**Online Appendix for “Whom Do We Naturalize? A Factorial Survey on Naturalization Preferences in Germany”**

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**ABSTRACT**

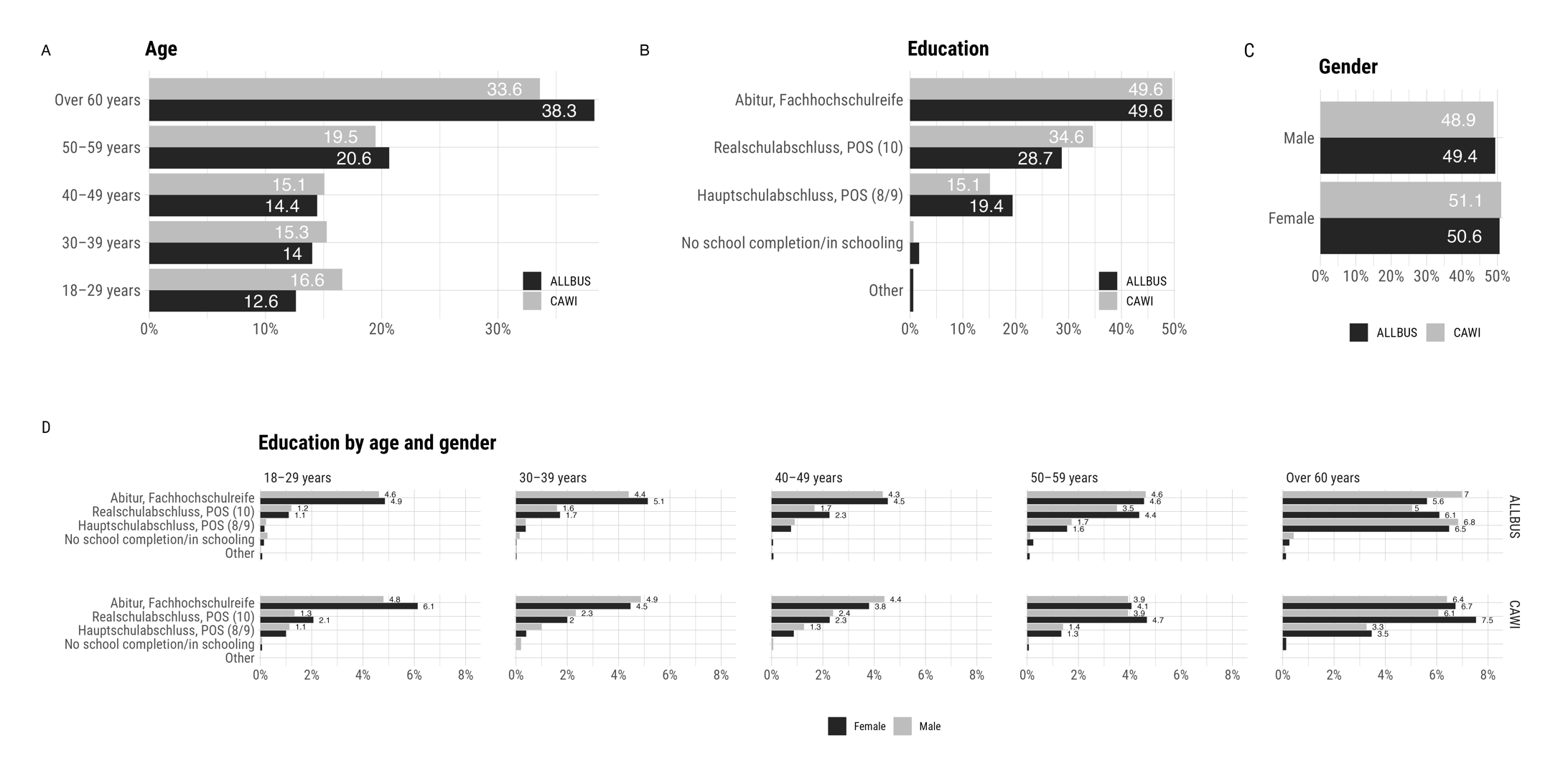
**KEYWORDS**

Citizenship; naturalization; migration; factorial survey

**Content**

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8. **Survey description**

The survey was administered by OmniQuest using their online access panel for which participants are recruited through online and offline channels. The sample was selected to be representative of the German population regarding age, gender, and region (NUTS-1 regions, i.e., federal states). Using secondary data from another high-quality survey, the German General Social Survey (ALLBUS) in its’ most recent wave of 2021 (GESIS - Leibniz-Institut für Sozialwissenschaften 2023), I show that respondent characteristics closely align in both survey (see Figure A1). However, as can be expected from survey that requires internet access, the participants in the online survey are slightly younger than in the ALLBUS, which is conducted in a mixed-mode design by mail and CAWI.



