

CURRICULUM VITAE

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Education

B.S. Mathematical Sciences Ohio State University, 1977
M.S. Operations Research Stanford University, 1979
Ph.D. Operations Research Stanford University, 1983
Thesis Title: Intertemporal Equilibrium Models, Development and Results

Employment

2/07- Faculty Director, State Utility Forecasting Group, Energy Center, Discovery Park,
Purdue University.
5/02- Associate Department Head, Department of Agricultural Economics, Purdue
1/07 University.
6/94- Professor, Department of Agricultural Economics, Purdue University.
6/89- Associate Professor, Department of Agricultural Economics, Purdue University.
6/94
8/83- Assistant Professor, Department of Agricultural Economics, Purdue University.
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3/78- Research Assistant, Department of Operations Research, Stanford University.
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3/79- Teaching Assistant, Department of Operations Research, Stanford University.
6/81

Professional Development

2002 Pennsylvania State University Executive Leadership and Management Program, October 15-
18, Williamsport, Pennsylvania.
2004 ESCOP/ACOP Leadership Development Program, Class 14.

Refereed Journal Articles

Manne, A.S. and P.V. Preckel, 1985. "A Three-Region Intertemporal Model of Energy, International Trade and Capital Flows," Mathematical Programming Studies, 23:56-74.

Preckel, P.V., 1985. "Alternative Algorithms for Computing Economic Equilibria," Mathematical Programming Studies, 23:163-172.

Kaylen, M.S., P.V. Preckel, and E.T. Loehman, 1987. "Risk Modeling via Direct Utility Maximization Using Numerical Quadrature," American Journal of Agricultural Economics, 69(3):701-706.

Preckel, P.V., A.M. Featherstone, and T.G. Baker, 1987. "Interpreting Dual Variables for Optimization with Nonmonetary Objectives," American Journal of Agricultural Economics, 69(4):849-851.

Menzie, K.L., P.V. Preckel, and L.F. Schrader, 1987. "Cost-of-Service vs. Uniform Pricing in a Cooperative Feed Manufacturing and Distribution System," Journal of Agricultural Cooperation, 2:30-39.

Preckel, P.V., E.T. Loehman, and M.S. Kaylen, 1987. "The Value of Public Information for Microeconomic Production Decisions," Western Journal of Agricultural Economics, 12(2):193-197.

Preckel, P.V. and T.W. Hertel, 1988. "Approximating Linear Programs with Summary Functions: Pseudodata with an Infinite Sample," American Journal of Agricultural Economics, 70(2):397-402.

Featherstone, A.M., C.B. Moss, T.G. Baker, and P.V. Preckel, 1988. "The Theoretical Effects of Farm Policies on Optimal Leverage and the Probability of Equity Losses," American Journal of Agricultural Economics, 70(3):572-579.

Hertel, T.W. and P.V. Preckel, 1988. "Extending the Conservation Reserve: What Effect on Commodity Prices and Budget Costs?" Journal of Soil and Water Conservation, 43(1):106-108.

Hertel, T.W. and P.V. Preckel, 1988. "Commodity-Specific Effects of the Conservation Reserve Program: A Summary Function Approach," Agricultural Economics Research, 40(3):2-11.

Andresen, J.A., R.F. Dale, J.J. Fletcher, and P.V. Preckel, 1989. "Prediction of County-Level Corn Yields Using an Energy-Crop Growth Index," Journal of Climate, 2(1):48-56.

Nelson, C.H. and P.V. Preckel, 1989. "The Conditional Beta Distribution as a Stochastic Production Function," American Journal of Agricultural Economics, 71(2):370-378.

Kaylen, M.S., E.T. Loehman, and P.V. Preckel, 1989. "Farm Level Analysis of Agricultural Insurance: A Math Programming Approach," Agricultural Systems, 30:235-244.

- Hertel, T.W., P.V. Preckel, and W. Huang, 1989. "The CARD Linear Programming Model of U.S. Agriculture," Agricultural Economics Research, 41(2):20-23.
- Ehui, S.K., T.W. Hertel, and P.V. Preckel, 1990. "Forest Resource Depletion Soil Dynamics and Agricultural Productivity in the Tropics," Journal of Environmental Economics and Management, 18(2):136-154.
- Krause, M.A., R.R. Deuson, T.G. Baker, P.V. Preckel, J. Lowenberg-Deboer, C. Reddy and K. Maliki, 1990. "Risk Sharing versus Low Cost Credit Systems for International Development," American Journal of Agricultural Economics, 72(4):911-922.
- Featherstone, A.M., P.V. Preckel and T.G. Baker, 1990. "Modeling Farm Financial Decisions in a Dynamic and Stochastic Environment," Agricultural Finance Review 50:80-99.
- Moskowitz, H., P.V. Preckel and A. Yang, 1990. "Multiple Criteria Robust Interactive Decision Analysis (MCRID) for Optimizing Public Policies," European Journal of Operations Research, 56:219-236.
- Hertel, T.W., E.B. Peterson, Y. Surry, P.V. Preckel and M.E. Tsigas, 1990. "Implicit Additivity as a Strategy for Restricting the Parameter Space in CGE Models," Economic and Financial Computing, 1:265-289.
- Roth, M.J., P.C. Abbott, and P.V. Preckel, 1991. "Agricultural Policy Reform in Burkina Faso: A Dual Sector Modeling Analysis," Journal of Development Economics, 34:179-197.
- Ngambeki, D.S., R.R. Deuson and P.V. Preckel, 1991. "Integrating Livestock into Farming Systems in Northern Cameroon," Agricultural Systems, 38:319-338.
- Preckel, P.V., and E. DeVuyst, 1992. "Efficient Handling of Probability Information for Decision Analysis under Risk," American Journal of Agricultural Economics, 74(3):655-662.
- Peterson, E.B., P.V. Preckel, T.W. Hertel, and A.M. McGuirk, 1992. "Impacts of Biotechnology in the Domestic Livestock Sector," Agribusiness: An International Journal, 8(4):287-307.
- Brorsen, B.W. and P.V. Preckel, 1993. "Linear Regression with Stably Distributed Residuals," Communications in Statistics: Theory and Methods, 22(3):659-667.
- Moskowitz, H., P.V. Preckel, and A. Yang, 1993. "Decision Analysis with Incomplete Probability and Utility Information," Operations Research, 41(5):864-879.
- Boland, M.A., A.P. Schinckel and P.V. Preckel, 1993. "Optimal Marketing Weights and Carcass Value for Three Genotypes of Hogs," The Professional Animal Scientist, 9(4):163-172.

Boland, M.A., P.V. Preckel and A.P. Schinckel, 1993. "Optimal Hog Slaughter Weights under Alternative Pricing Systems," Journal of Agricultural and Applied Economics, 25(2):148-163.

Peterson, E.B., T.W. Hertel, and P.V. Preckel, 1994. "A General Equilibrium Analysis of Marketing Margins," European Review of Agricultural Economics, 21(1):37-57.

Mwanaumo, A., P.V. Preckel and P.L. Farris, 1994. "Motivation for Marketing System Reform for the Zambian Maize Market," Journal of International Food and Agribusiness Marketing, 6(3):29-49.

Lopez-Pereira, M.A., J.H. Sanders, T.G. Baker and P.V. Preckel, 1994. "Economics of Erosion-Control and Seed-Fertilizer Technologies for Hillside Farming in Honduras," Agricultural Economics, 11:271-288.

Foltz, J.C., J.G. Lee, M.A. Martin and P.V. Preckel, 1995. "Multi-attribute Assessment of Alternative Cropping Systems," American Journal of Agricultural Economics, 77(2):408-422.

Schinckel, A.P., P.V. Preckel and M. E. Einstein, 1996. "Prediction of Daily Protein Accretion Rates of Pigs from Estimates of Fat-Free Lean Gain Between 20 and 120 Kilograms Live Weight," Journal of Animal Science, 74:498-503.

Boland, M.A., K.A. Foster, P.V. Preckel and A.P. Schinckel, 1996. "Analyzing Pork Carcass Evaluation Technologies in a Swine Bioeconomic Model," Journal of Production Agriculture, 9(1):45-49.

DeVuyst, E.A. and P.V. Preckel, 1997. "Sensitivity Analysis Revisited: A Quadrature-based Approach," Journal of Policy Modeling, 19(2):175-185.

Mwanaumo, A., W.A. Masters and P.V. Preckel, 1997. "The Spatial Analysis of Maize Marketing Policy Reforms in Zambia," American Journal of Agricultural Economics, 79(2):514-523.

Gloy, B.A., J.T. Akridge and P.V. Preckel, 1997. "Customer Lifetime Value: An Application in the Rural Petroleum Market," Agribusiness: An International Journal, 13(3):335-347.

Preckel, P.V., J.T. Akridge and M.A. Boland, 1997. "Efficiency Measures for Retail Fertilizer Dealers," Agribusiness: An International Journal, 13(5):497-509.

Duffy, J., S. Liu, H. Moskowitz, R. Plante, and P.V. Preckel, 1998. "Assessing Multivariate Process/Product Yield via Discrete Point Approximation," IIE Transactions, 30:535-543.

Etyang, M.N., P.V. Preckel, J.K. Binkley, and D.H. Doster, 1998. "Field Time Constraints for Farm Planning Models," Agricultural Systems, 58(1)25:38.

Boland, M.A., K.A. Foster, and P.V. Preckel, 1998. "Economic Analysis of Phosphorous-Reducing Technologies by Pork Producers," Journal of Agricultural and Resource Economics, 23(2):468-482.

Cranfield, J.A.L., T.W. Hertel, J. Eales, and P.V. Preckel, 1998. "Changes in the Structure of Global Food Demand," American Journal of Agricultural Economics, 80(5):1042-1050.

Boland, M.A., K.A. Foster, and P.V. Preckel, 1999. "Nutrition and the Economics of Swine Management," Journal of Applied and Agricultural Economics, 31(1):83-96.

Arndt, C., S. Liu, and P.V. Preckel, 1999. "On Dual Approaches to Demand Systems Estimation in the Presence of Binding Quantity Constraints," Applied Economics, 31:999-1008.

Nienow, S., K.T. McNamara, A.R. Gillespie, and P.V. Preckel, 1999. "A Model for Economic Evaluation of Plantation Biomass Production for Co-firing with Coal in Electricity Production," Agricultural and Resource Economics Review, 28(1):106-118.

Boland, M.A., K.A. Foster, P.V. Preckel, B.C. Joern, and D.D. Jones, 1999. "Using Linear Programming to Minimize Manure Storage and Application Costs in Pork Production," Journal of Production Agriculture, 12(3):405-408.

Hyde, J., M.A. Martin, P.V. Preckel, and C.R. Edwards, 1999. "The Economics of Bt Corn: Valuing the Protection from European Corn Borer," Review of Agricultural Economics, 21(2):442-454.

Gloy, B.A. and P.V. Preckel, 1999. "Symbolic Mathematics Programs: A Tool for the Applied Economist," Review of Agricultural Economics, 21(2):563-578.

Wilson, C.A., A.M. Featherstone, and P.V. Preckel, 1999. "The Use of Financial Futures in Production Credit Associations," Agricultural Finance Review, 59:43-64.

Cranfield, J.A.L., P.V. Preckel, J.S. Eales, and T.W. Hertel, 2000. "On the Estimation of an Implicitly Additive Demand System," Applied Economics, 32(15):1907-1915.

Preckel, P.V., G.E. Shively, T.G. Baker, M. Chu, and J. Eide, 2000. "Contract Incentives and Excessive Nitrogen Use in Agriculture," Journal of Agricultural and Resource Economics, 25(2):468-484.

Hyde, J., M.A. Martin, P.V. Preckel, C.L. Dobbins, and C.R. Edwards, 2001. "An Economic Analysis of Non-Bt Corn Refuges," Crop Protection, 20(2):167-171.

Preckel, P.V., 2001. "Least Squares and Entropy: A Penalty Function Perspective," American Journal of Agricultural Economics, 83(2):366-377.

Ahmed, M.M., P.V. Preckel, T.G. Baker, and M. Lopez-Pereira, 2001. "Modeling the Impact of Technological Change on Nutrition and Marketed Surplus," Agricultural Economics, 25:103-118.

Yu, Z., G. Nderitu, and P.V. Preckel, 2001. "A Locational Gaming Model with CO₂ Emission Tax and Limits," International Journal of Electrical Power and Energy Systems, 23:451-457.

Arndt, C., B. Fecso, P.V. Preckel, and B. Stoneman, 2001. "Soil Selection for Use in Environmental Analysis," Journal of Soil and Water Conservation, 56(2):165-171.

Peterson, E.B., E. Van Eenoo, A. McGuirk, and P.V. Preckel, 2001. "Perceptions of Fat Content in Meat Products," Agribusiness: An International Journal, 17(4):437-453.

Preckel, P.V., 2002. "Comment on 'An Analysis of Ill-Posed Production Problems Using Maximum Entropy,'" American Journal of Agricultural Economics, 84(1):245-246.

Preckel, P.V., D. Harrington, and R. Dubman, 2002. "Primal/Dual Positive Mathematical Programming: Illustrated Through an Evaluation of the Impacts of Market Resistance to Genetically Modified Grains," American Journal of Agricultural Economics, 84(3):679-690.

Liu, S., H. Moskowitz, P.V. Preckel, R. Plante, 2002. "Production and Process Yield Estimation with Gaussian Quadrature (GQ) Reduction: Improvements over the GQ Full Factorial Approach," European Journal of Operational Research, 140(3):655-669.

Nin Pratt, A., C. Arndt, and P.V. Preckel, 2003. "Is Agricultural Productivity in Developing Countries Really Shrinking? New Evidence Using a Modified Non-Parametric Approach," Journal of Development Economics, 71(2):395-415.

Cranfield, J.A.L., J.S. Eales, T.W. Hertel, and P.V. Preckel, 2003. "Model Selection When Estimating and Predicting Consumer Demands using International, Cross Section Data" Empirical Economics, 28(2003):353-364.

Schinckel, A.P., N. Li, B.T. Richert, P.V. Preckel, and M.E. Einstein, 2003. "Development of a Model to Describe the Compositional Growth and Dietary Lysine Requirements of Pigs Fed Ractopamine," Journal of Animal Science, 81:1006-1119

Hyde, J., M.A. Martin, P.V. Preckel, L.L. Buschman, C.R. Edwards, P.E. Sloderbeck, and R.A. Higgins, 2003. "The Value of Bt Corn in Southwest Kansas: A Monte Carlo Simulation Approach," Journal of Agricultural and Resource Economics, 28(1):15-33.

