# BYUNGKYU LEE

Curriculum Vitae November 2022

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### **ACADEMIC POSITIONS**

2019– Asisstant Professor of Sociology, Indiana University
 2018–19 Visiting Assistant Professor, Network Science Institute, Indiana University

## **EDUCATION**

2014–18 Ph.D., Sociology, Columbia University

Dissertation: "Networks in Polarized Times"

Committee: Peter Bearman, David Stark, Adam Reich, Delia Baldassarri (NYU),

Dalton Conley (Princeton)

2009–12 M.A., Sociology, Yonsei University

2002-09 B.A., Business Administration, Yonsei University

### FIELDS OF INTEREST

Social Networks, Health, Political Sociology, Computational Social Science, Causal Inference

## PUBLICATIONS (\* : graduate student coauthor)

### **Peer-Reviewed Articles**

- Perry, Brea, Meltem Odabaş, Kai-Cheng Yang∗, Byungkyu Lee, Patrick Kaminski∗, Brian Aronson, Yong-Yeol Ahn, Carrie Oser, Patricia Freeman, and Jeffery Talbert. "New Means, New Measures: Assessing Prescription Drug Seeking Indicators over Ten Years of the Opioid Epidemic." *Addiction*. 117(1): 195-204.
- 2021 Lee, Byungkyu. "Close Relationships in Close Elections." *Social Forces*. 100(1): 400-425.

Lee, Byungkyu, Kai-Cheng Yang⋆, Patrick Kaminski⋆, Peng Siyun, Meltem Odabas, Gupta Sumedha, Hank Green, Yong-Yoel Ahn, and Brea Perry. "Substitution of Non-Pharmacologic Therapy with Opioid Prescribing for Pain During the COVID-19 Pandemic." *JAMA Network Open.* 4(12):e2138453.

- Featured in Everyday Health, Pain Medicine, and HealthDay News
- 2021 Lee, Byungkyu, Wanying Zhao⋆, Kai-Cheng Yang⋆, Yong-Yeol Ahn, and Brea L. Perry. "Systematic Evaluation of State Policy Interventions Targeting the US Opioid Epidemic, 2007-2018." *JAMA Network Open.* 4(2): e2036687.
- Yang, Kai-Cheng∗, Byungkyu Lee, Yong-Yeol Ahn, and Brea Perry, "Use of and Comorbidities Associated With Diagnostic Codes for COVID-19 in US Health Insurance Claims." *JAMA Network Open.* 4(9): e2124643.
- Gupta, Sumedha, Thuy Nguyen, Shyam Raman\*, Byungkyu Lee, Felipe Lozano Rojas\*, Ana Bento, Kosali I. Simon, and Coady Wing. "Tracking Public and Private Response to the COVID-19 Epidemic: Evidence from State and Local Government Actions." *American Journal of Health Economics* 7(4): 361-404. (*NBER Working Paper* No.27027)
- Youm, Yoosik, Byungkyu Lee and Junsol Kim★. "A Measure of Centrality in Cyclic Diffusion Processes: Walk-betweenness." *PLOS ONE* 16(1): e0245476.
- 2020 Lee, Dohoon† and Byungkyu Lee†. "The Role of Multilayered Peer Groups in Adolescent Depression: A Distributional Approach." *American Journal of Sociology* 125(6): 1513-1558. (†: equal contribution)
  - Best Publication Award on the Sociology of Mental Health, Section on Sociology of Mental Health, American Sociological Association.
- 2020 Pescosolido, Bernice, Byungkyu Lee, and Karen Kafadar. "Cross-level Sociodemographic Homogeneity Alters Individual Risk for Completed Suicide." *Proceedings of the National Academy of Sciences*, 117(42): 26170-26175.
  - Cozzarelli Prize Finalist (Class V), the Proceedings of the National Academy of Sciences Editorial Office.
- 2020 Lee, Byungkyu and Peter Bearman. "Political Isolation in America." *Network Science* 8(3): 333-355.
- 2017 Lee, Byungkyu and Peter Bearman. "Important Matters in Political Context." *Sociological Science* 4:1-30.
- 2016 Lee, Byungkyu and Dalton Conley. "Robust Null Findings on Offspring Sex and Political Orientation." *Social Forces* 95(2):899-908.

2016 Lee, Byungkyu and Dalton Conley. "Does the Gender of Offspring Affect Parental Political Orientation?" *Social Forces* 94(3):1103-1127. (*NBER Working Paper* No.20384)

• Featured in *The Washington Post* and *The Atlantic*.

