

Bruce A. Babcock

July 15, 2017

Current position

Professor of Public Policy, University of California, Riverside.

Past Positions

2011-2013: Cargill Endowed Chair of Energy Economics; Director, Biobased Industry Center; Professor, Department of Economics, Iowa State University.

1998-2011: Director, Center for Agricultural and Rural Development, Iowa State University and Professor, Department of Economics, Iowa State University.

1993-1998: Associate Professor, Department of Economics, Iowa State University.

1990-1993: Assistant Professor, Department of Economics, Iowa State University.

1987-1990: Assistant Professor and Extension Specialist, North Carolina State University.

1982-1983: Research Associate, Department of Agricultural Economics, Texas A&M University.

Education

Ph.D. Agricultural and Resource Economics, University of California at Berkeley, 1987.

M.S. Agricultural Economics, University of California at Davis, 1981.

B.S. Economics of Resource Use, University of California at Davis, 1980.

Honors and Awards

AAEA Bruce Gardner Memorial Prize for Applied Policy Analysis, for work analyzing the Renewable Fuel Standard. 2015

Lee R. Kolmer Award for Excellence in Applied Research, College of Agricultural and Life Sciences, Iowa State University, 2014.

Fellow of the Agricultural and Applied Economics Association, 2013.

AARES Quality of Communication Award and AAEA Honorable Mention for Quality of Communication for *Shifting Patterns of Agricultural Production and Productivity Worldwide*.

AAEA Quality of Research Discovery for “Environmental and Distributional Impacts of Conservation Targeting Strategies,” 2002.

WAEA Outstanding JARE Article for “Bt Corn and Insect Resistance: An Economic Assessment of Refuges,” 2002.

USDA Secretary of Agriculture Award for outstanding accomplishments in the areas of agricultural public policy research and formulation, 2002.

AAEA Distinguished Extension Program – Group for “Managing Risk and Profits,” 2000.

Farm Foundation’s Outstanding Public Issues Education Program Award for Iowa’s Pork Industry – Dollars and Scents, 1998.

AAEA Outstanding Dissertation (honorable mention) for *The Value of Weather Information in Agriculture*, 1987.

Research Funding Last 10 Years

The Pyrolysis-Bioenergy-Biochar Pathway to Carbon Negative Energy. Co-PI. Three year, \$3 million grant from the Global Climate and Energy Project at Stanford University.

Estimating Consumer Demand for E85. PI. \$85,000, Biobased Industry Center, 2014.

Second Generation Biofuels: Comparative Analysis of Investment Opportunities in the US and Brazil. PI \$48,000. 2014. Biobased Industry Center.

Harnessing Renewable Energy: Iowa EPSCoR. \$20 million. Leader of the Energy Policy platform: \$700,000 over five years: 2012-2016. National Science Foundation.

Use and Improvement of ISU's Biofuels Outlook Model. PI. \$56,000. Biobased Industry Center, 2014.

RTI Ethanol Modeling Subcontract. PI. \$225,000 over 3 years. 2012-2014. Environmental Protection Agency.

CARD Policy Research Center. Co-PI. \$537,000 over 3 years. USDA, 2012-2014.

Modeling Land Use Changes Due to Biofuel Production. \$650,000 over four years. PI. Environmental Protection Agency. 2008-2012.

Ex Post Analysis of Land Use Changes. \$45,000. PI. Biobased Industry Center, 2013.

Midwest Agribusiness Trade and Research Information Center, Food and Agricultural Policy research Institute, and CARD Trade Grant. Managed earmarked appropriations in the amount of approximately \$1.5 million per year from 2004 to 2010.

Graduate Student Advising (Major Professor)

Current PhD students: Shufen Chen.

Past Students:

Zabid Iqbal, Ph.D. 2017

Yixing Peng Ph.D. 2015.

Wei Zhou Ph.D. 2015

Ofir Rubin Ph.D. 2010

Li Zhang Ph.D. 2008

Wen Shi, M.S. 2007

Silvia Secchi Ph.D. 2002

Charles Nicholson Ph.D 1996

Andrea Stoppa M.S. 1997

Xiaohong Zhu, Ph.D. 2016.

Michael Hudak Ph.D. 2015.

Tian Yu Ph.D. 2011

Lihong McPhail Ph.D. 2010

Nick Paulson Ph.D. 2007

Miguel Carriquiry Ph.D 2004

Paul Mitchell, Ph.D 1999

Marko Svetina M.S. 2003

Committees and Boards

Board Member, Agricultural and Applied Economics Association, 2011-2014.

Member, California Air Resources Board LCFS Expert Workgroup, 2009-2010.

Congressional Testimony

U.S. House Committee on Agriculture:

- Hearing to review farm programs. Sept 21, 2006.

- Hearing on indirect land use and renewable biomass provisions of the renewable fuels standard May 6, 2009
- Hearing to review U.S. agricultural policy in advance of the 2012 Farm Bill, May 13, 2010

U.S. House Committee on Oversight and Government Reform:

- Hearing on Waste, Fraud, and Abuse in the Federal Crop Insurance Program, May 13, 2010

U.S. Senate Committee on Homeland Security and Government Affairs

- Hearing on Fuel Subsidies and Impact on Food Prices, May 7, 2008.

