# Joon-Ho Lee

## Curriculum Vitae

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### EDUCATION

- 2013–2020 **Ph.D. in Quantitative Methods & Evaluation**, *Graduate School of Education, University* (expected) of California, Berkeley.
  - Division: Policy, Organization, Measurement, and Evaluation (POME)
  - o Committee: Drs. Sophia Rabe-Hesketh (chair), Bruce Fuller and Avi Feller
- 2015–2019 M.A. in Biostatistics, School of Public Health, University of California, Berkeley.
- 2009–2013 M.A. in Educational Statistics, Department of Education, Seoul National University.
- 2003–2009 **B.A. in Education**, Department of Education, Seoul National University.
  - o Graduated with Summa Cum Laude, Valedictorian

### RESEARCH INTERESTS

- Methods: Causal inference in multilevel/longitudinal studies; Treatment effect heterogeneity; Bayesian
- methods for estimating complex latent variable models
- Applications: Education finance and policy; Educational tracking and stratification; Economics of education; Geography of opportunity

### HONORS & AWARDS

- 2019–2020 **AERA Dissertation Grant Award**, American Educational Research Association & National Science Foundation, (\$25,000).
  - 2019 Selected Participant for the 2019 National Assessment of Educational Progress (NAEP) Data Training Workshop, American Institutes for Research, (Full travel and lodging expenses).
- 2017–2018 **Dean's Doctoral Completion Fellowship**, *Graduate Division*, *University of California*, *Berkeley*, (\$18,000).
  - 2014 Cathleen Kennedy Award, University of California, Berkeley, (\$2,000).
    - Awarded to a meritorious Quantitative Methods Ph.D. student
- 2013-2016 The Berkeley Multi-year Fellowship, University of California, Berkeley, (\$61,000).
- 2013-2018 **Kwanjeong Scholarship**, Kwanjeong Educational Foundation, South Korea, (\$152,000).
  - Competitive scholarship awarded for doctoral research
  - Had to decline alternative offers, Fulbright Graduate Study Award (\$65,000) and Korean Government Scholarship for Study Overseas (\$62,000)
  - 2012 **Best Student Paper Award (1<sup>st</sup> place)**, Korea National Youth Policy Institute, (\$3,000).

- 2011 **Best Student Paper Award (2<sup>nd</sup> place)**, Korea Research Institute for Vocational Education and Training, (\$2,000).
- 2009 **Department Award for Outstanding Senior Honors Thesis**, Department of Education, Seoul National University.
- 2008 **Excellent Undergraduate Research Award**, Faculty of Liberal Education, Seoul National University, (\$1,000).
- 2003–2010 **Dean's Scholarship for Academic Excellence**, Department of Education, Seoul National University, (\$7,800).

### **PUBLICATIONS**

### PEER-REVIEWED ARTICLES

- [10] **Lee, J.-H.**, Fuller, B., & Rabe-Hesketh, S. (Revise & resubmit). Does finance reform move teachers and school organizations? California's \$23 billion equity initiative. *American Educational Research Journal*.
- [9] **Lee, J.-H.**, & Fuller, B. (in press). Does progressive finance alter school organizations and raise achievement? The case of Los Angeles. *Educational Policy*.
  - Coverage: Los Angeles Times
- [8] Kim, K.-M., **Lee, J.-H.**, Eom, H.-M., & Park, D.-K. (2014). Quality or proximity? Spatial analysis of school choice in Seoul, South Korea. *Korean Journal of Educational Administration*, 32(2), 161-183.
- [7] Kim, J.-W., Kong, K., Kim, H.-Y., Lee, H.-S., Kim, S.-J., Lee, S.-H., Sim, K.-W., Kim, M.-R., & Lee, J.-H. (2013). The association between bone mineral density and periodontitis in Korean adults (KNHANES 2008–2010). *Oral diseases*, 20(6), 609-615.
- [6] Lee, J.-H., & Park, H.-J. (2012). Did the allocation of after-school vouchers contribute to the equality of educational opportunity and outcomes?: Evidence from high school students in Seoul. *Journal of Economics and Finance of Education*, 21(2), 53-85.
- [5] Lee, J.-H., & Park, H.-J. (2012). A quasi-experimental investigation of how the income contingent loan is related to low-income college students' time use and activities. *Korean Journal of Educational Administration*, 30(1), 105-134.
- [4] **Lee, J.-H.**, & Park, H.-J. (2012). An economic analysis of why Korean college students choose to learn English: In perspective of subject mismatch and perceived budget constraints. *Asian Journal of Education*, 13(2), 25-56.
- [3] **Lee, J.-H.**, & Park, H.-J. (2012). The educational opportunity cost of two-income: Factors affecting parental choice of self-care and its effects on elementary school students' self-control of learning. *Asian Journal of Education*, 13(3), 27-59.
- [2] Park, H.-J., Shin, T., Ha, Y. & Lee, J.-H. (2010). Longitudinal profile analysis via multidimensional scaling: Deriving the longitudinal patterns of private tutoring expenditures. *Korean Journal of Educational Evaluation*, 24(2), 291-316.
- [1] Park, H.-J., & Lee, J.-H. (2010). Effect of middle school students' plan to enter special-purposed high school on their demand on private tutoring. *Asian Journal of Education*, 10(3), 213-238.

