

BEN GIBSON

Professor of Public Policy
Social/Behavioral Scientist
RAND

✉ bgibson@prgs.edu
DOI [Google Scholar Page](#)
DOI cbengibson.com

POSITIONS

2022- **Professor of Public Policy**, RAND School of Public Policy
2020- **Social/Behavioral Scientist**, RAND Corporation

2018-2020 **Postdoctoral Fellow**, Oak Ridge Associated Universities.

2012-2018 **Graduate Student Researcher**, UC Irvine Department of Sociology.
Lab: Networks, Computation, and Social Dynamics
PI: ✉ [Carter T. Butts](#)

2010-2012 **Teaching/Research Assistant**, UAB Department of Sociology.
Labs: Center for Social Medicine, Enhancing Minority Participation in Clinical Trials
Courses Taught: Statistics, Methods

EDUCATION

2018 **Ph.D. Sociology**, University of California, Irvine
Thesis: *Frontier Problems in Modeling Dynamic Social Systems*

2017 **M.A. Demographic and Social Analysis**, University of California, Irvine

2012 **M.A. Sociology**, University of Alabama at Birmingham

2010 **B.A. Sociology**, University of Alabama at Birmingham

AREAS OF SPECIALIZATION

social networks, mathematical sociology, health disparities, race, international conflict

ONGOING PROJECTS

The Co-evolution of International Conflict and Sanctions. Student Project. (PI)

Modeling the Coupled Dynamics of COVID-19 Transmission and Protective Behaviors. NIH. (Staff Researcher)

Physician Networks for Diabetic Lower Extremity Wounds. NIH. (Staff Researcher)

PAPERS

Journal Articles and Peer-Reviewed Reports

2026 Khrystyna Holyskna, Renato Corbetta, Carter T. Butts, and **Ben Gibson**, “Can an Eye for an Eye Turn the Whole World Sanctioned?” *Social Networks*. [preprint](#).

2025 **Ben Gibson** and Burrel Vann Jr. “Bootstrapped Robustness Assessment for QCA.” *Journal of Mathematical Sociology*. [preprint](#).
- *Clifford C. Clogg Award for Best Graduate Student Paper, Methodology Section, American Sociological Association*.

2025 Lyndal Thompson, Douglas C. Ligor, **Ben Gibson**, Bruce McClintock, Marigold Black, Jan Osburg, Wenjing Huang, James Black, and Gianni McClaine. “Space Governance and Social Network Analysis.” RAND Research Report [RRA3822-1](#).

2025 Sabrina Mai, Scott L. Renshaw, **Ben Gibson**, Jeannette Sutton, and Carter T. Butts. “Hearts for Hazards: A Framework For Understanding Relationships Between Message Interactions.” *Journal of Mathematical Sociology*. DOI: [10.1080/0022250X.2025.2481367](https://doi.org/10.1080/0022250X.2025.2481367)

2025 **Ben Gibson**, Cheryl Damberg, Jose Escarce, Luke Matthews, Shiyuan Zhang, Megan Schuler, and Ioana Popescu. “Referral networks effects on racial differences in high-quality hospital use for open heart surgery.” *Circulation: Cardiovascular Quality and Outcomes*. DOI: [10.1161/CIRCOUTCOMES.123.010778](https://doi.org/10.1161/CIRCOUTCOMES.123.010778)

2025 **Ben Gibson**, Aaron B. Frank, Khrystyna Holynska, Jessie Wang. "Shaping Elite Networks: Strategic Cooperation with China." Chapter in Edited Volume, *U.S.-China Economic Competition: Gains and Risks in a Complex Economic and Geopolitical Relationship*.

2025 Lyndal Thompson, Doug Ligor, **Ben Gibson**, Bruce McClintock, M Black, J Osburg, M Virdee, W Huang, J Black, G McClaine. "Space Governance and Social Network Analysis." RAND Research Report [RRA3822-1](#)

2024 Ioana Popescu, **Ben Gibson**, Luke Matthews, Shiyuan Zhang, Jose J Escarce, Megan Schuler, Cheryl L Damberg. "The segregation of physician networks providing care to black and white patients with heart disease: Concepts, measures, and empirical evaluation." *Social Science and Medicine*. DOI: [10.1016/j.socscimed.2023.116511](#)

2023 **Ben Gibson** and Carter T. Butts. "The Effect of Temporal Adjustments on Dynamic Sexual Contact Network Models." *Social Networks*. DOI: [10.1177/0049124120926210](#)

2023 **Ben Gibson**, Sarah C. Vos, Jeannette Sutton, and Carter T. Butts. "Practical Imputation of Follower Counts of Public Health Twitter Accounts." *Sociological Methods & Research*.

