August, 2021

CONTACT INFORMATION

1200 South Hayes St Email: <u>bmiller@rand.org</u>

Arlington, VA 22202

EMPLOYMENT

2021-2024 Quality Assurance Manager, RAND Social and Economic Well-Being

2019-present Economist, RAND Corporation

2017-present *Professor*, Frederick S. Pardee RAND Graduate School

2015-2019 Associate Economist, RAND Corporation

2011, 2012 Statistician, U.S. Census Bureau, Social, Economic, and Housing Statistics Division

EDUCATION

2015 Ph.D., Economics, University of California, San Diego

2010 B.S. Economics Honors, Purdue University, With Distinction

Minors in Mathematics, Philosophy, & Political Science

University Honors Program Honors Diploma (<1% of graduating class)

RESEARCH LEADERSHIP

Total Project Led as PI: 6
Total Project Led as Co-PI: 4

Total Funding of Projects Led: \$4,340,759

PEER REVIEWED PUBLICATIONS

Miller, Benjamin M., David Metz, Jon Schmid, Paige M. Rudin, and Marjory S. Blumenthal, *Measuring the Value of Invention: The Impact of Lemelson-MIT Prize Winners' Inventions*. Santa Monica, CA: RAND Corporation, 2021. https://www.rand.org/pubs/research_reports/RRA838-1.html Media Coverage: https://www.rand.org/pubs/research_reports/RRA838-1.html

Howard Shatz and **Benjamin Miller**. Government Fiscal Capacity. Ch 3 of Recovery in the United States Virgin Islands: Progress, Challenges, and Options for the Future. Available at https://www.rand.org/pubs/research_reports/RRA282-1.html

Media Coverage: The Virgin Islands Daily News

Tom LaTourrette, **Benjamin Miller**, Teddy Ulin, Kristin Van Able, Krista Langeland, and Nupur Nanda. Public Buildings in Puerto Rico After Hurricane Maria: Pre-Storm Challenges, Hurricane Damages, and Suggested Courses of Action for Recovery. Homeland Security Operational Analysis Center operated by the RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR2606.html

Jacob Heim and **Benjamin Miller**. *Measuring Power, Power Cycles, and the Risk of Great Power War in the 21st Century*. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RR2989.html Miller, Benjamin M., Debra Knopman, Liisa Ecola, Brian Phillips, Moon Kim, Nathaniel Edenfield, Daniel Schwam, and Diogo Prosdocimi, U.S. Airport Infrastructure Funding and Financing: Issues and Policy Options Pursuant to Section 122 of the 2018 Federal Aviation Administration Reauthorization Act. Santa Monica, CA: RAND Corporation, 2020.

https://www.rand.org/pubs/research_reports/RR3175.html

Media Coverage: <u>American Journal of Transportation</u>, <u>AviationPros</u>, <u>The Bond Buyer</u> (twice), Eno Center for Transportation, <u>The Hill</u>, <u>Morning Consult</u>, <u>Politico</u>, <u>Reason Foundation</u>

Anu Narayanan, Jonathan W. Welburn, **Benjamin M. Miller**, Sheng Tao Li, and Aaron Clark-Ginsberg. Deterring Attacks Against the Power Grid: Two Approaches for the U.S. Department of Defense. Santa Monica, CA: RAND Corporation, 2020.

https://www.rand.org/pubs/research_reports/RR3187.html

Media Coverage: The Gazette

Relevant Legislative Action: (bill) Guaranteeing Resilient Installations for Defense Act of 2020

Benjamin Miller, David Metz, Troy Smith, and Jesse Lastunen. Selecting and Evaluating Case Studies of the Economic Benefits of Research and Services at the National Institute for Occupational Safety and Health: Case Studies on Personal Dust Monitors for Coal Miners, Improved Ambulance Design, and Amputation Surveillance. Santa Monica, CA: RAND Corporation, 2020.

https://www.rand.org/pubs/research_reports/RR4201.html

Media Coverage: NIOSH Science Blog

Sarah Weilant, Aaron Strong, and **Benjamin Miller**. *Incorporating Resilience into Transportation Planning and Assessment*. Santa Monica, CA: RAND Corporation, 2019. https://www.rand.org/pubs/research_reports/RR3038.html
Media Coverage: InfrastructureUSA

