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# Matthew B. Ross

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## Current Employment

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2016-Present            Post-Doctoral Research Associate, Ohio State University, Mentors: Bruce Weinberg (Economics, OSU) and Julia Lane (Public Policy, NYU/Census)

## Education

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2016                      Ph.D., Economics, University of Connecticut; Storrs, CT  
2014                      M.A., Economics, University of Connecticut; Storrs, CT  
2011                      M.A., Regional Economic Development, University of Massachusetts; Lowell, MA  
2010                      B.A., Economics, University of Massachusetts; Lowell, MA

## Research Interests

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My research interests span the areas of innovation, labor dynamics, public economics, and urban economics. More specifically, I am interested in examining domestic policy issues using analytical techniques from applied microeconomics as well as tools from machine learning like text analysis and predictive modeling.

## Previous Employment

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2013-16                Visiting MBA Faculty (during Ph.D studies), Economics Department, Quinnipiac University  
2013-14                Research Assistant for Kenneth A. Couch, UConn and CT Department of Labor  
2012-16                Economist (during Ph.D studies), Research Department, CT Economic Resource Center  
2011-13                Teaching Assistant, Economics Department, University of Connecticut  
2011                      Research Assistant, Office of Tax Policy Analysis, MA Department of Revenue  
2009-11                Research Associate, Center for Industrial Competitiveness, University of Massachusetts  
2009-10                U.S. Congressional Intern, MA 5<sup>th</sup> Congressional District (Congresswoman Nikki Tsongas)

## Scholarly Publications

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### Peer Reviewed Articles:

“Routine-Biased Technical Change: Panel Evidence of Task Orientation and Wage Effects”, Forthcoming Labour Economics

“Predicting Medical Subject Headings (MeSH) Beyond Medline” with Vetle Torvik, Adam Kehoe, and Neil Smalheiser; Association for Computing Machinery (ACM) Proceedings of SWM 2017 : 1st Workshop on Scholarly Web Mining. 2017.

“Contextualization and Integrated Basic Education and Skills Training: A National Program Review” with Couch, Kenneth and Jessica Vavrek; *Journal of Labor Research*. 2017.

#### Book Chapters:

“The food safety research workforce and economic outcomes” with Akina Ikudo and Julia Lane, Ch. 6 of *Measuring the Economic Value of Research : The Case of Food Safety*; Edited by K. G. Husbands Fealing, S. R. Johnson, J. King, and J. I. Lane. Forthcoming at Cambridge University Press.

“Assessing the effects of food safety research on early career outcomes” with Stanley R. Johnson and John King, Chapter 8 of *Measuring the Economic Value of Research : The Case of Food Safety*; Edited by K. G. Husbands Fealing, S. R. Johnson, J. King, and J. I. Lane. Forthcoming at Cambridge University Press.

#### Working Papers

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“Endogenous Driving Behavior in Veil of Darkness Tests for Racial Profiling” with Jesse Kalinowski and Stephen L. Ross. (Under Review)

“The Effect of Intensive Margin Changes to Task Content on Employment Dynamics over the Business Cycle” (Under Review)

“Worker Skills and Job Displacement” with Kenneth A. Couch (Revisions in Progress)

#### Research in Progress

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##### Ongoing Papers:

“The Geography of Discrimination: An Interdepartmental Analysis of Traffic Stops using Surface Visibility” with Jesse Kalinowski and Stephen L. Ross.

“Team Age, Innovativeness, and Impact: Evidence from Big Data on Biomedical Scientists” [Working Title] with Huifeng Yu, Gerald Marschke, Joseph Staudt, Bruce A. Weinberg.

“The Relationship between Age, Productivity, and Peer Effects in Biomedical Research” [Working Title] with Bruce Weinberg, Huifeng Yu, Gerald Marschke, and Joseph Staudt,

“The Local Impact of University Innovation Clusters: New Evidence from Microdata on Federally Funded Research” [Working Title] with Akina Ikudo, Julia I. Lane, and Bruce Weinberg.

