**Immigration incorporation regimes and institutionalised forms of solidarity: between unconditional institutional solidarity and welfare chauvinism**

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**Appendix A1.** Variables (dependent, independent and controls): original wording and recoding

|  |  |
| --- | --- |
| **Variable and Item(s) at the individual level** | **Recoding** |
| [Age] How old are you? (years passed since birth) | Standardised |
| [Gender] Are you male or female? 1=man, 2=woman | 0=man; 1=woman |
| [Education\_set] What is the highest level of education that you have completed? (ISCED-list) | Education, Highest completed level of education, 3-category: 0 = high educational achievement; 1= intermediate educational achievement; 2= low educational achievement |
| [Income] What is your household's MONTHLY net income, after tax and compulsory deductions, from all sources? (ten deciles) | Standardised |
| [Economic left-right political orientations] has been measured as an additive index of positions linked to a unique factors component (scale range: 0-10). 0 corresponds to far-left and 10 to far-right orientations.  | Standardised |
| Principal component factor (PCF) analysis included variables measuring respondents’ opinions on five economic issues: “decrease taxes vs. increase taxes”, “competition is good vs. competition is harmful”, “unemployed should take any job vs. freedom of choice”, “personal responsibility vs. governmental responsibility”, “equal incomes vs. larger income differences”. All items except one (income differences) clustered within one statistically significant dimension. The 4-factor loadings were high (between 0.66 and 0.74). Reliability scale: alpha test 0.66. Final measure 4-item additive index of economic left-right. | 4-item additive index |
| [Ecomig: economic migration attitudes \* 5 immigrant groups] For each of the following groups (EU, non-EU, LAC, middle East, Asia and Africa), what measures do you think the government should pursue? 1-Allow in all those who want to come, 2-Allow people to come as long as there are jobs that they can do, 3- Put strict limits on the numbers who are allowed to come here, 4- Prohibit people from these countries coming here. | Standardised6-item additive scale (alpha test of 98%) |
| [Attachment to country] Please tell me how attached you feel to your country? 1- Not at all attached, 2- Not very attached, 3- Quite attached, 4-Very attached | Standardised |
| [Multicultural appraisal: multiculturalism] To what extent do you agree or disagree with the following statement: It is a good thing to live in a multicultural society. 1- Strongly disagree, 2- Disagree, 3- Neither, 4- Agree and 5- Strongly agree | Standardised |
| [Tolerance] Please say whether you would mind or not having each of the following as neighbours? Items correspond to 18 target groups, e.g. migrants, people suffering from AIDS, left wing extremist, right wing extremist etc. in which the higher score corresponds to low social tolerance. | Standardised 18-item additive scale (alpha test of 84%) |
| [Citizen]Are you a citizen of \*country? | 0= No1= Yes |
| [Fathercountry/Mothercountry]Thinking of your father/mother, was he/she born in \*country?  | 0=None 1= Yes, at least one |
| [Reldeprrefgroup: individual relative deprivation] Compared to the rest of the people living in \*country, your current living conditions: please place the following on a scale where 0 means the 'Worst living conditions' and 10 means the 'Best living conditions' | Standardised |
| [Social benefits] During the past 12 months have you used or received any of the following kinds of public support or benefits? (8- possibilities: unemployment benefit or free skills training, social housing or housing support/benefit, child/maternity/family/one parent family support/benefit, sickness/mobility/invalidity/disabled person's pension/benefit, in-kind support (e.g. food/free meals/clothing), help from home care services (e.g. family assistant/social worker), none of the above, prefer not to say) | 0=No 1=Yes, at least one |
| [Group vulnerability- mainact] Which of these descriptions BEST applies to what you have been doing for the past 7 days? 10-category question on activities. Binary recoded variable (1) corresponds to answer categories: unemployed, permanently sick or disabled, retired and doing housework, looking after children or others and (0) corresponds to all the rest.  | 0; N 69971; N 3652 |
| [Social trust] Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? please place the following on a scale where 0- You can't be too careful to 10- Most people can be trusted | Standardised |
| [helpgroups/deservingness] To what extent would you be willing to help improve the conditions of the following groups? 1- Not at all, 2- Not very, 3- Neither, 4- Quite, 5- Very much which are highly correlated (alpha test 0.81). Additive scale as a proxy for deservingness. | Standardised |
| [Conditionality] Thinking of people coming to live in [COUNTRY] from other countries, when do you think they should obtain the same rights to social benefits and services as citizens already living here? 1- immediately on arrival, 2- after living in [country] for a year, whether or not they have worked, 3- only after they have worked and paid taxes for at least a year, 4- once they have become a [country] citizen, 5- they should never get the same rights. | 0 (1-2) =16.6% ; 1(3)=44.5% ; 2 (4)=27.5%; 3(5)=11.4% |

