

# Data and Code for "Migration and Labor Market Integration in Europe" (Journal of Economic Perspectives, 35(2): 49-76, 2021)

David Dorn and Josef Zweimüller

May 17, 2021

## 1 Computing environment

The data processing described below used the statistical software Stata, along with the downloadable Stata packages `egenmore`, `gr0034`, `nmissing`, `coefplot`, `spmap`, and `gr0075`. The do-file `master.do` runs all the do-files of the project in sequence. It first runs the do-file `setup.do` to install the Stata packages, and subsequently produces all figures and tables. To execute `master.do`, the user needs to enter the path of the main file directory at the start of that file. Note that the do-files which require EU-SILC microdata are included but are not executable within this file package. The computing equipment used for the project was a Windows Server 2012 R2 Standard - x86\_64 (2017-01-09) @ 124 GB, with the statistical software version Stata/MP 16.1. The time requirement to run all do-files is less than a day for the entire project, and only a few minutes for the executable files in the replication package.

## 2 Data sources

We compile publicly accessible aggregate data from Eurostat and from the following national statistical agencies: Central Statistics Office (Ireland), Federal Statistics Office (Switzerland), Federal Statistics Office of Germany, Instituto Nacional de Estadística, Institut national de statistique et des études économiques (France), Institut national de statistique et des études économiques du Grand-Duché de Luxembourg, Office for National Statistics (UK), Secrétariat d'Etat aux migrations (Switzerland), Statistics Austria, Statistics Belgium, Statistics Denmark, Statistics Finland, Statistics Iceland, Statistics Netherlands, Statistics Norway, and Statistics Sweden. Furthermore, we use publicly accessible aggregated statistics from the following research databases: C2C DEMIG (Oxford: International Migration Institute, University of Oxford), OECD, Pordata (Fundação Francisco Manuel dos Santos). Finally, we use protected EU-SILC microdata under a data contract with Eurostat. Information on the application process for access to these microdata is available here: [https://ec.europa.eu/eurostat/documents/203647/771732/How\\_to\\_apply\\_for\\_microdata\\_access.pdf/82d98876-75e5-49f3-950a-d56cec15b896](https://ec.europa.eu/eurostat/documents/203647/771732/How_to_apply_for_microdata_access.pdf/82d98876-75e5-49f3-950a-d56cec15b896). We indicate below the data source(s) used to create each figure and table in our analysis.

### 3 Figures & tables

The File master.do and the Stata do-files listed below are contained in folder /do of the replication archive. All data files are in folder /dta, and all final figures and tables are in folder /pdf.

#### 3.1 Figure 1

**Description:**

We use data from the Maddison Project Database on real GDP and population by country to compute the population-weighted 5<sup>th</sup>, 50<sup>th</sup>, and 95<sup>th</sup> percentiles of GDP per capita among the countries that were part of the common European labor market in a given year.

**Data Source:**

(1) Data from Bolt and van Zanden (2020) were downloaded from (<https://www.rug.nl/ggdc/historicaldevelopment/maddison/releases/maddison-project-database-2018>).

**Files in Replication Package:**

Fig1.do creates Fig1.pdf using the input file mpd2018.dta.

#### 3.2 Figure 2

**Description:**

We use historical data from the DEMIG C2C database covering all years through the early 2010s, and append this with German migration statistics for the most recent years.

**Data Sources:**

(1) Data from International Migration Institute (2015) were downloaded from (<https://www.migrationinstitute.org/data/demig-data/demig-c2c-data>). To obtain immigration data by source country, select inflow data and criterion "COC" (country of citizenship).

(2) Data from Statistisches Bundesamt (2020a) were downloaded from (<https://www-genesis.destatis.de/genesis/online?operation=statistic&levelindex=0&levelid=1615107532424&code=12711#abreadcrumb>): 12711-0007: Migration between Germany and foreign countries. To obtain migration between Germany and foreign countries, select "Arrivals from foreign countries".

**Files in Replication Package:**

Fig2.do creates Fig2.pdf using the input files Imm\_Countries.csv and Imm\_Totals.csv (migration numbers), and Popdata.csv and Popdata\_2.dta (population numbers).

#### 3.3 Figure 3

**Description:**

We use population data by NUTS 3 administrative unit from Western European countries to identify the nationality of the largest group of foreign residents by region. Most source data is available publicly on the websites of the corresponding statistical offices, however, in the case of the Netherlands and Sweden, additional statistics were provided to the authors directly via e-mail by the respective national statistical offices.