- 2016 Youm, Yoosik and Byungkyu Lee. "A Network Approach to Economic Models of Fertility." *Rationality and Society* 28(4):386-409.
- 2011 Lee, Byungkyu and Yoosik Youm. "Social Network Effects on Post-Traumatic Stress Disorder (PTSD) in Female North Korean Immigrants." *Journal of Preventive Medicine and Public Health* 44(5):191-198.

## Other publication

Pescosolido A. Bernice and Byungkyu Lee. "COVID-19 and Sociology's Mental Health Moment." *ASA Footnotes* 49(2).

## Peer-Reviewed Articles (in Korean)

- 2012 Lee, Byungkyu and Yoosik Youm. "A Study on the Increase and Decrease of Occupying Bridging Position Based on the Sponsorship Network in the 17th Korean National Assembly." *Korean Journal of Sociology* 46(4):137-175.
- 2012 Cho, Jinman, Jeonghan Kang, and Byungkyu Lee. "Effects of Family Structure and Friendship Network on Korean Adolescents' Life Satisfaction." *Social Science Review* 43(1): 47-71.
  - Best Paper Award, *The 2nd National Conference for Sociology Graduate Students*, Korean Sociological Association
- 2010 Jeon, Kiho, Byungkyu Lee, and Hun-joon Park. "Effects of Network Centrality on Cooperative Behavior: Mediating Role of Organizational Identification." *Korean Journal of Industrial and Organizational Psychology 23(4): 635-666.*
- 2009 Lee, Byungkyu and Yoosik Youm. "Identifying the Structure of Co-signing Networks among the 17th Korean Congressmen in the Standing Committee of Health and Welfare." *Journal of Contemporary Society and Culture* 29: 33-59.

### WORKS IN PROGRESS

### **Under Review**

Lee, Byungkyu. "The Contextual Activation in Belief Networks." *American Journal of Sociology*, Revise and Resubmit.

Lee, Byungkyu and Bernice Pescosolido. "Misery Needs Company: Contextualizing the Link Between Unemployment and Suicide Under Labor Market Precarity." *American Sociological Review*, Revise and Resubmit.

## **Working Papers**

- Lee, Byungkyu and James Chu. "COVID-19 Vaccination Rates Are Lowest among Political Outsiders in the United States."
- Lee, Byungkyu, Kangsan Lee, and Benjamin Hartmann∗. "Americans Together but Politically Apart: Social Networks in COVID-19 America."
- Lee, Byungkyu, Sumedha Gupta, Patrick Kaminski∗, Meltem Odabas, Patricia Freeman, Yong-Yeol Ahn, and Brea Perry, "Racial Disparities in Pain Management and Opioid Use Disorder Treatment in the Commercially Insured Population, 2010-2021."
- Lee, Byungkyu, Ramina Sotoudeh, and Dalton Conley. "Twin Trouble: Nature and Nurture in Adolescent Friendship Networks."

Lee, Byungkyu, Eun Kyong Shin, and Peter Bearman. "The Structure of Terrorist Networks."

Lee, Byungkyu. "The Protective Effects of Social Capital on Mortality Risk (not)."

### **Data Analysis Stage**

"Othering in Us: COVID-19 Stigma within Close Social Ties." (with Kangsan Lee)

"Racial Bias and Accuracy-Fairness Trade-offs in Machine Learning." (with Junsol Kim\*)

"The Cultural Basis of Genetic Discrimination." (with Dalton Conley)

"Are Cross-ideological Interactions Rare on Social Media?" (with Eehyun Kim\*)

"Measuring Political Deliberation: A Context-based Machine Learning Approach" (with Barum Park and Mark Hoffman)

"The Role of Tie Activation in the Formation of Relational Trust." (with Zhaodi Chen∗ and Peter Bearman)

"Reversal of Fortune? Religion, Suicide and Changes in the U.S." (with Bernice Pescosolido and Seth Abrutyn)

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"Impacts of Alaska Permanent Fund Dividend on Suicide: A Synthetic Control Approach." (with Brea Perry, Erica Hobby, and Sarah Cowan)

"Today's Lesson is Tomorrow's Practice: The Early Exposure to State Restrictive Marketing Policies in Medical School Discourages Physicians from Receiving Pharmaceutical Payments." (with Thuy Nguyen)

"Changes in Dissertation Committee Networks in Sociology from 1980 to 2016." (with Anne Kavalerchik\* and Koji Chavez)

