# Sebastian Calonico, PhD CURRICULUM VITAE

# DATE OF PREPARATION:

# PERSONAL DATA

Name: Contact Information: Current Academic Rank: Current Track of Appointment: Primary Department: Birthplace: Citizenship:	Sebastian Calonico nsc2136@cumc.columbia.edu https://sites.google.com/site/scalonico/ MSPH 4th Floor; 212-342-0486 Assistant Professor Tenure-earning Track Department of Health Policy and Management Argentina Argentina
ACADEMIC APPOINTMENTS	
Assistant Professor Department of Health Policy & Management Mailman School of Public Health Columbia University NYC, NY	2019 – Present
Assistant Professor Department of Economics School of Business University of Miami Miami, FL	2014 – 2019
EDUCATION	
<i>Licentiate in Economics</i> Universidad de Buenos Aires Buenos Aires, Argentina	2002
<i>Master in Economics</i> Universidad Torcuato Di Tella Buenos Aires, Argentina	2005
PhD in Economics MA in Statistics MA in Economics University of Michigan Ann Arbor, MI	2014 2012 2011

July 2022

### **HONORS & AWARDS**

#### **POST-GRADUATE**

2018. Emerging Scholar Award, University of Miami.

2017. Statistical Software Award, Society for Political Methodology. Software: RD Packages

2017. Citations of Excellence Award, Emerald Group Publishing. Paper: "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs".

2015. Gosnell Prize, Society for Political Methodology. Paper: "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs"

#### GRADUATE

2013. Rackham One-Term Dissertation Fellowship, University of Michigan.

2007. Regents Fellowship. Rackham Graduate School, University of Michigan.

2007. Academic Club Award, University of St. Gallen.

### ADMINISTRATIVE LEADERSHIP AND ACADEMIC SERVICE

Faculty Economist at the Global Research Analytics for Population Health (GRAH) program, Columbia University.	2019- Present		
PROFESSIONAL ORGANIZATIONS AND SOCIETIES			
PROFESSIONAL ACTIVITIES			
Program Committee Member LAMES/LACEA	2016, 2018		
Session organizer: "Recent developments on program evaluation methods". 10th International Conference on Computational and Methodological Statistics, University of London, UK	2017		
Session organizer: "Recent advances in nonparametric methods". 11th International Conference on Computational and Methodological Statistics, University of Pisa, Italy	2018		
University of Miami. Latin America and Caribbean Initiative Faculty Steering Group Member	2018		
Session organizer: "Advances in regression discontinuity models". 12th International Conference on Computational and Methodological Statistics, University of London, UK	2019		

# ACADEMIC AFFILIATIONS

American Economic Association, Econometric Society, Lima School of Economics.

#### JOURNAL REVIEWER

American Economic Review, Review of Economics and Statistics, Journal of Econometrics, Journal of Business & Economic Statistics, Quantitative Economics, Econometric Theory, Journal of Applied Econometrics, Journal of Econometric Methods, Econometrics Journal, Econometric Reviews, Econometrics and Statistics, American Economic Journal: Economic Policy, Economic Letters, Economic Journal, Economic Inquiry, Economic Development and Cultural Change, Journal of International Development, International Economic Review, Oxford Bulletin of Economics and Statistics, Journal of Economic Behavior and Organization, European Economic Review, Journal of Economic Surveys, Studies in Nonlinear Dynamics. Journal of the American Statistical Association, Journal of the Royal Statistical Society: Series A & B, Journal of Applied Statistics, Journal of Causal Inference, Annals of Applied Statistics, Entropy, Statistica Sinica, Operations Research. American Journal of Political Science, American Political Science Review, British Journal of Political Science, Journal of Politics, Assessment in Education: Principles, Policy & Practice, Statistics in Medicine, Journal of Agricultural Economics, Stata Journal, Computational Economics, BMC Public Health, PLOS One, Science, Nature.

#### **GRANT REVIEWER**

National Science Foundation, European Research Council.