**Appendix A2.** Structural variables indicators and recoding

|  |  |
| --- | --- |
| **Variable and Item(s) at the individual level** | **Recoding** |
| Leiden LIS Budget Incidence Fiscal Redistribution Dataset onINCOME INEQUALITY: 47 LIS countries - 1967-2014, Jinxian Wang and Koen Caminada; November 2017.LIS Cross-National Data Center in Luxembourg: <http://www.lisdatacenter.org/resources/other-databases/> | Total Population Disposal Income after Taxes and Transfers (GINI coefficient, latest estimate)DK 2013= .249FR 2010=.289DE 2013= .291CH 2013=.295UK 2013= .330 |
| Migrant Integration Policy Index (MIPEX) 2004-2014. Huddleston, T., Bilgili, O., Joki, A. and Vankova, Z. (2015) Migrant Integration Policy Index 2015, Barcelona/Brussels: CIDOB and MPG | www.mipex.euPOS Models of Citizenship Civic- The individual equality dimension contains the following indicators: - Naturalisation Requirements: Additive index based on MIPEX indicators (period of residence for nationality access; security of status; dual nationality, naturalisation costs; permits for naturalisation; facilitated access to nationality for third and second generations) - Political Rights: MIPEX indicator on Electoral Rights (can legally resident foreign citizens vote and/or stand as candidates in elections - national, regional and local)- Settlement Requirements: Additive index based on MIPEX indicators (eligibility criteria for family reunification and long term residency permits; access to social rights based on permit status, grounds for rejecting, withdrawing, or refusing to renew status) - Antidiscrimination: Composite MIPEX score of anti-discrimination (effective legal protection from racial, ethnic, religious, and nationality discrimination in all areas of life) The actual score is a 5-year mean between the four dimensions (2010-2014) | MIPEX Score range (0-100)POS Civic DimensionEthnic-Civic:DK (2010-2014) = 54.1FR (2010-2014) = 56.8DE (2010-2014) = 57.4CH (2010-2014) =39.5UK (2010-2014) = 65.4 |
| Migrant Integration Policy Index (MIPEX) 2004-2014. Huddleston, T., Bilgili, O., Joki, A. and Vankova, Z. (2015) Migrant Integration Policy Index 2015, Barcelona/Brussels: CIDOB and MPG | www.mipex.euPOS Models of Citizenship Cultural - Cultural obligations and rights dimension contains the following indicators: - Naturalisation Cultural Requirements: MIPEX indicators on access to nationality (language and integration requirements)- Differentiated Political Rights and Labour Rights: MIPEX indicators on political participation of immigrants representatives (consultative bodies and implementation policies); afﬁrmative action in the labour market (targeted support) - Settlement Cultural Requirements: MIPEX indicators on cultural requirements for family reunification and long term residency permits (language and integration requirements)- Multicultural Education Policies MIPEX indicators on education policies (Intercultural education, target needs and new opportunities)The actual score is a 5-year mean between the four dimensions (2010-2014) | MIPEX Score range (0-100)POS Cultural Dimension Monism-Pluralism:DK (2010-2014) = 56.1FR (2010-2014) = 43.9DE (2010-2014) = 64.1CH (2010-2014) =35.3UK (2010-2014) = 43.1 |

**Appendix A3.** Multinomial logistic regression, estimated effects on institutional solidarity attitudes toward immigrants by individual factors and structural covariates of citizenship cultural dimension

