

Curriculum Vitae
Aaron Strong
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Citizenship: USA

Contact:

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Education:

Ph.D. Economics, University of Colorado, Boulder, 2004
MA Economics, University of Colorado, Boulder, 2001
MS. Applied Mathematics, University of Colorado, Boulder, 1998
BA Mathematics, Luther College, Decorah, IA, 1996

Fields of Research Interest: Environmental and Resource Economics, Urban Economics

Graduate School Fields: Industrial Organization and Econometrics

Positions:

2015 – Present: Economist, RAND Corporation
2010 – 2015: Assistant Professor, School of Urban and Regional Planning and Public Policy Center, University of Iowa
2010 – 2015: Adjunct Assistant Professor, Department of Economics, University of Iowa
2013 – 2015: Assistant Research Scientist IIHR – Hydroscience and Engineering, University of Iowa
2008 – 2010: Assistant Professor, Department of Economics and Finance, University of Wyoming
2009 – 2011: Research Associate, Institute for Behavioral Studies, University of Colorado
2006 – 2008: Post-doctoral Research Associate, Center for Environmental Economics and Sustainability Policy, Department of Economics, Arizona State University
2005 – 2006: Post-doctoral Research Associate, G8 Legacy Chair in Wildlife Ecology, University of Calgary, Alberta, Canada

Publications:

RAND Publications:

Welburn, J.W. and A Strong, 2020, *Estimating the Impact of COVID-19 on Corporate Default Risk*, RAND Corporation, [WR-A173-2](#)

- Strong, A., & Welburn, J. W., 2020, *An Estimation of the Economic Costs of Social-Distancing Policies*, RAND Corporation, RR-A173-1.
- Vardavas, Raffaele, Aaron Strong, Jennifer Bouey, Jonathan William Welburn, Pedro Nascimento de Lima, Lawrence Baker, Keren Zhu, Michelle Priest, Lynn Hu, and Jeanne S. Ringel, *The Health and Economic Impacts of Nonpharmaceutical Interventions to Address COVID-19: A Decision Support Tool for State and Local Policymakers*. Santa Monica, CA: RAND Corporation, 2020. <https://www.rand.org/pubs/tools/TLA173-1.html>.
- Gonzalez, Gabriella C., Kathryn Edwards, Melanie A. Zaber, Megan Andrew, Aaron Strong, and Craig A. Bond, 2020, *Supporting a 21st Century Workforce in Puerto Rico: Challenges and Options for Improving Puerto Rico's Workforce System Following Hurricanes Irma and Maria in 2017*, RR-2856-DHS.
- Bond, Craig A., Aaron Strong, Troy D. Smith, Megan Andrew, John S. Crown, Kathryn Edwards, Gabriella C. Gonzalez, Italo A. Gutierrez, Lauren Kendrick, Jill E. Luoto, Kyle Pratt, Karishma Patel, Alexander D. Rothenberg, Mark Stalczyński, Patricia A. Tong, and Melanie A. Zaber, 2020, *Challenges and Opportunities for the Puerto Rico Economy: A Review of Evidence and Options Following Hurricanes Irma and Maria in 2017*, RR-2600-DHS.
- Welburn, Jonathan, Aaron Strong, Florentine Eloundou Nekoul, Justin Grana, Krystyna Marcinek, Osonde A. Osoba, Nirabh Koirala, Claude Messan Setodji, 2020, *Systemic Risk: It's Not Just in the Financial Sector*, RB-10112-RC.
- Welburn, Jonathan, Aaron Strong, Florentine Eloundou Nekoul, Justin Grana, Krystyna Marcinek, Osonde A. Osoba, Nirabh Koirala, Claude Messan Setodji, 2020, *Systemic Risk in the Broad Economy: Interfirm Networks and Shocks in the U.S. Economy*, RR-4185.
- Weilant, Sarah, Aaron Strong, and Benjamin Miller, 2019, *Incorporating Resilience into Transportation Planning and Assessment*, RR-3038-TRB.
- Welburn, Jonathan and Aaron Strong, 2019, "Systemic Cyber Risk and Aggregate Impacts," WR-1311.
- Scobell, Andrew, Bonny Lin, Howard Shatz, Michael Johnson, Larry Hanauer, Michael Chase, Astrid Cevallos, Ivan Rasmussen, Arthur Chan, Aaron Strong, Eric Warner, and Logan Ma, 2018, *At the Dawn of the Belt and Road: China in the Developing World*, RR-2273-A.
- Dreyer, Paul, Therese Jones, Kelly Klima, Jenny Oberholtzer, Aaron Strong, Jonathan Welburn, and Zev Winkleman, 2018, *Estimating the Global Cost of Cyber Risk: Methodology and Examples*, RR-2299-WFHF, RAND Corporation.

