saharan and Arab (mostly Syrian) migrants and refugees in Morocco. This widespread news coverage in 2017 suggests that Moroccans discuss these topics related to migrants regularly among themselves in public discourse and popular media, and they are not considered particularly controversial, embarrassing, or taboo subjects. Hence, there is little reason to suspect social desirability bias would be a major methodological issue in this study’s survey. Second, the fact that the survey’s dependent variable question (about support for Morocco’s regularization policy) had a 95 percent successful response rate among respondents indicates that this topic was not considered particularly vulnerable to social desirability bias. If respondents had found this question on regularization embarrassing or taboo, a larger percentage of respondents would have likely declined to answer this question. Third, our university institutional review board approved this survey project, also indicating that it is not too sensitive or controversial to be conducted in Morocco.

1. See, Sarah Bush and Amaney Jamal, “Anti-Americanism, Authoritarian Politics, and Attitudes about Women’s Representation: Evidence from a Survey Experiment in Jordan,” *International Studies Quarterly* 59, Issue 1 (March 2015): 38. [↑](#footnote-ref-1)
2. George J. Borjas, “The Economics of Immigration,” *Journal of Economic Literature* 32, Issue 4 (December 1994), 1667-717. [↑](#footnote-ref-2)
3. Mayda, “Who Is Against Immigration?”; Scheve and Slaughter, *Globalization and the Perceptions of American Workers*; O’Rourke and Sinnott, “The Determinants of Individual Attitudes.” [↑](#footnote-ref-3)
4. Hanson, Scheve, and Slaughter, “Public Finance and Individual Preferences;” Facchini and Mayda, “Does the Welfare State Affect Individual Attitudes toward Immigrants?” [↑](#footnote-ref-4)
5. Hainmueller and Hiscox, “Attitudes toward Highly Skilled and Low-Skilled Immigration.” [↑](#footnote-ref-5)
6. James Kuklinski, Michael D. Cobb, Martin Gilens, “Racial Attitude and the ‘New South,’” *The Journal of Politics* 59, no. 2 (May 1997): 323-49. [↑](#footnote-ref-6)
7. John W. Welte and Marcia Russell, “Influence of Socially Desirable Responding in a Study of Stress and Substance Abuse,” *Alcoholism: Clinical and Experimental Research* 17, Issue 4 (August 1993): 758-61. [↑](#footnote-ref-7)