February 2022

SHANA M. MCDERMOTT

Curriculum Vitae

Trinity University
Department of Economics
Chapman Center Room 415
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PROFESSIONAL EXPERIENCE

Associate Professor, Trinity University, 2020 – Current
Assistant Professor, Trinity University, 2016 – 2020
Assistant Professor, University of New Mexico, 2012 – 2016
Senior Research Fellow, Robert Wood Johnson Foundation, 2012 – 2016
Postdoctoral Researcher, Environmental Studies Program, Dartmouth College, 2012
Postdoctoral Researcher, Ecology and Evolutionary Biology, Dartmouth College, 2011– 2012

EDUCATION

PHD Economics, University of Wyoming, Laramie WY, 2006-2011
Areas of Concentration: Applied Microeconomics, Environmental and Natural Resource Economics, General Equilibrium, Industrial Organization

BA Economics and Statistics, University of Central Florida, Orlando FL, May 2006
Honors*:* Magna cum Laude

RESEARCH

Articles in Peer-Reviewed Journals

Jones, Benjamin and **Shana McDermott**. *The local labor market effects of US megafires*. Sustainability, August 2021.

Dudeque Zenni, Rafael, Franz Essl, Emili García-Berthou, **Shana M. McDermott**. *The economic costs of biological invasions around the world*. Neobiota, 2021.

Jones, Benjamin and **Shana McDermott**. *Infant Health Outcomes in Mega-Fire Affected Communities*. Applied Economics Letters, June 2021.

McDermott, Shana, David Finnoff, Jason Shogren, and Chris Kennedy. "*When Does Natural Science Uncertainty Translate into Economic Uncertainty?"* Ecological Economics, March 2021.

Kennedy, Chris, **Shana McDermott**, and Matthew Oliver. "*Implications of Gamma Discounting and the Incentive Compatibility of Market Based Solutions to Dynamic Externalities."* Submitted to Strategic Behavior and the Environment, October 2020.

Jones, Benjamin and **Shana McDermott**. "*Health Impacts of Invasive Species Through an Altered Natural Environment: Assessing Air Pollution Sinks as a Causal Pathway."* Environmental and Resource Economics, September 2018.

Jones, Benjamin and **Shana M. McDermott**. "*The Economics of Urban Afforestation: Insights from an Integrated Bioeconomic Health Model."* Journal of Environmental Economics and Management, May 2018.

Berry, Kevin, David Finnoff, Richard Horan, and **Shana McDermott**, *"The role of restoration in the prevention of a large-scale native species loss: Case study of the invasive emerald ash borer."* Journal of Forest Economics, April 2017.

Jones, Benjamin, **Shana McDermott**, and Janie Chermak, *"PLAN or get SLAM'ed: Optimal management of invasive species in the presence of indirect health externalities."* Journal of Environmental Management 180, September 2016.

McDermott, Shana and David Finnoff. *"Impact of repeated human introductions and the Allee effect on invasive species spread."* Ecological Modelling 329, June 2016.

McDermott, Shana. *"Optimal regulation of invasive species long-range spread."* The B.E. Journal of Economic Analysis and Policy, October 2015.

Jones, Benjamin and **Shana McDermott**. "*Environmental quality and health: A dynamic optimization approach."* Applied Economics Letters, 2015.

McDermott, Shana, Richard B. Howarth, and David A. Lutz. *"Carbon neutrality assumption and the Northern Forest."* Land Economics 91, May 2015.

McDermott, Shana, Rebecca Irwin, and Bradley Taylor. "*Using economic instruments to develop effective management of invasive species: insights from a bioeconomic model.*" Ecological Applications 23, July 2013.

McDermott, Shana, David Finnoff, and Jason Shogren. *"The welfare impacts of an invasive species: Endogenous vs. exogenous price models."* Ecological Economics 85, January 2013.

