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 Spain 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, social psychology, adolescent behaviors, 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, teams of 40 people, and manage an annual budget of US$400,000.
- **Software**: *Statistics*: R, Stata, Mplus, HLM, SPSS, SAS, CTM, Stan, INLA. *Qualitative software*: Nvivo. Data entry and processing: CSPro. *Social Network*: Ucinet, R-Siena. *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), Spain   *May 2018–present*
Working on early conditions, delayed adult effects and morbidity, disability and mortality in modern human populations.

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

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

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

○ **Ph.D. (ABD) in Sociology and Demography**
  University of Wisconsin-Madison, US   *2020*

○ **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*