Online Appendix "Does Exposure to the Refugee Crisis Make Natives More Hostile?"

Dominik Hangartner^{1,2,3}, Elias Dinas⁴,

Moritz Marbach^{1,2}, Konstantinos Matakos⁵, Dimitrios Xefteris⁶

¹Immigration Policy Lab, Stanford University, Stanford, CA 94305, and ETH Zurich, 8092 Zurich, Switzerland ²Center for Comparative and International Studies, ETH Zurich, 8092 Zurich, Switzerland ³Department of Government, London School of Economics, London WC2A 2AE, UK ⁴Department of Politics and International Relations, Oxford University, Oxford, OX1 4AJ, U.K. ⁵Department of Political Economy, King's College London, London, WC2R 2LS, U.K. ⁶Department of Economics, University of Cyprus, Nicosia

Contents

| Appendix A Data | 4 | 2 |
|---|------|---|
| A.1 Refugee arrivals | | 2 |
| A.2 Geographic Distance | | 3 |
| A.3 Survey | • | 4 |
| A.4 Questionnaire | . (| 6 |
| Appendix B Estimation strategies | 11 | 1 |
| B.1 Weight Construction | . 11 | 1 |
| B.2 Instrumental Variable Regression | . 12 | 2 |
| B.3 Quantile Instrumental Variable Regression | . 13 | 3 |
| Appendix C Descriptive Statistics | 14 | 4 |
| Appendix D Main Estimates | 16 | 6 |
| Appendix E Additional Results | 20 | 6 |
| References | 37 | 7 |

Appendix A Data

In our analysis, we use three different sources of data: survey data, data on refugee arrivals (temporal and spatial), and geographic data (distance from the Turkish coast and refugee hotspots). Below we describe in detail how we collected, processed, and analyzed our data. Upon publication, all data will be made publicly available at the dedicated Dataverse doi:XXXXXXXXX.

A.1 Refugee arrivals

Data on the number of refugee arrivals were obtained through the United Nations High Commission on Refugees (UNHCR) and are publicly available on the UNHCR website (http://data.unhcr.org/mediterranean/country. php?id=83). Data on arrivals are disaggregated at the island level (typically a municipality) and are available on a monthly basis. Data include aggregate information on the country of origin of refugees and the month and the location of arrival at the island. We code an island as treated if it received a positive number of refugees in the period between January 2015 and March 2016.

We lack information about the number of arriving refugees in the municipality Leipsoi. We thus exclude the 15 respondents from this municipality in all analyses that use the continuous treatment indicator. Information about the location of hotspots (refugee centers and exit ports) is also obtained from the UNHCR (http://data.unhcr.org/mediterranean/country.php?id=83).

To measure the intensity of treatment, we compute the cumulative num-

ber of refugee arrivals per island inhabitant between January 2015 and March 2016. For this time period, we compute the total number of asylum-seekers that arrived in each municipality. We divide this number over the size of the local population that resides in this particular municipality (data obtained via the Greek Ministry of Interior and Public Administration) to obtain a measure of the intensity of treatment. Following we the pre-analysis plan, we top-code this ratio for Agathonisi, an outlier, to 25.

A.2 Geographic Distance

Geographic data on the distance between our units of analysis (island or municipality) and the Turkish coast are computed using Google Maps service (https://www.google.com/maps/) that provides satellite imagery and geospatial data visualization and measurement. For islands that contain a single municipality, we computed the distance between the population center of this municipality and the most proximal point in the Turkish coast line as identified by Google Maps. For islands that contain more than one municipality (Crete, Evia and Corfu), the distance to the Turkish coast was calculated for each individual municipality. Similarly, we used Google Maps to calculate the distance between the respondent's township and the closest hotspot on the same island.

We also constructed a second distance measure using data from the Database of Global Administrative Areas (GADM 2012) and GIS tools in R. For this measure we calculate the distance between the polygon's centroid of a municipality in Greece and the closest point to the Turkish polygon. As suggested by one reviewer we use the Vincenty ellipsoid method for this calculation. We find that the two distance measure correlate very highly (0.997).

A.3 Survey

Our sampling frame consists of all inhabited Greek islands. The survey was fielded by the [suppressed to protect author anonymity] according to our sampling frame and in line with the ethics policy of the [suppressed to protect author anonymity] for human subjects research. Informed consent was obtained from each participant at the beginning of the survey. Between February 22 and March 7, 2017, we successfully interviewed 2,070 respondents; equally split between treated and control islands and proportional to the number of island residents. The cumulative response rate (RR3) as defined by the American Association for Public Opinion Research was 8%.

The mode of the survey follows Computer-Assisted Telephone Interviewing, with the sampling frame consisting of landline phone numbers. Thus, the primary sampling unit is the household, identified via the landline phone number. Within the household, the selection of the respondent follows the next-birthday method.