- Anu Narayanan, Debra Knopman, Kristin van Abel, and **Benjamin Miller** with Nicholas Burger, Martha Merrill, Alex Rothenberg, Luke Muggy, and Patrick Mills. *Valuing Air Force Electric Power Resilience: A Framework for Mission-level Investment Prioritizations*. Santa Monica, CA: RAND Corporation, 2019. https://www.rand.org/pubs/research_reports/RR2771.html
- Miller, Benjamin M., Lloyd Dixon, and Noreen Clancy. "Reasonable and Risk-Based? Replacing NFIP Generally Subsidized Rates with a Means-Tested Subsidy." *Southern Economics Journal* Vol. 85, Issue 4 (2019) https://onlinelibrary.wiley.com/doi/full/10.1002/soej.12329
- Lane F. Burgette, Jodi L. Liu, **Benjamin M. Miller**, Barbara O. Wynn, Stephanie Dellva, Rosalie Malsberger, Katie Merrell, PhuongGiang Nguyen, Xiaoyu Nie, Joseph D. Pane, Nabeel Qureshi, Teague Ruder, Lan Zhao, and Peter S. Hussey. *Practice Expense Methodology and Data Collection Research and Analysis*. Santa Monica, CA: RAND Corporation, 2018. https://www.rand.org/pubs/research_reports/RR2166.html
- Miller, Benjamin M. "The Not-so Marginal Value of Weather Warning Systems." *Weather, Climate, and Society* Vol. 10, no. 1 (2018) http://journals.ametsoc.org/doi/pdf/10.1175/WCAS-D-16-0093.1

- Miller, Benjamin M., David Metz, Troy D. Smith, Jesse Lastunen, Eric Landree, and Christopher Nelson. *Understanding the Economic Benefit Associated with Research and Services at the National Institute for Occupational Safety and Health*. Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/research_reports/RR2256.html
 Media Coverage: NIOSH Science Blog, New York City Fire Department
- Narayanan, Anu, Debra Knopman, James D. Powers, Bryan Boling, **Benjamin M. Miller**, Patrick Mills, Kristin Van Abel, Katherine Anania, Blake Cignarella and Connor P. Jackson. *Air Force Installation Energy Assurance: An Assessment Framework*. Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/research_reports/RR2066.html
- Miller, Benjamin M., Frank Camm, Marjory S. Blumenthal, Jesse Lastunen and Kenneth W. Miller. Inching Toward Reform: Trump's Deregulation and Its Implementation. Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/perspectives/PE241.html
- Dixon, Lloyd, Noreen Clancy, **Benjamin M. Miller**, Sue Hoegberg, Michael M. Lewis, Bruce Bender, Samara Ebinger, Mel Hodges, Gayle M. Syck, Caroline Nagy and Scott R. Choquette. *The Cost and Affordability of Flood Insurance in New York City: Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes.* Santa Monica, CA: RAND Corporation, 2017. https://www.rand.org/pubs/research_reports/RR1776.html
 Media Coverage: Financial Regulation News, New York Times, Nonprofit Quarterly, Occupational Health & Safety, Phys.org, StreetEasy, Waterfront Alliance
- Mulcahy, Andrew W., Kandice A. Kapinos, Brian Briscombe, Lori Uscher-Pines, Ritika Chaturvedi, Spencer R. Case, Jakub P. Hlavka and **Benjamin M. Miller**. *Toward a Sustainable Blood Supply in the United States: An Analysis of the Current System and Alternatives for the Future*. Santa Monica, CA: RAND Corporation, 2016.

https://www.rand.org/pubs/research_reports/RR1575.html

Media Coverage: <u>Bloodbuy</u>, <u>Health Care Law Today</u>, <u>The Hematologist</u>, <u>Medical Laboratory</u> <u>Observer</u>, <u>Transfusion News</u>

Miller, Benjamin M., and Kevin J. Mumford. "The Salience of Complex Tax Changes: Evidence from the Child and Dependent Care Credit Expansion." *National Tax Journal* Vol. 68, no. 3 (2015) https://www.ntanet.org/NTJ/68/3/