### **G**RANTS

## **External grants**

- 2022–24 PRINCIPAL INVESTIGATOR, "Estimating the Population Prevalence and Risk of Suicide for the LGBTQ+ Population in the United States", American Foundation for Suicide Prevention, Young Investigator Innovation Grant (\$89,888).
- 2022–27 Co-Investigator (PI: Brea Perry), "Epigenetic Mechanisms Underlying the Direct and Moderating Effects of Social Connectedness on Complex Diseases in Aging", National Institutes of Health, R01 (\$3,562,131).
- 2021–24 PRINCIPAL INVESTIGATOR (with co-PIs Barum Park and Mark Hoffman), "Collaborative research: How Online Foci Shape Conversation", National Science Foundation (\$352,729).
- 2021–22 PRINCIPAL INVESTIGATOR (with co-PI Brea Perry), "Impacts of Universal Cash Transfer on Health Outcomes using Mortality and Claims Data", #StartSmall, Cash Transfer Lab Small Grant, New York University (\$23,549).
- 2021–23 Co-Investigator (PI: Peter Bearman), "Trust and Distrust", Facebook (\$200,000).
- 2020–21 Principal Investigator (with Kangsan Lee), "National Study of American Social Life and Social Networks During the COVID-19 Pandemic", The American Assembly, Columbia University (\$20,000).
- 2016 PRINCIPAL INVESTIGATOR (with Peter Bearman), "Networks in Time: Testing Contextual Effects in the 2004 General Social Survey Network Items", Time Sharing Experiment For the Social Sciences.

### **Internal grants**

- 2020–21 PRINCIPAL INVESTIGATOR, "The Effects of Extreme Language and Binary Classification on Political Sectarianism: A Survey Experiment", Social Science Research Commons, Indiana University (\$6,000).
- 2020–21 PRINCIPAL INVESTIGATOR (with Barum Park and Mark Hoffman), "Political Polarization, Political Deliberation, and Hate Speech on Facebook", Office of the Vice Provost for Research, Indiana University Social Sciences Research Funding Program

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(\$25,000).

## AWARDS, FELLOWSHIPS, AND HONORS

| 2022    | BEST PUBLICATION AWARD, Section on Sociology of Mental Health, American Sociology |
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|         | ological Association.   |
| 2021    | COZZARELLI PRIZE FINALIST (CLASS V), Proceedings of the National Academy of       |
|         | Sciences  |
| 2019    | ROBERT K. MERTON BEST DISSERTATION AWARD, Department of Sociology, Columbia       |
|         | University  |
| 2015    | NETWORK MODELING FOR EPIDEMICS FELLOWSHIP, University of Washington               |
| 2015    | GENOECONOMICS SCHOLARSHIP, Tinbergen Institute, Netherlands                       |
| 2012–17 | PAUL F. LAZARSFELD FELLOWSHIP, Department of Sociology, Columbia University       |
| 2012    | Graduate Thesis Award, Yonsei University  |
| 2011    | GRADUATE STUDENT PAPER AWARD, The 2nd National Conference for Sociology Grad-     |
|         | uate Students, Korean Sociological Association                                    |

### SELECTED PRESENTATIONS

**Paper Presentations** (ASA: American Sociological Association, PAA: Population Association of America, INSNA: International Network of Analytical Sociologists, IC2S2: International Conference on Computational Social Science)

- Lee, Byungkyu, Zhaodi Chen, and Peter Bearman. "The Role of Tie Activation in the Formation of Relational Trust." Experimental Design Workshop, INCITE, Columbia University 2022 Meta 2022
- Lee, Byungkyu, Erica Hobby, Sarah Cowan, and Brea Perry. "Impacts of the Alaska Permanent Fund Dividend Program on Suicide." Cash Transfer Lab, New York University 2022 PAA 2023
- Lee, Byungkyu, Kangsan Lee, and Benjamin Hartmann. "Americans Together but Politically Apart: Social Networks in COVID-19 America." PAA 2022 INSNA 2022 Politics and Computational Social Science conference 2022 Polarization and Radicalization Working Group 2022
- Lee, Byungkyu and Bernice Pescosolido. "Unemployment and Suicide in 21st Century America." PAA 2022
- Lee, Byungkyu. "The Rise of Political Homophily in the Battleground States." ASA 2019 Summer Conference on Economy and Society, 2017.