The question wording for all our outcome measures can be found at the end of this document. In the analysis below and if necessary we reversed the coding such that positive values reflect hostility towards immigrants, asylumseekers or minorities. In case of outcomes measured as differences between feeling thermometer scores, we rescaled the differences to range from 1 to 5. For our summary measures, we extract the first principal component of a polychoric principal component analysis (PCA). Table A1 reports the proportion of the explained variance for the first four components. Across all five principal component analyses the first component explains a large proportion of the variance. For the analysis based on imputed data, we use PCA separately on each imputed dataset. We use sequential imputation using chained equations on the entire dataset. For continuous variables, we use predictive mean matching from the 5 nearest neighbors. We construct 5 imputed datasets and calculate point estimates and standard errors following Rubin (1987) and Little and Rubin (2002).

| | Asylum-seeker | Immigrant | Muslim | Exclusionary | Behavioral |
|---|---------------|------------|------------|--------------|------------|
| k | Components | Components | Components | Components | Components |
| 1 | 0.62 | 0.45 | 0.50 | 0.52 | 0.53 |
| 2 | 0.14 | 0.23 | 0.17 | 0.20 | 0.25 |
| 3 | 0.09 | 0.19 | 0.14 | 0.09 | 0.20 |
| 4 | 0.08 | 0.13 | 0.10 | 0.09 | 0.02 |

Table A1: Proportion explained by the first four components of the polychoric principal component analysis.

A.4 Questionnaire

Block 1: Introduction and informed consent

Goodmorning/Good afternoon,

We are calling from the Public Opinion Research Unit of the University of Macedonia. We are conducting a survey on political behavior as part of a research project of the University of Oxford. Could I speak for seven minutes with the youngest member of your family, who is 17 years old or older and is currently at home?

Thank you very much. I would like to inform you that your telephone number has been chosen randomly, is not known to anyone and that your answers will remain anonym. I also inform you that the person in charge for this research is professor Elias Dinas from the University of Oxford. Finally, at whatever moment you want, we can terminate the interview.

Do you want to start the interview? Yes – No \rightarrow end of interview

Block 2: Demographic Questions

Thank you so much for your willingness to participate. To start, we would like to ask you a few questions about you personally.

1. Don't ask but note respondent's gender Female

- 1) Female
- 2) Male

2. Are you eligible to vote in the Greek national elections?

- 1) Yes
- 2) No (\rightarrow end interview)

3. What is the city/town/village in which you reside?

[Enter place of residence]

4. Which year have you been born?

_____ [Enter year]

5. What is the highest level of education you have successfully completed?

- 1. Elementary school
- 2. Middle school
- 3. High school

Block 3: Attitudes towards asylum-seekers

8. Now, we would like to get your thoughts on policies toward asylum-seekers in Greece (i.e. people who left their home countries and request protection in Europe on the basis that they fear persecution in their home countries).

In 2015, Greece received 13,205 asylum applications and granted asylum to 4,030 people. Do you think Greece should increase or decrease the number of people it grants asylum to?

- 4. Tertiary education
- 5. University degree
- 6. Postgraduate degree
- 7. None of these

6. Which of the following statements comes closest to how you feel about your household's income nowadays?;

- 1) With our current income, we live comfortably
- 2) With our current income, we make ends meet
- With our current income, we have difficulties
- 4) With our current income we have major difficulties

7. To what extent does your income depend on tourism?

- 1) Entirely
- 2) To a large extent
- 3) To a small extent
- 4) Not at all

- 1) Greatly increase
- 2) Increase
- 3) Neither increase nor decrease
- 4) Decrease
- 5) Greatly decrease

9. Next, I will read to you several statements about asylum-seekers that have been made by some people. However, other people disagree with those statements. Please tell me for each statement if you agree or disagree:

| | Completely | Mostly | Neither agree | Mostly | Completely | DK/DA |
|--|------------|--------|---------------|----------|------------|-------|
| | agree | agree | nor disagree | disagree | disagree | |
| 10. Children of asylum-seekers in Greece | | | | | | |
| should be allowed to study in Greek schools. | | | | | | |
| 11. Asylum-seekers are a burden on our | | | | | | |
| country because they take our jobs and | | | | | | |
| social benefits. | | | | | | |
| 12. Asylum-seekers in our country are more | | | | | | |
| to blame for crime than other groups. | | | | | | |
| Asylum-seekers will increase the | | | | | | |
| likelihood of a terrorist attack in our country | | | | | | |
| 14. It is important that the government takes | | | | | | |
| measures this year in order to better protect | | | | | | |
| the borders of the country against the entry | | | | | | |
| of immigrants. | | | | | | |

| | Should increase by a lot | Should increase | Should neither increase nor decrease | Should decrease | Should decrease by a lot | DK/DA |
|---|--------------------------------|-----------------|--|--------------------|--------------------------------|-------|
| 15. Do you think Greece should increase or decrease the number of economic immigrants it admits? | 1 | 2 | 3 | 4 | 5 | |
| 16. In general, do you think that the representation of the Muslim minority in the Greek Parliament should be increased or decreased? | 1 | 2 | 3 | 4 | 5 | |

17. Next, we would like to get your feelings toward a number of groups on a feeling thermometer. A rating of 0 degrees means you feel as cold and negative as possible. A rating of 100 degrees means you feel as warm and positive as possible. You would rate the group at 50 degrees if you don't feel particularly positive or negative toward the group. [randomize the order of the items]

| | Answer | DK/DA |
|---|--------|---------|
| 17.1 How do you feel toward Christian Greeks? | | [blank] |
| 17.2 How do you feel toward Muslim Greeks? | | [blank] |
| 17.3 How do you feel toward Jewish Greeks? | | [blank] |
| 17.4 How do you feel toward Christian immigrants? | | [blank] |
| 17.5 How do you feel toward Muslim immigrants? | | [blank] |