“Assessing the Efficacy of Local and DOJ Training Programs: Evidence from a Quasi-Random Experiment in Connecticut” with Jesse Kalinowski and Stephen L. Ross.

##### Ongoing Projects:

Project to examine the rise of performance pay contracts and the decline of job mobility, employment dynamics over the business cycle, and earnings losses of displaced workers with Christos Makridis and Kevin Rinz.

Using Ohio traffic stop data to examine "hot-spot" policing (e.g. persistence in the location of traffic stops) and the impact on the demographic composition of stopped motorists with Jesse Kalinowski, Trevon Logan, and Lauren Lopez.

Project and pilot program to train a machine learning algorithm using observational studies to develop counterfactuals for traffic stop with Stephen L. Ross, Jesse J. Kalinowski, and the Institute for Municipal and Regional Policy (see grant for portion of project below).

Creation of dashboard to evaluate departments and individual officers using machine-learning approaches with CT Data Collaborative, Institute for Municipal and Regional Policy, and Jesse Kalinowski (see grant below).

Multiple ongoing research projects related to the Innovation Measurement Initiative, U.S. Census Bureau

#### Invited Presentations

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2017	National Bureau of Economic Research (NBER) Summer Institute- Law & Economics, Association for Public Policy Analysis and Management (APPAM) Research Conference*, North American Regional Science Conference (NARSC)*, Society of Labor Economists (SOLE), Western Economic Association, Syracuse University*, University at Albany*
2016	Urban Economics Association, Southern Economic Association, Ohio State University, Miami University Ohio, Western Economic Association, Boston Federal Reserve Bank, Atlanta Federal Reserve Bank
2015	IZA/CEDEFOP Workshop on Skills and Skill Mismatch, Southern Economic Association
2014	University of Massachusetts Lowell, CT Data Collaborative Conference, CT Racial Profile Advisory Board, CT General Assembly: Methods for an Analysis of Policing Data (Four Part Series)
2013	CT Academy of Science and Engineering, CT General Assembly: Econometric Methods for Examining Racial Disparities in CT's State Contracting Process
2012	CT Academy of Science and Engineering, CT General Assembly: The Connecticut STEM Workforce Pipeline
2011	Census Bureau: LEHD: Benchmarking Competitiveness in STEM, Boston Foundation, National Neighborhood Indicators Partnership, Urban Institute, NE Sociological Association

\* Indicates scheduled presentations only.

#### Grants and Awards

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##### Major Research Grants and Contracts:

2018-21	Three-Year Award for Traffic Stop Evaluation and Officer Analysis. (PI for award of \$138,960- \$176,010) via Institute for Municipal and Regional Policy as part of a CT DOT and NHTSA award.
2018-21	Data System for Automated Evaluation of Traffic Stop Data using Machine Learning and Statistical Inference in Connecticut (Co-PI for award of \$186,503) via Institute for Municipal and Regional Policy as part of a CT DOT and NHTSA award.
2015-16	Traffic Stop Evaluation and Officer Analysis 2014-15 (Sub-award of \$77,000) via CT Economic Resource Center and Institute for Municipal and Regional Policy as part of a CT DOT and NHTSA award.

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- 2014-15 Development and Application of Officer Analysis 2013-14 (Sub-award of \$62,500) via CT Economic Resource Center and Institute for Municipal and Regional Policy as part of a CT DOT and NHTSA award.
- 2014-15 Development and Application of Traffic Stop Evaluation 2013-14 (Sub-award of \$60,000) via CT Economic Resource Center and Institute for Municipal and Regional Policy as part of a CT DOT and NHTSA award.
- 2012-16 Racial Disparities in State Contracting Phases 1-3 (Sub-award of \$22,400) via CT Economic Resource Center and CT Academy of Science as part of a CT General Assembly award.