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Institutional Solidarity | (1) | (1) | (1) | (2) | (2) | (2) | (3) | (3) | (3) | (4) | (4) | (4) |
| Ref. category Conditional upon taxes | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism |
| *Independent variables* |  |  |  |  |  |  |  |  |  |  |  |  |
| **Deservingness** | **3.36\*\*\*** | **-0.97\*\*\*** | **-5.51\*\*\*** | **1.51\*\*\*** | **-0.54\*** | **-2.85\*\*\*** |  |  |  | 1.54\*\*\* | -0.53\* | -2.81\*\*\* |
|  | **(0.21)** | **(0.15)** | **(0.23)** | **(0.30)** | **(0.23)** | **(0.40)** |  |  |  | (0.30) | (0.23) | (0.39) |
| *Structural Ind. variable* |  |  |  |  |  |  |  |  |  |  |  |  |
| **POS cultural dimension** |  |  |  |  |  |  | **0.59\*\*\*** | **-0.11** | **-0.94\*\*\*** | **0.79\*\*\*** | **-0.08** | **-1.15\*\*\*** |
|  |  |  |  |  |  |  | **(0.10)** | **(0.09)** | **(0.12)** | **(0.13)** | **(0.11)** | **(0.18)** |
| **POS civic dimension** |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Control variables* |  |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  | -0.86\*\* | 0.23 | -1.10\*\* |  |  |  | -0.98\*\*\* | 0.24 | -1.03\* |
|  |  |  |  | (0.28) | (0.24) | (0.41) |  |  |  | (0.28) | (0.24) | (0.42) |
| Gender (woman) |  |  |  | -0.22\* | -0.15 | 0.07 |  |  |  | -0.21\* | -0.15 | 0.10 |
|  |  |  |  | (0.09) | (0.08) | (0.12) |  |  |  | (0.09) | (0.08) | (0.12) |
| Income |  |  |  | 0.19 | -0.10 | -0.39 |  |  |  | 0.11 | -0.09 | -0.24 |
|  |  |  |  | (0.17) | (0.14) | (0.23) |  |  |  | (0.17) | (0.15) | (0.23) |
| *Ref. High education level* |  |  |  |  |  |  |  |  |  |  |  |  |
| Intermediate education level |  |  |  | 0.23\* | -0.11 | -0.12 |  |  |  | 0.14 | -0.11 | -0.09 |
|  |  |  |  | (0.11) | (0.09) | (0.16) |  |  |  | (0.11) | (0.09) | (0.16) |
| Low education level |  |  |  | 0.08 | -0.16 | 0.47\*\* |  |  |  | 0.08 | -0.16 | 0.43\* |
|  |  |  |  | (0.13) | (0.10) | (0.17) |  |  |  | (0.13) | (0.10) | (0.17) |
| Citizenship |  |  |  | -0.15 | 1.09\*\*\* | 0.87 |  |  |  | -0.15 | 1.10\*\*\* | 0.86 |
|  |  |  |  | (0.23) | (0.31) | (0.53) |  |  |  | (0.24) | (0.31) | (0.52) |
| Parents |  |  |  | -0.02 | -0.03 | -0.47\* |  |  |  | 0.01 | -0.03 | -0.42\* |
| Migration |  |  |  | (0.12) | (0.11) | (0.19) |  |  |  | (0.13) | (0.11) | (0.19) |
| Economic pol. Left-right |  |  |  | 2.11\*\*\* | -0.13 | -0.85\*\* |  |  |  | 2.04\*\*\* | -0.11 | -0.59 |
|  |  |  |  | (0.24) | (0.20) | (0.32) |  |  |  | (0.25) | (0.20) | (0.31) |
| Economic Migration attitudes |  |  |  | -1.46\*\*\* | 0.40\* | 3.00\*\*\* |  |  |  | -1.51\*\*\* | 0.42\* | 3.00\*\*\* |
|  |  |  |  | (0.25) | (0.20) | (0.42) |  |  |  | (0.26) | (0.20) | (0.40) |
| Ind. Relative Deprivation |  |  |  | 0.19 | -0.04 | -1.15\*\*\* |  |  |  | 0.14 | -0.04 | -1.11\*\*\* |
|  |  |  |  | (0.25) | (0.20) | (0.31) |  |  |  | (0.25) | (0.20) | (0.31) |
| Tolerance |  |  |  | -0.45 | -0.05 | 1.17\*\*\* |  |  |  | -0.39 | -0.06 | 1.12\*\*\* |
|  |  |  |  | (0.29) | (0.20) | (0.33) |  |  |  | (0.29) | (0.21) | (0.34) |
| Attachment to Country |  |  |  | -0.37\* | 0.34\* | 0.21 |  |  |  | -0.31 | 0.34\* | 0.12 |
|  |  |  |  | (0.18) | (0.16) | (0.24) |  |  |  | (0.19) | (0.16) | (0.24) |
| Multiculturalism |  |  |  | 0.96\*\*\* | -0.24 | -1.70\*\*\* |  |  |  | 1.06\*\*\* | -0.25 | -1.91\*\*\* |
|  |  |  |  | (0.24) | (0.17) | (0.25) |  |  |  | (0.25) | (0.17) | (0.25) |
| Social benefits |  |  |  | 0.11 | -0.13 | -0.10 |  |  |  | 0.14 | -0.13 | -0.14 |
|  |  |  |  | (0.11) | (0.10) | (0.16) |  |  |  | (0.11) | (0.10) | (0.15) |
| Group vulnerability |  |  |  | -0.22 | 0.17 | -0.07 |  |  |  | -0.22 | 0.17 | -0.09 |
|  |  |  |  | (0.12) | (0.10) | (0.15) |  |  |  | (0.12) | (0.10) | (0.16) |
| Social trust |  |  |  | 0.29 | -0.34\* | -0.77\*\* |  |  |  | 0.29 | -0.35\* | -0.86\*\*\* |
|  |  |  |  | (0.19) | (0.16) | (0.24) |  |  |  | (0.19) | (0.16) | (0.24) |
| *Structural control variable* |  |  |  |  |  |  |  |  |  |  |  |  |
| Inequality redistribution Index - LIS  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Constant | -3.08\*\*\* | -0.02 | 1.27\*\*\* | -2.40\*\*\* | -1.37\*\*\* | -0.81 | -1.29\*\*\* | -0.50\*\*\* | -0.82\*\*\* | -2.83\*\*\* | -1.33\*\* | -0.26 |
|  | (0.14) | (0.09) | (0.11) | (0.45) | (0.41) | (0.76) | (0.06) | (0.05) | (0.07) | (0.46) | (0.41) | (0.74) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations (N) | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 |