Nin, A., C. Arndt, T.W. Hertel, and P.V. Preckel, 2003. "Bridging the Gap between Partial and Total Factor Productivity Measures Using Directional Distance Functions," American Journal of Agricultural Economics, 85(4):928-942.

Schinckel, A.P., N. Li, P.V. Preckel, M.E. Einstein, and D. Miller, 2003. "Development of a Stochastic Pig Compositional Growth Model," The Professional Animal Scientist, 19(2003):255-260.

- Hertel, T.W., M. Ivanic, P.V. Preckel, and J.A.L. Cranfield, 2003. "Short-run versus Long-run Implications of Trade Liberalization for Poverty in Three Developing Countries," American Journal of Agricultural Economics, 85:1299-1306.
- Li, N., P.V. Preckel, K.A. Foster, and A.P. Schinckel, 2003. "Analysis of Economically Optimal Nutrition and Marketing Strategies for Paylean Usage in Hog Production," Journal of Agricultural and Resource Economics, 28(2):272-286.
- Hertel, T.W., P.V. Preckel, M. Ivanic and J.A.L. Cranfield. 2003. "Multilateral Trade Liberalization and Poverty in Brazil and Chile," Economie Internationale, 94-95:201-234.
- Hertel, T.W., P.V. Preckel, M. Ivanic and J.A.L. Cranfield. 2003. "Liberalización Comercial Multilateral y Pobreza en Brazil y Chile," Integración y Comercio, 7(18):1-30.
- Cranfield, J.A.L., P.V. Preckel, J.S. Eales and T.W. Hertel. 2003. "Estimating Consumer Demand across the Development Spectrum: Maximum Likelihood Estimates of an Implicit Direct Additivity Model," Journal of Development Economics, 68:289-307.
- Cranfield, J.A.L., P.V. Preckel, J. Eales and T.W. Hertel. 2004. "Simultaneous Estimation of an Implicitly Directly Additive Demand System and the Distribution of Expenditure: An Application of Maximum Entropy," Economic Modeling, 21:361-385.
- Yap, C., K. Foster, P.V. Preckel, O.C. Doering III, and B. Richert, 2004. "Mitigating the Compliance Cost of a Phosphorus-Based Swine Manure Management Policy," Journal of Applied and Agricultural Economics, 36(1):23-34.
- Yu, W., T.W. Hertel, P.V. Preckel, and J.S. Eales, 2004. "Projecting World Food Demand Using Alternative Demand Systems," Economic Modeling, 21(1):99-129.
- Lowe, T.J. and P.V. Preckel, 2004. "In This Issue...", Manufacturing and Service Operations Management, 6(3):199-200.
- Lowe, T.J. and P.V. Preckel, 2004. "Decision Technologies for Agribusiness Problems: A Brief Review of Selected Literature and a Call for Research," Manufacturing and Service Operations Management, 6(3):201-208.
- Hertel, T. W., M. Ivanic, P.V. Preckel and J. A. L. Cranfield, 2004. "The Earning Effects of Multilateral Trade Liberalization: Implications for Poverty in Developing Countries" World Bank Economic Review, 18(2):205-236.
- Preckel, P.V., A.W. Gray, M.D. Boehlje, and S. Kim, 2004. "Risk and Value Chains: Participant Sharing of Risk and Rewards," Journal on Chain and Network Science, 1(2004):35-32.

Eskigun, E., R. Uzsoy, P.V. Preckel, G. Beaujon, S. Krishnan, and J.D. Tew, 2005. "Outbound Supply Chain Network Design with Mode Selection, Lead Times and Capacitated Vehicle Distribution Centers," European Journal of Operational Research, 165:182-206.

Ivanic, R., P.V. Preckel, and Z. Yu, 2005. "Market Power and Welfare Effects in DC Power Flow Electricity Models with Thermal Line Losses," Decision Support Systems, 40:529-542

Poray, M., A.W. Gray, M.D. Boehlje and P.V. Preckel, 2005. "Evaluation of Alternative Coordination Systems between Producers and Packers in the Pork Value Chain," International Food and Agribusiness Management Review, 6(2):65-85.

Ludena, C., T.W. Hertel, P.V. Preckel, and A. Nin-Pratt, 2005. "Cambios Tecnológicos y Productividad en el Sector Agropecuario: Un Análisis del Región Andina," Cuestiones Económicas, 21(1):61-84.

Arndt, C., J. Kozlitina, and P.V. Preckel, 2006. "Efficient Survey Sampling of Households via Gaussian Quadrature," Journal of the Royal Statistical Society: (Series C, Applied Statistics), 55(3):355-364.

Gray, A.W., M.D. Boehlje, and P.V. Preckel, 2006. "Value Chain Risk and Reward Sharing and Governance Structures: Implications for Industry Strategy and Structure," Journal on Chain and Network Science 6:45-54.

Boys, K., N. Li, P.V. Preckel, A.P. Schinckel, and K.A. Foster, 2007. "Economic Replacement of a Heterogeneous Herd," American Journal of Agricultural Economics, 89(1):24-35.

Lillywhite, J.M., P.V. Preckel, and J.S. Eales, 2007. "Maintaining Parameter Invariance in Seemingly Unrelated Regressions Estimation," Applied Economics Letters, 15(5):1-5.

Johnson, M.E., W.A. Masters, and P.V. Preckel, 2006. "Diffusion and Spillover of New Technology: A Heterogeneous-agent Model for Cassava in West Africa," Agricultural Economics, 35:119-129.

Schinckel, A. P. M. E. Einstein, R. Hinson, B. T. Richert, P. V. Preckel, and S. Pence, 2006. "Evaluation of Different Mixed Model Nonlinear Functions on Pigs Fed Low-Nutrient Excretion Diets," The Professional Animal Scientist, 22:401-412.

Schinckel, A.P., N. Li, B.T. Richert, P.V. Preckel, K. Foster, and M.E. Einstein, 2006. "Development of a Model to Describe the Compositional Growth and Dietary Lysine Requirements of Pigs Fed Increasing Dietary Concentrations of Ractopamine," The Professional Animal Scientist, 22:438-499.

DeVuyst, E.A. and P.V. Preckel, 2007. "Gaussian Cubature: A Practitioner's Guide," Mathematical and Computer Modeling, 45:787-794.

Eskigun, E., R. Uzsoy, P.V. Preckel, G. Beaujon, S. Krishnan, and J.D. Tew, 2007. "Outbound Supply Chain Network Design with Mode Selection and Lead Time Considerations," Naval Research Logistics, 54(3):282-300.

C.E. Ludena, T.W. Hertel, P.V. Preckel, K.A. Foster, and A. Nin, 2007. "Productivity Growth and Convergence in Crop, Ruminant and Non-Ruminant Production: Measurement and Forecasts," Agricultural Economics, 37(1):1-17.

Schinckel, A. P., R. Cabrera, R. D. Boyd, S. Jungst, C. Booher, M. Johnson, P. V. Preckel and M. E. Einstein, 2007. "Modeling the Impact of Birth and Twenty-Day Weight on Postweaning Growth of Pigs," The Professional Animal Scientist, 23:211-223.

Peake, W.O., M.I. Marshall and P.V. Preckel, 2007. "A Ranking of State Governments' Efficient Use of Expenditures to Encourage Small Firm Births," Journal of Small Business Strategy, 18(2):43-55.

Yigezu, A.Y., C.E. Alexander, P.V. Preckel, D.E. Maier, C. Woloshuck, L.J. Mason, J. Lawrence, and D.J. Moog, 2008. "Optimal Management of Molds in Stored Corn," Agricultural Systems, 98:220-227.

Gotham, D., K. Muthuraman, P.V. Preckel, R. Rardin, and S. Ruangpattana, 2009. "A Load Factor Based Mean-Variance Analysis for Fuel Diversification," Energy Economics, 31:249-256.

Schinckel, A.P., M. Wastell, M.E. Einstein, J.T. Hubbs, and P.V. Preckel, 2009. "Evaluation of Alternative Methods to Analyze Pig Body Weight Data from Animal Sorting Technologies," The Professional Animal Scientist, 25:654-662.

Hubbs, T., B. Bista, P.V. Preckel, and B. Richert, 2009. "Valuing Dried Distillers Grains with Solubles for Use in Swine Diets," Journal of the American Society of Farm Managers and Rural Appraisers, 2009:188-200.

Settlage, D.M., P.V. Preckel, and L.A. Settlage, 2009. "Risk-Adjusted Efficiency and Risk Aversion in the Agricultural Banking Industry," Agricultural Finance Review, 69(3):314-329.

Canchi, D., N. Li, K.A. Foster, P.V. Preckel, A. Schinckel, and B. Richert, 2010. "Optimal Control of Desensitizing Inputs: The Case of Paylean," American Journal of Agricultural Economics, 92:56-59.

Tran, N.A., G. Shively, and P.V. Preckel, 2010. "A New Method for Detecting Outliers in DEA," Applied Economics Letters, 17: 313-316.

Preckel, P.V., J.A.L. Cranfield, and T.W. Hertel, 2010. "A Modified, Implicit, Directly Additive Demand System," Applied Economics, 42:143-155.

Bowen, B.H., D. Canchi, V.A. Lalit, P.V. Preckel, F.T. Sparrow, and M.W. Irwin, 2010. "Planning India's Long-term Energy Shipment Infrastructures for Electricity and Coal," Energy Policy, 38:432-444.

Yigezu, Y.A., C.E. Alexander, P.V. Preckel, D.E. Maier, L.J. Mason, C. Woloshuk, J. Lawrence, and D.J. Moog, 2010. "The Economics of Integrated Insect Management in Stored Corn," Economic Entomology, 103(5):1896-1908.

Verma, M., T.W. Hertel, and P.V. Preckel, 2011. "Predicting Within Country Household Food Expenditure Variation Using International Cross-Section Estimates," Economics Letters, 113(2011):218-220.

Sparrow, F.T., P.V. Preckel, D.J. Gotham, B.H. Bowen, and Z. Yu, 2011. "Regional Energy Markets and the Cost of Natural Flow Dam Operation," Energy Systems, 2:325-357.

Ruangpattana, S., P.V. Preckel, D.J. Gotham, K. Muthuraman, M. Velastegui, T. Morin, and N. Uhan, 2011. "Diversification of Fuel Costs Accounting for Load Variation," Energy Policy, 42:400-408.

Wu, J., A. Iyer, P.V. Preckel, and X. Zhai, 2012. "Information Sharing across Multiple Buyers in a Supply Chain," Asia Pacific Journal of Operational Research, 29(1):1-22.

Yigezu, Y.A., C.E. Alexander, P.V. Preckel, D.E. Maier, L.J. Mason, C. Woloshuk, J. Lawrence, and D.J. Moog, 2013. "Integrated Joint Pest Management Strategies in the Presence of Control Spillovers," European Review of Agricultural Economics, 2013:1-21.

Davis, C.D., D.J. Gotham, P.V. Preckel, A.L. Liu, 2013. "Determining the Impact of Wind on System Costs via the Temporal Patterns of Load and Wind Generation," Energy Policy, 60(September):122-131.

Coulibaly, J., J. Sanders and P.V. Preckel, 2014. "Will cotton make a comeback in Mali," Agricultural Economics 46:53:67.

Wu, J., A. Iyer, P.V. Preckel, 2015. "Information Visibility and Its Impact in a Supply Chain," submitted to Operations Research Letters, (in press).

Research Abstracts

Loehman, E.T., P.V. Preckel, and C.H. Nelson, 1984. "Theory of Production under Risk and Properties of Stochastic Production Functions," American Journal of Agricultural Economics, 66(5):899.

- Preckel, P.V. and T.W. Hertel, 1985. "Approximating Linear Programs with Differentiable Functions," American Journal of Agricultural Economics, 67(5):1282.
- Ehui, S.K., T.W. Hertel, and P.V. Preckel, 1986. "Forest Resource Depletion, Soil Dynamics, and Agricultural Development," American Journal of Agricultural Economics, 68(5):1374.
- Loehman, E.T., M.S. Kaylen, and P.V. Preckel, 1986. "The Value of Public Information for Microeconomic Production Decisions," American Journal of Agricultural Economics, 68(5):1385.
- Menzie, K.L., P.V. Preckel, and L.F. Schrader, 1987. "Cost-of-Service versus Uniform Pricing in a Cooperative Feed Manufacturing and Distribution System," American Journal of Agricultural Economics, 69(5):1085.
- Ehui, S.K., T.W. Hertel, and P.V. Preckel, 1988. "Forest Resource Depletion Soil Dynamics and Agricultural Productivity in the Tropics," American Journal of Agricultural Economics, 70(5):1202.
- Peterson, E., T. W. Hertel, and P.V. Preckel, 1989. "The Farm Retail Price Spread Revisited: A General Equilibrium Perspective," American Journal of Agricultural Economics, 71(5):1359.
- Hertel, T.W., E.B. Peterson, Y. Surry and P.V. Preckel, 1990. "Implicit Additivity as a Strategy for Restricting the Parameter Space in CGE Models," American Journal of Agricultural Economics, 72(5):1364.
- Tsigas, M.E., T.W. Hertel and P.V. Preckel, 1990. "Modeling the U.S. Grains Program: A Microeconomic Approach," American Journal of Agricultural Economics, 72(5):1363.
- Faranghi, A. and P.V. Preckel, 1990. "Modeling Policy Design and Imperfect Competition: The General Stackelberg Case," American Journal of Agricultural Economics, 72(5):1364.
- Spinelli, F.J. and P.V. Preckel, 1991. "An Analysis of U.S. and Canadian Tariffs on Pork and Hogs," Atlantic Economics Journal 20(1):90.
- DeVuyst, E., P.V. Preckel, and J.G. Lee, 1992. "Easing the Curse of Dimensionality in Dynamic Modeling," American Journal of Agricultural Economics, 74(5):1288.
- Preckel, P.V. and J.T. Akridge, 1992. "Measuring the Efficiency of Retail Fertilizer Dealers: A Nonparametric Approach," American Journal of Agricultural Economics, 74(5):1282-1283.
- Preckel, P.V., E. DeVuyst, D.K. Lanclos and T.W. Hertel, 1993. "Sensitivity Analysis in CGE Models Using Discrete Approximating Probability Distributions," American Journal of Agricultural Economics, 75:1297.

Boland, M., K. Foster and P.V. Preckel, 1993. "Biases in Pork Packer Methods of Estimating Carcass Lean and Their Effects on Producer Profits," American Journal of Agricultural Economics, 75:1299.

