Sebastian Daza

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Social data scientist and demographer with more than 10 years of experience designing, managing, supervising, and analyzing applied and academic social studies. Strong quantitative-qualitative skills and theoretical background. Eager to apply my knowledge and skills to solve social problems and work with interdisciplinary teams. Authorized to work in Europe and the U.S.

Skills

- **Data Science**: Machine Learning, NLP, Visualization (Dash, Shiny), pySpark, SQL, Databricks.
- **Modeling**: Proficiency and experience in statistical and demographic techniques (GLM, multilevel models, SNA, SEM, survival analysis, causal inference, Bayesian statistics). Agent-Based Modeling (ABM) and simulation. See publications on my website.
- **Research**: Designed, analyzed and presented research in academic conferences, applied and academic research projects on social inequality, education, public opinion, HR, social psychology, adolescent behavior, and social networks.
- **Survey Research**: Experience designing and implementing questionnaires using different modes (in-person, phone, web), sampling and analysis adjustments (weights, missing data). Created R package `sampler` for practitioners.
- **Project Management**: Led more than 20 research national and international projects, team of 40 people, and managed an annual budget of US$400,000.
- **Software**: *Statistics*: R, Python, Stata, Stan. *Qualitative software*: Nvivo. *Agent-based modeling (ABM) and System Dynamics*: Anylogic, Netlogo.
- **Programming**: Python, Java (basic).
- **Languages**: English (fluent) and Spanish (native).

Professional Experience

Senior Researcher
Instituto de Economía, Geografía y Demografía (IEGD), CCHS-CSIC, Spain   *December 2019–present*
Leading a team of researchers working on models about early conditions, delayed adult effects and morbidity, disability and mortality, using multiple datasets and simulation.

Research Associate
Center for Justice and Society Studies, Catholic University of Chile   *2016–present*
Co-investigator of the project *Women Re-entry Study.*

Senior Quantitative Social Scientist
Juntos Inc   *May 2018–December 2019*
Led analytic team, and provided user insights through the design and analysis of experiments, NLP and machine learning.

Methodology Consultant
Center for Social Studies (DESUC), Catholic University of Chile   *August 2010–present*
Designed sampling and post-adjustments in nationally representative studies in Chile. Provided methodological guidance (attrition, non-response adjustments).

Research Assistant
University of Wisconsin-Madison   *July 2012–August 2018*
Participated in four academic research projects. See my website for details.

R Package Developer
Applied Population Laboratory (APL), UW-Madison *2014–2018*

Created and maintained the R package `acsr` to help extract variables and statistics using the America Community Survey and Decennial US Census.

Director
Center for Social Studies (DESUC), Catholic University of Chile *2005–2010*

Led projects in areas such social cohesion, political perception and government approval ratings, education, tobacco and substance, crime and delinquency, and organizational studies. I was involved in writing grant proposals, budget estimation, methodological design (theoretical framework, sampling design, instruments),analysis and presentation of results. A key project was the Survey of Social Cohesion in Latin America(ECosociaL) that involved 7 countries: Chile, Argentina, Brazil, Colombia, Guatemala, Mexico and Peru, and 10,000 cases.

Lecturer
Catholic University of Chile *2008–2009*

Taught courses on advanced methods for social research, qualitative analysis, and design and implementation of social surveys.

Education

PhD in Sociology and Demography
University of Wisconsin-Madison, US *2021*

Fellow
The Data Incubator, US. Capstone Project: Tracking sentiment of Congress members' tweets *2017*

Master of Arts in Sociology
Catholic University, Chile *2009*

Bachelor of Arts in Sociology
Catholic University, Chile *2004*