U.S. Senate Committee on Agriculture, Nutrition, and Forestry

- Hearing on Conservation, Wetlands, and Farm Policy. March 14, 1995.

Presentations (Last Five Years)

Stanford Institute for Energy Policy Research. Discussant at “Building Risky Energy.” Palo Alto, CA, December 2015.

Brookings Institution. Panelist at “Ten Years of the Renewable Fuel Standard: What’s Been the Impact on Energy and the Environment?” Washington, DC, October, 2015.

Coordinating Research Council. “Using Recent Land Use Changes to Validate Land Use Change Models” presented at 2015 CRC Life Cycle Analysis of Transportation Fuels Workshop, Argonne National Labs, October 27, 2015.

University of Parma, Department of Economics. Keynote speaker at "Intellectual Property Rights for Geographical Indications: What is at Stake in the TTIP?" Parma, Italy, April 2015.

International Food Policy Research Institute. Presented “Impact of Ethanol and the 2012 Drought on Food Price Volatility” at Workshop on Biofuels and Food Security, Washington, DC, November 2014.

University of Minnesota. Presented “Implications of Crop Insurance as Social Policy” at the 2014 Minnesota Crop Insurance Conference, Mankato, September, 2014.

Advanced Trading. Presented “RFS Update: Short and Long Term Impacts on Agriculture” at their annual conference, New Orleans, February 2014.

Renewable Fuels Association, Presented “Impact of RFS on Investment, Consumption, and Fuel Prices” at the National Ethanol Conference, Orlando, February 2014.

University of California. “What’s Up with EPA? The Politics and Economics of the E10 Blend Wall” presented at the 7th Annual Berkeley Bioeconomy Conference, Berkeley, April 2014.

National Academy of Sciences. Presented “Market Responses to Sustainability and Food Policies and Practices” at a food systems workshop, Washington, DC, September 2013.

- FAO-OECD. Presented “Can Subsidized Income Insurance Help Protect Farmers from Shocks on World Markets?” at a workshop on food policy, Geneva, September, 2013.
- EcoEngineers. Presented “Using E85 to Break the Blend Wall” and “Analysis of Competition for D5 RINS” at the RIN Academy Des Moines, August 2013.
- Kansas City Federal Reserve Bank. “Energy Policy Impact on Agriculture: Outlook for 2013 and 2014” presented at National Agribusiness Symposium, Kansas City, July 2013.
- Southern Regional Research Meetings on Risk Management. “Benefits and Costs of Subsidizing Farmers’ Risk Management Activities.” Keynote talk, Pensacola, March 2013.
- DATAGRO. Presented “Agribusiness of the Future: Performance, and Organization Form” at the Global Agribusiness Forum, Sao Paulo, September 26, 2012.
- IAEA Annual Meetings. Presented ‘Current State of the US Ethanol Industry.’ Foz do Iguaco, Brazil August 22, 2012.
- ICTSD “Biofuels and Food Prices” presented at trade policy workshop, Beijing, August 3, 2012.
- EU Commission, DG Agriculture. “US Crop Outlook” presented at their annual outlook meeting, Brussels, October 26, 2011.
- ICTSD. “Impact of Biofuels on Food Prices.” Presented to WTO ambassadors, Geneva, May 27, 2011.
- DATAGRO. “US Biofuels Policy.” Presented at Ethanol Summit, Sao Paulo, June 7, 2011.
- MIT Center for Energy and Environmental Policy Research. “Carbon Regulation and Land Use.” Cambridge, May 5, 2011.
- UC Berkeley. “Outlook for US Biofuels.” Presented at the Berkeley Biofuels Conference March 25, 2011.
- US Congress. “US Farm Policy Background” presented workshop to new members of Congress, Williamsburg, January 10, 2011.

Journal Articles

- Fidel, R, S. Archontoulis, B. Babcock, R. C. Brown, H. Dokoochaki, D. Hayes, D. A. Laird, F. Miguez, and M. M. Wright. 2017. “Commentary on ‘Current economic obstacles to biochar use in agriculture and climate change mitigation’ regarding uncertainty, context-specificity and alternative value sources.” *Carbon Management*, doi 10.1080/17583004.2017.1306408.
- Zhou, W. and B.A. Babcock. 2017. “Using the competitive storage model to estimate the impact of ethanol and fueling investment on corn prices.” *Energy Economics*, <http://dx.doi.org/10.1016/j.eneco.2016.12.017>
- Brandes, E., G. McNunn, L. Schulte Moore, I. Bonner, D. Muth, B. Babcock, B. Sharma, and E. Heaton. “Subfield Profitability Analysis Reveals an Economic Case for

