

Dr. Jordan D. Klein

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RESEARCH INTERESTS

Substantive: Mortality, Migration and Mobility, Social Epidemiology, Re-/Emerging Infectious Disease, Environmental Demography, Climate Change and Health, Historical Epidemiology and Demography, Political Economy of Health

Data: Official Statistics, Civil and Vital Registration, Surveys, Digital Trace, Disease Surveillance, Geospatial and Remote Sensing

Methods: Statistics, Machine Learning, Mechanistic Modeling and Simulation, Demographic Measurement and Estimation, Time Series and Panel Models, Non-parametric Models, Bayesian Hierarchical Models, Forecasting, Causal Inference

EDUCATION

PRINCETON UNIVERSITY September 2019-May 2024
Doctor of Philosophy Princeton, NJ, USA
Demography. *Subfields: International comparative epidemiology and computational demography.*
Graduate Certificate in Statistics and Machine Learning
Committee members/advisors: Noreen Goldman (Chair), Jessica Metcalf, Filiz Garip, Deborah Balk
Dissertation: Emerging and Re-Emerging Infectious Diseases and their Social Contexts

COLUMBIA UNIVERSITY SCHOOL OF PROFESSIONAL STUDIES January 2018-May 2019
Graduate Certificate New York, NY, USA
Mathematics. GPA: 4.0/4.0

TUFTS UNIVERSITY SCHOOL OF MEDICINE May 2016-May 2017
Master of Public Health Boston, MA, USA
Epidemiology and Biostatistics. GPA: 3.9/4.0

TUFTS UNIVERSITY SCHOOL OF ARTS AND SCIENCES September 2012-May 2016
Bachelor of Science Medford, MA, USA
International Relations (global health, nutrition, and the environment) and Biology. GPA: 3.3/4.0

PROFESSIONAL EXPERIENCE

MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH September 2024-Present
Department of Digital and Computational Demography Rostock, Germany
Laboratory of Population Dynamics and Sustainable Wellbeing, Laboratory of Migration and Mobility
Research Scientist (joint appointment)

ROCKEFELLER FOUNDATION May-December 2022
Pandemic Prevention Institute Washington, DC, USA
Associate

MAX PLANCK INSTITUTE FOR DEMOGRAPHIC RESEARCH May-August 2021
Department of Digital and Computational Demography Rostock, Germany
Guest Researcher

ABT ASSOCIATES Data Science, Surveys, and Enabling Technologies <i>Associate Analyst</i>	July 2017-March 2019 New York, NY, USA
MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH State Public Health Laboratory <i>Laboratory Technician</i>	June-July 2017 Boston, MA, USA
CHRISTIAN MEDICAL COLLEGE (CMC) Departments of Community Health and Biostatistics <i>Research Assistant</i>	September-December 2016 Vellore, India
WORLD HEALTH ORGANIZATION Health Systems and Innovation <i>Intern</i>	July-August 2016 Geneva, Switzerland
ENBIOTIX, INC Business Development <i>Intern</i>	May-August 2015 Cambridge, MA, USA
TUFTS GRADUATE SCHOOL OF BIOMEDICAL SCIENCES Department of Molecular Microbiology <i>Undergraduate Research Assistant</i>	June 2014-May 2015 Boston, MA, USA
AVODEC Monitoring and Evaluation <i>Intern</i>	June-August 2013 Jinotega, Nicaragua
CONGRESSWOMAN NITA LOWEY District Office <i>Intern</i>	July-August 2011 White Plains, NY, USA

PUBLICATIONS

Peer reviewed

Klein, J. D., Rasoanomenjanahary, A. (2024). [Climate change and health transitions: Evidence from Antananarivo, Madagascar](#). *Demographic Research*, 51, 155-190.

Klein, J. D., Weber, I., & Zagheni, E. (2024). [Stop, in the name of COVID!](#) *Demography*, 61(2), 493-511.

Pascual-García, A., **Klein, J. D.**, Villers, J., Campillo-Funollet, E., & Sarkis, C. (2021). [Empowering the crowd: feasible strategies for epidemic management in high-density informal settlements. The case of COVID-19 in Northwest Syria](#). *BMJ Global Health*, 6(8), e004656.

