

CURRICULUM VITAE

August, 2016

Personal information

Name: Joshua D. Woodard
Office Address: 219 Warren Hall, Cornell University
Ithaca, NY 14853
Tel: +1 (217) 979-1251; Email: joshua.woodard@cornell.edu

Education

Ph.D., 2003-2008 (October), *Agricultural and Consumer Economics*, University of Illinois; Urbana, Illinois
Dissertation: *Three Essays on Systemic Risk and Rating in Crop Insurance Markets*
Committee: Bruce J. Sherrick (*Chair*), Philip Garcia, Gary D. Schnitkey, Nicholas Paulson, Jeffrey R. Brown

B.S., 2000-2003, *Business Economics, Summa cum laude*, Frostburg State University; Frostburg, Maryland

Areas of Expertise and Specialization

Agricultural Finance and Business, Policy, Risk Management, Yield Risk Modeling, Weather Derivatives, Climate Change, Insurance & Actuarial Science, Banking & Credit Risk, Production Economics, Behavioral Finance, Spatial Econometrics, Derivatives, Price Analysis

Experience

Assistant Professor, Zaitz Sesquicentennial Faculty Fellow in Agricultural Business and Finance
Cornell University, Charles H. Dyson School of Applied Economics and Management, Ithaca, NY
7/2011–present

Assistant Professor - Firm Level Risk and Managerial Economics
Department of Agricultural Economics, Texas A&M University, College Station, TX
7/2009–6/2011

General Partner
Integrated Financial Analytics Research, LLP - Urbana, IL
9/2008–present

Postdoctoral Research Associate
Department of Agricultural and Consumer Economics, University of Illinois, Urbana, IL
9/2008–6/2009

Instructor
Department of Social Sciences and Human Services, Parkland College, Champaign, IL
1/2006–6/2009

Research and Teaching Assistant
Department of Agricultural and Consumer Economics, University of Illinois, Urbana, IL
8/2003–8/2008

Journal Articles (25)

- Woodard J.D. (*forthcoming*, 2016, Featured Article), Data Science and Management for Large Scale Empirical Applications in Agricultural and Applied Economics Research," *Applied Economic Perspectives and Policy*
- Woodard, J.D., *Integrating High Resolution Soil Data into Federal Crop Insurance Policy: Implications for Policy and Conservation, Environmental Science & Policy, (Conditionally Accepted July 2016 subject to Minor Editorial Revisions)*
- Woodard J.D., A. Shee, and A. Mude (2016) "A Spatial Econometric Approach to Designing and Rating Scalable Index Insurance in the Presence of Missing Data," *The Geneva Papers on Risk and Insurance - Issues and Practice*
- Woodard J.D. (*forthcoming*, 2016), "Big Data and Ag-Analytics: An Open Source, Open Data Platform for Agricultural & Environmental Finance, Insurance, and Risk," *Agricultural Finance Review* (Invited Paper, IARFIC 2015 Keynote Address)**
- Shee, A., C.G. Turvey, J.D. Woodard, (2015) "A field study for assessing risk-contingent credit for Kenyan pastoralists and dairy farmers", *Agricultural Finance Review*, Vol. 75 Iss: 3, pp.330 – 348
- Woodard, J.D., "A Conditional Distribution Approach to Assessing the Impact of Weather Sample Heterogeneity on Yield Risk Estimation and Crop Insurance Ratemaking," *North American Actuarial Journal* (2014).
- Bruce J. Sherrick, Gary D. Schnitkey, Joshua D. Woodard, "Crop insurance loss experience, ratings changes, and impacts on participants" *Agricultural Finance Review* 2014 74:4, 443-463
- Bruce J. Sherrick, C. A. Lanoue*, Joshua Woodard, Gary D. Schnitkey, Nicholas D. Paulson, (2014) "Crop Yield Distributions: Fit, Efficiency, and Performance", *Agricultural Finance Review*, 74: 3
- Calum G. Turvey, Joshua Woodard, Edith Liu, (2014) "Financial engineering for the farm problem", *Agricultural Finance Review*, Vol. 74 Iss: 2, pp.271 - 286
- Vrieling, A., M. Meroni, A. Shee, A. Mude, J.D. Woodard, K. de Bie, and F. Rembold, "Historical Extension of Operational NDVI Products for Livestock Insurance in Kenya," *International Journal of Applied Earth Observation and Geoinformation* (2014).
- Woodard, J.D. and D. Baker*, "2013 Farm Bill Dairy Title Proposals Redistribute Program Benefits toward States with Larger Farms," *Choices* (Sept. 2013). (Article page views as of 12/2013: 353; Theme Page views: 2609)
- Woodard, J.D., "Theme Overview: Current Issues in Risk Management and U.S. Agricultural Policy," *Choices* (Sept. 2013). (Article page views as of 12/2013: 491; Theme Page views: 2609)**
- Woodard, J.D., A.D. Pavlista, G.D. Schnitkey, K. Ward, P. Burgener, "Government Insurance Program Design, Incentive Effects, and Technology Adoption: The Case of Skip-Row Crop Insurance," *American Journal of Agricultural Economics* (2012).