- Cropland Diversification.” *Environmental Research Letters*, doi 10.1088/1748-9326/11/1/014009
- Pouliot, S., and B.A. Babcock. “Compliance Path and Impact of Ethanol Mandates on Retail Fuel Market in the Short Run.” *American Journal of Agricultural Economics*, doi: 10.1093/ajae/aav071.
- Anderson, C., B. Babcock, P. Gassman, Y. Peng, T. Campbell. “Placing Bounds on Extreme Temperature Response of Maize” *Environmental Research Letters* 10(2015):124001.
- Rosas, Francisco, B.A. Babcock, and D. Hayes. “Nitrous Oxide Emission Reductions from Cutting Excessive Nitrogen Fertilizer Applications.” *Climatic Change* 132(2015): 353-67.
- Babcock, B.A. “Explaining Anomalous Crop Insurance Purchase Decisions Using Prospect Theory.” *American Journal of Agricultural Economics* 27(2015):1371-85.
- Babcock, B.A. “Extensive and Intensive Agricultural Supply Response.” *Annual Review of Resource Economics*.” 7(2015):333-48.
- Paulson, N., B.A. Babcock, and J.W. Coppess. “The Potential for Crop Insurance Reform.” *Agricultural Finance Review* 74(2014):464-76.
- Pouliot, S. and B.A. Babcock. “The Demand for E85: Geographical Location and Retail Capacity Constraints.” *Energy Economics* 45(2014):134-143.
- Babcock, B.A. “Welfare Effects of PLC, ARC and SCO.” *Choices*, 3rd quarter. 2014.
- Rubin, O., and B.A. Babcock. “The Impact of Expansion of Wind Power Capacity and Pricing Methods on the Efficiency of Deregulated Electricity Markets.” *Energy* 59 (2013):676-688.
- Elobeid, A., M. Carriquiry, K. Mulik, J.F. Fabiosa, D.J. Hayes, B.A. Babcock, J. Dumortier and J.F. Rosas "Biofuel Expansion, Fertilizer Use and GHG Emissions: Unintended Consequences of Mitigation Policies." *Economics Research International* (2013) Article ID 708604.
- Paulson, N., J. Woodard, and B.A. Babcock. “Modeling Shallow Loss Crop Revenue Programs: Issues and Implications for the 2013 Farm Bill.” *Agricultural Finance Review* 73(2013):329-344
- Babcock, B.A. “Ethanol without Subsidies: An Oxymoron or the New Reality?” *American Journal of Agricultural Economics* 95(2013):1317-24.
- Robertson, B.A., R.A. Rice, T.Scott Sillett, C.A. Ribic, B.A. Babcock, D.A. Landis, J.R. Kerkert, R.J. Fletcher, J.J. Fontaine, P.J. Doran, D.W. Schemske. “ Are Agrofuels a Conservation Threat or Opportunity for Grassland Birds in the United States? *The Condor* 114(2012):678-688.
- Miao, R. D.A. Hennessy, and B.A. Babcock. “Investment in Cellulosic Biofuel Refineries: Do Waivable Biofuel Mandates Matter?” *American Journal of Agricultural Economics* 94(2012):750-762.

- McPhail, L., and B.A. Babcock. "Impact of US Biofuel Policy on US Corn and Gasoline Price Variability." *Energy* 37(2012):505-13.
- Barr, K.J., B.A. Babcock, M.A. Carriquiry, A.M. Nassar, and L. Harfuch. "Agricultural Land Elasticities in the United States and Brazil." *Applied Economic Perspectives and Policy* (2011):449-462.
- Swinton, S. B.A. Babcock, L.K. James, and V. Bandaru. "Higher U.S. Crop Prices Trigger Little Area Expansion so Marginal Land for Biofuel Crops Is Limited." *Energy Policy* 39(2011):5254-5258.
- Rubin, O., and B.A. Babcock. "A Novel Approach for Modeling Deregulated Electricity" *Energy Policy*. 39(2011):2711-2721.
- Mallory, M., D. Hayes and B.A. Babcock. "Crop-based Biofuel Production with Acreage Competition and Uncertainty." *Land Economics*, 87(2011):610-627.
- Babcock, B.A., S. Marette, and D. Treguer. "Opportunity for Profitable Investments in Cellulosic Biofuels." *Energy Policy* 39(2011) :14-719.
- Paulson, N.D, and B.A. Babcock. "Readdressing the Fertilizer Problem" *Journal of Agricultural and Resource Economics* 35(2010):368-384.
- Yu, T. and B.A. Babcock. "Are U.S. Corn and Soybeans Becoming More Drought Tolerant?" *American Journal of Agricultural Economics* 92(2010):1310-1323.
- Feng, H., and B.A. Babcock. "Impacts of Ethanol on Planted Acreage in Market Equilibrium." *American Journal of Agricultural Economics* 92(2010):789-802.
- Hennessy, H., B.A. Babcock, and O. Rubin. "Greenhouse Gas Impacts of Ethanol from Iowa Corn: Life Cycle Assessment versus System Wide Approach." *Biomass and Bioenergy* 34(2010):912-921.
- Hayes, D., B. Babcock, J. Fabiosa, S. Tokgoz, A. Elobeid, T-H Yu, F. Dong, C. Hart, E. Chavez, S. Pan, M. Carriquiry, and J. Dumortier. "Biofuels: Potential Production Capacity, Effects on Grain and Livestock Sectors, and Implications for Food Prices and Consumers." *Journal of Agricultural and Applied Economics* 41 (2009):465-491.
- Paulson, N.D, and B.A. Babcock. "Get a GRIP: Should Area Revenue Coverage Be Offered Through the Farm Bill or as a Crop Insurance Program?" *Journal of Agricultural and Resource Economics* 33(2008):137-153,
- Tokgoz, Hayes, A. ElObeid, J. Fabiosa, D. J. Hayes, B.A. Babcock, T. Yu, F. Dong, and C.E. Hart. "Bottlenecks, Drought, and Oil Price Spikes: Impact on U.S. Ethanol and Agricultural Sectors" *Review of Agricultural Economics* 30(2008):604-622.
- Babcock, B.A. "Distributional Implications of U.S. Ethanol Policy." *Review of Agricultural Economics* 30(2008):533-542.
- Carriquiry, M. A., B.A. Babcock, and C. E. Hart. "Using a Farmer's Beta for Improved Estimation of Expected Yields." *Journal of Agricultural and Resource Economics* 33(2008):62-68.