Block 4: National Identity

Some people say that the following things are important for being truly Greek. Others say they are not important. How important do you think each of the following is? [randomize the order of Questions 16-19]

| | Very important | Somewhat important | Neither important nor unimportant | Not very important | Not at all important | DK/DA |
|---|-------------------|--------------------|---|-----------------------|----------------------|-------|
| 18. To have been born in Greece | | | | | | |
| 19. To be able to speak Greek | | | | | | |
| 20. To be a Christian Orthodox | | | | | | |
| 21. To share Greek customs and traditions | | | | | | |

Block 5: Islamophobia

| | Most | Many | Several | Few | Very few | DK/DA |
|--|------|------|---------|-----|----------|-------|
| 22. In your opinion, how many Muslims in our country support extremist groups like the Islamic militant group in Iraq and Syria known as ISIS: Would you say most, many, several, few or very few? | | | | | | |
| 23. In your opinion, how many Muslims in our country today want to adopt our country's customs and way of life or do you think they want to be distinct from the larger society? | | | | | | |

Block 6: Voting Behavior

24. Many people to choose not to vote in elections, either because they are away from the place they reside or because they consciously choose to abstain. Did you vote in the last national election that took place on September 20, 2015? (IF THEY DID NOT VOTE, we tick option 10) I DID NOT VOTE - IF THEY VOTED WE CONTINUE). For which party did you vote in the last national election?

- 1.1)SYRIZA
- 1.2)Nea Dimokratia
- 1.3)Golden Dawn
- 1.4) PASOK Democratic Coalition
- 1.5)Communist Party of Greece
- 1.6)The river
- 1.7) Independent Greeks
- 1.8)Centrists' Union
- 1.9)Other party
 - [Note:
- 1.10) I did not vote 1.11) DK/DA

25. And if you can recall, could you tell us for which party did you vote in the national elections that took place on January 25, 2015?

- 1.1)SYRIZA
- 1.2)Nea Dimokratia
- 1.3)Golden Dawn
- 1.4) PASOK Democratic Coalition
- 1.5)Communist Party of Greece
- 1.6)The river
- 1.7) Independent Greeks
- 1.8)Centrists' Union
- 1.9) Other party
- [Note:
- 1.10) I did not vote 1.11) DK/DA

In politics people often talk about "left" and "right". On this scale from 1 (left) to 11 (right), where would you classify your own political views? 1 Left 2 3 4 5 [6] 7 8 9 10 11 Right 12 LR does not represent me (spontaneous answer) DK/DA

Block 7: Participation Questions

27. Should we inform the Members of Parliament on your behalf whether you want to increase or decrease the number of people Greece grants asylum to? This information notice would contain your name and location. [Note: we don't record name and location here]

- 1) Please inform the MPs on my behalf that the government should greatly increase the number of people Greece grants asylum to.
- 2) Please inform the MPs on my behalf that the government should increase the number of people Greece grants asylum to.
- 3) Please inform the MPs on my behalf that the government should decrease the number of people Greece grants asylum to.
- 4) Please inform the MPs on my behalf that the government should greatly decrease the number of people Greece grants asylum to.
- 5) No, please do not send a notice to the MPs.

28. Over the last months, different groups of citizens collected signatures to push the government to provide housing for asylum-seekers in hostels and hospitality centers instead of open-air asylum camps. Would you like to sign this petition? This information notice would contain your name and location. [Note: we don't record name and location here]

- 1) Yes, I would like to sign the petition
- 2) No, I do not want to sign the petition

29. Before concluding our interview, I would like to inform you that as part of the survey we raffle off a 100 \in voucher. Every respondent has an equal chance of winning the voucher. However, you can also choose to donate a percentage of your winnings to the United Nations High Commissioner of Refugees (UNHCR). If you win the voucher, the donation amount will be deducted from the voucher. Would you like to donate some part of the 100 \in voucher, and if so, how much?

1) Yes, I would like to donate _____ (in €) of the voucher to the UNHCR 2) No, I would not like to donate some fraction of the voucher to the UNHCR

Block 8: Thank you

Thank you very much for your patience.

Appendix B Estimation strategies

In the following discussion, treatment refers to the binary indicator that takes a value of one if a municipality received any refugees between January 2015 and March 2016, and a value of zero otherwise. Our instrument measures the log-distance between the Turkish coast and the respondent's municipality.

B.1 Weight Construction

We construct two sets of weights, while we use the second set by default in our analyses. The first set weights the sample such that the number of survey respondents in the i^{th} municipality matches the relative number of voters in the same municipality. Formally:

$$w_{i1} = \frac{n_{Vi}}{N_V} \bigg/ \frac{n_{Si}}{N_S} \; \; ,$$

where n_{Si} is the number of respondents per municipality and n_{Vi} the number of voters per municipality. The totals across all municipalities are $N_S = \sum_i n_{Si}$ and $N_V = \sum_i n_{Vi}$. We trim 5 values to 10. Table B2 (row 1) provides summary statistics for the constructed weights.

The second set of weights, which we use in our analyses as the default, additionally weights respondents by the municipality's treatment status:

$$w_{i2} = \frac{n_{Vi}}{N_{V1}D_i + N_{V0}(1 - D_i)} \bigg/ \frac{n_{Si}}{N_{S1}D_i + N_{S0}(1 - D_i)} ,$$

where n_{Si} is the number of survey respondents per municipality and n_{Vi} the number of voters per municipality as before, but N_{Sd} and N_{Vd} are the total number of respondents and voters, respectively, across municipalities that received (d = 1) or did not receive (d = 0) the treatment, i.e. $N_{Sd} =$ $\sum_i n_{Si} \mathcal{I}(D_i = d)$ and $N_{Vd} = \sum_i n_{Vi} \mathcal{I}(D_i = d)$. Table B2 (row 2) provides summary statistics for the constructed weights.