- Li, Y.* , J.D. Woodard, D.J. Leatham. "Causality among Foreign Direct Investment and Economic Growth: A Directed Acyclic Graph Approach." *Journal of Agricultural and Applied Economics* 45, no. 04 (2013).
- Paulson, N.D., Joshua D. Woodard, and Bruce A. Babcock, "Modeling "Shallow Loss" Crop Revenue Programs: Issues and Implications for the 2012 Farm Bill," *Agricultural Finance Review* (2013).
- Wen, Y.* , Diane L. Rowland, Giovanni Piccinni, J. Tom Cothren, Daniel I. Leskovar, Armen R. Kemanian, Joshua D. Woodard, " Lint Yield, lint quality and economic returns of cotton production under traditional and regulated deficit irrigation schemes in Southwest Texas," *Journal of Cotton Science* (2013).
- Woodard, J.D., G.D. Schnitkey, B.J. Sherrick, N. Lozano-Gracia, and L. Anselin, "A Spatial Econometric Analysis of Loss Experience in the U.S. Crop Insurance Program," *Journal of Risk and Insurance* (2012).
- Leidner, A.J.* , R.D. Lacewell, M.E. Rister, J.D. Woodard, A.W. Sturdivant, and J. White, "Seawater Desalination for Municipal Water Production," *Desalination* (2012).
- Woodard, J.D., B.J. Sherrick, "Estimation of Mixture Models using Cross-Validation Optimization: Implications for Crop Yield Distribution Modeling," *American Journal of Agricultural Economics* 93-4(2011): 968-982.
- Woodard, J.D., N. Paulson, D. Vedenov, and G. Power, "Efficiency in the Modeling of Dependence Structures: An Application of Alternative Copulas to Agricultural Insurance Rating," *Agricultural Economics* 42-IS1(Nov. 2011): 101-112.
- Woodard, J.D., B.J. Sherrick, G.D. Schnitkey, "Actuarial Impacts of Loss Cost Ratio Ratemaking in U.S. Crop Insurance Programs," *Journal of Agricultural and Resource Economics*, 36-1 (April 2011):211-228.
- Woodard, J.D., T.M. Egelkraut, P. Garcia, and J.M.E. Pennings, "Effects of Full Collateralization in Commodity Futures Investments," *Journal of Derivatives and Hedge Funds*, 16- 4 (2011): 472-488
- Woodard, J.D., B.J. Sherrick, and G.D. Schnitkey, "Revenue Risk Reduction Impacts of Crop Insurance in a Multi-Crop Framework," *Applied Economic Perspectives and Policies* 32-3(Autumn 2010):472-488.
- Woodard, J.D., and P. Garcia "Basis Risk and Weather Hedging Effectiveness," *Agricultural Finance Review* (spring, 2008).
- Woodard, J.D., and P. Garcia, "Weather Derivatives, Spatial Aggregation, and Systemic Insurance Risk: Implications for Reinsurance Hedging," *Journal of Agricultural and Resource Economics* (April, 2008).

(* denotes graduate student or postdoc; ** denotes invited editor reviewed paper)

Completed Papers under Review or in Revision/Resubmitted

Woodard, J.D., and Verteramo*, L.; *Efficiency Impacts of Utilizing Soil Data in the Pricing of the Federal Crop Insurance Program, (Revise and Resubmit, American Journal of Agricultural Economics, Resubmitted July 2016)*

Woodard, J.D. and T. Sproul, "Identification of Hedging Pressure Effects in Commodity Futures-Options Markets: Implications for Price Discovery," (Under review, *Management Science*, June, 2016)

Woodard, J.D., Estimation of Insurance Deductible Demand under Endogenous Premium Rates, *Journal of Risk and Insurance* (Invited for Resubmission upon Major Revision; Resubmitted July 2016)

Woodard, J.D., Developments in Modeling U.S. Crop Insurance Demand, (*Revise and Resubmit, Choices*, July 2016)

Woodard, J.D., " Big Data and Data Science Applications and Opportunities in Agricultural & Applied Economics," (*Under Review, American Journal of Agricultural Economics, expedited peer review related to Invited AAEA Session, submitted May 2016*)

Woodard, J.D., L. Verteramo*, Gabriel Power, Dmitry Vedenov, and Steven Klose, Factors Affecting Changes in Managerial Decisions, *Agribusiness: An International Journal* (*Revise and Resubmit, Resubmitted July, 2016*).