- Paulson, N. Babcock, B.A., C.E. Hart, and D.J. Hayes. "An Insurance Approach to Risk Management in the Ethanol Industry." *Agricultural and Resource Economics Review* 37(2008):51-62.
- Babcock, B. A.; D. J. Hayes, J. D. Lawrence, and R. L. Clemens. "Creating a Geographically Linked Collective Brand for High-Quality Beef: A Case Study." *Journal of Innovative Marketing* 4(2008):16-24.
- Marette, S., R. Clemens, and B.A. Babcock. "Recent International and Regulatory Decisions about Geographical Indications." *Agribusiness: An International Journal* 24(2008):453-472
- Elobeid, A., S. Tokgoz, D.J. Hayes, B. A. Babcock, C. E. Hart. "Long-Run Impact of Corn-Based Ethanol on the Grain, Oilseed, and Livestock Sectors: A Preliminary Assessment, *AgBioForum* 10(2007):11-18.
- Monchuk, D.C, J. Miranoski, D.J. Hayes, and B. A. Babcock. "An Analysis of Regional Economic Growth in the U.S. Midwest." *Review of Agricultural Economics* 29(2007):17-39.
- Carriquiry, M. A., and B. A. Babcock. "Reputations, Market Structure, and the Choice of Quality Assurance Systems in the Food Industry." *American Journal of Agricultural Economics* 89(2007):12-23
- Hart, C.E., D. J. Hayes, and B. A. Babcock. "Insuring Eggs in Baskets: Should the Government Insure Individual Risks?" *Canadian Journal of Agricultural Economics* 54(2006):121-137.
- Hayes, D. J., S. Lence, and B.A. Babcock. "Geographic Indications and Farmer-Owned Brands.: Why do the U.S. and the E.U. Disagree?" *EuroChoices*, 4(2005):28-35.
- Carriquiry, M. A., and B. A. Babcock. "The Impact of Transportation Costs on Spatial Competition of Grain Buyers: An Iowa Case Study" *Journal of Transportation Research Forum* 44(2005):61-76.
- Herriges, J., S. Secchi, and B.A. Babcock. "Living with Hogs in Iowa: The Impact of Livestock Facilities on Rural Residential Property Values." *Land Economics*,81(2005):530-545.
- Babcock, B.A., C. E. Hart, and D. J. Hayes. "Actuarial Fairness of Crop Insurance Rates with Constant Rate Relativities." *American Journal of Agricultural Economics* 86(2004):563-575.
- Hennessy, D., J.A. Miranowski, and B. A. Babcock. "Genetic Information in Agricultural Productivity and Product Development." *American Journal of Agricultural Economics* 86(2004):73-87
- Krell, R.K., L. Pedigo, and B.A. Babcock. "Comparison of Estimated Costs and Benefits of Site-Specific Versus Uniform Management for the Bean Leaf Beetle in Soybean." *Precision Agriculture* 4(2003):401-411.
- Mitchell, P. D., T. M. Hurley, B. A. Babcock, and R. L. Hellmich. "Insuring the Stewardship of Bt Corn: A Carrot versus a Stick." *Journal of Agricultural and Resource Economics* 27(2002):390-405

- Hart, C. E., and B.A. Babcock. "U.S. Farm Policy and the WTO: How Do They Match Up?" *The Estey Centre Journal of International Law and Trade Policy* 3(2002):119-139.
- Hurley, T. M., S. Secchi, B. A. Babcock, and R. Hellmich. "Managing the Risk of European Corn Borer Resistance to Bt Corn." *Environmental and Resource Economics* 22(2002):537-558.
- Hurley, T. M., B. A. Babcock, and R. Hellmich. "Bt Corn and Insect Resistance: An Economic Assessment of Refuges." *Journal of Agricultural and Resource Economics* 26(2001):176-194.
- Hart, C. E., B. A. Babcock, and D. J. Hayes. "Livestock Revenue Insurance." *Journal of Futures Markets* 21(2001):553-580.
- Wu, J., D. Zilberman, and B.A. Babcock, "Environmental and Distributional Impacts of Conservation Targeting Strategies." *Journal of Environmental Economics and Management* 41(2001):333-350.
- Wu, J. and B. A. Babcock. "Spatial Heterogeneity and the Choice of Instruments to Control Nonpoint Pollution, *Environmental and Resource Economics* 18(2001):173-192.
- Pautsch, G. R., L. Kurkalova, Babcock, B. A., and C. L. Kling. "The Efficiency of Sequestering Carbon in Agricultural Soils." *Contemporary Economic Policy* 19(2001):123-134.
- Wu, J., and B. A. Babcock. "Metamodeling Potential Nitrate Water Pollution in the Central United States." *Journal of Environmental Quality* 28(1999):1916-1928.
- Wu, J., R. D. Adams, D. Zilberman, and B. A. Babcock. "Targeting Resource Conservation Expenditures." *Choices* (2000):33-38.
- Paz, J.O., W.D. Batchelor, B. A. Babcock, T.S. Colvin, S.D. Logsdon, T.C. Kaspar, and D.L. Karlen. "Model-Based Technique to Determine Variable-Rate Nitrogen for Corn." *Agricultural Systems* 61(1999):69-75.
- Pautsch, G. R., B. A. Babcock and F. Jay Breidt. "Optimal Information Acquisition under a Geostatistical Model." *Journal of Agricultural and Resource Economics* 24(1999):342-366.
- Babcock, B. A. "Conflict between Theory and Practice in Production Economics: Discussion" *American Journal of Agricultural Economics*, 81(1999):719-721.
- Wu, J.-J., and B. A. Babcock. "The Relative Efficiency of Voluntary vs. Mandatory Environmental Regulations." *Journal of Environmental Economics and Management* 38(1999):158-175.
- Babcock, B. A., and G. R. Pautsch. "Moving from Uniform to Variable Nitrogen Applications on Iowa Corn: Effects on Rates and Returns." *Journal of Agricultural and Resource Economics* 23(1998):385-400.
- Hennessy, D., and B. A. Babcock. "Information, Flexibility, and Value Added." *Information Economics and Policy* 10(1998):431-449.

- Fleming, R. A., B. A. Babcock, and E. Wang. "Resource or Waste? The Economics of Swine Manure Storage and Management." *Review of Agricultural Economics* 20(1998):96-113.
- Wu, J., and B. A. Babcock. "The Choice of Tillage, Rotation, and Soil Testing Practices: Economic and Environmental Implications." *American Journal of Agricultural Economics* 80(1998):494-511.
- Hennessy, D., B. A. Babcock, and D. Hayes. "The Budgetary and Producer Welfare Effects of Revenue Assurance," *American Journal of Agricultural Economics* 79(August 1997):1024-1034.
- Babcock, B. A., P. G. Lakshminarayan, J. Wu, and D. Zilberman. "Targeting Tools for the Purchase of Environmental Amenities." *Land Economics* 73(1997):325-339.
- Wu, J., and B. A. Babcock. "Contract Design for the Purchase of Environmental Goods from Agriculture." *American Journal of Agricultural Economics* 78(1996):935-945.
- Pautsch, G. R., B. A. Babcock, C. P. Baumel. "Estimating the Value of Guaranteed Rail Service." *Journal of Transportation Research Forum* 36(1996):59-73.
- Babcock, B. A., J. Wu, P. G. Lakshminarayan and D. Zilberman. "The Economics of a Public Fund for Environmental Amenities." *American Journal of Agricultural Economics*, 78(1996):961-971.
- Babcock, B. A., A. L. Carriquiry, and H. S. Stern. "Evaluation of Soil Test Information in Agricultural Decision Making." *Applied Statistics* 45(1996):447-461.
- O'Brien, D., M. Hayenga, and B. A. Babcock. "Deriving Forecast Probability Distributions of Harvest-Time Corn Futures Prices." *Review of Agricultural Economics* 18(1996):167-180.
- Babcock, B. A., and D. Hennessy. "Input Demand Under Yield and Revenue Insurance." *American Journal of Agricultural Economics*, 78(1996):416-27.
- Wu, J., and B. A. Babcock. "Optimal Design of a Voluntary Green Payment Program under Asymmetric Information." *Journal of Agricultural and Resource Economics* 20(1995):316-327.
- Babcock, B. A., and J. F. Shogren. "The Cost of Risk in Agriculture," *Agricultural Economics* 12(1995):141-150.
- Lence, S., and B. A. Babcock. "Flexibility, Endogenous Risk, and the Protection Premium." *Theory and Decision* 38(1995):29-50.
- Babcock, B. A., and A. M. Blackmer. "The Ex Post Relationship between Growing Conditions and Nitrogen Fertilizer Levels." *Review of Agricultural Economics* 16(1994):441-450.
- Foster, W. E., and B. A. Babcock. "Commodity Policy, Price Incentives, and the Growth in Per-Acre Yields." *Journal of Agricultural and Applied Economics*, 25(1993):253-265.

- Babcock, B. A., W. E. Foster, and D. L. Hoag. "Land Quality and Diversion Decisions under U.S. Commodity Programs." *Review of Agricultural Economics* 15(1993):467-476.
- Babcock, B. A., E. K. Choi, and E. Feinerman. "Risk and Probability Premiums for CARA Utility Functions." *Journal of Agricultural and Resource Economics* 18(1993):17-24.
- Hoag, D. L., B. A. Babcock and W. E. Foster. "Field-Level Measurements of Land Productivity and Program Slippage." *American Journal of Agricultural Economic*, 75(1993):181-189.
- Babcock, B. A., and A. M. Blackmer. "The Value of Reducing Temporal Input Nonuniformities." *Journal of Agricultural and Resource Economics* 17(1992):335-347.
- Babcock, B. A. "The Effects of Uncertainty on Optimal Nitrogen Applications." *Review of Agricultural Economics* 14(1992):271-280.
- Babcock, B. A., and W. E. Foster. "Economic Rents under Supply Controls with Marketable Quota." *American Journal of Agricultural Economics* 74(1992):630-637.
- Babcock, B. A., E. Lichtenberg, and D. Zilberman. "Impact of Damage Control and Quality of Output: Estimating Pest Control Effectiveness." *American Journal of Agricultural Economics* 74(1992):163-172.
- Foster, W. E., and B. A. Babcock. "Producer Welfare Consequences of Regulating Chemical Residues on Agricultural Crops: Maleic Hydrazide and Flue-Cured Tobacco." *American Journal of Agricultural Economics* 73(1991):1224-1232.
- Babcock, B. A., and W. E. Foster. "Measuring the Contribution of Plant Breeding to Crop Yields: Flue-Cured Tobacco, 1954 - 1987." *American Journal of Agricultural Economics* 73(1991):850-859.
- Babcock, B. A. "Acreage Decisions under Marketing Quotas and Yield Uncertainty." *American Journal of Agricultural Economics* 72(1990):958-965.
- Babcock, B. A., C. A. Carter, and A. Schmitz. "The Political Economy of U. S. Wheat Legislation." *Economic Inquiry* 28(1990):335-352.
- Babcock, B. A. "The Value of Weather Information in Market Equilibrium." *American Journal of Agricultural Economics* 72(1990):63-72.
- Foster, W. E., and B. A. Babcock. "The Effect of Government Policy on Flue-Cured Tobacco Yields." *Tobacco Science*, 34(1990):4-8.
- Babcock, B. A., and A. Schmitz. "Look for the Hidden Costs: Why Direct Subsidy Can Cost Us Less (And Benefit Us More) than a 'No-Cost' Trade Barrier." *Choices*, 4th Quarter, 1986. Also included in *The Best of Choices: 1986-1996*, published by the AAEA.

- Babcock, B. A., J. A. Chalfant, and R. N. Collender. "Simultaneous Input Demands and Land Allocation in Agricultural Production under Uncertainty." *Western Journal of Agricultural Economics*, 12(1987)207-215.
- Babcock, B. A., M. E. Rister, R.D. Kay, and J. A. Wallers. "Identifying Least-Cost Sources of Required Fertilizer Nutrients." *American Journal of Agricultural Economics* 66(1984):385-391

Books Edited

- Alston, J. M., B.A. Babcock, and P.G. Pardey. *The Shifting Patterns of Agricultural Production and Productivity Worldwide*. The Midwest Agribusiness Trade and Research and Information Center, Iowa State University, Ames, IA 2010.
- Babcock, B.A., D.J. Hayes, and J.D. Lawrence. *Using Distillers Grains in the U.S. and International Livestock and Poultry Industries*. The Midwest Agribusiness Trade and Research and Information Center, Iowa State University, Ames, IA 2008.
- Babcock, B. A., R. W. Fraser, and J. N. Lekakis. *Risk Management and the Environment: Agriculture in Perspective*. Kluwer Academic Publishers. 2003.

Chapters in Books

- Babcock, B.A. "The Politics and Economics of the U.S. Crop Insurance Program." Pages 83-112 in Zivin, J., and J.M. Perloff. *The Intended and Unintended Consequences of U.S. Agricultural and Biotechnology Policy*. National Bureau of Economics Research, University of Chicago Press. 2012.
- Babcock, B., C. Hart, and A. Stoppa. "La Gestione del Rischio Nell'Agricoltura USA." Pages 99-118 in *La Gestione del Rischio in Agricoltura: Strumenti e Politiche*. F.Filippis ed. Coldiretti, Rome, Italy. 2004.
- Babcock, B., C. Hart, and A. Stoppa. "Le Strategie per la Gestione dei Rischi Agricoli e Gli Strumenti Applicabili in Italia." Pages 193-198 in *La Gestione del Rischio in Agricoltura: Strumenti e Politiche*. F.Filippis ed. Coldiretti, Rome, Italy. 2004.
- Secchi, S., and B.A. Babcock. "Pest Mobility, Market Share, and the Efficacy of Refuge Requirements for Resistance Management." Pages 94-112 in *Battling Resistance to Antibiotics and Pesticides*. R. Laxminarayan, ed. Resources for the Future, Washington, DC. 2003.
- Hurley, T. M., and B.A. Babcock. "Valuing Pest Control: How Much is Due to Risk Aversion?" Chapter 8 in *Risk Management and the Environment: Agriculture in Perspective*. B.A. Babcock, R. W. Fraser and J.N. Lekakis eds. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2003.

