

# Sebastian Daza

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## Education

Ph.D., Sociology - Demography, University Wisconsin–Madison, 2021.

Fellow, The Data Incubator, 2017.

M.A. Sociology, Catholic University of Chile, 2009.

B.S. Sociology, Catholic University of Chile, 2004.

## Fields of Research Interest

Health, Social Demography, Social Complexity, Social Networks, Deviance and Crime, Quantitative Methods.

## Research

### *Peer-Reviewed Articles*

Larroulet, Pilar, Sebastian Daza and Ignacio Borquez (2023). *From Prison to Work: Job Patterns for Women in Chile*. Social Science Research.

Daza, Sebastian and Alberto Palloni (2022). *Early Exposure to County Income Mobility and Adult Individual Health in the United States*. Journals of Gerontology Series B.

Daza, Sebastian, Alberto Palloni and Jerrett Jones (2020). *The Consequences of Incarceration for Mortality for the United States*. Demography.

Venkataramani, Atheendar S., Sebastian Daza and Ezekiel Emanuel (2020). *Association of Social Mobility With the Income-Related Longevity Gap in the United States: A Cross-Sectional, County-Level Study*. JAMA Internal Medicine.

Larroulet, Pilar, Droppelmann, Catalina, Del Villar, Paloma, Daza, Sebastian, Figueroa, Ana, and Osorio, Victoria (2020). *Who Is Transitioning out of Prison? Characterising Female Offenders and Their Needs in Chile*. International Journal for Crime, Justice and Social Democracy.

Daza, Sebastian and Kurt Kreuger (2019). *Agent-Based Models for Assessing Complex Statistical Models: An Example Evaluating Selection and Social Influence Estimates from the SIENA model*. Sociological Methods and Research.

### *Work in progress*

Daza, Sebastian (2023). *Exploring the link between place's income mobility and mortality using an agent-based model*.

Daza, Sebastian and Alberto Palloni (2023). *Distinguishing between interaction and dispersion effects in GxE analysis: A review of strategies*.

Daza, Sebastian and Alberto Palloni (2023). *Modeling the impact of heritability, assortative mating and fertility on population-level obesity trends*.

### *Other Publications and Reports*

Somma, Nicolas and Sebastian Daza (2011). *Why did the Concertación Lose? Age, Egotropic Vote, and Political Divisions in the 2009–2010 Chilean Election*. Cuadernos ISUC, Vol. 1, Num. 3.

Daza, Sebastian (2009). Complementary Study on the Evaluation of the 2003–2008, National Strategy Against Drug Use. National Budget Agency for the Exchequer, Chile.

Daza, Sebastian, Daniella Leal and Von Hausen, Carolina (2009). Design and Validation of Context Questionnaires for the National System of Educational Assessment. Ministry of Education, Chile.

Cereceda, Luz, Sebastian Daza and Daniella Leal (2008). Results of the National Survey *Actors in the Educational System*. Ministry of Education, Chile.

Valenzuela, Eduardo, Sebastian Daza and Andrés Biehl (2007). Results of the Survey *Social Cohesion in Latin America*. Corporation for Latin American Studies, Chile.

Valenzuela, Eduardo and Sebastian Daza (2006). A Study on Drug Use and Associated Factors Among Underage Offenders. National Service of Minors, Chile.

Herrera, Soledad, Sebastian Daza, Daniella Leal and Eliana Vivencio (2006). A Series of Studies on Socio–Economic Characterization, 2003. Ministry of Planning and Cooperation, Chile.

Daza, Sebastian and Darinka Radovic (2005). Report on the Evaluation of the Unit of School Psycho–Social Care and Welfare. Corporación Municipal Puente Alto, Chile.

Daza, Sebastian and Macarena Vivent (2004). Report on the Evaluation of the Project SaludArte. Corporación Municipal Puente Alto, Chile.

Daza, Sebastian and Macarena Vivent (2003). Towards the Creation of a Quality-of-Life Instrument for Minors Between Ages 0 and 3. Department of Public Health, Catholic University of Chile.