Selected Working Papers and Products in Preparation

Woodard, J.D., D. Wang*, A. McClung, L. Ziska, T. Dutta, and S. McCouch, "Integrating Genomic Data into Crop Yield Distribution Estimation: Implications for Climate Change, Risk Management, and Plant Breeding," Working Paper, extension in preparation

Woodard, J.D., Impacts of Transportation Networks on Space-Time Commodity Basis Behavior, Working Paper, extension in preparation

Woodard, J.D., "Determination of Optimal Trend Aggregation using Cross-Validation Optimization," Working Paper, in preparation

Woodard, J.D., "Estimating Demand for Government Subsidized Insurance: Evidence from the U.S. Crop Insurance Program, Working Paper, extension in preparation

Woodard, J.D. and C. Turvey, "Revisiting Moral Hazard in Crop Insurance", in preparation

Woodard, J.D., "An Application of Credibility Theory to the Estimation of Yield Distributions," in preparation

Yan Sun*, and J. Woodard, "Impact of Copula Form on the Valuation of Dairy Margin Protection Insurance" In preparation

University Grant, Contract, and Other Funding Activity and Information (13)

"Leveraging Data Integration Systems to Support Agricultural Policy Research: An Application to Rail & Transport Network Impacts on Agricultural Commodities", Office of the Chief Economist, United States Department of Agriculture Cooperative Agreement, \$50,000, Joshua D. Woodard (PI), January 2016-December 2016.

"New York State Precision Agriculture Survey Study, "New York State Department of Agriculture & Markets, Harold van Es and Joshua D. Woodard (Co-PI), \$100,000 Sept, 2015-May 2017.

"AgDB Data Warehousing and Integration System to Support Big Data Applications in Agricultural Economics, Policy, and Climate Change," Microsoft Azure Research Grant Program (\$20,000), May 2015-September 2016.

"Integrating Soil Data into Crop Insurance Rating and Conservation Implications, Meridian Institute (\$18,000), J.D. Woodard (PI), April 2015-December 2015

"Soil Fertility and Agricultural Development in Ethiopia" IFPRI Grant, Christopher B. Barrett (PI), Garrick Blalock, Johannes Lehmann and Joshua Woodard (Co-PI), \$350,034, IFPRI Project No. 699005.003.301-520-01-01; June, 2014-June 2016

Analyzing and Estimating Demand in the Federal Crop Insurance Program, J.D. Woodard (PI), *National Crop Insurance Services* Jan, 2014-December 2016, Budget: \$100,000.

Characterization of Genomic Signatures for Rice Crop Resilience in Response to Climate Change in the U.S., Susan McCouch, Joshua D. Woodard, Anna McClung, David Lobell, Lewis Ziska, and Diane Wang; *Agriculture and Food Research Initiative Competitive Grants Program (AFRI) Climate Change and Variability -United States Department of Agriculture*; Duration: 2 years, 2014-2016; Budget: \$600,000 (Co-PI Share Approx. \$220,000).

FARM-Track: Financial and Risk Management (FARM) Tracking Study to Learn from the Planned and Actual Decisions of Farmers and Ranchers, G.J. Power, D. Vedenov; J.D. Woodard, and S. Klose; 1/1/2012-12/31/2012, *Agriculture and Food Research Initiative Competitive Grants Program (AFRI) - United States Department of Agriculture*; Duration: 2 years; Budget: \$185,078.

Analysis and Modeling of Firm Level Risk and Producer Behavior in Agriculture with an Emphasis on Production Risk, Insurance Use, and Actuarial Systems Analysis; J.D. Woodard; Duration: July 2010-July 2011, CRIS/HATCH Project, TEX09404, United States Department of Agriculture.

Yield Risk and Distribution Estimation under Climate Change; J.D. Woodard; HATCH Project, NYC-121400 United States Department of Agriculture; Duration: 3 years; Budget: \$75,000.

Index Based Livestock Insurance (Kenya), ILRI-Cornell CWA (Co-PI under Chris Barrett), *Technical Lead Subcontract for Product Development and Program Expansion*; Participating Organizations: ILRI, Kenya; Cornell, 2012-2017. Co-PI Share Budget Approx., \$120,000.

Evaluation of Skip Row Corn and Grain Sorghum in the Central Great Plains; J.D. Woodard, K. Ward, G.D. Schnitkey, P. Burgener, P. Benfer; Duration: September 2009-July 2010, *Risk Management Agency-United States Department of Agriculture, Solicitation AG-645S-S-09-0015*; Budget: \$83,250.

Farm Bill Dairy Title Milk Producer Survey in NY State, Joshua Woodard and Leslie Verteramo Chiu
Institute for the Social Sciences' Small Grant Competition Fall 2013; Budget: \$3,000.

Piloting Risk-Contingent Credit for Price and Weather Risks in Kenya, Calum Turvey, Joshua D. Woodard and Apurba Shee, *BASIS Assets and Market Access Research Program (Seed Grant)*, 2013, Budget: \$20,000.

Keynotes and Other Invited Talks (31)

Woodard, J.D., "Agro-Environmental Analytics in Policy, Risk Management, and Finance Research," *World Economic Forum, Summer Davos, Invited IdeasLab Session, Tianjin, China, June 2016*.

Woodard, J.D., "Data Science Applications and Opportunities in Agricultural & Applied Economics," *AAEA Boston, August 2016, Invited Session: Horizons of Data Science in Agricultural and Applied Economics (Presenter, Organizer, and Moderator)*.

