NICK GRAETZ

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ACADEMIC POSITIONS

2021-Present   Post-Doctoral Research Associate (Eviction Lab), Princeton University.

EDUCATION

2021   Ph.D., Demography and Sociology (*with distinction*), University of Pennsylvania.

   Dissertation: "The relational role of place in the production of racial stratification"
   Committee: Irma Elo (chair), Courtney Boen, Xi Song, Tukufu Zuberi, Daniel Aldana Cohen
   Exams: Structural racism and the political economy of place (*with distinction*); Demography

2018   M.A., Demography, University of Pennsylvania.

2016   M.P.H., Health Metrics and Evaluation, University of Washington.

2013   B.S., Psychology (*with distinction*) and Political Science, University of Wisconsin-Madison.

RESEARCH AND TEACHING INTERESTS

Structural racism, housing, racial segregation, social policy, financialization, political economy, population health, causal inference, mediation analysis, Bayesian small area estimation, data visualization

SELECT PEER REVIEWED PUBLICATIONS

Graetz, N., Boen, C., Esposito, M.H. (2021). Structural racism and quantitative causal inference: A life-course mediation framework for decomposing racial health disparities. *Journal of Health and Social Behavior (forthcoming)*.

Graetz, N., Elo, I.T. (2021). Decomposing county-level working-age mortality trends in the United States between 2000 and 2017. *Spatial Demography (forthcoming)*.

Graetz, N., Ummel, K., Cohen, D.A. (2021). Small-area analyses using public American Community Survey data: A tree-based spatial microsimulation technique. *Sociological Methodology (forthcoming)*.

Boen, C., Keister, L.A., **Graetz, N.** (2021). Household wealth and child body mass index: Patterns and mechanisms. *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7(3): 80–100.

Graetz, N. et al. (2020). Mapping persistent local disparity in educational attainment across low- and middle-income countries. *Nature* 577: 235-238.

Graetz, N., Preston, S.H., Peele, M., Elo, I.T. (2020). Ecological factors associated with suicide mortality among non-Hispanic whites. *BMC Public Health* 20(1339).

Friedman, J., York, H., **Graetz, N.** et al. (2020). Measuring and forecasting progress towards the education-related SDG targets. *Nature* 580: 636-639.

Graetz, N. et al. (2018). Mapping local variation in education across Africa, 2000-2015. *Nature* 555: 48-53.

Reiner, R. C., **Graetz, N.**, et al. (2018). Variation in childhood diarrheal morbidity and mortality in Africa, 2000-2015. *New England Journal of Medicine* 379: 1128-1138.

Friedman, J., **Graetz, N.**, Gakidou, E. (2018). Improving the estimation of educational attainment: New methods for assessing average years of schooling from binned data. *PLoS ONE* 13(11).

Haagsma, J., **Graetz, N.**, et al. (2015). The global burden of injury: Incidence, mortality, disability-adjusted life years and time trends from the Global Burden of Disease Study 2013. *Injury Prevention* 22(1): 3-18.

MANUSCRIPTS UNDER REVIEW

Boen, C., **Graetz, N.**, et al. (2021). Early life patterns of criminal justice involvement: Inequalities by race-ethnicity, gender, and socioeconomic status. *Revise and resubmit.*

Bollyky, T., **Graetz, N.**, et al. (2021). Growing up and moving out: Migration and the demographic transition in low-income nations. *Revise and resubmit.*

Graetz, N. (2021). Mechanisms connecting neighborhood disadvantage to child development: A life-course mediation analysis.

Cohen, Daniel A., **Graetz, N.**, Prins, Seth J., Esposito, M. (2021). American Eco-Apartheid: Mapping the links between racial disparities in longevity with political economy, state violence, and environmental exposure.

Graetz, N. (2021). Mechanisms maintaining Black-white trends and disparities in life-course wealth accumulation.

Graetz, N. (2021). Historical mechanisms connecting home values over three generations to contemporary Black-white disparities in health and wealth.

Graetz, N. & Esposito, M. (2021). Historical redlining and contemporary racial disparities in neighborhood life expectancy.

MANUSCRIPTS IN PREPARATION

Graetz, N. & Song, X. (2021). G-computation for decomposing population disparities: Three-way effect decomposition with a new R package multmed.

Boen, C., **Graetz, N.**, Venkataramani, A., Peele, M., Ortiz, R. (2021). The roles of state and local immigration policy in shaping population patterns of health inequality.

Graetz, N., Hepburn, P., Louis, R., Desmond, M. (2021). Racialized geographies of eviction.

Graetz, N., Desmond, M. (2021). Rent exploitation and landlord profiteering across all U.S. cities, 2012-2018.

Graetz, N., Boen, C., Pedroza, J. (2021). Geographic variation in levels and trends of ICE activity.