Robust standard errors in parentheses; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Appendix A3 continuing:** Multinomial logistic regression, estimated effects on institutional solidarity attitudes toward immigrants by individual factors and structural covariates of citizenship civic dimension

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Institutional Solidarity | (5) | (5) | (5) | (6) | (6) | (6) | (7) | (7) | (7) | (8) | (8) | (8) |
| Ref. category Conditional Taxes | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism | Un-conditional | Conditional Citizenship | Welfare Chauvinism |
| *Independent variables* |  |  |  |  |  |  |  |  |  |  |  |  |
| Deservingness | 1.58\*\*\* | -0.52\* | -2.77\*\*\* |  |  |  | 1.55\*\*\* | -0.54\* | -2.85\*\*\* | 1.61\*\*\* | -0.53\* | -2.85\*\*\* |
|  | (0.31) | (0.23) | (0.39) |  |  |  | (0.30) | (0.23) | (0.40) | (0.30) | (0.23) | (0.40) |
| *Structural Ind. variable* |  |  |  |  |  |  |  |  |  |  |  |  |
| **POS cultural dimension** | **0.62\*\*\*** | **-0.16** | **-1.35\*\*\*** |  |  |  |  |  |  |  |  |  |
|  | **(0.14)** | **(0.12)** | **(0.20)** |  |  |  |  |  |  |  |  |  |
| **POS civic dimension** |  |  |  | **-0.32\*\*** | **0.14** | **0.31\*** | **-0.60\*\*\*** | **0.06** | **0.32** | **0.36\*\*** | **0.37\*\*** | **0.33** |
|  |  |  |  | **(0.11)** | **(0.11)** | **(0.15)** | **(0.14)** | **(0.14)** | **(0.24)** | **(0.13)** | **(0.12)** | **(0.18)** |
| *Control variables* |  |  |  |  |  |  |  |  |  |  |  |  |
| Age | -0.98\*\*\* | 0.25 | -0.97\* |  |  |  | -0.88\*\* | 0.23 | -1.12\*\* | -0.89\*\* | 0.24 | -1.13\*\* |
|  | (0.28) | (0.24) | (0.42) |  |  |  | (0.28) | (0.24) | (0.41) | (0.28) | (0.24) | (0.41) |
| Gender (woman) | -0.21\* | -0.15 | 0.10 |  |  |  | -0.21\* | -0.15 | 0.07 | -0.22\* | -0.15 | 0.07 |
|  | (0.09) | (0.08) | (0.12) |  |  |  | (0.09) | (0.08) | (0.12) | (0.09) | (0.08) | (0.12) |
| Income | 0.12 | -0.09 | -0.25 |  |  |  | 0.22 | -0.10 | -0.39 | 0.16 | -0.13 | -0.40 |
|  | (0.17) | (0.15) | (0.23) |  |  |  | (0.17) | (0.14) | (0.23) | (0.17) | (0.15) | (0.23) |
| *Ref. High education level* |  |  |  |  |  |  |  |  |  |  |  |  |
| Intermediate education level | 0.13 | -0.11 | -0.09 |  |  |  | 0.21\* | -0.11 | -0.12 | 0.18 | -0.12 | -0.12 |
|  | (0.11) | (0.09) | (0.16) |  |  |  | (0.11) | (0.09) | (0.16) | (0.11) | (0.09) | (0.16) |
| Low education level | 0.09 | -0.16 | 0.44\*\* |  |  |  | 0.08 | -0.16 | 0.46\*\* | 0.09 | -0.16 | 0.46\*\* |
|  | (0.13) | (0.10) | (0.17) |  |  |  | (0.13) | (0.10) | (0.17) | (0.13) | (0.10) | (0.17) |
| Citizenship | -0.15 | 1.10\*\*\* | 0.86 |  |  |  | -0.11 | 1.09\*\*\* | 0.87 | -0.16 | 1.07\*\*\* | 0.86 |
|  | (0.24) | (0.31) | (0.53) |  |  |  | (0.23) | (0.31) | (0.53) | (0.24) | (0.31) | (0.53) |
| Parents | 0.02 | -0.02 | -0.41\* |  |  |  | -0.02 | -0.03 | -0.46\* | 0.02 | -0.01 | -0.46\* |
| Migration | (0.13) | (0.11) | (0.20) |  |  |  | (0.13) | (0.11) | (0.19) | (0.13) | (0.11) | (0.19) |