Boland, M., J. Ferrel, P.V. Preckel and A.P. Schinckel, 1993. "Optimal Slaughter Weights for Two Maternal Lines and Two Terminal Four Breed Crosses," Journal of Animal Sciences, 71(Suppl. 1):44.

DeVuyst, E., P.V. Preckel and J.G. Lee, 1993. "Discrete Approximations of Probability Distributions for Dynamic Optimization Models," American Journal of Agricultural Economics, 75:1318.

Boland, M.A., K.A. Foster, P.V. Preckel and A.P. Schinckel, 1993. "Genotype Measurement Bias in Predicting Lean for Three Genotypes of Hogs," Journal of Animal Sciences, 71(Suppl. 1):244.

Boland, M.A., A.P. Schinckel and P.V. Preckel, 1993. "Optimal Slaughter Weights for Barrows and Gilts Using Live Weight and Destron Probe Measurements under Alternative Pricing Systems," Journal of Animal Sciences, 71(Suppl. 1):44.

Boland, M.A., P.V. Preckel and A.P. Schinckel, 1993. "Impact of Alternative Pricing Models on Producer Profits and Slaughter Weights for Three Genotypes of Barrows and Gilts," Journal of Agricultural and Applied Economics, 25(1):279.

Boland, M.A., A.P. Schinckel, K.A. Foster and P.V. Preckel, 1994. "Errors in Predicting Value Due to Genotype, Sex and Weight under Alternative Carcass Evaluation Technologies," Journal of Animal Science, 72(Suppl. 1):10.

DeVuyst, E. and P.V. Preckel, 1994. "Global Sensitivity Analysis," American Journal of Agricultural Economics, 76(5):1251.

Preckel, P.V. and B. Senatre, 1994. "Incorporating Heterogeneity in Farm Policy Analysis," American Journal of Agricultural Economics, 76(5):1263.

Senatre, B. and P.V. Preckel, 1995. "Incorporating Heterogeneity into Policy Analysis: Does It Make a Difference?" American Journal of Agricultural Economics, 77(5):1385.

Salin, V., C. Dobbins and P.V. Preckel, 1995. "Effects of Soil Conservation Tillage on Probability Distributions of Farm Returns in Indiana," American Journal of Agricultural Economics, 77(5):1381.

Arndt, C., S. Liu and P.V. Preckel, 1995. "Binding Non-negativity Constraints and Estimation of Factor Demands," American Journal of Agricultural Economics, 77(5):1370.

Arndt, C. and P.V. Preckel, 1996. "Efficient Sampling via Gaussian Quadrature," American Journal of Agricultural Economics, 78(5):1395.

Boland, M.A., P.V. Preckel and K.A. Foster, 1996. "Joint Optimization of Ration and Marketing Time: An Application to Pork Production," American Journal of Agricultural Economics, 78(5):1409.

Chien, L.H., M.A. Boland, P.V. Preckel and T.G. Baker, 1996. "Analysis of Investments in Segregated Early Weaning in Hog Production: A Fuzzy Approach," American Journal of Agricultural Economics, 78(5):1400.

Preckel, P.V., T.G. Baker, and J. Eide, 1997. "Seed Corn Tournament Contracts and Excess Nitrogen Application," Journal of Agricultural and Resource Economics, 22(2):399.

Cranfield, J.A.L., P.V. Preckel and S. Liu, 1997. "Approximating Bayesian Posteriors Using Multivariate Gaussian Quadrature," Journal of Agricultural and Resource Economics, 22(2):396.

Cranfield, J.A.L. and P.V. Preckel, 1997. "Maximum Entropy Estimation of a Demand System," American Journal of Agricultural Economics, 79(5):1725.

Chien, L., P.V. Preckel, and M.A. Boland, 1997. "Feed Formulation with Correlated Random Nutrients," American Journal of Agricultural Economics, 79(5):1728.

Boland, M.A., P.V. Preckel, and K.A. Foster, 1997. "Economic Analysis of Phytase Adoption by Pork Producers," American Journal of Agricultural Economics, 79(5):1717.

Fecso, B. and P.V. Preckel, 1998. "Selection of Soils for Environmental Analysis," Journal of Soil and Water Conservation, 53(2):166.

Hyde, J., M.A. Martin, P.V. Preckel, and C.R. Edwards, 1998. "Analyzing the Risks Associated with Bt Corn," American Journal of Agricultural Economics, 80(5):1179.

Gloy, B.A. and P.V. Preckel, 1998. "Teaching the Algebraic and Geometric Intuition of Economics," American Journal of Agricultural Economics, 80(5):1183.

Harmon, A. and P.V. Preckel, 1998. "Seemingly Unrelated Regression in Entropy-based Econometrics," American Journal of Agricultural Economics, 80(5):1194.

Boschmann, A., P.V. Preckel, and J.S. Eales, 1999. "Post-NAFTA U.S. Vegetable Demand: Maximum Entropy Seemingly Unrelated Regressions," American Journal of Agricultural Economics, 81(5):1297.

Hyde, J., M.A. Martin, P.V. Preckel, C.L. Dobbins, and C.R. Edwards, 1999. "The Economics of Refuge Design for Bt Corn," American Journal of Agricultural Economics, 81(5):1291.

- Preckel, P.V., 1999. "Least Squares and Entropy: A Mathematical Programming Perspective," American Journal of Agricultural Economics, 81(5):1301.
- Price, G., J. Connor, J. Fulton, and P.V. Preckel, 1999. "Modeling Coupon Values for Ready-to-Eat Breakfast Cereals," American Journal of Agricultural Economics, 81(5):1312.
- Preckel, P.V., M. Ahmed, and S.K. Ehui, 2000. "Efficiency Measurement for Risk-Averse Producers", Journal of Applied and Resource Economics 25(2):723.
- Cranfield, J.A.L., P.V. Preckel, J.S. Eales, and T.W. Hertel, 2000. "Estimating Consumer Demands Across the Development Spectrum: Maximum Likelihood Estimates of an Implicit Direct Additivity Model," Journal of Applied and Resource Economics 25(2):731.
- Cranfield, J.A.L., P.V. Preckel, J.S. Eales and T.W. Hertel, 2000. "Estimating Consumer Demands across the Development Spectrum: Maximum-Likelihood Estimates of an Implicit Direct Additivity Model." Canadian Journal of Agricultural Economics 25(December): 663.
- Schinckel, A. P., N. Li, P. V. Preckel, B. T. Richert and M. E. Einstein. 2002. "Development of a Swine Growth Model to Describe the Compositional Growth of Pigs Fed Ractopamine," Journal of Animal Science, 80(Suppl 2):79.
- Schinckel, A. P., N. Li, P. V. Preckel, M. E. Einstein and D. Miller. 2003. "Development of a Stochastic Pig Compositional Growth Model," Journal of Animal Science, 81(Suppl. 2):41.
- Li, N., A. P. Schinckel, P. V. Preckel, K. A. Foster and B. T. Richert. 2003. "Economic Evaluation of Feeding Pigs on Ractopamine Step-up Programs of Two Durations," Journal of Animal Science, 81(Suppl. 2):42.
- Li, N., A. P. Schinckel, P. V. Preckel and B. T. Richert. 2004. "Using a Stochastic Model to Optimize Ractopamine (Paylean) Initiation Time," Journal of Animal Science, 82(Suppl. 2):52.
- Li, N., A. P. Schinckel, P. V. Preckel and B. T. Richert. 2004. "Using a Stochastic Model to Evaluate Swine Production Management with Ractopamine (Paylean) in a Fixed Production Schedule Environment," Journal of Animal Science, 82(Suppl. 2):52.
- Li, N., K. Foster, P. V. Preckel, A. P. Schinckel, and B. T. Richert. 2006. "Optimal Control of Desensitizing Inputs: The Case of Paylean," Journal of Agricultural and Resource Economics, 31(3):684.
- Ivanic, R., P.V. Preckel, and Z. Yu, 2005. "Market Power and Welfare Effects in DC Power Flow Electricity Models with Thermal Line Losses," CSA/ASCE Civil Engineering Abstracts, downloaded September 13, 2006 from the Internet at URL

http://www.csa.com/author_relations/author_display.php?disp_num=0&SID=d64dfcf58442561768c062b4eb65b349.

Schinckel A.P., M.E. Einstein, R. Hinson, B.T. Richert, J. Radcliffe, P. V. Preckel and S. Pence. 2006. "Evaluation of Different Mixed Model Nonlinear Functions on Pigs Fed Low Nutrient Excretion Diets," Journal of Animal Science, 84(Suppl. 2):70.

Book Chapters

Manne, A.S. and P.V. Preckel, 1984. "North-South Trade, Capital Flows and Economic Growth: An Almost Neoclassical Model," Chapter 20 in M. Syrquin, L. Taylor, and L. Westphal (eds.), Economic Structure and Performance, Academic Press, Orlando, FL, pp. 409-427.

Moskowitz, H., P.V. Preckel and A. Yang, 1989. "Robust Interactive Decision Analysis (RID): A Tool for Information Systems Evaluation," Advances in Intelligent Information Technology, J.R. Mossden and D.E. Pingry (eds.), Jai Press Inc., (In Press).

Featherstone, A.M., T.G. Baker and P.V. Preckel, 1993. "Modeling Dynamics and Risk Using Discrete Stochastic Programming: A Farm Capital Structure Application," in Applications of Dynamic Programming to Agricultural Decision Problems, L.R. Taylor (ed.), Westview Press, Inc., Boulder, Colorado, pp. 145-170.

Preckel, P. V., J. Eales and D. Miller, 2003. "Quasi-maximum Likelihood Estimation with Bounded Symmetric Errors," in Advances in Econometrics: Maximum Likelihood Estimation of Misspecified Models, R.C. Hill and T. Fomby eds., Elsevier, Amsterdam, pp.133-148.

Hertel, T.W., M. Ivanic, P.V. Preckel, and J.A.L. Cranfield, 2006. "The Earnings Effects of Multilateral Trade Liberalization: Implications for Poverty," in Critical Perspectives on the Global Trading System and WTO, Eds. K. Anderson and B. Hoekman, Edward Elgar Publishing, Ltd., Cheltenham, United Kingdom, (In Press).

Trade Articles

Hertel, T.W., M.E. Tsigas and P.V. Preckel, 1990. "Unfreezing Program Payment Yields: Consequences and Alternatives," Choices, 1990(2):32-33.

Boland, M.A., P.V. Preckel and A.P. Schinckel, 1994. "Current Hog Pricing System May Shortchange Lean Breeds," Feedstuffs, 66(23):31-33.

Boland, M.A., P.V. Preckel and A.P. Schinckel, 1994. "Optimal Hog Marketing Weights under Alternative Pricing Systems," Yorkshire Journal, 55(3):25-27.

Lovejoy, S.B., C.L. Liang, J.G. Lee, and P.V. Preckel, 1999. "Fertilizer Facts and Fallacies," Resource, 6(12):9-10.

Vandenburg, J.M., J.R. Fulton, F.J. Dooley, and P.V. Preckel, 2000. "Impact of Identity Preservation of Non-GMO Crops on the Grain Market System," Current Agriculture, Food, and Resource Issues 1(2000):29-36, Retrieved May 9, 2000 from the World Wide Web at <http://www.CAFRI.org>.

Hyde, J., M.A. Martin, P.V. Preckel, C.L. Dobbins, and C.R. Edwards, 2000. "The Economics of Within-Field Bt Corn Refuges," AgBioForum, 3(1):315-320, Retrieved August 11, 2000 from the World Wide Web at <http://www.agbioforum.org/>.

Peterson, E.B., P.V. Preckel, E. Van Eenoo, Jr., and A. McGuirk, 2001. "Does Jack Sprat Really Know Much About Fat?" Choices, 2001(Third Quarter):24-25.

Technical Reports, Station Bulletins and Other Research Publications

Preckel, P.V., 1980. "Modules for Use with MINOS/AUGMENTED in Solving Sequences of Mathematical Programs," Report SOL 80-15, Systems Optimization Laboratory, Stanford University, Stanford, CA.

Manne, A.S., R.J. Condap, and P.V. Preckel, 1981. "ETA-Macro: A User's Guide," Report EA-1724, Electric Power Research Institute, Palo Alto, CA.

Lang, M., M. Roth, and P.V. Preckel, 1984. "Risk Perception and Risk Management by Farmers in Burkina Faso," INTSORMIL Project Report.

McKinzie, L., T. Hertel, and P.V. Preckel, 1984. "Documentation of Model B29: An Indiana Cropping Model Incorporating Endogenous Input Choices and Rotation Corn-Soybeans," Purdue University Agricultural Experiment Station Bulletin No. 461.

Kaylen, M.S. and P.V. Preckel, 1987. "MINTDF: A FORTRAN Subroutine for Computing Parametric Integrals," Purdue University Agricultural Experiment Station Bulletin No. 519, May.

Menzie, K.L., L.F. Schrader, and P.V. Preckel, 1988. "A Model to Determine the Least Cost Organization of a Cooperative Feed Manufacturing System," Purdue University Agricultural Experiment Station Bulletin No. 529, August.

Preckel, P.V., R.F. Turco, M.A. Martin, and C.H. Noller, 1988. "Environmental Effects of the Introduction of Bovine Somatotropin under Alternative Dairy Price Support Programs," contract research report for Monsanto Corporation.

Connor, J.M. and P.V. Preckel, 1989. "The Optimal Location of a P.E.T. Plastic Food Container Plant in the Eastern United States," Value Added Research Center Quick-Response Report for Tech Group of Scottsdale, Arizona.

Petritz, D., C.L. Dobbins, P.V. Preckel, D. Pershing, W. Perez-Mendoza, C.A. Hurt, and K. Hendrix, 1989. "Feeder Cattle Budgeting and Market Price Analysis," Purdue Cooperative Extension Service computer program and documentation #C-EC-4, Purdue University, West Lafayette, Indiana.

Dobbins, C.J., P.V. Preckel, A. Mdafri, J. Lowenberg-Deboer, and D. Stucky, 1990. "Evaluation of Potential Herbaceous Biomass Crops on Marginal Lands: II Economics Potential," Final Report 1985-1989 to the Environmental Sciences Division, Herbaceous Energy Crops Program, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

Millar, T.W., M.A. Martin, P.V. Preckel, A.P. Schinckel, 1990. "Impact of Ractopamine Use on Hog Slaughter Weights Feeding Period, and Returns with a Lean-Value Pricing System," Purdue Agricultural Economics Report, Summer 1990:5-8.

