

# Jared P. Hutchins

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CONTACT INFORMATION	Department of Agricultural and Applied Economics University of Wisconsin-Madison 427 Lorch Street, 311 Taylor Hall Madison, WI 53706	678-994-8178 <a href="mailto:jhutchins@wisc.edu">jhutchins@wisc.edu</a> <a href="https://github.com/jhutchinswisc">jhutchinswisc.github.io</a>
EDUCATION	<b>University of Wisconsin-Madison</b> , Madison, WI Ph.D., Agricultural and Applied Economics, <i>Expected</i> : 2020 <i>Primary Field</i> : Agricultural Economics, Production Economics  <b>American University</b> , Washington, DC B.S., Economics, May 2013	
JOB MARKET PAPER	<b>“Milked for All They Are Worth: Livestock Replacement in a Dynamic Discrete Choice Model”</b>  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.	
WORKING PAPERS	<b>“Quantifying Heterogeneous Returns to Genetic Selection: Evidence from Wisconsin Dairies”</b> 2019 <i>with Brent Hueth and Guilherme Rosa</i>  Estimates of productivity growth in the dairy sector attribute as much as half of observed growth to genetic improvement. Unobserved match quality is an important determinate of genetic selection by dairy farmers that confounds attribution to genetic improvement alone. Using data from a large sample of Wisconsin dairy farms, and national-level data on sire rankings, we develop and estimate a model that accounts for selection behavior, and decompose total productivity change into separate effects for genetic improvement and endogenous selection. We find that selection accounts for as much as 75 percent of the total productivity improvement in our sample. Overall, our results indicate that a large portion of productivity growth in dairy farming can be explained by farmers’ ability to identify and select genetics well suited to their production environment.  <b>“Supply Response in Dairy Farming: Evidence from Monthly, Cow-Level Data”</b> 2018 <i>with Brent Hueth</i>  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*

In Senegal, several government campaigns have been undertaken to expand access to AI to increase the productivity of the dairy sector with at times mixed success. In this survey, dairy farmers in Senegal were asked about the advantages and disadvantages of AI and natural breeding as well as their willingness to pay (WTP) for natural breeding and AI of various exotic cattle using a double-bound contingent valuation experiment. Farmers surveyed listed the main disadvantage of AI as a low success rate and lack of breed choice and generally did not value AI differently than natural breeding.

PROFESSIONAL  
EXPERIENCE

<b>Research Assistant</b>	May 2015 to present
Department of Agricultural and Applied Economics University of Wisconsin-Madison Supervisor: Brent Hueth	
<b>Consultant</b>	December 2018 to May 2019
Inter-American Development Bank Washington, DC	
<b>Research Intern</b>	Janaury to May 2013
Inter-American Development Bank Washington, DC Supervisor: Paul Winters	
<b>Document Management Intern</b>	May 2012 to August 2013
Wage and Hour Division, U.S. Department of Labor Washington, DC Supervisor: Dan Daly	
<b>Research Intern</b>	August to December 2011
Fundación América Solidaria Santiago, Chile	

TEACHING  
EXPERIENCE

<b>Shepherd’s Cross with Njala University</b>	March 2019
Small Ruminant Animal Husbandry and Herd Health Instructor and Facilitator Njala, Sierra Leone	
<b>University of Wisconsin-Madison</b>	Spring 2017
AAE 322 Commodity Markets with Xiaodong Du Teaching Assistant Madison, WI	
<b>Dominico American Society of Queens</b>	May to July 2011

	Basic English ESL Instructor	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 <b>econtools</b> Econometrics Python Package <a href="https://github.com/dmsul/econtools">https://github.com/dmsul/econtools</a>	
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