CONTACT 1.970.219.5999 Mail Code 1809T

INFORMATION parthum.bryan@epa.gov 1200 Pennsylvania Avenue, N.W.

bryanparthum.com Washington, DC 20004

Citizenship: USA

Positions U.S. Environmental Protection Agency, Office of Policy

2020 - present

Economist

National Center for Environmental Economics, Washington, D.C.

Georgetown University

2022 - present

Adjunct Professor

Department of Economics, Washington, D.C.

Previous Positions

Salisbury University, Adjunct Professor

2021

**EDUCATION** 

Ph.D., Applied Economics

2020

University of Illinois at Urbana-Champaign, IL

Dissertation: Estimating Demand for Environmental Amenities, Now and Later

ACE Most Outstanding Dissertation Award, 2021

Committee: Amy Ando (chair), Klaus Moeltner, Ben Gramig, Peter Christensen

M.S., Policy Economics

2015

University of Illinois at Urbana-Champaign, IL

Thesis: Divesting from the Golden State: A Case Study of Local Foods Systems

Using Propensity Score Matching Within Panel Data

Advisor: Geoffrey Hewings

B.S., Economics 2013

Colorado State University, Fort Collins, CO

Thesis: Co-integration of Industry to Estimate Business Cycles, Developing

Employment and Revenue Projections for the State of Colorado

Advisors: Stephan Weiler and Harvey Cutler

FIELDS

Primary

Secondary

Environmental and Resource Economics

Environmental Policy

Applied Econometrics

Climate Change

REFEREED JOURNAL PUBLICATIONS

- 1. Comprehensive Evidence Implies Higher Social Cost of Carbon with Kevin Rennert, Frank Errickson, Brian Prest, Lisa Rennels, Richard Newell, William Pizer, Cora Kingdon, Jordan Wingenroth, Roger Cooke, David Smith, Kevin Cromar, Delavane Diaz, Fran Moore, Ulrich Mller, Richard Plevin, Adrian Raftery, Hana evkov, Hannah Sheets, James Stock, Tammy Tan, Mark Watson, Tony Wong, and David Anthoff. 2022. Nature. DOI:10.1038/s41586-022-05224-9
- 2. A Market for Snow: Modeling Winter Recreation Patterns Under Current and Future Climate with Peter Christensen. 2022. Journal of Environmental Economics and Management. DOI:10.1016/j.jeem.2022.102637
- 3. Overlooked Benefits of Nutrient Reductions in the Mississippi River Basin with Amy W. Ando. 2020. Land Economics. 96:589-607. DOI:10.3368/wple.96.4.589
- 4. Willingness-to-Volunteer and Stability of Preferences between Cities: Estimating the Benefits of Stormwater Management with Ando et al. 2020. Journal of Environmental Economics and Management. DOI:10.1016/j.jeem.2019.102274

5. Benefits of the Fire Mitigation Ecosystem Service in The Great Dismal Swamp National Wildlife Refuge, Virginia, USA with Emily Pindilli and Dianna Hogan. 2017. Journal of Environmental Management. 203: 375-82. DOI:10.1016/j.jenvman.2017.08.018

# REGULATORY PUBLICATIONS

# 1. Phasing Down Production and Consumption of Hydrofluorocarbons

Chapter 4: Benefits, The Social Cost of Hydrofluorocarbons; Chapter 6: Environmental Justice Analysis; Chapter 8: Uncertainty Surrounding the Social Costs of Hydrofluorocarbons

 Protection of Stratospheric Ozone: Standards Related to the Manufacture of Class II Ozone-Depleting Substances for Feedstock

2021

Chapter 4: Benefits, The Social Cost of Hydrofluorocarbons; Chapter 6: Environmental Justice Analysis

