

Charles H. Dyson School of Applied Economics and Management  
 SC Johnson College of Business  
 College of Agriculture and Life Sciences  
 Cornell University  
 439 Warren Hall  
 Ithaca, NY 14853-7801  
 Born: 7/29/1981

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**EDUCATION**

Ph.D.	Agricultural & Resource Economics	University of Maryland	2013
	Dissertation: <i>Essays on Climate Change Impacts and Adaptation on Agriculture</i>		
	Committee: R.E. Just, R.G. Chambers, M. Cropper, T. McConnell and R. Williams III		
M.S.	Agricultural & Resource Economics	University of Maryland	2011
M.P.A.	Public Administration	Syracuse University (Maxwell)	2006
M.Eng.	Agronomy	Paris-Saclay University (AgroParisTech)	2004
B.S.	Life Sciences	Paris-Saclay University (Faculty of Sciences)	2001

**TOPICS AND FIELDS OF INTEREST**

Climate change impacts and adaptation, agricultural economics, environmental and resource economics, applied econometrics.

Graduate Fields at Cornell: Applied Economics and Management; Economics; Natural Resources.

**APPOINTMENTS**

7/2020–present Associate Professor, Dyson School of Applied Economics and Management, Cornell University, Ithaca, NY

7/2015–present Fellow, Cornell Atkinson Center for Sustainability, Cornell University, Ithaca, NY

7/2014–6/2020 Assistant Professor and CoBank/Farm Credit East Sesquicentennial Faculty Fellow in Economics and Management of Agricultural Production Sustainability, Dyson School of Applied Economics and Management, Cornell University, Ithaca, NY

7/2013–6/2014 Fellow, Resources for the Future, Washington, DC

7/2012–7/2013 Short Term Consultant, World Bank, Development Research Group: Environment & Energy Team (DECEE), Washington, DC

7/2006–8/2008 Special assistant to the Minister, Ministry of the Environment and Natural Resources, Santo Domingo, Dominican Republic

**PUBLICATIONS**

- Addoum, J., D. Ng and A. Ortiz-Bobeo, "[Temperature Shocks and Establishment Sales](#)," *Review of Financial Studies* 33:3 (2020) 1331–1366.

- **Ortiz-Bobea, A.**, [“The Role of Nonfarm Influences in Ricardian Estimates of Climate Change Impacts on U.S. Agriculture.”](#) *American Journal of Agricultural Economics* (2020)
- **Ortiz-Bobea, A.**, H. Wang, C. Carrillo and T.R. Ault, [“Unpacking the climatic drivers of U.S. agricultural yields”](#), *Environmental Research Letters* 14:6 (2019)
- H. Wang and **A. Ortiz-Bobea**, [“Market-Driven Corn Monoculture in the US Midwest,”](#) *Agricultural and Resource Economics Review* (2019) 1–23.
- **Ortiz-Bobea, A.**, E. Knippenberg and R.G. Chambers, [“Growing Climatic Sensitivity of US Agriculture Linked to Technological Change and Regional Specialization,”](#) *Science Advances* 4:12 (2018)
- **Ortiz-Bobea, A.** and J. Tack, [“Is Another Genetic Revolution Needed to Offset Climate Change Impacts for US Maize Yields?”](#) *Environmental Research Letters* 13:12 (2018)
- Gammans, M., P. Mérel and **A. Ortiz-Bobea**, [“The Impact of Climate Change on Cereal Yields: Statistical Evidence from France,”](#) *Environmental Research Letters* 12:5 (2017)
- Strand, J., R.T. Carson, S. Navrud, **A. Ortiz-Bobea** and J.R. Vincent, [“Using the Delphi method to value protection of the Amazon rainforest,”](#) *Ecological Economics* 131 (2017) 475–484
- **Ortiz-Bobea, A.** and R.E. Just, [“Modeling the Structure of Adaptation in Climate Change Impact Assessment for Agriculture,”](#) *American Journal of Agricultural Economics* 95:2 (2013) 244–251