Refereed Book Chapters

McDermott, Shana. "*Using technology to teach sustainability with applications to conservation biology and ecosystem service management*." In John C. Bergstrom & John C. Whitehead (Eds), Teaching Environmental Natural Resource Economics Paradigms and Pedagogy (pp. 250-267). Edward Elgar Publishing. 2021.

Bossenbroek J., A. Croskey, D. Finnoff, L. Iverson, **S. McDermott**, A Prasad, C. Sims, and D. Sydnor. *"Evaluating the economic costs and benefits of slowing the spread of Emerald Ash Borer in Ohio and Michigan."* Invasive Species in a Globalized World. University of Chicago Press. 2013.

Finnoff D., R. Horan, **S. McDermott**, C. Sims, and J. Shogren. "*Economic control of invasive species*." The Encyclopedia of Biodiversity, 2E. Elsevier. 2013.

Submitted and Working Papers

McDermott, Shana and Caroline Noblet. *The (indirect) effects of windfall funds on sustainability behavior: Insights for carbon fee dividends.* Submitted to Economics of Energy and Environmental Policy, January 2022.

Jones, Benjamin, **Shana McDermott**, Patricia Champ, and Bob Berrens. *Smoke Today or Smoke Tomorrow? We Need to Better Understand the Public Health Benefits and Costs of Prescribed Fire.* Submitted to Nature Sustainability February 2022.

Other Publications

Our JEEM paper on urban afforestation was featured as a research highlight in the journal Nature Sustainability (part of the Nature family of journals), May, 2018.

Peer reviewed *Climate Change Economics* slides with accompanying text for National Economic Education Delegation (NEED), available January 2019.

McDermott, Shana, and M. Ben Goodwin. "*New Mexico Ranching and Its Future: Final Report Presented to the Thornburg Foundation,"* August 2017.

Publications in Progress

McDermott, Shana, Kevin Berry, Katie Lee, Linda Thurstrom, and Jason Shogren. "*Evaluating the effects COVID-19 has had on households and education."*

McDermott, Shana et al. "*Chapter 4: Impacts of Invasive Alien Species*" for IPBES Global Invasive Species Assessment.

Berry, Kevin, Katie Lee, and **Shana McDermott.** *"Risky Business: Implications of Decisions Under Uncertainty for Environmental Policy"*

Jones, Benjamin and **Shana McDermott.** *"Prescribed Burning or Mechanical Thinning? Investigating Wildfire Fuel Management Inclusive of Smoke-Induced Health Impacts"*

Presentations

Investigating Wildfire Fuel Management Inclusive of Smoke-Induced Health Impacts
(Invited talk) University of Rhode Island
Upcoming February 2022

Investigating Wildfire Fuel Management Inclusive of Smoke-Induced Health Impacts
(Invited talk) University of Southern Denmark
Upcoming May 2022

Infant Health Outcomes in Mega-Fire Affected Communities
Northeast Agriculture and Resource Economics Association Annual meeting; June 2021.

Understanding Environmental Behaviors through Moral Licensing and Pollution Taxes
AERE Session at the Southern Economics Association (SEA) Annual Meeting; Fort Lauderdale, FL; November 2019

When Does Natural Science Uncertainty Translate into Economic Uncertainty?
USDA Applications and Potential of Ecosystem Service Valuation within USDA-Advancing the Science Workshop; Washington, DC; April 2019

Time Goes Faster Than You Think: Implications for the Value of a Statistical Life
AERE Session at the Southern Economics Association (SEA) Annual Meeting; Washington, DC; November 2018

Economics and Climate Change
First-Year Experience (Climate Changed) Common Learning Experience
Trinity University; November 2018

The Economics of Conflict
First-Year Experience (Science Fiction) Common Learning Experience
Trinity University; October 2018

Environmental Economics: Valuing the Environment
(Invited talk) San Antonio Parks & Recreation Lunch & Learn Series; Friedrich Park, San Antonio, TX; September 2018

The Economics of Urban Afforestation
Trinity University Faculty Research Dinner; March 2018

Teaching Environmental Economics and Policy in a Politically Fractured World
(Invited talk) AERE Invited Panel Session at the Southern Economic Association (SEA) Annual Meeting; Tampa, FL; November 2017.

