README-file to template paper titled ‘Foreign-born population in European Countries’ by Ruben Dewitte

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# Overview

The code in this replication package performs analysis using two data sources (OECD (2022); Duncalfe (2022)) using R. A Master file runs all of the code to generate the data for the figures and tables in the paper. The replicator should expect the code to run for about 1 min.

# Data Availability and Provenance Statements

The data relied on in this paper can be found in the ‘./input’ folder of the repository and is described in the Table below:

| Data File | Source | Provided | Additional information |
| --- | --- | --- | --- |
| ./input/foreign\_born\_OECD.csv | (OECD 2022) | yes | The foreign-born population covers all people who have ever migrated from their country of birth to their current country of residence. The foreign-born population data shown here include people born abroad as nationals of their current country of residence. The difference across countries between the size of the foreign-born population and that of the foreign population depends on the rules governing the acquisition of citizenship in each country. This indicator is measured as a percentage of population. |
| ./input/country\_codes.csv | (Duncalfe 2022) | yes | ISO-3166 Country and Dependent Territories Lists with UN Regional Codes |

# Computing environment

This code was run on a x86\_64-w64-mingw32 platform of a Windows 10 x64 (build 19044) computer.

The analysis is conducted in the R programming environment. R is free, open-source and available for download [here](https://www.r-project.org/). The code has been tested against R version R version 4.1.2 (2021-11-01).

Once R is successfully set up on your system, you will need to install a number of external R libraries. I have used renv to snapshot the project’s R environment. To install all of the necessary R libraries, simply open R at the project root (e.g. by clicking on the .Rproj file) and run the following commands:

## Run these commands in R  
  
# install.packages("renv") ## Only necessary if the renv package is not yet installed on your computer  
# renv::init() ## Only necessary if you didn't open the repo as an RStudio project  
renv::restore(confirm = FALSE)

# Instructions to replicators

All code files in this repository are referred to through the package here(). This package finds the root as the place where the ‘.Rproj’ file is located. For this repository, the .Rproj file is located in the root folder, referred to as ‘./.’

The empirical data analysis takes place within the ./input, /code, and ./output directories respectively holding the external files, the code that operates on the files in the ./input directory, and the computational results. The structure of replication package is indicated in the `./code/00\_MASTER.R’ file. Running this Master file will reproduce all the results of this analysis and assign these results to their respective output folders.

Further files and directories refer to:

* The ./paper directory contains a sketch of the paper with numbered figures and tables.
* The ./renv directory, along with the file ./renv.lock, captures the computational environment (see previous section)
* The repository is dual-licensed (see ./LICENSE.txt). A Modified BSD License applies to all code, scripts, programs, and SOFTWARE while a Creative Commons Attribution 4.0 International Public License, applies to databases, images, tables, text, and any other objects.
* The Readme files ./Readme.md, ./Readme.html, and ./Readme.docx are generated by ./Readme.Rmd. **NOTE: It’s fine if your write your Readme file in Word!**
* The ./bibliography.bib and ./chicago-author-date-withnotes.csl files contain the bibliography in bibtex and the citation-style file.

## Mapping of Tables and Figures to programs

A mapping of the Figures displayed in the paper to the respective programs can be found below:

| Nr. | Program | Output | Note |
| --- | --- | --- | --- |
| 1 | ./code/02\_analysis.R | ./output/figures/foreign\_born.png |  |

A mapping of the Tables displayed in the paper to the respective programs can be found below:

| Nr. | Program | Output | Note |
| --- | --- | --- | --- |
| 1 | ./code/02\_analysis.R | ./output/tables/foreign\_born.tex |  |
| 2 | ./code/02\_analysis.R | ./output/tables/foreign\_born.docx |  |

# References

Duncalfe, Luke. 2022. “ISO-3166 Country and Dependent Territories Lists with UN Regional Codes.” <https://github.com/lukes/ISO-3166-Countries-with-Regional-Codes>, Accessed on 11-February-2022.

OECD. 2022. “Foreign-born population (indicator).” <https://doi.org/10.1787/5a368e1b-en>, Accessed on 11-February-2022.