## WORKING PAPERS

1. [Anthropogenic climate change has slowed global agricultural productivity growth](#) (with Toby R. Ault, Carlos M. Carrillo, Robert G. Chambers and David B. Lobell), *conditionally accepted, Nature Climate Change*
2. A Vulnerability Index for Priority Targeting of Agricultural Crops Under a Changing Climate (with Jiajun Du and Calum Turvey), *revise and resubmit, Climatic Change*
3. Double cropping to slightly offset the negative impacts of warming on US crop yields (with Mathew Gammans and Pierre Mérel), *under review*
4. How weather affects the decomposition of Total Factor Productivity in U.S. agriculture (with Alejandro Plastina and Sergio Lence), *accepted, Agricultural Economics*
5. [How big is the ‘lemons’ problem? Historical evidence from French wines](#) (with Pierre Merél and Emmanuel Paroissien), *revisions requested, European Economic Review*
6. Temperature and children’s Nutrition: evidence from West Africa (with Sylvia Blom and John Hoddinott), *under review*
7. Temperature shocks and industry earnings news (with Jawad Addoum and David Ng), *draft version (award-winning paper)*
8. Chlorophyll Fluorescence Improves Satellite-Based Crop Yield Estimation in Diverse Agricultural Landscapes (with Yangyang Fan, Jiaming Wen, Oz Kira, Andrew McDonald, Christopher B. Barrett, Yanyan Liu, Liangzhi You, Zhengjun Qiu, Cong Wang and Ying Sun), *under review*
9. Climate change, extreme temperature and crop yields: unpacking a complex relationship (with Jeffrey Melkonian, Susan Riha and Samantha Sekar), *revision requested*
10. Climate Contagion: Temperature and Growth in Spatial General Equilibrium (with Gary Lyn and Ivan Rudik), *draft version*
11. Identifying the timing of economically relevant weather conditions (with Zhiyun Li), *in preparation*

## OLDER PROJECTS

1. [The Economic Impacts of Climate Change on Agriculture: Accounting for Time-invariant Unobservables in the Hedonic Approach](#)

## SELECT WORK IN PROGRESS

1. Crop failure in US agriculture
2. Aggregation bias in panel estimates of climate change impacts

3. On the Triggers of Hazardous Border Crossings: Evidence from the US-Mexican Border (with Nancy Chau and Filiz Garip)
4. Global agricultural R&D in a changing climate
5. The historical impact of anthropogenic climate change on US agricultural productivity
6. Structural transformation, agriculture, climate and the environment (with Chris Barrett and Trinh Pham)
7. Chapter on “Climate, agriculture and food” for the Handbook of Agricultural Economics

## BOOK CHAPTERS

1. **Ortiz-Bobea, A.** "[US Maize Yield Growth and Countervailing Climate Change Impacts.](#)" In *Climate Smart Agriculture*, pp. 161-172. Springer, Cham, 2018.
2. Jessoe, K., P. Mérel, and **A. Ortiz-Bobea.** 2018. "[Climate Change and California Agriculture.](#)" Chapter 16 in P.L. Martin, R.E. Goodhue, and B.D. Wright (eds). *California Agriculture: Dimensions and Issues*. Giannini Foundation Information Series No. 18-01. Berkeley: University of California: Giannini Foundation and Division of Agriculture and Natural Resources.

## TEACHING

AEM 7010, Applied Microeconomics, Fall 2014 (12 students)  
 AEM 2500, Environmental and Resource Economics, Spring 2015 (48 students)  
 AEM 7010, Applied Microeconomics, Fall 2015 (9 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2015 (49 students)  
 AEM 7010, Applied Microeconomics, Fall 2016 (11 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2016 (51 students)  
 AEM 7010, Applied Microeconomics, Fall 2017 (13 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2017 (60 students)  
 AEM 7010, Applied Microeconomics, Fall 2018 (24 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2018 (72 students)  
 AEM 6850, Empirical Methods for Applied Economists, Spring 2019 (18 students)  
 AEM 7675, Advanced Grad Research Seminar, Spring 2019 (34 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2019 (48+47 students)  
 AEM 7010, Applied Microeconomics, Fall 2019 (9 students)  
 AEM 7675, Advanced Grad Research Seminar, Spring 2020 (18 students)  
 AEM 2500, Environmental and Resource Economics, Fall 2020 (50+55 students)  
 AEM 6850, Empirical Methods for Applied Economists, Spring 2020