| Economic pol. Left-right | 2.03\*\*\* | -0.11 | -0.57 |  |  |  | 2.09\*\*\* | -0.13 | -0.85\*\* | 2.06\*\*\* | -0.14 | -0.85\*\* |
|  | (0.25) | (0.20) | (0.31) |  |  |  | (0.24) | (0.20) | (0.32) | (0.24) | (0.20) | (0.32) |
| Economic Migration attitudes | -1.48\*\*\* | 0.43\* | 3.01\*\*\* |  |  |  | -1.46\*\*\* | 0.40\* | 3.01\*\*\* | -1.40\*\*\* | 0.41\* | 3.01\*\*\* |
|  | (0.26) | (0.20) | (0.40) |  |  |  | (0.25) | (0.20) | (0.42) | (0.25) | (0.20) | (0.42) |
| Ind. Relative Deprivation | 0.22 | 0.01 | -0.94\*\* |  |  |  | 0.24 | -0.05 | -1.19\*\*\* | 0.31 | -0.02 | -1.19\*\*\* |
|  | (0.25) | (0.20) | (0.31) |  |  |  | (0.25) | (0.20) | (0.31) | (0.25) | (0.20) | (0.31) |
| Tolerance | -0.31 | -0.02 | 1.26\*\*\* |  |  |  | -0.38 | -0.06 | 1.13\*\*\* | -0.27 | -0.02 | 1.13\*\*\* |
|  | (0.29) | (0.21) | (0.34) |  |  |  | (0.29) | (0.21) | (0.33) | (0.29) | (0.21) | (0.34) |
| Attachment to Country | -0.39\* | 0.30 | 0.02 |  |  |  | -0.43\* | 0.35\* | 0.24 | -0.49\*\* | 0.34\* | 0.24 |
|  | (0.19) | (0.17) | (0.24) |  |  |  | (0.19) | (0.16) | (0.24) | (0.19) | (0.16) | (0.24) |
| Multiculturalism | 1.08\*\*\* | -0.25 | -1.90\*\*\* |  |  |  | 0.97\*\*\* | -0.25 | -1.71\*\*\* | 1.02\*\*\* | -0.23 | -1.71\*\*\* |
|  | (0.25) | (0.17) | (0.25) |  |  |  | (0.24) | (0.17) | (0.25) | (0.24) | (0.17) | (0.25) |
| Social benefits | 0.13 | -0.13 | -0.15 |  |  |  | 0.12 | -0.13 | -0.10 | 0.10 | -0.13 | -0.10 |
|  | (0.11) | (0.10) | (0.15) |  |  |  | (0.11) | (0.10) | (0.16) | (0.11) | (0.10) | (0.16) |
| Group vulnerability | -0.22 | 0.16 | -0.11 |  |  |  | -0.22 | 0.17 | -0.07 | -0.23 | 0.17 | -0.07 |
|  | (0.12) | (0.10) | (0.16) |  |  |  | (0.12) | (0.10) | (0.15) | (0.12) | (0.10) | (0.15) |
| Social trust | 0.32 | -0.33\* | -0.78\*\* |  |  |  | 0.31 | -0.35\* | -0.79\*\*\* | 0.35 | -0.33\* | -0.79\*\*\* |
|  | (0.19) | (0.16) | (0.24) |  |  |  | (0.19) | (0.16) | (0.24) | (0.19) | (0.16) | (0.24) |
| *Structural control variable* |  |  |  |  |  |  |  |  |  |  |  |  |
| Inequality redistribution  | -0.08\*\* | -0.03 | -0.069\*\* |  |  |  |  |  |  | -0.15\*\*\* | -0.04\* | -0.004 |
| Index - LIS | (0.03) | (0.19) | (0.02) |  |  |  |  |  |  | (0.02) | (0.01) | (0.03) |
| Constant | -2.47\*\*\* | -1.18\*\* | 0.13 | -0.70\*\*\* | -0.66\*\*\* | -1.52\*\*\* | -2.05\*\*\* | -1.40\*\*\* | -1.00 | 1.76\* | -0.285 | -0.88 |
|  | (0.47) | (0.42) | (0.76) | (0.08) | (0.08) | (0.12) | (0.45) | (0.42) | (0.77) | (0.74) | (0.68) | (1.16) |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Observations (N) | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 | 10,649 |

Robust standard errors in parentheses; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Statistical note concerning robust checks**

1- I controlled for the multicollinearity between covariates, variance inflation factor (VIF- Mean: 1.41). Correlation matrix between covariates shows that major correlation structure corresponds to age, vulnerability, tolerance and deservingness.

