

SUSAN T. PARKER, PhD MPP

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CURRENT POSITION

2024-present Research Assistant Professor, Department of Emergency Medicine, Feinberg School of Medicine, Northwestern University

2024-present Member, Buehler Center for Health Policy and Economics, Northwestern University

EDUCATION

2023 Ph.D., Health Policy, University of Michigan, Ann Arbor, MI

2017 MS, Analytics (Applied Data Science), University of Chicago, Chicago, IL

2011 MPP, Public Policy, University of Chicago, Chicago, IL

2009 BA, International Relations, Michigan State University, East Lansing, MI

PREVIOUS EMPLOYMENT

2023-24 Postdoctoral Research Fellow, Community to Community (C2C) Public Policy Initiative, School of Public Policy and Urban Affairs & Bouvé College of Health Sciences, Northeastern University

2016-18 Senior Data Scientist, CivicScape, Chicago, IL

2015-16 Data Scientist, Midwest Physician Administrative Services, Downers Grove, IL

2013-15 Research Manager, University of Chicago Crime Lab, Chicago, IL

2011-13 Budget Analyst, Obama for America, Chicago, IL

PUBLICATIONS: Peer-Reviewed

2024 Parker, Susan T. "The Association Between Concealed Handgun License Laws and Concealed Handgun License Adoption, 2002-2019." *American Journal of Preventive Medicine*. <https://doi.org/10.1016/j.amepre.2024.07.009>

2024 Gilbert, Lauren, Parker, Susan T., Schechter, Lauren. "The Effects of Lockdown Orders on Domestic Violence: Evidence from Medical Records." *Review of Economics of the Household*. <https://doi.org/10.1007/s11150-024-09696-8>

2022 Barber, Catherine., Cook, Philip. J., & Parker, Susan T. The emerging infrastructure of US firearms injury data. *Preventive Medicine*. <https://doi.org/10.1016/j.ypmed.2022.107129>

2022 Parker, Susan T. Measuring gun violence in police data sources: transitioning to NIBRS. *Injury Epidemiology*, 9(1). <https://doi.org/10.1186/s40621-022-00376-8>

- 2020 Parker, Susan T. Estimating Nonfatal Gunshot Injury Locations With Natural Language Processing and Machine Learning Models. *JAMA Network Open*, 3(10). <https://doi.org/10.1001/jamanetworkopen.2020.20664>
- 2017 Collins, Megan, Parker, Susan T., Scott, Thomas. L., Wellford Charles. F. A Comparative Analysis of Crime Guns: Implications for Reducing Violence. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 3(5). <https://doi.org/10.7758/rsf.2017.3.5.05>
- 2015 Cook, Philip J., Parker, Susan T., Pollack, Harold. A. Sources of guns to dangerous people: what we learn by asking them. *Preventive Medicine*, 79. <https://doi.org/10.1016/j.ypmed.2015.04.021>

PUBLICATIONS: Not Peer Reviewed

- 2024 Azrael, Deborah., Parker, Susan T. “Trends in Stolen Firearms from 2018 to 2022: Leveraging Data for Informed Crime Policy.” Council on Criminal Justice. *Submitted*.
- 2024 Barber, Catherine., Cook, Philip J., Parker, Susan T. “Nonfatal Firearm Injury Surveillance: An Update.” *Submitted*.
- 2022 Cook, P. J., Parker, Susan T. Correcting Misinformation on Firearm Injury Intent. *JAMA Network Open*. 5(12). <https://doi:10.1001/jamanetworkopen.2022.46434>
- 2022 Cook, P. J., Parker, Susan T. Reducing Youth Firearm Carrying: Focus on the Parents. *JAMA Network Open*. 5(4). <https://doi.org/10.1001/jamanetworkopen.2022.5136>
- 2021 Parker, Susan T. “Measuring Gun Violence Using Police Data.” in Roman, John K and Philip J. Cook, eds. *Improving Data Infrastructure to Reduce Firearms Violence*. Chicago, IL: NORC at the University of Chicago, 2021.