Health Impacts of Invasive Species Through an Altered Natural Environment: Assessing Air Pollution Sinks as a Causal Pathway. AERE Session at the Southern Economic Association (SEA) Annual meeting; Washington, DC; November 2016.

Invasive Species: Insights from an economist.
(Invited talk) Department of Biology; Trinity University; October 2016.

Panel Moderator
The Truth is Out There: But How Do We Communicate it?
Northeast Agriculture and Resource Economics Association Annual meeting; Bar Harbor, ME; June 2016.

Declining Discount Rates, Investment-based Mitigation, and Climate Policy
Northeast Agriculture and Resource Economics Association Annual meeting; Bar Harbor, ME; June 2016.

Invasive Species and Testing the Importance of Natural Science Information
AERE Session at the Southern Economic Association (SEA) Annual meeting; New Orleans, LA; November 2015.

Invited Discussant
Thresholds, Tipping Points, and Random Events in Dynamic Economic Systems; Knoxville, TN; July 2015.

Biomass Energy and Climate Neutrality: The Case of the Northern Forest,
(Invited talk) Statistics Norway; Oslo, Norway; June 2015.

The Economics of Climate Change
(Invited talk) The Sante Fe World Affairs Forum; Santa Fe, NM; April 2015.

Environmental Quality and Health: A Dynamic Optimization Approach,
AERE Session at the Southern Economic Association (SEA) Annual meeting; Atlanta, GA; November 2014.

Biomass Energy and Climate Neutrality: The Case of the Northern Forest,
(Invited talk) George Mason Environmental Studies and Policy Department; Washington D.C.; October 2014.

Biomass Energy and Climate Neutrality: The Case of the Northern Forest,
(Invited talk) University of New Mexico Department of Economics; Albuquerque NM; October 2014.

Research Interests and Career Discussion,
Economics Club special presenter; University of New Mexico; October 2014.

Working with Ecology: Using the Allee Effect for Invasive Species (control) Policy,
AERE Session at the Southern Economic Association (SEA) Annual meeting, Tampa Florida, November 2013.

Working with Ecology: Using the Allee Effect for Invasive Species (control) Policy,
CU Boulder Environmental Economics Workshop, Vail Colorado, October 2013.

Working with Ecology: Using the Allee Effect for Invasive Species (control) Policy,
Ecological Economics and Institutional Dynamics 10th biennial conference of the European Society for Ecological Economics, Lille France, June 2013.

Carbon Neutrality Assumption and the Northern Forest
Center for Natural Resource Economics and Policy (CNREP) Annual meeting, New Orleans Louisiana, March 2013.

A Bioeconomic Model of Interspecies Flu Transmission an On-Farm Decision Making
AERE Session at the Southern Economic Association (SEA) Annual meeting, New Orleans Louisiana, November 2012.

Controlling Weed Impacts on Native Ecosystems using Spatial-Dynamic Modeling
North American Meetings of the Regional Science Association International (RSAI), Miami Florida, November 2011

The Welfare Impacts of an Invasive Species: Endogenous vs. Exogenous Price Models
Southern Economic Association (SEA) annual meeting, Washington D.C., November 2011

Economics and Invasive Species
(Invited talk) Ecology and Evolutionary Biology Lunch Seminar, Dartmouth College, Hanover NH, May 2011

Optimal Regulation of Invasive Species Stock Externalities
North American Meetings of the Regional Science Association International (RSAI), Denver Colorado, November 2010

Optimal Regulation of Invasive Species Stock Externalities
CU Environmental and Resource Economics Workshop, Vail Colorado, October 2010

Emerald Ash Borer vs. Ash Trees: Welfare Impacts and Policy from an Invasive Species
EXIOPOL Summer School, Venice Italy, 2010

