

I am a computational sociologist focusing on social inequality, social networks, and family demography. In my research, I apply and develop quantitative and computational methods to study fundamental sociological questions in new ways and gain insights across a variety of research fields. My work examines how friendship, family, and political dynamics shape individual life chances and broader patterns of inequality. I am particularly interested in how individuals' selection into and interactions within these environments collectively generate emergent dynamics of social stratification. Methodologically, my expertise spans causal inference, relational dynamics, multilevel modeling, and the analysis of group heterogeneity.

Employment	
Since 2025	New York University Abu Dhabi (UAE) Assistant Professor of Computational Social Science
2024-2025	Princeton University (USA) Postdoctoral Researcher
2022	Organization for Economic Cooperation and Development (FRA) Data Scientist

Publications	
Rosche, B. (2026). A Multilevel Model for Coalition Governments. Uncovering Party-Level Dependencies Within and Between Governments. Forthcoming at <i>Political Analysis</i>	
Rosche, B. , Bons, H., Hox, J., de Leeuw, E. (2025). The survey attitude scale as an indicator of survey climate and a predictor of nonresponse and attrition. <i>Survey Research Methods</i> .	
An, W., Beauville, R., Rosche, B. (2022). Causal Network Analysis. <i>Annual Review of Sociology</i> , 48. The authors are listed alphabetically and contributed equally to the article.	

Revise and Resubmit	
Rosche, B. (2025). Social Closure in U.S. High Schools? Patterns and Determinants of Socioeconomic Segregation in Adolescent Friendship Networks. <i>R&R at American Sociological Review</i>	

Working papers	
Rosche, B. (2025). Treatment effects on within-group and between-group inequality. A causal decomposition approach.	

Ongoing research	
– <i>The precious networks of the rich. How the ultra-wealthy prevent progressive tax reforms.</i> with Alison Schultz (Tax Justice Network), Yufang Sun (Mannheim University), and Marti Medina-Hernández (Central European University)	

Grants	
2021-2024	National Science Foundation (\$250,000) <i>Friendship Networks and Socioeconomic Outcomes</i> Role: Principal Investigator, Award #2049207

Areas of interest	
– Computational Social Science	
– Stratification/Inequality	
– Social Networks	
– Family Demography	
– Educational Sociology	
– Political Sociology	

Education	
Cornell University (USA) 2024	
– Ph.D. in Sociology and Computer Science (minor)	
Committee: Michael Macy (Cornell Soc./Information Science) Filiz Garip (Princeton Sociology/Public Policy) Eleonora Patacchini (Cornell Economics) Felix Elwert (UW-Madison Sociology/Statistics) Lillian Lee (Cornell Computer Science)	

Utrecht University (NL) 2017	
– M.Sc. in Methods and Statistics GPA: 3.97, graduated in the top five percent of my class	
– M.Sc. in Sociology and Social Research GPA: 4.00, valedictorian	

Mannheim University (DE) 2014	
– B.A. in Sociology and Economics (minor) GPA: 3.90, graduated in the top five percent of my class	

Skills	
– Statistical skills: Machine learning, causal inference, Bayesian statistics, longitudinal, multilevel, spatial, network, and decomposition methods	
– Programming skills: ✓ Highly proficient in R, Python, Stata, and BUGS/JAGS/Stan. ✓ Highly experienced with large datasets and parallel computing.	

Fellowships and Awards

2023, 2024	Best paper award for “ <i>Social Closure in U.S. High Schools? Patterns and Determinants of Socioeconomic Segregation in Adolescent Friendship Networks.</i> ” from the <ul style="list-style-type: none">– ASA section Mathematical Sociology– ASA section Decision-making, Social Networks, and Society– Department of Sociology at Cornell University (Robin M. Williams Jr. Best Paper Award)
2020	Best paper award for “ <i>A multilevel model for coalition governments: Uncovering dependencies within and across governments due to parties.</i> ” from the <ul style="list-style-type: none">– Department of Sociology at Cornell University (Robert B. McGinnis Best Paper Award)
2018, 2023	Cornell Sage Fellowship (\$140,000)
2012-2017	Fellowship from the <i>Studienstiftung des Deutschen Volkes</i> (German National Merit Foundation) (\$75,000)

Teaching and Mentoring

2024	Summer School on Data Science and Wealth <i>I led an interdisciplinary research project with PhD students from sociology, economics, and network science.</i>
2024	Mentored Malavika Krishnamachari (undergraduate student in Information Science) on her honors thesis: <i>The effect of cross-SES ties on educational aspirations of low-SES youth.</i>
2020-2023	Lab manager of Michael Macy’s Social Dynamics Lab <i>I assisted students with their research projects.</i>
2019	Teaching Assistant for <i>Controversies about Inequality</i> Cornell University, undergraduate level
2015-2016	Teaching Assistant for <i>Introduction to Statistics</i> Utrecht University, undergraduate level
2011-2014	Teaching Assistant for <i>Introduction to Sociology</i> Mannheim University, undergraduate level

Service and Volunteering

2023-2024	Big Brothers Big Sisters: Big Brother to a 10-year-old boy with weekly meetings over two years. <i>Recipient of the James J. Byrnes Awards for outstanding volunteer service to the community</i>
2023	Served on the graduate student admission committee in the Department of Sociology at Cornell
2020-2024	Founding President of Cornell Graduate Student Improv Theater Club
2018-2020	President of the Recreational Squash Club at Cornell
2018-2019	Organized the Cornell Sociology Graduate Seminar
2011-2014	Big Brothers Big Sisters: Big brother to a 10-year-old boy, with weekly meetings over three years.
Refereeing	American Journal of Sociology, European Sociological Review, Social Forces, Socius, Sociological Methods and Research, Sociological Methodology, Journal of Mathematical Sociology, Research in Social Stratification

✓ Experienced in web programming: HTML, CSS, JavaScript, PHP, and MySQL.

Languages

English (fluent), German (native), Dutch (fluent), Spanish (basic)

Personal

In my free time, I enjoy running, doing racket sports, and dancing Salsa and Bachata. I served as president of the Cornell Recreational Squash Club (2018-2020), organizing training and tournaments for 60 members, and led the Cornell Graduate Student Improv Theater Club (2020-2024), hosting weekly improv sessions for 20 graduate students.

and Mobility, Social Science Research, Sociological Perspectives.

Software

- R library **ineqx**. <https://benrosche.github.io/ineqx/>
- R library **bml**. <https://benrosche.github.io/bml/>

Conferences

Population of America Association Conference (2018, 2021, 2022, 2023), American Sociological Association Conference (2020, 2023), International Network for Social Network Analysis Conference (2018, 2021, 2023, 2024), Network Science Society Conference (2021, 2023), International Network of Analytical Sociology conference (2022, 2023), RC28 Conference on Social Stratification (2022, 2023), American Political Science Association Conference (2019), International Multilevel Conference (2017), International Conference on Survey Nonresponse (2016)

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