Working Papers

- Gangaram, Anjelica., Parker, Susan T., “The Effects of School Shootings on Firearm Behaviors.”
- Parker, Susan T. “The Effects of Permitless Carry Laws on Crime and Victimization.”
- Parker, Susan T., Ross, Matthew B., Ross, Steven L. “The Impact of Prohibiting Pretextual Enforcement on Traffic Stops, Accidents, and Crime.”
- Parker, Susan T., Azrael, Deborah., Miller, Matthew. “Applying Natural Language Processing (NLP) to Classify Rare Homicide Outcomes in the National Violent Death Reporting System (NVDRS).”
- Parker, Susan T., Azrael, Deborah., Fischer, Sam., Miller, Matthew. “Identifying Suicides that Occur in the Presence of Police Using Natural Language Processing (NLP).”

In Progress

- Ross, Matthew .B., Ross, Steven L., Parker, Susan T. “Testing for Discrimination in Police Traffic Stops using Telemetric Mobility Data.”
- Parker, Susan T., Schechter, Lauren. “Family Violence Effects of Social Safety Net Incentives for Child Support Cooperation.”
- Parker, Susan T., Magee, Lauren. “Do Permitless Carry Laws Decrease Racial Disparities in Policing Gun Violence?”

AWARDS AND FELLOWSHIPS

2024	National Violent Death Reporting System (NVDRS) New Investigator Award (\$7,000)
2022	Rackham Graduate Student Conference Travel Grant (\$900)
2022	Martha and Ernest Hammel Graduate Student Research Award - joint with Anjelica Gangaram (\$3,100)
2021	Microsoft Computational Justice Award (\$20,000 computing credit)
2020	Walter J. McNerney Award - COVID-19 Rapid Small Grant Award (\$10,000)
2019	Rackham Pre-Doctoral Research Award (\$1,500)
2019	Firearm Safety Among Children and Teens (FACTS) Student Poster Award
2015	Capstone thesis award, University of Chicago Analytics Program
2009	Phi Beta Kappa
2005-09	Skandalaris Family Foundation Scholarship

SPONSORED RESEARCH

PIs: Matthew Miller (Northeastern), Deb Azrael (Harvard), Susan Parker (Northeastern)
Title: Reducing Barriers to Developing and Applying Accurate and Fair Natural Language Processing (NLP) Methods to the National Violent Death Reporting System (\$175,000)
Source: Centers for Disease Control (CDC) / American Public Health Association (APHA) Data Science Demonstration Project Grant
Dates: 04/01/2023-04/01/2024

Role: Data Science Consultant

PIs: Deb Azrael (Harvard), Matthew Miller (Northeastern)
Title: Identifying and Understanding Suicides that Take Place During Encounters with Police (SPEs)
Source: American Foundation for Suicide Prevention
Dates: 01/01/2022-01/01/2024

PIs: Anjelica Gangaram (Doctoral Candidate - Michigan), Susan Parker
Title: The Effect of School Shootings on Firearm Behaviors (\$17,000)
Source: University of Michigan School of Public Health / Public Health IDEAS for Preventing Firearm Injuries Initiative
Dates: 06/01/2022-01/31/2023

PIs: Lauren Gilbert (Doctoral Candidate - UCSD), Susan Parker, Lauren Schechter (Doctoral Candidate - UC-Boulder)
Title: The Effect of Pandemic Shutdown Orders on Domestic Violence (\$33,000)
Source: Gates Foundation - Covid 19 Research Database Research Accelerator Program
Dates: 08/01/2021-08/01/2022

Role: Project Director, Grant Author

PIs: Edward Norton (Michigan), Julia Wolfson (Michigan)
Title: The Effect of Concealed Carry Laws on Firearm Injury
Source: National Gun Collaborative for Gun Violence Research (NCGVR) (\$235,000)
Dates: 07/15/2019-12/31/2021

