CONTACT 1.970.219.5999 Mail Code 1809T

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

bryanparthum.com Washington, DC 20460

Citizenship: USA

Positions U.S. Environmental Protection Agency, Office of Policy 2020 - present

Economist

National Center for Environmental Economics, Washington D.C.

Salisbury University Spring 2021

Adjunct Professor

Fulton School of Liberal Arts, Salisbury, MD

EDUCATION Ph.D., Applied Economics

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. A Market for Snow: Modeling Winter Recreation Patterns Under Current and Future Climate with Peter Christensen. (forthcoming). Journal of Environmental Economics and Management.
- 2. 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.
- 3. Willingness-to-Volunteer and Stability of Preferences between Cities: Estimating the Benefits of Stormwater Management with Amy W. Ando, Catalina Cadavid, and Noelwah R. Netusil. 2020. Journal of Environmental Economics and Management. 99. doi:10.1016/j.jeem.2019.102274.
- 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.

2015

# 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
- 6. Using Discrete Choice Experiments as a Tool for Teaching Consumer Theory: A Case Study in an Intermediate Microeconomics Course

# FEDERAL COMMITTEES, WORKGROUPS

Interagency Working Group on Social Cost of Greenhouse Gases 2021-2022 Technical Working Groups: Damage Functions, Discounting, Socioeconomic and Emissions Scenarios, Climate Science

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

### RESEARCH POSITIONS

# Big Data in Environmental Economics and Policy

2017-2020

2020-2021

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

2019-2020

Estimating the distributional impacts of land conservation University of Illinois at Urbana-Champaign, IL

# Dissecting the Energy Efficiency Gap in Home Weatherization Randomized control trial, quasi-experimental, and machine mearning

2016-2018

University of Illinois at Urbana-Champaign, IL

| TEACHING<br>EXPERIENCE                 | Environmental Economics (ENVS 210) Salisbury University, MD Online: 40 students  | 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 (TA), 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                 |
| TEACHING<br>CERTIFICATES<br>AND AWARDS | List of Teachers Ranked as Excellent<br>University of Illinois at Urbana-Champaign, IL<br>Top-rated faculty and instructors; * indicates top 10%   | FA19, SP19*, FA18<br>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                                 | Most Outstanding Dissertation Award Department of Agriculture and Consumer Economics   | 2021                             |
|  | Louis V. Logeman Teaching Award College of Ag., Consumer and Environmental Sciences  | 2020                             |
|  | Most Outstanding Second Year Research Paper Department of Agriculture and Consumer Economics   | 2018                             |
|  | Outstanding Ph.D. Student Department of Agriculture and Consumer Economics   | 2018                             |
|  | Gamma Sigma Delta Honor Society of Agriculture   | 2017                             |
| Invited<br>Presentations               | U.S. Socioeconomic Impacts of Harmful Algal Blooms Workshop<br>Woods Hole Oceanographic Institution, Washington, D.C. (vin   | 2020 rtual)                      |
|  | Using Web-sourced Data to Estimate the Demand for Climate Amenities Camp Resources, Asheville, NC (invited presentation of learning tutorial)  |                                  |
| SELECTED<br>PRESENTATIONS              | Preferences for Environmental Quality across the Rural-Urban De The Social Cost of Water Pollution and IAM Workshop, Ithac Annual W4133: Multistate Research Project, Austin, TX                             |                                  |
|  | You are Here: Bringing New Life, and Methods, to Stated Prefere<br>The Workshop on Enviro Economics and Data Science, Portla   |                                  |

| 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 LEADERSHIP

#### Referee

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

# Department and Campus

| Student Sustainability Committee — Vice Chair         | 2018 - 2019 |
|---|-------------|
| Land and Water Subcommittee — Chair                   | 2017 - 2018 |
| UIUC Campus Senate — Senator                          | 2016 - 2018 |
| Senate Executive Committee                            | 2017 - 2018 |
| Committee on Campus Operations                        | 2016 - 2017 |
| Program in Environmental Economics — Coordinator      | 2017 - 2018 |
| Graduate Student Organization of ACE — Vice President | 2016 - 2017 |
| Graduate Academy for College Teaching — Instructor    | 2019 - 2020 |
| Teaching Teachers how to Teach                        |             |

### Community Outreach

ACES Family Academies — Short Course
Economics: The Fun and Seldom Seen Kind

### 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 inter-agency collaboration. Contribute to policy discussion and design.

# **Project Coordinator**

# The Global 2100 Project — Our Task, Inc.

2015 - 2017

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

Programming

U.S. EPA National Center for Environmental Economics

Washington, DC mcgartland.al@epa.gov

• R, STata, julià, AMATLAB, Python, ArcGIS, LATEX, Office

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