**Data Sources:**

(1) Data from Central Statistics Office (2017a) were downloaded from (<https://data.cso.ie/#>): "E7002: Population Usually Resident and Present in the State 2011 to 2016 by Nationality, Sex, County of Usual Residence and Census Year".

(2) Data from Statistisches Bundesamt (2020b) were downloaded from (<https://www-genesis.destatis.de/genesis/online?operation=statistic&levelindex=0&levelid=1615110810769&code=12521#abreadcrumb>): "Foreigners: Administrative districts, reference date, sex, country groups/citizenship". To obtain stock of foreigners by citizenship, select "citizenship".

(3) Data from Instituto Nacional de Estadística (2020) were downloaded from (<https://www.ine.es/jaxi/Tabla.htm?path=/t20/e245/p08/10/&file=03005.px&L=0>): "Población extranjera por Nacionalidad, provincias, Sexo y Año". To obtain stock of foreigners by citizenship, select all "nacionalidades", "provincias", "ambos sexos", and "año 2018").

(4) Data from Institut national des statistiques et des études économiques (2020) were downloaded from (<https://www.insee.fr/fr/statistiques/zones/4515432>) "Étrangers - Immigrés en 2017: Recensement de la population – Résultats pour toutes les communes, départements, régions, intercommunalités...". To obtain stock of foreigners by citizenship, select all "départements" one after the other.

(5) Data from Institut national des statistiques et des études économiques du Grand-Duché du Luxembourg (2020) were downloaded from ([https://statistiques.public.lu/stat/TableViewer/tableView.aspx?ReportId=12853&IF\\_Language=fra&MainTheme=2&FldrName=1](https://statistiques.public.lu/stat/TableViewer/tableView.aspx?ReportId=12853&IF_Language=fra&MainTheme=2&FldrName=1)): "Population par sexe et par nationalité au 1er janvier (x 1 000) 1981, 1991, 2001 - 2021". To obtain stock of foreigners by citizenship, select year 2018.

(6) Data from Istituto Nazionale di Statistica (2020) were downloaded from ([http://dati.istat.it/viewhtml.aspx?il=blank&vh=0000&vf=0&vcq=1100&graph=0&view-metadata=1&lang=it&QueryId=19675&metadata=DCIS\\_POPSTRCIT1](http://dati.istat.it/viewhtml.aspx?il=blank&vh=0000&vf=0&vcq=1100&graph=0&view-metadata=1&lang=it&QueryId=19675&metadata=DCIS_POPSTRCIT1)): "Stranieri residenti al 1° gennaio - Cittadinanza". To obtain stock of foreigners by citizenship, select in the "personalizza -> seleziona" tab "territorio: livello provincia (lowest level: Torino, Vercelli, Novara, Cuneo, Asti, Alessandria...", "anno: 2018", and "sesso: totale".

(7) Data from Office for National Statistics (2018a) were downloaded from (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationalityunderlyingdatasheets>): "Population of the UK by country of birth and nationality: individual country data". To obtain stock of foreigners by citizenship, select July 2017 to June 2018 data, and use Table C.

(8) Data from Fundação Francisco Manuel dos Santos (2020) were downloaded from (<https://www.pordata.pt/Municipios/Popula%C3%A7%C3%A3o+estrangeira+com+estatuto+legal+de+residente+total+e+por+algumas+nacionalidades-101>): "População estrangeira com estatuto legal de residente: total e por algumas nacionalidades". To obtain stock of foreigners by citizenship, select "ano: 2018" -> "ver tabela completa".

(9) Data from Secrétariat d'Etat aux migrations SEM (2020) were downloaded from (<https://www.sem.admin.ch/sem/de/home/publiservice/statistik/auslaenderstatistik/archiv/2017/12.html>): "Statistique sur les étrangers, décembre 2017, 2-10: Total effectif de la population résidante étrangère par groupe d'étrangers". The data is displayed by "canton" (separate sheets).

(10) Data from Statistics Austria (2020) were downloaded from (<https://statcube.at/statistik.at/ext/statcube/jsf/tableView/tableView.xhtml>): "Population at the beginning of the year since 2002 (regional status of 2020)". To obtain stock of foreigners by citizenship, select "Year: 2018", "Commune (aggregation by NUTS-levels): NUTS-3-Einheit", and "Nationality (aggregation by territorial structure): Nationality (aggregation by territorial structure)".

