

## **MARIO JAVIER MIRANDA**

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### **Personal**

Born: 23 September 1954, Havana, Cuba  
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### **Introduction**

Mario Miranda is currently a Professor of Agricultural, Environmental, and Development Economics at The Ohio State University. His research has focused on the modeling of stochastic dynamical systems in economics with application to international economic development, agricultural finance, agricultural risk management and insurance, agricultural and environmental policy, food security, commodity pricing, and industrial organization. His research has produced one book, which has been adopted by seven of the top ten ranked doctoral programs in Economics in the world; over 50 peer-reviewed articles, two of which are among the three most frequently cited articles in the field of “agricultural insurance”; and several computational modeling and risk management software packages. He has also won numerous university research and teaching awards.

Professor Miranda served seven years as Director of Graduate Programs in the Department of Agricultural, Environmental, and Development Economics at The Ohio State University, ranked by National Research Council as top program in its field in USA. Miranda currently serves as an Associate Editor of the Journal of Economic Dynamics and Control, the Journal of Computational Economics, and the Journal of Risk Analysis and Crisis Response. He has served as a consultant to the World Bank, U.S. Agency for International Development, the Food and Agriculture Organization of the United Nations, the Chicago Board of Trade, numerous private corporations, and several branches of the U.S. Department of Agriculture, including the Economic Research Service, Risk Management Agency, Federal Crop Insurance Corporation, and the Office of the Chief Economist. He has acquired extensive international experience, having worked on major research projects or taught graduate-level courses in Bolivia, China, Colombia, Costa Rica, Ghana, Honduras, Italy, Mexico, Morocco, Nicaragua, Peru, and Tanzania. Miranda holds a dual Ph.D. in Economics and Industrial Engineering from the University of Wisconsin – Madison.

## Education

- Ph.D. Economics and Operations Research, University of Wisconsin-Madison, 1985
- M.S. Economics, University of Wisconsin - Madison, 1984
- B.A. Mathematics, College of Wooster, 1976

## Employment

- Professor, Department of Agricultural, Environmental, & Development Economics, The Ohio State University, 1998-Present.
- Visiting Research Scholar, Development Research Group, The World Bank, 2012.
- Assistant/Associate Professor, Department of Agricultural, Environmental, & Development Economics, The Ohio State University, 1988-1998.
- Assistant Professor, School of Business Administration, University of Connecticut, 1986-1988.
- Post-Doctoral Fellow, Mathematics Research Center, University of Wisconsin-Madison, 1985-1986.

## Editorial Service

- Associate Editor, Journal of Economic Dynamics and Control, 2000-2015.
- Associate Editor, Computational Economics, 1998-present.
- Associate Editor, American Journal of Agricultural Economics, 1996-2001.

## Honors

- Named Andersons Professor of Agricultural Finance and Risk Management, The Ohio State University, 2006-2013.
- Outstanding Teaching Award. College of Food, Agricultural, and Environmental Sciences, The Ohio State University, 2001.
- Outstanding Research Award. Ohio Agricultural Research and Development Center, 1999.
- Rodney F. Plimpton Outstanding Teacher Award. College of Food, Agricultural, and Environmental Sciences, The Ohio State University, 1998.
- Gamma Sigma Delta Research Award of Merit, The Ohio State University, 1997.
- Harold O. Wilson Prize for Mathematics, The College of Wooster, 1976.
- Phi Kappa Phi, 1990.
- Sigma Delta, 1985.

## Book

- Miranda, Mario J. and Paul L. Fackler. 2002. *Applied Computational Economics and Finance*. Cambridge, MA: MIT Press.