CONFERENCE PRESENTATIONS (* = presenter)

PAA (Population Association of America) Annual Meeting

Graetz, N.* (2021). Historical mechanisms connecting home values over three generations to contemporary Black-white disparities in wealth and health. *Intergenerational Transmission of Poverty and Human Capital.*

Graetz, N.*, Song, X. (2021). G-computation for decomposing population health disparities: 3-way effect decomposition with a new R package multmed. *Debate and Innovation in Global Population and Health Methods and Metrics.*

Boen, C.*, **Graetz, N.**, et al. (2021). The roles of state and local immigration policy in shaping spatial and age patterns of health inequality. *Immigrant and Immigration Policy: Changes and Effects.*

Boen, C.*, **Graetz, N.**, et al. (2021). Early life patterns of criminal justice involvement: Inequalities by race-ethnicity, gender, and socioeconomic status. *The Collateral Consequences of Punishment.*

Graetz, N.* (2019). The direct and indirect psychosocial consequences of neighborhood disadvantage on cognitive development: A novel application of the parametric g-formula. *Neighborhood Influences on Children and Youth.*

Graetz, N.*, Elo, I. (2019). The role of changing socioeconomic conditions, healthcare, and health behaviors in U.S. county-level mortality trends, 2000-2015. *Spatial Distribution of Diseases and Deaths.*

Graetz, N., Woyczynski, L.* (2019). Local variation in educational attainment in low- and middle-income countries, 2000-2017. *Education Outcomes in Low- and Middle-Income Countries.*

Friedman, J.*, **Graetz, N.**, et al. (2018). Measuring the distribution of education: Global trends, forecasts, and inequality metrics. *Global Trends in Educational Stratification.*

Graetz, N.*, et al. (2017). Measuring the geographic distribution of maternal education in Africa. *Sustainable Development Goals and Demography.*

ASA (American Sociological Association) Annual Meeting

Graetz, N.* (2021). Cohort variation in the life course mechanisms producing Black-white wealth gaps, 1968-2017. *New Approaches to Understanding and Addressing Inequality*.

Boen, C.*, **Graetz, N.**, et al. (2021). The roles of state and local immigration policy in shaping spatial and age patterns of health inequality. *Social Processes, Aging, and Health.*

Boen, C.*, **Graetz, N.**, et al. (2021). Early life patterns of criminal justice involvement: Inequalities by race-ethnicity, gender, and socioeconomic status. *Aging and the Life Course at a Time of Multiple Crises.*

Graetz, N.*, Boen, C. (2020). Racism and causal inference: Identifying the life course determinants of racial disparities in adult cardiometabolic risk. *Expanding Diversity of Biosocial Research: Opportunities and Challenges.*

Graetz, N.*, Elo, I. (2019). The role of changing socioeconomic conditions, healthcare, and health behaviors in U.S. county-level mortality trends, 2000-2015. *Mortality and Morbidity.*

IAPHS (Interdisciplinary Association of Population Health Science) Annual Conference

Graetz, N.*, Esposito, M. (2021). Historical redlining and contemporary racial disparities in neighborhood life expectancy.

Boen, C.*, **Graetz, N.**, Venkataramani, A., Peele, M., Ortiz, R. (2020). The roles of state and local immigration policy in shaping population patterns of health inequality.

PHS (Population Health Sciences) Annual Workshop

Graetz, N.* (2019). Identifying early-life leverage points for change: A longitudinal decomposition of Black-White adult health disparities using the parametric g-formula.

INVITED PRESENTATIONS

"Comments on Entwisle (2007): Putting people into place." Population Association of America webinar. *PAA Presidential Address Topics: Where Are They Now?* December 8, 2020.

REPORTS AND POLICY BRIEFS

Johanna Bozuwa, Thea Riofrancos, Sarah Knuth, Patrick Robbins, Suzy Baker, A.L. McCullough, Kira McDonald, Chelsea Mackin, Daniel Aldana Cohen, Billy Fleming, **Nick Graetz**, and Neilay Shah (2021). A New Era of Public Power: A vision for New York Power Authority in pursuit of climate justice. *climate + community project.*

Daniel Aldana Cohen, Rachel Mulbry, A.L. McCullough, Kira McDonald, **Nick Graetz**, Billy Fleming (2021). A Green New Deal for public housing to deliver racial, economic, and climate justice. *climate + community project.*

Suzy Baker, Johanna Bozuwa, Daniel Aldana Cohen, **Nick Graetz**, Sarah Knuth, Chelsea Mackin, A.L. McCullough, Thea Riofrancos, Patrick Robbins, Neilay Shah (2021). A new era of public power: A vision for New York Power Authority (NYPA) in pursuit of climate justice. *climate + community project (prepared for the New York Power Authority).*