#### TEACHING

<i>Economics of Prevention</i> MPH/MHA Program Department of Health Policy & Management Mailman School of Public Health, Columbia University	2022
Analytics for Decision-Making II MHA Program Department of Health Policy & Management Mailman School of Public Health, Columbia University	2021
Applied Econometrics Undergraduate course. Department of Economics School of Business, University of Miami	2014-2018
Probability and Statistics for Econometrics Graduate course. Department of Economics School of Business, University of Miami	2014-2018
Labor Economics Undergraduate course. Department of Economics School of Business, University of Miami	2014-2018

# **GRANT SUPPORT**

## ACTIVE

<u>Title: A Binational Study to Understand Dementia Risk and Disparities of Mexican Americans: The Role of Migrationand Social Determinants.</u>

Major Goals: The goal of this study is to create a binational study of two nationally representative cohorts from the US andMexico to study how migration influences dementia risk of Mexican Americans and factors that increase or reduce dementia risk in Mexican Americans. STATUS OF SUPPORT: ACTIVE

Project Number: RF1AG055486 Name of PD/PI: Zeki Al Hazzouri Source of Support: NIA Primary Place of Performance: Columbia University Project/Proposal Start and End Dates: 06/1517 – 08/31/22 Total Award Amount: \$1,714,495 Role: Co-Investigator

Title: Building an unbiased pooled cohort for the study of lifecourse social and vascular determinants of Alzheimers Disease and Related Disorders

Major Goals: This study will combine eight data sources on lifecourse social and vascular risk factors for Alzheimer's Disease and Related Dementias (ADRD) to create a large and diverse synthetic birth cohort for research on ADRD. We will apply rigorous methods to estimate and incorporate corrections for selection forces, including survival, enrollment, attrition, and reverse causation from incipient dementia to risk factor changes. The synthetic cohort will then be used to estimate how lifecourse social and vascular factors and hypothetical agespecific interventions on those risk factors would affect ADRD risk and ADRD disparities. Project Number: R01AG072681 Name of PD/PI: Zeki Al Hazzouri Source of Support: NIA Primary Place of Performance: Columbia University Project/Proposal Start and End Dates: 04/2021 – 03/2026 Total Award Amount: \$3,893,879 Role: Co-Investigator

### COMPLETED

<u>Title: Statins and Risk of Alzheimer's Disease and Related Dementias: A Novel Quasi- Experimental Approach toIdentify Causal Effects.</u> Major Goals: The goal of this grant is to create a quasi-experiment using a clinical guideline in the UK and established statistical methods in economics, regression discontinuity, to study the effect of statin on dementia risk overall, and across relevant subgroups. Status of Support: COMPLETED Project Number: R56AG061177 Name of PD/PI: Zeki Al Hazzouri Source of Support: NIA Primary Place of Performance: Columbia University Project/Proposal Start and End Dates: 08/15/2019 – 07/31/21 Total Award Amount: \$705,777 Role: Co-Investigator

### PENDING

Title: Late Life Learning, Dementia, and Overall Health: AN investigation of the University for Seniors in Beirut --- scored 12th percentile

Major Goals: This project will capitalize on an ongoing and well-established late life learning (LLL) program, the University for Seniors (UfS), in Beirut, Lebanon. We will build a prospective cohort and we will include two waves of data collection to rigorously evaluate the relationships of LLL with cognitive function, ADRD, and other related outcomes in older age, whether these relationships are mediated by educational and social engagement, and whether LLL would modify the influence of earlier and lifecourse psychosocial exposures. Through a detailed capacity building program, this application will build research and infrastructure capacities to delineate opportunities for dementia prevention in Lebanon and other low-resourced settings Status of Support: PENDING Project Number: R01AG074076-01A1 Name of PD/PI: Adina Zeki Al Hazzouri Source of Support: NIA Primary Place of Performance: Columbia University, New York, NY Project Start and End Dates: 07/01/22 - 06/30/27 Total Award Amount: \$3,658,700 Role: Co-Investigator

