

# JORGE CIMENTADA

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## CONTACT INFORMATION

Max Planck Institute for Demographic Research  
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<https://cimentadaj.github.io/>  
*Google Scholar*  
*Github:* [github/cimentadaj](https://github.com/cimentadaj)

## EDUCATION

- 2015/2019      Ph.D.      Pompeu Fabra University, Political and Social Sciences  
*Fields: Sociology and Social inequalities*  
Dissertation: “Educational institutions and their effect on inequality: Three Papers on Educational Systems and Inequality of Achievement and Opportunity”  
Advisors: Bruno Arpino, Gøsta Esping-Andersen  
Committee: Fabrizio Bernardi (president), Elizabeth Washbrook, Luis Ortiz  
Awarded **best PhD paper Prize (2017)**
- 2014/2015      M.Sc.      Pompeu Fabra University, Research in Sociology and Demography  
Advisors: Gøsta Esping-Andersen, Bruno Arpino
- 2009/2013      B.A.      PUCMM University, Business

## RESEARCH INTERESTS

Social/Geographical Mobility      Computational Statistics      Demography      Social Inequalities

## CURRENT POSITIONS

- 2019-      *Research Scientist*  
Laboratory of Digital and Computational Demography  
Max Planck Institute for Demographic Research
- 2019-      *Scientific collaborator*  
Sociometric Research Foundation
- 2018-      *Research affiliate*  
Research and Expertise Centre for Survey Methodology  
Mentor: Wiebke Weber

## CONSULTING

- 2019-      Subcontracting - United Nations Population Division: Development of R package  
DDSQLtools, World Population Prospects

## PAST POSITIONS

- 2018/2019      *Data Scientist*  
Kernel Analytics

## PUBLICATIONS

## Refereed Journal Articles

- 2020 **Cimentada, J.**, Klüsener, S., & Riffe, T. (2020). Exploring the demographic history of populations with enhanced Lexis surfaces. *Demographic Research*, 42, 149-164. <https://doi.org/10.4054/demres.2020.42.6> [Replication files] [Open access]
- 2019 **Cimentada** (2019). perccalc: An R package for estimating percentiles from categorical variables. *Journal of Open Source Software*, 4(44), 1796, <https://doi.org/10.21105/joss.01796> [Replication files][Open access]
- 2018 Esping-Andersen, G. & **Cimentada, J.** (2018). Ability and Mobility: The Relative Influence of Skills and Social Origin on Social Mobility. *Social Science Research*, Volume 75, Pages 13-31. <https://doi.org/10.1016/j.ssresearch.2018.06.003> [Replication files][Open access]

## WORK IN PROGRESS

Del Fava, E., **Cimentada, J.**, Perrotta, D., Grow, A., Rampazzo, F., Gil-Clavel, S., Zagheni, E. (2020). The differential impact of physical distancing strategies on social contacts relevant for the spread of COVID-19. medRxiv. [Open access]

Grow, A., Perrotta, D., Del Fava, E., **Cimentada, J.**, Rampazzo, F., Gil-Clavel, S., Zagheni, E. (2020, May 30). Addressing Public Health Emergencies via Facebook Surveys: Advantages, Challenges, and Practical Considerations. <https://doi.org/10.31235/osf.io/ez9pb> [Open access]

Perrotta, D., Grow, A., Rampazzo, F., **Cimentada, J.**, Del Fava, E., Gil-Clavel, S., Zagheni, E. (2020). Behaviors and attitudes in response to the COVID-19 pandemic: Insights from a cross-national Facebook survey. medRxiv. [Open access]

**Cimentada, J.** (2020, February 4). A New Perspective On The International Achievement Gap: Is Academic Autonomy Good For Everyone?. <https://doi.org/10.31219/osf.io/j25yn> [Open access]

**Cimentada, J.** & Weber, W. (In preparation for the Journal of Statistical Software), The sqpr package: a gateway for correcting for statistical measurement error.

**Cimentada, J.** (2017), Does curricular tracking explain global SES gaps? an international comparison of the SES achievement gaps from 2000 to 2015. SocArXiv, 21 Sept. 2017. In preparation for *Research in Social Stratification and Mobility* [Open access]

## COMPUTATIONAL SKILLS

**Statistics:** R, Python, SPSS, Stata, Stan, Excel

**Programming:** Bash, Git, cron, Web Scraping, API interactions, ssh, Shiny applications, Emacs

**Big data:** Impala, Hadoop, Spark, Oracle, SQL, PostgreSQL, Airflow

**Text processing:** Regular Expressions, Tesseract,  $\LaTeX$

## STATISTICAL SOFTWARE

## Scientific and statistical software

measurementfree: Tool to correct correlation and covariance matrices for measurement error [website]

opendataes: Interact with the [datos.gob.es](https://datos.gob.es) API [website]

sqpr: Access the SQP API and adjust statistical models for measurement error [website]

essurvey: Download data from the European Social Survey [CRAN, website]

perccalc: Estimate continuous distributions from categorical variables [[CRAN](#), [website](#)]  
 coauthornetwork: Explore your network of coauthors from your Google Scholar profile [[Github](#)]  
 cimentadaj: Personal package [[Github](#)]

### Contributions to other statistical software

corr: Exploring correlations in a 'tidy' format. [[Github](#)]  
 broom: Convert statistical analysis objects into tidy format [[Github](#)]  
 scholar: Extract citation data from Google Scholar. [[Github](#)]

