

Bryan S. Weber, PhD

Curriculum Vitae

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Education

- 2011–2015 **Ph D, Economics**, University of Wisconsin, Milwaukee, WI.
- 2009–2011 **MA, Economics**, UW-Milwaukee, Milwaukee, WI.
- 2005–2009 **BA, Economics, Honors, Cum Laude**, UW-Milwaukee, Milwaukee, WI.
- 2005–2009 **BA, Philosophy, Honors, Cum Laude**, UW-Milwaukee, Milwaukee, WI.

Academic Honors

- 2010 **Fellowship**, Summer School in International Economics, Justus-Liebig University.
- 2009 **Best New Tutor**, Tutoring and Academic Resource Center, UW-Milwaukee.
- 2005–2009 **Magnatek Scholarship for Academic Merit**, Magnatek, UW-Milwaukee.

Experience

Academic

- 2016–Present **Assistant Professor**, College of Staten Island – City University of New York (CSI-CUNY), Department of Economics.
- 2015–2016 **Visiting Assistant Professor**, College of William & Mary, Department of Economics.
- 2012–2015 **Instructor**, UW-Milwaukee, Department of Economics.
- 2011–2012 **Teaching Assistant**, UW-Milwaukee, Department of Economics.

Non-Academic

- 2021 **Consultant**, ranging from legal cost estimation to game industry matchmaking.
- 2015–2018 **Supporting Researcher**, National Consortium for the Study of Terrorism and Responses to Terrorism (START), Maryland.
- 2013–2014 **Research Assistant**, Institute for Survey & Policy Research, Milwaukee.

Peer-Reviewed Publications

Published

- 2022 Paolo Cappellari and Bryan S. Weber. Instrumental variables approach and causal effects: Traffic volume and vehicle collisions under COVID-19. *Journal of Safety Research*, 83, June 2022. (Forthcoming).

Implemented causal inference techniques combined with GIS data to estimate the association between traffic volume and collisions. R, ggPlot, Stata, QGIS, SQL, HPC.

Toan Luu Duc Huynh and Bryan S. Weber. COVID-19 challenges and firm responses: Analysis of a city-wide census in a developing country. *Managerial and Decision Economics*, January 2022.

Used Vietnamese census data to examine firm responses to COVID-19 while modeling firm tendency to over-report damages. R, ggPlot, Stata.

- 2021 Anders H. Christiansen, Emil Gensby, and Bryan S. Weber. Deployment of causal effect estimation in live games of Dota 2. *Institute of Electrical and Electronics Engineers (IEEE) Transactions on Games (TOG)*, December 2021.
- Built an in-game application and experimented with live users to determine they preferred a particular type of unbiased forecast. Note that industry standard techniques are heavily biased. R, ggPlot.*
- Lam Hoang Viet Le, Toan Luu Duc Huynh, Bryan S. Weber, and Bao Khac Quoc Nguyen. Different firm responses to the COVID-19 pandemic shocks: machine-learning evidence on the Vietnamese labor market. *International Journal of Emerging Markets*, July 2021.
- Studied Vietnamese firms during COVID-19 using random forest, XGBoost, and other methods. Python, NumPy, Pandas.*
- 2020 Hamid Mohtadi and Bryan S. Weber. Catastrophe and rational policy: Case of national security. *Economic Inquiry*, 59:140–161, June 2020.
- Inspected the heavy tails of terrorist attack casualties using time-series cross-validation, and estimated the efficacy of government defense policies. R, ggPlot, Matlab.*
- 2019 Kristin Mammen, Hyoungh Suk Shim, and Bryan S. Weber. Vision Zero and traffic injury prevention in New York City. *Eastern Economic Journal*, 46:282–300, December 2019.
- Examined the causal consequences of government policy for safety across the NYC area using difference-in-differences. Stata, QGIS.*
- Bryan S. Weber. Uber and urban crime. *Transportation Research Part A: Policy and Practice*, 130:496–506, December 2019.
- Investigated the causal consequences of Uber entry for city safety using a merger of multiple nationwide data sets. R, ggPlot, SQL.*
- Hamid Mohtadi and Bryan S. Weber. Terrorism risk and optimal policy response: theory and empirics. *Indian Growth and Development Review*, 13(2):449–468, October 2019.
- Examined heavy tails of terrorist attacks and explored government response among various counterfactual conditions. R, ggPlot, Matlab.*
- Anders H. Christiansen, Emil Gensby, and Bryan S. Weber. Resolving simultaneity bias: Using features to estimate causal effects in competitive games. *Institute of Electrical and Electronics Engineers (IEEE) Conference on Games (COG)*, pages 1037–1044, 2019.
- Reviewed the causal consequences of player input on probability of winning competitive games using web-scraped data, control function approaches, and instrumental variables. R, ggPlot, Python, NumPy, Pandas.*
- John S. Heywood and Bryan S. Weber. University-provided transit and crime in an urban neighborhood. *The Annals of Regional Science*, 62:467–495, June 2019.
- Studied the interaction between bus and destination-to-destination ride programs in an urban campus. Stata, ArcGIS.*
- 2018 Bryan S. Weber. Standard economic models in nonstandard settings—StarCraft: Brood War. In *IEEE Conference on Computational Intelligence and Games (CIG)*, pages 417–424. IEEE, August 2018.