Woodard, J.D., **Keynote Speaker**, "Emerging Issues in Crop Insurance and Conservation", *EAAE Seminar: Prospects for agricultural insurance in Europe*, Wageningen University, The Netherlands, October, 2016 (forthcoming)

Woodard, J.D., WASS PhD Workshop on Agricultural Analytics (Organizer and Presenter), *Invited and Hosted by Wageningen University, The Netherlands, October, 2016*.

Woodard, J.D. **Keynote Speaker**, "Integrating High Resolution Soil Data into Federal Crop Insurance Rates: Implications for Policy and Conservation," *AERUS 2016 Annual Meeting (April 23rd, 2016)*.

Woodard, J.D., **Keynote Speaker**, "Applications of Big Data in Agricultural Risk Management and Finance" *4th International Agricultural Risk, Finance, and Insurance Conference (IARFIC)*, Washington D.C. (June, 2015).

Woodard, J.D., "Federal Crop Insurance as a Public Means for Providing a Safety-Net to Farmers," *National Corn Growers Association Invited Talk*, July 2016.

Woodard, J.D., "Summary of the Survey on the Future of Precision Agriculture in New York State," *Precision Agriculture: Decision Making for a Profitable Future, New York Farm Show*, February 25th, 2016.

Woodard, J.D., New York Precision Agriculture Workshop (presenter and Workshop Organizer) "Update on NYS Precision Agriculture Survey", and "Ag-Analytics Platform", December 2015, Geneva, NY.

Woodard, J.D., "Federal Crop Insurance Rates, Soil, and Conservation," *National Corn Growers Association Invited Talk*, December 2015.

Woodard, J.D. Invited Talk, "Integrating Soil Information into Federal Crop Insurance Rates" *Farm Foundation/ERS Joint Seminar*, September 2015

Woodard J.D. Invited Talk, "Data Science, Big Data, and Federal Statistics," *Joint ERS/COPAFS Seminar on Data Linkages*, October, 2015

Woodard, J.D., "Integration of Soil Data and Crop Insurance," Meridian Institute, October 2015

Soil Tests & Smallholder Farmers: How Potent a Productive Input is Soil Fertility Information?
(**Discussant**) *Agricultural & Applied Economics Association 2015 Annual Meeting, San Francisco, CA*, July, 2015.

Woodard, J.D., Demand Elasticity Estimation in Crop Insurance: Policy Considerations," *National Crop Insurance Services Board Meeting Invited Speaker*, June 2015.

Woodard, J.D., "Big Data in Agricultural, Climate Change, and Economic Research" *American Institute for Mathematics (Invited 5 Day NSF Workshop), Integrated analysis for agricultural management strategies*, May 2015

Woodard, J.D., "Big Data in Agricultural Economics Research", *Invited Talk, American Enterprise Institute Emerging Scholars Workshop*, Feb 2015.

Woodard, J.D., "AgDB Data Warehousing and Integration Effort," *Invited Talk, Meridian Institute*, December 2014

Woodard, J.D., "Financial & Policy Risk Analytics for the Dairy Foods Industry" *IDFA NextGen Symposium* October 6th, 2014

Woodard, J.D., "Contrasting Agricultural Index Insurance and Credit Markets in Developing and Developed Contexts," *Dyson Seminar Series Panel: Research on Business and Finance in Emerging Economies* (November, 2013).

Woodard, J.D., "Farm Bill Update," *CALS Extension Farm Management Retreat, Syracuse*, (August, 2013)

Woodard, J.D., "Federal 2012 Farm Bill Update," *Agriculture and Food System In-Service, Cornell University Cooperative Extension, Ithaca, NY* (Nov. 13th, 2012).

Woodard, J.D., "A Spatial Panel Approach to Modeling Livestock Mortality Insurance in Kenya" ,” *Invited Seminar, Department of Statistics and Actuarial Science, University of Waterloo* (November 28th, 2012).

“Impacts of technology, weather, and sample selection on the pricing of U.S. Federal crop insurance: A conditional distribution approach,” *Invited Seminar, China Northwest Agricultural and Forestry University, Yangling, China* (June 18, 2012).

Woodard, J.D., “Economics of Skip-Row Corn in the Central Great Plains: Production and Insurance Implications,” *Invited Seminar, Department of Crop and Soil Sciences, Cornell University, Ithaca, NY* (April, 2012).

Woodard, J.D., “Federal Crop Insurance Program Update,” *Agriculture and Food System In-Service, Cornell University Cooperative Extension, Ithaca, NY* (Nov. 15th, 2011).

Woodard, J.D., "Agricultural Price Volatility and Risk Outlook," *Eastern Agricultural Credit Group Meeting, National Association of Credit Managers*, Ithaca, NY (Oct. 14th, 2011).

Woodard, J.D., "A Conditional Distribution Approach to Assessing the Impact of Weather Sample Heterogeneity on Yield Risk Estimation and Crop Insurance Ratemaking," *Cornell University, Dyson School of Applied Economics and Management*, Ithaca, NY (Dec. 2010).