Media Coverage: County Health Ranking & Roadmaps

Miller, Ben, and Michael Watts. "Oh, the Economics You'll Find in Dr. Seuss!" *The Journal of Economic Education* Vol. 42, no. 2 (2011)

http://www.tandfonline.com/doi/abs/10.1080/00220485.2011.555717

Media Coverage: The Incidental Economist, The New York Times (Economix), Vancouver Sun

OTHER ACADEMIC PUBLICATIONS

- Knopman, Debra, Martin Wachs, **Benjamin Miller**, Scott Davis, and Katherine Pfrommer. "Renewing America's Infrastructure: An Agenda for Federal Transportation and Water Policy." *Public Works Management & Policy* (2018) https://doi.org/10.1177/1087724X18789703
- Smart, Alan, Andrew Coote, **Ben Miller**, and Richard Bernknopf. *A Review of Socioeconomic Evaluation Methods and Techniques*. Ch. 10 of *GEOValue: The Socioeconomic Value of Geospatial Information*, eds. Jamie Kruse, Joep Crompvoets, and Jay Pearlman (2017)

 https://www.crcpress.com/GEOValue-The-Socioeconomic-Value-of-Geospatial-Information/Kruse-Crompvoets-Pearlman/p/book/9781498774512

COMMENTARY & TESTIMONY

- Miller, Benjamin "Funding and Financing Infrastructure at U.S. Airports: Overview of the 2020 RAND Report Recommendations." *Testimony presented before the Senate Commerce, Science, and Transportation Committee, Subcommittee on Aviation Safety, Operations, and Innovation on June 23, 2021.* https://www.rand.org/pubs/testimonies/CTA1471-1.html
- Knopman, Debra and **Benjamin Miller**, "To implement an infrastructure overhaul, we need to address the devil in the details." *The Hill* (2021) https://thehill.com/opinion/energy-environment/554614-to-implement-an-infrastructure-overhaul-we-need-to-address-the
- Miller, Benjamin, "Suggestions to help EPA Successfully Implement Retrospective Reviews." *Legal Planet* (2018) http://legal-planet.org/2018/07/18/guest-blogger-benjamin-miller-suggestions-to-help-epa-successfully-implement-retrospective-reviews/
- **Miller, Ben**. *Disastrous Ideas* (https://disastrousideas.wordpress.com/, my blog about the economics of weather and natural disasters) (2013-2015)
- **Miller, Ben.** "Saving the Environment: Why do we do it?" *Wetland Matters,* No. 127 (2007) http://www.oxbowinc.org/PDFs/Issue 127.pdf

WORK IN PROGRESS & WORK UNDER REVIEW

Benjamin Miller, Tom LaTourrette, Drake Warren, and Dave Metz. *The Benefits of NIST's Impact on Fire Safety Standards* (under review)

WORKING PAPERS

Michelle Miro, David Groves, David Catt, and **Benjamin Miller**. Estimating Future Water Demand for San Bernardino Valley Municipal Water District

https://www.rand.org/pubs/working_papers/WR1288.html

Benjamin Miller. Does Validity Fall from the Sky? Observant Farmers and the Endogeneity of Rainfall

TEACHING

Professor, Pardee RAND Graduate School, 2017. Advanced Econometrics II: Applied Non-Linear Modeling

Teaching Assistant, University of California, San Diego, 2010-2015. Applied Data Analysis and Statistical Decision Making; Econometrics; Public Policy; Public Economics: Expenditure; Labor Economics; Economics of Health Providers; Economic Development; Intermediate Microeconomics; Principles of Microeconomics

GRANTS, SCHOLARSHIPS, AWARDS, AND HONORS

| 2020 | RAND Bronze Medal Award, for "U.S. Airport Infrastructure Funding and Financing: |
|------------|---|
| | Issues and Policy Options Pursuant to Section 122 of the 2018 Federal Aviation |
| | Administration Reauthorization Act" |
| 2019 | RAND Medal Award, Key Contributor, for contributions as sector co-leader for the |
| | "Puerto Rico Recovery Plan - Public Buildings Sector" |
| 2019 | RAND Spotlight Award, for supporting Economics, Sociology, and Statistics recruitment |
| 2017 | RAND Medal Award, Key Contributor, for contributions to the report "Toward a |
| | Sustainable Blood Supply in the United States: An Analysis of the Current System and |
| | Alternatives for the Future" |
| 2014 | Travel Support, NSF and National Center for Atmospheric Research (NCAR) |
| 2014 | Invited Participant, WEAI Graduate Student Workshop |
| 2013 | Best Paper Award, 5th European Association of Agricultural Economists PhD Symposium |
| 2013 | Teaching Assistant Excellence Award, UCSD Department of Economics |
| 2013 | Research Travel Grant, Center for Environmental Economics, UCSD |
| 2013 | Research Travel Grant, Dean's Office, UCSD Division of Social Sciences |
| 2013-2014 | SPREAD Fellow, Studies of Precipitation, flooding, and Rainfall Extremes Across |
| | Disciplines |
| 2010, 2013 | Graduate Student Travel Grant, UCSD Department of Economics |
| 2010 | Tuition Scholarship, UCSD Department of Economics |
| 2010 | South Korea Scholarship, Council on International Educational Exchange |
| 2008 | Distinguished Scholar, The Fund for American Studies Engalistcheff Institute on |
| | Comparative Political and Economic Systems |
| 2007 | Margaret Moan Rowe Honor Scholarship |
| 2006-2010 | Academic Scholarship, Purdue University |
| 2006-2007 | Liberal Arts Dean's Scholar, Purdue University |

ADVISING & MENTORING

Note: This list includes graduate students for whom I served on their dissertation committee (indicated with a *), as well as those that meet all of the following criteria: (i) We have worked together, (ii) I have provided academic or career advice outside of our scope of work, and (iii) I have written a letter of recommendation or served as a reference. Advisee role, placement, and year of graduation/departure from RAND are indicated in parenthesis. I am very proud of each of these individuals!

Kyle Haak (Pardee RAND Graduate Student*; Current Student)
Alejandro Becerra (Pardee RAND Graduate Student*; Current Student)

Jesse Lastunen (Pardee RAND Graduate Student; United Nations University - World Institute for Development Economics Research; 2020)

Teddy Ulin (Research Assistant; University of Michigan Law School; 2019)

Undergraduate Mentoring:

Purdue Honors Pathways Program (2018) The Fund for American Studies (2016-2017)

PRESENTATIONS & PROFESSIONAL SERVICE

Referee:

Journal of Economic Education, Journal of Economics Teaching, Journal of Regional Science, National Tax Journal, Natural Hazards, Oxford Encyclopedia of Politics, RAND, Security Journal

Panelist:

Transportation Research Board (2019); Hamilton Project, Brookings (2018, 2019); NSF (2017); Tax Policy and Health Expert Panel, AcademyHealth (2016)

External Presentations:

- 2021: The Society for Standards Professionals; Senate Subcommittee on Aviation Safety, Operations, and Innovation; HEC Paris (pending)
- 2020: Defense Innovation Network; UTHealth: How will the future of work shape research issues, methods and applications?; Council of Economic Advisers
- 2018: Office of the Chief of Army Reserve (OCAR) Program Analysis and Evaluation (PA&E) Operations Research / Systems Analysis (FA49) Symposium
- 2017: RAND Center for Corporate Ethics & Governance Advisory Board; RAND Justice, Infrastructure, and Environment Board; RAND Institute for Civil Justice Board
- 2016: GEOValue Data to Decisions: Valuing the Societal Benefit of Geospatial Information; Southern Economic Association Annual Meeting; American Geophysical Union Fall Meeting
- 2015: American Meteorological Society 95th Annual Meeting, Third Symposium on Building a Weather Ready Nation; Bureau of Economic Analysis; University of South Carolina; RAND Corporation; Federal Trade Commission; Bureau of Labor Statistics; Economic Research Service; U.S. Treasury; University of New Hampshire; East Carolina University; Cornerstone Research; BREN Occasional Workshop in Environmental and Resource Economics; Southern Economic Association Annual Meeting
- 2014: Purdue University; Western Economics Association Graduate Student Dissertation Workshop; Studies of Precipitation, flooding, and Rainfall Extremes Across Disciplines (SPREAD); World Weather Open Science Conference
- 2013: Pacific Conference on Development Economics; 5th European Association of Agricultural Economists PhD Workshop; Belpasso International Summer School on Environmental and Resource Economics Financing Disaster Risk Reduction and Climate Adaptation

2010: National Tax Association's 103rd Annual Conference on Taxation

2008: Annual Conference of the Council for Economic Education