

CONTACT Westat, Statistics and Survey Methods Unit Email: griverorz@gmail.com
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 Rockville, MD 20850 GitHub: [griverorz](https://github.com/griverorz)

SUMMARY I am a social researcher and data scientist specialized in the design of advanced quantitative methods and tools for the collection of high-quality data. At my current position, I advise researchers on design and analysis with organic and enriched data and I oversee the methodological standards and workflows in advanced analytics, machine learning, and natural language processing.

EDUCATION Ph.D. in Political Science, *New York University* 2013
 M.A. in Political Science, *New York University* 2009
 M.A. in Social Sciences, *Juan March Institute*, Madrid 2006
 M.A. in History (Prehistory & Archaeology), *University of Vigo*, Ourense 2004
 B.A. in History, *University of Vigo*, Ourense 2002

EMPLOYMENT **Data Science Manager.** Statistics and Evaluation Sciences Unit. *Westat.* 2018–present
 (a) Managed the development of a system to score survey respondents based on their response propensity, location, and marginal contribution to sample balance in an adaptive design.
 (b) Designed several text classification tools using modern deep learning models used for the detection of falsification in audio files, data quality assessments, and automation of back-end tasks.
 (c) Built an end-to-end tool for anomaly and outbreak detection in time-series data
 (d) Recruited and managed a data science unit and advised leadership on trends in machine learning, natural language processing, and artificial intelligence.
Senior Data Scientist. Statistics and Evaluation Sciences Unit. *Westat.* 2015–2018
Statistical Scientist. Scientific Research Group. *YouGov.* 2014–2015
Senior Analyst. Scientific Research Group. *YouGov.* 2013–2014

TECHNICAL SKILLS Languages: Python, C++, JavaScript, Haskell
 Experience with PySpark, numpy, scikit-learn, pandas, keras, NLTK, spacy
 Stack includes Flask, Celery, uWSGI, NGINX, SQLAlchemy
 Statistics: R, Stata, Jags/Stan
 Experience with tidyverse, caret, Rcpp, openNLP, statnet, rmarkdown
 Storage: SQL, Presto, MongoDB, ElasticSearch
 DevOps: Amazon AWS, Docker, Kubernetes, Jenkins
 Experience with Ansible, Fabric, Jenkins, supervisor/circus, OpenCPU

BOOKS 1. Jungherr, A.; **Rivero, G.** and Gayo-Avello, D. (exp. 2020) *Retooling Politics: How Digital Media are Shaping Democracy*. Cambridge University Press.
 2. **Rivero, G.** (2011) *Análisis de datos incompletos en Ciencias Sociales*. CIS, Madrid.

PEER-REVIEWED ARTICLES 1. Suhay, E.; Klasnja, M. and **Rivero, G.** (2020): “Ideology of Affluence: Rich American’s Explanations for Inequality and Redistributive Attitudes.” *Journal of Politics*, Forthcoming
Awards: *APSA Best Paper Prize 2018. Class and Inequality Section.*
 2. Tourangeau, R.; Sun, H.; Yan, T.; Maitland, A.; **Rivero, G.** and Williams, D. (2018): “Web Surveys by Smartphones and Tablets: Effects on Data Quality.” *Social Science Computer Review*. 36 (5): 542-556.
 3. Tourangeau, R.; Maitland, A.; **Rivero, G.**; Sun, H.; Williams, D. and Yan, T. (2017): “Web Surveys by Smartphones and Tablets: Effects on Survey Responses.” *Public Opinion Quarterly*, 81 (4): 896-929.

4. **Rivero, G.** (2017): “Preaching to the Choir. Ideology and Following Behavior in Social Media.” *Contemporary Social Science*, 14 (1): 54-70.
5. Fernández-Vázquez, P.; Barberá, P. and **Rivero, G.** (2015): “Rooting Out Corruption or Rooting For Corruption? The Heterogeneous Electoral Consequences of Scandals.” *Political Science Research and Methods*, 4 (2): 379-397
6. **Rivero, G.** (2015): “Heterogeneous Preferences in Multidimensional Voting Models: Ideology and Nationalism in Spain.” *Electoral Studies*, 40: 136-145.
7. Przeworski, A.; **Rivero, G.** and Xi, T. (2015): “Elections as a Conflict Processing Mechanism.” *European Journal of Political Economy*, 39: 235-248.
8. Barberá, P. and **Rivero, G.** (2015): “Understanding the Political Representativeness of Twitter Users,” *Social Science Computer Review*, 33 (6): 712-729.

CHAPTERS IN BOOKS

1. Barberá, P. and **Rivero, G.** (2012): ¿Un tweet, un voto? Desigualdad en el debate político en Twitter. In Cotarelo, R. and Crespo, I. (ed.): *La comunicación política y las nuevas tecnologías*. Ed. Libros de la Catarata: 200–220.
2. Lapuente, V.; Fernández-Vázquez, P. and **Rivero, G.** (2011): Carencias en el control vertical y horizontal de la corrupción. In Estefanía, J. (Ed.): *Informe sobre la Democracia en España, 2011*. Fundación Alternativas: 199–222.