We also obtained weights directly from the survey company constructed based on the census from 2011 which balance the sample by population density, gender and age (see table B2, row 3).

| Variable | Mean | SD | Min | Max | Obs | Trimmed |
|-------------------------------|------|------|------|-------|------|---------|
| Weight 1 (Voters) | 1.97 | 1.99 | 0.15 | 10.00 | 2052 | 5 |
| Weight 2 (Voters x Treatment) | 0.88 | 0.41 | 0.04 | 2.69 | 2052 | 0 |
| Weight 3 (Demog.) | 0.99 | 0.34 | 0.72 | 1.94 | 2052 | 0 |

Table B2: Descriptive statistics for the weights.

B.2 Instrumental Variable Regression

Our main analysis relies on a instrumental variable estimator. Our baseline two-stage least squares (2SLS) regression takes the following form:

$$Y_i = \alpha + \delta D_i + \mathbf{X}_i \boldsymbol{\beta} + \epsilon_i$$
$$D_i = \tau + \rho Z_i + \mathbf{X}_i \boldsymbol{\gamma} + \eta_i,$$

where X_i is a the set of demographic variables (gender, seven education groups, age), D_i is our treatment indicator and Z_i is our instrument. We cluster standard errors by municipality (Number of clusters: N = 92). In the baseline specification, we use the binary treatment indicator and, as the instrument, the logarithm of the distance to the Turkish coast.

For the complementary hotspot analysis at the township level, we use distance as a treatment and adjust for island fixed effects. We control for the same set of demographic variables as above and cluster standard errors by township (number of clusters: N = 125).

B.3 Quantile Instrumental Variable Regression

Similar to our baseline 2SLS specification, the outcome equation for the IV τ -quantile model takes the following form:

$$Q_{\tau}(Y_i|\mathbf{X}_i, D_i) = \alpha_{\tau} + \delta_{\tau} D_i + \mathbf{X}_i \boldsymbol{\beta}_{\tau}$$

where X_i is a the set of demographic variables (gender, seven education groups, age) and D_i our treatment indicator. As before we instrument D_i using our instrument Z_i . We use the estimator proposed by Chernozhukov and Hansen (2005) and a standard pairs cluster bootstrap to obtain bootstrap standard errors for each imputed dataset. Across all bootstrap samples, 3% of the models do not converge and we drop those estimates. To combine the bootstrap standard errors for each imputed dataset, we follow the advice in Schomaker and Heumann (2018) and apply their algorithm labeled 'MI Boot'. We cannot weight the data in this analysis.

Appendix C Descriptive Statistics

| Variable | Mean | SD | Min | Max | Obs |
|------------------------------|-------|-------|-------|-------|------|
| Age | 49.40 | 15.16 | 18.00 | 89.00 | 2051 |
| Education | 4.50 | 1.38 | 1.00 | 7.00 | 2050 |
| Female | 0.55 | 0.50 | 0.00 | 1.00 | 2052 |
| Golden Dawn Vote (Jan '15) | 0.03 | 0.16 | 0.00 | 1.00 | 1677 |
| Distance Turk. Coast | 3.61 | 1.81 | 0.59 | 6.24 | 2046 |
| Treatment (Town) | 0.33 | 0.47 | 0.00 | 1.00 | 2052 |
| Treatment (Cont.) | 0.41 | 0.54 | 0.00 | 2.34 | 2031 |
| Treatment (Binary) | 0.49 | 0.50 | 0.00 | 1.00 | 2052 |
| Fewer asylum-seekers | 3.68 | 1.14 | 1.00 | 5.00 | 1910 |
| Are a burden | 3.10 | 1.37 | 1.00 | 5.00 | 2007 |
| More crimes | 2.77 | 1.28 | 1.00 | 5.00 | 1976 |
| Ban from schools | 2.16 | 1.22 | 1.00 | 5.00 | 2029 |
| More terror attacks | 2.97 | 1.32 | 1.00 | 5.00 | 1975 |
| Asylum-seeker component | 0.00 | 1.00 | -2.28 | 2.11 | 1752 |
| Increase border protection | 4.53 | 0.91 | 1.00 | 5.00 | 2022 |
| T(Muslim-Muslim immi.) | 2.83 | 0.63 | 0.00 | 5.00 | 1983 |
| T(Christ Christ. immi.) | 2.81 | 0.59 | 0.00 | 5.00 | 2011 |
| Fewer economic migrants | 4.10 | 0.83 | 1.00 | 5.00 | 1991 |
| Immigrant component | -0.00 | 1.00 | -3.38 | 3.33 | 1902 |
| T(Christ. immi Muslim immi.) | 3.18 | 0.82 | 0.00 | 5.00 | 1994 |
| Decrease representation | 3.77 | 0.86 | 1.00 | 5.00 | 1887 |
| How many do not integrate | 4.11 | 1.10 | 1.00 | 5.00 | 1800 |
| How many support extremists | 2.35 | 1.30 | 1.00 | 5.00 | 1681 |
| Muslim component | 0.00 | 1.00 | -2.06 | 2.59 | 1450 |
| T(Christ Jew) | 3.08 | 0.81 | 0.00 | 5.00 | 1953 |
| T(Christ Muslim) | 3.15 | 0.83 | 0.00 | 5.00 | 1996 |
| Born Greece | 3.36 | 1.44 | 1.00 | 5.00 | 2035 |
| Share Greek customs | 4.03 | 1.17 | 1.00 | 5.00 | 2039 |
| Speak Greek | 4.09 | 1.17 | 1.00 | 5.00 | 2045 |
| Are Christians | 3.41 | 1.50 | 1.00 | 5.00 | 2042 |
| Exclusionary component | 0.00 | 1.00 | -2.83 | 2.19 | 1916 |
| Donate? | 0.28 | 0.45 | 0.00 | 1.00 | 1765 |
| (100-donation)/100 | 0.44 | 0.43 | 0.00 | 1.00 | 1765 |
| Notify MP? | 0.40 | 0.89 | -2.00 | 2.00 | 1934 |
| Sign petition? | 0.73 | 0.45 | 0.00 | 1.00 | 1939 |
| Behavioral component | 0.00 | 1.00 | -1.61 | 1.72 | 1603 |

