Jared F. Edgerton

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Assistant Professor of Political Science
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Appointments

2025–present **Pennsylvania State University**
Assistant Professor, Department of Political Science
Faculty Affiliate, Institute for Computational and Data Sciences

2022–2025 **University of Texas at Dallas**
Assistant Professor, Department of Political Science

2022–present **Stanford University**
External Researcher, Human Trafficking Data Lab

2021–2022 **Stanford University**
Postdoctoral Fellow, Human Trafficking Data Lab

Education

2021 **The Ohio State University**
Ph.D. in Political Science
M.A. in Political Science (December 2018)
Graduate minor in Applied Statistics (2018)

2018 **Santa Fe Institute, Complex Systems Summer School**
Graduate certificate in complex system modeling

2012 **Juniata College**
B.A., Political Economy

Research interests

Machine learning, network analysis, natural language processing, computer vision, artificial intelligence, complex systems, international security, conflict processes, political violence, international order, civil war and mobilization.

Refereed articles

19. "Hierarchy misalignment and war: Entropy in networked systems." Forthcoming. *Political Science Research and Methods* (with Dagmar Heintze, Maël van Beek, and Haoming Xiong).

18. "Beyond borders: Networked interactions as spatial data." Forthcoming. *Political Science Research and Methods* (with Gary Uzonyi).

17. "Human rights consolidation or fragmentation? A network analysis of resolution sponsorship in the UN Human Rights Council." 2026. *Network Science* (with Gino Pauselli and Cecilia Cavero-Sánchez).

16. "Determinants of case outcomes in Rwanda's postgenocide gacaca courts." 2026. *Criminology* (with Hollie Nyseth Nzitatira and Anneliese Ward).

15. “Bound by blood and bloodshed: Sibling ties and participation in genocidal violence.” 2026. *Criminology* (with Hollie Nyseth Nzitatira, Jack Wippell, and Evelyn Gertz).

14. “Unpacking gendered co-participation in political violence: Women perpetrators of the 1994 genocide in Rwanda.” 2025. *American Journal of Political Science* (with Elizabeth Brannon, Dagmar Heintze, and Hollie Nyseth Nzitatira).

13. “Hierarchy and war.” 2025. *American Journal of Political Science* (with Maël van Beek, Bear Braumoeller, and the MESO Research Lab).

12. “Meet the press: Gendered conversational norms in televised political discussion.” 2025. *The Journal of Politics* (with Daniel Naftel, Skyler Cranmer, and the NISS Lab).

11. “Cooperative communities in the international system: Networked cooperation of similar states.” 2024. *The Journal of Politics*.

10. “How radio affects violent conflict: New evidence from Rwanda.” 2024. *American Sociological Review* (with Hollie Nyseth Nzitatira and Trey Billings). *Co-winner of the Best Paper Award by the American Sociological Association’s Section on Sociology of Human Rights.*

9. “Past and present group exclusion and conflict: Group marginalization, opportunity, and Islamic State foreign fighter mobilization.” 2024. *Journal of Conflict Resolution*.

8. “Analyzing participation in the 1994 genocide in Rwanda.” 2023. *Journal of Peace Research* (with Hollie Nyseth Nzitatira and Laura C. Frizzell).

7. “How teams adapt to exogenous shocks: Experimental evidence with node knockouts of central members.” 2022. *Network Science* (with Skyler J. Cranmer and Victor Finomore).

6. “Resilience to stress in bipartite networks: Application to the Islamic State recruitment network.” 2022. *Journal of Complex Networks* 10 (with Selena Wang).

5. “Suicide bomber mobilization and kin and peer ties.” 2022. *Social Networks* 70(1): 36–54.

4. “Elusive consensus: Polarization in elite communication on the COVID-19 pandemic.” 2020. *Science Advances* 6 (with Jon Green, Skyler Cranmer, and the NISS Lab).

3. “Crater detection from commercial satellite imagery to estimate unexploded ordnance in Cambodian agricultural land.” 2020. *PLOS One* 15 (with Erin Lin, Rongjun Qin, and Daren Kong).

2. “Classifying prisoner returns: A research note.” 2016. *Justice Research and Policy* (with Gerald G. Gaes, Jeremy Luallen, and William Rhodes).

1. “A quasi-experimental evaluation of the impact of public assistance on prisoner recidivism.” 2016. *Journal of Quantitative Criminology* (with Jeremy Luallen and Dierdre Rabideau).

Submitted for review

4. “Foreign policy elite messaging: Elite framing during conflict crises.” Revise and resubmit. *International Interactions* (with Jing Luo, Chandler L’Hommedieu, and Skyler Cranmer).

3. “Spatial violence embeddings for geographic transfer learning.”

2. “Tremors in the system: Conflict alignment in the international system.”

1. “Adaptive interlayer coupling for temporal community detection in multiplex networks.”

