

Jorge Cimentada

| | | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact information | Pompeu Fabra University Department of Political and Social Sciences Barcelona, 08002, Spain Date of birth: 1st of March, 1991 | cimentadaj@gmail.com cimentadaj.github.io Github: github/cimentadaj Phone: +34 697 382 009 |
| Research Interests | Social Mobility, Educational Policy, R programming, Statistical computing, Statistics | |
| Education | Ph.D., in Quantitative Sociology Pompeu Fabra University, Barcelona, Spain <i>Fields:</i> Stratification, Educational stratification <i>Advisors:</i> Gøsta Esping Andersen, Bruno Arpino | 2016- |
| | My research involved collapsing data on over 3 million students to study educational policies and its impact on inequality. The key takeaway is that inequality depends heavily on the level of vocational education of the country. | |
| | M.S., in Research in Sociology and Demography Pompeu Fabra University, Barcelona Spain <i>Dissertation:</i> Improving cognitive and non-cognitive abilities: Impact evaluation of the AGE program in Mexico <i>Advisors:</i> Gøsta Esping Andersen, Bruno Arpino * Awarded best Master Thesis: featured here . | 2014/2015 |
| | B.A., Market Research Pontificia Universidad Católica Madre y Maestra, Santo Domingo, Dominican Republic. | 2009/2013 |
| Research Experience | <i>R developer & Data analyst</i> Research and Expertise Centre for Survey Methodology Projects: European Social Survey (ESS)-ERIC. Principal Investigator: Wiebke Weber | 2018 - |
| | Designed and implemented a Shiny app to download Spanish translated data from the European Social Survey using my R package <code>essurvey</code> . I automated the translations using the Google Translate API and text mining techniques. Also developed a second Shiny App to adjust model predictions for their measurement error. As part of the project, I developed the <code>sqpr</code> R library, a high-level interface to the SQP API where I implemented several algorithms that correct for measurement error. | |

Data Scientist

2015 - 2017

Pompeu Fabra University

Projects: Stratified Family Dynamics: Polarizing trends in couple behaviour and parenting

Principal Investigator: Gøsta Esping-Andersen

As the main data analyst for the project Stratified Family Dynamics, I performed statistical analysis to study mobility patterns between social classes. I exercised the complete research pipeline of accessing dirty data, cleaning, analyzing noisy records and reporting. In one particular case, I used several classification algorithms to estimate the propensity of mobility, finally landing on LDA because the predictive classes were stable and had a very low out-of-sample error.

Statistical consulting

2014

Population Services International

Project: Measuring the impact of preventive HIV campaigns in the Military forces of the Dominican Republic

I designed, implemented and analyzed the randomized controlled trial to evaluate the project. Result showed an increase of HIV awareness by 7% in the population of armed forces resulting in a renovation of funding from the Department of Defense of the United States.

Quantitative analyst

2013

Newlink Research

Projects: Public opinion polls, Electoral turnouts, Market analysis

Principal investigator: Eduardo Gamarra

My main job was statistical consulting within the company. I worked on projects related to customer churn, banking, retail and public opinion/political forecasts. The latter involved live-analysis of opinion polls in combination with the Miami Headquarters.

Teaching/Talks

Pompeu Fabra University

Department of Political and Social Sciences

Teaching Assistant, Statistics 101 for Political Science, May-2015/Jul-2015

Research and Expertise Centre for Survey Methodology

- Introduction to R programming and its strengths, April 2016 [[Presentation](#)]
- Getting familiar with R objects, April 2016 [[Course](#)]
- Introduction to the tidyverse and functional programming, March 2017[[Course](#)]
- Introduction to R - Barcelona Summer School in Survey Methodology, Jun-Jul 2017 2017 [[Course](#)]

Invited talks

- Introduction to the tidyverse - PyData Conference, May-2017 [[Course](#)]
- The [essurvey](#) package - University of Southampton, January 2018

Academic skills

Past training:

- Introduction to Bayesian Inference and Stan, Newcastle University - December 7-8, 2017
- Max Planck Institute for Demographic Research Visualization Retreat (awarded full stipend) - June 26-28, 2017
- EERA Summer School: Methods and Methodology in Educational Research, Linz University, July 10-15, 2016
- Probability Sampling Methods, Pompeu Fabra University, June 27 - July 1, 2016
- Analysing Comparative Longitudinal Survey Data with Multilevel Modelling, Pompeu Fabra University, July 6-7, 2016
- Methodological seminar on Causal Inference, Pompeu Fabra University, May 18-20, 2015
- Protecting Human Research Participants, National Institute of Health (NIH) of the United States, May, 2013.

Datasets: Programme for the International Assessment of Adult Competencies (PIAAC), International Adult Literacy Survey (IALS), General Social Survey (GSS), European Social Survey (ESS), Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación (PERCE, SERCE and TERCE waves)

Extra-curricular

- Co-organizer of the RECSM RonR! meeting group and seminars
- Adaptation of the Randomization guide from the Abdul Latif Jameel Poverty Action Lab (J-PAL) to R. [[Link](#)]
- PhD Representative years 2017-2018

Languages and Skills

Spanish(native), English (fluent)
R, Python, Stata, Git, Bash, SQL, SAS (basic), Regular Expressions, L^AT_EX, Microsoft Excel & Office

Software

sqpr: Access the SQP API and adjust your estimations for measurement error.
essurvey: Download data from the European Social Survey [[CRAN](#), [Package website](#)]
perccalc: Estimate continuous distributions from categorical variables [[CRAN](#), [Github](#)]
cimentadaj: Personal package [[Github](#)]
corrr: Exploring correlation in a 'tidy' framework. ****Contributor**** [[Github](#)]

Professional Memberships

Comparative and International Education Society
Foundation for Open Access Statistics

Working papers

Esping-Andersen, G. & Cimentada, J., Ability and Mobility: Cognitive Skills and Life Course Destinies (2017) - Submitted to Social Science Research