NICHOLAS A. POTTER

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DOCTORAL STUDIES

expected 2021

PhD. Economics

Washington State University

Dissertation: "Essays in Water Economics"

Committee

Professor Michael Brady
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Washington State University
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Professor Jonathan Yoder
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Professor Joseph Cook
School of Economic Sciences
Washington State University
Pullman, WA 99164-6210
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Fields

Water and Natural Resource Economics, Conflict Economics, Development Economics



JOB MARKET PAPER

Climate effects on irrigated agriculture in arid regions

Most climate research on economic impacts in the U.S. has focused on rainfed production in nonarid regions. Yet irrigated production in arid regions of the world is a substantial source of a wide variety of high value crops. The impact of increased temperatures on irrigators will be different than the impact on their rainfed counterparts. On the one hand, irrigators in arid regions can benefit from selecting among numerous crops, whereas rainfed producers may be limited to a choice between corn, soy, wheat, and cotton. On the other, increasing temperatures reduce snowpack, a crucial source of water supplies. We examine the effect of climate on irrigated agriculture in the western United States, focusing on the relationship between temperature and profit and the temperature-induced reduction in water supplies. Previous research has relied primarily on yields or land values to estimate climate effects. Instead, we focus on cash rents, which reflect expected profits but are less affected by non-farm aspects such as urbanization (Ortiz-Bobea, 2020). We find that while increased temperatures can lead to increased profits up to a point, profits are reduced at higher temperatures and the reduction in water supply reduces agricultural production.



PUBLICATIONS

2019

rnassqs: An R package to access agricultural data via the USDA National Agricultural Statistics Service (USDA-NASS) 'Quick Stats' API

Journal of Open Source Software, 4(43), 1880, https://doi.org/10.21105/joss.01880

	SOFTWARE
2019	rnassqs: Access the NASS QuickStats API R package. https://CRAN.R-project.org/package=rnassqs, doi: 10.5281/zenodo.2662520
2019	vcovConley: Conley spatially-adjusted Standard Errors
	R package. https://github.com/potterzot/vcovConley
•	Contributions to Other Software: · ropensci/rnoaa
	CONFERENCE PAPERS AND PRESENTATIONS
2020	"Reproducible geoprocessing of agricultural, climate, and land use data at scale with R" The workshop in environmental economics and data science (TWEEDS), Portland, OR
2020	"Do property rights institutions mitigate drought-induced conflict?"
	Agricultural and Applied Economics Association Annual Meeting, Kansas City, MO
2020	"Limitations on water rights in the West: The economic logic of forfeiture"
	Western Agricultural Economics Association Annual Meeting, Online*
2019	"On the Frontier of Water Rights: Beneficial Use and Relinquishment in Settling the Columbia River Basin"
	Universities Council on Water Resources Annual Meeting, Snowbird, UT
2018	"Climate Impacts on Agricultural Productivity in the Fruitful Rim" Northwest Climate Conference, Boise, ID
2018	"Using Climate Analogues to Obtain a Causal Estimate of the Impact of Climate on Agricultural Productivity"
	Agricultural and Applied Economics Association Annual Meeting, Washington, D.C.
	PROFESSIONAL TALKS
April 2020	"Using data.table for fast processing of large datasets" R Working Group, Washington State University*
April 2019	"On the Frontier of Water Rights: Beneficial Use and Relinquishment in the Wild West and Now" Environmental Economics Lunch, Washington State University
November 2018	"A bayesian model of crop choice using STAN."
	R Working Group, Washington State University
October 2018	"Can crop switching mitigate the effect of climate on agricultural productivity in the fruitful rim?" School of Economic Sciences Seminar, Washington State University
February 2018	"Hierarchical regression modeling with STAN"
	R Working Group, Washington State University
March 2017	"Causal bayesian estimates of minimum wage impacts"
	R Working Group, Washington University
November • 2017	"A matching approach to estimating the impact of climate on agricultural productivity"
	R Working Group, Washington State University

TEACHING EXPERIENCE

Fall 2018

Fundamentals of Microeconomics

Instructor, 211 students, rated 4.2 out of 5

2020 | 2018 Software and Data Carpentry Workshops

Instructor

- · Maine Medical Center, Portland, ME, April 2019
- · Southwest Indian Polytechnical Institute, Albuquerque, NM, September 2019
- · Washington State University, Pullman, WA. February 2018, October 2018, April 2019, October 2019, April 2020, October 2020

RELEVANT EXPERIENCE

present | 2018 Research Assistant, Water for Agriculture

Washington State University

· Professors Jonathan Yoder and Joseph Cook

2018 | 2017 Research Assistant, Farmer Participation in Conservation Programs

Washington State University

· Professors Hayley Chouinard, Michael Brady, Phillip Wandschneider

2017 | 2016 Research Assistant, Center for Sustaining Agriculture and Natural Resources

Washington State University

2015

Research Assistant, Measure to Manage
Washington State University

2012

2011

Research Assistant, Moving to Opportunity Project

National Bureau of Economic Research

2011

Business Development Volunteer, Guinea and Niger

United States Peace Corps

2008 | 2006 Research Scientist, Bureau of Business and Economic Research

University of New Mexico

PROFESSIONAL ACTIVITIES

2019

President, School of Economic Sciences Graduate Student Association

Washington State University

2018

Vice-President, School of Economic Sciences Graduate Student Association

Washington State University

Referee Services

- · Journal of Open Source Software (JOSS), 2019
 - · Agricultural and Applied Economic Association submitted abstracts, 2017, 2018

RIOR EDUCATION

2005 • M.S., Applied Mathematics

University of Massachusetts - Amherst

B.A., Economics
Hampshire College

AWARDS

2018 • Student Scholarship, StanCon 2018

2017 • Tesfaye Girma Deboch Graduate Fellowship, Washington State University