Emerald Ash Borer vs. Ash Trees: Welfare Impacts from an Invasive Species
University of Wyoming Graduate Student Symposium, Laramie WY, 2009

Funded Grants

Title: Risky Business: Implications of Decisions Under Uncertainty for Environmental Policy
Funding Source: Faculty Initiative Fund at University of Alaska Anchorage
Award: $9,535
Duration: 04/19-04/20

Title: Economic Drivers of Rangeland Use and Impact of Management Choices
Funding Source: Thornburg Foundation
Award: $67,443
Duration: 06/15-07/17

TEACHING

Trinity University

Instructor

Year	Semester	Course Name	Course ID	Students
2022	Spring	Economics of the Environment	ECON 3430	27

2022	Spring	Intermediate Microeconomics	ECON 3425	15/12
2021	Spring	Economics of the Environment	ECON 3330	26
2021	Spring	Intermediate Microeconomics	ECON 3325	17/13
2019	Fall	Urban Economics	ECON 3334	24
2019	Fall	Principles of Microeconomics	ECON 1311	17/24
2019	Spring	Economics of the Environment	ECON 3330	20/17
2019	Spring	Principles of Microeconomics	ECON 1311	25
2018	Fall	First-year Experience: Sci-Fi	FYE 1600	15
2018	Fall	Principles of Microeconomics	ECON 1311	24/10
2018	Spring	Economics of the Environment	ECON 3330	17/20
2018	Spring	Principles of Microeconomics	ECON 1331	22
2017	Fall	Urban Economics	ECON 3334	18
2017	Fall	Principles of Microeconomics	ECON 1311	24/23
2017	Spring	Economics of the Environment	ECON 3330	16/16
2017	Spring	Principles of Microeconomics	ECON 1311	20
2016	Fall	Principles of Microeconomics	ECON 1311	23/24

University of New Mexico

Instructor

Year	Semester	Course Name	Course ID	Students
2015	Fall	Environmental Economics	ECON 342	35
2015	Spring	Study Abroad Germany: Environmental Economics	ECON 395/542	14
2015	Spring	Microeconomics II	ECON 513	10
2015	Spring	Intermediate Microeconomics	ECON 300	26
2014	Fall	Natural Resource, Environmental and Ecological Modeling I	ECON 540	10
2014	Fall	Environmental Economics	ECON 342	40
2014	Spring	Microeconomics II	ECON 513	10
2014	Spring	Intermediate Microeconomics	ECON 300	36
2013	Fall	Principles of Macroeconomics	ECON 105	148
2013	Fall	Intermediate Microeconomics	ECON 300	36
2013	Spring	Natural Resource, Environmental and Ecological Modeling I	ECON 540	9
2013	Spring	Intermediate Microeconomics	ECON 300	49
2012	Fall	Principles of Macroeconomics	ECON 105	147
2012	Fall	Intermediate Microeconomics	ECON 300	39

Doctoral Committee on Studies

Member, Kara Walter, June 2019
Member, Benjamin Jones, November 2015
Member, Wenmei Guo, March 2016

Economics Field Paper Committee

Member, Janak Joshi, 2015
Member, Glen McDermott, 2013

Member, Kara Walter, 2013

University of Wyoming

Instructor

Year	Semester	Course Name	Course ID	Students
2010	Summer	Principles of Macroeconomics	ECON 105	15
2009	Summer	Principles of Macroeconomics	ECON 105	18
2008	Spring	Principles of Macroeconomics	ECON 105	88

SERVICE

Journal Editorial Service

Managing editor of Agricultural and Resource Economics Review (ARER)	2022 – Current
Co-editor of Agricultural and Resource Economics Review (ARER)	2020 – 2022
Subject editor for the journal Neobiota	2021 – Current
Guest editor for a special issue in the journal Neobiota	2020 – 2021