Woodard, J.D., G.D. Schnitkey, B.J. Sherrick, N. Lozano-Gracia, and L. Anselin, "A Spatial Econometric Analysis of Loss Experience in the U.S. Crop Insurance Program", *University of Illinois, Department of Agricultural and Consumer Economics* (Sept. 2008); *University of Georgia, Department of Agricultural Economics* (Nov. 2008); *Iowa State University, Department of Economics* (Sept. 2008); *New Mexico State University, Department of Agricultural Economics and Agribusiness* (Dec. 2008); *Texas A&M University, Department of Agricultural Economics* (Mar. 2009); *Georgia State University, Department of Risk Management and Insurance* (Mar. 2009); *Purdue University, Department of Agricultural Economics* (Apr. 2009).

Woodard, J.D., B.J. Sherrick, G.D. Schnitkey, "Actuarial Impacts of Loss Cost Ratio Ratemaking in the U.S. Crop Insurance Program," *Agribusiness Seminar Series, Texas A&M University*, College Station, Texas (Dec. 2009).

Woodard, J.D., "Loss Experience Patterns in the U.S. Crop Insurance Program: Causes and Implications for U.S. Corn Growers," *Invited Presentation to National Corn Growers Association, ILCGA Headquarters*, Bloomington, IL (Jun., 2010).

Conference Presentations/Proceedings, Including Published Proceedings (47)

Woodard, J.D., "Estimating Demand for Government Subsidized Insurance: Evidence from the U.S. Crop Insurance Program" *Selected Paper Presented at the AAEA 2016 Annual Meeting, Boston, July 30th-August 3rd, 2016*

Woodard, J.D., "Ag-Analytics Introductory Tutorial," *Presented at the AAEA Preconference Big Data Workshop, 2016 Annual Meeting, Boston, July 30th-August 3rd, 2016*

Woodard, J.D., Impacts of Transportation Networks on Space-Time Commodity Basis Behavior, *Selected Paper Presented at the AAEA 2016 Annual Meeting, Boston, July 30th-August 3rd, 2016*

Woodard, J.D., "Determination of Optimal Trend Aggregation using Cross-Validation Optimization," *Econometrics Track Session Paper Presented at the AAEA 2016 Annual Meeting, Boston, July 30th-August 3rd, 2016*

Woodard, J.D., D. Wang, A. McClung, L. Ziska, T. Dutta, and S. McCouch, "Integrating Genomic Data into Crop Yield Distribution Estimation: Implications for Climate Change, Risk Management, and Plant Breeding," *Selected Paper Presented at the AAEA 2016 Annual Meeting, Boston, July 30th-August 3rd, 2016*

Woodard, J.D. "Ag-Analytics.org Update", *SCC-76 Annual Meeting (Pensacola, FL) 2016*.

Woodard, J.D. "Estimation of Demand Elasticities for Agricultural Insurance," *SCC-76 March 2015*

- Power G., J. Woodard, L. Verteramo-Chiu, D. Vedenov, and S. Klose, "Risk and Planned vs. Actual Decisions of Farmers and Ranchers" SCC-76 March 2015
- Woodard J.D., L. J. Verteramo Chiu, A.P. Miller, "Impact of Technological Assumptions on Agricultural Yield Forecasts under Climate Change", Agricultural & Applied Economics Association 2014 AAEA Annual Meeting, Minneapolis, MN, July 27-29, 2014.
- Julianne Quinn, Zhaoyu Zeng, Christine Shoemaker, Joshua Woodard, "A Robust Profitability Assessment Tool for Targeting Agricultural Investments in Developing Countries: Modeling Spatial Heterogeneity and Uncertainty," American Geophysical Union Annual Meeting, San Francisco, 2014
- Shee A. , C. Turvey, and J. Woodard, "Risk Contingent Credit – A Case Study" , *AAEA Annual Meeting* July 28, 2014
- Calum Turvey, Joshua Woodard, and Edith Liu, "Financial Engineering for the Farm Problem", SCC-76 2014.
- Dustin Baker and Joshua Woodard, "Comparative Analysis of Farm Bill Dairy Title Proposals"", SCC-76 2014.
- Woodard, J.D., "Discussion Panel (Moderator/Organizer): Innovations in Index-Based Insurance," *3rd International Agricultural Risk, Finance, and Insurance Conference (IARFIC)*, Zurich, Switzerland (June, 2014).
- Shee, A., J. Woodard, and A. Mude, "Development of Meso-Level Index Based Livestock Insurance in Kenya" *3rd International Agricultural Risk, Finance, and Insurance Conference (IARFIC)*, Zurich, Switzerland (June, 2014).
- Woodard J.D., Verteramo Chiu Leslie J. Verteramo Chiu, Miller A. P., "Adaptation of US Agricultural Yields and Production to Drought and Climate Change", Society for Risk Analysis Annual Meeting 2014, Denver, CO, Dec. 7-10, 2014.
- Woodard, J.D., " A Spatial Econometric Approach to Developing Weather-Linked Insurance in the Presence of Missing Data: An Application to Livestock Mortality Insurance in Kenya," *2nd International Agricultural Risk, Finance, and Insurance Conference (IARFIC)*, Vancouver, Canada (June, 2013).
- Woodard, J.D., "Discussion Panel (Moderator/Organizer): The role of climate change and the impact on agricultural risk management and insurance," *2nd International Agricultural Risk, Finance, and Insurance Conference (IARFIC)*, Vancouver, Canada (June, 2013).
- Woodard, J.D., A. Shee and A. Mude, "A spatial econometric approach to scalable index insurance design against drought related livestock mortality in Kenya", 9th International Microinsurance Conference 2013, Jakarta, India
- Woodard, J.D., A. Shee and A. Mude, A Spatial Econometric Approach to Designing and Rating Scalable Index Insurance in the Presence of Missing Data Centre for the Study of African Economies 2014 conference

- Channa, H. and J.D. Woodard, "Scalability of Remotely Sensed Livestock Index Insurance in East Africa," *Annual Meeting of the SCC-76 "Economics and Management of Risk in Agriculture and Natural Resources,"* Pensacola, FL (March, 2013).
- Shee, A., J.D. Woodard, A. Mude, "Innovations in index based micro insurance to address food security for the excluded" *First International Conference on Global Food Security,* 29 September - 2 October 2013, Noordwijkerhout, The Netherlands
- Woodard, J.D., A. Shee, and A. Mude, "A Spatial Econometric Approach to Scalable Index Insurance Design Against Drought Related Livestock Mortality in Kenya," *9th International Microinsurance Conference 2013,* Jakarta, Indonesia, (November 2013).
- Woodard, J.D., "Impacts of Weather and Time Horizon Selection on Crop Insurance Ratemaking: A Conditional Distribution Approach," *Society for Risk Analysis Annual Meeting 2012, San Francisco CA*
- Woodard, J.D., "Impacts of technology, weather, and sample selection on the pricing of U.S. Federal crop insurance: A conditional distribution approach," *China Institute for Actuarial Science (CIAS) International Agricultural Risk, Finance, and Insurance Conference (IARFIC), Central University of Finance and Economics, "Agricultural Risk, Finance, Insurance and Actuarial Science",* Beijing, China (June 20-21, 2012).
- Paulson, N.D., J.D. Woodard, and B.A. Babcock, "Modeling and evaluating area versus farm-level "shallow loss" crop revenue insurance: Issues and implications for the 2012 farm bill," *China Institute for Actuarial Science (CIAS) International Agricultural Risk, Finance, and Insurance Conference (IARFIC), Central University of Finance and Economics, "Agricultural Risk, Finance, Insurance and Actuarial Science",* Beijing, China (June 20-21, 2012).
- Woodard, J.D., K. Ward, G.D. Schnitkey, P. Burgener, and A.D. Pavlista, "Government Insurance Program Design, Incentive Effects, and Technology Adoption: The Case of Skip-Row Crop Insurance," *Annual Meeting of the SCC-76 "Economics and Management of Risk in Agriculture and Natural Resources,"* Pensacola, FL (March, 2012).
- Barrett E. Kirwan, Nicholas Paulson, Joshua D. Woodard, "Risk and Incentives: A Not-So-Tenuous Trade-off," *Annual Meeting of the SCC-76 "Economics and Management of Risk in Agriculture and Natural Resources,"* Pensacola, FL (March, 2012).
- Woodard, J.D., K. Ward, G.D. Schnitkey, P. Burgener, and A.D. Pavlista, "Economics of Skip-Row Corn in the Central Great Plains: Production and Insurance Implications," *Society for Risk Analysis 2011 Annual Meeting,* Charleston, SC (December, 2011).
- Woodard, J.D., "A Conditional Distribution Approach to Assessing the Impact of Weather Sample Heterogeneity on Yield Risk Estimation and Crop Insurance Ratemaking," *Agricultural and Applied Economics Association Selected Session Paper,* Pittsburgh, PA (July, 2011).
- Leidner, A.J., R.D. Lacewell, M.E. Rister, J.D. Woodard, A.W. Sturdivant, and J. White, "Seawater Desalination for Municipal Water Production," *2011 UCOWR /NIWR Annual Conference, Planning For Tomorrow's Water: Snowpack, Aquifers, and Reservoirs,* Boulder, CO (July, 2011)
- Ghosh, S., J.D. Woodard, D. Vedenov, "Efficient Estimation of Copula Mixture Models: An Application to the Rating of Crop Revenue Insurance," *Agricultural and Applied Economics Association Selected Session Paper,* Pittsburgh, PA (July, 2011).