**Figure A1.** Frequency distribution of age, education, and gender in online survey and ALLBUS (2021)

1. **Orthogonality**

**Table A1.** Correlations between vignette variables

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Gender** | **Country of origin** | **Residence period** | **Employ-ment** | **German proficiency** | **Dual citizenship** |
| Gender | 1.000 | -0.005 | 0.000 | -0.005 | 0.000 | -0.001 |
| Country of origin | -0.005 | 1.000 | 0.003 | 0.004 | 0.000 | 0.001 |
| Residence period | 0.000 | 0.003 | 1.000 | 0.003 | 0.002 | -0.002 |
| Employment | -0.005 | 0.004 | 0.003 | 1.000 | -0.005 | 0.006 |
| German proficiency | 0.000 | 0.000 | 0.002 | -0.005 | 1.000 | 0.002 |
| Dual citizenship | -0.001 | 0.001 | -0.002 | 0.006 | 0.002 | 1.000 |

1. **Full regression tables**

**Table A2.** Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.233\*\*\* | 2.841\*\*\* | 2.720\*\*\* | 4.212\*\*\* | 4.649\*\*\* |
|  | (0.088) | (0.077) | (0.084) | (0.212) | (0.240) |
| Gender: Male (ref.: Female) |  | -0.099\* | 0.129 | 0.107 | 0.096 |
|  |  | (0.047) | (0.090) | (0.091) | (0.092) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.368\*\*\* | -0.362\*\*\* | -0.367\*\*\* | 0.173 |
|  |  | (0.059) | (0.057) | (0.057) | (0.142) |
| India |  | -0.323\*\*\* | -0.317\*\*\* | -0.315\*\*\* | 0.068 |
|  |  | (0.059) | (0.056) | (0.056) | (0.144) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.120\* | 0.148+ | 0.120 | 0.110 |
|  |  | (0.060) | (0.080) | (0.080) | (0.081) |
| 10 years |  | 0.277\*\*\* | 0.315\*\*\* | 0.295\*\*\* | 0.294\*\*\* |
|  |  | (0.061) | (0.080) | (0.080) | (0.081) |
| Language proficiency: Very good (ref.: Little) |  | 1.347\*\*\* | 1.348\*\*\* | 1.357\*\*\* | 1.356\*\*\* |
|  |  | (0.047) | (0.044) | (0.045) | (0.045) |
| Employment: Employed (ref.: Seeking employment) |  | 0.949\*\*\* | 0.952\*\*\* | 0.947\*\*\* | 0.467\*\*\* |
|  |  | (0.047) | (0.045) | (0.045) | (0.113) |
| Current citizenship: Renounce (ref.: Retain) |  | 0.783\*\*\* | 0.972\*\*\* | 0.961\*\*\* | -0.047 |
|  |  | (0.047) | (0.064) | (0.064) | (0.157) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.375\*\*\* |  | -0.351\*\*\* |
|  |  |  | (0.091) |  | (0.092) |
| Gender: Male × Residence period: 5 years |  |  | -0.051 |  |  |
|  |  |  | (0.112) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.076 |  |  |
|  |  |  | (0.111) |  |  |
| Gender (resp.): Male |  |  |  | -0.124+ | -0.120+ |
|  |  |  |  | (0.066) | (0.066) |
| Age (resp.) |  |  |  | -0.004+ | -0.011\*\*\* |
|  |  |  |  | (0.002) | (0.002) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.097 | -0.099 |
|  |  |  |  | (0.100) | (0.100) |
| Abitur, Fachhochschulreife |  |  |  | 0.003 | 0.000 |
|  |  |  |  | (0.098) | (0.098) |
| No diploma/in school |  |  |  | -0.433 | -0.429 |
|  |  |  |  | (0.403) | (0.403) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.473\*\*\* | 0.471\*\*\* |
|  |  |  |  | (0.128) | (0.128) |
| Third country |  |  |  | -0.039 | -0.032 |
|  |  |  |  | (0.178) | (0.178) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.138 | 0.139 |
|  |  |  |  | (0.091) | (0.091) |
| Immigration concern (resp.) |  |  |  | -0.237\*\*\* | -0.253\*\*\* |
|  |  |  |  | (0.020) | (0.029) |
|  | Continued on next page | | | | |
|  |  |  |  |  |  |
| Economic concern (resp.) |  |  |  | -0.007 | -0.006 |
|  |  |  |  | (0.019) | (0.019) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.480\*\*\* | 0.471\*\*\* |
|  |  |  |  | (0.113) | (0.113) |
| Bündnis 90 / Die Grünen |  |  |  | 0.199 | 0.201 |
|  |  |  |  | (0.124) | (0.125) |
| FDP |  |  |  | 0.132 | 0.124 |
|  |  |  |  | (0.161) | (0.161) |
| Die Linke |  |  |  | 0.011 | 0.016 |
|  |  |  |  | (0.157) | (0.157) |
| AfD |  |  |  | -0.365\*\* | -0.367\*\* |
|  |  |  |  | (0.115) | (0.115) |
| Other |  |  |  | -0.378\* | -0.369\* |
|  |  |  |  | (0.175) | (0.175) |
| No preference |  |  |  | -0.032 | -0.035 |
|  |  |  |  | (0.098) | (0.098) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.014\*\*\* |
|  |  |  |  |  | (0.002) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.106\*\*\* |
|  |  |  |  |  | (0.025) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.074\*\* |
|  |  |  |  |  | (0.026) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.094\*\*\* |
|  |  |  |  |  | (0.020) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.056\*\* |
|  |  |  |  |  | (0.020) |
| Num.Obs. | 6000 | 6000 | 6000 | 5964 | 5964 |
| R2 Marg. | 0.000 | 0.201 | 0.203 | 0.292 | 0.300 |
| R2 Cond. | 0.527 | 0.524 | 0.523 | 0.529 | 0.539 |
| AIC | 23746.0 | 23452.3 | 23449.7 | 23043.7 | 22996.1 |
| BIC | 23772.8 | 23532.7 | 23550.2 | 23257.9 | 23243.8 |
| ICC | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 |
| RMSE | 1.29 | 1.30 | 1.30 | 1.31 | 1.29 |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |

1. **Likelihood-ratio test**

**Table A3.** Results of a likelihood-ratio test

|  |  |  |  |
| --- | --- | --- | --- |
| **Term** | **DF** | **LRT** | ***p*** |
| Gender | 1 | 278.26 | 0.0000 |
| Country of origin | 1 | 409.19 | 0.0000 |
| Residence period | 1 | 831.52 | 0.0000 |
| Employment | 2 | 10.45 | 0.0001 |
| German proficiency | 2 | 23.09 | 0.0000 |
| Dual citizenship | 1 | 4.42 | 0.0378 |
| Gender × Country of origin | 1 | 1.44 | 0.2339 |
| Gender × Residence period | 1 | 9.49 | 0.0027 |
| Gender × Employment | 2 | 0.02 | 0.9827 |
| Gender × German proficiency | 2 | 1.02 | 0.3642 |
| Gender × Dual citizenship | 1 | 17.78 | 0.0001 |
| Country of origin × Residence period | 1 | 0.86 | 0.3574 |
| Country of origin × Employment | 2 | 2.91 | 0.0596 |
| Country of origin × German proficiency | 2 | 0.27 | 0.7649 |
| Country of origin × Dual citizenship | 1 | 1.37 | 0.2449 |
| Residence period × Employment | 2 | 0.28 | 0.7530 |
| Residence period × German proficiency | 2 | 0.15 | 0.8649 |
| Residence period × Dual citizenship | 1 | 0.20 | 0.6589 |
| Employment × German proficiency | 4 | 1.39 | 0.2440 |
| Employment × Dual citizenship | 2 | 0.24 | 0.7884 |
| German proficiency × Dual citizenship | 2 | 0.99 | 0.3766 |

