

STEPHANIE A. BROCKMANN, Ph.D.

Peter T. Paul College of Business and Economics
University of New Hampshire
10 Garrison Avenue
Durham, NH 03824

stephanie.brockmann@unh.edu
(603) 862-5492

April 2021

ACADEMIC POSITIONS

University of New Hampshire Assistant Professor of Economics	Durham, NH 2019 – Present
University of Wyoming Instructor and Teaching/Research Assistant	Laramie, WY 2014 – 2019
Baker University Instructor of Economics	Baldwin City, KS 2013 – 2014
Western Kentucky University Research Assistant	Bowling Green, KY 2010 – 2011

EDUCATION

University of Wyoming Ph.D., Economics	Laramie, WY May 2019
Western Kentucky University M.A., Applied Economics	Bowling Green, KY May 2011
Baker University B.S., Business, <i>magna cum laude</i>	Baldwin City, KS May 2010

RESEARCH FIELDS

Environmental, Natural Resource, Development, Spatial, Public Policy, and Agricultural Economics

PEER REVIEWED PUBLICATIONS

Albers, H., **Brockmann, S.**, & Ávalos-Sartorio, B. (2020). Assessing policies to mitigate abandonment of shade-grown coffee production in forest systems amid low and uncertain prices. *Environment and Development Economics*, 1-26.

WORKING RESEARCH PAPERS

Title: Consequences of Space and Species Aggregation in Welfare Estimates of Invasive Species

Author(s): Stephanie Brockmann and David Finnoff

Abstract: A computable general equilibrium (CGE) model is developed to assess the current threat in Lake Michigan of bighead carp, a non-indigenous aquatic invasive species. The CGE model is designed to link spatial biomass data from the Atlantis ecosystem model of Lake Michigan with recreational fishing behavior and the broader economy. After generating the welfare impacts from the explicit space and species model, the results are compared to other versions of the model. Results indicate that ignoring space or species details will under- or over-estimate welfare impacts and misinform policymakers.

Title: Valuing impacts of regulations on nonpoint source nutrient loading in Lake Michigan given the presence of *Dreissena* Mussels.

Author(s): Stephanie Brockmann, David Finnoff, Nicholas Boucher, Hongyan Zhang, Edward Rutherford, and Doran Mason

Abstract: We build a computable general equilibrium model that is representative of the Lake Michigan region to assess the welfare impacts of regulations targeting nonpoint source pollution. The model links the economic system with the Lake Michigan ecosystem, and is used to compute welfare impacts across different hypothetical policy and related nutrient loading scenarios. Through a comparative analysis, we find that a policy designed to reduce nutrient loads may exacerbate the current spatially disparate ecological problems in Lake Michigan from invasive mussels and simultaneous externalities.

Title: Space and Species Interactions in Welfare Estimates for Invasive Species Policy (*In Review*)

Author(s): Stephanie Brockmann and Hongyan Zhang

Abstract: In this analysis, a bioeconomic model links the output of an ecological model with an economic model of recreational fishing behavior. A comparative analysis of the welfare outcomes across several models is used to demonstrate what biases exist if species interactions are neglected or if ecological characteristics are assumed to be homogenous across space. Results of this case study suggest that welfare outcomes vary substantially if species interactions are excluded and vary less if space is treated homogeneously.

Title: Defining the Relationship Between Land Productivity and Structural Change in Developing Economies

Author(s): Stephanie Brockmann

Abstract: To initiate structural change in LDCs (least developed countries), NGOs and governments often encourage policies that will reduce dependence on agriculture, by improving the efficiency of farmer yields and land. However, it is not clear that the effort allocated to encouraging these techniques is justifiable. Using a two-sector economy model with a manufacturing sector and an agriculture sector, I examine in particular the adoption of conservation agriculture. Preliminary results show that there are only certain economic circumstances where these techniques will achieve the desired economic change.