## Articles in Peer Reviewed Publications

- Glauber, Joseph W. and Mario J. Miranda. Forthcoming 2016. "The Effects of Southern Hemisphere Crop Production on Trade, Stocks and Price Integration." Forthcoming in *Food Price Volatility and its Implications for Food Security and Policy*, Matthias Kalkuhl, Joachim von Braun, Maximo Torero, eds. Springer-Verlag.
- Farrin, Katie and Mario J. Miranda. 2015. "A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption." *Journal of Development Economics* 116(5):199-211.
- Wu, Ruohan and Mario J. Miranda. 2015. "Exports, Innovation and Production Growth: A Dynamic Heterogeneous Firm Model with Learning and Entry Costs." Forthcoming, *The Journal of International Trade & Economic Development* 24(8):1037-1053.
- Miranda, Mario J. and Kathleen M. Farrin. 2012. "Index Insurance for Developing Countries." *Applied Economic Perspectives and Policy* 34(3):391-427.
- Miranda, Mario J. and Claudio Gonzalez-Vega. 2011. "Systemic Risk, Index Insurance, and Optimal Management of Agricultural Loan Portfolios in Developing Countries." *American Journal of Agricultural Economics* 93(2):399-406.
- Nadolnyak, Denis, Mario J. Miranda, and Ian M. Sheldon. 2010. "Genetically Modified Crops as Real Options: Identifying Regional and Country-Specific Differences." *International Journal of Industrial Organization* 29(4):455-463.
- Makaudze, Ephias M. and Mario J. Miranda. 2010. "Catastrophic Drought Insurance Based on Remotely Sensed Normalized Difference Vegetation Index for Smallholder Farmers in Zimbabwe." *Agrekon* 49(1):418-432.
- Daigneault, Adam J., Mario J. Miranda, and Brent Sohngen. 2010. "Optimal Forest Management with Carbon Sequestration Credits and Endogenous Fire Risk." *Land Economics* 86(1):155-172.
- Chen, Shu-Ling and Mario J. Miranda. 2008. "Modeling Texas Dryland Cotton Yields, with Application to Crop Insurance Actuarial Rating." *Journal of Agricultural and Applied Economics* 40(1):239-252.
- Khalil, Abedalrazq F., Hyun-Han Kwon, Upmanu Lall, Mario J. Miranda, and Jerry R. Skees. 2007. "El Niño-Southern Oscillation-Based Index Insurance for Floods: Statistical Risk Analyses and Application to Peru." *Water Resources Research* 43(10):W10416.
- Vedenov, Dmitry V., Mario J. Miranda, Robert Dismukes, and Joseph W. Glauber. 2006. "Portfolio Allocation and Alternative Structures of the Standard Reinsurance Agreement." *Journal of Agricultural and Resource Economics* 31(1):57-73.
- Katchova, Ani L., Mario J. Miranda, and Claudio Gonzalez-Vega. 2006. "A Dynamic Model of Individual and Group Lending in Developing Countries." *Agricultural Finance Review* 66(2):251-265.
- Katchova, Ani L., Ian M. Sheldon, and Mario J. Miranda. 2005. "A Dynamic Model of Oligopsony and Oligopoly in the Potato Processing Industry." *Agribusiness: An International Journal* 21(3):409-428.

- Miranda, Mario J. 2005. "Teaching Computational Economics in an Applied Economics Program." *Computational Economics* 25(3):229–254.
- Vedenov, Dmitry V., Mario J. Miranda, Robert Dismukes, and Joseph W. Glauber. 2004. "Economic Analysis of Standard Reinsurance Agreement." *Agricultural Finance Review* 64(2):119–134.
- Katchova, Ani L. and Mario J. Miranda. 2004. "Two-Step Econometric Estimation of Farm Characteristics Affecting Marketing Contracts Decisions." *American Journal of Agricultural Economics* 86(1):88–102.
- Miranda, Mario J. and Dmitry V. Vedenov. 2001. "Innovations in Agricultural and Natural Disaster Insurance." *American Journal of Agricultural Economics* 83(3):650–655.
- Vedenov, Dmitry V. and Mario J. Miranda. 2001. "Numerical Solution of Dynamic Oligopoly Games with Capital Investment." *Economic Theory* 18(1):237–261.
- Makki, Shiva S., Luther G. Tweeten, and Mario J. Miranda. 2001. "Storage-Trade Interactions under Uncertainty: Implications for Food Security." *Journal of Policy Modeling* 23(2):127–140.
- Skees, Jerry R., Peter B.R. Hazell, and Mario J. Miranda. 2000. "Nuovi Approcci per le Assicurazioni in Agricoltura nei Paesi in via di Sviluppo." *Rivista di Politica Agraria* 18():31–35.
- Miranda, Mario J. 1998. "Numerical Strategies for Solving the Nonlinear Rational Expectations Commodity Market Model." *Computational Economics* 11(1/2):71–87.
- Miranda, Mario J. and Xiongwen Rui. 1997. "Maximum Likelihood Estimation of the Nonlinear Rational Expectations Asset Pricing Models." *Journal of Economic Dynamics and Control* 21(8-9):1493–1510.
- Miranda, Mario J. and Joseph W. Glauber. 1997. "Systemic Risk, Reinsurance, and the Failure of Crop Insurance Markets." *American Journal of Agricultural Economics* 79(1):206–215.
- Makki, Shiva S., Luther G. Tweeten, and Mario J. Miranda. 1996. "Wheat Storage and Trade in an Efficient Global Market." *American Journal of Agricultural Economics* 78(4):879–90.
- Yavus, Fahri, Carl Zulauf, Gary D. Schnitkey, and Mario J. Miranda. 1996. "A Spatial Equilibrium Analysis of Regional Structural Change in the U.S. Dairy Industry." *Review of Agricultural Economics* 18(4):693–703.
- Rui, Xiongwen and Mario J. Miranda. 1996. "Solving Nonlinear Dynamic Games via Orthogonal Collocation: An Application International Commodity Markets." *Annals of Operations Research* 68(1-4):89–108.
- Miranda, Mario J. and Joseph W. Glauber. 1995. "Solving Stochastic Models of Competitive Trade and Storage by Chebychev Collocation Methods." *Agricultural and Resource Economics Review* 24(1):70–77.
- Miranda, Mario J. and Gary D. Schnitkey. 1995. "An Empirical Model of Asset Replacement in Dairy Production." *Journal of Applied Econometrics* 10(S):S41–S55.

