**Online Appendix 1: Propensity score matching procedure**

The propensity score matching procedure was carried out in 5 steps based on Caliendo and Kopeinig (2008):

1. Choosing variables for propensity matching. We matched immigrant and native-born individuals based on the following variables previously identified to be significantly related to volunteering: age, gender, level of education, employment status and membership in religious congregations. We included only variables indicating a significant relationship to the treatment group (immigrant) since inclusion of non-significant variables is likely to increase the variance of the estimates (Caliendo and Kopeinig, 2008).
2. Testing for crude differences. Probit regression was used to test for crude differences between immigrant and native-born individuals using the variables identified in step (1) as predictors. The results (Table A1) indicated that there were no significant differences on gender and religious membership, thus we dropped these variables from the rest of the procedure and matched the two groups on age, employment status, and education only (Caliendo and Kopeinig, 2008).

**Table A1 - Probit regression (DV: immigrant)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **B(SE)** | **p** | **CI** |
| Age | -.01 (.00) | 0.0000 | [-.02, -.01] |
| Gender | -.03 (.08) | 0.2800 | [-.08, .02] |
| Employed | -.17 (.03) | 0.0000 | [-.22, -.11] |
| College education | .17 (.03) | 0.0000 | [.11, .24] |
| Religious membership | -.01 (.03) | 0.7700 | [-.06, .05] |

1. Common support condition. This condition accounts for substantial overlap in the propensity score in both the immigrant and native-born groups and is necessary for high quality matching and subsequent estimation. We applied in this step the common support condition to ensure that any combination of individual characteristics observed in the immigrant group is also observed in the group of native-born (Bryson, Dorsett and Purdon, 2002).
2. Full matching. In this step, immigrants and native-born were grouped based on similar propensity scores. Six blocks were identified as ideal to ensure that the mean propensity score is not different for both groups. Nearest neighbor matching – a matching algorithm where native-born individuals are chosen in a way that is closest to the immigrants in the respective propensity scores (Caliendo and Kopeinig, 2008) – revealed that out of the full sample, 16,712 native-born could be matched to 1,461 immigrants. We calculate the Average Treatment Effect on the Treated (ATT). Based on the matching results, the ATT represents the average difference in volunteering behavior between immigrants and native-born, while keeping constant the chosen individual characteristics in the model. Even after the matching, immigrants tended to volunteer significantly less than native-born individuals (ATT=-.114, *t*=-9.233, s.e.=.012, *p*<.0001), further confirming the robustness of the initial result. We find similar results when bootstrapping (50 replications) the standard error of the treatment effect (ATT=-.114, t=-11.237, s.e.=.010, p<.0001) and when using stratification matching as alternative techniques (ATT=-.116, t=-9.467, s.e.=.012, p<.0001).
3. Creating the matched dataset. Based on the propensity scores, we matched 1,461 immigrants one-on-one with 1,461 native-born to create a unique dataset (n=2,922) where we analyzed similarities and differences between the two groups.

**Online Appendix 2: Descriptive statistics and bivariate correlation matrix of immigrants in the full sample (N=1,566)** a