Software

2026 **geoconflict-encoder-mini**. Pretrained transformer encoder for conflict forecasting and transfer learning. Learns representations of PRIO-GRID cell-months from their trailing 12-month UCDP GED event histories (1989–2024) through masked-event modeling, producing embeddings that can be fine-tuned for incidence, escalation, and related forecasting tasks. Available on Hugging Face at https://huggingface.co/jfedgerton/geoconflict-encoder-mini.

2026 **dynamicmultiplex**. R package for community detection in evolving multiplex networks. Runs Leiden or Louvain community detection on each layer and links communities across layers by Jaccard similarity, the overlap coefficient, or their node-strength weighted variants, with user-specified layer connectivity (adjacent layers by default) that avoids pooling distant time periods. Also fits multislice modularity with node identity ties and cross-sectional detection with Hungarian label matching, and includes a bootstrap partition-stability score, network simulation tools, and plotting functions. Available on CRAN at https://CRAN.R-project.org/package=dynamicmultiplex.

2026 **dynamic_multiplex**. Python implementation of the same methods, functionally equivalent to the R package, with custom interlayer coupling set through a *layer_links* argument. Available on PyPI at https://pypi.org/project/dynamic-multiplex/. Source for both packages at https://github.com/jfedgerton/dynamic_multiplex.

Grants

2021 National Science Foundation Research Grant. Helped draft the grant that established the Ohio State University Modeling Emergent Social Order Research Lab $750,000.

2021 Carnegie Corporation Research Grant. Helped draft the grant that established the Ohio State University Modeling Emergent Social Order Research Lab $200,000.

2020 Mershon Center for International Security Studies Research Grant. Ohio State University student grant award for $4,000.

2020 Mershon Center for International Security Studies Research Grant. Ohio State University student grant award for $4,000.

2016 Mershon Center for International Security Studies Research Grant. Ohio State University student grant award for $5,450.

2016 Department of Political Science Research Grant. Ohio State University award for $5,000.

Developing projects

11. "Conflict cycles: Group membership, policy diffusion, polarization, and conflict in the international system." I argue that state interactions over the social network of the international system: (1) spread political institutions between and induce cooperation among states, (2) create cooperative communities of states, or groups of states with homophilous political institutions that are less internally conflictual, and (3) violent conflict between these cooperative groups of states recreates the social network of the international system. *Ongoing book project.*

10. "LLM agents in canonical agent-based models." Tests whether agents built on different large language models reproduce the benchmarks of canonical games of conflict and cooperation (with Jing Luo, Gary Uzonyi, Maël van Beek, and Jack Wippell).

9. "Illicit subsidies in the marketplace of ideas: Investigating Russian cash infusions into conservative media."

Difference-in-differences study of whether Russian payments through Tenet Media changed the content of conservative podcasts (with Jon Green of Duke University and Spencer Kuhn).

8. "Forest fires and forced labor in Brazil." Uses short-term atmospheric drying as an instrument to estimate the effect of fire on forced labor across Brazilian municipalities (with Kimberly Babiarz, Grant Miller, and Luis Fabiano de Assis, Stanford University Human Trafficking Data Lab).

7. "Strategic warfighting: Bullies, peers, and challengers." A typology of state aggression, estimated with a Bayesian network model of how states choose whom to attack.

6. "Multiplex graph neural networks for forecasting and counterfactual edge knockouts." Forecasts international cooperation networks across six layers and simulates the effects of removing single ties.

5. "Covert repression and the Ku Klux Klan: Evidence from FBI COINTELPRO files." Paper series measuring state infiltration of the Klan from FBI COINTELPRO files (1964–1971). *Data collection under way.*

4. "Lawfare, copyright, and state suppression of dissident information." Project examining how states strategically use copyright law to suppress online dissident content. I have collected global data on copyright takedown claims submitted to major search engines and am coding claims to analyze state patterns of informational suppression (with Pengfei Zhang and Natalia Lamberova, University of Texas at Dallas).

3. "Landmark events and media attention: The newsworthiness of school shootings." Separates whether school shootings become news from how long coverage lasts, using television transcripts from 2009 to 2020 (with Jack Wippell of Ohio State University and Cara Nix of Black Wealth Data Center).

2. "Nontraditional news and American foreign policy." Early-stage project comparing foreign policy discussions in conspiratorial and alternative podcasts with mainstream news.

1. "Evaluating policing biases using synthetic text." Uses large language models to generate text at varying literacy levels to test whether linguistic complexity affects predicted police response times, informing policy debates on literacy-linked discrimination (with Stanford University Human Trafficking Data Lab).

Talks & conferences

2025 American Political Science Association, Vancouver, Canada. "Hierarchy misalignment and war: Network effects of relational and material power."

2025 Political Networks, Boston, Massachusetts. "Human rights consolidation or fragmentation? A network analysis of resolution sponsorship in the UN Human Rights Council."

2025 International Studies Association, Chicago, Illinois. "Human rights consolidation or fragmentation? A network analysis of resolution sponsorship in the UN Human Rights Council."

2025 Texas Triangle, Dallas, Texas. "Hierarchy misalignment and war: Network effects of relational and material power." (Non-presenting coauthor.)