Title: Measuring Behavioral Impacts of Guilt Aversion and Social Distance

Author(s): Stephanie Brockmann, Brittany Taruffelli, Joao Manuel Lameiras Vaz, Dayana Zhappassova and Jason Shogren

Abstract: To better understand how psychological motivations can inform the design of policies regarding environmental public goods, in this paper we perform a lab experiment to measure and test how two psychological factors, guilt aversion and social distance, induce changes in outcomes in a trust game. Our experimental framework is based on the trust game, that includes an objective measure of guilt proneness and of post-game questions regarding social distance. We find that elicited beliefs do not correlate (positively) with guilt-prone behavior, providing a case against the guilt aversion hypothesis.

Title: Organic Fertilizer Use in Developing Economies: A Spatial Analysis of Malawian Adopters

Author(s): Stephanie Brockmann

Abstract: The objective of this study is to examine how neighbors', or peers', decisions and perceptions of technology impact a farmer's adoption of similar techniques. I use a spatial autoregressive framework to estimate within-village and across-village spillovers of organic fertilizer adoption in Malawi. My proposed model includes geospatial controls and subjective perceptions of a farmer's own wealth and the wealth of their neighbors. In brief, I find that there is significant support for within-village adoption spillovers in each district and that across-village spillovers are present in select districts only.

RESEARCH IN PROGRESS

Title: Integrating Spatial Decision-Making and Geographic Information Systems to Assess Welfare Impacts from Invasive Species

Author(s): Stephanie Brockmann and David Finnoff

Abstract: The CGE model we develop incorporates distance dependent recreational decisions, allowing for dynamic spatial and temporal impacts of an invasive species and biomass population response to feed back into spatially explicit and species-specific consumer decisions and the broader economy. The model equips policymakers with a better tool for measuring welfare and informing policy.

Title: Getting environmental services from green production certification: dynamic contracts and competing certification agencies

Author(s): Stephanie Brockmann and Jo Albers

Abstract: We explore the impact of subsistence constraints and initial shade levels on farmer participation in one of two stylized green certification programs, with one program providing the price premium during the transition to the green process. We then identify the two programs' impact on income and ecosystem services generated by a landscape of heterogenous farmers.

GRANTS

University of Wyoming

Great Lakes Fishery Trust Grant, Advisor: David Finnoff

Laramie, WY

2016 – 2019

TEACHING FIELDS

Environmental Economics, Natural Resource Economics, Microeconomics, Macroeconomics, Development Economics, Game Theory, Economics of Social Issues, Economics in the Media

TEACHING

University of New Hampshire

Professor, Intermediate Microeconomic Analysis with Calculus

Professor, Intermediate Microeconomic Analysis

Professor, Microeconomics II (Graduate Level)

Durham, NH

Spring 2020

Spring 2020, Fall 2020

Fall 2019

University of Wyoming

Instructor, Environmental Economics
Instructor, Principles of Microeconomics
Guest Lecturer, Environmental Economics for Non-Majors
Teaching Assistant, Global Economic Issues
Teaching Assistant, Principles of Macroeconomics

Laramie, WY
 Spring 2018
 Fall 2017
 Fall 2016
 Spring 2015
 Fall 2014

Baker University

Instructor, Principles of Microeconomics
Instructor, Principles of Macroeconomics
Instructor, Managerial Economics
Instructor, Applied Game Theory
Instructor, Economics in the Media
Instructor, Economics of Social Issues
Co-Instructor, First-Year Experience

Baldwin City, KS
 2013 – 2014
 2013 – 2014
 Spring 2014
 Spring 2014
 J-Term 2014
 Fall 2013
 Fall 2009

Western Kentucky University

Guest Lecturer, Business Statistics

Bowling Green, KY
 Spring 2011

PRESENTATIONS AND CONTRIBUTIONS

“Valuing impacts of regulations on nonpoint source nutrient loading in Lake Michigan given the presence of *Dreissena* Mussels.”