Makovi, Kinga and Byungkyu Lee. "The Diffusion of Microfinance Revisited: The Role of Modularity and Tie Multiplexity in Diffusion Processes on Networks." ● INAS 2018 ● INSNA 2018

- Lee, Dohoon and Byungkyu Lee. "The Tale Is in the Tail: The Role of Highly Depressed Peers in Adolescent Depression." INSNA 2018
- Lee, Byungkyu and Dalton Conley. "Twin Trouble: Fragility of Heritability Estimates for Adolescent Friendship Networks." ASA 2017 PAA 2017 Integrating Genetics and Social Science 2013
- Lee, Byungkyu and Peter Bearman. "Important Matters in Political Context: The Role of Priming in Suppressing the Core Discussion Network Size." INAS 2016
- Lee, Byungkyu, Eun Kyong Shin, and Peter Bearman. "Risk on the Margin: The Structure of Covert Social Network." INSNA 2016 INAS 2015

### **Invited Talks**

- Lee, Byungkyu. "Making Big Data Smaller: Two Strategies to Analyze Big Data to Study the Opioid Epidemic in the US." Workshop in Methods, Indiana University, IN, 2020.
- Lee, Byungkyu. "When and How Politics Shapes Our Core Beliefs and Networks (and why it matters)" Social Research and Public Policy Seminar Series, New York University, Abu Dhabi, UAE, 2017.

## TEACHING AND MENTORING

### Courses Taught (†: graduate-level course)

Understanding Social Data. Fall 2019, Fall 2020 Causal Inference†. Fall 2019, Fall 2021, Spring 2023 Social Network Analysis†. Fall 2020, Spring 2022

### **Dissertation Committee Member**

2022– Anne Kavalerchik

2022– Zhaodi Chen

2022 Helge Johannes Marahrens

### **Master's Thesis Committee Member**

2021 Patrick Kaminski

## **Qualifying Exam Committee Member**

2022 Benjamin Hartmann2022 Anne Kavalerchik2020 Max Coleman

## **First-Year Faculty Mentor**

2021 Ethan Weiland2019 Zhaodi Chen

### UNIVERSITY SERVICE

2021–22 Reviewer. Social Sciences Research Funding Program, Indiana University 2020–21 Reviewer. Social Sciences Research Funding Program, Indiana University

## DEPARTMENT SERVICE

## **Indiana University**

2022–23 Graduate Fellowships Committee
Karl Schuessler Award Committee
Research Infrastructure Committee
Diversity, Equity and Inclusion Committee
2021–22 Workshop and Colloquium Committee
Karl Schuessler Award Committee
Research Infrastructure Committee
2020–21 Workshop and Colloquium Committee
Graduate Fellowships Committee
2019–20 Karl Schuessler Award Committee
LIBRARY COORDINATOR

## **Columbia University**

2016 MODERATOR. Sociology Senior Thesis Presentations
 2015–16 FACULTY ADVISOR. China High School Fellowship Program, *INCITE* 2014–18 CO-ORGANIZER. Networks and Time Seminar Series, *INCITE*

## PROFESSIONAL SERVICE AND AFFILIATION

Session Organizer. Section on Evolution, Biology, and Society, ASA
 Member. Biosociology Research Group, Princeton University

| 2018–<br>2018–20<br>2014–18<br>2014–18 | RESEARCH AFFILIATE. <i>INCITE</i> , Columbia University TREASURER. Association of Korean Sociologists in America GRADUATE FELLOW. <i>INCITE</i> , Columbia University GRADUATE FELLOW. <i>Center on Organizational Innovation</i> , Columbia University |
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| 2022<br>2022<br>2016–                  | AD HOC REVIEWER. National Science Foundation AD HOC REVIEWER. Columbia University Press AD HOC REVIEWER. American Journal of Sociology, American Sociological Revi  |

AD HOC REVIEWER. American Journal of Sociology, American Sociological Review, American Journal of Preventive Medicine, Annals of Epidemiology, Brain Research Bulletin, European Sociological Review, JAMA Network Open, Journal of Experimental Political Science, Journal of Health and Social Behavior, Network Science, Proceedings of the National Academy of Sciences, Research in Social Stratification and Mobility, Sex Roles, Science Advances, Scientific Reports, Social Forces, Social Networks, Social Science Research, Social Psychology Quarterly, Sociological Methods and Research, Sociological Methodology, Sociological Perspectives, Socius

MEMBER. American Sociological Association

MEMBER. International Network for Social Network Analysis

MEMBER. Population Association of America

MEMBER. Association of Korean Sociologists in America