### *Experience*

#### *Institute of Economy Geography and Demography, CSIC-CCHS, Spain*

Senior Researcher, European Research Council (ERC) Advanced Grant ECHO, December 2019–Present.

Early Conditions, Delayed Adult Effects and Morbidity, Disability and Mortality in Modern Human Populations (ECHO)

#### *University of Wisconsin-Madison, US*

Research Assistant, Center for Demography and Ecology UW–Madison, September 2014–August 2018.

Project Assistant, Center for Demography and Ecology UW–Madison, January 2011–August 2014.

#### *Catholic University of Chile*

Research Affiliate, Center for Justice and Society Studies, August 2016–present.

Research Affiliate, Department of Sociology, August 2010–December 2017

Director of Applied Studies (DESUC), Department of Sociology, 2005–2010.

#### *Non-Academic Institutions*

Senior Data Scientist, Lookiero, Spain, June 2022

Senior Data Scientist, Juntos Inc, Bay Area US, May 2018–Dec 2019.

Principal Researcher, Evaluation of Program *School Psycho-Social Care and Welfare*, Corporación Municipal de Puente Alto, Chile, 2003–2008.

Researcher, Corporación Latinobarómetro, Chile, 2005.

Researcher, Feedback Consultancy, Chile, 2004.

### *Consultancy*

Data Scientist, Kreuger Consulting LLC, Texas, US, May 2021–July 2021.

Data Scientist, Personio, Madrid, Spain, October 2019.

Data Scientist, Applied Population Lab, WI, US, Aug 2016–Nov 2016.

### Teaching

#### *Universidad Carlos III de Madrid*

Master in Computational Social Science, 2022-2023.

#### *Catholic University, Department of Sociology*

Advanced Methods of Social Research, 2008–2009.

Qualitative Analysis Techniques using Nvivo, 2009.

Advanced Analysis of Social Data, 2008–2009.

An Introduction to the Analysis of Social Data, 2009.

Design and Implementation of Social Surveys, 2008.

#### *Diego Portales University, Chile, Department of Sociology*

Introduction to Statistics, 2007.

### Conference and Seminar Presentations

European Population Conference, Groningen, the Netherlands, June 2022. *Assortative Mating and Fertility Differentials Consequences for the Obesity Pandemic.*

Annual Meeting of the Population Association of America, Atlanta, GA, April 2022. *Exploring the link between place's income mobility and mortality using an agent-based model.*

Congreso Internacional de la Sociedad Chilena de Criminología, November 2021. *Reincidencia temprana y heterogeneidad en mujeres que salen en libertad en Santiago.*

TRENDS Conference: Why is Health in the US Continuing to Lag Behind? May 2021. *Early Exposure to County Income Mobility and Adult Individual Health in the United States.*

Virtual Annual Meeting of the Population Association of America, May 2021. *Early Exposure to County Income Mobility and Adult Individual Health in the United States.*

Congreso Internacional de la Sociedad Chilena de Criminología, November 2020. *Trayectorias Laborales de Mujeres que Salen en Libertad.*

European Population Conference, 2020. *Contextual Income Mobility and Individual Health.*

Life Course Influences on Later Life Health and Wellbeing, Institute for Social Research, Ann Arbor, MI, June 2017. *The Consequences of Incarceration for Mortality.*

Life Course Influences on Later Life Health and Wellbeing, Institute for Social Research, Ann Arbor, MI, June 2017. *The Consequences of Incarceration for Mortality.*

Annual Meeting of the Population Association of America, Chicago, IL, April 2017. *Income Inequality, Income Mobility, and Mortality in the U.S.*

Annual Meeting of the Population Association of America, Chicago, IL, April 2017. *Examining the Stochastic Actor-Oriented Model (Siena) for Selection and Influence Estimation under Misspecification*

Annual Meeting of the Population Association of America, Chicago, IL, April 2017. *The Consequences of Incarceration for Mortality.*

Annual Meeting of the Population Association of America, Washington, D.C., March-April 2016. *Consequences of Child-bearing in Delinquency and Substance Use.*

Annual Meeting of the Population Association of America, Boston, MA, May 2014. *Private Intergenerational Transfers between Parents and Children in the U.S., and Consequences of the Great Recession.*

Annual Meeting of the Population Association of America, Boston, MA, May 2014. *Exploring the Consequences of Adolescent Sex in Behavioral Context.*

## Professional Activities

Member, Population Association of America, 2012–Present.