#### **SUBMITTED:**

Title: Illuminating our understanding of statins and Alzheimer's Disease and Dementia using modern causal inference methods. Major Goals: to study the relationship between statin treatment and dementia using a regression discontinuity design. And to shed light on heterogeneous treatment effects. Name of PD/PI: Adina Zeki Al Hazzouri Source of Support: NIA Primary Place of Performance: Columbia University, New York, NY **Role: Multiple PI** 

### PUBLICATIONS

#### Statistics, Quantitative methods, and Causal Inference

- 1. **Calonico S**, Cattaneo M, Farrell M. Coverage Error Optimal Confidence Intervals for Local Polynomial Regression. with. *Bernoulli*. Forthcoming.
- 2. Calonico S, Ao W, Lee Y. Y. Multivalued Treatments and Decomposition Analysis: An application to the WIA Program. *Journal of Business & Economic Statistics*, 39(1): 358-371, 2021.
- 3. Calonico S, Cattaneo M, Farrell M. Optimal Bandwidth Choice for Robust Bias Corrected Inference in Regression Discontinuity Designs. *Econometrics Journal*, 23(2): 192-210, 2020.
- 4. Calonico S, Cattaneo M, Farrell M, Titiunik R. Regression Discontinuity Designs using Covariates. *Review* of Economics and Statistics, 101(3): 442-451, 2019.
- 5. Calonico S, Cattaneo M, Farrell M. On the Effect of Bias Estimation on Coverage Accuracy in Nonparametric Inference. *Journal of the American Statistical Association*, 113(522): 767-779, 2018.
- 6. Calonico S, Smith J. The Women of the National Supported Work Demonstration. *Journal of Labor Economics*, 35(S1): S65-S97, 2017.
- 7. Calonico S, Cattaneo M, Titiunik R. Optimal Data-Driven Regression Discontinuity Plots. *Journal of the American Statistical Association*, 110(512): 1753-1769, 2015.
- 8. Calonico S, Cattaneo M, Titiunik R. Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs. *Econometrica*, 82(6): 2295-2326, 2014.

#### Health policy, public health and health economics

- 9. Jawadekar N, Kezios K, Odden M, Stingone J, **Calonico S**, Rudolph K, Zeki Al Hazzouri A. Practical Guide to Honest Causal Forests for Identifying Heterogeneous Treatment Effects in a Randomized Setting. *American Journal of Epidemiology*. Forthcoming.
- Zeki Al Hazzouri A, Jawadekar N, Kezios K, Caunca MR, Elfassy T, Calonico S, Kershaw KN, Yaffe K, Launer L, Elbejjani M, Grasset L, Manly J, Odden MC, Glymour MM. Racial Residential Segregation in Young Adulthood and Brain integrity in Middle Age: Can we learn from small samples? In Press. *American Journal of Epidemiology*. 2022. doi: 10.1093/aje/kwab297. Online ahead of print. PMID 35020781.
- Zeki Al Hazzouri A, Jawadekar N, Grasset L, Kaiser P, Kezios K, Calonico S, Glymour M, Hirsch C, Arnold A M, Varadhan R, Odden M C. Statins and cognitive decline in the Cardiovascular Health Study: A Comparison of different analytical approaches. *The Journals of Gerontology: Series A*. 2021. PMID 34331536.
- Swift S L, Elfassy T, Bailey Z, Florez H, Feaster D J, Calonico S, Sidney S, Kiefe C I, Zeki Al Hazzouri A. Association of negative financial shocks during the Great Recession with depressive symptoms and substance use in the USA: The CARDIA study. *Journal of Epidemiology and Community Health*; 74(12): 995-1001; 2020. PMID 32788306.
- 13. Elfassy T, Swift SL, Glymour MM, Calonico S, Jacobs DR, Mayeda ER, Kershaw KN, Kiefe C, Zeki Al Hazzouri A. Associations of income volatility with incident cardiovascular disease and all-cause mortality in a US cohort. *Circulation*, 139(7): 850-859, 2019. PMC6370510.
- Swift SL, M. Glymour, Elfassy T, Lewis CE, Kiefe C, Sidney S, Calonico S, Feaster D, Bailey ZD, Zeki Al Hazzouri A. Racial Discrimination in Medical Care Settings and Opioid Pain Reliever Misuse: A Causal Mediation Framework. *PLoS One*, 14(12): e0226490, 2019.
- 15. Calonico S, Hirth R, Gibson T, Levy H, Smith J, Das A. Long-term Health Spending Persistence among the Privately Insured. *Fiscal Studies*, 37(3-4): 749-783, 2016.
- 16. Calonico S, Hirth R, Gibson T, Levy H, Smith J, Das A. New Evidence on the Persistence of High Health Spending. *Medical Care Research and Review*, 72(3): 277-297, 2015.