Akira Drake Rodriguez, Daniel Aldana Cohen, Kira McDonald, **Nick Graetz**, Erika Kitzmiller, Billy Fleming (2021). Green Stimulus for K-12 Schools. *climate + community project (prepared for the Office of Jamaal Bowman).*

Daniel Aldana Cohen, J. Mijin Cha, **Nick Graetz**, and Raka Sen (2021). Securing Climate Justice Investments in New York's Climate Leadership and Community Protection Act. *Socio-Spatial Climate Collaborative (prepared for the New York State Energy Research and Development Authority).*

Nick Graetz (2020). COVID-19 in Philadelphia. *Socio-Spatial Climate Collaborative (prepared for the Office of Nikil Saval).*

Steven Highside, Billy Fleming, Hayley Richardson, Emily Mangan, Scott Goldstein, Ben Fried, Ashley Pryce, Natalee Rivera, Daniel Aldana Cohen, Xan Lillehei, Katie Lample, **Nick Graetz**, Julian Brave NoiseCat (2020). A Green New Deal for City and Suburban Transportation. *Data for Progress.*

Billy Fleming, Daniel Aldana Cohen, **Nick Graetz**, Katie Lample, Alexandra Lillehei, Kira McDonald, Julian Brave NoiseCat, Mark Paul (2019). Public Housing at Risk: Adaptation through a Green New Deal. *Data for Progress.*

Daniel Aldana Cohen, Billy Fleming, Kira McDonald, Julian Brave NoiseCat, **Nick Graetz**, Katie Lample, Alexandra Lillehei, Mark Paul, Anunya Bahanda (2019). A Green New Deal for American Public Housing Communities. *Data for Progress.*

Daniel Aldana Cohen, Billy Fleming, Kira McDonald, **Nick Graetz**, Mark Paul, Alexandra Lillehei, Katie Lample, Julian Brave NoiseCat (2019). A Green New Deal for New York City Housing Authority (NYCHA) Communities. *Data for Progress.*

RESEARCH SUPPORT

NICHD Training Grant T32 HD-007242-36A1. Graduate Student, Sept 2017 to July 2021.

National Institute on Aging R01 AG060115. *Causes of Geographic Divergence in American Mortality Between 1990 and 2015: Health Behaviors, Health Care Access, and Migration.* Irma Elo (PI). Research Assistant, Sept 2017 to July 2021.

Penn Institute on Aging Pilot Awards P30 020-0225-4-672038. *Psychosocial Stress Exposure, Biological Functioning, and Cognitive Change across the Life Course*. Irma Elo (Co-PI), Courtney Boen (Co-PI). Research Assistant, Sept 2018 to July 2021.

PROFESSIONAL POSITIONS

2021-Present	Research Affiliate, *Penn Population Studies Center,* Philadelphia, PA.
2020-Present	Member, *climate + community project*, Philadelphia, PA.
2019-Present	Junior Research Fellow*, Data for Progress*, New York City, NY.
2018-Present	Co-Principal Investigator, *Whole Community Climate Mapping*, Philadelphia, PA.
2018-2020	Technical Consultant, *Council on Foreign Relations*. Washington, D.C.
2016-2019	Researcher, *Institute for Health Metrics and Evaluation,* Seattle, WA.
2015-2015	Visiting Research Fellow, *University of Zambia*, Lusaka, Zambia.
2013-2016	Post-Bachelor Fellow, *Institute for Health Metrics and Evaluation.* Seattle, WA.

TEACHING

Courses

Panel Data Analysis. Fall 2020 (Teaching Assistant). Graduate course in sociology covering statistical principles and methods in R for longitudinal data analysis, including random- and fixed-effects models, multilevel models, difference-in-difference models, covariance pattern models, survival analysis, and event history analysis.

Workshops

Introduction to G-Methods for Observational Causal Inference. Feb 2020. Two-part workshop given at the Penn Population Studies Center focused on methods for counterfactual causal inference in the presence of time-varying confounding (marginal structural models, parametric g-formula).

Introduction to R. June 2019. Two-part workshop given at the Penn Population Studies Center focused on basics of the R programming language: data management (manipulation, cleaning), control flow, functions, generalized linear models, and visualization.

Data visualization in R. 2015-2017. Ongoing workshop for data analysts, researchers, and post-docs at the Institute for Health Metrics and Evaluation focused on *ggplot*, *leaflet*, and interactive applications in R-Shiny.

Spatial statistics in R. 2015-2017. Ongoing workshop for data analysts, researchers, and post-docs at the Institute for Health Metrics and Evaluation focused on residual analysis, spatial autocorrelation and space-time modelling using R-INLA.

Introduction to R. 2015-2017. Ongoing workshop for new data analysts, researchers, and post-docs at the Institute for Health Metrics and Evaluation focused on basics of the R programming language: data management (manipulation, cleaning), control flow, functions, generalized linear models, and visualization.