Table C3: Descriptive Statistics

Appendix D Main Estimates

Tables D4-D9 provide the estimates from our main analysis. In addition, Table D8 provides the estimates for our measures of general exclusionary attitudes toward outgroups, for which we do not find any statistically significant effects. Table D10 reports the first-stage estimates for our 2SLS regressions, both for the binary and continuous version of our treatment variable. Table D11 reports further placebo tests using vote choice from the 2015 elections as outcomes as well as demographic indicators. All estimates are based on imputed data and weighted on the number of voters in a municipality as well as the municipality's treatment status (see above).

We also planned to examine if natives from treated islands are more likely to move away from their island than natives from control islands. However, data on internal migration is only available on the NUTS-3 level. A closer examination of the available data suggests that we can only identify migration changes for one island, *Chios*. This is the only island that corresponds to a NUTS-3 unit. All other treated islands are included in NUTS-3 units that also include non-treated islands. For this reason, we cannot implement this analysis unfortunately.

| | (1) | (2) | (3) | (4) | (5) |
|-----------------|--|---|-------------------------|-------------------------|--------------------------|
| Treatment | $\begin{array}{c} 0.24^{***} \\ (0.059) \end{array}$ | $\begin{array}{c} 0.23^{**} \\ (0.070) \end{array}$ | 0.13^{*} (0.066) | 0.04 (0.071) | 0.33^{***} (0.060) |
| Female | $0.02 \\ (0.042)$ | -0.04 (0.048) | -0.02 (0.051) | -0.03 (0.042) | 0.11^{*} (0.043) |
| Education (1) | -0.54 (0.341) | 0.14 (0.400) | -0.50 (0.411) | -0.30 (0.428) | -0.13 (0.429) |
| Education (2) | -0.35 (0.374) | $\begin{array}{c} 0.19 \\ (0.385) \end{array}$ | -0.57 (0.405) | -0.37 (0.463) | -0.06 (0.435) |
| Education (3) | -0.68 (0.348) | -0.03 (0.385) | -0.79^{*} (0.397) | -0.62 (0.450) | -0.24 (0.431) |
| Education (4) | -0.90^{*} (0.352) | -0.21 (0.383) | -1.06^{**} (0.405) | -0.82 (0.474) | -0.36 (0.435) |
| Education (5) | -1.08^{**} (0.333) | -0.28 (0.386) | -1.25^{**} (0.413) | -0.97^{*} (0.450) | -0.46 (0.430) |
| Education (6) | -1.17^{**} (0.374) | -0.18 (0.371) | -1.39^{**} (0.426) | -1.10^{*} (0.438) | -0.54 (0.431) |
| Age | -0.00 (0.001) | 0.01^{***} (0.002) | $0.00 \\ (0.001)$ | 0.01^{***} (0.001) | -0.01^{***} (0.002) |
| (Intercept) | $0.66 \\ (0.376)$ | -0.29 (0.371) | $0.76 \\ (0.406)$ | 0.43 (0.469) | $0.72 \\ (0.427)$ |
| N | 2046 | 2046 | 2046 | 2046 | 2046 |

Table D4: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on Asylum-seeker component (1), Immigrant component (2), Muslim component (3), Exclusionary component (4), Behavioral component (5).

 $p^* < .05; p^* < .01; p^* < .001$

| | (1) | (2) | (3) | (4) | (5) |
|-----------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Treatment | 0.26^{***} | 0.41^{***} | 0.12 | 0.14 | 0.25^{**} |
| | (0.064) | (0.068) | (0.073) | (0.085) | (0.081) |
| Female | $0.09 \\ (0.061)$ | 0.01 (0.059) | 0.10 (0.060) | -0.07 (0.050) | -0.06 (0.061) |
| Education (1) | -0.41 | -0.32 | -0.64 | -0.67 | -0.42 |
| | (0.218) | (0.455) | (0.367) | (0.475) | (0.534) |
| Education (2) | -0.24 (0.220) | -0.14 (0.483) | -0.29 (0.390) | -0.55 (0.493) | -0.26 (0.559) |
| Education (3) | -0.64^{**} | -0.31 | -0.59 | -0.94 | -0.60 |
| | (0.205) | (0.433) | (0.347) | (0.489) | (0.542) |
| Education (4) | -0.75^{***} | -0.48 | -0.84^{*} | -1.23^{**} | -0.92 |
| | (0.204) | (0.446) | (0.391) | (0.471) | (0.542) |
| Education (5) | -1.01^{***} | -0.53 | -1.04^{**} | -1.41^{**} | -0.99 |
| | (0.202) | (0.426) | (0.351) | (0.467) | (0.535) |
| Education (6) | -1.08^{***} | -0.72 | -1.16^{**} | -1.44^{**} | -0.99 |
| | (0.266) | (0.476) | (0.411) | (0.465) | (0.559) |
| Age | -0.00 | -0.02^{***} | 0.01^{***} | 0.01^{**} | 0.01^{**} |
| | (0.002) | (0.002) | (0.002) | (0.002) | (0.002) |
| (Intercept) | $\begin{array}{c} 4.31^{***} \\ (0.234) \end{array}$ | 3.19^{***} (0.456) | 3.39^{***} (0.375) | 3.48^{***} (0.526) | 3.34^{***} (0.574) |
| N | 2046 | 2046 | 2046 | 2046 | 2046 |

