Jared P. Hutchins

CONTACT INFORMATION

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EDUCATION

University of Wisconsin-Madison, Madison, WI
Ph.D., Agricultural and Applied Economics, *Expected:* 2020
Primary Field: Agricultural Economics, Production Economics

American University, Washington, DC
B.S., Economics, May 2013

JOB MARKET PAPER

"Milked for All They Are Worth: Analyzing Livestock Mortality Costs in a Dynamic Discrete Choice Model"

This paper examines animal replacement behavior for over one-thousand Wisconsin dairy farms during the period 2011-2014 and analyzes the rationale for high replacement rates. Dairy farmers in the United States routinely replace their cattle at around 3 years old, well before what the dairy science literature estimates is their maximum productive potential, that is 5 years in the herd. I model the replacement decision using a dynamic discrete choice model and incorporate unplanned mortality as a source of uncertainty that drives farmers to replace dairy cows before they maximize production. Using the conditional choice probability method, I estimate the cost of mortality at 1,300-1,400 USD per death, about the average annual profit of a dairy cow. The results of the model also suggest that dairy cows maximize production at three years instead of five. Utilizing heterogeneity in farm size, I also find that mortality costs are four times higher on small dairies than on larger ones. These results suggest small dairies experience genetic gains in milk production at a much higher cost than large dairies.

WORKING PAPERS

"Production Credit Associations and Agricultural Productivity Change in the United States, 1920-1940" 2018 *with Brent Hueth*

We study the impact of Production Credit Associations (PCAs) during the decade-long period shortly after their introduction as one component of the 1916 Federal Farm Loan Act. Using county distances to PCAs as a proxy for cost of access to credit, we examine the effects of credit expansion on county-level crop yield, crop revenue, and input use. Despite serving only about 7% of U.S. farmers during the period we study, we estimate that counties 100 kilometers closer to a PCA had roughly 10% higher crop revenue per acre. We also find that counties closer to PCA locations experienced significantly higher growth rates in tractor and fertilizer utilization, relative to more distant counties. In years prior to the arrival of PCAs, farms in relatively close-by counties earn on average less revenue and use fewer purchased inputs than farms in counties further away. This relationship *reverses* in subsequent years, suggesting that the mechanism for identifying PCA locations targeted less well-off counties.

"Supply Response in Dairy Farming: Evidence from Monthly, Cow-Level Data" 2018 *with Brent Hueth*

Supply response on dairy farms to milk price and ration cost are almost always found to be small in the short run. Such studies, however, are usually done at the herd and quarterly level where the mechanisms of supply response cannot be distinguished. Using a monthly, animal level data set, we analyze supply response at the animal level which isolates the intensive margin response, that is use of more inputs, subject to the production process. In our empirical analysis of over ten million animal records, we reject the null hypothesis of no response, finding that milk price and slaughter price do indeed explain deviations from the Wood lactation curve. In particular, we find that milk price lagged two months and slaughter prices have the most explanatory power at the level of the lactation curve.

Current Projects

"Willingness to Pay for Breeding Technology: Evidence from A Survey of Senegalese Dairy Farmers" *with Karen Marshall and Ayao Missohou*

"Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies" *with Brent Hueth and Guilherme Rosa*

Professional Experience

Research Assistant — May 2015 to present
Department of Agricultural and Applied Economics
University of Wisconsin-Madison
Supervisor: Brent Hueth

Consultant — December 2018 to May 2019
Inter-American Development Bank
Washington, DC

Research Intern — Janaury to May 2013
Inter-American Development Bank
Washington, DC
Supervisor: Paul Winters

Document Management Intern — May 2012 to August 2013
Wage and Hour Division, U.S. Department of Labor
Washington, DC
Supervisor: Dan Daly

Research Intern — August to December 2011
Fundación América Solidaria
Santiago, Chile

Teaching Experience

Shepherd's Cross with Njala University — March 2019
Small Ruminant Animal Husbandry and Herd Health — Njala, Sierra Leone
Instructor and Facilitator

University of Wisconsin-Madison — Spring 2017
AAE 322 Commodity Markets with Xiaodong Du — Madison, WI
Teaching Assistant

Dominico American Society of Queens — May to July 2011
Basic English — New York, NY
ESL Instructor

Awards and Honors

Best Paper Presentation, PhD — December 2017
Student Research Colloquium
Agricultural and Applied Economics
University of Wisconsin-Madison

Barbara and Thomas Lyon Scholarship — May 2017
UW Center for Cooperatives
Agricultural and Applied Economics
University of Wisconsin-Madison

Conference Presentations

"Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies" — May 2019 — Washington, DC
Paper presented at NBER conference on
Economics of Research and Innovation in Agriculture

	"Production Credit Associations and Agricultural Productivity Change in the United States, 1920-1940" Paper presented at NC-1177 Conference	October 2018 St. Louis, MO
	"Supply Response in Dairy Farming: Evidence from Monthly Cow-Level Data" Poster presented ar AAEA Annual Meeting	July 2018 Washington, DC

Service

Student Research Colloquium Coordinator Agricultural and Applied Economics University of Wisconsin - Madison	September 2018 - May 2019 Madison, WI
Contributor to **econtools** Econometrics Python Package https://github.com/dmsul/econtools	

Languages

English, Spanish
Python, Stata, R, Latex, Git, Matlab, SQL, Unix Shell

References

Brent Hueth (Advisor) Associate Professor Agricultural and Applied Economics University of Wisconsin-Madison	 608-890-0924 hueth@wisc.edu
Jean-Paul Chavas Anderson-Bascom Professor Agricultural and Applied Economics University of Wisconsin-Madison	 608-261-1944 jchavas@wisc.edu
Xiadong Du (Teaching) Associate Professor Agricultural and Applied Economics University of Wisconsin-Madison	 608-262-4069 xdu23@wisc.edu