(11) Data from Statbel (2020) were downloaded from (<https://statbel.fgov.be/fr/themes/population/structure-de-la-population#figures>): "Population par commune selon la nationalité et le sexe depuis 1992". Use the arrondissements in the data.

(12) Data from Danmarks Statistik (2020) were downloaded from (<https://www.statbank.dk/statbank5a/default.asp?w=1440>): "FOLK1B: Population at the first day of the quarter by region, sex, age (5 years age groups) and citizenship". To obtain stock of foreigners by citizenship, select "Region: Provinces", "Sex: Total", "Age: Total", "Citizenship: all different citizenships", and "Quarter; 2018Q1".

(13) Data from Tilastokeskus (2020) were downloaded from ([https://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin\\_\\_vrm\\_\\_vaerak/statfin\\_vaerak\\_pxt\\_11rg.px/](https://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__vrm__vaerak/statfin_vaerak_pxt_11rg.px/)): "11rg – Citizenship according to age and sex by region, 1990-2020". To obtain stock of foreigners by citizenship, select "Region: all different provinces", "Nationality: all different nationalities", "Age: Total", "Sex: Total", and "Year: 2017".

(14) Data from Hagstofa Islands (2020) were downloaded from ([http://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar\\_\\_mannfjoldi\\_\\_3\\_bakgrunnur\\_\\_Rikisfang/MAN04203.px/?rxid=488d4992-94c1-4cd7-9818-54103ebc4235](http://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar__mannfjoldi__3_bakgrunnur__Rikisfang/MAN04203.px/?rxid=488d4992-94c1-4cd7-9818-54103ebc4235)): "Population by sex, municipality and citizenship 1 January 1998-2020". To obtain stock of foreigners by citizenship, select "Municipality: all different municipalities", "Citizenship: all different citizenships", "Sex: Total", and "Year: 2018".

(15) Data from Centraal Bureau voor de Statistiek (2020) were downloaded from (<https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84727NED/table?ts=1619429785729>): "Bevolking; geslacht, leeftijd, nationaliteit en regio, 1 januari". To obtain stock of foreigners by citizenship, select "Geslacht: Totaal mannen en vrouwen", "Leeftijd: Totaal", "Perioden: 2018", "Regio's: COROP gebieden per provincie", and "Nationaliteit: Nationaliteiten per werelddeel".

(16) Data from Statistisk Sentralbyrå (2020) were downloaded from (<https://www.ssb.no/en/statbank/table/11366/e>): "11366: Population, by citizenship (M) (UD) 2016 - 2021". To obtain stock of foreigners by citizenship, select "Year: 2018", "Region: Counties 1972-2019", and "Citizenship: all different citizenships".

(17) Data from Statistiska Centralbyrån (2020) were obtained upon request from (<https://www.scb.se/en/finding-statistics/statistics-by-subject-area/population/population-composition/population-statistics/>). Statistics provided by e-mail after request, since no population statistics are available on county-level for Sweden. We sent an e-mail to [befolkning@scb.se](mailto:befolkning@scb.se) to request the additional data.

#### **Data Files in Replication Package:**

Fig3.do creates Fig3.pdf using the input files Biggest\_group.dta (stock of foreigners list), NUTS\_RG\_10M\_2016\_3035\_LEVL\_3\_shp.dta, and NUTS\_RG\_10M\_2016\_3035\_LEVL\_0\_shp.dta (geographical files).

### **3.4 Figure 4**

#### **Description:**

We use census data from the DIOC (OECD database) and compute the share of foreigners with tertiary education among all foreigners for which education information is available. The figure displays countries ranked by decreasing order of nominal GDP in 2019.

#### **Data Sources:**

(1) Data from Eurostat (2020e) were downloaded from ([https://ec.europa.eu/eurostat/data-browser/view/NAMA\\_10\\_PC\\_\\_custom\\_885588/default/table?lang=en](https://ec.europa.eu/eurostat/data-browser/view/NAMA_10_PC__custom_885588/default/table?lang=en)): "Main GDP aggregates per capita". To obtain nominal GDP, select "Time: 2019", "Unit of measure: Current prices, euro per capita", and "National Accounts Indicator: Gross domestic product at market prices".

