

Sofia Gil-Clavel

Max Planck Institute for Demographic Research
Konrad-Zuse Str. 1, 18057
Rostock, Germany

sofiag1l.github.io
gil@demogr.mpg.de
+49 (0) 381 2081-150
@sof14g1l
Github: SofiaG1l

Interests: Computational Social Science, Demography, Computer Science

EDUCATION

Max Planck Institute for Demographic Research, Germany

Ph.D. Student, Digital and Computational Demography Laboratory. September, 2018-.
Affiliated to University of Groningen. January, 2020-.
Part of the International Max Planck Research School for Population, Health and September, 2019-.
Data Science (IMPRS-PHDS).
Supervisors:
Prof. Dr. Emilio Zagheni (MPIDR, Germany)
Prof. Dr. Clara H. Mulder (University of Groningen, The Netherlands)

Center of Mathematics Research (CIMAT), Mexico

Master of Science with Specialization on Computing and Industrial Mathematics. 2015-2017
Thesis:
*Computational and Statistical Contributions to Study Internal Migration at
Municipal Level: The Case of Mexico for the period 2005-2010.*
Supervisors:
Dr. Johan Van Horebeek (CIMAT, Mexico)
Dr. Rafael Garduño Rivera (CIDE, Mexico)

National Autonomous University of Mexico (UNAM), Mexico

Bachelor of Science in Actuarial Science. 2009-2014
Thesis:
Construction of the Demos-Package for Stochastic Population Forecasting
Supervisor:
Dr. Víctor Manuel García Guerrero (COLMEX, Mexico)

WORK EXPERIENCE

National Population Council (CONAPO)

Head of the Demographic Analysis Department.

Activities to develop:

Creation of computational tools to visualize and analyze Mexican conciliation data (1950-2015) and the Mexican projected population (2016-2050). Demographic data analysis of population, deaths, births, and migration. I programmed and uploaded (Linux servers) the first version 4(2018) of the shiny app to visualize these data ([link](#)). During this period, I also worked on the project presented at SOMEDE: "Estimation of the infant mortality rate in Mexico in 2015 at municipal level using numerical techniques".

2017-2018

Center of Demographic, Urban, and Environmental Studies (CEDUA) of COLMEX

Research support.

Activities to develop:

Development of the R package "DemosR: Package for the Stochastic Population Forecast"¹. Analysis and handling of big data for demographic research.

2014-2015

PUBLICATIONS

- Perrotta, D., Grow, A., Rampazzo, F., Fava, E. D., **Gil-Clavel, S.**, & Zagheni, E. (2021). Behaviors and attitudes in response to the COVID-19 pandemic: Insights from a cross-national Facebook survey. *EPJ Data Science*, 10(17), 13. <https://doi.org/10.1140/epjds/s13688-021-00270-1>
- Grow, A., Perrotta, D., Fava, E. D., Cimentada, J., Rampazzo, F., **Gil-Clavel, S.**, & Zagheni, E. (2020). Addressing Public Health Emergencies via Facebook Surveys: Advantages, Challenges, and Practical Considerations. *Journal of Medical Internet Research*, 22(12), 12. <https://doi.org/10.2196/20653>
- **Gil-Clavel, S.**, & Zagheni, E. (2019). Demographic Differentials in Facebook Usage around the World. *Proceedings of the International AAAI Conference on Web and Social Media*, 13, 647–650. Retrieved from <https://ojs.aaai.org/index.php/ICWSM/article/view/3263>
- Alburez-Gutierrez, D., Zagheni, E., Aref, S., Gil-Clavel, S., Grow, A., & Negraia, D. V. (2019). Demography in the Digital Era: New Data Sources for Population Research. In *Smart Statistics for Smart Applications: Book of Short Papers SIS2019* (Arbia, Giuseppe, et al.). Pearson. <https://osf.io/24jp7>

WORKING PAPERS

- Grow, A., Perrotta, D., Fava, E. D., Cimentada, J., Rampazzo, F., **Gil-Clavel, S.**, Zagheni, E., Flores, R. D., Ventura, I., & Weber, I. (2021). How Reliable is Facebook's Advertising Data for Use in Social Science

¹ COLMEX internal use.

Research? Insights from a Cross-National Online Survey. *MPIDR Working Paper*, 43.

<https://doi.org/10.4054/MPIDR-WP-2021-006>

- **Gil-Clavel, S.**, Zagheni, E., & Bordone, V. (2020). Close Social Networks among Older Adults: The Online and Offline Perspectives. *MPIDR Working Paper*, 26. <https://doi.org/10.4054/MPIDR-WP-2020-035>
- Fava, E. D., Cimentada, J., Perrotta, D., Grow, A., Rampazzo, F., **Gil-Clavel, S.**, & Zagheni, E. (2020). The differential impact of physical distancing strategies on social contacts relevant for the spread of COVID-19. *MedRxiv*, 19. <https://doi.org/10.1101/2020.05.15.20102657>

PRESENTATIONS AT CONFERENCES

- **Sofia Gil-Clavel**, Emilio Zagheni, and Valeria Bordone, “Close Social Networks among Older Adults: The Online and Offline Perspectives”. Accepted presentation for PAA. Flash session: Social Networks, Social Support, and Health. May 2021.
- **Sofia Gil-Clavel**, “Immigrants’ Cultural Integration Patterns in Spain, Germany, and the UK: Tweets as Expressions of Context”². Presentation for IMISCOE Spring Conference. Session: Messaging Migration on and Through Social Media. March 2021.
- **Sofia Gil-Clavel**, Emilio Zagheni and Valeria Bordone, “Close Social Networks among Older Adults: The Online and Offline Perspectives”. Presentation for the Dutch Demography Week. Session: Families in later life. November 2020.
- **Sofia Gil-Clavel**, Valeria Bordone and Emilio Zagheni, “Determinants of Online and Offline Close Social Networks Among Older Adults”. Accepted presentation for EPC. Session: Health and Wellbeing in a Digital World. June 2020. Cancelled due to COVID-19.
- **Sofia Gil-Clavel**, Valeria Bordone and Emilio Zagheni, “Determinants of Online and Offline Close Social Networks Among Older Adults”. Accepted presentation for PAA. Flash session: Use of Big Data to Model Health Outcomes and Mortality. April 2020. Cancelled due to COVID-19.
- **Sofia Gil-Clavel** and Emilio Zagheni, “Demographic Differentials in Facebook Usage Around the World”, poster presented at The International AAI Conference on Web and Social Media (ICWSM-2019). June 2019.
- **Sofia Gil-Clavel** and Emilio Zagheni, “Demographic Differentials in Facebook Usage Around the World”, presented at IUSSP Digital Demography in the Era of Big Data. June 2019.
- **Sofia Gil-Clavel** and Emilio Zagheni, “Demographic Differentials in Facebook Usage Around the World”, poster presented at Population Fest 2019 (PopFest2019). May 2019.
- **Sofia Gil-Clavel**, “Estimation of the infant mortality rate in Mexico in 2015 at municipal level using numerical techniques”, presented at the XIV National Meeting of the Mexican Society of Demography (SOMEDE). June 2018.

² The final name of the presentation was: EU-15 Immigrants Cultural Integration –In Twitter.

PROFESSIONAL ACTIVITIES

- Gave a [training Workshop](#) at IUSSP Digital Demography in the Era of Big Data Pre-Workshop: *Demography Today Training* ([link](#)). June 2019.
- Organizer at the ICWSM 2019 Workshop: *Demographic Research with Web and Social Media Data* ([link](#)). June 2019.

OTHER PROFESSIONAL ACTIVITIES

- Co-launched Peer-Review Workshop at the IMPRS-PHDS. August, 2020-.
- Elected PhD External Representative at the MPIDR. June, 2020 -.
- Elected PhD Core Representative at the IMPRS-PHDS. November, 2019 -.

TRAINING AND COURSES

- Fundamentals of Digital and Computational Demography. Part of IMPRS-PHDS 2019 courses.
- Population Health. Part of IMPRS-PHDS 2019 courses.
- Demographic Methods. Part of IMPRS-PHDS 2019 courses.
- Causal Mediation Analysis. Given by Maarten J. Bijlsma at University of Helsinki. May 2019.
- Using the GWDG Scientific Compute Clusters – An Introduction. October 2018.
- Parallel Programming with MPI (Including MPI for Python). October 2018.

SKILLS

Statistical Analysis: R, Python.

Programming: Python, R, C++, VBA.

Text processing: LATEX, R-Markdown, Jupyter Notebook.

Data visualization and exploration: R (shiny, ggplot, plotly), Gephi.

Use of Application Programming Interfaces (APIs): Facebook and Twitter

LANGUAGES

Spanish (native), **English** (advanced), **German** (intermediate)

PROFESSIONAL MEMBERSHIPS

International Union for the Scientific Study of Population (IUSSP)

European Association for Population Studies (EAPS)

Population Association of America (PAA)