PROFESSIONAL SERVICE AND MEMBERSHIP

Reviewer

American Sociological Review, Social Science & Medicine: Population Health, BioMed Central: Public Health, Research on Social Stratification and Mobility, Humanities and Social Sciences Communications, Journal of Racial and Ethnic Health Disparities

Member

Population Association of America, 2016-Present.

American Sociological Association, 2018-Present.

Interdisciplinary Association of Population Health Science, 2020-Present.

Special Sworn Status, US Census Bureau, 2019-Present.

TRAC Fellow, 2020-Present.

AWARDS AND FELLOWSHIPS

Institute for Health Metrics and Evaluation (IHME) Post-Bachelor Fellowship, 2013-2016.

University of Wisconsin – Madison Summer Internship Scholarship, 2012.

OTHER PEER-REVIEWED PUBLICATIONS

Friedman, J. et al. (2019). Structural vulnerability to narcotics-driven firearm violence: An ethnographic and epidemiological study of Philadelphia's Puerto Rican inner-city. *PLoS ONE* 14(11).

Burstein, R. et al. (2019). Mapping 123 million neonatal, infant and child deaths between 2000 and 2017. *Nature* 574: 353-358.

Reiner, R., et al. (2019). Identifying residual hotspots and mapping lower respiratory infection morbidity and mortality in Africa children from 2000 to 2017. *Nature Microbiology* 4: 2310-2318.

Mosser, J., Gagne-Maynard, W., Rao, P., Osgood-Zimmerman, A., Fullman, N., **Graetz, N.**, et al. (2019). Mapping diphtheria-pertussis-tetanus vaccine coverage in Africa, 2000-2017: A spatial and temporal modelling study. *The Lancet* 393: 1843-1855.

Osgood-Zimmerman, A., Millear, R., Stubbs, R., Shields, C., Pickering, B., Earl, L., **Graetz, N.**, et al. (2018). Mapping child growth failure in Africa between 2000 and 2015. *Nature* 555: 41-47.

Golding, N., Burstein, R. et al. (2017). Mapping under-5 and neonatal mortality in Africa, 2000–15: A baseline analysis for the Sustainable Development Goals. *The Lancet* 390: 2171-2182.

Gakidou, E. et al. (2017). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016. *The Lancet* 390: 1345-1422.

Hay, S.I., et al. (2017). Global, regional, and national disability-adjusted life-years (DALYs) for 333 diseases and injuries and health life expectancy (HALE) for 195 countries and territories, 1990-2016: A systematic analysis for the Global Burden of Disease Study 2016. *The Lancet* 390: 1260-1344.

Wang, H., et al. (2017). Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970–2016: A systematic analysis for the Global Burden of Disease Study 2016. *The Lancet* 390, 1084-1150.

Barber, R., et al. (2017). Healthcare access and quality index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990-2015: A novel analysis from the Global Burden of Disease Study 2015. *The Lancet* 390, 231-266.

Vos, T. et al. (2016). Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990-2015: A systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* 388: 1545-1602.

Kassebaum, N. et al. (2016). Global, regional, and national levels of maternal mortality, 1990-2015: A systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* 388: 1775-1812.

Kassebaum, N. et al. (2016). Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and health life expectancy (HALE), 1990-2015: A systematic analysis for the Global Burden of Disease Study 2015. *The Lancet* 388: 1603-1658.

Lim, S. et al. (2016). Measuring the health-related Sustainable Development Goals in 188 countries: A baseline analysis from the Global Burden of Disease Study 2015. *The Lancet* 388: 1813-1850.

Morris, J., et al. (2016). Health metrics priorities in the SDG era and beyond: A perspective from young researchers. *The Lancet* 388: 2353-2354.

Murray, C., Ortblad, K., Guinovart, C., Lim, S., Wolock, T., Roberts, A., Dansereau, E., **Graetz, N.**, et al. (2014). Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 384: 1005-1070.

Ng, M., Fleming, T., Robinson, M., Thomson, B., **Graetz, N.**, et al. (2014). Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 384: 766-781.

Naghavi, M. et al. (2015). Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 385: 117-171.

Vos, T. et al. (2015). Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet* 386: 743-800.

Murray, C. et al. (2015). Global, regional, and national disability-adjusted life years (DALYs) for 306 diseases and injuries and healthy life expectancy (HALE) for 188 countries, 1990-2013: Quantifying the epidemiological transition. *The Lancet* 386: 2145-2191.

Hmwe, K. et al. (2016). Global and national burden of diseases and injuries among children and adolescents between 1990-2013: Findings from the Global Burden of Disease 2013 Study. *JAMA Pediatrics* 170: 267-287.

Forscher, P.S., Cox, W.T., **Graetz, N.**, Devine, P.G. (2015). The motivation to express prejudice. *Journal of Personality and Social Psychology*. 109: 791-812.