3. The Social Cost of Carbon, Methane, and Nitrous Oxide

2021

2021

Interim Estimates under Executive Order 13990

# Papers in Preparation

- 1. A Recreation Demand Model for Mountain Snowpack
- 2. Heavy Rain Events, Toxic Sites, and Drinking Water Quality with Wes Austin and Siyu Pan
- 3. Climate Benefits of Nutrient Management in Aquatic Ecosystems with Jake Beaulieu, Elizabeth Kopits, and Chris Moore
- 4. Buying the Farm and the Distribution of Local and Cultural Benefits from Farmland Conservation with Amy W. Ando, Corey Lang, and Frederick Nyanzu
- 5. The Social Costs of Hydrofluorocarbons and the Climate Benefits from their Phaseout with Tammy Tan

# FEDERAL COMMITTEES, WORKGROUPS

Natural Capital Accounts and Environmental-Economic Statistics EPA representative on the Policy Working Group 2022-present

Ukraine Working Group on Environment Ecosystem Services and Environmental Degradation 2022-present

Interagency Working Group on Social Cost of Greenhouse Gases 2021-present Damage Functions, Discounting, Socioeconomic and Emissions Scenarios

American Innovation and Manufacturing Act Workgroups 2021-present Hydrofluorocarbons Phasedown, Technology Transitions, Allowance Allocation

Federal Efforts to Address Harmful Algal Blooms and Hypoxia 2020-present Government Accountability Office

# RESEARCH POSITIONS

# Big Data in Environmental Economics and Policy

2017-2020

Bridge economics with computer science University of Illinois at Urbana-Champaign, IL

## Cultural Divide in WTP: Rural-Urban Preferences

2016-2020

An Integrated assessment framework for water quality University of Illinois at Urbana-Champaign, IL

	Land Conservation on the Rural-Urban Fringe Estimating the distributional impacts of land conservation University of Illinois at Urbana-Champaign, IL	2019-2020
	Dissecting the Energy Efficiency Gap in Home Weatherization Randomized control trial, quasi-experimental, and machine m University of Illinois at Urbana-Champaign, IL	2016-2018 nearning
TEACHING EXPERIENCE	Environmental Economics Georgetown University, DC (Econ 475) Lecture: 40 students	FA22
	Undergraduate Credit: 3 Hours Salisbury University, MD (ENVS 210) Online: 40 students Undergraduate Credit: 3 Hours	SP21
	Intermediate Microeconomics (ACE 398) University of Illinois at Urbana-Champaign, IL Lecture: 65 students Undergraduate Credit: 3 Hours Teaching Evaluation Scores: 4.9/5	SP19, FA19
	Microcomputer Applications (ACE 161) University of Illinois at Urbana-Champaign, IL Lecture: 50 students, Online: 100 students Undergraduate Credit: 3 Hours Teaching Evaluation Scores: 4.8/5	SP18, SU18, FA18
	Graduate Academy for College Teaching University of Illinois at Urbana-Champaign, IL Teaching Teachers how to Teach	SP19, FA19, SP20
TEACHING CERTIFICATES AND AWARDS	List of Teachers Ranked as Excellent University of Illinois at Urbana-Champaign, IL Top-rated faculty and instructors; * indicates top 10%	FA19, SP19*, FA18 SU18, SP18*
	Soaring with Online Learning Salisbury University, MD	SP21
	ACES Teaching and Learning Academy Course University of Illinois at Urbana-Champaign, IL	FA17
	Teacher's Scholar Certificate University of Illinois at Urbana-Champaign, IL Exploration of pedagogy from a discipline-based perspective	FA19
	Graduate Teacher Certificate University of Illinois at Urbana-Champaign, IL Documented teaching experience, development, and reflective	FA19 practice
Awards	Rising Star Honors Award	2022
	U.S. EPA, Office of the Administrator Most Outstanding Dissertation Award University of Illinois, Department of ACE	2021
	Louis V. Logeman Teaching Award University of Illinois, College of ACES	2020
	Most Outstanding Second Year Research Paper University of Illinois, Department of ACE	2018