2- With respect to the multilevel models, all models were identified. However, the multilevel model with the civic dimension of the models of citizenship has a higher condition number, indicating some convergences issues. This problem is also traceably in the instability of the structural covariate. Results are in line with the multinomial logistic regression model, after comparison between models, estimators and standard errors estimation behave similarly (see Table A4). It is worth to indicate that the cultural dimension of the models of citizenship kept its statistical significance and sign, yet the coefficient estimation suffers a relevant reduction. The structural level variance about 10%.

Additionally, concerning the models fitting likelihood ratio tests suggest that the model fitting the civic dimension structural variable is a worst fitting than the null model without structural component explanation, which also indicates the condition identification problem of this dimension. Yet, the added structural control concerning the welfare generosity fit better the data than the without structural component covariate.

**Likelihood-ratio test civic dimension with structural control: LR chi2(2) = 18.36; Prob > chi2 = 0.0001**

Likewise, the cultural dimension is a statistically significant better fit that the null model without variance component at level two.

**Likelihood-ratio test Cultural dimension multilevel model fit: LR chi2 (3) = 49.47; Prob > chi2 = 0.0000**

**Appendix A4.** Multilevel Multinomial logistic regression, estimated effects on institutional solidarity attitudes toward immigrants by individual factors and structural covariates of citizenship cultural dimension.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Institutional Solidarity** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ref. category**  | **Unconditional**  | **Conditional Citizenship** | **Welfare Chauvinism** | **Unconditional**  | **Conditional Citizenship** | **Welfare Chauvinism** | **Unconditional**  | **Conditional Citizenship** | **Welfare Chauvinism** |
| **Conditional Taxes** |
| Independent variables | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. |
| **Deservingness** | **1.77\*\*\*** | **0.24** | **-0.37\*** | **0.19** | **-2.78\*\*\*** | **0.31** | **1.83\*\*\*** | **0.24** | **-0.36** | **0.19** | **-2.83\*\*\*** | **0.32** | **1.79\*\*\*** | **0.24** | **-0.34** | **0.19** | **-2.81\*\*\*** | **0.32** |
| Structural Ind. variable |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **POS cultural dimension** |  |  |  |  |  | **0.7\*\*\*** | **0.11** | **0.18\*** | **0.09** | **-0.51\*\*** | **0.15** | **0.72\*\*\*** | **0.12** | **0.05** | **0.1** | **-0.61\*\*\*** | **0.17** |
| **POS civic dimension** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Control variables** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age | -0.54\* | 0.22 | -0.1 | 0.19 | -0.86\*\* | 0.31 | -0.62\*\* | 0.22 | -0.12 | 0.19 | -0.81\*\* | 0.31 | -0.63\*\* | 0.22 | -0.11 | 0.19 | -0.81\* | 0.31 |
| Gender (woman) | -0.13 | 0.08 | -0.06 | 0.06 | 0.18 | 0.1 | -0.14 | 0.08 | -0.07 | 0.06 | 0.19 | 0.1 | -0.14 | 0.08 | -0.06 | 0.06 | 0.2\* | 0.1 |