1. **Full regression tables**

Table A4. Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.224\*\*\* | 2.665\*\*\* | 2.549\*\*\* | 3.796\*\*\* | 4.196\*\*\* |
|  | (0.093) | (0.080) | (0.088) | (0.205) | (0.242) |
| Gender: Male (ref.: Female) |  | -0.103\* | 0.120 | 0.103 | 0.092 |
|  |  | (0.051) | (0.098) | (0.098) | (0.099) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.399\*\*\* | -0.395\*\*\* | -0.397\*\*\* | 0.220 |
|  |  | (0.064) | (0.061) | (0.061) | (0.159) |
| India |  | -0.330\*\*\* | -0.327\*\*\* | -0.324\*\*\* | 0.155 |
|  |  | (0.063) | (0.060) | (0.061) | (0.161) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.144\* | 0.156+ | 0.129 | 0.118 |
|  |  | (0.064) | (0.086) | (0.087) | (0.087) |
| 10 years |  | 0.285\*\*\* | 0.314\*\*\* | 0.297\*\*\* | 0.296\*\*\* |
|  |  | (0.065) | (0.086) | (0.087) | (0.087) |
| Language proficiency: Very good (ref.: Little) |  | 1.496\*\*\* | 1.498\*\*\* | 1.507\*\*\* | 1.504\*\*\* |
|  |  | (0.051) | (0.048) | (0.049) | (0.049) |
| Employment: Employed (ref.: Seeking employment) |  | 1.061\*\*\* | 1.062\*\*\* | 1.061\*\*\* | 0.549\*\*\* |
|  |  | (0.051) | (0.048) | (0.049) | (0.127) |
| Current citizenship: Renounce (ref.: Retain) |  | 0.865\*\*\* | 1.063\*\*\* | 1.053\*\*\* | 0.031 |
|  |  | (0.051) | (0.069) | (0.070) | (0.173) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.393\*\*\* |  | -0.372\*\*\* |
|  |  |  | (0.098) |  | (0.099) |
| Gender: Male × Residence period: 5 years |  |  | -0.026 |  |  |
|  |  |  | (0.120) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.059 |  |  |
|  |  |  | (0.120) |  |  |
| Gender (resp.): Male |  |  |  | -0.073 | -0.068 |
|  |  |  |  | (0.061) | (0.061) |
| Age (resp.) |  |  |  | -0.005\*\* | -0.012\*\*\* |
|  |  |  |  | (0.002) | (0.002) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.105 | -0.105 |
|  |  |  |  | (0.094) | (0.094) |
| Abitur, Fachhochschulreife |  |  |  | -0.049 | -0.050 |
|  |  |  |  | (0.092) | (0.092) |
| No diploma/in school |  |  |  | -0.416 | -0.407 |
|  |  |  |  | (0.351) | (0.351) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.288\* | 0.287\* |
|  |  |  |  | (0.123) | (0.123) |
| Third country |  |  |  | -0.038 | -0.031 |
|  |  |  |  | (0.164) | (0.164) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.068 | 0.070 |
|  |  |  |  | (0.083) | (0.083) |
| Immigration concern (resp.) |  |  |  | -0.164\*\*\* | -0.171\*\*\* |
|  |  |  |  | (0.019) | (0.030) |
|  | Continued on next page | | | | |
|  |  | | | | |
| Economic concern (resp.) |  |  |  | -0.006 | -0.005 |
|  |  |  |  | (0.018) | (0.018) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.396\*\*\* | 0.382\*\*\* |
|  |  |  |  | (0.104) | (0.104) |
| Bündnis 90 / Die Grünen |  |  |  | 0.055 | 0.054 |
|  |  |  |  | (0.115) | (0.115) |
| FDP |  |  |  | 0.041 | 0.031 |
|  |  |  |  | (0.144) | (0.144) |
| Die Linke |  |  |  | -0.063 | -0.060 |
|  |  |  |  | (0.141) | (0.141) |
| AfD |  |  |  | -0.217\* | -0.226\* |
|  |  |  |  | (0.107) | (0.107) |
| Other |  |  |  | -0.445\*\* | -0.437\*\* |
|  |  |  |  | (0.168) | (0.169) |
| No preference |  |  |  | -0.118 | -0.121 |
|  |  |  |  | (0.090) | (0.090) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.014\*\*\* |
|  |  |  |  |  | (0.002) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.119\*\*\* |
|  |  |  |  |  | (0.028) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.091\*\* |
|  |  |  |  |  | (0.029) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.100\*\*\* |
|  |  |  |  |  | (0.023) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.054\* |
|  |  |  |  |  | (0.023) |
| Num.Obs. | 5304 | 5304 | 5304 | 5276 | 5276 |
| R2 Marg. | 0.000 | 0.265 | 0.268 | 0.313 | 0.321 |
| R2 Cond. | 0.460 | 0.460 | 0.461 | 0.466 | 0.477 |
| AIC | 20799.5 | 20493.5 | 20491.5 | 20257.5 | 20216.5 |
| BIC | 20825.8 | 20572.4 | 20590.1 | 20467.8 | 20459.6 |
| ICC | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 |
| RMSE | 1.35 | 1.36 | 1.37 | 1.37 | 1.35 |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |

1. **Full regression tables**

Table A5. Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.317\*\*\* | 2.286\*\*\* | 2.101\*\*\* | 4.265\*\*\* | 4.846\*\*\* |
|  | (0.059) | (0.102) | (0.115) | (0.329) | (0.370) |
| Gender: Male (ref.: Female) |  | -0.140\* | 0.201+ | 0.173 | 0.157 |
|  |  | (0.059) | (0.117) | (0.117) | (0.115) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.572\*\*\* | -0.561\*\*\* | -0.565\*\*\* | 0.280 |
|  |  | (0.075) | (0.074) | (0.074) | (0.211) |
| India |  | -0.489\*\*\* | -0.481\*\*\* | -0.476\*\*\* | 0.208 |
|  |  | (0.074) | (0.074) | (0.073) | (0.215) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.173\* | 0.204+ | 0.164 | 0.151 |
|  |  | (0.075) | (0.105) | (0.104) | (0.103) |
| 10 years |  | 0.410\*\*\* | 0.485\*\*\* | 0.460\*\*\* | 0.458\*\*\* |
|  |  | (0.077) | (0.106) | (0.105) | (0.104) |
| Language proficiency: Very good (ref.: Little) |  | 1.973\*\*\* | 1.976\*\*\* | 1.989\*\*\* | 1.984\*\*\* |
|  |  | (0.059) | (0.059) | (0.059) | (0.058) |
| Employment: Employed (ref.: Seeking employment) |  | 1.385\*\*\* | 1.388\*\*\* | 1.384\*\*\* | 0.656\*\*\* |
|  |  | (0.059) | (0.058) | (0.058) | (0.168) |
| Current citizenship: Renounce (ref.: Retain) |  | 1.174\*\*\* | 1.459\*\*\* | 1.444\*\*\* | -0.069 |
|  |  | (0.059) | (0.084) | (0.084) | (0.231) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.563\*\*\* |  | -0.524\*\*\* |
|  |  |  | (0.118) |  | (0.116) |
| Gender: Male × Residence period: 5 years |  |  | -0.053 |  |  |
|  |  |  | (0.146) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.148 |  |  |
|  |  |  | (0.145) |  |  |
| Gender (resp.): Male |  |  |  | -0.228\* | -0.220\* |
|  |  |  |  | (0.105) | (0.105) |
| Age (resp.) |  |  |  | -0.005 | -0.015\*\*\* |
|  |  |  |  | (0.003) | (0.004) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.106 | -0.110 |
|  |  |  |  | (0.159) | (0.159) |
| Abitur, Fachhochschulreife |  |  |  | 0.052 | 0.047 |
|  |  |  |  | (0.156) | (0.156) |
| No diploma/in school |  |  |  | -0.637 | -0.627 |
|  |  |  |  | (0.637) | (0.638) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.749\*\*\* | 0.746\*\*\* |
|  |  |  |  | (0.205) | (0.205) |
| Third country |  |  |  | -0.071 | -0.059 |
|  |  |  |  | (0.282) | (0.282) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.190 | 0.196 |
|  |  |  |  | (0.145) | (0.145) |
| Immigration concern (resp.) |  |  |  | -0.372\*\*\* | -0.381\*\*\* |
|  |  |  |  | (0.032) | (0.044) |
|  | Continued on next page | | | | |
|  |  |  |  |  |  |
| Economic concern (resp.) |  |  |  | -0.012 | -0.010 |
|  |  |  |  | (0.031) | (0.031) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.854\*\*\* | 0.837\*\*\* |
|  |  |  |  | (0.180) | (0.180) |
| Bündnis 90 / Die Grünen |  |  |  | 0.429\* | 0.431\* |
|  |  |  |  | (0.198) | (0.198) |
| FDP |  |  |  | 0.355 | 0.346 |
|  |  |  |  | (0.255) | (0.255) |
| Die Linke |  |  |  | 0.155 | 0.166 |
|  |  |  |  | (0.249) | (0.249) |
| AfD |  |  |  | -0.568\*\* | -0.579\*\* |
|  |  |  |  | (0.184) | (0.184) |
| Other |  |  |  | -0.527+ | -0.509+ |
|  |  |  |  | (0.280) | (0.281) |
| No preference |  |  |  | 0.083 | 0.081 |
|  |  |  |  | (0.155) | (0.155) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.022\*\*\* |
|  |  |  |  |  | (0.003) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.165\*\*\* |
|  |  |  |  |  | (0.039) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.132\*\*\* |
|  |  |  |  |  | (0.039) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.142\*\*\* |
|  |  |  |  |  | (0.031) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.079\* |
|  |  |  |  |  | (0.031) |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |

1. **Bibliography**

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