- Sun, Theresa Y., Mario J. Miranda, and C.S. Kim. 1994. "Commodity Market Dynamics under Rational Expectations and Government Price Support Program." *Journal of Economics* 20(1).
- Miranda, Mario J., Frank Novak, and Mel Lerohl. 1994. "Acreage Response under Canada's Western Grains Stabilization Program." *American Journal of Agricultural Economics* 76(2):270-76.
- Coltman, Russell T., Gary D. Schmitkey, and Mario J. Miranda. 1994. "Scheduling Efficiencies of Farm-to-Plant Milk Collection in Western Ohio." *Agribusiness: An International Journal* 10(2):179-191.
- Miranda, Mario J. and Joseph W. Glauber. 1993a. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding." *Review of Economics and Statistics* 75(3):463-70.
- Schmitkey, Gary D. and Mario J. Miranda. 1993. "The Impact of Pollution Controls on Livestock-Crop Producers." *Journal of Agricultural and Resource Economics* 18(1):25-36.
- Miranda, Mario J. and Joseph W. Glauber. 1993b. "Intraseasonal Demand for Fall Potatoes under Rational Expectations." *American Journal of Agricultural Economics* 75(1):104-112.
- Miranda, Mario J. and Joseph W. Glauber. 1991. "Providing Crop Disaster Assistance through a Modified Deficiency Payment Program." *American Journal of Agricultural Economics* 73(4):1233-1243.
- Miranda, Mario J. 1991. "Area-Yield Crop Insurance Reconsidered." *American Journal of Agricultural Economics* 73(2):233-242.
- Miranda, Mario J. and Joseph W. Glauber. 1990. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Markets." *Review of Futures Markets* 9(1):108-125.
- Glauber, Joseph W., Peter G. Helmberger, and Mario J. Miranda. 1989. "Four Approaches to Commodity Market Stabilization: A Comparative Analysis." *American Journal of Agricultural Economics* 71(2):326-337.
- Miranda, Mario J. and Peter G. Helmberger. 1988. "The Effects of Commodity Price Stabilization Programs." *American Economic Review* 78(1):46-58.
- Lowry, Mark N., Joseph W. Glauber, Mario J. Miranda, and Peter G. Helmberger. 1987. "Pricing and Storage of Field Crops: A Quarterly Model with Application to Soybeans." *American Journal of Agricultural Economics* 69(4):740-749.

### **Manuscripts under Review**

- Romero-Aguilar, Randall, Mario J. Miranda, and Joseph W. Glauber. "Food Security for Whom? The Effectiveness of Food Reserves in Poor Developing Countries." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University. Under review at the *Food Security*.
- Miranda, Mario J. and Kathleen M. Farrin. "How do Time and Money Affect Agricultural Insurance Uptake? A New Approach to Farm Risk Management Analysis". Technical Bulletin, US Department of Agriculture, Economic Research Service.

- Mulangu, Francis M. and Mario J. Miranda. "Cocoa Pricing Options and Their Implications for Poverty and Industrialization in Ghana". Revise and resubmit to *Agricultural Economics*.
- Liu, Xianglin, Yingmei Tang, and Mario J. Miranda. "Does Past Experience in Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China." Under review at the *China Agricultural Economic Review*.