- Alarcon, E., J.D. Woodard, E. Rister and D. Leatham, "An Analysis of Investments in Apartments: Is There Value in a Portfolio Approach?" *Intellectbase Academic Conference San Antonio, TX* (March 25-26, 2011).
- Woodard, J.D., B.J. Sherrick, "Estimation of Mixture Models using Cross-Validation Optimization: Implications for Crop Yield Distribution Modeling," *Annual Meeting of the SCC-76 "Economics and Management of Risk in Agriculture and Natural Resources,"* Atlanta, GA (March, 2011).
- Leidner, A.J., R.D. Lacewell, M.E. Rister, J.D. Woodard, A.W. Sturdivant, and J. White, "Seawater Desalination for Municipal Water Production," *Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Corpus Christi, TX, February 5-8, 2011*
- Adusumilli, N.C., R.D. Lacewell, M.E. Rister, J.D. Woodard, A.W. Sturdivant, "Effect of Agricultural Activity on River Water Quality: A Case Study for the Lower Colorado River Basin," *Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Corpus Christi, TX, February 5-8, 2011*
- Li, Yariu, J.D. Woodard, and D. Leatham, "The Causality of Foreign Direct Investment and Its Effects on Economic Growth: Re-estimated by a Directed Graph Approach," *Selected Paper prepared for presentation at the Southern Agricultural Economics Association Annual Meeting, Corpus Christi, TX, February 5-8, 2011*
- Woodard, J.D., N. Paulson, D. Vedenov, and G. Power, "Efficiency in the Modeling of Dependence Structures: An Application of Alternative Copulas to Agricultural Insurance Rating," *Risk Analysis 2010, the Seventh International Conference on Computer Simulation in Risk Analysis and Hazard Mitigation, Algarve, Portugal* (September, 2010).
- Woodard, S., N. Paulson, J.D. Woodard, and K. Baylis, "A Spatial Analysis of Agricultural Cash Rents," *Agricultural and Applied Economics Association Selected Session Paper* (July, 2010).
- Lanoue, C., B.J. Sherrick, G.D. Schnitkey, N.D. Paulson, and J.D. Woodard, "Efficiency Evaluation of Alternative Yield Models for Crop Insurance Rating Applications," *Agricultural and Applied Economics Association Selected Session Paper* (July, 2010).
- Woodard, J.D., and Nicholas D. Paulson, "Adverse Selection in Crop Insurance Markets: Impacts of Loss Expectations on Insurance Demand," *Annual Meeting of the SCC-76 "Economics and Management of Risk in Agriculture and Natural Resources,"* Destin, Florida (March, 2010).
- Woodard, S., N. Paulson, and J.D. Woodard, "A Spatial Analysis of Agricultural Cash Rents," *Western Agricultural Economics Association Annual Meeting, Kauai, Hawaii* (June, 2009).
- Woodard, J.D., B.J. Sherrick, G.D. Schnitkey, "Revenue Risk Reduction Impacts of Crop Insurance in a Multi-Crop Framework," *NCCC-134 (Formerly NCR-134) Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, St. Louis, Missouri* (April, 2009).
- Woodard, J.D., G.D. Schnitkey, B.J. Sherrick, "Evaluation of the Actuarial Performance of U.S. Crop Insurance Programs," *SCC-76 Annual Meeting, Economics and Management of Risk in Agriculture and Natural Resources, Galveston, TX* (March, 2009).

Woodard, J.D. and P. Garcia, "Basis Risk and Weather Hedging Effectiveness," *101st Seminar of the European Association of Agricultural Economists*, Berlin, Germany (July, 2007).

Woodard, J.D. and P. Garcia, "Spatial Aggregation and Weather Risk Management," *American Agricultural Economics Association Annual Meeting*, Portland, OR (July, 2007).

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Illinois AGRINEWS (Op-ed) "Stark Differences Between Senate and House Farm Bill Proposals," 7/27/2012

Graduate Student Supervision and Committees (22+)

Jixuan Yao (M.S.) Cornell University (Chair), June 2016, crop insurance

June Cheng (M.S.) Cornell University (Member), July 2016, agricultural risk

Allysa Miller (M.S.) Cornell University (Chair), July 2015, Climate Change and Agricultural Markets

Dustin Baker (M.S.) Cornell University (Chair), July 2014, Dairy Markets and Policy
Dizi Chang (M.S.) Cornell University (Committee Member), Aug, 2014, China Ag. Economic History
Nathaniel Jensen (Ph.D.) Cornell University (Committee Member), 2014, International Dev./Finance
Yingzong Sun (M.S.) Cornell University (Chair), October 2013, Land Values and Spatial Modeling
Hira Chana (M.S.) Cornell University (Chair), May 2013, Livestock Insurance
Xiaolan Xu (M.S.), Cornell University (Committee Member), May 2012, Cooperatives
Vitaly Filonov (M.S.), Texas A&M University (Committee Member), July 2011, Weather Derivatives
Yujin Wen (Ph.D.), Texas A&M University (Committee Member), May 2011, Deficit Irrigation
Miguel Dorta (M.S.), Texas A&M University (Chair), May 2012, Commodity Futures
Edgar Alarcon (M.S.), Texas A&M University (Co-Chair), July 2011, Entrepreneurial Finance
Chris Lanoue (M.S.), University of Illinois (Committee Member), June 2010, Crop Insurance Rating
MENG and CS ad hoc Advisor: Xi He, Mukesh Tiwari, Alex Maas, Hanwen Wang, Haowen Tao, Yudong Yang, Siyao Sun, and Anthony Perello,

Other Consulting Activity, Partners, and Clients

Risk Management Agency-United States Department of Agriculture (RMA-USDA)
Archer Daniels Midland (ADM) Crop Risk Services (ADM-CRS, formerly ASI-Agriserve)
MunichRE America
Farm Credit Administration (FCA)
National Corn Growers Association (NCGA) & Illinois Corn Growers Association (ICGA)
Rain and Hail, LLC.
COUNTRY Financial
American Farm Bureau Insurance Services, Inc

Professional Associations and Memberships

American Agricultural Economics Association (AAEA), 2003 – Present
American Risk and Insurance Association (ARIA), 2009 – 2011, 2013 – Present
Agricultural Economics Society (AES), 2010 – 2013
Society of Risk Analysis (SRA), 2010 – 2013
SCC-76, 2009–Present
NCCC-1177, 2011–2014

Journal Reviewer and Conference Referee

Journal of Risk and Insurance
Agricultural Finance Review
American Journal of Agricultural Economics
Agricultural and Applied Economics Association (2010, 2011, 2012 Annual Meetings)
Agricultural Economics
Applied Economics Perspectives and Policy
European Review of Agricultural Economics
Agricultural and Resource Economics Review
Climatic Change
Geneva Papers on Risk and Insurance
Economics of Transition
Journal of Agricultural Economics
Economic Research Service Policy Series
Global Environmental Change

Professional and Departmental Service and Other Activities

AAEA Communication Award Committee, 2016-2019
American Risk and Insurance Association, 2016 ARIA Annual Meeting Program Committee, 2016
Applied Risk Analysis Section Chair/Chair Elect, AAEA, 2014-2016
Organizer of AAEA 2016 Applied Risk Analysis Section Luncheon
Ag-Analytics.Org, Founder, 2014-present
International Conference of Agricultural Economists, Farm Management Section Leader, 2014
Farm Management Section Leader, Agricultural and Applied Economics Association, 2014
Conservation and Crop Insurance Task Force, AGree, 2014-present
(<http://foodandagpolicy.org/sites/default/files/160128%20CCITF%20Handout.pdf>)
Associate Editor, Ag Finance Review, 2014
Authorized Expert Insurance Reviewer, Underwriter, Risk Management Agency-USDA, 2013-Present
Applied Risk Analysis Track Chair, Agricultural and Applied Economics Association, 2014
International Conference of Agricultural Economists, Farm Management Section Leader, 2014
Farm Management Section Leader, Agricultural and Applied Economics Association, 2014
Associate Editor, Agricultural Finance Review, 2014
Authorized Expert Insurance Reviewer, Underwriter, Risk Management Agency-USDA, 2013-Present
Guest Editor, Choices, Current Issues in Risk Management and U.S. Agricultural Policy, 2013
Scientific Committee, International Agricultural Risk, Finance, and Insurance Conference (IARFIC), 2013-Present
SCC-76 Annual Meeting Group, *2013-2014 Accommodations Chair*
CALs Faculty Leadership Program, Summer 2013
Board of Directors, Shared Interest, 2012-2015 (3 year term)
Advisory Council-Institute for Climate Change in Agriculture (ICCA), 2012-2015
Search committee for PES and Spreadsheet instructor position, 2013
Search committee for the CALs Director for the Institute of Climate Change in Agriculture, 2012
SCC-76 Annual Meeting Group, *2012-2013 Accommodations & Program Chair*
SCC-76 Annual Meeting Group, *2011-2012 Program Chair*
Dyson School Awards Committee, Cornell Univ., 2012-2013
Graduate Advisory Committee, Dept. of Ag. Econ, Texas A&M Univ., 2010-2011
Ph.D. Core Examination Committee, Dept. of Ag. Econ, Texas A&M Univ., 2009 – 2011
Research and Awards Subcommittee, Dept. of Ag. Econ, Texas A&M Univ., 2009 – 2011
Agricultural Economics Society Undergraduate Student Club (Advisor), Texas A&M Univ., 2009 – 2011

Professional Honors, Honorary Positions, and Awards (Excluding Keynotes)

2012	Zaitz Family Faculty Fellow of Agribusiness and Finance, Cornell University
2010	Texas A&M University Student Led Teaching Award (SLATE) Finalist , AGECE 448 (spring)
2009	Outstanding Doctoral Dissertation Award, Department of ACE, <i>University of Illinois</i>
2007	American Agricultural Economics Association Graduate Student Travel Grant, AAEA
2007	Graduate College Conference Travel Award, <i>University of Illinois</i>
2007	Colvin Fellowship, <i>University of Illinois</i>
2006	List of Teachers Ranked as Excellent by Their Students (<i>Special Outstanding Distinction</i>), for Agricultural and Resource Economics TA (ACE 100), <i>University of Illinois</i>
2005-2006	Marshall Scott Fellowship in Agribusiness, <i>University of Illinois</i>
2005	Gamma Sigma Delta, Honor Society of Agriculture, <i>University of Illinois</i>
2003	Wall Street Journal Student Achievement Award, <i>Frostburg State University</i>