Mentor for new graduate students, Department of Sociology, UW-Madison, August 2013 – 2014.

Reviewer: *Journal of the American Medical Association (JAMA)*, *PLOS One*, *Social Science and Medicine*, *Social Forces*, *Social Problems*, *Race and Social Problems*, *Journal of Policy Analysis and Management*.

## Grants

National Institute on Aging, Small Grants for Research Using PSID Data, *The Consequences of Incarceration for Health and Mortality*, \$20,000, May 2016 - June 2017

Extension National Institute on Aging, Small Grants for Research Using PSID Data, *The Consequences of Incarceration for Health and Mortality*, \$15,000, May 2017 - June 2018

San Carlos de Maipo Foundation, *Chile Re-entry Study*, \$150,000, Jan 2016 - June 2018.

## Honors, Awards, & Fellowships

Grant to attend Agent-based Modeling workshop, Technische Universität Dresden, Germany, 2015.

Grant to attend Agent-based Modeling workshop, Max Planck Institute for Demographic Research (MPIDR), Germany, 2014.

Best Master's Thesis Award, Catholic University of Chile, 2010.

Chilean Ph.D. Scholarship, 2010-2014.

Scholarship for Master's Degree at Catholic University of Chile.

Scholarship for Undergraduate Studies in Sociology at Catholic University of Chile.

## Workshops Attended

Genomics for Social Sciences - National Institute of Aging, University of Michigan, July 2021.

Agent-Based and Hybrid Modeling Bootcamp and Incubator for Health Researchers, August 2016. Instructor: Nathaniel Osgood.

Agent-based Model Analysis, Technische Universität Dresden, Germany, July 2015. Competitive selection.

Agent-based Modeling and Simulation, Max Planck Institute for Demographic Research (MPIDR), Rostock, Germany, October 2014. Competitive selection.

The Pathways to Desistance Study: Analyzing the Life Event Calendar Data for Substance Abuse Research. ICPSR/NAHDAP Summer Program Workshop, July 2014, Ann Arbor, MI.

Doing Bayesian Data Analysis, University of Wisconsin–Madison, July 2012. Instructor: John Kruschke.

Social Network Analysis with Stochastic Actor-based Models, Summer Institutes in Statistics, University of Kansas, June 2011. Instructor: Christian E. G. Steglich.

## Languages

English (Fluent), Spanish (Native).

## Skills

*Statistical Software:* R, Python, Stan, Stata.

*Data Science:* Machine Learning, NLP, Visualization, Model Ensemble, SQL, PySpark, Databricks, Shiny, Dash.

*Agent-based Modeling:* Anylogic, NetLogo.

*General Programming:* Python, Java.

*Modeling:* GLM, Multilevel, SNA, SEM, Life Tables, Survival Analysis, Causal Inference, Bayesian Statistics, Agent-based Modeling, Microsimulation.

*Tools:* Notion, Trello, Jira, Confluence, Git.

## Software

*acsr:* R package to manage data from the US Census American Community Survey (ACS). Created for the Applied Population Laboratory at UW–Madison, May 2015.

*zotnote:* Python package to extract notes from Zotero.

## References

Alberto Palloni, Ph.D.  
Samuel Preston Professor of Sociology, UW-Madison  
(608) 262–2182, palloni@ssc.wisc.edu

Jenna Nobles, Ph.D.  
Professor of Sociology, UW-Madison  
Director Center for Demography and Ecology  
(608) 262–4024, jnobles@ssc.wisc.edu

*Last updated: January 13, 2023*