(2) Data from OECD (2020) were downloaded from (<https://www.oecd.org/els/mig/dioc.htm>). For 2000/2001 use file A\_1, for 2005/2006 use file 1.3, for 2010/2011 use file A\_quater\_rev, for 2015/2016 use file A\_1.

**Data Files in Replication Package:**

Fig4.do creates Fig4.pdf using the input files GDP\_2000\_2015.xlsx (GDP numbers), IMM\_EDU\_1\_2000.csv, IMM\_EDU\_1\_2005.csv, IMM\_EDU\_1\_2010.csv, IMM\_EDU\_1\_2015.csv (OECD education files) and POP\_DIOC\_analysis.dta (population numbers).

### 3.5 Figure 5

**Description:**

See the online appendix of the paper for a detailed description of the analysis using EU-SILC data.

**Data Sources**

(1) Data from Eurostat (2020j) were downloaded from ([https://ec.europa.eu/eurostat/databrowser/view/prc\\_ppp\\_ind/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/prc_ppp_ind/default/table?lang=en)): "Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates". To obtain the relevant indicators, select "Time: 2008/2018", "National accounts indicator: Price level indices (EU28=100)", and "Analytical categories for purchasing power parities (PPPs) calculation: Actual individual consumption").

(2) Data from Eurostat (2020k) were obtained upon request from (<https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions>). Access has to be applied for.

**Data Files in Replication Package:**

Fig5.do creates Fig5.pdf using the input file PPP\_Eurostat.dta.

### 3.6 Table 1

**Description:**

We tabulated data on foreign populations in Stata and subsequently copied the data to Excel in order to create the formatted table Tab1.pdf.

**Data sources:**

(1) Data from Eurostat (2020d) were downloaded from (<https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>): "Population on 1 January by age group, sex and citizenship". To obtain relevant numbers, select "Time: 2004-2013 2019", "Country of Citizenship: EU27 countries (2007-2013) except reporting country for 2004-2013 EU28 countries except reporting country for 2019 as well as the totals for these years".

(2) Data from Eurostat (2020e) were downloaded from ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr\\_pop9ctz&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr_pop9ctz&lang=en)): "EU and EFTA citizens who are usual residents in another EU/EFTA country as of 1 January". To obtain relevant numbers, select "Time: 2019", "Country of Citizenship: All values", and "GEO: All countries".

**Data files in Replication Package**

Table1.do creates an excerpt of Mappe3.xlsx and saves it as Table1.dta. The spreadsheet view of Table1.dta comprises the same 7 columns and 31 rows that are shown in the final table. We copied this data to the Excel file Tab1.xlsx (included in the /pdf folder) and there created the formatted table Tab1.pdf.

### 3.7 Appendix Figure A1

#### Description:

We use historical data from the DEMIG C2C database covering all years through the early 2010s, and append this with Dutch migration statistics for the most recent years.

#### Data sources:

(1) Data from Bolt, Jutta and Jan Luiten van Zanden were downloaded from (<https://www.migrationinstitute.org/data/demig-data/demig-c2c-data>) To obtain immigration data by source country, select inflow data and criterion "COC" (country of citizenship).

(2) Data from Centraal Bureau voor de Statistiek (2020a) were downloaded from (<https://open.data.cbs.nl/statline/#/CBS/nl/dataset/03743/table?ts=1620222986474>): "Bevolking; geslacht", leeftijd en nationaliteit op 1 januari". To obtain migration between the Netherlands and foreign countries, select "Onderwerp: Mannen en vrouwen", "Leeftijd: Totaal", "Perioden: all years", and "Nationaliteiten: all nationalities".

(3) Data from Centraal Bureau voor de Statistiek (2020b) were obtained upon request from (<https://www.cbs.nl/nl-nl/maatschappij/bevolking>). Statistics provided by e-mail after request, since no foreigner stock statistics are available for the Netherlands for some years. We filled out the form at <https://www.cbs.nl/nl-nl/over-ons/contact/contactformulier> to request the data.

#### Data Files in Replication Package

Fig2.do creates FigA1.pdf using the input files Imm\_Countries.csv, Imm\_Totals.csv, and Netherlands\_extension\_full.dta (migration numbers), and Popdata.csv and Popdata\_2.dta (population numbers).