OTHER PUBLICATIONS

1. Riddles, J.; Burke, J.; **Rivero, G.** and Rust, K. (2017): Adjustments to Student Weights to Account for Student Nonresponse in the National Assessment of Educational Progress. *Proceedings of the Joint Statistical Meetings*. American Statistical Association.
2. **Rivero, G.** and Fernández-Vázquez, P. (2011): Las consecuencias electorales de los escándalos de corrupción municipal, 2003–2007. *Estudios de Progreso*, 59.

UNDER REVIEW

1. Gallego, J.; **Rivero, G.** and Martínez-Gordillo, J.D. (2017): “Preventing Rather than Punishing: An Early Detection Model for Corruption in Public Procurement.” Revise and resubmit.
2. Nooney, J.; Kirkman, M. S.; Bullard, K. M.; White, Z.; Meadows, K.; Campione, J.; Mardon, R.; **Rivero, G.**; Benoit, S. R.; Pfaff, E.; Rolka, D.; Saydah, S. (2019): “Validating Survey-Based Algorithms to Distinguish Diabetes Type in Adults.”

WORK IN PROGRESS

1. Klasnja, M.; Smeets, P.; Suhay, E. and **Rivero, G.** (2017): “The Political Preferences of the Wealthy in the U.S. and the Netherlands.”
2. Billington, C.; Chen, K.; Jannett, A.; **Rivero, G.**; Riddles, J. (2019): “Using Natural Language Processing and Machine Learning to Process Open Text Field Comments in a Panel Study.”

ADDITIONAL TRAINING

- Short courses*
- R and Spark: Tools for Data Science Workflows. *National Institute of Statistical Sciences* [Sep. 2017](#)
 Statistical Learning and Data Mining. *Trevor Hastie/Rob Tibshirani* [Oct. 2016](#)
- Long courses*
- Quantitative Methods for Social Research. *ICPSR, University of Michigan* [June–Aug. 2005](#)
Courses: Bayesian Statistics, Advanced MLE, Game Theory II, Regression Analysis III
 PGCert in Advanced Methods of Applied Statistics, *UNED* [2005](#)
Areas: Robust Statistics, Resampling Methods, Multivariate Statistics
 Coursework of the Ph.D. in Economic Theory, *U. Santiago de Compostela* [2004](#)

RESEARCH AFFILIATIONS

- Research affiliate (*Doctor miembro*). *Juan March Institute*, Madrid [2013–present](#)
 Visiting Scholar. Institute for Economic Analysis, *CSIC*, Barcelona [2010–2011](#)

GRANTS

- Digital Media and Politics*, €8,000. University of Konstanz. Andreas Jungherr (PI) [2017](#)
Dictatorial Repression and Judicial Systems. The Determinants of Authoritarian Stability and Transitional Justice, €30,000. Spanish Ministry of Science. Paloma Aguilar (PI) [2012–2015](#)