### Scientific web applications

[Exploring the Demographic History of Populations with Enhanced Lexis Surfaces](#)  
[Educational Inequality Around the World](#)

- Commissioned by the Research and Expertise Centre for Survey Methodology:  
 \* [Download Spanish translated data from the European Social Survey](#)  
 \* [SQP: A Tool for Correction for Measurement and Sampling Error](#) (joint project with [GESIS](#))

Open source Github ranking: R (<http://git-awards.com/users/cimentadaj>)  
 3 out of 126 in Madrid  
 13 out of 482 in Spain

### HONORS, AWARDS, AND FELLOWSHIPS

2019	Full scholarship to the Summer Institute in Computational Social Science, Oxford University
2018	Best conference presentation 'National Spanish R Conference', Department of Mathematics, University of Murcia (€200)
2017	Pompeu Fabra EBES grant to "Bayesian Inference and Stan", Newcastle University (€600)
2017	Best PhD paper Prize for the paper "Does curricular tracking explain SES gaps? An international comparison of the SES achievement gaps from 2000 to 2015", Pompeu Fabra University (€300)
2017	Full travel stipend to the Visualization Retreat Rostock, Max Planck Institute for Demography
2016	Pompeu Fabra EBES grant to 'EERA Summer School: Methods and Methodology in Educational Research', Linz University (€600)
2015	Best Master's thesis, Department of Political and Social Science, Pompeu Fabra University

### SELECTED PRESENTATIONS

#### Conference presentations

- 2019 “An app for the correction of measurement and sampling error in the European Social Survey“, European Survey Research Association, Zagreb, 15-19 July
- 2018 “Interacting with the [datos.gob.es](https://datos.gob.es) API using [opendataes](https://opendataes.com)“, The National Spanish R Conference, Murcia, 22-23 November
- “Ability and Mobility: The Relative Influence of Skills and Social Origin on Social Mobility“, European Population Conference, Brussels, 6-9 June
- 2017 "Visualizing Educational Inequality Around the World: are SES gaps growing over time?", Max Planck Institute for Demographic Research Visualization Retreat, Rostock, 28-29 June

### Workshops

- 2019 Summer Institute in Computational Social Science, Oxford University, 15-27 June
- 2019 Applying big data to Institutional Family Demography, Dondena Centre for Research on Social Dynamics and Public Policy, Bocconi University, 3-6 May

**Invited Presentations**

- 2018        Downloading European data with [essurvey](#), Charles III University of Madrid (September)
- "Does curricular tracking explain cross-national variation in achievement gaps?", Universitat Barcelona (February)
- The [essurvey](#) package, University of Southampton (January)
- 2017        Introduction to the tidyverse, PyData Conference, Barcelona (May) [[Course](#)]

**Presentation meet ups**

- 2019        'Downloading European data with [essurvey](#)' and 'Accessing Spanish public data with [opendataes](#)', Canary Islands R meetup (March)
- 2018        Downloading Spanish public data with [opendataes](#), Madrid R meetup (November)

**TEACHING AND MENTORING EXPERIENCE****Teaching assistant**

- 2015        Teaching Assistant, Statistics 101 for Political Science with Dr. Bruno Arpino

**Graduate Mentoring**

- 2017        Introduction to the tidyverse and functional programming, Econ and Pol Sci Departments, Pompeu Fabra University (March) [[Course](#)]
- 2016        Introduction to R programming and its strengths, RECSM Institute (April) [[Presentation](#)]
- Getting familiar with R objects, DEMOSOC Research Group (April) [[Course](#)]

**Short courses**

- 2017-        Introduction to R - Barcelona Summer School in Survey Methodology with Basilio Moreno, 2017, 2018, 2019 [[Course](#)]

**TEACHING INTERESTS**

Social/Geographical Mobility; Introductory and Advanced Quantitative Methods; Data Science applied to Social Science; Social Science Research Design; Social Inequalities; Big data and Demography

**SCIENTIFIC REVIEWS****Statistical/Software review**

[Social Forces](#), [Survey Research Methods](#), [rOpenSci](#), [Journal of Open Source Software](#)

**ACADEMIC SKILLS AND LANGUAGES****Short Methods Courses**

2018	Text Mining & Natural language Processing, Department of Mathematics, University of Murcia
2018	Introduction to Bayesian Inference and Stan, Newcastle University
2016	EERA Summer School: Methods and Methodology in Educational Research, Linz University
2016	Analyzing Comparative Longitudinal Survey Data with Multilevel Modelling, RECSM Summer School
2016	Probability Sampling Methods, RECSM Summer School
2015	Causal Inference in Observational Studies, Pompeu Fabra University
2013	Protecting Human Research Participants, National Institute of Health (NIH) of the United States

**Languages:** Spanish (native), English (fluent)

**PROFESSIONAL ACTIVITIES AND SERVICE****University/Departmental**

2017-2018 Graduate representative PhD program  
 2017 Co-organizer of the RECSM RonR! meeting group and seminars  
 2016 Adaptation of the Randomization guide from the Abdul Latif Jameel Poverty Action Lab (J-PAL) to R. [\[Link\]](#)

**Professional Memberships**

Comparative and International Education Society  
 Foundation for Open Access Statistics  
 International Union for the Scientific Study of Population (IUSSP)

**REFERENCES**

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 Bocconi University & Pompeu Fabra University  
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 Research and Expertise Centre for Survey Methodology (RECSM)  
 Pompeu Fabra University  
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