2023 Luke Matthews, Cheryl Damberg, Shiyuan Zhang, Jose Escarce, **Ben Gibson**, Megan Schuler, and Ioana Popescu. "Within-physician differences in patient-sharing between primary care physicians and cardiologists who treat White and Black patients with heart disease." *Journal of the American Heart Association*. DOI: [10.1161/JAHA.123.030653](#)

2022 Raymond E. Conley, Kimberly Curry Hall, Claude Messan Setodji, Stephen W. Oliver, Jr., Sarah W. Denton, **Ben Gibson**, Paul Emslie, Shawn Cochran, Michael Schiefer, Melissa Bauman. "Incorporating diversity, equity, and inclusion considerations into the 2021 Department of the Air Force Developmental Education Selection Boards: Analysis of outcomes." RAND Research Report [RRA1251-1](#).

2021 **Ben Gibson**, Norbou Buchler, Blaine Hoffman, and Claire Le Fleur. "Endogeneity and Permeation in an Organizational Communication Network." *Social Networks*. DOI: [10.1016/j.socnet.2020.12.007](#)

2021 Claire Le Fleur, Blaine Hoffman, **Ben Gibson**, and Norbou Buchler. "Team Performance in a Series of Regional and National US Cybersecurity Defense Competitions: Generalizable Effects of Training and Functional Role Specialization." *Computers and Security*. DOI: [10.1016/j.cose.2021.102229](#)

2020 Sarah C. Vos, Jeannette Sutton, **Ben Gibson**, and Carter T. Butts. "#Ebola: Emergency Risk Messages on Social Media." *Health Security*. DOI: [10.1089/hs.2019.0158](#)

2020 Kavanagh, Jennifer, Quentin E. Hodgson, and C. Ben Gibson. "How is the pandemic influencing intention to vote?" RAND Research Report [RR-A112-15](#)

2020 Hartnett, Gavin S.; Vardavas, Raffaele; Baker, Lawrence; Chaykowsky, Michael; Gibson, C. Ben; Girosi, Federico; Kennedy, David P.; Osoba, Osonde. "Deep generative modeling in network science with applications to public policy research" [WRA843-1](#)

2020 Kavanagh, Jennifer; Gibson, C. Ben; Cherney, Samantha. "An assessment of state voting processes: preparing for elections during a pandemic." RAND Research Report [RR-A112-8](#)

2019 **Ben Gibson**, Norbou Buchler, Claire le Fleur, and Blaine Hoffman. "Participation Shifts Predict Long-Tailed Degree Distributions in a Communication Network." *PLoS One*. DOI: [10.1371/journal.pone.0217240](#)

2019 Sutton, Jeannette N.; Scott L. Renshaw; Sarah Vos; Michele K. Olson; Robert Prestley; **Ben Gibson**; Carter T. Butts. "Getting the Word Out, Rain or Shine: The Impact of Message Features and Hazard Context on Message Passing Online." *Weather, Climate, and Society*. DOI: [10.1175/WCAS-D-19-0021.1](#)

2019 Sutton, Jeannette, Sarah Vos, **Ben Gibson**, and Carter T. Butts. "Celebrity Cancer on Twitter: Mapping a Novel Opportunity for Cancer Prevention" *Cancer Control*. DOI: [10.1177/1073274819825826](#)

2018 Vos, S. C., Sutton, J., Yu, Y., Renshaw, S., Olson, M. K., **Gibson, B.**, and Butts, T. "Retweeting Risk Communication: The Role of Threat and Efficacy." *Risk Analysis*. DOI: [10.1111/risa.13140](#)

2017 **Ben Gibson** and Timothy B. Mayhall. "Comprehension Context and Sponsor Effects in a Hospital Mental Health Study." *Sociological Methods and Research*. DOI: 10.1177/0049124117729706

2017 Sutton, J., Vos, S. C., Olson, M. K., Woods, C. W., Cohen, E., **Gibson, C. B.**, Phillips, N., Studts, J., Eberth, J., & Butts, C. T.. "Lung Cancer Messages on Twitter: Content Analysis and Evaluation." *Journal of the American College of Radiology*. DOI: 10.1016/j.jacr.2017.09.043

2016 Fitzhugh, Sean M., **Ben Gibson**, Emma S. Spiro, Carter T. Butts. "Spatio-temporal Filtering Techniques for the Detection of Disaster-related Communication." *Social Science Research*. DOI: 10.1016/j.ssresearch.2016.04.023

2015 Sutton, Jeannette, **Ben Gibson**, Nolan Edward Phillips, Emma S. Spiro, Cedar League, Britta Johnson, Sean M. Fitzhugh, Carter T. Butts (2015). "A cross-hazard analysis of terse message retransmission on Twitter." *Proceedings of the National Academy of Sciences*. DOI: 10.1073%2Fpnas.1508916112

2015 Sutton, Jeannette, **Ben Gibson**, Emma S. Spiro, Cedar League, Sean M. Fitzhugh, Butts, Carter T. In Press. "What it Takes to Get Passed On: Message Content, Style, and Structure as Predictors of Retransmission in the Boston Marathon Bombing Response." *PLOS One*. DOI: 10.1371/journal.pone.0134452

2014 Sutton, Jeannette, Emma S. Spiro, Sean Fitzhugh, Britta Johnson, **Ben Gibson**, and Carter T. Butts. "Terse Message Amplification in the Boston Bombing Response." *International Journal of Information Systems for Crisis Response and Management*. PDF

2014 Sutton, Jeannette, Emma S. Spiro, Britta Johnson, Sean Fitzhugh, **C. Ben Gibson**, and Carter T. Butts. "Warning Tweets: Serial Transmission of Warning Messages During a Disaster Event." *Information, Communication and Society*. DOI: 10.1080/1369118X.2013.862561

Manuscripts under Review

Ben Gibson. "Disentangling Repetition and Imitation Components of Preferential Attachment in Social Action Networks." Under Review.

Ben Gibson, Cheryl Damberg, Shiyuan Zhang, and Ioana Popescu. "Differential hospital referrals and hospital mortality for Black and White patients undergoing cardiac surgery." Under Review.

Software

Ben Gibson and Burrel Vann Jr. "braQCA: Bootstrapped Robustness Assessment for QCA." R package version 0.9.7-1.0

AWARDS & FELLOWSHIPS

2022 RAND Internal Research Support. *Data Fusion Methods for City Contact Networks*.

2021 RAND Internal Research Support. *Networked Information Diffusion in Global Radio Tower Networks*.

2017 Outstanding Research Award. University of California, Irvine Department of Sociology.

2016 Clifford C. Clogg Award for Best Graduate Student Paper. Methodology Section. American Sociological Association.

2016 Robin M. Williams Jr. Paper Award, Department of Sociology, UCI.

2015 Ferris P. and Annie Ritchey Endowed Scholarship in Sociology, Department of Sociology, UAB.

2013 Dean's Research Award, College of Arts and Sciences, UAB

CONFERENCE PRESENTATIONS

Gibson, C. Ben, Norbou Buchler, Blaine Hoffman, and Claire La Fleur. April, 2019. "Consensus Analysis of Role Composition among a Cybersecurity Competition." Southern Sociological Association, Atlanta, Georgia.

Gibson, C. Ben, Norbou Buchler, Blaine Hoffman, and Claire La Fleur. December, 2018. "Participation Shifts Explain Long-Tailed Degree Distributions in an Email Network." North American Social Networks Conference, Washington, DC.

Gibson, C. Ben, and Carter T. Butts. August, 2016. "Relational Dynamics among Emergency Management Organizations during the Boston Bombing Event." Panel Session, American Sociological Association Conference 2016, Seattle, Washington.

Gibson, C. Ben and Carter T. Butts. April, 2016. "Relational Dynamics between Emergency Management Organizations during a Terrorism Event" Sunbelt Conference XXXVI, Newport Beach, CA.

Yue Yu, Gibson, C. Ben and Carter T. Butts. April, 2016. "Scalable Dynamic Sexual Contact Networks Coefficients Estimation with DNR Structure." Sunbelt Conference XXXVI, Newport Beach, CA.

Gibson, C. Ben, Zack Almquist, and Carter T. Butts. August, 2015. "Scalable Estimation of Temporal ERGMs and DNR Structure from Egocentrically Sampled Data." Panel Session, American Sociological Association Conference 2015, Chicago, Illinois.

Gibson, C. Ben and Burrel Vann Jr. August, 2015. "The Bootstrapped Robustness Assessment for Qualitative Comparative Analysis." Roundtable Discussion, American Sociological Association Conference 2015, Chicago, Illinois.

Gibson, C. Ben and Carter T. Butts. June, 2015. "The Effect of Temporal Adjustments on Dynamic Network Models." Sunbelt Conference XXXV, Brighton, UK.

Nolan Edward Phillips, Jeannette Sutton, Sean M. Fitzhugh, Cedar League, Britta Johnson, Emma S. Spiro, Gibson, C. Ben and Carter T. Butts. June, 2015. "Emergency Management Inter-organizational Networks" Sunbelt Conference XXXV, Brighton, UK.

Yue Yu, Gibson, C. Ben and Carter T. Butts. "How to Know When Your Partner's Sleeping Around: Imputing Concurrency in Dynamic Sexual Contact Networks." June, 2015. Sunbelt Conference XXXV, Brighton, UK.

Sean Fitzhugh, Jeannette Sutton, Carter T. Butts, Emma S. Spiro, C. Ben Gibson, Cedar League, and Britta Johnson August, 2014. "HEROIC: Hazards, Emergency Response, and Online Informal Communications." Research Highlight, Natural Hazards Annual Workshop. Boulder, Colorado.

Sean Fitzhugh, Ben Gibson, Emma S. Spiro and Carter T. Butts. August, 2014 *Did You Feel it? Spatial Filtering Techniques for Detection of Local Disaster Events.*" American Sociological Association: Section on Mathematical Sociology, San Francisco, California.

C. Ben Gibson, Yue Yu, Zack Almquist, and Carter T. Butts. February 2014. *Scalable Estimation of Temporal ERGMs with DNR Structure from Egocentrically Sampled Data.* Sunbelt Conference, St. Pete Beach, FL.

Jeannette Sutton, Emma Spiro, Britta Johnson (presenter), Sean Fitzhugh, C. Ben Gibson, and Carter T. Butts. August 2013. *Warning Tweets: Serial Transmission of Warning Messages During a Disaster Event* American Sociological Association, New York.

C. Ben Gibson, Emma Spiro, Sean Fitzhugh and Carter T. Butts. August 2013. *Findings from Measuring Online Social Networks Dynamics: the Local Is Global.* American Sociological Association, New York.

C. Ben Gibson, Emma Spiro, Sean Fitzhugh, and Carter T. Butts. June 2013. *Estimating Active User Population Dynamics in Online Social Networks.* Sunbelt Conference, Hamburg.

Sean Fitzhugh, C. Ben Gibson, and Carter T. Butts. June 2013. *Extended Brokerage Structures in Organizational Networks: A Model-Driven Approach* Sunbelt Conference, Hamburg.

C. Ben Gibson. August 2012. *Online Social Networks (OSNs) and the Possibility of Representative Snowball Sampling.* American Sociological Association. Denver.

C. Ben Gibson. March 2012. *Hyperbolic Theory and the Idea-Construction of Reality.* Southern Sociological Association. New Orleans.

C. Ben Gibson. March 2011. *Rich Friends, Healthy Mind? Peer Income and Mental Health among Older Adults.* Southwest Sociological Association. Las Vegas.

C. Ben Gibson. April 2010. *Elite Networks and the Political Survival of US Cabinet Members.* Southern Sociological Association. Atlanta.

R. Corbetta and C. Ben Gibson. June 2009. *Revolving Doors and Foreign Policy Collective Decision-Making: A Network Analysis.* Harvard Political Networks Conference. Boston.

TECHNICAL EXPERTISE

Data Collection Experience Collected and stored/managed terabytes of streaming social media data from Twitter; experience with qualitative text categorization; survey methods; conducted in-person survey-assisted interviewing.

Skills R, SQL, L^AT_EX, Linux (bash); Conversant in SPSS, SAS. Managed a dozen servers with a network file system (NFS), SVN, and computational servers.