| Income | 0.14 | 0.14 | -0.05 | 0.11 | -0.28 | 0.19 | 0.04 | 0.14 | -0.08 | 0.11 | -0.19 | 0.19 | 0.03 | 0.14 | -0.03 | 0.12 | -0.15 | 0.19 |
| Ref. High education level | 0.02 | 0.05 | -0.05 | 0 | 0.23\*\* | 0.07 | 0.02 | 0.05 | -0.06 | 0.04 | 0.23\*\* | 0.07 | 0.01 | 0.05 | -0.05 | 0.04 | 0.24\*\* | 0.07 |
| Citizenship | 0.06 | 0.17 | 0.95\*\*\* | 0.2 | 1.09\*\* | 0.4 | 0 | 0.17 | 0.93\*\*\* | 0.2 | 1.12\*\* | 0.4 | -0.003 | 0.17 | 0.95\*\*\* | 0.2 | 1.14\*\* | 0.4 |
| Parents immigration | 0.03 | 0.1 | -0.21\* | 0.09 | -0.43\*\* | 0.15 | 0.11 | 0.1 | -0.19\* | 0.09 | -0.47\*\* | 0.15 | 0.1 | 0.1 | -0.19\* | 0.09 | -0.47\*\* | 0.15 |
| Economic pol. Left-right | 2.26\*\*\* | 0.2 | -0.03 | 0.16 | -0.36 | 0.25 | 2.22\*\*\* | 0.21 | -0.05 | 0.17 | -0.27 | 0.25 | 2.23\*\*\* | 0.21 | -0.06 | 0.17 | -0.28 | 0.25 |
| Economic Migration attitudes | -1.44\*\*\* | 0.2 | 0.63\*\*\* | 0.17 | 3.44\*\*\* | 0.27 | -1.4\*\*\* | 0.2 | 0.64\*\*\* | 0.17 | 3.38\*\*\* | 0.27 | -1.42\*\*\* | 0.2 | 0.68\*\*\* | 0.17 | 3.41\*\*\* | 0.27 |
| Ind. Relative Deprivation | 0.52\* | 0.2 | -0.03 | 0.16 | -0.71\*\* | 0.24 | 0.48\* | 0.2 | -0.04 | 0.16 | -0.71\*\* | 0.24 | 0.43\* | 0.2 | -0.07 | 0.16 | -0.74\*\* | 0.24 |
| Tolerance | -0.19 | 0.22 | 0.26 | 0.18 | 1.48\*\*\* | 0.27 | -0.15 | 0.23 | 0.27 | 0.18 | 1.44\*\*\* | 0.27 | -0.21 | 0.23 | 0.27 | 0.18 | 1.43\*\*\* | 0.27 |
| Attachment to Country | -0.7\*\*\* | 0.15 | 0.38\*\* | 0.14 | 0.21 | 0.2 | -0.65\*\*\* | 0.15 | 0.39\*\* | 0.14 | 0.16 | 0.2 | -0.6\*\*\* | 0.15 | 0.37\*\* | 0.14 | 0.14 | 0.2 |
| Multiculturalism | 0.93\*\*\* | 0.19 | -0.44\*\* | 0.13 | -1.74\*\*\* | 0.2 | 1.05\*\*\* | 0.19 | -0.41\*\* | 0.13 | -1.83\*\*\* | 0.2 | 1.04\*\*\* | 0.19 | -0.37\*\* | 0.13 | -1.8\*\*\* | 0.2 |
| Social benefits | 0.15 | 0.09 | 0.07 | 0.08 | -0.02 | 0.12 | 0.12 | 0.09 | 0.06 | 0.08 | 0.01 | 0.12 | 0.13 | 0.09 | 0.05 | 0.08 | -0.002 | 0.12 |
| Group vulnerability | -0.22\* | 0.1 | 0.13 | 0.08 | -0.03 | 0.13 | -0.24\* | 0.1 | 0.13 | 0.08 | -0.02 | 0.13 | -0.23\* | 0.1 | 0.13 | 0.08 | -0.02 | 0.13 |
| Social trust | 0.36\* | 0.15 | -0.2 | 0.12 | -0.92\*\*\* | 0.2 | 0.3 | 0.15 | -0.21 | 0.12 | -0.9\*\*\* | 0.2 | 0.28 | 0.16 | -0.3\* | 0.12 | -0.97\*\*\* | 0.2 |
| Structural control variable |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inequality redistribution I |  |  |  |  |  |  |  |  |  |  |  | -0.02 | 0.02 | -0.07\*\*\* | 0.01 | -0.06\*\* | 0.02 |
| Constant | -3.01\*\*\* | 0.36 | -1.37\*\*\* | 0.32 | -2.4\*\*\* | 0.56 | -3.33\*\*\* | 0.37 | -1.43\*\*\* | 0.32 | -2.18\*\*\* | 0.56 | -2.69\*\*\* | 0.6 | 0.47 | 0.5 | -0.39 | 0.86 |
|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Variance/intercept level 2 | 0.1013 |  |  |  |  |  | 0.093 |  |  |  |  |  | 0.041 |  |  |  |  |  |
| Observations | 10.649 | 10.649 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 | 10.649 | 10.65 |

Robust standard errors in parentheses; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05

**Appendix A4. continuing:** Multilevel Multinomial logistic regression, estimated effects on institutional solidarity attitudes toward immigrants by individual factors and structural covariates of citizenship civic dimension.