Working papers

Klein, J. D. Must whatever goes up come down? Mortality gradients in the emergence of COVID-19.

INVITED TALKS AND PRESENTATIONS

Upcoming

Latin American Association of Population Conference Poster Session, December 2024.

International Union for the Scientific Study of Population Panel Epidemics and Contagious Diseases: The Legacy of the Past Workshop Oral Session, November 2024.

Previous

“Must whatever goes up come down? Mortality gradients in the emergence of COVID-19.” Population Association of America Conference Poster Session, April 2024.

“Must whatever goes up come down? Mortality gradients in the emergence of COVID-19.” Wittgenstein Centre Conference Poster Session, December 2023.

“Must whatever goes up come down? Mortality gradients in the emergence of COVID-19.” European Association of Population Studies Health, Morbidity, and Mortality Working Group Poster Session, September 2023.

“Must whatever goes up come down? Mortality gradients in the emergence of COVID-19.” British Society for Population Studies Conference Oral Session, September 2023.

“Whatever Goes Down Must Come Up: Social Gradients in Emerging Infectious Diseases.” Ecology and Evolution of Infectious Diseases Conference Poster Session, May 2023.

“Climate Change and Health Transitions: Evidence from Antananarivo, Madagascar.” Wittgenstein Centre Conference Oral Session, December 2022.

“Stop, in the name of COVID! Estimating the effects of COVID-19-related travel restrictions on migration using social media data.” British Society for Population Studies Oral Session, September 2022.

“Stop, in the name of COVID! Estimating the effects of COVID-19-related travel restrictions on migration using social media data.” IMISCOE Conference Panel Session, June-July 2022.

“Stop, in the name of COVID!” European Population Conference Oral Session, June-July 2022.

“Climate change and health transitions: Evidence from Antananarivo, Madagascar.” Population Association of America Conference Oral Session, April 2022.

“Stop, in the name of COVID!” Population Association of America Conference Oral Session, April 2022.

“Climate change and epidemiological transitions: Evidence from Antananarivo, Madagascar.” European Society of Historical Demography Conference Oral Session, March 2022.

“Empowering the crowd: Feasible strategies to minimize the spread of COVID-19 in high-density informal settlements.” International Population Conference Oral Session, December 2021.

“Climate change and epidemiological transitions: Evidence from Antananarivo, Madagascar.” International Population Conference Poster Session, December 2021.

“Predicting Global Migration with Social Media Data: Potential and Limits.” Max Planck Institute for Demographic Research Laboratory of Digital and Computational Demography Online Seminar Invited Talk, March 2021.

“Antibiotics in the Global Livestock Industry: Projections and Policy Recommendations.” Tufts Food Systems Symposium Poster Session, April 2017.

“Global Livestock Production and Antimicrobial Resistance: Outlook and Steps Forward.” World Health Organization Seminar, August 2016.

“The role of Adhesins in *B. burgdorferi* (Lyme Disease) in Establishing and Maintaining Infection in the Mammalian Host.” Project Lever Undergraduate Research Expo Invited Talk, September 2014.

TEACHING EXPERIENCE

Public & International Affairs 598/Population Studies 508:

Epidemiology

Spring 2022, Spring 2021

Princeton University

Preceptor for Noreen Goldman.

Politics 345/Sociology 305/Public & International Affairs 211:

Introduction to Quantitative Social Science

Fall 2020

Princeton University

Preceptor for Marc Ratkovic.

CONSULTING WORK AND CLIENT PROJECTS

Organization for Economic Cooperation and Development, 2021- Coopération Sud Sud en matière de migration.

Zebra Strategies, 2019- Public health and market research survey design.

Abt Associates for MDRC, 2019- Variations in Implementation of Quality Interventions Study.

Abt Associates for U.S. Department of Labor, 2019- Family and Medical Leave Act Survey.

Abt Associates for U.S. Department of Veterans Affairs, 2018- Comparative Health Assessment Interview Research Study.

Abt Associates for INSEAD, 2018- INSEAD Alumnae Impact Report.