Table D5: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on the questions Fewer asylum-seekers (1), Ban from schools (2), Are a burden (3), More crimes (4), More terror attacks (5).

p < .05; p < .01; p < .01; p < .001

| | (1) | (2) | (3) | (4) |
|-----------------|--------------------------|--|--|-------------------------|
| Treatment | 0.08 (0.052) | $\begin{array}{c} 0.24^{***} \\ (0.068) \end{array}$ | -0.00 (0.029) | 0.09^{*} (0.036) |
| Female | 0.13^{**} (0.048) | -0.05 (0.046) | -0.04 (0.033) | -0.07^{*} (0.035) |
| Education (1) | -0.31^{***} (0.054) | -0.03 (0.259) | $\begin{array}{c} 0.53 \\ (0.546) \end{array}$ | -0.03 (0.388) |
| Education (2) | -0.25^{***} (0.064) | -0.03 (0.247) | $0.64 \\ (0.545)$ | -0.07 (0.379) |
| Education (3) | -0.32^{***} (0.043) | -0.17 (0.249) | $0.50 \\ (0.528)$ | -0.16 (0.374) |
| Education (4) | -0.41^{***} (0.098) | -0.38 (0.251) | $0.45 \\ (0.528)$ | -0.16 (0.368) |
| Education (5) | -0.51^{***} (0.067) | -0.38 (0.250) | $0.40 \\ (0.519)$ | -0.15 (0.372) |
| Education (6) | -0.40^{**} (0.123) | -0.22 (0.281) | 0.41 (0.516) | -0.21 (0.373) |
| Age | 0.00^{***} (0.001) | $0.00 \\ (0.001)$ | $0.00 \\ (0.001)$ | 0.00^{**} (0.001) |
| (Intercept) | 4.53^{***} (0.111) | 4.15^{***} (0.276) | 2.27^{***} (0.519) | 2.81^{***} (0.370) |
| N | 2046 | 2046 | 2046 | 2046 |

Table D6: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on Increase border protection (1), Fewer economic migrants (2), Thermometer(Christian - Christian immigrant) (3), Thermometer(Muslim-Muslim immigrant) (4).

p < .05; p < .01; p < .01; p < .001

| | (1) | (2) | (3) | (4) | (5) |
|-----------------|--------------------------|-------------------------|--|--------------------------|-------------------------|
| Treatment | 0.09 (0.083) | 0.12 (0.069) | 0.10^{*} (0.048) | 0.12^{*} (0.051) | $0.04 \\ (0.049)$ |
| Female | $0.06 \\ (0.067)$ | $0.06 \\ (0.040)$ | -0.08 (0.046) | -0.04 (0.046) | -0.01 (0.036) |
| Education (1) | -1.12^{**} (0.356) | 0.09 (0.632) | -0.10 (0.354) | -0.59 (0.297) | -0.03 (0.562) |
| Education (2) | -1.17^{**} (0.370) | $0.35 \\ (0.616)$ | -0.14 (0.379) | -0.78^{*} (0.298) | -0.06 (0.573) |
| Education (3) | -1.40^{***} (0.352) | 0.16 (0.620) | -0.32 (0.361) | -0.84^{**} (0.289) | -0.17 (0.559) |
| Education (4) | -1.67^{***} (0.352) | 0.24 (0.622) | -0.58 (0.362) | -0.98^{**} (0.293) | -0.38 (0.569) |
| Education (5) | -1.80^{***} (0.343) | 0.11 (0.622) | -0.66 (0.369) | -1.09^{***} (0.291) | -0.53 (0.562) |
| Education (6) | -1.93^{***} (0.346) | -0.05 (0.620) | -0.91^{*} (0.359) | -1.13^{***} (0.293) | -0.51 (0.569) |
| Age | -0.01^{*} (0.002) | -0.00 (0.002) | -0.00 (0.001) | 0.00^{**} (0.001) | 0.00^{*} (0.002) |
| (Intercept) | 4.01^{***} (0.360) | 3.91^{***} (0.645) | $\begin{array}{c} 4.19^{***} \\ (0.361) \end{array}$ | 3.83^{***} (0.303) | 3.29^{***} (0.569) |
| Ν | 2046 | 2046 | 2046 | 2046 | 2046 |

Table D7: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on How many support extremists (1), How many do not integrate (2), Decrease representation (3), Thermometer(Christ. immigrant - Muslim immigrant) (4), Thermometer(Christian - Muslim) (5).