Millar, T.W., M.A. Martin, P.V. Preckel, A.P. Schinckel, 1990. "Implications of Ractopamine Use on Management Strategies for Indiana Swine Finishing Operations," Purdue Swine Day Publication, August 30, 1990.

Hertel, T.W., M.E. Tsigas, P.V. Preckel, 1990. "An Economic Assessment of the Freeze on Program Yields," United States Department of Agriculture/Economic Research Service/Resources and Technology Division Staff Report #9066.

Kitts, K., M.A. Martin, P.V. Preckel, A.P. Schinckel, 1991. "Economic Implications of Alternative Ractopamine Dosages on Hogs," Purdue Agricultural Economics Report, Winter/Spring 1991:8-10.

Preckel, P.V., Y. Han, C.L. Dobbins, D.H. Doster, 1992. "Purdue Crop/Livestock Linear Program Formulation," Purdue University Agricultural Experiment Station Bulletin No. 634, April.

Boland, M.A., K.A. Foster, J.T. Akridge, J.C. Forrest and P.V. Preckel, 1993. "Economic Analysis of Carcass Evaluation Using Electromagnetic Scanning in a Packing Plant and Its Implications upon Processing Product Mix," National Pork Producer's Council 1993 Research Investment Report, National Pork Producer's Council, Des Moines, Iowa, 1993:305-309.

Boland, M.A., P.V. Preckel, 1994. "Optimum Hog Marketing Weights with Higher Feed Prices," Purdue Agricultural Economics Report, April 1994:10-11.

Estes, C.O., P.V. Preckel, M.A. Martin and A.P. Schinckel, 1994. "Alternative Swine Pricing Systems and the Value of Lean Growth Genetics," Purdue Swine Day Publication, September 1, 1994:79-90.

Schinckel, A.P., P.V. Preckel and M. Einstein, 1994. "Modeling Protein Requirements for Different Genotypes," Purdue Swine Day Publication, September 1994:153-158.

Boland, M.A., P.V. Preckel, A.P. Schinckel, K.A. Foster and J.T. Akridge, 1994. "Determining Producer Profit Maximizing Slaughter Weights for Three Swine Genotypes under Alternative Pricing Systems," National Pork Producer's Council 1994 Research Investment Report, National Pork Producer's Council, Des Moines, Iowa, 1994:335-339.

Dirkse, S.P., M.C. Ferris, P.V. Preckel and T.F. Rutherford, 1994. "The GAMS Callable Program Library for Variational Inequality and Complementarity Solvers," Computer Sciences Technical Report, Center for Parallel Optimization, University of Wisconsin, Madison.

Dobbins, C.L., Y. Han, P.V. Preckel, and D.H. Doster, 1994. "Purdue Crop/Livestock Linear Program (PC/LP) Version 3.2," Cooperative Extension Service, Purdue University, West Lafayette, IN.

Schiek, W., M. Martin, and P.V. Preckel, 1997. "Dairy Sector," Chapter 11 in Food System 21, Purdue University Cooperative Extension Service, Publication No. EC-710.

Binkley, J.K., M.D. Jekanowski, and P.V. Preckel, 1997. "Inference in the Autocorrelated Error Model: New and Extended Results with Vintage Methods," Staff Paper No. 97-18, Department of Agricultural Economics, Purdue University, West Lafayette, IN.

Harmon, A.M., P.V. Preckel, and J.S. Eales, 1998. "Entropy-based Seemingly Unrelated Regression," Staff Paper No. 98-8, Department of Agricultural Economics, Purdue University, West Lafayette, IN.

Preckel, P.V., 1998. "Least Squares and Entropy as Penalty Functions," Staff Paper No. 98-16, Department of Agricultural Economics, Purdue University, West Lafayette, IN.

Hyde, J., M.A. Martin, P.V. Preckel, and C.R. Edwards, 1998. "The Economics of Bt Corn: Adoption Implications," Purdue University Cooperative Extension Service, Publication ID-219, Purdue University, West Lafayette, IN.

Boland, M.A., K.A. Foster, and P.V. Preckel, 1998. "Phosphorous-Reducing Technologies in Swine Production," Swine Day 1998, Kansas State University, Manhattan, KS.

Gray, A.W. and P.V. Preckel, 2000. "Voluntary Set-aside with a Price Risk Management Incentive," Department of Agricultural Economics, Staff Paper No. 00-5, Purdue University, West Lafayette.

Hyde, J., M.A. Martin, P.V. Preckel, and C.R. Edwards, 2001. "The Economics of Bt Corn: Adoption Implications," Purdue University Cooperative Extension Service, Publication ID-219 Revised, Purdue University, West Lafayette, IN.

Eskigun, E., R. Uzsoy, and P.V. Preckel, 2001. "General Motors Outbound Supply Chain Network Design with Uncapacitated Vehicle Distribution Centers," Research Report, General Motors Research and Development Center, Warren, MI, December 15, 2001.

Cranfield, J.A.L., T.W. Hertel, P.V. Preckel, J.J. Reimer, and S. Ehui, 2002. "Assessing the Distributional Impact of Technical Change in Livestock and Grains Production in Developing Countries," Socio-economics and Policy Research Working Paper No. 34, International Livestock Research Institute, Nairobi, Kenya.

Eskigun, E., R. Uzsoy, P.V. Preckel, G. Beaujon, S. Krishnan, and J. Tew, 2002. "General Motors Outbound Supply Chain Network Design with Capacitated Vehicle Distribution Centers," Research Report, General Motors Research and Development Center, Warren, MI, February 15, 2002.

Li, N., A.P. Schinckel, P.V. Preckel, K. Foster, and B. Richert, 2002. "Profitable Use of Ractopamine in Hog Production – Economic Evaluation Using a Pig Growth Model," Purdue Swine Day Publication, August 2002, pp. 80-84.

Li, N., A.P. Schinckel, P.V. Preckel, K. Foster, and B. Richert, 2002. "Economic Evaluation of Ractopamine Step-up Programs Using a Biological Growth Model," Purdue Swine Day Publication, August 2002, pp. 75-79.

Schinckel, A.P., N. Li, B. Richert, M.E. Einstein, P.V. Preckel, and T. See, 2002. "Development of a Model to Predict the Growth of Pigs When Increasing Dietary Levels of Paylean® Are Fed," Purdue Swine Day Publication, August 2002, pp. 88-95.

Schinckel, A.P., N. Li, P.V. Preckel, and D. Miller, 2002. "Use of a Stochastic Model to Evaluate Alternate Marketing Strategies," Purdue Swine Day Publication, August 2002, pp. 85-87.

Li, N., A.P. Schinckel, P.V. Preckel, and B.T. Richert, 2003. "Using a Stochastic Model to Evaluate Swine Production Management with Paylean® I: Model Development and Optimal Management Strategies," Purdue Swine Day Publication, August 2003 pp. 24-28.

Li, N., A.P. Schinckel, P.V. Preckel, and B.T. Richert, 2003. "Using a Stochastic Model to Evaluate Swine Production Management with Paylean® II: Investigating Optimal Paylean Onset Time," Purdue Swine Day Publication, August 2003 pp. 29-34.

Li, N., A.P. Schinckel, P.V. Preckel, and B.T. Richert, 2003. "Using a Stochastic Model to Evaluate Swine Production Management with Paylean® III: Fixed Schedule Environment," Purdue Swine Day Publication, August 2003 pp. 35-39.

Li, N., A.P. Schinckel, P.V. Preckel, and B.T. Richert, 2003. "Using a Stochastic Model to Evaluate Swine Production Management with Paylean® IV: Return of Accurate Sorting for Marketing," Purdue Swine Day Publication, August 2003 pp. 40-47.

Li, N., A.P. Schinckel, P.V. Preckel, and B.T. Richert, 2003. "Using a Stochastic Model to Evaluate Swine Production Management with Paylean® V: Split-Weight Management," Purdue Swine Day Publication, August 2003 pp. 48-51.

Schinckel, A.P., N. Li, and P.V. Preckel, 2003. "Effects of Increased Average Daily Gain after Removal of Pigs on the Optimal Management of Ractopamine," Purdue Swine Day Publication, August 2003 pp. 52-56.

Cranfield, J.A.L., P.V. Preckel, and T.W. Hertel, 2006. "Poverty Analysis Using an International Cross-Country Demand System," GTAP Working Paper No. 34, downloaded from the Internet November 20, 2006 at <https://www.gtap.agecon.purdue.edu/resources/download/2893.pdf>, September.

Irwin, M.W., B.H. Bowen, P.V. Preckel, Z. Yu, J. Rupp, F.H. Hieb, and M. Mastalerz, 2007. "A Feasibility Study for the Construction of a Fischer-Tropsch Liquid Fuels Production Plant with Power Co-Production at NSA Crane," Center for Coal Technology Research Report, Energy Center, Discover Park, Purdue University, May.

Roucan-Kane, M., B. Martens, P.V. Preckel, 2007. "Estimating the Importance of Shelf Space Configuration on Retailer's Profit." Staff Paper No. 07-06, Department of Agricultural Economics, Purdue University, July.

Preckel, P.V., Z. Yu, J.A. Rupp, and F.H. Hieb, 2007. "Synfuel Park/Polygeneration Plant Feasibility Study for Indiana," report prepared for the Indiana Center for Coal Technology Research, September, 191 pages.

Gotham, D.J., F.D. Holland, D.G. Nderitu, P.V. Preckel and Z. Yu, 2007. "Indiana Electricity Projections: The 2007 Forecast," report prepared for the Indiana Utility Regulatory Commission, December, 76 pages.

Gotham, D., F. Holland, W. Madore, D. Nderitu, P. Preckel and Z. Yu, 2007. "2007 Indiana Renewable Energy Resources Study," State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 114 pages.

Gotham, D.J., F.D. Holland, D.G. Nderitu, P.V. Preckel, L.S. Raymond, G.E. Shively and Z. Yu, 2008. "The Projected Impacts of Carbon Dioxide Emissions Reduction Legislation on Electricity Prices in Indiana," State Utility Forecasting Group, Energy Center, Discovery Park and Purdue Climate Change Research Center, Purdue University, February, 22 pages.

Schinckel, A., P. Preckel, M. Einstein, T. Hubbs and B. Richert, 2008. "Managing Tough Times: Impact of Increasing Feed Prices on the Optimal Market Weights and Marketing Strategy of Finishing Pigs," Purdue Extension Publication FF-403-W, College of Agriculture, Purdue

University, West Lafayette, IN, June, 4 pages. Available at <http://www.ces.purdue.edu/extmedia/AS/FF-403-W.pdf> (accessed June 9, 2008).

Holland, F.D., V. Agarwal, D.J. Gotham, and P.V. Preckel, 2008. "Electricity Sales Projections for the State of Mississippi," research report, State Utility Forecasting Group, Purdue University, West Lafayette, Indiana, July, 27 pages.

Tyner, W.E., F. Dooley, A. Gray, P.V. Preckel, and O.C. Doering III, 2008. "Energy and Biofuels," Purdue Agricultural Economics Report, July.

Nderitu D., M. Agrawal, D. Gotham, F. Holland and P. Preckel, 2008. "2008 Indiana Renewable Energy Resources Study," State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 150 pages.

Irwin, M.W., B.H. Bowen, B.J. Gotham, M. Masterlerz, J. Rupp, A. Drobniak, D. Harper, N. Shaffer, F.T. Sparrow, R. Kramer, T.F. Brady, C.M Pfitzer, P.V. Preckel, Z. Uy, A. Varma, E. Shafirovich, F.H. Ribeiro, R. Agrawal, W.N. Delgass, G.K. Hill, S. Gootee, R. Thompson, D. Keairns, M. Thom, J.P. Gore, S.F. Son, J. Abraham, B. Anderson, R. Lucht, Y. Zheng, W.E. Tyner, M. Atkinson, N. Noland, W. Parke, K.R. Richards, S.H. Richards, L.S. Lee, T.P. Seager, D. Mu, 2009. Indiana Coal Report 2009, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, February, 181 pages.

Nderitu, D., E. Gall, D. Gotham, F. Holland, M. Velastgui and P. Preckel, 2009. "2009 Indiana Renewable Energy Resources Study," State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 136 pages.

Holland, F.D., M.A. Velastegui, D. J. Gotham, D.G. Nderitu, P.V. Preckel, 2009. "Indiana Electricity Projections: The 2009 Forecast," State Utility Forecasting Group, Energy Center, Purdue University, West Lafayette, IN, 91 pages.

Nderitu, D., B. Allen, D. Gotham, F. Holland, M. Velastgui and P. Preckel, 2010. "2010 Indiana Renewable Energy Resources Study," State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 141 pages.

Brown, S.V., D.G. Nderitu, P.V. Preckel, D.J. Gotham, and B.W. Allen, 2011. "Renewable Power Opportunities for Rural Communities," U.S. Department of Agriculture, Office of the Chief Economist, Office of Energy Policy and New Uses, Washington D.C., accessed on April 20, 2011 at <http://www.usda.gov/oce/reports/energy/RenewablePowerOpportunities-Final.pdf>, 173 pages.

Davis, C.D., D.J. Gotham, and P.V. Preckel, 2011. "Determining the Impact of Wind on System Costs via Temporal Patterns of Load and Wind Generation," State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, March, accessed on July 8, 2011 at

http://www.purdue.edu/discoverypark/energy/assets/pdfs/Wind_Impact_Report.pdf , 38 pages.

Velastigui, M., D.J. Gotham, P.V. Preckel, D.G. Nderitu, and F.D. Holand, 2011. “Wind Generation’s Contribution to the Management of Average Cost and Cost Volatility for Indiana,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, March, accessed on July 8, 2011 at http://www.purdue.edu/discoverypark/energy/assets/pdfs/Wind_Portfolio_Model_Report.pdf, 38 pages.

Nderitu, D., T. Ji, B. Allen, D.J. Gotham, P.V. Preckel, D. Mize, F. Holland, M. Velastegui, and T. Phillips, 2011. “2011 Indiana Renewable Energy Resources Study,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 121 pages.

Holland, F.D., M.A. Velastegui, D.J. Gotham, D.G. Nderitu, P.V. Preckel, T.A. Phillips, and D.J. Mize, “Indiana Electricity Projections: the 2011 Forecast,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 83 pages.

Nderitu, David, E. Ozkaya, D.J. Gotham, P.V. Preckel, D. Mize, M. Velastegui and T. Phillips, 2012. “2012 Indiana Renewable Energy Resources Study,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, September, 129 pages.