	<i>Technologies of Rebellion and Violence during Civil War</i> , €12,000. Institut Català Internacional per la Pau. With Laia Balcells (PI)	2011
	<i>Disentangling the Origins and Consequences of Authoritarian Institutions</i> , €3,612. Juan March Institute. With Abel Escriba (Co-PI)	2010
FELLOWSHIPS & AWARDS	Best Paper Prize. <i>Class and Inequality Section, APSA</i>	2018
	McCracken Fellowship, <i>GSAS, New York University</i>	2007–2012
	Juan March Fellowship, <i>Juan March Institute</i>	2003–2007
	Research assistant fellowship, <i>U. de Santiago de Compostela</i>	June–Sept. 2003
	Xunta de Galicia Graduate Fellowship, <i>Xunta de Galicia</i>	2002–2003
	Prize to the best academic record, <i>Universidade de Vigo</i>	2002
	Research assistant fellowship, <i>Spanish Ministry of Education</i>	2001–2002
TEACHING EXPERIENCE	<i>Workshops & Summer Schools</i>	
	“Survey Statistics for Public Opinion Research” (4 hours). <i>40db</i>	January 2020
	“Big Data for Social Research”	
	<i>Universidad Católica</i> , Montevideo, Uruguay (20 hours)	July 2019
	<i>Universidad del Rosario</i> , Bogotá, Colombia (40 hours)	June 2017
	“Advanced R” (6 hours). <i>Westat</i>	June 2016
	“Introduction to Statistical Programming in R” (6 hours). <i>Westat</i>	Feb. 2016
	“Incomplete Data Analysis in Surveys” (8 hours). <i>U. Autònoma de Barcelona</i>	Nov. 2010
	<i>Teaching Assistant</i>	
	Power & Politics in America. Prof. Patrick Egan. <i>NYU</i>	Fall 2012
	Power & Politics in America. Prof. Sanford Gordon. <i>NYU</i>	Spring 2012
	International Politics. Prof. Shanker Satyanath. <i>NYU</i>	Fall 2011
	Quantitative Methods for Political Science. Prof. Matthew Stevens. <i>NYU</i>	Fall 2008 & Spring 2009
INVITED TALKS	University of Durham, Universidad del Rosario (Colombia)	2017
	Trinity College of Dublin	2016
	TIGER (Toulouse School of Economics)	2014
	Instituto Tecnológico Autónomo de México, Spanish National Research Council	2012
	Universitat Autònoma de Barcelona	2011
ORGANIZED CONFERENCES	The Organization of Security and Justice System Institutions in Autocracies.	June, 2015
	<i>Hosting institution:</i> Juan March Institute - Carlos III, <i>Madrid</i>	
	<i>Committee:</i> P. Aguilar, A. Escribà-Folch, J.A. Mayoral, J. Ríos Figueroa, and G. Rivero	
	Contingent Disruption: Digital Media and Politics.	May, 2018
	<i>Hosting institution:</i> University of Konstanz, <i>Konstanz</i>	
	<i>Committee:</i> D. Gayo-Avello, A. Jungherr, and G. Rivero	
OUTREACH	<i>Mentions and interviews in media</i>	
	El Periódico. “ <i>Patrullas ciudadanas virtuales: la fina línea entre la colaboración vecinal y la alarma social.</i> ” Sept. 4, 2019.	
	The Atlantic. “ <i>The Problem Isn’t Twitter. It’s That You Care About Twitter.</i> ” Apr. 29, 2019.	
	El Mundo. “ <i>El voto oculto de Donald Trump.</i> ” Oct. 27, 2016.	
	Univisión. “ <i>Por qué es muy improbable que fallen las encuestas como dice Trump.</i> ” Oct. 25, 2016.	
	El País. “ <i>La corrupción sale gratis en España.</i> ” Jul. 2, 2016.	
	Expansión. “ <i>El porqué de la corrupción política.</i> ” Jun 30, 2016.	

Xataka. *“¿Predice el big data sobre redes sociales mejor que las encuestas quiénes ganan las elecciones?”* Dec. 15, 2015.
Pacific Standard. *“Why do we elect corrupt politicians.”* Nov. 24, 2014.
El País. *“Rajoy y Rubalcaba empatan en la valoración de los usuarios de Twitter”*. Sep. 26, 2011.

Writings in media

Ahora. *“Cuando PP y PSOE perdieron a los jóvenes”*, with María Ramos. Jul. 8 2016.
El País. *“El éxito de las encuestas”*, with Kiko Llaneras. Mar. 30, 2015.
European Politics and Policy Blog, London School of Economics. *“Political discussions on Twitter during elections are dominated by those with extreme views”*, with Pablo Barberá. Dec. 13, 2014.

CONFERENCES *Political science*: APSA (2010, 2011, 2013, 2015, 2017, 2019), MPSA (2010, 2011, 2015, 2017, 2018), EPSA (2011, 2012), ECPR (2010), IPSA (2011, 2012), CES (2018)
Statistics and survey methods: GASP (2018, 2019), FedCASIC (2018, 2019), BigSurv (2018), AAPOR (2017, 2018, 2019), ITSEW (2016), MOLS (2018), JSM (2017)
Others: ALICE (2011)

RESEARCH ASSISTANSHIPS Prof. Adam Przeworski (NYU). Collection of constitutional and electoral data for the dataset *Political Institutions and Political Events*. 2008 – 2011
Prof. Covadonga Meseguer (CIDE). Technical review and discussion of the book *Learning, Policy Making, and Market Reforms*. Cambridge University Press. 2007 – 2008

SERVICE & MEMBERSHIP *Referee*
Journals: Public Opinion Quarterly; British Journal of Political Science; Journal of Conflict Resolution; Political Communication; Social Science Computer Review; International Journal of Public Opinion Research; Government and Opposition; Communication Research; Congress & the Presidency; Journal of Survey Statistics and Methodology; Armed Forces and Society; War in History; Dados; Spanish Journal of Political Science; Southern European Politics and Society; El Profesional de la Información; Revista Internacional de Sociología
Book publishers: Cambridge University Press
Funders: Spanish National Agency for Evaluation and Prospective, Institute of Education Sciences

Service in organizations

Washington Statistical Society Board of Directors (2018-2020)
AAPOR Communications Committee (2019-2020)

Mentorship

Shane Campbell (Washington Statistical Society, 2017-2018)
Ruodan Zhang (Midwest Political Science Association, 2017-2018)

Memberships

American Political Science Association (Political Methodology Section), American Statistical Association (Statistical Learning and Data Science Section), American Association for Public Opinion Research

Member of expert panels

Bureau of Justice Statistics