### 3.8 Appendix Figure A2

#### Description:

We take data on immigration stocks by nationality from national statistical offices and combine it with annual naturalization data from Eurostat to compute the net inflow of immigrants from nine origin countries in 15 destination countries for the period 2001 (or earliest available year) to 2018, which we divide by initial total population in the destination country in 2001.

#### Data sources:

(1) Data from Central Statistics Office (2017a) were downloaded from (<https://data.cso.ie/#>): "E7002: Population Usually Resident and Present in the State 2011 to 2016 by Nationality, Sex, County of Usual Residence and Census Year". To obtain relevant numbers, select "CensusYear: 2016", "Sex: Both sexes", "County of Usual Residence: State", and "Nationality: all values".

(2) Data from Central Statistics Office (2017b) were downloaded from (<https://data.cso.ie/#>): "BO439: 2002 Population Usually Resident and Present in their Usual Residence". To obtain relevant numbers, select "Usual residence: State Aggregate Town and Rural", and "Nationality: all values".

(3) Data from Eurostat (2020a) were downloaded from ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr\\_acq&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr_acq&lang=en)): "Acquisition of citizenship by age group, sex and former citizenship". To obtain relevant numbers, select "Year: 2002-2017", "Country of citizenship: all values", and "GEO: all values".

(4) Data from Eurostat (2020e) were downloaded from (<https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>): "Population on 1 January by age group, sex and citizenship". To obtain relevant numbers, select "Time: 1999-2003", "Country of Citizenship: Total", "GEO: All values".

- (5) Data from Federal Statistical Office (2020) were downloaded from (<https://www.bfs.admin.ch/bfs/fr/home/statistiques/population/migration-integration/nationalite-etrangere.assetdetail.13707205.html>): Population résidante permanente étrangère selon la nationalité, de 1980 à 2019. Use years 2000 and 2017.
- (6) Data from Federal Statistics Office of Germany (2020) were downloaded from (<https://www-genesis.destatis.de/genesis/online?operation=abruftabelleBearbeiten&levelindex=1&levelid=1620226359491&auswahloperation=abruftabelleAuspraegungAuswaehlen&auswahlverzeichnis=ordnungsstruktur&auswahlziel=werteabruf&code=12521-0002&auswahltext=&nummer=6&variable=6&name=GES&nummer=5&variable=5&name=STAAG6#aststructure>): "12521-0002: Ausländer: Deutschland, Stichtag, Geschlecht/Altersjahre/ Familienstand, Ländergruppierungen/Staatsangehörigkeit". To obtain relevant numbers, select "STAAG6: Staatsangehörigkeit", and "Years: 2000 and 2017".
- (7) Data from Instituto Nacional de Estadística (2020) were downloaded from (<https://www.in.e.es/jaxi/Tabla.htm?path=/t20/e245/p08/10/&file=02005.px&L=0>): "Población extranjera por Nacionalidad, comunidades, Sexo y Año". To obtain relevant numbers, select "Nacionalidad: all values", "Comunidades: Total España", "Sexo: Ambos sexos", "Año: 2001 2018",
- (8) Data from Institut national de la statistique et des études économiques (2011) were downloaded from (<https://www.insee.fr/fr/statistiques/2118516?sommaire=2118522>): "CD-N3 – Étrangers selon la nationalité détaillée, le sexe et l'âge".
- (9) Data from Institut national de la statistique et des études économiques (2020) were downloaded from (<https://www.insee.fr/fr/statistiques/4510522?sommaire=4510556>): "Étrangers par nationalité détaillée". To obtain relevant numbers, select: "Year: 2017".
- (10) Data from Italian National Institute of Statistics (2020) were downloaded from (<https://www.istat.it/it/dati-analisi-e-prodotti/banche-dati/statbase>): "Stranieri residenti al 1° gennaio - Cittadinanza". To obtain relevant numbers, select in the "personalizza -> seleziona" tab "territorio: Italia", "anno: 2003 2018", and "sesso: totale".
- (11) Data from Office for National Statistics (2001/2018) were downloaded from (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/populationoftheunitedkingdombycountryofbirthandnationality>): "Population of the UK by country of birth and nationality". Use files March 2000 to February 2021 and July 2017 to June 2018, Stock Table 2.3.
- (12) Data from PORDATA (2020) were downloaded from (<https://www.pordata.pt/Municipios/Popula%C3%A7%C3%A3o+estrangeira+com+estatuto+legal+de+residente+total+e+por+algumas+nacionalidades-101>): "População estrangeira com estatuto legal de residente: total e por algumas nacionalidades". To obtain relevant numbers, select "ano: 2001 2018" -> "ver tabela completa".
- (13) Data from Statistics Austria (2020) were downloaded from (<https://statcube.at/statistik.at/ext/statcube/jsf/tableView/tableView.xhtml>): "Population at the beginning of the year since 1982". To obtain relevant numbers, select "Time section: 2001 2018", and "Other classifications -> Nationality (aggregation by political structure: Nationality (aggregation by territorial structure)".
- (14) Data from Statistics Belgium (2020) were downloaded from (<https://statbel.fgov.be/fr/themes/population/structure-de-la-population#panel-12>): "Population par commune selon la nationalité et le sexe depuis 1992". To obtain relevant statistics, select "Territoire: Belgique", and "Year: 2001 2018".
- (15) Data from Statistics Denmark (2021) were downloaded from (<https://www.statbank.dk/st>