### **Manuscripts under Preparation**

- Miranda, Mario J. and Kathleen M. Farrin. "On the Demand for Insurance in the Presence of Borrowing Saving." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Miranda, Mario J., Donald F. Larson, and Francis M. Mulangu. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Miranda, Mario J., Pu Liu and Elena Irwin. "Dependence Structure in Agricultural Index Insurance Design and Product Development." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Glauber, Joseph W. and Mario J. Miranda. "Asynchronous Production in Global Agricultural Commodity Markets: The Case of USA and Brazil Soybean Production." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Romero-Aguilar, Randall and Mario J. Miranda. "Sustainability of Regional Food Reserves When Default Is Possible." Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Romero-Aguilar, Randall and Mario J. Miranda. "Drivers of the World Grain Price Crisis in the Short- and Long-Run: A Spatial-Temporal Rational Expectations Equilibrium Approach." Working Paper, Department of Agricultural, Environmental & Development Economics.
- Li, Yiting and Mario J. Miranda. "Mitigation Index Insurance for Developing Countries: Insure the Loss or Insure the Signal?" Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Gallenstein, Richard, Khushbu Mishra, Mario J. Miranda and Abdoul Sam. "Willingness to Pay for Index Insurance Linked Loans in Northern Ghana" Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Mishra, Khushbu Mishra and Mario J. Miranda. "Dynamics of Technology Adoption by Gender" Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Chaudhry, Muhammad Imran and Mario J. Miranda. "Structural Determinants of Adoption of Artificial Insemination among Livestock Farmers in Pakistan"

- Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
- Guizar-Mateos, Isai, Mario J. Miranda, and Claudio Gonzalez-Vega. “The Role of Credit and Savings in the Dynamics of Technology Decisions and Poverty Traps.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Ali, Asif, Claudio Gonzalez-Vega, and Mario J. Miranda. “Financial Policies and Wealth Inequality: A Kuznetsian Story of Financial Deepening and Human Capital Accumulation.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Yen, Meng-Fen and Mario J. Miranda. “The Wage Premium and Market Structure: The Case of South Korea and Taiwan.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Liu, Xianglin, Randall S. Romero Aguilar, Shu-Ling Chen, and Mario J. Miranda. “The Global Food Price Crisis and China-World Rice Market Integration: A Spatial-Temporal Rational Expectations Equilibrium Model.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Miranda, Mario J. and Shu-Ling Chen. “The Effects of Crop Insurance on Upland Cotton Acreage Abandonment: A Real Options Approach.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Liu, Pu and Mario J. Miranda. “Designing an Optimal Rainfall Index Insurance Contract: The Case of Henan, China.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Liu, Pu, Mario J. Miranda and Elena Irwin. “Tail Dependence among Weather Indices: The Case of Iowa County-Level Rainfalls.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Chen, Yong, Mario J. Miranda, and Ciriya Jayaprakash. “Time Scales, Resilience and Optimal Policy in a Coupled Economic-Ecological System.” Working Paper, Department of Agricultural, Environmental & Development Economics, The Ohio State University.
  - Wang, Hui and Mario J. Miranda. “A Heterogeneous Agent Model of Strategic Credit Card Defaults over the Business Cycle.” Working Paper, Department of Economics, The Ohio State University.

### **Workshops and Short-Courses**

- Miranda, Mario J. and Dmitry V. Vedenov. “Applied Computational Economics.” One-day pre-conference workshop offered at the Triannual Conference of the International Association of Agricultural Economists, Milan, Italy, August 8-14, 2015.

- Miranda, Mario J. “Quantitative Methods for Agricultural and Environmental Policy Analysis.” Two-week course offered at the University of Ghana – Legon Campus, Accra, Ghana, June 8-19, 2015.
- Vedenov, Dmitry V., Mario J. Miranda and Randall Romero-Aguilar. “Applied Computational Economics.” One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Minneapolis, MN, July 26, 2014.
- Miranda, Mario J. “Applied Computational Economic Dynamics.” Two-week course offered at the University of Ghana – Legon Campus, Accra, Ghana, January 27 – February 7, 2014.
- Miranda, Mario J. “Applied Computational Economic Dynamics.” Three-week course offered at the Renmin University of China International Summer School, Beijing, China, July 3-19, 2013.
- Miranda, Mario J. “Applied Computational Methods for Economic Dynamics – Part II.” One-week course offered to the Central Bank of Costa Rica, San Jose, Costa Rica, April 8-12, 2013.
- Miranda, Mario J. “Applied Computational Methods for Economic Dynamics – Part I.” One-week course offered to the Central Bank of Costa Rica, San Jose, Costa Rica, Dec 3-9, 2012.
- Miranda, Mario J. and Dmitry V. Vedenov. “Applied Computational Economics.” One-day pre-conference workshop offered at the Annual Meeting of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 23, 2011.
- Miranda, Mario J. “Computational Economic and Finance.” Two-week course offered at the International Summer School in Economics, University of Los Andes, Bogota, Colombia, June 15-25, 2010.
- Miranda, Mario J. “Agricultural Index Insurance and Weather Derivatives.” One-day Workshop offered to the Masters in Microfinance Graduate Program, University of Bergamo, Bergamo, Italy, May 21, 2010.
- Miranda, Mario J. and Dmitry V. Vedenov. “Applied Computational Economics.” One-day pre-conference workshop offered at the Annual Meetings of the Agricultural and Applied Economics Association, Milwaukee, WI, July 25, 2009.
- Miranda, Mario J. “Computational Economics and Finance.” Two-week course offered at the International Summer School in Economics, University of Los Andes, Bogota, Colombia, June 23-July 7, 2009.