Policy Briefing Papers

- Pouliot, S. and Babcock, B.A. "Impact of Increased Ethanol Mandates on Prices at the Pump." Policy Brief 14-PB 18 January 2014.
- Babcock, B.A., and S. Pouliot. "Feasibility and Cost of Increasing US Ethanol Consumption Beyond E10." Policy Brief 14-PB 17 January 2014.
- Babcock, B.A. and W. Zhou. "Impact on Corn Prices from Reduced Biofuel Mandates." [13-WP 543]
- Babcock, B.A., and S. Pouliot. "RFS Compliance: Death Spiral or Investment in E85?" [13-PB 16]
- Babcock, B.A., and S. Pouliot. "How Much E85 Can Be Consumed in the United States?" [13-PB 15]
- Babcock, B.A., and S. Pouliot. "The Economic Role of RIN Prices." [13-PB 14] September 2013
- Babcock, B.A. "RFS Compliance Costs and Incentives to Invest in Ethanol Infrastructure." Policy Brief 13-PB 13 September 2013.
- Babcock, B.A. "Impact of Sales Constraints and Entry on E85 Demand" Policy Brief 13-PB 12 August 2013
- Babcock, B.A. "Price It and They Will Buy: How E85 Can Break the Blend Wall." Policy Brief 13-PB 11 August 2013.
- Babcock, B.A. "Updated Assessment of the Drought's Impacts on Crop Prices and Biofuel Production." Policy Brief 12-PB 8 August 2012
- Babcock, B.A. "Preliminary Assessment of the Drought's Impacts on Crop Prices and Biofuel Production." Policy Brief 12-PB 7 July 2012
- Babcock, B.A. "Outlook for Ethanol and Conventional Biofuel RINs in 2013 and 2014." Policy Brief 12-PB 9 December 2012
- Babcock, B.A., J.F. Fabiosa. "The Impact of Ethanol and Ethanol Subsidies on Corn Prices: Revisiting History." Policy Brief 11-PB 5. April 2011.
- Babcock, B.A. "Time to Revisit Crop Insurance Premium Subsidies?" Policy Brief 11-PB 4. March 2011.
- Babcock, B.A. "Impact on Ethanol, Corn, and Livestock from Imminent U.S. Ethanol Policy Decisions." Policy Brief 10-PB 3 November 2010.
- Babcock, B.A. "Costs and Benefits of Moving to a County ACRE Program." Policy Brief 10-PB 2 July 2010.
- Babcock, B.A. "Mandates, Tax Credits, and Tariffs: Does the U.S. Biofuels Industry Need Them All?" 10-PB 1 March 2010.
- Babcock, B.A., and CE. Hart. "ARPA Subsidies, Unit Choice, and Reform of the U.S. Crop Insurance Program." CARD Briefing Paper #05-BP 45 February 2005
- Hart, CE, and BA Babcock. "Loan Deficiency Payments versus Countercyclical Payments: Do We Need Both for a Price Safety Net?" CARD Briefing Paper #05-BP 44 February 2005

Clemens, R., and BA Babcock. "Country of Origin as a Brand: The Case of New Zealand Lamb." MATRIC Briefing Paper #04-MBP 9 November 2004

Babcock, BA, and R Clemens. "Geographical Indications and Property Rights: Protecting Value-Added Agricultural Products." MATRIC Briefing Paper #04-MBP 7 May 2004

Policy Outreach Papers in the Iowa Ag Review

"Safety Net Design for the New Farm Bill." Bruce A. Babcock and Chad E. Hart. Vol 11 No. 3 pp. 1-3.

"Judging the performance of the 2002 Farm Bill." Bruce A. Babcock and Chad E. Hart. Vol 11 No. 2 pp. 1-3.

"Guns and Butter, Crop Insurance Reform, and the Farmer Safety Net." Bruce A. Babcock Vol 11 No. 1 pp. 1-3

"Creation of a WTO-Friendly Farm Safety Net." Bruce A. Babcock Vol. 10 No. 4 pp 1-3.

"Processing or Exports: Which Path for U.S. Grain?" Bruce A. Babcock Vol. 10 No. 3 pp 1-3.

"Booming Commodities: How Long Will It Last? Bruce Babcock Vol. 10 No. 2 pp 1-3.

"Risk Free Farming?" Bruce A. Babcock, Chad E. Hart Vol. 10, No. 1 pp. 1-3, Winter, 2004

"Geographical Indications, Property Rights, and Value-Added Agriculture." Bruce A. Babcock Vol. 9, No. 4 pp. 1-3, Fall, 2003

"Living with Hogs in Rural Iowa." Bruce A. Babcock, Joseph A. Herriges, and Silvia Secchi Vol. 9, No. 3 pp. 1-3, Summer, 2003

"Payment Limitations and U.S. Farm Policy?" Bruce A. Babcock, Chad E. Hart Vol. 9, No. 2 pp. 1-3, Spring, 2003

"Disaster Payments and Crop Insurance: Time for a New Approach?" Bruce A. Babcock, Chad E. Hart Vol. 9, No.2 pp. 4-6, Spring, 2003

"Brains or Brawn: Which Economic Development Policy is Best for Iowa?" Bruce A. Babcock Vol. 9, No. 1 Winter, 2003.

"Are Cost-Increasing Production Practices in Agriculture's Future?" Bruce A. Babcock Vol. 8 No 4 Fall, 2002.

"Disaster Assistance: How Best to Pay When Nature Has Her Way?" Chad Hart, Bruce Babcock, Vol. 8 No. 4 Fall 2002

"Local and Global Perspectives on U.S. Farm Policies." Bruce A. Babcock Vol 8 No 3, Summer 2002.