*Programmed an AI to play a competitive game using economic modeling for more adaptive performance. **R, ggPlot, C++, Git.***

- 2014 Bryan S. Weber. Can safe ride programs reduce urban crime? *Regional Science and Urban Economics*, 48:1–11, September 2014.

*Explored the introduction of a safe-ride program into an urban university and estimated the cost savings in terms of crime prevention relative to police. **R, ggPlot, Stata, ArcGIS, HPC.***

Revise & Resubmit

- 2021 Bryan S. Weber and Paolo Cappellari. Troubled waters: Ferry transit and urban crime. *Urban Affairs Review*, November 2021. (Revise and Resubmit).

*Used Causal Random Forests along with spatial modeling techniques to evaluate the impact of ferry introduction. **R, ggPlot, QGIS, SQL, HPC.***

In Progress

- 2022 Toan Luu Duc Huynh, Tam Nguyen Luong, and Bryan S. Weber. Time inconsistent preferences and the New Years effect. *Economic Letters*, October 2022. (Intended).

*Performed a controlled experiment to determine whether individuals alter preferences at New Year, in order to document the alleged “New Years Effect”. **Stata.***

Adam Amos-Binks and Bryan S. Weber. Risk management: Reacting, anticipating and the relationship to winning in StarCraft. *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*, June 2022. (Intended).

*Used causal machine learning to evaluate the black-box of AI responses to determine their if they respond to particular stimuli. **Python, NumPy, Pandas, HPC, C++.***

Paolo Cappellari, Ali Moghtaderi, and Bryan S. Weber. Unintended effects of tax hikes: from ridership to congestion and crime. *Transportation Research Part A: Policy and Practice*, June 2022. (Intended).

*Examined impact of congestion taxes in NYC on rideshare services and the consequences for inter-service competition. **R, ggPlot, QGIS, Stata.***

- 2021 Sourav Batabyal and Bryan S. Weber. House prices and global health crises. June 2021. (Last Presented).

*Studied differential impacts of COVID-19 public policies on housing prices based on region and political affiliation **Stata, GIS.***

Sourav Batabyal and Bryan S. Weber. Built environment, contagious disease, and contiguous neighborhoods. August 2021. (Last Revised).

*Explored the impact of the built environment on COVID-19 transmission in an urban city case study. **Stata.***

- 2019 Bryan S. Weber. Sequential entry and spatial price discrimination. *Southern Economic Journal*, January 2019. (Last Submitted).

*Simulated firm entry into a well-known spatial competitive market using a genetic algorithm. **R, ggPlot, HPC.***