2024 netify NSF Conference, Nashville, Tennessee. "Mapping rebellion: Networks of civilian and state violence during civil conflicts."

2024 Public Choice Society, Dallas, Texas. "Mapping rebellion: Networks of civilian and state violence during civil conflicts."

2024 Texas Methodology, Dallas, Texas. "Mapping rebellion: Networks of civilian and state violence during civil conflicts."

2024 Texas Triangle, Houston, Texas. "Mapping rebellion: Networks of civilian and state violence during civil conflicts."

2023 Political Networks Working Paper Series, Virtual. “Mapping rebellion: Networks of civilian and state violence during civil conflicts.”

2023 Invited talk, University of Minnesota. “Mapping rebellion: Networks of civilian and state violence during civil conflicts.”

2023 Invited talk, Indiana University. “Mapping rebellion: Networks of civilian and state violence during civil conflicts.”

2023 Western Political Science Association, San Francisco, California. “Networks of violence and the diffusion of fighting during civil war.”

2023 International Studies Association, Montreal, Canada. “Networks of violence and the diffusion of fighting during civil war.”

2022 Texas Methodology, Austin, Texas. “Temporal community detection: Generalization of Louvain community detection approaches.”

2022 International Studies Association, Nashville, Tennessee. “Forecasting international order.”

2021 American Political Science Association, Seattle, Washington. “Social origins of genocide: Socialized violence during the genocide in Rwanda.”

2021 American Political Science Association, Seattle, Washington. “Peer countries: State positions in the international bond markets.”

2021 American Political Science Association, Seattle, Washington. “Hierarchy and war in the international system.”

2019–2020 Earlier presentations. American Political Science Association (2019, 2020), International Studies Association (2020), Peace Science Society (2020), Political Networks (2020), International Methods Colloquium (2020), Politics of Crime Control and Social Protection Workshop (2020), and Political and Complex Social Systems (2020).

Awards

2025 Co-winner of the Best Paper Award by the American Sociological Association’s Section on Sociology in Human Rights for the article “How radio affects violent conflict: New evidence from Rwanda.”

2020 Program in Statistics and Methodology Senior Fellow. Fully funded graduate student fellowship.

2020 Francis R. Aumann Award. Ohio State University award for best graduate student methods paper.

2019 Francis R. Aumann Award. Ohio State University award for best graduate student methods paper.

2016 Graduate Student Research Fellowship. Fully funded graduate student fellowship.

2013 Fulbright Fellowship to the Republic of Georgia. Fully funded fellowship from the Bureau of Education and Cultural Affairs.

Teaching

2025–present **Pennsylvania State University**
Statistical Methods for Political Research (graduate)
Machine Learning (graduate)
Big Data (graduate)
Data Visualization (undergraduate)

2022–2025 **University of Texas at Dallas**
International Conflict (graduate)
International Conflict (undergraduate)
Introduction to International Relations
Regression (graduate)

2022 **ICPSR Summer Program, Co-instructor**
Data Science & Text as Data

Advising

Dissertation co-chair
Ludmila Bandeira (Political Science, Pennsylvania State University)
Jiahui Xu (Political Science, Pennsylvania State University)
Lesley Zhang (Political Science, Pennsylvania State University)

Dissertation committee member
Kadir Cihan Duran (Political Science, Pennsylvania State University)
Enes Ataç (Sociology, Pennsylvania State University)
Jingkai Huang (Sociology, Pennsylvania State University, outside member)
Jing Luo (Political Science, The Ohio State University)

Former advisee
Dagmar Heintze (Political Science, University of Texas at Dallas)

Service

2026 APSA Section Chair for Political Networks.

2025 Section Treasurer for Political Networks.

2022–2024 Helped organize Quantitative Junior Scholars in International Security and Conflict Processes.

2022–2023 Chair of the Political Networks Book Award for American Political Science Association.

2023 Convener for the Human Security Junior Scholars Symposium at International Studies Association, Montreal, Canada.

2024–2026 Discussant for Western Political Science Association (2024), Public Choice Society (2024), American Political Science Association (2025), International Studies Association (2026).

Reviewer for American Political Science Review, American Journal of Political Science, Journal of Politics, Political Analysis, Journal of Conflict Resolution, Journal of Political Behavior, Journal of Peace Research, Conflict Management and Peace Science, Social Networks, Global Networks, Group Decision and Negotiation, Journal of Cybersecurity and Privacy, Network Science, International Interactions, Small Wars and Insurgencies, Land Degradation & Development.

Membership

American Political Science Association (2018–present), Society for Political Methodology (2020–present), International Studies Association (2020–present), Political Networks (2016–present).

Work experience

2013–2016 **Research Associate, Abt Associates**
Studied human trafficking networks, analyzed drug seizure patterns, and studied prisoner recidivism.

2012–2013 **Fulbright Fellow, Gurjaani, Georgia**
Taught English in high school and elementary school.

References

Available upon request.

Last updated November 19, 2026