## SERVICE

Department:

Theory competency committee, Applied Economics and Management PhD program, 2014-2020  
 MS admissions committee, Applied Economics and Management, 2014-2018

University:

Advisory board member, Cornell Institute for Climate Smart Solutions, 2016-2019  
 Member, Food Security Working Group, Atkinson Center for a Sustainable Future, 2018-  
 Faculty adviser, Diversity in Cornell Economics (DICE) graduate student group 2019-  
 Affiliated faculty, Environment & Sustainability (cross-college major), 2019-  
 Advisory Board Member, Food Systems Needs Advisory Committee, Grow-NY Program, 2020-

Faculty Senate, 2020-2023 (3-year term).

Working Group F: A Required Educational Program for Faculty, 2020-2021

External:

Associate Editor, American Journal of Agricultural Economics (AJAE), 2020-2023

Member, Editorial Council, Journal of the Association of Environmental and Resource Economists (JAERE), 2020-

Member, OECD Network on Agricultural TFP and the Environment, 2019-

Co-organizer, Global Open Series in Environmental Economics (GOSEE), 2020-

Co-organizer, Online Summer Workshop in Environment, Energy, and Transportation (Economics) (OSWEET), 2020

Advisory Board Member, Food Systems Needs Advisory Committee, Grow-NY Program

## EARLY EXPERIENCE

Research Assistant (part-time), Fall 2008–Spring 2010, Summer 2012, Department of Agricultural and Resource Economics, University of Maryland, College Park, MD. Professors Anna Alberini, Richard E. Just, Lars Olson, Rob Williams III and Robert G. Chambers.

Research Intern (full-time), Summer 2003, Agro-ecosystem Management Program, Ohio State University, Wooster, OH. Researched the physical factors influencing agricultural pollution in local watershed.

Field Researcher (full-time), 3/2004–8/2004. Research conducted in rural Kafa Zone, Ethiopia for Engineering Master's thesis. Involved extensive technical interviews with smallholder farmers. Conducted agro-ecological and agro-economic diagnosis of a small rural region. Surveyed, analyzed and created models of farming systems. Conducted household-level food security assessment. Developed project and policy proposals for the Government and NGOs.

## HONORS & AWARDS

- Christophe Baron Prize for “How big is the “lemons” problem? Historical evidence from French appellation wines,” at the 13th Annual American Association of Wine Economists, Vienna, Austria, 2019 (paper presented by P Mérel)
- International Center for Pension Management (IPCM) 2018 Research Award for “Temperature Shocks and Earnings News,” 2018
- Geneva Summit on Sustainable Finance (GSSF) 2018 Best Paper Award, “Temperature Shocks and Earnings News,” 2018
- Finalist, World Bank Big Data Innovation Challenge, 2017 (see [here](#))
- University of Maryland Distinguished Dissertation Award (Social Sciences), 2014, recognizes original work that makes an unusually significant contribution to the discipline
- Admitted to Young Professionals Program, World Bank, 2013 (declined to pursue research career)
- Dr. and Mrs. Bill V. Lessley Award for Dissertation Excellence, 2013, awarded to the author of the best dissertation in the Department of Agricultural & Resource Economics, University of Maryland
- International Conference Student Support Award, 2013, University of Maryland's Office of the President and the Graduate School
- Distinguished Teaching Assistant Award, 2011–2012, University of Maryland's Center for Teaching Excellence and the Graduate School
- Jacob K. Goldhaber Travel Grant, 2012, University of Maryland's Graduate School
- Grant from the European Association of Environmental and Resource Economists (EAERE) to participate in the Belpasso International Summer School "Extremes: Natural Disasters in Changing Climate", 4-10 September 2011, Belpasso, Italy
- Distinguished Teaching Assistant Award, 2010–2011, University of Maryland's Center for Teaching Excellence and the Graduate School

