

Jared P. Hutchins

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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: 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. Dairy farmers in the United States replace their cattle at around three years in the herd, earlier than what asset replacement models predict is profit maximizing. The empirical model incorporates cow and herd heterogeneity in mortality rates to back out the implied cost of cow mortality and the parameters of the cow's production function. Using the conditional choice probability method paired with machine learning, 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. 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, Jared P, Brent Hueth, and Guilherme Rosa. 2019. “Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies.” Working Paper 26417. National Bureau of Economic Research. Forthcoming in *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” <i>with Karen Marshall and Ayao Missohou</i>	
PROFESSIONAL EXPERIENCE	Research Assistant Department of Agricultural and Applied Economics University of Wisconsin-Madison Supervisor: Brent Hueth	May 2015 to present
	Consultant Inter-American Development Bank Washington, DC	December 2018 to May 2019
	Research Intern Inter-American Development Bank Washington, DC Supervisor: Paul Winters	January to May 2013
	Document Management Intern Wage and Hour Division, U.S. Department of Labor Washington, DC Supervisor: Dan Daly	May 2012 to August 2013
	Research Intern Fundación América Solidaria Santiago, Chile	August to December 2011
TEACHING EXPERIENCE	Shepherd’s Cross with Njala University Small Ruminant Animal Husbandry and Herd Health Instructor and Facilitator	March 2019 Njala, Sierra Leone
	University of Wisconsin-Madison AAE 322 Commodity Markets with Xiaodong Du Teaching Assistant	Spring 2017 Madison, WI
	Dominico American Society of Queens Basic English ESL Instructor	May to July 2011 New York, NY
AWARDS AND HONORS	Traisman Agribusiness Graduate Scholarship Agricultural and Applied Economics University of Wisconsin-Madison	October 2019

	Best Paper Presentation, PhD Student Research Colloquium Agricultural and Applied Economics University of Wisconsin-Madison	December 2017
	Barbara and Thomas Lyon Scholarship UW Center for Cooperatives Agricultural and Applied Economics University of Wisconsin-Madison	May 2017
CONFERENCE PRESENTATIONS	“Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies” Paper presented at NBER conference on Economics of Research and Innovation in Agriculture	May 2019 Washington, DC
	“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 at 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
	Jeremy Foltz Professor and Chair Agricultural and Applied Economics University of Wisconsin-Madison	608-262-6871 jdfoltz@wisc.edu
	Xiaodong Du (Teaching) Associate Professor Agricultural and Applied Economics University of Wisconsin-Madison	608-262-4069 xdu23@wisc.edu