Selected Grants Awarded or Participated In

Peer-Reviewed

- 2022 Bryan S. Weber. (Principal) “Savings And Investment Preparation Under Black Swan Events,” Research Foundation-CUNY, \$3,500.
Jonathan Peters and Bryan S. Weber. (Principal) “Utilizing Web-Scraped Spatial Hospitality Data for Research and Teaching: Examining Detailed AirBnB Data for Economic and Business Policy Issues,” Teaching Innovation Initiative, Lucille and Jay Chazanoff School of Business, \$4,500.
- 2020 Bryan S. Weber. (Principal), “STATA for Students,” Department of Economics, CSI - CUNY, \$3,145.
- 2017 – 2018 Bryan S. Weber. (Principal, one of 6), “Proposal for Implementing OER at the College of Staten Island – CUNY,” Sponsored by CUNY: Office of Academic Affairs, CSI - CUNY, \$126,325.
- 2015 – 2018 Bryan S. Weber. (Non-PI, Supporting Personnel), “ARI-MA: Dissuading Adversaries and their RN Pathways: Integrating Deterrence Theory and Analytics in the GNDA,” Sponsored by National Science Foundation and Department of Homeland Security (DHS), \$351,839.
- 2018 Bryan S. Weber. (Non-PI, Supporting Personnel), “Deterrence, International Criminal History, Soft Targets and Horizon Scanning for Threats to Aviation,” Sponsored by Transport Security Administration. \$376,981.
Bryan S. Weber. (Principal), “CSI Provost Travel Grant,” Sponsored by Provost’s Office, CSI - CUNY, \$500.
- 2016 Bryan S. Weber. (Principal), “OER Pilot Project,” Sponsored by College of William & Mary, \$2,000.

Selected Presentations

Academic

- 2021 Bryan S. Weber. Heavy tails and analytic challenges. North Carolina State University – Laboratory for Analytic Sciences: Wednesday Research Meetings, August 2021.
Presented practical analytical implications and challenges for analysts when examining heavy tail events.
- Bryan S. Weber and Sourav Batabyal. House prices and global health crisis. Western Economics Association International, June 2021. Remote.
- 2019 Bryan S. Weber. Columbus safe rides convening. December 2019. Columbus, OH.
Invited to discuss and analyze a recently-implemented experimental safe ride program, the first experimentally implemented program of its kind, sponsored by AB InBev.
- Bryan S. Weber, K. Mammen, and H. S. Shim. Vision Zero and traffic injury prevention in New York City. Eastern Economics Association: Urban Economics, February 2019. New York, NY.
- Bryan S. Weber, A. Mohamed, and J. J. Jackson. Learning to program with CUNYBot. CUNY Games Conference, January 2019. New York, NY.

- Bryan S. Weber, K. Mammen, and H. S. Shim. Vision Zero and traffic injury prevention in New York City. American Economics Association: Transportation and Public Utilities Group (TPUG), January 2019. Atlanta, GA.
- 2018 Bryan S. Weber. Standard economic models in nonstandard settings–StarCraft: Brood War. IEEE:CIG Poster Session, August 2018. Maastrich, Netherlands.
- Bryan S. Weber. Uber and urban crime. Rutgers Economics Department Seminar, March 2018. Rutgers - Newark, Newark, NJ.
- Bryan S. Weber. Sequential entry and spatial price discrimination. CSI School of Business Seminar, February 2018. Staten Island, NY.
- Bryan S. Weber. Uber and urban crime. American Economics Association: Transportation and Public Utilities Group, January 2018. Philadelphia, PA.
- 2017 Bryan S. Weber. Uber and urban crime. Eastern Economics Association: Transportation: Costs, Pricing, and Innovations Session, March 2017. New York, NY.
- Bryan S. Weber. Using machine learning to assess the costs of terrorist attacks. National Consortium for the Study of Terrorism and Responses to Terrorism (START), January 2017. College Park, MD.
- 2016 Bryan S. Weber. Uber and urban crime. CSI Lucille and Jay Chazanoff School of Business Seminar, October 2016. Staten Island, NY.
- 2015 Bryan S. Weber. Modeling adversary decisions and strategic response. Academic Research Initiative: DHS, Domestic Nuclear Detection Office, July 2015. Leesburg, VA.
- 2014 Bryan S. Weber. Can safe ride programs reduce urban crime? Annual Potsdam Conference in Emperical Economics, March 2014. University of Potsdam, Germany.
- 2013 Bryan S. Weber. Can safe ride programs reduce urban crime? UW-Milwaukee Labor Economics Seminar, October 2013. Milwaukee, WI.

Outreach

- 2019 Bryan S. Weber. CUNYBot for education and entertainment. Bronx High School of Science Seminar, May 2019.
- Bryan S. Weber. CUNYBot and gaming in economics. National Science Foundation – New York City Louis Stokes Alliance for Minority Participation, April 2019. Staten Island, NY.