- The Bessie H. Devault Award, 2010, awarded to the author of the best paper by a second-year graduate student in the Department of Agricultural & Resource Economics, University of Maryland.
- Syracuse University Graduate Fellow, 2005–2006.
- Placed 3<sup>rd</sup> in national entrance exam to French “Grandes Ecoles” of agronomy, 2001 (see [here](#)).

## GRANTS

1. National Science Foundation, project 1360424. “Impacts of Climate Change on the Phenology of Linked Agriculture-Water Systems.” Collaborative Research with 7 co-PIs at 3 other institutions; Total award amount: \$1.8M. Award amount managed by AOB: \$330,000 approx. Period: 2014-2018.
2. Cornell Institute for Social Science (ISS) small grant. Title: “Can public institutions resolve information asymmetries? Historical evidence from the French wine market.” Award amount: \$10,000. Period: 2014-2015.
3. USDA National Institute of Food and Agriculture, Hatch/Multi State project 101155 “Impact Analysis and Decision Strategies for Agricultural Research”. Award amount: \$137,500. 2016-2021
4. USDA National Institute of Food and Agriculture, Hatch project 1017421 “A Near Real-Time Crop Yield Forecasting System for the Eastern United States”. Award amount: \$105,000. 2018-2021
5. USDA National Institute of Food and Agriculture, INFIEWS project 1855984 “Agricultural-to-Energy Land Use Transitions: A FEW System Modeling Framework”. Research with 5 other co-PIs. Total award amount: \$2.4M. Award amount managed by AOB: \$350,000 approx. Period: 2019-2021.
6. USDA cooperative agreement 58-6000-9-0041 “Development of an Empirical Multi-Scale Agricultural Forecast Model”, Award amount: \$16,193. Period: 2020.

## CONFERENCES AND SEMINARS (past and scheduled)

1. “Improving Agronomic Structure in Econometric Models of Climate Change Impacts,” paper presented at the AAEA & NAREA Joint Annual Meeting, Pittsburgh, July 24–26 2011.
2. “Toward More Transparency in Climate Change Impact Assessment for Agriculture” (with Richard E. Just), paper presented at the 2012 AAEA’s session’ on “Assessment of Climate Change Impact Methods for Agriculture,” ASSA meetings, Chicago, Illinois, January 6, 2012.
3. “Moisture and Heat Interactions in Yield Response Models,” paper presented at the AERE Annual Meeting, Asheville, North Carolina, June 3-5, 2012.
4. “A Biophysical Framework for Time-Aggregation of Weather in Yield Response Models,” poster presented at the AAEA Annual Meeting, Seattle, Washington, August 12-14, 2012.
5. “Understanding Heat and Moisture Interactions in the Economics of Climate Change Impacts and Adaptation on Agriculture,” paper presented at the AERE Annual Meeting, Banff, Ontario, Canada, June 3-5, 2013.
6. “Unpacking Temperature and Moisture Effects on US Corn Yields for Climate Change Impact Assessment,” paper presented at the AAEA Annual Meeting, Washington, DC, August 4-6, 2013
7. “Climatic Constraints of US Growing Seasons,” paper presented at the AAEA Annual Meeting, Minneapolis, MN, July 27-29, 2014.
8. “Climate Change Impacts on US Agriculture: Accounting for the Option Value of Farmland in the Hedonic Approach,” paper presented at the ASSA-AERE meetings, Boston, MA, January 3-5, 2015.
9. “Climate Change Impacts on US Agriculture: Accounting for the Option Value of Farmland in the Hedonic Approach,” paper presented at the AERE Summer Conference, San Diego, CA, June 3-5, 2015.
10. “Climate Change Impacts on US Agriculture: Accounting for the Option Value of Farmland in the Hedonic Approach,” paper presented at the AAEA Summer Conference, San Francisco, CA, July 26-28, 2015.
11. “Climate Change Impacts on US Agriculture: Accounting for the Option Value of Farmland in the Hedonic Approach,” paper presented at the NAREA Summer Conference, Newport, RI, June 28-30, 2015.