- Kapinos, Kandice, Brian Briscoombe, Tadeja Gracner, Aaron Strong, Christopher Whaley, Emily Hoch, Jakub Hlavka, Spencer Case, and Peggy Chen, 2017, *Public Cord Blood Banks: Worthy of National Investments*, RB-9977-DHHS, RAND Corporation
- Kapinos, Kandice, Brian Briscoombe, Tadeja Gracner, Aaron Strong, Christopher Whaley, Emily Hoch, Jakub Hlavka, Spencer Case, and Peggy Chen, 2017, *Challenges to the Sustainability of the U.S. Public Cord Blood System*, RR-1898-DHHS, RAND Corporation.
- Strong, Aaron and Debra Knopman, 2017, *Landscape Survey to Support the Flood Apex National Flood Decision Support Toolbox: Definitions and Existing Tools*, RR-1933-UNC, RAND Corporation
- Mulcahy, Andrew, Simon Hollands, Erin Duffy, Aaron Strong, and Barbara Wynn, 2017, *Modeling the Economic Impact of a California Workers' Compensation Formulary*, RR-1971-DIR, RAND Corporation.
- Bond, Craig, Aaron Strong, Nicholas Burger, and Sarah Weilandt, 2017, *Guide to the Resilience Dividend Valuation Model*, RR-2130-RF, RAND Corporation.
- Bond, Craig, Aaron Strong, Nicholas Burger, Sarah Weilandt, Uzaib Saya, and Anita Chandra, 2017, *Resilience Dividend Valuation Model: Framework Development and Initial Case Studies*, RR-2129-RF, RAND Corporation.
- Gonzales, Daniel, Timothy Gulden, Aaron Strong, and William Hoyle, 2016, "Cost-Benefit Analysis of Proposed California Oil and Gas Refinery Regulations," RR-1421-DIR, RAND Corporation.
- Scobell, Andrew, Bonny Lin, Howard Shatz, Michael Johnson, Larry Hanauer, Michael Chase, Astrid Cevallos, Ivan Rasmussen, Samuel Berkowitz, Arthur Chan, Aaron Strong, and Eric Warner, 2016, *China in the Developing World*, PR-2185-A, RAND Corporation.
- Barnes, Stephen, Craig Bond, Nicholas Burger, Kata Anania, Aaron Strong, Sarah Weilandt, and Stephanie Virgets, 2015, "Economic Evaluation of Coastal Land Loss in Louisiana," <http://coastal.la.gov/wp-content/uploads/2015/12/LSU-Rand-Report-on-Economics-of-Land-Loss.pdf>

Refereed Journal Articles:

- Welburn, Jonathan W and Aaron Strong, 2021, "Systemic Cyber Risk and Aggregate Impacts," *Risk Analysis*, <https://doi.org/10.1111/risa.13715>.
- Strong, Aaron, Tedeja Gracner, Peggy Chen, and Kandice Kapinos, 2018, "On the Value of the Umbilical Cord Blood Supply," *Value in Health* 21(9): 1077-1082.