|  |  |
| --- | --- |
| **Institutional Solidarity** |  |
| **Ref. category**  | **Unconditional**  | **Conditional Citizenship** | **Welfare Chauvinism** | **Unconditional**  | **Conditional Citizenship** | **Welfare Chauvinism** |
| **Conditional Taxes** |
| Independent variables | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. | Coef. | Std. Err. |
| **Deservingness** | **1.79\*\*\*** | **0.24** | **-0.37** | **0.19** | **-2.76\*\*\*** | **0.31** | **1.79\*\*\*** | **0.24** | **-0.36** | **0.19** | **-2.8\*\*\*** | **0.31** |
| Structural Ind. variable |  |  |  |  |  |  |  |  |  |  |  |  |
| **POS cultural dimension** |  |  |  |  |  |  |  |  |  |  |  |
| **POS civic dimension** | **-0.3\*** | **0.13** | **-0.27\*** | **0.11** | **-0.02** | **0.17** | **0.3\*** | **0.13** | **0.35\*\*** | **0.1** | **0.48\*\*** | **0.17** |
| **Control variables** |  |  |  |  |  |  |  |  |  |  |  |  |
| Age | -0.56\* | 0.22 | -0.13 | 0.19 | -0.93\*\* | 0.31 | -0.57\*\* | 0.22 | -0.13 | 0.19 | -0.93\*\* | 0.31 |
| Gender (woman) | -0.13 | 0.08 | -0.06 | 0.06 | 0.17 | 0.1 | -0.13 | 0.08 | -0.07 | 0.06 | 0.17 | 0.1 |
| Income | 0.15 | 0.14 | -0.04 | 0.12 | -0.33 | 0.19 | 0.13 | 0.14 | -0.07 | 0.12 | -0.35 | 0.19 |
| Ref. High education level | 0.02 | 0.05 | -0.05 | 0.04 | 0.22\*\* | 0.07 | 0.02 | 0.05 | -0.05 | 0.04 | 0.22\*\* | 0.07 |
| Citizenship | 0.07 | 0.17 | 0.95\*\*\* | 0.2 | 1.07\*\* | 0.41 | 0.06 | 0.17 | 0.94\*\*\* | 0.2 | 1.07\*\* | 0.41 |
| Parents immigration | 0.04 | 0.1 | -0.2\* | 0.09 | -0.4\* | 0.15 | 0.05 | 0.1 | -0.19\* | 0.09 | -0.42\*\* | 0.15 |
| Economic pol. Left-right | 2.24\*\*\* | 0.2 | -0.08 | 0.16 | -0.42 | 0.25 | 2.23\*\*\* | 0.2 | -0.09 | 0.16 | -0.41 | 0.25 |
| Economic Migration attitudes | -1.43\*\*\* | 0.2 | 0.66\*\*\* | 0.17 | 3.48\*\*\* | 0.27 | -1.42\*\*\* | 0.2 | 0.66\*\*\* | 0.17 | 3.44\*\*\* | 0.28 |
| Ind. Relative Deprivation | 0.45\* | 0.2 | -0.13 | 0.16 | -0.84\*\*\* | 0.24 | 0.47\* | 0.2 | -0.08 | 0.16 | -0.83\*\*\* | 0.24 |
| Tolerance | -0.21 | 0.22 | 0.24 | 0.18 | 1.43\*\*\* | 0.27 | -0.18 | 0.23 | 0.28 | 0.18 | 1.42\*\*\* | 0.27 |
| Attachment to Country | -0.65\*\*\* | 0.15 | 0.43\*\* | 0.14 | 0.31 | 0.2 | -0.66\*\*\* | 0.15 | 0.41\*\* | 0.14 | 0.33 | 0.2 |
| Multiculturalism | 0.99\*\*\* | 0.19 | -0.37\*\* | 0.13 | -1.67\*\*\* | 0.2 | 0.99\*\*\* | 0.19 | -0.36\*\* | 0.13 | -1.71\*\*\* | 0.2 |
| Social benefits | 0.14 | 0.09 | 0.06 | 0.08 | -0.04 | 0.12 | 0.14 | 0.09 | 0.06 | 0.08 | -0.02 | 0.12 |
| Group vulnerability | -0.22\* | 0.1 | 0.14 | 0.08 | -0.02 | 0.13 | -0.22\* | 0.1 | 0.14 | 0.08 | -0.01 | 0.13 |
| Social trust | 0.23 | 0.16 | -0.32\*\* | 0.12 | -1.04\*\*\* | 0.2 | 0.28 | 0.16 | -0.29\* | 0.12 | -0.96\*\*\* | 0.2 |
| Structural control variable |  |  |  |  |  |  |  |  |  |  |  |
| Inequality redistribution I |  |  |  |  |  | -0.08\*\*\* | 0.02 | -0.09\*\*\* | 0.01 | -0.05\* | 0.02 |
| Constant | -2.67\*\*\* | 0.36 | -1.01\*\* | 0.32 | -2.13\*\*\* | 0.57 | -0.88 | 0.56 | 0.95\* | 0.47 | -1.23 | 0.8 |
| Variance/intercept level 2 | 0.10 |  |  |  |  |  | 1.84E-22 |  |  |  |  |  |
| Observations | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 | 10.649 |

Robust standard errors in parentheses; \*\*\* p<0.001, \*\* p<0.01, \* p<0.05