### **ONLINE PUBLICATIONS**

- [3] Lee, J.-H., Feller, A., & Rabe-Hesketh, S. (2019). Bayesian model-based inference for causal effects in completely randomized experiments. Stan Case Studies, Volume 6.
- [2] **Lee, J.-H.**, Sim, N., Ji, F., & Rabe-Hesketh, S. (2018). *Multilevel linear models using rstanarm. Stan Case Studies, Volume 5.*
- [1] Furr, D., Lee, S.-Y., **Lee, J.-H.**, & Rabe-Hesketh, S. (2016). *Two-parameter logistic item response model. Stan Case Studies, Volume 3.*

### POLICY BRIEFS & TECHNICAL REPORTS

- [6] **Lee, J.-H.** & Fuller, B. (2019). *Facilities options How to advance early education*. Berkeley Early Childhood Think Tank.
  - Influenced the governor's budget proposal revision (See CalMatters and EdSource)
- [5] Fuller, B., **Lee, J.-H.**, Mooney, S., Trejo, K., Cano, J., Margolis, D., & Gersh, M. (2018). *Progress in Los Angeles schools - rigor, fairness, and engaging families: Is Local Control Funding delivering on its promise?*. University of California, Berkeley & United Way of Greater Los Angeles.
  - Coverage: Washington Post; Los Angeles Times
- [4] Fuller, B., **Lee, J.-H.**, Mooney, S., & Roldan, E. (2017). *Incremental progress towards equity: Tracking the distribution of \$3.8 billion LCFF Dollars in the Los Angeles Unified School District alone since 2013*. University of California, Berkeley & United Way of Greater Los Angeles.
  - Coverage: Los Angeles Times ; NPR ; EdSource
- [3] **Lee, J.-H.** & Fuller, B. (2017). How decentralizing school finance may narrow achievement gaps Uneven progress in California after \$41 billion. Institute of Human Development, University of California, Berkeley.
  - Coverage: CalMatters; KQED; Los Angeles Daily News
- [2] Fuller, B., Castillo, E., **Lee, J.-H.**, & Ugarte, C. (2016). *Will \$4 billion make a difference? Narrowing achievement gaps in Los Angeles*. University of California, Berkeley & United Way of Greater Los Angeles.
- [1] Fuller, B., Lee, J.-H., Mooney, S., Patterson, P., Roldan, E., & Tobben, L. (2015). *Implementing the Local Control Funding Formula: Steps taken by LAUSD in Year two, 2014-15*. University of California, Berkeley & United Way of Greater Los Angeles.
  - Coverage: Los Angeles Times

### TRANSLATED BOOKS

[1] English-to-Korean translation of the book "Murnane, R. J., & Willett, J. B. (2010). *Methods matter: Improving causal inference in educational and social science research.* New York: Oxford University Press," published by Paju, South Korea: Kyoyookgwahaksa (forthcoming).

### **WORK IN PROGRESS**

[1] **Lee, J.-H.**, & Rabe-Hesketh, S. (In Progress). Sensitivity of Bayesian quantile regression to the scale parameter of the asymmetric Laplace likelihood. To be submitted to *International Statistical Review*.

- [2] **Lee, J.-H.**, & Rabe-Hesketh, S. (In Progress). Estimating heterogenous treatment effects for latent subgroups in multi-site trials: A full Bayesian approach. To be submitted to *Journal of Educational and Behavioral Statistics*.
- [3] **Lee, J.-H.**, van der Laan, M., & Rabe-Hesketh, S. (In Progress). Predictive Bayesian nonparametric inference for optimal dynamic treatment regimes. To be submitted to *Journal of Causal Inference*.
- [4] **Lee, J.-H.**, Cruz, R., Aylward, A., & Voulgarides, C. (In Progress). Geography of opportunity: Special education funding and student achievement. To be submitted to *Journal of Disability Policy Studies*.