Reviewing for Journals

Agricultural and Resource Economics Review; 2019 [1]
Biological Conservation; 2013 [1]; 2012 [1]
Biological Invasions; 2021 [2]
Communications of the ACM; 2018 [1]
Diversity and Distributions; 2014 [1]
Ecological Economics; 2019 [1]; 2018 [1]; 2017 [1]; 2016 [2]; 2015 [4]; 2014 [5]; 2013 [1]; 2012 [1]
Economies; 2017 [1]
Environmental and Resource Economics; 2017 [2]; 2016 [3]; 2015 [3]; 2014[1]; 2013 [1]
Environment International; 2018 [1]
Forests; 2018 [1]
Forest Service research paper; 2015 [1]
Journal of Economic Behavior & Organization; 2015 [1]
Journal of Environmental Economics & Policy; 2018 [1]
Journal of Environmental Management; 2018 [1]; 2014 [1]
Oikos; 2012 [1]
Nature; 2021 [2]; 2020 [1]
PLOS ONE; 2015 [1]
Water Resources Research; 2014 [1]

Reviewing for Textbooks

Microeconomics 7ed by Jeffery M. Perloff; Testbank Chapters 1-7.

University Service

Academic Standing Committee (Trinity University	2020 – Current
IRB Board Vice chairperson (Trinity University)	2016 – Current
Environmental Studies Advisory Board (Trinity University)	2016 – Current

Urban Studies Advisory Board (Trinity University)	2016 – Current
Benefits Committee Member (Trinity University)	2017 – 2020
Benefits Committee Chair (Trinity University)	2018 – 2019
Economics Graduate Club Faculty Advisor (UNM)	2012 – 2016

Departmental Service

Advising (Trinity University)	2017 – Current
International Development Hiring Committee (Trinity)	2019 – 2020
International Development Hiring Committee (Trinity)	2017 – 2018
Chair of the ERE hiring Committee (UNM)	2015 – 2016
Graduate Committee (UNM)	2012 – 2016
Microeconomics Core Exam Committee (UNM)	2012 – 2016
International Development Hiring Committee (UNM)	2013 – 2014

Professional/Community Service

Board Member for Friends of San Antonio Natural Areas (FSANA)	2017 – Current
Citizens Climate Lobby Economic Advisory Board & Volunteer	2016 – Current
San Antonio Parks & Recreation volunteer	2017 – Current
Co-Secretary for Northeast Ag and Resource Econ Assoc (NAREA)	2018 – 2019
Social Media Coordinator for NAREA	2016 – 2018
Animal Humane of New Mexico	2013 – 2016
Hospice of the Sandias	2012 – 2014
Dartmouth Hitchcock Medical Center (Children's Hospital)	2011 – 2012
Hospice of Laramie	2006 – 2010

PROFESSIONAL DEVELOPMENT

Council on Undergraduate Research Conference: Advancing Future Research- Strategies for Long-term Sustainability
Arlington, VA, February 14-17, 2019

Associated Colleges of the South (ACS) Summer Teaching Workshop
Furman University, May 30 – June 4, 2017

Career Advancement and Mentorship (CAM) Program Mentee
Northeastern Agricultural and Resource Economic Association, 2015 - 2017

Grants Management Program: General Workshop
University of New Mexico, October 23, 2013.

New Mexico EPSCOR Faculty Leadership Workshop
Valles Caldera Natural Preserve Science and Education Center, Jemez Springs NM, January 7-9, 2013.

Summer School on Environmental Accounting: Externality Valuation and Input-Output Tools for Policy Analysis
Fondazione eni enrico mattei (FEEM), Venice International University, Venice Italy
July 11-17, 2010.

COMPUTATIONAL SKILLS

GAMS
Mathematica

Matlab
Stata
Powersim

AWARDS

Best of the Best Award, Trinity University, 2021
R.R. Witt Junior Faculty Fellowship, 2016-2019
William E. Morgan Graduate Award, University of Wyoming, 2010
Michael K. Schutte Business Scholarship, University of Wyoming, 2008-2009
University Wide Plummer Scholarship, University of Wyoming, 2007-2008