Editing & Reviewing

2022–Present	Associate Editor	<i>Evaluation Review</i>
2021–Present	Associate Editor	<i>Journal of Asian Business and Economic Studies</i>
	Reviewer, Grants	<i>PSC-CUNY Research Award Program</i>
	Reviewer	<i>Evaluation Review</i>
2020	Reviewer	<i>Journal of Urban Economics</i>
2018	Reviewer	<i>Journal Of Economic Behavior & Organization</i>
	Reviewer	<i>IEEE Transactions on Games</i>
2014	Reviewer	<i>Regional Science and Urban Economics</i>

Courses Taught

- 2019–Present Graduate Center-CUNY *Seminar in Big Data: Current Topics (1x), Independent Study (In Computer Science, 2x).*
- 2016–Present CSI-CUNY *Business Data (1x), Urban Economics (2x), Introductory Econometrics (10x), Behavioral Economics (3x), Economic & Managerial Statistics (2x), Introductory Microeconomics (4x), Introductory Macroeconomics (1x).*
- 2015–2016 William & Mary *Econometrics (1x), Industrial Organization (1x), Introductory Microeconomics (2x).*
- 2012–2015 UW-Milwaukee *Introductory Microeconomics (Independently 1x, As TA 2x), Introductory Macroeconomics (As TA 1x).*

New Courses & Curricula Developed

- 2020 Urban Economics. Revised and taught course for the first time in 20 years.
- 2018 Introduction to Economic and Managerial Statistics with Open Educational Resources (OER). Zero Cost.
Introductory Macroeconomics with OER. Zero Cost.
Introductory Microeconomics with OER. Zero Cost.
- 2016 Introductory Microeconomics at The College of William and Mary with OER.

Student Mentoring

- 2019-2020 Kiwook Kwon, Independent Study, Masters Student (with Dr. Feng Gu). “Using Machine Learning and the Cobb-Douglass Model in CUNYBot.”
- 2018 John J. Jackson, Independent Study. “Modifications on CUNYBot: DolphinBot.”
Ali Mohamed, Independent Study. “Modifications on CUNYBot: DolphinBot.”
Jaclyn LaLima, Undergraduate Honors Thesis. “The Effects of Raising the Minimum Wage.”
Maaz Syed, Tatiana Anderson, Undergraduate Honors Thesis. “Predictive Policing.”
Ali Mohamed, Supervised Research. “Modifications on CUNYBot.”
- 2017 Jasmine Boone, Undergraduate Honors Thesis. “Evaluating Racial Biases in Policing and Crime Clearance.”

Service

CSI

- 2022–Present Data Analytics Working Group (DAWG).
- 2020–2021 Esports Working Group.
- 2018 Master of Ceremonies, Commencement for the Lucille and Jay Chazanoff School of Business.

Department/Program

- 2019–Present Committee Member, Academic Technology Committee.
- 2017–2021 Committee Member, Course and Standing Committee.
- 2018 Special Institutional Assignment, Annual Assessment Economics for the BA/BS Concentration.

Professional

- 2017–Present Member, Urban Economics Association.

- 2015–Present Member, Transportation and Public Utilities Group.
 - 2014–Present Member, American Economics Association.
 - 2019–2020 Member, Southern Economics Association.
 - 2017 Committee Chair, Transportation and Public Utilities Group.
- Public**
- 2015–Present Member, Economics Stack Exchange. 157k people reached, top 50 users.

Programming

Software

2017–2021 CUNYBot

Developed a competitive AI to play a complete strategy game using macroeconomic models. Uses machine learning techniques such as genetic algorithms, random forests, and Monte Carlo simulations. Opponents include AI designed by Facebook. Approximate win rate of 47%, code available at Github. C++

CUNYBot Tournaments and Educational Usage

- 2020 Used in Notre Dame’s Computer Science and Engineering 40971 as an example bot.
- 2018–2019 Institute of Electrical and Electronics Engineers (IEEE): Conference on Computational Intelligence and Games (CIG), placed 18th out of 27th.
- 2017–2019 Student Starcraft AI Tournament (SSCAIT)
- 2018 Artificial Intelligence and Interactive Digital Entertainment (AIIDE)

Languages/Proficiencies

- R (Proficient)
- GIS (Proficient)
- GGPlot (Proficient)
- Matlab (Familiar)
- SQL (certified Coursera)
- C++ (Proficient)
- Stata (Proficient)
- L^AT_EX(Proficient)
- Python (Proficient)