### **Computer Application Software**

- Miranda, Mario J. and Paul W. Fackler. “CompEcon: A Matlab Toolbox for Analysis of Computational Economic and Financial Models.” 1994-2015.
- Miranda, Mario J., Dmitry V. Vedenov, Joseph Glauber, and Robert Dismukes. “SRA-Sim: A Stochastic Dynamic Simulation Model for the Analysis of the U.S. Standard Reinsurance Agreement.” 1997-2002.
- Miranda, Mario J., Dmitry V. Vedenov, Gary Schnitkey, and Scott H. Irwin. “AgRisk: Decision Support for Agricultural Risk Management.” 1996-2002.



- Miranda, Mario J. and Joseph W. Glauber. "ComSim: A Suite of Stochastic Simulation Programs for the Analysis of Agricultural Policies under Production and Price Uncertainty." 1988-1995.
- Miranda, Mario J. "Y-Opt: A User-Friendly Program to Price Chicago Board of Trade Corn Reinsurance Options." 1994.

### **Book Chapters**

- Hopkins, Jeffrey W., Gary D. Schnitkey, Mario J. Miranda, Brent G. Sohngen, and Luther G. Tweeten. 2003. "Farmer's Incentives to Conserve Soil Resources: A Dynamic Model Applied to the North-Central United States." In *Land Quality, Agricultural Productivity, and Food Security: Biophysical Processes and Economic Choices at Local, Regional, and Global Levels*. Edited by Keith Daniel Wiege. Northampton, MA: Edward Elgar.
- Schreiner, Mark, Douglas H. Graham, and Mario J. Miranda. 1997. "Choices by Poor Households When the Interest Rate for Deposits Differs From the Interest Rate for Loans." In *Food Security, Diversification, and Resource Management: Refocusing the Role of Agriculture? Proceedings of the Twenty-third International Conference of Agriculture Economists*, edited by G. H. Peters and Joachim Von Braun. Farnham Surrey, United Kingdom: Ashgate.
- Glauber, Joseph W. and Mario J. Miranda. 1995. "Area-Yield Reinsurance." In *Crop Insurance and the 1995 Farm Bill*. Edited by Jerry Skees and Barry Barnett. Boulder, CO: Westview Press.
- Miranda, Mario J. 1995. "Maximum Likelihood Estimation of Nonlinear Rational Expectations Models by Orthogonal Polynomial Projection Methods." In *Advances in Computational Economics, Volume 5*. Edited by Manfred Gilli. Norwell, MA: Kluwer Academic Publishers.
- Glauber, Joseph W. and Mario J. Miranda. 1994. "Providing Catastrophic Yield Protection through a Target Revenue Program." In *Economics of Agricultural Crop Insurance: Theory and Evidence*. Edited by Darrell L. Hueth and William H. Furtan. Boston, MA: Kluwer Academic Publishers.

### **Research Bulletins and Monographs**

- Miranda, Mario J. 2008. *Lecture Notes in Financial Economics and Risk Management*, Department of Agricultural, Environmental, and Development Economics, The Ohio State University.
- Tanner, Mariah D., Luther G. Tweeten, Mario J. Miranda, and Brent Sohngen. 2004. Estimaciones de Costo e Implicancias de la Captura de Carbono en Suelos Agrícolas en Ohio. *Gestion Agroalimentaria Newsletter* No. 9.
- Miranda, Mario J. and Rodolfo Quirós. 2003. *Seguros de Índice para la Agricultura Boliviana*, SOW-016/03, Development Alternatives, Inc., Proyecto SEFIR, USAID/Bolivia.