- Barnes, Stephen R.; Bond, Craig; Burger, Nicholas; Anania, Kate; Strong, Aaron; Weiland, Sarah; and Virgets, Stephanie, 2017, "Economic Evaluation of Coastal Land Loss in Louisiana," *Journal of Ocean and Coastal Economics*: Vol. 4: Iss. 1, Article 3. DOI: <https://doi.org/10.15351/2373-8456.1062>
- Eric Tate, Aaron Strong, Travis Kraus, and Haoyi Xiong, 2016, "Flood Recovery and Property Acquisition in Cedar Rapids, Iowa" *Natural Hazards* 80 (3): 2055-2079.
- Aaron Strong and Christopher Goemans, 2015, "The Impact of Real-time Information of Residential Water Demand," *Water Resources and Economics* 10:1-13.
- Aaron Strong and Christopher Goemans, 2014, "Quantity Uncertainty and Demand: The Case of Water Smart Reader Ownership," *B.E. Journal of Policy Analysis and Economics* 14(3): 669-694.
- Aaron Strong and Matthew Oliver, 2014, "General Equilibrium Ecosystem Modeling with Alternative Preference Specifications," *Natural Resource Modeling* 27(2):197-215.
- Gabriele Villarini and Aaron Strong, 2014 , "Roles of Climate and Agricultural Practices in Discharge Changes in an Agricultural Watershed in Iowa," *Agriculture, Ecosystems and Environment* 188:204-211.
- H. Allen Klaiber, V. Kerry Smith, Michael Kaminsky and Aaron Strong, 2014 "Measuring Price Elasticities for Residential Water Demand with Limited Information" *Land Economics* 90(1):100-113.
- Aaron Strong, 2013, "Measuring Environmental Quality: Ecosystem Services or Human Health Effects," *Journal of Agricultural and Resource Economics* 38(3): 344-358.
- Aaron Strong, 2012, "Species Specific Recreation Demand: The Case of Trout Fishing in Alberta" *Journal of Natural Resource Policy Research* 4(2): 121-130
- Aaron Strong, John Tschirhart and David Finnoff, 2011, "Is Economic Growth for the Birds?" *Ecological Economics* 70(7): 1375-1380.
- Aaron Strong and V. Kerry Smith, 2010, "Reconsidering the *Economics* of Demand Analysis with Kinked Budget Constraints," *Land Economics* 86(1): 173-190.
- David Finnoff, Aaron Strong, and John Tschirhart, 2008, "Stocking Regulations and the Spread of Invasive Species" *American Journal of Agricultural Economics* 90(4): 1074-1090.
- Aaron Strong and Randall Walsh (2008), "Communities, Competition, Spillovers and Open Space" *Land Economics* 84(2): 169-187.

Aaron Strong and Nicholas Flores (2008), “Estimating the Economic Benefits of Acidic Rock Drainage Clean Up Using Cost Shares” *Ecological Economics* 65(2): 348-355.

Nicholas Flores and Aaron Strong (2007), “Cost Credibility and the Stated Preference Analysis of Public Goods” *Resource and Energy Economics* 29(3): 195-205.

Refereed Book Chapters:

V. Kerry Smith, Carol Mansfield and Aaron Strong (2014), “How Should the Health Benefits of Food Safety Programs be Measured” in *Preference Measurement in Health*, Glenn Bloomquist and Kristian Bolin eds.

Olena Ivus and Aaron Strong (2007), “Modeling Approaches to the Analysis of International Trade Policy: Computable General Equilibrium and Gravity Models” in *Handbook of International Trade Policy*, James Gaisford and William Kerr eds., Edward Elgar Press.

Other Writings:

Aaron Strong and Jonathan Welburn, 2020, “Teachers Should Get the Vaccine First” *Wall Street Journal*, November 19, 2020.

Jonathan Welburn and Aaron Strong, 2020, “Too Interconnected to Fail,” *Wall Street Journal* July 23, 2020.

Aaron Strong and Jonathan Welburn, 2020, “Supply Chain Disruptions Due to COVID-19 and Social Distancing,” RAND Blog, April 28, 2020.

Jeanne Ringel, Raffaele Vardavas, and Aaron Strong, 2020, “Relaxing COVID-19 Restrictions Present Stark Health and Economic Choices,” RAND Blog, May 18, 2020.

Aaron Strong and Benjamin Preston, 2017, “Environmental Impact Bonds May Not Bear Fruit for Green Investments, Zilient.org, November 22, 2017.

Aaron Strong, Nikhil Sikka, and Lindsay Salvatore, 2012, Transportation Impacts of a Chicago River Closure due to Asian Carp Infestation, Mid-American Transportation Center Report # MATC_UI: 477.

Contracts and Grants:

Funded Projects as PI:

“Future Price Forecast Report Development and Maintenance Under DR-4339-PR and DR-4340-VI” FEMA, \$900,000.

“Incorporating Resilience into Transportation Planning and Assessment” Transportation Research Board, \$150,000

“Economic Trade-offs Between Surface Water Quality and Groundwater Level for Municipal Drinking Water Supplies” Water Sustainability Seed Grant, University of Iowa, \$5,756.

“Flood Recovery in Cedar Rapids” Water Sustainability Initiative Seed Grant, University of Iowa, \$6,418.

“Understanding the Effects of Weatherization on Energy Consumption” Iowa Center for Undergraduate Research, \$2,500

“Transportation Impacts of a Chicago River Closure due to Asian Carp Infestation” Mid-American Transportation Center, \$50,598

Funded Projects as Co-PI:

“Cost Effectiveness of CDBG-DR Funding” Department of Housing and Urban Development, 2019-2022, Total Budget: \$850,000 (RAND share: \$206,000)

“Decision Processes, Climate Change, and Water Resources in the Agricultural Midwest” Water Sustainability and Climate, NSF, 2014. Total Budget: \$599,383

“Development of a Framework for Discharge Forecasting over Iowa” Iowa Water Center, 2014. Total Budget: \$59,929.

“Ecosystem Management of Regionally Abundant Invasive Weeds in an Era of Global Environmental Change,” National Research Initiative Competitive Grants Program Award from the Biology of Weedy and Invasive Species in Agrosystems, Cooperative State Research, Education, and Extension Services, USDA, 2008. Total Budget: \$499,851.

“Recreational Impacts of a Mississippi River Diversion in Louisiana” Funded through the Center for Earth System Dynamics.

Honors and Awards:

RAND Medal Award Key Contributor	2021
RAND Gritton Innovation Award	2021
RAND Bronze Medal	2020
RAND Medal Award Key Contributor	2019
RAND Bronze Medal	2016
Outstanding Junior Faculty Research Award College of Business, University of Wyoming	2008
Carbon, Climate and Society Initiative Fellowship, NSF - IGERT	2001-2003
James C. Campbell Fellowship	2002
Presidential Scholarship, Luther College	1994-1996

Papers Presented/Symposia/Invited Lectures/Professional Meetings/Workshops

2021: DHS COE Summit

2020: California Department of Labor, California Department of Public Health, DHS Center of Excellence – USC, DHS Center of Excellence – Rutgers, PJ Solomon Webinar, Congressional Bipartisan Working Group, National Academy of Sciences – Geographical Sciences Committee, California Vaccine Planning Allocation Committee

2019: FEMA Puerto Rico, FEMA USVI, Governor USVI

2018: FEMA Puerto Rico (2 times), FEMA Headquarters

2016: Center for Natural Resource and Economic Policy, LSU

2015: RAND Corporation

2014: Forkenbrock Series, Public Policy Center, University of Iowa; Institute on Ecosystems, Montana State University; Iowa Association of Water Agencies; National Center for Environmental Economics, EPA; RAND Corporation

2013: Adapting to Extreme Weather, Des Moines, Iowa

2012: Water Sustainability Seminar, University of Iowa; Policy Matters, University of Iowa; Public Policy Center, University of Iowa; CU Environmental and Resource Workshop; Institute of Discovery, University of Wisconsin – Madison; Office of the Secretary, Department of Interior, Washington, D.C.

2011: Department of Geography, University of Iowa, Department of Civil and Environmental Engineering, University of Iowa, Department of Geo-Sciences, University of Iowa

2010: University of Iowa, Portland State University, CU Environmental and Resource Economics Workshop

2009: Colorado State University, University of Colorado, CU Environmental and Resource Workshop

2008: University of Wyoming, Appalachian State University, University of California – Davis, Utah State University, Eastern Washington University, University of Alberta

2007: Arizona State University, CU Environmental and Resource Workshop, California State University – Long Beach

2006: University of Wyoming, Boise State University

2005: California State University – Long Beach, University of Calgary, CU Environmental and Resource Workshop

2004: CU Environmental and Resource Workshop

2003: Occasional Conference of Environmental Economics, CU Environmental and Resource Economics Workshop, American Association for the Advancement of Science

2002: Camp Resources

Service:

Professional:

Associate Editor, *Journal of Natural Resources Policy Research* 2011-2014.

Review Committee, Agricultural and Applied Economics Association annual meeting, 2011, 2012, 2013, 2014
Review Committee, Association of Environmental and Resource Economists Summer Conference, 2011, 2012, 2013
Review Committee, World Congress of Environmental and Resource Economists, 2014
Reviewer, Israel Science Foundation, 2011

Journal Reviews:

Journal of Environmental Economics and Management
Land Economics
Economic Inquiry
Journal of Agricultural and Resource Economics
Ecological Economics
Contemporary Economic Policy
Canadian Journal of Agricultural Economics
Journal of Water Resources Planning and Management
Agricultural Economics
Resource and Energy Economics
Environmental Management
Journal of Agricultural and Applied Economics
Environmental Science and Technology
Environmental and Resource Economics
Journal of Water Resource Planning and Management
Journal of Economic Behavior and Organization

Courses Taught:

Graduate:

Economics for Urban Planners
Water Resource Economics
PhD Microeconomic Theory
Computational Economics
Field Problems in Urban Planning: Capstone

Undergraduate:

Principles of Microeconomics
Principles of Macroeconomics
Environmental and Resource Economics
Economics, Law, and Government
Mathematical Tools for Economics