CONFERENCES AND SEMINARS

- 2024 “Applying Natural Language Processing (NLP) to Classify Rare Homicide Outcomes in the National Violent Death Reporting System (NVDRS).” APHA / CDC Data Science Demonstration Project Conference. August.
- ‘The Effects of School Shootings on Firearm Behaviors.’ ASHEcon. June.
- ‘Do Permitless Carry Laws Reduce Disparities in Gun violence?’ ASHEcon. June.
- ‘Nonfatal Shooting Firearm Data Infrastructure: An Update.’ National Institute for Statistical Science (NISS). The 2nd IOF Workshop on Gun Violence: A Statistical Approach. May. Online.
- ‘The Effects of Permitless Carry Policy on Crime and Victimization.’ Johns Hopkins Bloomberg School of Public Health. April.
- ‘The Effects of Permitless Carry Policy on Crime and Victimization.’ National Bureau of Economic Research (NBER) Conference on the Economics of Firearm Markets, Crime, and Gun Violence. March.
- 2023 ‘The Effects of Permitless Carry Policy on Crime and Victimization.’ Association for Public Policy and Management. November.
- ‘Firearm Data Infrastructure: Updates and Challenges for Police Data Sources.’ National Research Conference for the Prevention of Firearm-Related Harms. November.
- ‘The Effects of Permitless Carry Policy on Gun Violence.’ National Research Conference for the Prevention of Firearm-Related Harms. November.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ American Society of Health Economists (ASHEcon). June.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ University of Massachusetts Boston Department of Urban Public Health. February.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ University of Iowa School of Public Health (Online). February.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ Georgia Tech School of Public Policy. January.
- 2022 ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ State University of New York (SUNY)-Albany School of Criminal Justice. December.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ National Firearm Injury Conference. November.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ Rutgers-Camden Department of Health Sciences (Online). November.
- ‘The Effects of Permitless Carry Policy on Violent Crime and Victimization.’ American Public Health Association (APHA) Conference. November.
- 2021 ‘The Effect of Lockdown Orders on Domestic Violence.’ FACTS Symposium (Online). October.
- ‘Measuring Gun Violence Using Police Data.’ FACTS Symposium (Online). October.

'Improving Data Infrastructure to Reduce Firearms Violence.' Webinar hosted by: NORC at the University of Chicago, the Data Foundation, Arnold Ventures and the National Prevention Science Coalition (NPSC). October.

'The Effect of Lockdown Orders on Domestic Violence.' Law Enforcement and Public Health Conference (Online). March.

2020 'The Effect of Concealed Carry Weapons Laws on Stolen Guns.' American Society of Criminology Conference. *Canceled due to COVID-19*.

'Estimating Non-fatal Shootings Using Hospital Data. FACTS Annual Symposium. September.

2019 'Estimating Shooting Locations Using Natural Language Processing.' FACTS Annual Symposium. Ann Arbor. September.

2016 'Predicting Demand in the Chicago Housing Market.' University of Chicago Convening on Urban Data Science. April.

'How Hot is the Chicago Housing Market? Demand Prediction from Home Showings Microevents.' Chicago Association of Chicago Chapter of the American Statistical Association (CCASA) Student Showcase Presentation. March.

2015 'Police Strategies for Reducing Gun Violence.' American Society of Criminology Conference. November.

'Police Enforcement Against Gun Violence.' International Association of Chiefs of Police Conference. October.

'Predicting Housing Demand in the Chicago Real Estate Market.' University of Chicago Research Computing Center Poster Presentation. October.

'Sources of Crime Guns to Dangerous Individuals: Chicago Jail Survey.' Law and Society Association Conference. May.

'What We Don't Know Can Kill Us: Gun Violence Research Methods.' American Public Health Association Conference. November.

TEACHING

Working Professional 1-2-Day Courses

Instructor - Introduction to SQL, Advanced SQL, Introduction to Python, Introduction to Machine Learning, 2016-2018

Graduate Student Courses

Graduate Teaching Assistant - Health Economics II, Fall 2019

Graduate Teaching Assistant - Health Economics I, Winter 2020

Graduate Teaching Assistant - Data Driven Methods for Public Health, Winter 2021

Graduate Teaching Assistant - Quantitative Methods for Social Science, Spring 2021

SERVICE

Journal reviewer: American Journal of Epidemiology, American Journal of Preventive Medicine, The Lancet - Child and Adolescent Health, JAMA Network-Open, Journal of Experimental Criminology, Journal of Crime and Justice, Journal of Medical Informatics Research, Preventive Medicine

Internal Committee Member: University of Michigan Health Services Organization and Policy (HSOP) Admissions and Doctoral Committee (2022)

External Membership: Firearm Data Infrastructure Working Group, American Society of Health Economists (ASHEcon), Association for Public Policy Analysis and Management (APPAM)

SKILLS

AWS, R, Python, SQL (PostgreSQL, PostGIS, Snowflake, Trino), STATA, Unix