12. "Accounting for Omitted Spatial Dependence in the Hedonic Approach," paper presented at the ASSA-AERE meetings, San Francisco, CA, January 3-5, 2016.
13. "Measurement Error, Extreme Temperature and Climate Change Impacts," paper presented at the AAEA Summer Conference, Boston, MA, July 31-August 2, 2016.
14. Purdue (Agricultural Economics), West Lafayette, IN, February 17, 2017
15. USDA Multi-state Research Project NC-1034 "Impact Analyses and Decision Strategies for Agricultural Research" annual research conference on Food, Energy, Environment, and Economics, Tucson, AZ, February 24-25, 2017
16. Workshop "Advances in Estimating Economic Effects from Climate Change Using Weather Observations" organized by Charles Kolstad and Frances Moore, Stanford, CA, May 18-19, 2017
17. AERE summer meetings. Pittsburgh, PA, June 2, 2017
18. USDA ERS. Washington, DC, June 7, 2017
19. EPA NCEE. Washington, DC, June 8, 2017
20. Northeast Workshop on Energy Policy and Environmental Economics, Dartmouth College, Hanover, NH, June 13-14, 2017
21. "The Economic Impacts of Climate Change on Agriculture: Accounting for Time-invariant Unobservables in the Hedonic Approach," AAEA summer meetings. Chicago, IL, July 30-August 1, 2017
22. "U.S. maize Yield Growth and Countervailing Climate Change Impacts," AAEA summer meetings. Chicago, IL, July 30-August 1, 2017
23. "The Role of Climate in U.S. Agricultural Productivity Growth," AAEA summer meetings. Chicago, IL, July 30-August 1, 2017
24. Kansas State University (Ag Econ), Spring 2018
25. ICARB Pre-conference workshop multi-state project NC-1034, The World Bank, June 12, 2018, Washington, DC
26. TWEEDS Workshop. Portland, OR, March 2019
27. AERE summer meetings. Lake Tahoe, NV, May 2019
28. AAEA summer meetings. Atlanta, GA, July 2019
29. Panelist, Heartland Environmental and Resource Economics Workshop at Illinois, September 2019
30. OECD Network on Agricultural Total Factor Productivity and the Environment, University of Maryland, College Park, MD, October 2019
31. Arizona State University (SPGS), Tempe, AZ, December 2019
32. University of Arizona, Tucson, AZ, December 2019
33. Big Ag Data Conference 2020, UC Giannini Foundation of Agricultural Economics, Davis, CA, January 11, 2020
34. TREE seminar at NC State/Duke/RTI, Durham, NC, March 2020
35. State University of New York (Economics), Albany, NY, April 2020 (postponed due to COVID-19)
36. AERE summer meetings (online). June 2020
37. EAAE summer meetings (online). July 2020
38. Cornell Department of Natural Resources (online). September 15 2020
39. Michigan State University (AFRE, online). September 24 2020
40. VIII Catedra de Economia del Caribe, Universidad del Norte (Colombia, online). October 30 2020
41. University of Connecticut (Econ, online), November 9 2020
42. Virginia Tech (AAEC, online), November 18 2020
43. UC Berkeley (ARE, online), November 19 2020
44. Oregon State University (Applied Economics, online), November 20 2020
45. AERE@SEA (online), November 22 2020
46. AGU (online), December 8 2020

## NON-RESEARCH TALKS

- Panelist, "Cross-cultural communication with practiced presenters", part of a student-organized symposium "Speaking Economics". August 19, 2019 in Ithaca, NY.