	Outstanding Ph.D. Student University of Illinois Department of ACE	2018		
	University of Illinois, Department of ACE Gamma Sigma Delta	2017		
	Honor Society of Agriculture	2011		
Invited Presentations	U.S. Socioeconomic Impacts of Harmful Algal Blooms Workshop Woods Hole Oceanographic Institution, Washington, D.C.	2020		
	Using Web-sourced Data to Estimate the Demand for Climate Amenities Camp Resources, Asheville, NC. Invited presentation of learning tutorial.	2019		
SELECTED PRESENTATIONS	Preferences for Environmental Quality across the Rural-Urban Divide The Social Cost of Water Pollution and IAM Workshop, Ithaca, NY Annual W4133: Multistate Research Project, Austin, TX	2019 2018		
	You are Here: Bringing New Life, and Methods, to Stated Preference Research The Workshop on Enviro Economics and Data Science, Portland, OR	2019		
	The Price of Powder: Evidence on the Demand for Snow from Property Rentals Annual W4133: Multistate Research Project, Santa Fe, NM	2019		
	Big Mountain Losses for Small Mountain Towns and the Ski Industry Program in Environmental and Resource Economics, Urbana, IL	2018		
	Health Benefits of the Fire Mitigation Ecosystem Service BioEcon 19th Annual, Tilburg, Netherlands	2017		
SERVICE AND	Referee			
LEADERSHIP	Proceedings of the National Academy of Sciences, Journal of Environmental Economics and Management, American Journal of Agricultural Economics, Land Economics, Environmental and Resource Economics, Resource and Energy Economics, Regional Science and Urban Economics, Landscape and Urban Planning, Land Use Policy, Ecological Economics, International Journal of Biometeorology			
	Institutional Student Sustainability Committee (Chair 2017/18, Vice Chair 2018/19)   UIUC Campus Senate (Senator, 2016/18)   UIUC Senate Executive Committee (2017/18)   UIUC Committee on Campus Operations (2016/17)   Graduate Student Organization of ACE (Vice President, 2016/17)			
	Community Outreach  ACES Family Academies — Short Course  Economics: The Fun and Seldom Seen Kind	2019		
Additional Experience	Economist			
	Department of the Interior, U.S. Geological Survey  Reston, VA  Series: GS-0199-09  Supervisor: Emily Pindilli, 1.703.648.5732  Inform adaptive management decisions within the U.S. interior and abroad			
	through interdisciplinary and interagency collaboration. Contribute to pol discussion and design.			
	Project Coordinator	261		
	The Global 2100 Project — Our Task Inc. 2015.	- 2017		

Page 4 of 5

Washington, DC

Organize research and writing efforts across 25 researchers to develop a comprehensive analysis of global projections for climate, environment, population, agriculture, health, energy, education, conflict, and economic systems through the year 2100.

#### Owner and Founder

Parthum Construction

2005 - 2014

Laporte, CO

Design and build custom homes and high-end residential remodels, manage large budgets (\$50k-\$1mil), supervise 2 employees and all sub-contractors.

#### References

## Amy W. Ando, Ph.D.

Professor, Department of Agricultural and Consumer Economics University of Illinois at Urbana-Champaign, IL amyando@illinois.edu

# Klaus Moeltner, Ph.D.

Professor, Department of Agricultural and Applied Economics Virginia Tech, VA moeltner@vt.edu

### Peter Christensen, Ph.D.

Assistant Professor, Department of Agricultural and Consumer Economics University of Illinois at Urbana-Champaign, IL pchrist@illinois.edu

# Al McGartland, Ph.D.

Director
U.S. EPA National (

U.S. EPA National Center for Environmental Economics Washington, DC mcgartland.al@epa.gov

#### Programming

• • R, STata, julià, ♦Matlab, ₱ python, ♠ArcGIS, IATEX, ☐ Office

#### Languages

• English (native), American Sign Language (fluent)