"Rural America and Modern Agriculture: What Kind of Future?" Bruce A. Babcock Vol 8 No. 2 Spring, 2002.

"Supporting U.S. Agriculture under World Trade Organization Rules." Bruce A. Babcock, Chad E. Hart Vol. 8, No. 1, pp. 1-3, Winter, 2002

"Public or Private Price Protection?" Bruce A. Babcock Vol. 8, No. 1 Center for Agricultural and Development pp. 10-11, Winter, 2002

- “Meat Traceability: Its Effect on Trade.” Roxanne Clemens, Bruce A. Babcock Vol. 8, No. 1 pp. 8-9, Winter, 2002
- “Trade, Wealth Creation, and American.” Agriculture Bruce A. Babcock Vol. 7, No. pp. 1-3, Fall, 2001
- “The Concentration of U.S. Agricultural Subsidies.” Bruce A. Babcock Vol. 7, No. 4 pp. 8 - 9 Fall, 2001
- “The Next Farm Bill: Is It Time for Conservation Payments?” Bruce A. Babcock Volume 7, No. 3 pp. 1-3, Summer, 2001
- “U.S. Farm Policy and the WTO.” Chad Hart, Bruce A. Babcock Vol. 7, No. 2 pp. 1-3,7, Spring, 2001
- “Can Acreage Controls Increase Iowa Farm Revenue?” John C. Beghin, Bruce A. Babcock Vol. 7, No. 2 pp 8-9, Spring 1, 2001
- “Extreme Demands--Extraordinary Products: What's In It for Midwestern Agriculture?” Bruce A. Babcock Vol. 7, No. 1 pp. 1-3, Winter, 2001
- “Acreage Shifts under Freedom to Farm.” Bruce A. Babcock, Miguel Carriquiry Vol. 7, No. 1 pp. 4-5, Winter, 2001
- “A Farm Policy Objective: The Search Goes On.” Bruce A. Babcock Vol. 6, No. 4 pp. 1-3,7, Fall, 2000
- “Agricultural Policy Update: Are FAIR's Payment Formulas Fair?” Bruce A. Babcock Vol. 6, No. 3 pp. 1-3, Summer, 2000
- “Re-Energizing Supply Chains.” Bruce A. Babcock Vol. 6, No. 2 Center for Agriculture and Rural Development, pp. 1-3, Spring, 2000
- “A Second Look at Subsidies and Supply.” Bruce Babcock, Chad Hart Vol. 6 No. 1 pp. 3, Winter, 2000
- “The Impact of Crop Insurance on the Iowa Economy.” Chad Hart, Bruce Babcock Vol. 6, No. 1, pp. 1-2,9-10, Winter, 2000
- “Can Subsidies Hurt Iowa Agriculture?” Bruce A. Babcock, Chad Hart Vol. 5, No. 4 Center for Agriculture and Rural Development, pp. 7-8, Fall, 1999
- “Whither Farm Policy.” Bruce A. Babcock Vol. 5, No. 4 pp. 1-3,6, Fall, 1999
- “Whole-Farm Revenue Insurance for Crop and Livestock Producers.” Bruce A. Babcock, Dermot J. Hayes Vol. 5, No. 2 pp. 8-10, Spring, 1999
- “Loan Deficiency Payments or the Loan Program?” Dermot J. Hayes, Bruce A. Babcock Vol. 4, No. 1 pp. 6-7, Fall, 1998
- “Will Freedom to Farm Harm the Environment.” Bruce A. Babcock Vol. 2, No. 4 pp. 10-11, September 30, 1996
- “The House and Senate Visions of a CRP Renewal: An Appraisal of the Likely Efficiency Gains.” Bruce A. Babcock, P.G. Lakshminarayan Vol. 2, No. 1 Center for Agriculture and Rural Development, pp. 7, December 31, 1995
- “Income Support or Subsidized Risk Management? Two Agricultural Policy Approaches.” Bruce A. Babcock Vol. 1, No. 4 pp. 12-14, September 30, 1995

“Conservation Tillage and Farm Programs.” Bruce A. Babcock, Nabil M. Chaherli, P.G. Lakshminarayan Vol. 1, No. 4 10-12, September, 1995

“The Budgetary and Resource Allocation Effects of Revenue Assurance: Summary of Results.” Dermot J. Hayes, Bruce A. Babcock, David Hennessy Vol. 1, No. 2 pp. 4-7, March, 1995

“Environmental Issues in the 1995 Farm Bill.” P.G. Lakshminarayan, Bruce Babcock Vol. 1, No. 1, pp. 12-13, December, 1994

Consulting

USDA, United Soybean Board, Deere and Company, National Corn Growers, Environmental Working Group, Toyota, BASF, Monsanto, Environmental Defense Fund, Pew Charitable Trusts, International Center for Trade and Sustainable Development, Iowa Corn Growers, Asgrow Seed Company, RCIS Crop Insurance, Steve Silveus Insurance Services, American Agrisure, NAU Insurance Company, Iowa Farm Bureau, Cargill, IGF Insurance, CNA Agriculture, National Milk Producers Federation, Pew Center for Climate Change.