#### Smaller Grants and Fellowships:

Awards and Fellowships: UConn Dissertation Award (Spring 2016), IZA/CEDEFOP Travel Award (Fall 2015), Quinnipiac CAS Research Award (Summer 2015), UConn Summer Research Fellowship (Summer 2012, 2014, 2015), UConn Third Year Paper Award (Spring 2014), National Association of Business Economists' Policy Scholarship (Spring 2013), UConn Economics Fellowship (Fall 2011), UMass Alan D. Solomon Scholarship (Spring 2011), UMass Campus Catalyst Award (Spring 2011), Honors (Spring 2011), Honors (Fall 2010), Honors (Spring 2010), Honors (Fall 2009), and Honors (Spring 2009).

#### Funded Policy Reports

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- 2016 Officer Analysis of Traffic Stop Data with Generalized Boosting and Synthetic Control, 2014- 15. Prepared for: CT General Assembly and Office of Policy & Management (via Institute for Municipal and Regional Policy, CCSU)
- 2016 Analysis of Traffic Stop Data Report, 2014- 15. Prepared for: CT General Assembly and Office of Policy & Management (via Institute for Municipal and Regional Policy, CCSU)
- 2013-16 Racial Disparities in CT's State Contracting Process (Disparity Study Phase 1, 2, & 3). Prepared for: CT General Assembly (via CT Academy of Science and Engineering)
- 2015 Officer Analysis of Traffic Stop Data with Generalized Boosting and Synthetic Control, 2013- 14. Prepared for: CT General Assembly and Office of Policy & Management (via Institute for Municipal and Regional Policy, CCSU)
- 2015 Analysis of Traffic Stop Data Report, 2013- 14. Prepared for: CT General Assembly and Office of Policy & Management (via Institute for Municipal and Regional Policy, CCSU)
- 2015 Shared Clean Energy Facilities. Prepared for: CT General Assembly (via CT Academy of Science and Engineering)
- 2014 Traffic Stop Data Report, 2013- 14. Prepared for: CT General Assembly and Office of Policy & Management (via Institute for Municipal and Regional Policy, CCSU)
- 2013 Connecticut's Economic Development Strategy. Prepared for: CT Department of Economic and Community Development
- 2012 [...] Connecticut's Skilled Workforce [...]. Prepared for: CT General Assembly (via CT Academy of Science and Engineering)
- 2011 U.S. Skills for Green Jobs. Prepared for: International Labour Organization and CEDEFOP

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## Teaching Experience

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Teaching Interests: All introductory courses in microeconomics as well as advanced undergraduate and graduate courses related to applied microeconomics, labor, urban/regional economics, quantitative methods, statistics, policy analysis, and program evaluation.

Teaching Experience: MBA Managerial Economics (1 section at QU), Applied Statistical Methods (8 sections at QU), Game Theory (1 section at QU), Honors Microeconomics (1 section at QU), Principles of Macroeconomics (1 section at QU, 6 sections TA at UConn), Municipal Economic Development (Cont. Ed. at CERC), and Money & Banking (2 sections TA at UConn)

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## Professional Service

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Referee: Journal of Public Economics, Journal of Urban Economics, Journal of Empirical Legal Studies

Program Committee: Association for Public Policy Analysis and Management (APPAM) Fall Research Conference, 2017- Science and Technology, Eastern Economic Association 2016.

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## Professional Memberships

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American Economic Association, Association for Public Policy Analysis and Management, Urban Economics Association, Society of Labor Economists, American Association for the Advancement of Science, and Western Economic Association

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## Technological Capabilities

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Advanced knowledge of Stata, SQL, MS Access, Excel, and LaTeX. Working knowledge of various GIS Systems, SAS, and Unix/Linux.

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## References

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Julia I. Lane (Post-Doc Mentor)  
Professor of Public Policy  
Provostial Fellow for Innovation Analytics  
New York University  
Email: Julia.Lane@nyu.edu  
Phone: 212-992-6523

Bruce A. Weinberg (Post-Doc Mentor)  
Professor of Economics  
Research Associate, NBER  
Ohio State University  
Email: Weinberg.27@osu.edu  
Phone: 614.292.5642

Kenneth A. Couch (Dissertation Chair)  
Professor of Economics  
University of Connecticut  
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Phone: 860.486.4570

Stephen L. Ross (Coauthor)  
Professor of Economics  
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