- Speaker, “What Does Climate Change Mean for NY Agriculture?”, 2020 Agricultural and Food Business Outlook Conference. January 17, 2020 in Ithaca, NY.
- Speaker, “Has anthropogenic climate change already affected global agricultural productivity?”, New York State Association for Food Protection 98<sup>th</sup> Annual Meeting. September 2020.
- Panelist, New Faculty Orientation Research Panel – Social Sciences, Cornell University, August 18, 2020.
- Panelist, AAEA Graduate Student Session on “Navigating Stress, Diversity, and Inclusion in Agricultural Economics”, August 19, 2020.
- NY State association for Food Protection (NYSAFP) Annual Conference, “Has anthropogenic climate change already affected global agricultural productivity?”, September 25, 2020
- National Academies of Sciences, Engineering, and Medicine (NASEM) planning meeting, “Influence of Climate Change on Agricultural Production and Food Availability” October 20 2020
- Grow-NY Food and Ag Summit, fireside chat with Julie Suarez on “Changing Climate Changing Farms” (online). November 17 2020. YouTube link [here](#).

## PROFESSIONAL ORGANIZATIONS

American Economic Association (AEA), 2013-  
 Agricultural and Applied Economics Association (AAEA), 2009-  
 Association of Environmental and Resource Economists (AERE), 2010-  
 European Association of Environmental and Resource Economists (EAERE), 2011  
 Northeastern Agricultural and Resource Economics Association (NAREA), 2012, 2015-  
 Latin American Association of Environmental and Resource Economists (LAERE), 2020-  
 American Society of Hispanic Economists (ASHE), 2020-

Referee activities:

*American Journal of Agricultural Economics; Agricultural and Resource Economics Review; Climate Change Economics; Climatic Change; Environmental and Resource Economics; Environmental Research Letters; Food Policy; Journal of Agricultural and Applied Economics; Journal of Agricultural and Resource Economics; Journal of Applied Econometrics; Journal of the Association of Environmental and Resource Economists; Journal of Environmental Economics and Management; Journal of the European Economic Association; Latin American Economic Review; Nature Climate Change; Nature Food; Proceedings of the National Academy of Sciences; Quantitative Economics; Resource and Energy Economics; Review of Financial Studies; Science Advances*

Invited editor: *Proceedings of the National Academy of Sciences*

External reviews, grant & panel reviews:

NSF Decision, Risk, and Management Sciences program, 2015  
 USDA AFRI Environmental and Natural Resource Economics Program, 2016  
 European Research Council (ERC) Starting Grant, 2017

## GRADUATE STUDENTS

### Postdocs

- Haoying Wang; Assistant Professor at New Mexico Tech

### PhD students

- Xiaolu (Grace) Li, 2019 (Earth and Atmospheric Sciences)
- David Frederick Gold (Civil and Environmental Engineering)
- Steven Wilcox (Applied Economics)

- Sylvia Blom (Applied Economics)
- Zhiyun Li (Chairperson) (Applied Economics)
- Lin Yang (Applied Economics)

### **MS students**

- Qingrun (Justin) Meng, 2017 (Chairperson); Analyst, Analysis Group, Boston
- Elizabeth Womack, 2017; Survey Statistician, US Census Bureau
- Linghui Wu, 2017; PhD Student, University of New Hampshire
- Matthew Utterback, 2018 (Chairperson); Economist, Transportation Security Administration  
Selected second-place winner of the Master's category of the 2018 ICPSR Research Paper Competition  
"Investigating Weather Shocks and the Farmers' Perceptions of Climate Change in the American  
Farmland Market."
- Lin Yang; PhD student in Applied Economics, Cornell University
- Ithipong (Billy) Assaranurak (Chairperson), 2019; Data Scientist, Government Big Data Institute of  
Thailand
- Sangwoo Park, 2020 (Chairperson)
- Jiajun Du, 2020
- Samuel Porter, 2021 (Chairperson)

### **LANGUAGES**

Spanish (native); French (fluent); English (fluent)