- Harwood, Joy, Keith Coble, Joseph W. Glauber, Mario J. Miranda, Mike Price, Agapi Somwaru, and Paul Wescott. 1995. *Revenue Insurance: An Analysis of Selected Options*. U.S. Department of Agriculture Technical Bulletin.
- Heifner Richard G., Joseph W. Glauber, Mario J. Miranda, Gerald E. Plato, and Bruce H. Wright. 1990. *Futures, Options, and Farm Programs: Report to Congress on a Study Mandated by the Food Security Act of 1985*. U.S. Department of Agriculture Economic Research Service Staff Report No. AGES 90-03.
- Glauber, Joseph W., Joy L. Harwood, and Mario J. Miranda. 1989. *Federal Crop Insurance in the 1990 Farm Bill: An Assessment of Program Options*. U.S. Department of Agriculture Economic Research Service Staff Report No. AGES 89-45.
- Glauber, Joseph W. and Mario J. Miranda. 1989. *Subsidized Put Options as Alternatives to Price Supports*. U.S. Department of Agriculture Technical Bulletin 1773.
- Glauber, Joseph W., Mark N. Lowry, Mario J. Miranda, and Peter G. Helmberger. 1988. *Theory of Pricing and Storage of Field Crops*. Wisconsin Agricultural Experiment Station Technical Bulletin No. R3421, University of Wisconsin-Madison.

### Proceedings Papers

- Schreiner, Mark, Douglas H. Graham, and Mario J. Miranda. "The Effects of the Interest Rates for Lending and Borrowing on Subsistence Households", *Proceedings of the Annual Meeting of the International Association of Agricultural Economics*, Sacramento, California, August 10-16, 1998.
- Blue, Neil, Joao Martines-Filho, Mario J. Miranda, and Scott Irwin. "Dynamic Hedging Strategies for Soybean Producers." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, April 1994.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, April 1991, pp. 418-442.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Rational Risk Response Models for Storable Commodities." *Proceedings of the SR-232 Conference on Quantifying Long Run Agricultural Risks and Evaluating Farmer Responses to Risk*, March, 1991.
- Miranda, Mario J. "Area-Based Agricultural Insurance." *Proceedings of the Second Annual Conference on Farm Income Enhancement*, February 1991.
- Sun, Theresa Y. and Mario J. Miranda. "The Dynamics of Supply, Demand, and Price for Wheat Programs under Rational Expectations." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, April 1990, pp. 313-325.

- Miranda, Mario J. and Joseph W. Glauber. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Contracts." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, June 1989, pp. 53-77.
- Glauber, Joseph W. and Mario J. Miranda. "Subsidized Put Options as Alternatives to Price Supports." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, June 1989, pp. 331-353.
- Miranda, Mario J. and Joseph W. Glauber. "Subsidized Put Options as Alternatives to Price Supports." *Proceedings of the Symposium on Options, Futures, and Agricultural Commodity Programs*, U.S. Department of Agriculture Economic Research Service Staff Report No. AGES 870911, February 1988, pp. 72-83.
- Glauber, Joseph W. and Mario J. Miranda. "The Effects of Marketing Loans on Agricultural Markets." *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management*, June 1987, pp. 131-143.

### **Magazine Articles**

- Miranda, Mario J. "Manage Your Income Risk." *Farm Management Update*, 2000.
- Miranda, Mario J. "Visualizing Revenue Risk." *Challenge Magazine*, Summer 1999.
- Miranda, Mario J. "On Federal Crop Insurance Reform." *Challenge Magazine*, 1995.

### **Book Reviews**

- Miranda, Mario J. "Applications of Dynamic Programming to Agricultural Decision Problems." C. Robert Taylor (ed.), *American Journal of Agricultural Economics*, 1995.
- Miranda, Mario J. "Storage and Commodity Markets." by J.C. Williams and B.D. Wright, *Canadian Journal of Agricultural Economics*, 40(1992):510-511.

### **Unattributed Government Reports**

- *Futures, Options, and Government Programs*. Report to Congress. January 1990.
- *Policy Options to the Federal Crop Insurance Program*. Report to the Office of Management and Budget. July 1989.

### **Unpublished Monographs and Working Papers**

- Miranda, Mario J. "Structural Estimation of Dynamic Discrete Choice Models." Working Paper, Department of Agricultural, Environmental and Development Economics, The Ohio State University, 2015.
- Skees, Jerry R., Anne Goes, C. Sullivan, