

# BEN GIBSON

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## POSITIONS

- 2020-Pres. **Associate Sociologist**, RAND Corp.
- 2018-2020 **Postdoctoral Fellow**, Oak Ridge Associated Universities.  
Lab: Cyber and Networked Systems  
PI: ✉ [Norbou Buchler](#)
- 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

## PUBLICATIONS

### Journal Articles

- 2021 **Ben Gibson**, Norbou Buchler, Blaine Hoffman, and Claire Le Fleur. "Endogeneity and Permeation in an Organizational Communication Network." *Social Networks*.
- 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*.
- 2020 Sarah C. Vos, Jeannette Sutton, **Ben Gibson**, and Carter T. Butts. "#Ebola: Emergency Risk Messages on Social Media." *Health Security*.
- 2020 **Ben Gibson**, Sarah C. Vos, Jeannette Sutton, and Carter T. Butts. "Practical Imputation of Follower Counts of Public Health Twitter Accounts." *Sociological Methods & Research*.
- 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](https://doi.org/10.1175/WCAS-D-19-0021.1)
- 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](https://doi.org/10.1371/journal.pone.0217240)
- 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](https://doi.org/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](https://doi.org/10.1111/risa.13140)
- 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](https://doi.org/10.1016/j.jacr.2017.09.043)

- 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](https://doi.org/10.1177/0049124117729706)
- 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](https://doi.org/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/pnas.1508916112](https://doi.org/10.1073/pnas.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](https://doi.org/10.1371/journal.pone.0134452)

### Published Reports and Other Publications

- 2020 Kavanagh, Jennifer, Quentin E. Hodgson, and C. Ben Gibson. "Do Americans expect safe and secure elections?" [RR-A112-14](#)
- 2020 Kavanagh, Jennifer, Quentin E. Hodgson, and C. Ben Gibson. "How is the pandemic influencing intention to vote?" [RR-A112-15](#)
- 2020 Kavanagh, Jennifer, Quentin E. Hodgson, and C. Ben Gibson. "Voter attitudes toward the 2020 election: August 2020 update" [RR-A112-16](#)
- 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. "Database of state voting laws: preparing for elections during a pandemic." [RRA112-9](#)
- 2020 Kavanagh, Jennifer; Gibson, C. Ben; Cherney, Samantha. "An assessment of state voting processes: preparing for elections during a pandemic" [RR-A112-8](#)

### Software

**Ben Gibson** and Burrell Vann Jr. "braQCA: Bootstrapped Robustness Assessment for QCA." [R package version 0.9.7-1.0](#)

### Manuscripts Under Review

**Ben Gibson** and Carter T. Butts. "The Effect of Temporal Adjustments on Dynamic Network Models." (Revise & Resubmit, *Social Networks*)

Sarah Vos, Jeannette Sutton, **Gibson, Ben** and Carter T. Butts. "Theorizing the Diffusion of Public Health Messages on Social Network Sites." (Revise & Resubmit, *Preventative Medicine*)

**Ben Gibson**, and Martin Jacinto. "Measuring the Convergence of News Media Consensus using Cultural Consensus Theory."

**Ben Gibson**, Claire Le Fleur, Blaine Hoffman, and Norbou Buchler. "Consensus Analysis of Functional Team Cognition in a Cybersecurity Competition."

### Selected Manuscripts in Progress

Gibson, Ben. "Normative Basis of Emergent Scaling in Social Action Networks."

Gibson, Ben. "Irregular Asymptotics of Parameter Estimation in Relational Event Models."

Gibson, Ben. "Social Ecology Minimally Affects Conversation Dynamics"

Gibson, Ben and Burrell Vann Jr. "Bootstrapped Robustness Assessment for QCA." [PDF](#)  
- Clifford Clogg Award for Best Graduate Student Paper, Methodology Section, ASA.

- Robin M. Williams Jr. Paper Award, UCI.

Gibson, Ben and Carter T. Butts. "The Dynamics of Sexual Partnership Dissolution in the United States."

Gibson, Ben and Carter T. Butts. "Separable Dynamic Network Logistic Regression."

## AWARDS & FELLOWSHIPS

- 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

## TEACHING

**Instructor.** "Truth Be Told: Informant Accuracy in Clinical Mental Health Assessment" (March 2016). Webinar for the Association of Professional Chaplains (APC).

**Lab Instructor.** University of Alabama at Birmingham. SOCIOLOGY 410: SOCIAL STATISTICS LAB INSTRUCTOR

**Lab Instructor.** University of Alabama at Birmingham. SOCIOLOGY 490: RESEARCH METHODS LAB INSTRUCTOR

**Workshop Assistant.** Modeling Relational Event Dynamics with statnet. 34th-36th Sunbelt Conference.

**Workshop Assistant.** ERGMs with statnet. 34th-36th Sunbelt Conference.

## 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 Burrell 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<sup>A</sup>T<sub>E</sub>X, Linux (bash); Conversant in SPSS, SAS. Managed a dozen servers with a network file system (NFS), SVN, and computational servers.