NON-ACADEMIC AND MEDIA PUBLICATIONS

Wolansky, L., Johnson, K., Thrift, B., **Klein, J. D.**, Mantsoki, A., Uplekar, S. [SARS-CoV-2 Genomic Surveillance Global Capacity Mapping](#). The Rockefeller Foundation and FIND, 2022.

Klein, J. D., Samuel, I. [We Measured Brett Kavanaugh’s Likely Impact on the Court](#). Crooked, 2018.

Klein, J. D. [How Kavanaugh Would Change the Court: Methodology](#). Data for Progress, 2018.

VOLUNTEERING AND SERVICE

CROWDFIGHT COVID-19

May 2020-July 2021

Scientific Researcher

DATA FOR PROGRESS

May 2018-May 2019

Senior Advisor

DATA FOR DEMOCRACY*Data Scientist*

January-June 2017

TUFTS HUMAN HEALTH HACK*Founding Director*

July 2014-May 2016

TUFTS INSTITUTE FOR GLOBAL LEADERSHIP BUILD*Finance Committee Co-Chair*

September 2012-May 2016

AWARDS, FELLOWSHIPS, AND GRANTS

Yun Kim and Harold Kim Graduate Fellowship, Princeton University, 2023-2024, 2022-2023, 2021-2022, and 2020-2021 academic years.

Dean's Fund for Scholarly Travel, Princeton University, September 2023 and January 2022.

Professional Development Travel Fund, Princeton University, June 2023.

Burns "Bud" Roper AAPOR Fellow Award, American Association for Public Opinion Research (AAPOR), March 2018.

Clinton Global Initiative University Fellowship, Clinton Global Initiative University, April 2016.

Global Health Travel Fellowship, Tufts University School of Medicine, March 2016.

Internship Challenge Award, Massachusetts Life Sciences Center, May 2015.

Tufts Office of the Provost and Senior Vice President Grant, April 2015.

Tufts Institute for the Environment Grant, April 2015.

Tufts Institute for Innovation Grant, April 2015.

Millennium Fellowship, Millennium Campus Network, November 2014.

Project Lever Fellowship, Project Lever, September 2014.

Empower Fellowship, Tufts Institute for Global Leadership, May 2013.

Eagle Scout, Boy Scouts of America, June 2012.

WORKSHOPS, SHORT COURSES, AND PROFESSIONAL DEVELOPMENT**Clinic on Meaningful Modeling of Epidemiological Data**

African Institute for Mathematical Sciences

June-July 2023

Cape Town, South Africa

Topics in Digital and Computational Demography

Max Planck Institute for Demographic Research

November 2021

Online

Berkeley Workshop in Formal Demography

University of California Berkeley

May 2021

Online

PROFESSIONAL ASSOCIATIONS

Population Association of America
International Union for the Scientific Study of Population

REVIEWER

Demography
Environmental Health Perspectives

SKILLS AND COMPETENCIES

Language: English (native), Spanish (proficient in written and oral communication), German (proficient in written and oral communication), French (reading comprehension), Portuguese (reading comprehension)

Software: Integrated development environments (VS-Code, Jupyter, Rstudio), statistical programming (R, Python, Stata, SPSS), geospatial (sf, ArcGIS, simple features, GDAL, Google Maps API, Mapbox), visualization (ggplot2, matplotlib, Tableau, Flourish), reporting (LaTeX, Markdown), version control (Git, GitHub), web development (R Shiny, Hugo, JS, HTML, CSS), data storage and processing (S3, Spark), scripting (command-line, Unix shell), high-performance and scientific computing, MS Suite

REFERENCES

Dr. Noreen Goldman

Hughes-Rogers Professor of Demography and Public Affairs, Princeton University
ngoldman@princeton.edu

Dr. C. Jessica E. Metcalf

Professor of Ecology and Evolutionary Biology and Public Affairs, Princeton University
cjmetcalf@princeton.edu

Dr. Filiz Garip

Professor of Sociology and Public Affairs, Princeton University
fgarip@princeton.edu

Dr. Deborah L. Balk

Director, CUNY Institute for Demographic Research and Professor of Public and International Affairs,
City University of New York
deborah.balk@baruch.cuny.edu

Leo Wolansky

Director of Data Products | Health Initiative, Rockefeller Foundation
lwolansky@gmail.com