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Range** | **M** | **SD** | 1 | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| 1. Volunteering | 0-1 | 0.25 | 0.43 | 1 |  |  |  |  |  |  |  |  |  |
| 1. Male | 0-1 | 0.43 | 0.50 | .02 | 1 |  |  |  |  |  |  |  |  |
| 1. Age | 18-93 | 41.8 | 16.6 | .05\* | -.02 | 1 |  |  |  |  |  |  |  |
| 1. College education | 0-1 | 0.25 | 0.43 | .16\*\*\* | .02 | .15\*\*\* | 1 |  |  |  |  |  |  |
| 1. Employed | 0-1 | 0.51 | 0.50 | .05\* | .08\*\* | -.08\*\* | .16\*\*\* | 1 |  |  |  |  |  |
| Country of origin (clustered) | |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. *Eastern Europe* | 0-1 | 0.28 | 0.45 | .02 | -.06\* | .20\*\*\* | .02 | -.07\*\* |  |  |  |  |  |
| 1. *Rest of Europe* | 0-1 | 0.20 | 0.40 | .08\*\*\* | .01 | .19\*\*\* | .05+ | .05+ |  |  |  |  |  |
| 1. *CIS b* | 0-1 | 0.30 | 0.46 | -.09\*\*\* | -.04+ | -.23\*\*\* | -.04 | -.00 |  |  |  |  |  |
| 1. *Asia* | 0-1 | 0.15 | 0.35 | -.06\* | .08\*\*\* | -.09\*\*\* | -.04 | .00 |  |  |  |  |  |
| 1. *All others* | 0-1 | 0.08 | 0.27 | .07\*\* | .01 | -.04 | .08\*\* | -.00 |  |  |  |  |  |
| 1. Secular membership | 0-1 | 0.24 | 0.43 | .37\*\*\* | .07\*\* | .18\*\*\* | .13\*\*\* | .00 | .02 | .08\*\* | -.10\*\*\* | -.03 | .03 |
| 1. Religious membership | 0-1 | 0.54 | 0.50 | .09\*\*\* | -.08\*\* | .08\*\* | -.03 | -.05+ | .07\*\* | .05\* | -.03 | -.1\*\*\* | .02 |
| 1. Interest in politics & public life | 1-3 | 2.08 | 0.72 | .16\*\*\* | .13\*\*\* | .19\*\*\* | .21\*\*\* | .00 | .04 | .09\*\*\* | -.16\*\*\* | -.05+ | .04 |
| 1. Social network | 1-3 | 1.83 | 0.73 | .12\*\*\* | .09\*\*\* | -.16\*\*\* | -.05\* | -.04 | -.09\*\*\* | -.03 | .03 | .03 | -.00 |
| 1. Time since migration | 1-83 | 24.6 | 16.8 | .11\*\*\* | .01 | .73\*\*\* | .00 | -.14\*\*\* | .25\*\*\* | .19\*\*\* | -.38\*\*\* | -.03 | -.03 |

Note: +p≤.10, \*p≤.05, \*\*p≤.01, \*\*\*p≤.001. a values are Pearson-correlation coefficients rounded to two decimals. b CIS = Commonwealth of Independent States

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Range** | **M** | **SD** | **11** | **12** | **13** | **14** | **15** |
| 1. Secular membership | 0-1 | 0.24 | 0.43 | 1 |  |  |  |  |
| 1. Religious membership | 0-1 | 0.54 | 0.50 | 0.10\*\*\* | 1 |  |  |  |
| 1. Interest in politics & public life | 1-3 | 2.08 | 0.72 | 0.19\*\*\* | 0.08\*\*\* | 1 |  |  |
| 1. Social network | 1-3 | 1.83 | 0.73 | 0.17\*\*\* | 0.05\* | 0.02 | 1 |  |
| 1. Time since migration | 1-83 | 24.6 | 16.8 | 0.21\*\*\* | 0.15\*\*\* | 0.27\*\*\* | -0.01 | 1 |

**Online Appendix 3: Robustness checks for within-group regression analysis among immigrants**

1. When running the regression models hierarchically (analysis not shown, but available upon request), we find significantly improved model fit between the models in such a way that Model 2 fits the data better than Model 1 (ΔLRchi2(5)=49.11, p<.0000) and Model 3 fits the data better than Model 2 (ΔLRchi2(5)=179.20, p<.0000). This further supports the strength of our conceptual model.
2. We examined the marginal effects of a change in the independent variables on volunteering behavior. Marginal effects indicate the change in probability that an individual will become a volunteer. For brevity, we focus on the organizational embeddedness variable only (full analysis is available upon request). The predicted probability of being a volunteer is .28 for an individual who is a member in a secular organization, while all other variables are held constant at their respective means. Members of religious organizations have a .05 predicted probability of being a volunteer.
3. We replicated the regression analysis as displayed in Table 3 on the non-immigrant subsample (without the cultural capital variables time since migration and country of birth). Findings are comparable to those presented in Table 3. In particular, secular membership (OR=7.03, p<.0000), religious membership (OR=1.34, p=.02), interest in politics (OR=1.44, p<.0000), and social networks (OR=1.69, p<.0000) were significant explanatory variables. Unlike the immigrant sample, age (OR=1.08, p=.003), age2 (OR=.999, p<.0000), and employment status (OR=.71, p=.02) also predict volunteer proclivity among non-immigrants in Germany, whereas education does not have an effect (OR=1.21, p=.21). These are similar trends yet less pronounced (lower effect sizes) compared to the model of the immigrant population in the sample.

References

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