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

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

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

2021

2015

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

#### The Social Cost of Greenhouse Gases

- 1. The Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances Model development, replication, and full text
- 2. Interim Estimates under Executive Order 13990 Replication code and full text

# Phasing Down Production and Consumption of Hydrofluorocarbons

- 1. 2021 Framework Rule Chapter 4: The Social Cost of Hydrofluorocarbons; Chapter 6: Environmental Justice; Chapter 8: Uncertainty Surrounding the Social Costs of Hydrofluorocarbons
- 2. 2022 Allowance Allocation Rule Chapter 2: The Benefits and Costs of the HFC Phasedown; Chapter 4: Climate Benefits; Chapter 6: Environmental Justice
- 3. Protection of Stratospheric Ozone Rule Chapter 4: Benefits, The Social Cost of Hydrofluorocarbons; Chapter 6: Environmental Justice Analysis

## Papers in Preparation

- 1. Advancing the estimation of future climate impacts within the United States with Corinne Hartin, Erin E. McDuffie, Karen Noiva, Marcus Sarofim, Jeremy Martinich, Sarah Barr, Jim Neumann, Jaqueline Willwerth, and Allen Fawcett
- 2. A Recreation Demand Model for Mountain Snowpack
- 3. Extreme Precipitation and Drinking Water Quality with Wes Austin and Siyu Pan
- 4. Climate Benefits of Nutrient Management in Aquatic Ecosystems with Jake Beaulieu, Elizabeth Kopits, and Chris Moore
- 5. Buying the Farm and the Distribution of Local and Cultural Benefits from Farmland Conservation with Amy W. Ando, Corey Lang, and Frederick Nyanzu
- 6. The Social Costs of Hydrofluorocarbons and the Large Climate Benefits from their Expedited Phaseout with Tammy Tan and Lisa Rennels

# FEDERAL COMMITTEES, WORKGROUPS

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

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 Government Accountability Office 2020-2022

Awards	Trudy A. Speciner Award for Advancing Environmental Protection U.S. EPA, National Honors	on 2022
	Rising Star Honors Award U.S. EPA, Office of the Administrator	2022
	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
TEACHING EXPERIENCE	Environmental Economics Georgetown University, DC (Econ 475) Lecture: 40 students Undergraduate Credit: 3 Hours Salisbury University, MD (ENVS 210) Online: 40 students	FA22 SP21
	Undergraduate Credit: 3 Hours  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

#### Reviewer.

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 — Food Policy — Regional Science and Urban Economics — Landscape and Urban Planning — Land Use Policy — Ecological Economics — International Journal of Biometeorology

# Additional Experience

### **Economist**

## Department of the Interior, U.S. Geological Survey

2015 - 2020

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 policy discussion and design.

## 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

#### Al McGartland, Ph.D.

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

#### 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

## Programming

• • Tata, julià, →Matlab, → python, SarcGIS, LATEX, 1 Office

#### LANGUAGES

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