### **PRESENTATIONS**

- \*= Invited talks
- [8] Lee, J.-H. & Fuller, B. (2020, April scheduled). Does progressive finance alter school organizations and raise achievement? The case of Los Angeles. Paper presented at the American Educational Research Association (AERA) Annual Conference, San Francisco, CA.
- [7] Cruz, R., Lee, J.-H., Aylward, A., & Voulgarides, C. (2020, April scheduled). Geography of opportunity: Special education funding and student achievement. Paper presented at the American Educational Research Association (AERA) Annual Conference, San Francisco, CA.
- [6] **Lee, J.-H.**, & Rabe-Hesketh, S. (2019, July). Sensitivity of Bayesian quantile regression to the choice of scale parameter. Paper presented at the *International Meeting of the Psychometric Society (IMPS)*, Santiago, Chile.
- [5] **Lee, J.-H.**, & Fuller, B. (2019, March). Heavy-weight policy? How progressive finance reform alters school organization in California. Paper presented at the *Association for Education Finance and Policy (AEFP) Annual Conference*, Kansas City, MO.
- [4] Lee, J.-H., & Fuller, B. (2018, September)\*. Revenue and expenditure trends in California school districts, 2003-2016. Presented to the Legislative Analyst's Office (LAO), Sacramento, CA.
- [3] Fuller, B., & Lee, J.-H. (2017, February)\*. Will local control funding narrow achievement gaps? Early evidence from Los Angeles. Paper presented at the *Policy Analysis for California Education (PACE)*, Sacramento, CA.
- [2] **Lee, J.-H.**, Fuller, B., & Tobben, L. (2016, April). Do large infusions of decentralized finance alter school organizations? Early evidence from Los Angeles. Paper presented at the *American Educational Research Association (AERA) Annual Conference*, Washington D.C.
- [1] **Lee, J.-H.**, & Fuller, B. (2015, July)\*. Mapping the distribution of LCFF dollars (\$145) across LAUSD schools. Presented to the *District's Chief Financial Officer, Los Angeles Unified School District (LAUSD)*, Los Angeles, CA.

### RESEARCH EMPLOYMENT

### 2015-present Research Assistant, University of California, Berkeley

 Projects: Solving Difficult Bayesian Computation Problems in Education Research Using STAN (IES Grant #R305D140059); Efficient and Flexible Tools for Complex Multilevel and Latent Variable Modeling in Education Research (IES Grant #R305D190048)  Principal investigators: Drs. Sophia Rabe-Hesketh (University of California, Berkeley), Andrew Gelman (Columbia University), and Bob Carpenter (Columbia University)

### 2015-present Lead Data Analyst, University of California, Berkeley for the Community for Los Angeles Student Success (CLASS) & United Way of Greater Los Angeles

- Projects: Year 1–4 Local Control Funding Interim Report Cards (2015-2018); LAUSD Local Control Funding Formula Performance Index; The Los Angeles Teacher Ties Project
- o Principal investigators: Dr. Bruce Fuller (University of California, Berkeley) and Elmer Roldan (United Way of Greater Los Angeles)

### TEACHING EXPERIENCE

### 2016–2019 Teaching Assistant for Prof. Sophia Rabe-Hesketh, University of California, Berkeley

- Hierarchical and Longitudinal Modeling (Graduate): Fall 2016, Fall 2018
- Data Analysis in Education Research II (Graduate): Spring 2016, Spring 2017, Spring 2019

### 2016 Guest Lecturer, University of California, Berkeley

o "Causal Inference in Educational and Social Science Research" in Introduction to Program Evaluation, Fall 2016 (Instructor: Laura Pryor)

### 2009–2010 Teaching Assistant for Prof. Hyun-Jeong Park, Seoul National University

- Seminar in Applied Longitudinal Data Analysis (Graduate): Fall 2010
- Hierarchical Linear Modeling (Graduate): Spring 2010
- Statistics for Educational Research (Graduate): Fall 2009

### PROFESSIONAL AFFILIATIONS

American Educational Research Association, Division D & L

Association for Education Finance and Policy

Society for Research on Educational Effectiveness

Psychometric Society

# OTHER SKILLS & QUALIFICATIONS

Language: Korean (native), English (fluent)

Licensure: Secondary Education Certification, Ministry of Education, Science and Technology, South Korea (August 2009)

### References

### Sophia Rabe-Hesketh

Professor of Educational Statistics, Graduate School of Education (Policy, Organization, Measurement and Evaluation) and Graduate Group in Biostatistics University of California, Berkeley sophiarh@berkeley.edu

### **Bruce Fuller**

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### Perman Gochyyev

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