## Jared P. Hutchins

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EDUCATION Univer

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: Livestock Replacement in a Dynamic Discrete Choice Model"

This paper examines animal replacement behavior for over 1,000 Wisconsin dairy farms during the period 2011-2014 and analyzes the rationale for high replacement rates. 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. The empirical model incorporates cow and herd heterogeneity in mortality rates to back out the implied cost of cow mortality. Using the conditional choice probability method, I estimate the cost of mortality at 1,800 USD per death, 800 dollars more than estimates based on simulation studies. Utilizing farm size heterogeneity, I also find that mortality costs are three times higher on small dairies than on larger ones. In a counterfactual estimation, dairy farmers were willing to pay 1,300 USD to eliminate mortality risk completely for first year dairy cows. These results suggest that genetic selection in U.S. dairy favors relatively large farms and may be accelerating the exit of small farms.

**PUBLICATIONS** 

Hutchins, J., B. Hueth, and G. Rosa (2019) "Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies" Forthcoming in *NBER: Economics of Research and Innovation in Agriculture* ed. Petra Moser (Chicago: University of Chicago Press, 2019)

Working Papers "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.

## "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.

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

Professional Experience

EXPERIENCE

Research Assistant

May 2015 to present

March 2019

Madison, WI

New York, NY

Njala, Sierra Leone

December 2018 to May 2019

Department of Agricultural and Applied Economics

University of Wisconsin-Madison

Supervisor: Brent Hueth

Consultant

Inter-American Development Bank

Washington, DC

Research Intern January 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 Shepherd's Cross with Njala University

Small Ruminant Animal Husbandry and Herd Health

Instructor and Facilitator

University of Wisconsin-Madison Spring 2017

AAE 322 Commodity Markets with Xiaodong Du

Teaching Assistant

Dominico American Society of Queens May to July 2011

Basic English

ESL Instructor

AWARDS AND Traisman Agribusiness Graduate Scholarship October 2019

HONORS Agricultural and Applied Economics

University of Wisconsin-Madison

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 "Quantifying Heterogeneous Returns to Genetic Selection: May 2019 Presentations Evidence from Wisconsin Dairies" Washington, DC Paper presented at NBER conference on Economics of Research and Innovation in Agriculture October 2018"Production Credit Associations and Agricultural Productivity Change in the United States, 1920-1940" St. Louis, MO Paper presented at NC-1177 Conference "Supply Response in Dairy Farming: July 2018 Evidence from Monthly Cow-Level Data" Washington, DC Poster presented ar AAEA Annual Meeting SERVICE Student Research Colloquium Coordinator September 2018 - May 2019 Agricultural and Applied Economics Madison, WI University of Wisconsin - Madison 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 608-890-0924 Agricultural and Applied Economics hueth@wisc.edu University of Wisconsin-Madison Jean-Paul Chavas Anderson-Bascom Professor 608-261-1944 Agricultural and Applied Economics jchavas@wisc.edu University of Wisconsin-Madison Jeremy Foltz Professor and Chair (608) 262-6871 Agricultural and Applied Economics jdfoltz@wisc.edu University of Wisconsin-Madison Xiadong Du (Teaching) Associate Professor 608-262-4069 Agricultural and Applied Economics xdu23@wisc.edu University of Wisconsin-Madison

December 2017

Best Paper Presentation, PhD