### Statistical software publications:

- 17. Calonico S, Cattaneo M, Farrell M. nprobust: Nonparametric Kernel-Based Estimation and Robust Bias-Corrected Inference. *Journal of Statistical Software*, 91(8), 2019.
- 18. Calonico S, Cattaneo M, Farrell M, Titiunik R. rdrobust: Software for Regression Discontinuity Designs. *Stata Journal*, 17(2): 372-404, 2017.
- 19. Calonico S, Cattaneo M, Titiunik R. rdrobust: An R Package for Robust Nonparametric Inference in Regression-Discontinuity Designs. *R Journal*, 7(1): 38-51, 2015.
- 20. Calonico S, Cattaneo M, Titiunik R. Robust Data-Driven Inference in the Regression-Discontinuity Design. *Stata Journal*, 14(4): 909-946, 2014.

#### Books and monographs:

- 21. **Calonico S,** Bartalotti O, Bertanha M. Regression Discontinuity Designs in Policy Evaluation. Chapter in Handbook of Research Methods and Applications in Empirical Microeconomics, ed. by N. Hashimzade and M.A. Thornton, Cheltenham, UK: Edward Elgar, In Press.
- 22. Calonico S, Smith J. Are Participants Good Evaluators? Evidence from the National Supported Work Demonstration", Chapter in Are Participants Good Evaluators?, ed. by J. Smith, A. Whalley, and N. T. Wilcox., Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2021

- 23. Calonico S, Aycinena D, Inchauste G, Martinez C, Yang D. Measuring the Impact of the US Financial Crisis on Salvadoran Migrants and Family Remittances. Chapter in Financing the Family: Remittances to Central America in a Time of Crisis, ed. by G. Inchauste and E. Stein, Palgrave Macmillan, 143-164, 2013. 23.
- Calonico S, Nopo H. Gender Segregation in the Workplace and Wage Gaps: Evidence from Urban Mexico 1994-2004. Chapter in Occupational and Residential Segregation (Research on Economic Inequality, Vol. 17), ed. by Y. Fluckiger, S. Reardon and J. Silber, Emerald Group Publishing, 245-270, 2009.
- 25. Calonico S, Candelo N, Cardenas JC, Chong A, Nopo H. To What Extent Do Latin Americans Trust and Cooperate? Field Experiments on Social Exclusion in Six Latin American Countries", Chapter in Outsiders? The Changing Patterns of Exclusion in Latin America and the Caribbean, ed. by J. Mazza; G. Marquez; H. Nopo; S. Duryea and A. Chong, Harvard University Press, 123-148, 2007. 25.
- 26. Calonico S, Nopo H. Where did you go to School? Private-Public Differences in Schooling Trajectories and their Role on Earnings. Well-Being and Social Policy 3(1): 25-46, 2007.