Presenter: University of Illinois at Urbana-Champaign

Virtual (Champaign, IL)
 2021

“Getting environmental services from green production certification: dynamic contracts and competing certification agencies”

Presenter: Eastern Economic Association Meetings

Virtual (NYC, NY)
 2021

“Integrating Spatial Decision-Making into Assessments of Welfare using Geographic Information Systems”

Presenter: Association of Environmental and Resource Economists (AERE) Summer Conference

Virtual (Miami, FL)
 2020

“Integrating Spatial Decision-Making and Geographic Information Systems to Assess Welfare Impacts from Invasive Species”

Presenter: The Tropical Agricultural Research and Higher Education Center (CATIE) and Environment for Development Initiative (EfD) Seminar

Cartago, Turrialba, CR
 2018

“Consequences of Space and Species Aggregation in Welfare Estimates of Invasive Species”

Presenter: World Congress of Environmental and Resource Economists Parallel Session

Gothenburg, SWE
 2018

Presenter: Colorado State and Wyoming Graduate Student Symposium

Fort Collins, CO
 2018

Presenter: American Economic Association Meetings, Omicron
Delta Epsilon Graduate Student Session Philadelphia, PA
2018

“FDIC Community Banking Study”, Chapter 3: Inset Box
Contributor Washington D.C.
2012

AWARDS AND DISTINCTIONS

University of Wyoming

Carlton R. Barkhurst Fellowship 2019
University-wide award; 8 selected recipients

Promoting Intellectual Engagement Award (PIE) 2018
*University-wide teaching award; undergraduate student
nominated; 267 nominations in 2018, 35 selected recipients*

Best Graduate Student Teaching Award 2018
Departmental teaching award

Shelby Gerking Graduate Award in Economics 2018
Best economics graduate student

William E. Morgan Graduate Student Award 2017
Best graduate student

AAEA Post-Conference Workshop Travel Award 2015

Federal Deposit Insurance Corporation

FDIC STAR Award 2011, 2012
Special thanks and recognition for research and work

Western Kentucky University

Gordon Ford College of Business Award: 2011
Outstanding Achievement for a Graduate Student

Student Government Association Study Away Scholarship 2011

Baker University

Fran Jabara Leadership Award 2010
*Awarded to one female and one male student out of
the college of business*

RELATED PROFESSIONAL EXPERIENCE

Trilogy Analytical Laboratory Washington, MO
Statistical Program Developer Summer 2015

Federal Deposit Insurance Corporation (FDIC) Kansas City, MO; Washington D.C.
Economic Research Assistant 2011 – 2013
Call Report Analyst 2013

CODING LANGUAGES

MATLAB	Proficient
R	Proficient
GAMS	Proficient
STATA	Novice/Proficient
QGIS	Novice

REFEREEING

Environment and Resource Economics	2020
Western Agricultural Economic Association (<i>Conference Abstracts</i>)	2020
Ecological Economics	2018

ADVISING

Ph.D.

Linghui Wu (<i>Committee Member</i>)	AY 2020 – Present
Iris Tryfoni (<i>Co-Chair</i>)	AY 2020 – Present
Andrew Whitaker (<i>Co-Chair</i>)	AY 2020 – Present

M.A.

Khashayar Ghorbani Vagheei Nefouti (<i>Committee Member</i>)	AY 2019 – Present
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Undergraduate

Liam Morrissey	Spring 2020, Fall 2020
Timothy Campbell (<i>Honors Instructor</i>)	Fall 2020
Camden Leno (<i>Faculty Sponsor</i>)	Fall 2020

SERVICE AND MEMBERSHIP

University of New Hampshire

Ph.D. Environmental Field Exam Committee	AY 2019 – Present
Ph.D. Microeconomic Theory Comprehensive Exam Committee	AY 2019 – Present
Economics Department Faculty Secretary	AY 2019 – Present
Economics Graduate Admissions and Financial Aid Committee	AY 2019 – Present

University of Wyoming

Wyoming Women in Economics Network (WWEN) - Chair	2018
Graduate Student Group Coordinator	2016 – 2017
Undergraduate Advisor for Senior Capstone Paper	2017
LOGOS After School Assistant, Kindergarten and 1 st Grade	2017 – 2018

Baker University

Women's Leadership Committee	2013 – 2014
Alpha Chi Omega, University Chapter Advisor	2013
Omicron Delta Epsilon, President	2009 – 2010
ParMentor	2009 – 2010
Delta Mu Delta	2009