Velastegui, M.A., D.J. Gotham, T.A. Phillips, P.V. Preckel, and D.G. Nderitu, 2012. “The Impacts of Federal Environmental Regulations on Indiana Electricity Prices,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, January, 21 pages.

Giraldo, J.S., D.J. Gotham, D.G. Nderitu, P.V. Preckel, and D.J. Mize, 2012. “Fundamentals of Nuclear Power,” State Utility Forecasting Group, Energy Center, Discovery Park, Purdue University, West Lafayette, Indiana, January, 76 pages.

Carnegie, R., D.J. Gotham, D. Nderitu, P.V. Preckel, 2013. “Utility Scale Energy Storage Systems Benefits, Applications, and Technologies,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, June, 95 pages.

Giraldo, J.S., P.V. Preckel, and D.J. Gotham, 2013. “An Assessment of the Potential for Electricity Generation in Indiana from Biogas Resources,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, June, 33 pages.

Davis, C.D., D.J. Gotham, and P.V. Preckel, 2013. “Valuation of Energy Storage with Wind Generation,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, June, 25 pages.

Nderitu, D., R. Carnegie, D.J. Gotham, P.V. Preckel, D. Mize, M. Velastegui, and T. Phillips, 2013. “2013 Indiana Renewable Energy Resources Study,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, June, 125 pages.

Gotham, D.J., D.G. Nderitu, J.S. Giraldo, and P.V. Preckel, 2013. “Natural Gas Market Study,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, November, 42 pages.

Nderitu, D., P.V. Preckel, D.J. Gotham, E.A. Dobis, and M. Duncan, 2013. “Assessment of the National Prospects for Electricity Generation from Biomass,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, December, 20 pages.

Phillips, T., M. Velastegui, D.J. Gotham, Nderitu, D., P.V. Preckel, and D. Mize, 2013. “Indiana Electricity Projections: the 2013 Forecast,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, June, 80 pages.

Nderitu, D., P.V. Preckel, D.J. Gotham, E.A. Dobis, and M. Duncan, 2014. “Assessment of the National Prospects for Electricity Generation from Biomass,” Research Report, U.S. Department of Agriculture, Office of Energy Policy and New Uses, Washington, D.C., April, 20 pages.

Nderitu, D., D. Gotham, D. Mize, T. Phillips, P.V. Preckel, M. Velastegui, F. Wu, and J. Young, 2014. “2014 Indiana Renewable Energy Resources Study,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, September, 142 pages.

Nderitu, D., D. Gotham, D. Mize, T. Phillips, P.V. Preckel, M. Velastegui, F. Wu, and L Lu, 2015. “2015 Indiana Renewable Energy Resources Study,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, September, 136 pages.

Phillips, T.A., M.A. Velástegui, D.J. Gotham, L. Lu, D.G. Nderitu, P.V. Preckel, F. Wu, D.J. Mize, 2015. “Indiana Electricity Projections: the 2015 Forecast,” Research Report, State Utility Forecasting Group, Energy Center, Discovery Park, West Lafayette, IN, November, 77 pages.

Book Review

Preckel, P.V., 1987. Review of Mathematical Programming for Economic Analysis in Agriculture, by P.B.R. Hazell and R.D. Norton, American Journal of Agricultural Economics, 69(3):715-716.

Conference Proceedings Papers and Invited Presentations

Manne, A.S. and P.V. Preckel, 1983. “International Trade, Energy and Capital Flows,” in Proceedings of the Fourth International Federation of Automatic Control/International Federation of Operational Research Societies Conference on the Modeling and Control of National Economies, Washington, DC, June, pp. 56-60.

Loehman, E.T., M.S. Kaylen and P.V. Preckel, 1986. "Stochastic Microeconomic Production Modeling: Foundation for Policy Analysis Under Risk," in Proceedings of the Southern Regional Project S-180 Seminar, Tampa, FL, March, pp. 18-37.

Andresen, J.A., R.F. Dale, J.J. Fletcher, and P.V. Preckel, 1987. "Prediction of Corn Yields Using an Energy-Crop Growth Index for Counties in Indiana," in Proceedings of the 11th International Congress of Biometeorology, West Lafayette, IN, September, pp. 231-233.

Moskowitz, H., P.V. Preckel, and A. Yang, 1989. "Multiple Criteria Robust Interactive Decision Analysis (MCRID): A Tool for Multiple Criteria Decision Support," forthcoming in the Proceedings of the International Workshop in Multiple Criteria Decision Support, Helsinki, Finland, August 1989.

Dobbins, C., P.V. Preckel, D. Petritz, J. Hall and B. Horan, 1990. "A Decision Support System for Evaluating the Economic Potential of Biomass Forage Crops" in Proceedings of the Third International Conference on Computers in Agricultural Extension Programs, Orlando, Florida, 1990:276-281.

Dobbins, C.L., P.V. Preckel, Y. Han, D.H. Doster and B. Horan, 1990. "A Decision Support System for Alternative Cropping Systems," in Proceedings of the Third International Conference on Computers in Agricultural Extension Programs, Orlando, Florida, 1990:282-287.

Dobbins, C.L., P.V. Preckel, Y. Han, and D.H. Doster 1992. "An Application of Linear Programming to Planning Crop Systems," in Proceedings of the Fourth International Conference on Computers in Agricultural Extension Programs, Orlando, Florida, 1992:376-381.

Schinckel, A.P., P.V. Preckel and M.E. Einstein, 1993. "Alternative Methods to Describe the Efficiency of Protein Utilization," Purdue Cooperative Swine Lean Growth Project Proceedings, September 27-28, 1993.

Serghini, H., K. McNamara and P.V. Preckel, 1996. "1994-1995 Drought in Morocco: An I/O Analysis," Proceedings of the Interconference Symposium of the International Association of Agricultural Economists, Rabat, Morocco, June.

Mdafri, A., W.E. Tyner and P.V. Preckel, 1996. "Profitability of Crops and Livestock Production in the Settat Province of Morocco," Proceedings of the Interconference Symposium of the International Association of Agricultural Economists, Rabat, Morocco, June.

Liang, C., S.B. Lovejoy, J.G. Lee, and P.V. Preckel, 1997. "'Green Taxes' Impacts on U.S. Factor Markets," Proceedings of the Third International Interdisciplinary Conference on the Environment, Eds. K.L. Hickey and D. Kantarelis, Cambridge/Boston, Massachusetts, June.

Boland, M., K. Foster, and P. Preckel, 1997. "Analysis of Manure Management Systems and Phytase Adoption by Pork Producers," Creating and Managing Environments for Livestock

Health and Well-Being: Fifth International Livestock Environment Symposium, K. Janni editor, American Society of Agricultural Engineers.

Hertel, T.W., P.V. Preckel, and J.J. Reimer, 2001. "Trade Policy, Staple Food Price Variability, and the Vulnerability of Low-Income Households," in the Proceedings of the Fourth Annual Conference on Global Economic Analysis, Purdue University, West Lafayette, Indiana, June 27-29.

Hertel, T.W., P.V. Preckel, J.A.L. Cranfield and M. Ivanic, 2001. "Poverty Impacts of Multilateral Trade Liberalization", Plenary Paper presented to the annual meetings of the German Agricultural Economics Society (GeWiSola), Braunschweig, Germany, October 8, published in *Liberalisierung des Weltagrarhandels – Strategien und Konsequenzen*, M. Brockmeier, F. Isermeyer and S. von Cramon-Taubadel (eds.) Muenster: Landwirtschaftsverlag.

Hertel, T.W., P. V. Preckel, J.A.L. Cranfield and M. Ivanic, 2002. "OECD and Non-OECD Trade liberalization and Poverty Reduction in Seven Developing Countries," Tangerman, S. and E. Burgeat (eds). *Agricultural Trade and Poverty: Making Policy Analysis Count*, Paris: OECD.

Nilsson, T., P. V. Preckel, B. Ohlmer and H. Andersson, 2003. "Revisiting the Role of Common Labeling in a Context of Asymmetric Information: Critique and Extensions," European Regional Science Association 2003 Congress, Helsinki, Finland.

Schinckel, A.P., B.T. Richert, N. Li, and P.V. Preckel, 2003. "Effects of Ractopamine and Conjugated Linoleic Acid on Swine Growth, Carcass Composition, and Quality," paper presented at the annual Western Nutrition Conference. Winnipeg, Manitoba, Canada. Sept 10-11, 2003, pp. 163-189.

Ivanic, R., P.V. Preckel, and Z. Yu, 2003. "Market Power and Welfare Effects in Two-Stage Electricity Models with Transmission Constraints: A Stochastic Equilibrium Approach," paper presented at the International Association of Science and Technology for Development EuroPES Conference on Power and Energy Systems, Marbella, Spain, September.

Hertel, T. W., M. Ivanic, P. V. Preckel and J. A. L. Cranfield, 2003. "Multilateral Trade Liberalization and Poverty," FAO, Rome, Italy, December.

Schinckel, A. P., N. Li, P. V. Preckel, K. Foster, and B. T. Richert, "Using a Stochastic Model to Evaluate Swine Production Management with Paylean," in Proceedings of the Allen D. Leman Swine Conference. September 18, 2004. pp 1-15.

Schinckel, A. P., B. T. Richert, N. Li, and P. V. Preckel, 2003. "Effects of Ractopamine and Conjugated Linoleic Acid on Swine Growth, Carcass Composition, and Quality," in Proceedings of the 24th Western Nutrition Conference, Winnipeg, Manitoba, Canada, September 10-11, 2003, pp. 23-30.

Ruangpattana, S., D. Gotham, K. Muthuraman, P. Preckel, and R. Rardin, "Applying Load

Factors to the Mean-Variance Analysis for Fuel Diversification," *Proceedings of the 10th International Conference on Probabilistic Methods Applied to Power Systems (PMAPS 2008)*, May 25-29, 2008, Rincon, PR.

Preckel, P.V. , F.T. Sparrow, B.H. Bowen, Z. Yu, D.J. Gotham, R. Z. Yang, 2008. "Preserving Low Cost Electricity While Improving the Riverine Environment: A Case Study of Ghana's Akosombo Dam Complex," presented at the IEEE Power Engineering Society General Meeting, Pittsburgh, Pennsylvania, July 23, 2008 pp. 1-6.

Yu, Z., P.V. Preckel, M. Irwin, and B.H. Bowen, 2008. "An Enhanced Model of Capacity Expansion with CO₂ Cap and Trade and EOR CO₂ Re-emergence," presented at the IEEE Power Engineering Society General Meeting, Pittsburgh, Pennsylvania, July 23, 2008 pp. 1-7.

Schinckel, A. P., P. V. Preckel, B. Richert, K. Foster, L. Ning, K. Boys, J. T. Hubbs, and D. Canchi, 2008. "Pork Production Systems Analyses, Current Status - Future Potential," *Proceedings of the PIC International Thinking Forward Symposium*. Nashville TN. May 5-6, 2008, pp. 56.

Yigezu, Y. A., C.E. Alexander, P.V. Preckel, D.E. Maier, C. Woloshuk, L. J. Mason, J. Lawrence and D.J.P. Moog, 2008. "Modeling the Economics of Mold Control in Stored Corn: The Stochastic Dynamic Programming Approach," *2008 International Grain Quality & Technology Congress Proceedings*, (In Press).

Canchi, D. and P.V. Preckel, 2008. "Pricing Financial Transmission Rights in Deregulated Electricity Markets," in *Proceedings of POWERCON2008 and 2008 IEEE Power India Conference*, New Delhi, India, October 12-15.

Bowen, B.H., Canchi, D., P.V. Preckel, and F.T. Sparrow, 2008. "Options for Strengthening India's National Power Grid Using the Purdue Long-Term, Least Cost, Generation and Transmission Planning Model," in *Proceedings of POWERCON2008 and 2008 IEEE Power India Conference*, New Delhi, India, October 12-15.

Schinckel, A.P., P.V. Preckel, B. Richert, K. Foster, L. Ning, K. Boys, J.T. Hubbs, and D. Canchi. 2008. "Pork Production Systems Analyses, Current Status -Future Potential," in *Proceedings of the PIC International Thinking Forward Symposium*, Nashville, TN May 5-6.

Perkis, D., W.E. Tyner, P.V. Preckel, and S. Brechbill, 2008. "Spatial Optimization and Economies of Scale for Cellulose to Ethanol Facilities in Indiana," *proceedings of a joint conference of the Farm Foundation and USDA's Office of Energy Policy and New Uses titled Risk, Infrastructure and Industry Evolution*, B.C. English, R.J. Menard, and K. Jensen Eds., Berkeley California, June 24-25.

Preckel, P.V., F.T. Sparrow, B.H. Bowen, Z. Yu, D.J. Gotham, 2009. "Preserving Low Cost Electricity while Improving the Riverine Environment: Part Two – Model Results," presented at

the IEEE Power Engineering Society General Meeting, Calgary, Alberta, July 26-30.

Lu, L., P.V. Preckel, and D.J. Gotham, "Assessment of the Reliability of Indiana's Electricity Generation System," Proceedings of the 41st Annual North American Power Symposium, Mississippi State University, Starkville, MS, October 4-6, 2009.

Preckel, P.V., M. Verma, T.W. Hertel and W. Martin, 2011. "Systematic Sensitivity Analysis for GTAP – Where We've Been and Where We're Going," presented at the 14th Annual Conference on Global Economic Analysis in Venice, Italy, June 16-18.

Verma, M., P.V. Preckel, T.W. Hertel and W. Martin, 2011. "Implications of Broader Sampling Strategy in the Context of the Special Safeguard Mechanism" presented at the 14th Annual Conference on Global Economic Analysis in Venice, Italy, June 16-18.

Preckel, P.V. and D.J. Gotham, "History and Activities of Indiana's State Utility Forecasting Group," invited presentation to members of Senator Coates staff, Energy Center, Discovery Park, Purdue University, July 6, 2011.

Preckel, P.V., "Professional Presentation Skills," presented to the Graduate Student Organization of the Department of Agricultural Economics, Purdue University, West Lafayette, Indiana, July 24, 2011.

Preckel, P.V., "Professional Presentation Skills," presented at the Early Career Development Workshop of the Northeast Agricultural and Resource Economics Association, Pittsburgh, Pennsylvania, July 24, 2011.

Presentations at Meetings of Professional Societies, Other Universities and Research Organizations

Preckel, P.V., "Intertemporal Competitive Equilibrium Models," invited lecture for the Department of Industrial Engineering, University of Toronto, Toronto, Canada, September 23, 1982.

Preckel, P.V. and A.S. Manne, "A Three-Region Intertemporal Model of Energy, International Trade and Capital Flows," paper presented at the National Bureau of Economic Research Workshop on Applied General Equilibrium Analysis, Stanford University, January 1983.

Preckel, P.V., "Intertemporal Computable Equilibrium Models: Alternative Solution Strategies," paper presented at the annual meetings of the Operations Research Society of America, Chicago, Illinois, April 25, 1983.

Preckel, P.V., served as discussant for a paper entitled "Computation of Economic Equilibria by a Sequence of Linear Complementarity Problems," by Lars Mathiesen presented at "The Workshop on the Application and Solution of Economic Equilibrium Models," in the Koret Conference Series sponsored by the Stanford Center for Economic Policy Research, Stanford, CA, June 26, 1984.

Preckel, P.V., "A Comparison of Algorithms for Solving General Equilibrium Models," paper presented at "The Workshop on the Application and Solution of Economic Equilibrium Models," in the Koret Conference Series sponsored by the Stanford Center for Economic Policy Research, Stanford, CA, June 26, 1984.

Preckel, P.V. and T.W. Hertel, "Linear Program Summary Functions," paper presented at a seminar for the Economic Research Service of the U.S. Department of Agriculture (ERS-USDA), Washington, DC, April 22, 1985.

Preckel, P.V. and T.W. Hertel, "Applications of Summary Functions in Natural Resource Policy Analysis," paper presented at a seminar for the ERS-USDA, Washington, DC, October 7, 1985.

Preckel, P.V., "Piecewise Linear Summary Functions," paper presented at a seminar at Argonne National Laboratories, Chicago, IL, August 8, 1986.

Preckel, P.V., "A Modified Newton Method for the Nonlinear Complementarity Problem," paper presented at the annual meetings of the Operations Research Society of America, Miami, Florida, October 28, 1986.

Preckel, P.V. and T.W. Hertel, "The Conservation Reserve Program: A Summary Function Analysis," paper presented at a seminar for the ERS-USDA, Washington, DC, October 6, 1986.

Hertel, T.W. and P.V. Preckel, "Commodity Price Effects of the Conservation Reserve Program," paper presented at the NCR-111 Committee Meeting on the Conservation Title of the 1985 Farm Bill, St Louis, Missouri, June 9, 1987.

Baker, T.G., P.V. Preckel and A.M. Featherstone, "Incorporating Liquidity into the Financial Modeling of the Farm Firm," paper presented at the 1988 annual meetings of the Society for Economic Dynamics and Optimal Control, March 9-11, 1988, Tempe, Arizona.

Moskowitz, H., P.V. Preckel and A. Yang, "Robust Interactive Decision Analysis," presented at the Workshop on Bayesian Robustness sponsored by the Center for Statistical Decision Sciences, Department of Statistics, Purdue University West Lafayette, Indiana, March 11, 1989.

Sparrow, T.T., R. Cearley, O.C. Doering, F. Holland, L. McKinzie, P.V. Preckel, "Assessing Industrial Electrification and Economic Development Pricing Initiatives in the Context of Demand-Side Management Concerned," paper presented at the Conference on Demand Side Management Strategies for the 80's, The Fourth National Conference on Utilities Demand Side Management, Cincinnati, Ohio, May 2-4, 1989.

Preckel, P.V., "Equity and Efficiency Issues Involved in Incentive/Promotional Rates," paper presented at the Iron and Steel Industry Workshop on Electricity Consumption Workshop sponsored

by the Indiana State Utilities Forecasting Group and the National Science Foundation, West Lafayette, Indiana, March 31, 1989.

Hertel, T.H., P.V. Preckel and M. Tsigas, "Decoupling the U.S. Grains Programs," paper presented at a seminar for the ERS-USDA, Washington, D.C., May 11, 1989.

Preckel, P.V., "B-2001: A Model for Designing Conservation-Oriented, Sustainable Farm Plans," presented to a representative of the USDA Extension Service and a Midwest committee of interested extension specialists, Purdue University, West Lafayette, Indiana, September 12, 1990.

Doster, D.H., C.L. Dobbins, P.V. Preckel, Y. Han, and S.D. Parsons, "Can You Find a Better Machinery Size?" presented at the 1990 International Winter Meeting of the American Society of Agricultural Engineers, Chicago, Illinois, December 19, 1990.

Moskowitz, H., P.V. Preckel, and A. Yang, "Decision Analysis with Incomplete Probability and Utility Information," presented by invitation at the Spring joint national meetings of the Institute for Management Sciences and the Operations Research Society of America, Nashville, Tennessee, May 15, 1991.

Peterson, E.B., P.V. Preckel, T.W. Hertel, and A.M. McGuirk, "Impacts of Biotechnology in the Domestic Livestock Sector," presented at the annual meetings of the Western Regional Coordinating Committee No. 72 on Agribusiness Research Emphasizing Competitiveness, Las Vegas, Nevada, June 11, 1991.

Preckel, P.V., "Research Methodologies That Work!," presented at the annual meetings of the Western Regional Coordinating Committee No. 72 on Agribusiness Research Emphasizing Competitiveness, Las Vegas, Nevada, June 11, 1991.

Martin, M.A., P.V. Preckel and A. Schinckel, "The Economics of Ractopamine," presented at Elanco Corporate Headquarters, Indianapolis, Indiana, July 25, 1991.

Preckel, P.V., "How Robust Are Model Results?," presented in a seminar to the Faculty of the Department of Agricultural Economics at Ohio State University, Columbus, Ohio, November 18, 1994.

Mwanaumo, A., W. Masters and Preckel, P.V., "Spatial Analysis of Maize Market Policy Reforms in Zambia," presented at "Symposium on Markets in Sub-Saharan Africa," Stanford University, Palo Alto, California, March 29-31, 1996.

DeVuyst, E., S. Liu and Preckel, P.V., "GE Sensitivity Analysis: Relations to Integration," presented at the 1996 GTAP Alumni Workshop, June 4, 1996.

Senatre, B.A., P.V. Preckel, and B. Stoneman, "Soil Selection for Use in EPIC Analysis," presented at the Fifty-first Annual Conference of the Soil and Water Conservation Society, Keystone, Colorado, July 7-10, 1996.

Preckel, P.V., "Gaussian Quadrature: What's Old, What's New, and What It's Good For," seminar presented to the faculty of Agricultural Economics at University of California at Davis, Davis, California, November 1, 1996.

Preckel, P.V., "Gaussian Quadrature: What's Old, What's New, and What It's Good For," seminar presented to the faculty of Agricultural Economics at University of Nevada at Reno, Reno, Nevada, November 4, 1996.

Preckel, P.V., "Sampling with Gaussian Quadrature," seminar presented to the staff of the Farm Business Economics Branch of the Rural Economics Division of the Economic Research Service of the United States Department of Agriculture, Washington, D.C., February 19, 1997.

Preckel, P.V., "Sampling with Gaussian Quadrature," seminar presented to the staff of the Natural Resource Conservation Service of the United States Department of Agriculture, Washington, D.C., February 20, 1997.

Preckel, P.V., and T.G. Baker, "Seed Corn Tournament Contracts: It's Not Easy Being Green," seminar presented to the faculty of the Department of Agricultural and Consumer Economics, University of Illinois, Champaign-Urbana, Illinois, March 12, 1997.

Preckel, P.V., "Least Squares and Entropy: A Mathematical Programming Perspective," paper presented to the faculty of the Department of Agricultural Economics, West Virginia University, Morgantown, West Virginia, August 10, 1999.

Edwards, C.R., J. Hyde, M.A. Martin, P.V. Preckel, and C.L. Dobbins, "Building an Economic Refuge: Profitably Extending the Life of Bt Corn," invited paper presented to the XX International Working Group on Ostrinia (IWGO) Conference, Adana, Turkey, September 4-10, 1999.

Preckel, P.V., M.M. Ahmed, and S. Ehui, "Non-parametric Cross-sectional Measurement of Risk Aversion," paper presented at the annual meetings of the American Agricultural Economics Association, Tampa, Florida, August 2, 2000.

Hertel, T.W., P.V. Preckel, and J.A.L. Cranfield, "Multilateral Trade Liberalization and Poverty Reduction," paper presented by invitation at a conference sponsored by GLOBCOM and the International Bank for Reconstruction and Development, Stockholm, Sweden, October 20, 2000.

Preckel, P.V., "Entropy Econometrics and Penalty Functions: Connections with Least Squares," paper presented by invitation to the faculty in the Department of Agricultural Economics at Kansas State University, Manhattan, Kansas, November 16, 2000.

Ahmed, M.M., P.V. Preckel, and S. Ehui, "Household Modeling for Subsistence Farms: The Holetta in Ethiopia," paper presented at a workshop sponsored by the International Food Policy Research Institute and International Livestock Research Institute in Addis Ababa, Ethiopia, January 23, 2001.

Hertel, T.W. and P.V. Preckel, "Poverty Impacts of Multilateral Trade Liberalization," presented by invitation at the Centre d'Etudes Prospectives et d'Informations Intranationals/Inter-American Development Bank jointly sponsored Conference on Impacts of Trade Liberalization Agreements on Latin America and the Caribbean, November 5-6, 2001.

Dooley, F. and P.V. Preckel, "The Changing Face of Agriculture: Opportunities for the Application of Operations Research Methods," presented by invitation at the National Meetings of INFORMS, Miami, Florida, November 4-7, 2001.

Eskigun, E., R. Uzsoy, J.D. Tew, and P.V. Preckel, "General Motors Outbound Supply Chain Network Design," presented at the National Meetings of INFORMS, Miami, Florida, November 4-7, 2001.

Hertel, T.W., M. Ivanic, P.V. Preckel, and J.A.L. Cranfield, "Trade Liberalization and the Structure of Poverty in Developing Countries," presented at the Conference on Globalization, Agricultural Development and Rural Livelihoods, Cornell University, Ithaca, New York, April 11-12, 2003.

Poray, M., A.W. Gray, M. Boehlje, and P.V. Preckel, "Evaluating Alternative Coordination Systems in the Pork Industry," selected paper presented at the International Agribusiness Management Association Meetings, Cancun, Mexico, June 2003.

Nilsson, T., P. V. Preckel, B. Ohlmer and H. Andersson. "Revisiting the Role of Common Labeling in a Context of Asymmetric Information: Critique and Extensions," European Regional Science Association 2003 Congress, University of Jyväskylä, Finland, August 30, 2003.

Hertel, T.W., M. Ivanic, P.V. Preckel and J.A.L. Cranfield, "Multilateral Trade Liberalization and Poverty." Workshop on Agricultural Trade Liberalization and the Poor, Resources for the Future, Washington, D.C., November 2003.

Hertel, T.W., M. Ivanic, P.V. Preckel and J.A.L. Cranfield, "Short- vs. Long-run Impacts of Trade Liberalization on Poverty," OECD Global Agricultural Forum. Paris, France, December 2003.

Hertel, T.W., M. Ivanic, P.V. Preckel and J.A.L. Cranfield, "Quantifying the Impact of Rich Countries' Policies on Poor Countries. *Institute for International Economics*. Institute for International Economics. Washington, D.C., November 2003.

Hertel, T.W., M. Ivanic, P.V. Preckel and J.A.L. Cranfield, "Multilateral Trade Liberalization

and Poverty in Indonesia,” International Scientific Conference in Celebration of Jan Tinbergen, the first Nobel Laureate in Economics, The Tinbergen Institute, Erasmus University, Rotterdam, The Netherlands, December 2003.

Preckel, P.V., M.D. Boehlje, A.W. Gray, and S. Kim, “Risk and Value Chains: Participant Sharing of Risk and Rewards,” presented at the 6th International Conference on Chain and Network Management in Agribusiness and the Food Industry, in Wageningen, The Netherlands, May 2004.

Preckel, P.V., “Teaching Tips,” invited presentation at annual meetings of the American Agricultural Economics Association in Denver, Colorado, August 1-4, 2004.

Preckel, P.V., M.D. Boehlje, A.W. Gray, and S. Kim, “Vertically Aligned vs. Open Market Coordination: Dominance or Coexistence,” selected paper presented at annual meetings of the American Agricultural Economics Association in Denver, Colorado, August 1-4, 2004.

Tanner, M., P.V. Preckel, and E.B. Peterson, “Consumers’ Demand for Meat Before and After Fat Content Education,” poster presented at annual meetings of the American Agricultural Economics Association in Denver, Colorado, August 1-4, 2004.

Schinckel, A. P., N. Li., P. Preckel, K. Foster, and B. Richert, “Using a Stochastic Model to Evaluate Swine Management with Paylean,” 5th London Swine Conference. London, Ontario. April 6-7, 2005.

Cranfield, J.A.L., P.V. Preckel, and T.W. Hertel. “A Modified Implicit, Directly Additive Demand System” paper presented at the annual meetings of the Canadian Economics Association, Hamilton, Ontario, May 2005.

Ahmed M.M., P.V. Preckel, and S. Ehui, 2006. “Modeling the Impact of Credit on Intensification in Mixed Crop-livestock Systems: A case study from Ethiopia,” presented at the International Association of Agricultural Economists meetings in Queensland, Australia, August 2006.

Yu, Z., A. Tuzuner, and P.V. Preckel, 2007. “The U.S. Coal to Clean Transportation Fuels Options: A Game Theory Assessment,” presented at the Energy and Transportation Panel Meeting, Detroit, MI, April 25-26.

Ahmed, A., and P.V. Preckel, 2007. “RAS and Entropy in Updating I/O Tables – A Time Series Analysis,” presented at the annual meetings of the American Agricultural Economics Association, Portland, Oregon, July.

Akiner Tuzuner, A., P.V. Preckel, Z. Yu, and T. Morin, 2007. “A Continuous-Time Stochastic Equilibrium Model of the Extended Crude Oil Market,” presented at the INFORMS Midwest Regional Conference, Evanston, IL, August 24-26.

Cranfield, J.A.L., T.W. Hertel, and P.V. Preckel, 2007. "Poverty Analysis Using International Cross-Country Demand System," presented at the Tenth Annual Conference on Global Economic Analysis, GTAP, Purdue University, West Lafayette, June 7-9.

Preckel, P.V., Cranfield, J.A.L., and T.W. Hertel, 2007. "A Modified Implicit Directly Additive Demand System," presented at the Tenth Annual Conference on Global Economic Analysis, GTAP, Purdue University, West Lafayette, June 7-9.

Hertel, T.W., Cranfield, J.A.L., and P.V. Preckel, 2007. "Global Nutrition Impacts of Rapid Economic Growth in China and India," presented at the Tenth Annual Conference on Global Economic Analysis, GTAP, Purdue University, West Lafayette, June 7-9.

Preckel, P.V., Z. Yu and F.T. Sparrow, 2007. "Market Power in Electricity," presented to staff at Argonne National Laboratories, Argonne, IL, September 28, 2007.

Sparrow, F.T., P.V. Preckel and Z. Yu, 2007. "Stochastic Hydrothermal Scheduling with 'Run-of-River' Requirements," presented to staff at Argonne National Laboratories, Argonne, IL, September 28, 2007.

Bista, B., T. Hubbs, B.T. Richert, W.E. Tyner and P.V. Preckel, 2008. "Economic Value of Ethanol Co-Products in Swine Diets: Evaluating Profitability of Corn Fractionation Techniques," presented at the Transition to a Bio-economy: Integration of Agricultural and Energy Systems conference sponsored by the Farm Foundation and U.S. Department of Agriculture, Atlanta Georgia, February 12-13.

Yu, Z., P.V. Preckel, M. Irwin, and B.H. Bowen, 2008. "An Enhanced Model of Capacity Expansion with CO2 Cap-and-Trade and EOR CO2 Re-emergence," presented at the IEEE Power Energy Systems General Meeting, Pittsburgh, Pennsylvania, July 20-24.

Preckel, P.V., F.T. Sparrow, B.H. Bowen, Z. Yu, D.J. Gotham, and R.Z. Yang, 2008. "Preserving Low Cost Electricity While Improving the Riverine Environment: A Case Study of Ghana's Akosombo Dam Complex," presented at the IEEE Power Energy Systems General Meeting, Pittsburgh, Pennsylvania, July 20-24.

Hubbs, T., P.V. Preckel, A.P. Schinckel, J. Deen, K.A. Foster, S.E. Curtis and E.W. Johnson, 2008. "The New Economics of Livestock Production Management," selected paper presented at annual meetings of the American Agricultural Economics Association in Orlando, Florida, July 27-29, 2008.

Yigezu, Y. A., C.E. Alexander and P.V. Preckel, 2008. "Optimal Management of Molds in Stored Corn," selected paper presented in a poster session at the annual meetings of the American Agricultural Economics Association in Orlando, Florida, July 27-29.
http://agecon.lib.umn.edu/cgi-bin/pdf_view.pl?paperid=30243&ftype=.pdf.

Lu, L., D. Gotham, and P.V. Preckel, 2009. "Assessment of the Reliability of Indiana's Electricity Generation System," poster presented at the Snyder lecture poster competition March.

Lu, L., D. Gotham, and P.V. Preckel, 2009. "Assessment of the Reliability of Indiana's Electricity Generation System," poster presented at the North American Power Symposium, Mississippi State University, October.

Ruangpattana, S., P.V. Preckel, D. Gotham, K. Muthuraman, N. Uhan, T. Morin, 2009. "Optimal Division of the Load Duration Curve for Managing Fuel Diversification," paper presented at the Modeling and Optimization: Theory and Applications conference, Lehigh University, August.

Canchi, D.R., P.V. Preckel, D. Gotham, and F.T. Sparrow, 2009. "Easy Money in Auctions for Financial Transmission Rights," paper presented to Indiana Utility Regulatory Commission Staff and the Pennsylvania, Jersey, Maryland Independent Systems Operator Market Monitor, Indianapolis, Indiana, December.

Ruangpattana, S., P.V. Preckel, D. Gotham, K. Muthuraman, T. Morin, and N. Uhan, "Load Factor Analysis for Fuel Diversification: A Study for the State of Indiana," *2010 INFORMS Conference on O.R. Practice*, April 18-20, 2010, Orlando, FL.

Preckel, P.V., "Wind Energy: An Indiana Perspective," presented at an Interdisciplinary Workshop on Wind Energy Research in Indiana, April 29-30, 2010, Indiana University, Bloomington.

Canchi, D., P.V. Preckel, D.J. Gotham, and F.T. Sparrow, "Estimating the Inefficiency in Auctions for Congestion Contracts," poster presented at the annual meeting of the Agricultural and Applied Economics Association, July 25-27, 2010, Denver, CO.

Canchi, D., P.V. Preckel, D.J. Gotham, and F.T. Sparrow, "Efficiency Concerns in Auctions for Financial Transmission Rights," paper presented at the annual meeting of the American Economics Association, January 6-7, 2012, Chicago, IL.

Preckel, P.V., "Economics of Intensive Swine Production," presented to faculty and students in the College of Economics and Management at China Agricultural University, Beijing, China, June 19, 2012.

Preckel, P.V., "Integrated Joint Pest Management for Stored Grain," presented to faculty and students in the College of Economics and Management at China Agricultural University, June 21, 2012, Beijing, China.

Preckel, P.V., C. Davis, A. Liu, and D. Gotham, "Modifying Commitment and Dispatch for Wind Generation Uncertainty," presented at the International Meeting of the Institute for

Operations Research and Management Science (INFORMS), June 26, 2012, Beijing, China.

Preckel, P.V., “An Approach to Non-parametric Efficiency Testing in the Presence of Risk,” presented to faculty and students in the College of Economics and Management at China Agricultural University, June 28, 2012, Beijing, China.

Preckel, P.V. and F.T. Sparrow, “Generation and Transmission (Grid) Model’s Role in Evaluating Dam Reoperation Costs,” presented at the Workshop on Reoperation of the Akosombo Hydro Complex sponsored by the Natural Heritage Institute, Accra, Ghana, August 22, 2012.

Preckel, P.V. and F.T. Sparrow, “Preserving Low Cost Electricity While Improving the Riverine Environment,” presented at the Workshop on Reoperation of the Akosombo Hydro Complex sponsored by the Natural Heritage Institute, Accra, Ghana, August 23, 2012.

Munyua, P., K. Quagraine, P.V. Preckel, and G. Shively, 2013. “Technical Efficiency of Aquaculture Production in Kenya: Data Envelopment Analysis, ANOVA, OLS, and Tobit Models in Second Stage Analysis,” presented at the meetings of the World Aquaculture Society, Nashville, Tennessee, February 21-25.

Munyua, P., K. Quagraine, P.V. Preckel, and G. Shively, 2013. “Technical Efficiency of Aquaculture Production in Kenya: An Application of Stochastic Frontier Analysis,” presented at the meetings of the World Aquaculture Society, Nashville, Tennessee, February 21-25.

Li, L., P. V. Preckel and J. S. Eales, 2013. “Modeling Cropland Allocation in the U.S. from 1997 to 2010: theory and empirical estimation,” presented at meetings of the Agricultural and Applied Economics Association in Washington, D.C., August 4-6.

Gramig, B.M., E.M. Sajeev, P.V. Preckel, and O.C. Doering, 2014. “Profit Maximizing Adaptations to Projected Climate Change in the U.S. Corn Belt,” presented at meetings of the Agricultural and Applied Economics Association in Minneapolis, MN, July 27-29.

Gramig, B.M., E.M. Sajeev, and P.V. Preckel, 2015. “Farm-scale Integrated Assessment to Identify Profit-Maximizing Adaptations to Climate Change in the Corn Belt,” Climate Change Symposium, American Society of Agricultural and Biological Engineers, Chicago, IL, May 4.

Boussios, D., P.V. Preckel, and Y.A. Yigezu, 2015. “Dynamic Crop Production Responses to Realizations of Weather and Production with Application in Jordan,” submitted for presentation at the Agricultural and Applied Economics Association in San Francisco, California, July.

Kim, H.-K., P.V. Preckel, J. Eales, 2015. “Impact Assessment of Time-of-Use Pricing: Evidence from a Natural Experiment in Ontario,” submitted for presentation at the Agricultural and Applied Economics Association in San Francisco, California, July.

Song, J., N. Villoria, M.S. Delgado, P.V. Preckel, 2015. "Fine-scale Land Use Allocation Using Maximum Likelihood," submitted for presentation at the Agricultural and Applied Economics Association in San Francisco, California, July.

Honors

Stanford Graduate Engineering Fellowship, 1977.

Award of Merit presented to Co-Major Professors (with Dr. E. Loehman) of Dr. Charles Nelson who received the award for Best Ph.D. Dissertation in the Department of Agricultural Economics at Purdue University, 1986.

Co-Major Professor (with Dr. L. Schrader) for Dr. Keith Menzie who received the Edwin G. Nourse Award from the American Institute of Cooperation for the best Ph.D. Dissertation on Cooperatives, 1987.

Award of Merit presented to Major Professor of Dr. Eric DeVuyst who received the award for Best Ph.D. Dissertation in the Department of Agricultural Economics at Purdue University, 1993.

Award of Merit presented to Co-Major Professors (with Dr. J. Eales) of Ms. Alice Harmon who received the award for Best M.S. Dissertation in the Department of Agricultural Economics at Purdue University, 1998.

Honorable Mention presented to advisee Ms. Alice Harmon (with Co-Major Professor Dr. J. Eales) in the Best M.S. Dissertation for 1998 by the American Agricultural Economics Association at the Associations Annual Meeting in Nashville, Tennessee, August 1998.

Award of Merit presented to Major Professor of Dr. John A.L. Cranfield who received the award for Best Ph.D. Dissertation in the Department of Agricultural Economics at Purdue University, 1999.

Major Professor of Dr. John A.L. Cranfield who received the Award for Best Ph.D. Dissertation for 1999 by the American Agricultural Economics Association at the Associations Annual Meeting in Tampa, Florida, August 2000.

Neville Clarke Award for Outstanding Teamwork received as a member of the team for the joint International Livestock Research Institute/International Food Policy Research Institute Project "Policies for Sustainable Land Management in the Highlands of East Africa," 2001.

Award of Merit for Graduate Teaching, Gamma Sigma Delta, Purdue Chapter, 2003.

Outstanding Graduate Educator, Department of Agricultural Economics, Purdue University, 2003.

Distinguished Teaching: Outstanding Graduate Teaching More than Ten Years, American Agricultural Economics Association, 2003.

2007 Seeds for Success Award, Purdue University.

2008 Millionaires' Club Member, College of Agriculture, Purdue University.

2009 Dean's Team Award for service as Agricultural Economics Coordinator for the DDGS Research Project, College of Agriculture, Purdue University.

2010 Millionaires' Club Member, College of Agriculture, Purdue University.

Award of Merit presented to Major Professor of Samuel V. Brown who received the award for Outstanding M.S. Thesis in the Department of Agricultural Economics at Purdue University, 2010.

2015 Dean's Team Award for service as a member of the Useful to Usable (U2U) Project, College of Agriculture, Purdue University.

NIFA Partnership award for service as a member of the Useful to Usable (U2U) Project, USDA.

Research Grants Received

1984 "Development and Application of Summary Functions," \$49,000 USDA/ERS

1988 "Environmental Impacts of the Introduction of Bovine Somatotropin," \$37,000 Monsanto Corporation

1988 "Optimization of Swine Production Systems," \$35,000 Purdue Agricultural Experiment Station

1988 "Budgeting Hog Enterprises with Price Risk Analysis," \$3,500 Purdue Agricultural Experiment Station

1988 "Budgeting Feeder Cattle Enterprises with Price Risk," \$1,200 Indiana Beef Cattle Association

1990 "Introduction of BST: Environmental Effects," \$4,260 Monsanto Corporation

1990 "The Optimal Location of a P.E.T. Plastic Food Container Plant in the Eastern U.S.," \$2,800 Indiana Value Added Research Center

1991 "Economic Analysis of TOBEC in a Pork Packing Plant," \$13,951 National Pork Producers Council

1992 "Determining Producer Profit Maximizing Slaughter Weights for Three Swine Genotypes under Alternative Pricing Systems," \$3,000 Indiana Pork Producers Association

- 1993 “Farm Policy in the Post-1995 Period: An Integrated Micro/Macro Approach,” \$19,800 Purdue Research Foundation
- 1994 “Pig 1.0 an Undergraduate Teaching Tool,” \$5,000 Purdue University
- 1994 “Evaluation of Conservation Technical Assistance and Watersheds Programs,” \$36,000 USDA/SCS. Renewed 10/95 for \$69,000. Renewed 10/95 for \$64,000. Renewed 10/96 for \$29,000
- 1996 “Analysis of Phytase Adoption by Pork Producers,” \$5,000 Indiana Pork Producers Association
- 1996 Purdue Research Foundation International Travel Grant, \$1,000, Purdue Research Foundation
- 1996 “Valuing Financial Derivatives: Key to the Future of World Financial Markets,” \$22,080, Purdue Research Foundation
- 1996 “Using Gaussian Quadrature for Selecting a Sample of Representative Farms,” \$5,000, United States Department of Agriculture, Economic Research Service
- 1997 “Global Food Demand in the Year 2020: Implications for U.S. Exports,” \$119,305, United States Department of Agriculture, National Research Initiative Competitive Grants Program
- 1998 “Analysis of the Consequences of Alternative Structural Arrangements on the Agricultural Sector,” \$26,000, United States Department of Agriculture, Economic Research Service, Cooperative Agreement
- 1998 “Economic Impact of Proposed Manure Management Guidelines on Indiana Swine Farms,” \$15,300, Purdue Cooperative Extension Service
- 1999 “Breaking the Curse of Aggregation: A Demand Systems Analysis of Indiana Welfare Reforms,” \$23,332, Purdue Research Foundation
- 1999 “Modeling the Impact of Policy and Technology Intervention in Crop-Livestock Production Systems,” \$25,500, International Livestock Research Institute, Addis Ababa, Ethiopia
- 1999 “Technological Progress in Livestock Production and Poverty,” \$13,855, International Livestock Research Institute, Addis Ababa, Ethiopia
- 1999 “Analysis of the Consequences of Alternative Structural Arrangements on the Agricultural Sector,” \$10,000, United States Department of Agriculture, Economic Research Service, Cooperative Agreement

- 2000 “Analysis of the Consequences of Alternative Structural Arrangements on the Agricultural Sector – Extension,” \$20,000, United States Department of Agriculture, Economic Research Service, Cooperative Agreement
- 2000 “Supply Chain Optimization and Protocol Environment (SCOPE): A Modeling Environment for Extended Enterprises,” \$100,000, National Science Foundation, Scalable Enterprise System Program
- 2000 “Productivity Convergence in Livestock Production,” \$35,000, United States Department of Agriculture, National Research Initiatives Competitive Grants Program
- 2001 “Bio-economic modeling of crop-livestock interactions in mixed farming systems for policy and technology evaluation in the East African Highlands,” \$25,000, International Livestock Research Institute, Addis Ababa, Ethiopia
- 2001 “Economic Analysis of Paylean™ Fed to Finishing Hogs,” \$36,036, Elanco Animal Health
- 2001 “Scalable Enterprises: Supply Chain Optimization and Protocol Environment (SCOPE): A Rapid Prototyping and Modeling Tool for Extended Enterprises,” \$620,000 National Science Foundation, Scalable Enterprise System Program
- 2002 “Productivity Convergence in Livestock and Crop Production: Implications for the Composition of World Food Trade,” \$96,000, United States Department of Agriculture, National Research Initiatives Competitive Grants Program
- 2002 “Management Strategies for Feeding Paylean™ to Finishing Hogs,” \$36,036, Elanco Animal Health
- 2002 “Graduate Recruitment Initiative Proposal,” \$9,000, Vice President for Research and Graduate Education, Purdue University
- 2003 “Evaluation of Potential Improvements in Management Using Automatic Weighing Systems,” \$8,150, Elanco Animal Health
- 2005 “Swine Production: Strategies for Managing Growth Variation,” \$14,915, Purdue Research Foundation
- 2007 “State Utility Forecasting Group,” \$1.3 million, Indiana Utility Regulatory Commission
- 2007 “Implementation of Synfuel Park,” \$37,000 Center for Coal Technology Research
- 2008 “Development of a Primer to Aid Rural Utilities in the Evaluation of Renewable Power Opportunities,” \$50,000, U.S. Department of Agriculture, Office of Energy Policy and

New Uses; Renewed 9/2009 for \$18,000

- 2008 Purdue Research Foundation International Travel Grant, \$1,000, Purdue Research Foundation
- 2009 “Continuing the Work of the State Utility Forecasting Group I,” \$1.1 million, Indiana Utility Regulatory Commission
- 2010 “Increasing Electricity Trading and Environmental Sustainability in Southeast Europe,” \$30,000, Purdue Global Policy Research Institute
- 2010 “Useful to Usable (U2U): Transforming Climate Variability and Change Information for Cereal Crop Producers,” \$5 million, USDA/NIFA (P.I. Prokopy)
- 2011 “Continuing the Work of the State Utility Forecasting Group II,” \$1.1 million, Indiana Utility Regulatory Commission
- 2012 “Assessment of the National Prospects for Biopower,” \$47,000, U.S. Department of Agriculture
- 2012 “GAMS Software License Maintenance,” \$3,864, Kinley Trust
- 2013 “Continuing the Work of the State Utility Forecasting Group III,” \$1.1 million, Indiana Utility Regulatory Commission
- 2013 “Building a Bio-economic Farm Household Model for Simulating the Impacts of Socio-economic, Policy, Technological and Climate Changes in Vulnerable Areas of Jordan,” \$162,000 ICARDA
- 2014 “Independent Energy and Peak Demand Forecasts to the Midcontinent System Operator (MISO),” \$1,527,055, Midcontinent Independent Systems Operator
- 2015 “Continuing the Work of the State Utility Forecasting Group IV,” \$1.3 million, Indiana Utility Regulatory Commission

University Teaching Experience

Courses Taught

- 1984- AGEC 652 – Application of Quantitative Analysis: Mathematical Programming
- 1988 AGEC 690E – Agricultural Applications of Linear Programming
- 1991,1993 AGEC 690Z – Mathematical Modeling in Agricultural Economics
- 2011- AGEC 552 – Introduction to Mathematical Programming

Courses Supervised

1985-2001 AGEC 690B – Computer Usage in Agricultural Economics
1987 AGEC 452 – Quantitative Techniques for Farm Decision Making

Completed Graduate Theses Supervised

Nelson, Charles H., “Resource Allocation and Crop Insurance,” Ph.D. Thesis, May 1986.

Menzie, Keith L., “An Analysis of Factors Affecting the Organization of a Cooperative Food Manufacturing and Distribution System,” Ph.D. Thesis, May 1986.

Venkateswaran, Meenakshi, “Impact of Weather and Crop Price Information on Grain Marketing Decisions under Risk and Uncertainty,” Ph.D. Thesis, December 1989.

Spinelli, Felix J., “A Dynamic Quarterly Multi-Stage Partial Equilibrium Model of the U.S. and Canadian Swine Industries,” Ph.D. Thesis, August 1991.

DeVuyst, Eric A., “Moment Preserving Approximations of Multivariate Probability Distributions for Decision and Policy Analysis: Theory and Applications,” Ph.D. Thesis, December 1993.

Etyang, Martin N., “Improving Machinery Investment Decisions,” Ph.D. Thesis, May 1994.

Mwanaumo, Anthony, “The Effects of Maize Marketing Policy Reforms in Zambia,” Ph.D. Thesis, May 1994.

Boland, Michael A., “Economic Optimization of Animal Replacement, Ration Composition, and Nutrition Management: An Application to Pork Production,” Ph.D. Thesis, August 1996.

Mdafri, Abdellah, “Profitability of Crops and Livestock Production in the Setatt Province of Morocco,” Ph.D. Thesis, May, 1996.

Liu, Songquan, “Gaussian Quadrature and Its Applications,” Ph.D. Thesis, August, 1997.

Harmon, Alice M., “Maximum Entropy-based Seemingly Unrelated Regression,” M.S. Thesis, December, 1998.

Cranfield, John A.L., “Aggregating Non-linear Consumer Demands – A Maximum Entropy Approach,” Ph.D. Thesis, August 1999.

Eskigun, Erdem, “Outbound Supply Chain Network Design for a Large-Scale Automotive Company,” Ph.D. Thesis (Industrial Engineering), August 2002.

Lillywhite, Jay M., "Using Nonparametric Methods to Improve Parametric Demand Estimation in the Presence of Binding Non-negativity Constraints with Application to Agribusiness Management," Ph.D. Thesis, May 2003.

Settlage, Daniel M., "Robustness of Nonparametric Measurement of Efficiency and Risk Aversion: A Simulation Analysis with Applications to Agricultural Banking and Ethiopian Farming," Ph.D. Thesis, August 2003.

Li, Ning, "Economic Analysis of Optimal Production and Marketing Management Strategies for Swine Production and Operations with Paylean," Ph.D. Thesis, August 2003.

Winslow, Noah, "Reducing the Cost of Demand Uncertainty Through Postponed Processing in Seed Corn," M.S. Thesis, December 2003.

Ivanic, Rastislav, "Market Power and Welfare Effects in a Two-Stage Electricity Market with Transmission Constraints: A Stochastic Equilibrium Approach," Ph.D. Thesis, December 2004.

Lu, Liwei, "Assessment of the Reliability of Indiana's Electricity Generation System," M.S. Thesis, May 2009.

Bista, Bhawna, "Corn-to-Ethanol Dry Mill Plants: Economic Evaluation of Technology and Location Choice," Ph.D. Thesis, August, 2009.

Yigezu, Yigezu A., "Economics of Integrated Pest Management in Stored Corn," Ph.D. Thesis, December, 2009.

Ruangpattana, Suriya, "Analysis of Load Factor for Fuel Diversification," Ph.D. Thesis (Industrial Engineering), May 2010.

Brown, Samuel, "Rural Electric Cooperatives' Adoption of Renewable Energy Technology," M.S. Thesis, August 2010.

Canchi, Devendra, “Financial Transmission Rights Valuation and Auction Structure,” Ph.D. Thesis, August 2010.

Tuzuner, Akiner, “A Stochastic Equilibrium Model of the World Crude Oil Market,” Ph.D. Thesis (Industrial Engineering), December 2010.

Allen, B. “An Economic and Emissions Analysis of Electricity Generation Using Biomass Feedstock in Co-fired and Direct Fired Facilities,” M.S. Thesis, August, 2011.

Davis, C. “Three Essays on the Effect of Wind Generation on Power System Planning and Operations,” Ph.D. Thesis, May 2013.

Giraldo, J. “An Economic Analysis of the Electricity Generation Potential from Biogas Resources in the State of Indiana,” M.S. Thesis, May 2013.

Graduate Committee Service

Chair or Co-chair, Ph.D. Advisory Committees for: Menzie, Nelson, Venkateswaran, Spinelli, DeVuyst, Etyang, Mwanaumo, Liu (Songquan), Boland, Mdafri, Cranfield, Settlege, Eskigun, Ivanic (Rastislav), Lillywhite, Li (Ning), Canchi, Tuzuner, Ruanpattana, Yigezu, Bista, Lu, Ozkaya, Davis, Velastegui, Boussios, Song, Amankwah, Geraldo, Kim, McClain, Opgrand
Chair, Master's Advisory Committee for: Nixon, Harmon, Winslow, Lu, Brown, Allen, Giraldo, Jiang, Ishinabe

Member, Ph.D. Advisory Committees for: Andresen, Roth, Featherstone, Moss, Ehui, Sukhum, Turvey, Peterson, Rendleman, Langemeier, Yang, Habash, Lopez, Bever, Holloway, Haley, Dai, Foltz, Kim, Choi, Farhangi, Katepa, Kwack, Lanclos, Gu, Adesina, Vandever, Nixon, Brown, Chyc, Coulibali, M'Ahmed, Senatré, Liang, Arndt, Dalton, Dimaranan, Ianchovichina, Kallio, Sidibe, Hutchinson, Al-Khal, Liu (Jing), Hyde, Luo, Gloy, Swaminathan, Maung, Karaky, Davis, Johnson, Nin-Pratt, Langyintuo, Williams, Hyde, Walter, Yu, Poray, Slinsky, Asmundson, Pascual, Naidoo, Uluca, Wu (Jianghua), Ivanic (Maros), Aouam, Ludena, Wubeneh, Golub, Sourirajan, Upasani, Valenzuela, Diabat, Alenezi, Delbecq, Villoria, Verma, Martcho, Coulibaly, Ibrahim, Li, Djido, Sun, Liu (Yangxuan), Rosch

Member, Master's Advisory Committees for: Boyd, Mwanaumo, Merz, Tsigas, Ensink, Millar, M'Ahmed, Al-Essa, Han, Maddux, Estes, Luo, Allen, Nydene, Howard, Hallman, Stair, Ndungu, Ivanic (Maros), Smardo, Kozlitina, West, Ngeleza, Paredes, Tran, Viteri, Fahie, Satija, Lunik
M.S.-M.B.A Program Mentor for: Montgomery, Maschhoff, Sawatzky

Service – National Program Reviews

University of Delaware, 2001

University of Nevada – Reno, 2008

Service – Regional Research Committees

Risk Management Strategies for Agricultural Production Firms (S-180), Participant 1987-1989
Quantifying Long Run Agricultural Risks and Evaluating Farmer Responses to Risk (S-232), Participant 1988-93
Adjustments to a Dynamic Livestock-Meat Sector (S-227), Representative 1988-94
Ecology and Management of European Corn Borer and Other Stalk-Boring Lepidoptera (NC-205), Participant 1998, Representative 1999-, Annual Meeting Host (Indianapolis) 2002

Service – Honor Society

Assistant Secretary, Purdue Chapter of Phi Kappa Phi Honor Society, 1983-1984
Executive Council Member, Purdue Chapter of Phi Kappa Phi Honor Society, 1984-1987

Service – Departmental/University Committees

Departmental Computer, Member, 1983-1990, 1993-97, Chair 1997-2001, 2011-2013
Departmental Graduate Admissions, Member 1987-1990, Chair 2001-
Departmental Preliminary Examinations, Chair 1995-7
Departmental Preliminary Examination Areas (Computational Science and Engineering, Operations Research, Production, Risk), Member or Chair 1985-
Departmental Seminar, Chair 1986-1988
Departmental Space, Member 1989-
University Grade Appeals, Member 1990-96
University Staff Appeals Board for Traffic Regulations, Member 1998-2001
Departmental Awards, Chair 2005-2007
College Promotion and Tenure Standards Committee, Member 2012-2013
Faculty Search Committee – Risk Management, Chair 2015

Service – Reviewer

Operations Research

American Journal of Agricultural Economics

Mathematical Programming

Journal of Agricultural and Resource Economics (formerly Western Journal of Agricultural Economics)

Review of Agricultural Economics (formerly North Central Journal of Agricultural Economics)

Journal of Agricultural and Applied Economics (formerly Southern Journal of Agricultural Economics)

European Review of Agricultural Economics

Agricultural Economics

Agricultural and Resource Economics Review (formerly North Central Journal of Agricultural Economics)

Journal of Production Agriculture
International Economic Review
Agricultural Finance Review
Cahiers d'Economie et Sociologie Rurales
National Science Foundation
United States Department of Agriculture
Consortium for Plant Biotechnology Research
University of Delaware, External Reviewer for the Department of Food and Resource Economics
Swiss Center for International Agriculture
Manufacturing and Service Operations Management
Management Science
Journal of Animal Science
The Energy Journal
Journal of Environmental Economics and Management
Entropy
Economic Systems Research
Canadian Journal of Agricultural Economics
Climatic Change
Resource and Energy Economics
European Journal of Operations Research

Service – Editorial

Associate Editor, American Journal of Agricultural Economics, 1990-1993
Guest Editor, Manufacturing and Service Operations Management, 2002-2003
Editorial Staff, Manufacturing and Service Operations Management, 2003-2005
Co-editor, American Journal of Agricultural Economics, 2005-2010

Service – Community

Wabash River Cycle Club, Vice President 1999-2000
West Lafayette Library Foundation Board, Vice President 2000-2001, President 2001-2004

Memberships in Professional Societies

American Agricultural Economics Association
American Economics Association
Institute for Operations Research and Management Science (INFORMS)
Stanford Operations Research Society (Chairman and Founder, 1980-81)

Consulting

Electric Power Research Institute in Palo Alto, California during 3/80-3/83
Control Analysis Corporation in Palo Alto, California during 9/80-7/81

Hudson Institute in Croton-on-Hudson, New York during 9/82-11/82
University of Delaware during 1/95
U.S. Agency for International Development in Rabat, Morocco during 5/95-9/95
Consortium for Plant Biotechnology Research during 7/96-6/98
World Bank during 10/00-1/05
Land O' Lakes during 7/03-9/03
Chemonics International during 12/06 and 11/07
U.S. Department of Agriculture 2/09-11/09
Natural Heritage Institute, August 2012-

January 2016