

# 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

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- **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

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

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- **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