### **WORKING PAPERS**

# Under Review:

- 1. **Calonico S,** Lopez del Valle JC, Di Tella R. Risk factors for COVID-19 in-hospital mortality: The case of Argentina.
- 2. Odden MC, Zhang A, Jawadekar N, Tan A, Moran AE, Glymour MM, Brayne C, Zeki Al Hazzouri A, **Calonico S**. Regression discontinuity to evaluate the effect of statins on myocardial infarction using electronic health records.
- 3. Kezios K, Zimmerman S, Zhang A, **Calonico S**, Jawadekar N, Glymour M, Zeki Al Hazzouri A. Propensity Scores in Health Disparity Research: The Example of Cognitive Aging and the Hispanic Paradox.
- 4. Lu P, Kezios K, Jaysong J, Weimer C, **Calonico S**, Zeki Al Hazzouri A. SNAP use is associated with faster decline: Findings from the Health and retirement Study.

### **Research Underway:**

- 5. **Calonico S,** Lopez del Valle JC, Di Tella R. Causal Inference During a Pandemic: Evidence on the Effectiveness of Nebulized Ibuprofen as an Unproven Treatment for COVID-19 in Argentina.
- 6. **Calonico S,** Lopez del Valle JC, Di Tella R. The Political Economy of a Miracle Cure: Learning about a Clinically Unproven Treatment for COVID-19 in Argentina.
- 7. Calonico S, Zeki Al Hazzouri A. Time To Take Full Advantage of Causal Frameworks in Neurological Investigations.
- 8. Calonico S, Cattaneo M, Drukker D. mvte: Estimation and Inference for Multi-valued Treatment Effects.
- 9. Kezios K, Zimmerman S, Rudolph K, **Calonico S**, Zeki Al Hazzouri A, M. Glymour. Evaluating early life risk factors for late life health outcome using probabilistic matching of early and late life cohorts.
- 10. **Calonico S,** Jawadekar N, Kezios K, Zeki Al Hazzouri A. Regression Discontinuity Design studies: An overview, a guide, and a practice for clinical and health policy researchers.

### **INVITED TALKS**

- UCSB Economics Department
- NYU Econometrics Seminar
- University of Cambridge
- Washington State University

2021

2022

<ul> <li>Columbia University Causal Inference Learning Group</li> </ul>	
<ul> <li>ASSA Meeting San Diego</li> <li>8th UDEP Workshop for Young economists</li> <li>Stony Brook Economics Seminar.</li> </ul>	2020
<ul> <li>American University of Beirut</li> <li>NASMES</li> <li>LACEA/LAMES</li> <li>SEA</li> <li>CMS Statistics.</li> </ul>	2019
<ul> <li>Vanderbilt University</li> <li>University of Notre Dame</li> <li>NASMES</li> <li>IAAE</li> <li>Syracuse University</li> <li>Lima School of Economics</li> <li>SEA</li> <li>University of Georgia</li> </ul>	2018
<ul> <li>UC-Davis ARE</li> <li>NASMES (Washington University in St. Louis)</li> <li>Midwest Econometrics Group (Texas A&amp;M)</li> <li>GRADE, Lima, Peru.</li> <li>LACEA/LAMES</li> <li>CMS Statistics (University of London).</li> </ul>	2017
<ul> <li>NBER Labor Studies Group Spring Meeting</li> <li>Advances in Econometrics Conference</li> <li>COMPIE</li> <li>LACEA/LAMES.</li> </ul> SHORT COURSES & WORKSHOPS	2016
Regression Discontinuity Designs University of Michigan ICPSR Summer Program. Ann Arbor, Michigan	- 2017 - 2021
Impact Evaluation Econometrics Master in Economics Universidad de Montevideo, Uruguay.	2021
Empirical Methods in Causal Inference Lima School of Economics, Peru.	2020
<i>Regression Discontinuity Designs</i> Winter School in Methods and Data Analysis Universidad Catolica de Montevideo, Uruguay.	2017

### ADVISING AND MENTORSHIP

- 1. Nicolás Rojas. Ph.D. Candidate in Economics and Education, Teachers College, Columbia University.
- 2. David Rosenkranz. Ph.D. Economics 2022, Department of Economics, Columbia University.
- 3. Magdalena Bennett. Ph.D. Economics and Education 2020, Teachers College, Columbia University.
- 4. Alan Li. MPH student in Epidemiology. Mailman School of Public Health, Columbia University.