atbank5a/default.asp?w=1440): "FOLK2: Population 1. January by sex, age, ancestry, country of origin and citizenship". To obtain relevant numbers, select "Citizenship: Foreign", "Country of origin: all values", and "Year: 2001 2018").

(16) Data from Statistics Finland (2020) were downloaded from ([https://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin\\_\\_vrm\\_\\_vaerak/statfin\\_vaerak\\_pxt\\_11rg.px/](https://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__vrm__vaerak/statfin_vaerak_pxt_11rg.px/)): "11rg – Citizenship according to age and sex by region, 1990-2020". To obtain relevant numbers, select "Information: Population 31 Dec", "Region: Whole country", "Nationality: all values", "Age: Total", "Sex: Total", and "Year: 2000 & 2017".

(17) Data from Statistics Netherlands (2020) were downloaded from (<https://opendata.cbs.nl/statline/#/CBS/nl/dataset/03743/table?ts=1620228142825>): "Bevolking; geslacht, leeftijd en nationaliteit op 1 januari". To obtain relevant numbers, select "Onderwerp: Mannen en vrouwen", "Leeftijd: Totaal", "Perioden: 2001 2018", and "Nationaliteiten: all values".

(18) Data from Statistics Norway (2021) were downloaded from (<https://www.ssb.no/en/statbank/table/05196/>): "05196: Population, by sex, age and citizenship 1977 - 2021". To obtain relevant numbers, select "Contents: Persons", "Year: 2001 & 2018", and "Citizenship: all values".

(19) Data from Statistics Sweden (2020) were downloaded from ([https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START\\_\\_BE\\_\\_BE0101\\_\\_BE0101F/UtlmedbR/](https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101F/UtlmedbR/)): "Foreign citizens by country of citizenship, age and sex. Year 1973 - 2020". To obtain relevant numbers, select "Country of citizenship: all values", and "Year: 2000 2017".

#### **Data Files in Replication Package:**

FigA2.do uses the input file DATA\_EXTENSION.xlsx to create nine figures named Change\_foreign\_citizens\_(country name).pdf, which are stored in the /pdf folder. By executing the TeX file FigA2.tex (also located in the /pdf folder), we combined the nine country-specific graphs to generate FigA2.pdf.

### **3.9 Appendix Figure A3**

#### **Description:**

See the online appendix of the paper for a detailed description of the analysis using EU-SILC data.

#### **Data sources:**

(1) Data from Eurostat (2020b) were downloaded from ([https://ec.europa.eu/eurostat/data/browser/view/prc\\_ppp\\_ind/default/table?lang=en](https://ec.europa.eu/eurostat/data/browser/view/prc_ppp_ind/default/table?lang=en)): "Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates". To obtain relevant numbers, select "Time: 2008/2018", "National accounts indicator: Price level indices (EU28=100)", and "Analytical categories for purchasing power parities (PPPs) calculation: Actual individual consumption".

(2) Data from Eurostat (2020c) were obtained upon request from (<https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions>). Access has to be applied for.

#### **Data Files in Replication Package:**

Fig5.do creates FigA3.pdf using the input file PPP\_Eurostat.dta.

### **3.10 Appendix Figure A4**

#### **Description:**

See the online appendix of the paper for a detailed description of the analysis using EU-SILC data.

#### **Data sources:**



(1) Data from Eurostat (2020b) were downloaded from ([https://ec.europa.eu/eurostat/data/browser/view/prc\\_ppp\\_ind/default/table?lang=en](https://ec.europa.eu/eurostat/data/browser/view/prc_ppp_ind/default/table?lang=en)): "Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates". To obtain relevant numbers, select "Time: 2008/2018", "National accounts indicator: Price level indices (EU28=100)", and "Analytical categories for purchasing power parities (PPPs) calculation: Actual individual consumption".

(2) Data from Eurostat (2020c) were obtained upon request from (<https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions>). Access has to be applied for.

**Data Files in Replication Package:**

FigA4.do creates FigA4.pdf using the input file PPP\_Eurostat.dta.

### 3.11 Appendix Figure A5

**Description:**

We compute the share of citizens who state that their country should either allow many or should allow some same-ethnicity immigrants, separately for the years 2004 and 2018. The figure displays countries ranked by decreasing order of nominal GDP in 2015.

**Data sources:**

(1) Data from NSD - Norwegian Centre for Research Data (2004/2018) were downloaded from (<https://www.europeansocialsurvey.org>).

(2) Data from Eurostat (2020d) were downloaded from ([https://ec.europa.eu/eurostat/data/browser/view/NAMA\\_10\\_PC\\_custom\\_885588/default/table?lang=en](https://ec.europa.eu/eurostat/data/browser/view/NAMA_10_PC_custom_885588/default/table?lang=en)): "Main GDP aggregates per capita". To obtain relevant numbers, select "Time: 2019", "Unit of measure: Current prices, euro per capita", and "National Accounts Indicator: Gross domestic product at market prices".

**Data Files in Replication Package:**

FigA5.do creates FigA5.pdf using the input files ESS2e03\_6.dta, ESS9e02.dta (social survey files), and GDP\_2000\_2015.dta (GDP numbers).

### 3.12 Gains from Migration

**Description:**

See the online appendix of the paper for a detailed description of the analysis using EU-SILC data. The employment rates from Eurostat are multiplied by the relative share of low- and highly-educated individuals to obtain the numbers presented in Employment\_rates.dta.

**Data Sources:**

(1) Data from Eurostat (2020b) were downloaded from ([https://ec.europa.eu/eurostat/data/browser/view/prc\\_ppp\\_ind/default/table?lang=en](https://ec.europa.eu/eurostat/data/browser/view/prc_ppp_ind/default/table?lang=en)): "Purchasing power parities (PPPs), price level indices and real expenditures for ESA 2010 aggregates". To obtain the relevant numbers, select "Time: 2018" "National accounts indicator: Price level indices (EU28=100)", and "Analytical categories for purchasing power parities (PPPs) calculation: Actual individual consumption".

(2) Data from Eurostat (2020c) were obtained upon request from (<https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions>). Access has to be applied for.

(3) Data from Eurostat (2020d) were downloaded from ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama\\_10\\_gdp&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_gdp&lang=en)): "GDP and main components (output, expenditure and income)". To obtain relevant numbers, select "Time: 2018", "Unit of measure:

Current prices, million euro", and "National Accounts Indicator: Gross domestic product at market prices".

(4) Data from Eurostat (2020e) were downloaded from (<https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>): "Population on 1 January by age group, sex and citizenship". To obtain relevant numbers, select "Time: 2018", "Country of Citizenship: All values", and "GEO: All values".

(5) Data from Eurostat (2021) were downloaded from ([https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\\_ergan&lang=en](https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_ergan&lang=en)): "Employment rates by sex, age and citizenship (%)". To obtain relevant numbers, select "Time: 2018", "Age class: 15 to 64 years", "Country of citizenship: EU28 countries except reporting country".

**Data Files in Replication Package:**

Gains\_from\_migration.do does the calculation for the numbers in the text using the input files PPP\_Eurostat\_merge.dta, PPP\_Eurostat\_merge\_post.dta (purchasing power parities), POP\_GAINS.dta (population numbers), Employment\_rates.dta. (employment numbers), and GDP\_nom\_2018.dta (GDP numbers).

## 4 Files used in the processing of EU-SILC data

The following do-files are used in the processing of the EU-SILC microdata: Prepare\_SILC.do comprises basic data cleaning code. Gains\_from\_migration.do calculates static gains from migration. See the online appendix of the paper for a detailed description of the analysis using EU-SILC data.