*p < .05; **p < .01; ***p < .001

Table D8: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on Born Greece (1), Speak Greek (2), Are Christians (3), Share Greek customs (4), Thermometer(Christian - Jew) (5), Thermometer(Christian - Muslim) (6).

| | (1) | (2) | (3) | (4) | (5) | (6) |
|-----------------|-------------------------|--|-------------------------|--|-------------------------|-------------------------|
| Treatment | 0.06 (0.102) | -0.11^{*} (0.051) | 0.16 (0.090) | -0.03 (0.069) | $0.04 \\ (0.054)$ | $0.04 \\ (0.049)$ |
| Female | -0.20^{**} (0.069) | -0.01 (0.067) | 0.07 (0.062) | -0.02 (0.058) | 0.01 (0.028) | -0.01 (0.036) |
| Education (1) | -0.43 (0.531) | -0.23 (0.294) | $0.02 \\ (0.604)$ | -0.60^{***} (0.087) | -0.18 (0.499) | -0.03 (0.562) |
| Education (2) | -0.59 (0.572) | -0.08 (0.293) | -0.23 (0.613) | -0.61^{***} (0.124) | -0.21 (0.528) | -0.06 (0.573) |
| Education (3) | -0.73 (0.547) | -0.38 (0.285) | -0.47 (0.597) | -0.75^{***} (0.096) | -0.36 (0.509) | -0.17 (0.559) |
| Education (4) | -0.89 (0.567) | -0.31 (0.303) | -0.71 (0.625) | -0.88^{***} (0.116) | -0.54 (0.508) | -0.38 (0.569) |
| Education (5) | -0.89 (0.551) | -0.31 (0.281) | -0.86 (0.610) | -0.96^{***} (0.101) | -0.72 (0.503) | -0.53 (0.562) |
| Education (6) | -1.01 (0.553) | -0.39 (0.292) | -1.02 (0.598) | -1.14^{***} (0.131) | -0.77 (0.517) | -0.51 (0.569) |
| Age | 0.01^{***} (0.002) | 0.00^{**} (0.001) | $0.00 \\ (0.003)$ | 0.01^{***} (0.002) | -0.00^{*} (0.001) | 0.00^{*} (0.002) |
| (Intercept) | 3.71^{***} (0.572) | $\begin{array}{c} 4.27^{***} \\ (0.311) \end{array}$ | 3.62^{***} (0.627) | $\begin{array}{c} 4.32^{***} \\ (0.164) \end{array}$ | 3.66^{***} (0.504) | 3.29^{***} (0.569) |
| N | 2046 | 2046 | 2046 | 2046 | 2046 | 2046 |

*p < .05; **p < .01; ***p < .001

| | (1) | (2) | (3) | (4) |
|-----------------|-------------------------|--------------------------|--|--|
| Treatment | 0.24^{***} (0.054) | 0.07^{**} (0.023) | $\begin{array}{c} 0.14^{***} \\ (0.027) \end{array}$ | $\begin{array}{c} 0.11^{***} \\ (0.029) \end{array}$ |
| Female | -0.09^{**} (0.034) | $0.03 \\ (0.018)$ | $0.03 \\ (0.021)$ | 0.07^{***} (0.019) |
| Education (1) | -0.16 (0.430) | $0.05 \\ (0.226)$ | -0.10 (0.207) | -0.03 (0.204) |
| Education (2) | -0.21 (0.412) | $0.05 \\ (0.210)$ | -0.08 (0.205) | 0.02 (0.207) |
| Education (3) | -0.29 (0.397) | $0.05 \\ (0.212)$ | -0.13 (0.206) | -0.07 (0.207) |
| Education (4) | -0.45 (0.389) | 0.04 (0.219) | -0.15 (0.206) | -0.13 (0.209) |
| Education (5) | -0.54 (0.404) | 0.03 (0.215) | -0.21 (0.205) | -0.15 (0.205) |
| Education (6) | -0.58 (0.367) | $0.05 \\ (0.221)$ | -0.21 (0.211) | -0.21 (0.213) |
| Age | $0.00 \\ (0.001)$ | -0.00^{***} (0.001) | -0.00^{***} (0.001) | -0.01^{***} (0.001) |
| (Intercept) | 0.61 (0.403) | 0.79^{***} (0.222) | 0.58^{**} (0.208) | 0.76^{***} (0.204) |
| N | 2046 | 2046 | 2046 | 2046 |

Table D9: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, on Notify MP? (1), Sign petition? (2), Donate? (3), (100-donation)/100 (0-1) (4).

Cluster-robust standard errors in parentheses *p < .05; **p < .01; ***p < .001

| | (1) | (2) | (3) |
|------------------|--|-------------------------|--------------------------|
| $\log(distance)$ | -0.24^{***} (0.021) | -0.19^{**} (0.063) | -0.13^{***} (0.035) |
| Female | -0.01 (0.011) | $0.00 \\ (0.023)$ | $0.00 \\ (0.013)$ |
| Education (1) | 0.02 (0.083) | 0.13 (0.272) | $0.08 \\ (0.146)$ |
| Education (2) | $0.02 \\ (0.077)$ | 0.18 (0.275) | $0.12 \\ (0.146)$ |
| Education (3) | $0.01 \\ (0.079)$ | $0.15 \\ (0.266)$ | $0.10 \\ (0.143)$ |
| Education (4) | -0.02 (0.090) | 0.13 (0.267) | $0.09 \\ (0.143)$ |
| Education (5) | $0.02 \\ (0.076)$ | $0.15 \\ (0.274)$ | $0.10 \\ (0.146)$ |
| Education (6) | 0.03 (0.069) | 0.17 (0.270) | $0.11 \\ (0.144)$ |
| Age | 0.00^{*} (0.000) | $0.00 \\ (0.001)$ | $0.00 \\ (0.001)$ |
| (Intercept) | $\begin{array}{c} 1.35^{***} \\ (0.121) \end{array}$ | 0.90^{**} (0.292) | 0.64^{***} (0.155) |
| N | 2046 | 2031 | 2031 |

Table D10: First-stage estimates for 2SLS regressions. (1) Binary treatment indicator (2) Continuous treatment indicator (3) Continuous treatment indicator (log).

