

## Beatriz Sofía Gil Clavel

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### EDUCATION

**Max Planck Institute for Demographic Research, Germany**

Ph.D. Student, Digital and Computational Demography Laboratory.  
Supervisor: Emilio Zagheni (MPIDR)

2018-.

**Center of Mathematics Research (CIMAT), Mexico**

Master of Science with a Specialization on Computing and Industrial Mathematics.

Supervisors: Dr. Johan Van Horebeek, CIMAT, and Dr. Rafael Garduño Rivera, CIDE.

2015-2017

**National Autonomous University of Mexico (UNAM), Mexico**

Bachelor of Science in Actuarial Science.

Supervisor: Dr. Víctor Manuel García Guerrero, COLMEX.

2009-2014

### WORK EXPERIENCE

**National Population Council (CONAPO)**

Head of the Demographic Analysis Department.

Activities to develop: Creation of computational tools for visualizing and analyzing Mexican conciliation data (1950-2015) and the Mexican projected population (2016-2050). Demographic data analysis of population, deaths, births, and migration.

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”<sup>1</sup>. Analysis and handling of big data for demographic research.

2014-2015

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1 COLMEX internal use.

## **PRESENTATIONS AT CONFERENCES**

- “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.

## **TRAINING AND COURSES**

- Using the GWDG Scientific Compute Clusters – An Introduction. October 2018.
- Parallel Programming with MPI (Including MPI for Python). October 2018.
- Attendance at the “France-Mexico School on Data-Analysis” organized by the French Embassy in Mexico and the Mathematic Institute of UNAM. December 2017.
- Social and Economic Networks: Models and Analysis by Stanford University on Coursera. Certificate earned on May 15 2017.
- Attendance at the “France-Mexico Meeting on Data Analysis” organized by the French Embassy in Mexico and the Mathematic Institute of UNAM. November 2016.
- Attendance at the “Summer Workshop on Research Methods for Population and Territory 2014” at COLMEX.

## **SKILLS**

- Programming: C++, VBA, Python, R
- Data visualization and exploration: R (shiny, ggplot, plotly), Gephi.
- Text processing: LATEX

## **LANGUAGES**

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