Cluster-robust standard errors in parentheses *p < .05; **p < .01; ***p < .001

Table D11: 2SLS regression estimates of impact of refugee arrivals, instrumented with the island's distance to the Turkish coast, voted for a party other than Golden Dawn, SYRIZA/ANEL, Nea Dimokratia or PASOK (1), not voted in the election (2) as well as age (3) and an education variable with seven categories (4).

| | (1) | (2) | (3) | (4) |
|-----------|-------------------------|--|---|-------------------------|
| Treatment | -0.03 (0.018) | 0.03 (0.020) | -0.09 (1.012) | 0.01 (0.082) |
| Constant | 0.17^{***} (0.016) | $\begin{array}{c} 0.14^{***} \\ (0.016) \end{array}$ | $\begin{array}{c} 49.72^{***} \\ (0.659) \end{array}$ | 4.52^{***} (0.066) |
| N | 2046 | 2046 | 2046 | 2046 |

Cluster-robust standard errors in parentheses. *p < .05; **p < .01; ***p < .001.



A: Fewer asylum-seekers?

Figure D1: To benchmark the results, this figure compares the effect size (yellow shaded area) for the outcome that measures support for decreasing the number of asylum requests granted to results from a recently conducted survey covering fifteen European countries (Bansak, Hainmueller and Hangartner 2016) that asked the same question. The estimated treatment effect of a .26 SD decrease resulting from direct exposure to the refugee crisis is about equivalent to moving from the second most liberal (Norway) to the second most restrictive country (Hungary) of the fifteen surveyed countries.

Appendix E Additional Results



Figure E2: Comparison of 2SLS regression estimates (with 95% confidence intervals) with and without fixed effects for vote choice in January 2015 election. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status.



Figure E3: Comparison of 2SLS regression estimates (with 95% confidence intervals) with and without adjustment for municipality Golden Dawn vote share (continuous or binned in five categories containing 20% of the sample each) in the January 2015 election. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status. Note, as specified in the pre-analysis plan we did not include the demographic controls when we condition on the Golden Dawn vote share.



Figure E4: Comparison of 2SLS regression estimates (with 95% confidence intervals) when we trim the sample to include only municipalities that are 255 km (≈ 158 miles; the mid-point of the data) or less from the Turkish coast away. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status.



Figure E5: Comparison of 2SLS regression estimates (with 95% confidence intervals) for three types of treatment: A binary treatment measuring if a municipality received refugees, a continuous treatment measuring the number of arriving refugees (scaled by 10) and the continuous treatment log-transformed. Estimates are based $\frac{30}{10}$ imputed data and weighted by the number of voters and the municipality's treatment status.



Figure E6: Comparison of 2SLS regression estimates (with 95% confidence intervals) are based on list-wise deletion of missing values and multiple imputation, as well as comparison of unweighted and weighted estimates.



Figure E7: Comparison of 2SLS regression estimates (with 95% confidence intervals) based on cluster-robust standard errors on the island ($N_{cluster} = 67$) and municipality level ($N_{cluster} = 92$). Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status. 32



Figure E8: Comparison of 2SLS regression estimates (with 95% confidence intervals) when we split the sample into respondents that voted for Nea Dimokratia (ND) or Golden Dawn (GD) in the January 2015 election and respondents that either voted for other parties, didn't vote or for whom we have no information. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status.



Figure E9: Comparison of 2SLS regression estimates (with 95% confidence intervals) when we drop respondents that live in townships closer than some distance to an operational refugee camp. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status.



Figure E10: Quantile regression estimates (with 95% bootstrap confidence intervals). Estimates are based on imputed data. Trimmed estimates drop 16 coefficient estimates larger than +/-5.



Figure E11: Comparison of 2SLS regression estimates (with 95% confidence intervals) for three sub-samples: Respondents whose income depends on tourism, i) completely or primarily, ii) somewhat, or iii) not at all. Estimates are based on imputed data and weighted by the number of voters and the municipality's treatment status.

References

- Bansak, Kirk, Jens Hainmueller and Dominik Hangartner. 2016. "How Economic, Humanitarian, and Religious Concerns Shape European Attitudes toward Asylum Seekers." *Science* 354(6309):217–222.
- Chernozhukov, Victor and Christian Hansen. 2005. "An IV Model of Quantile Treatment Effects." *Econometrica* 73(1):245–261.
- GADM. 2012. "Database of Global Administrative Areas, GADM Version2.8." Available at www.gadm.org.
- Little, Roderick J. A. and Donald B. Rubin. 2002. *Statistical Analysis with Missing Data*. Wiley.
- Rubin, Donald B. 1987. Multiple Imputation for Nonresponse in Surveys. J.Wiley & Sons.
- Schomaker, Michael and Christian Heumann. 2018. "Bootstrap Inference when Using Multiple Imputation." Statistics in Medicine 37(14):2252– 2266.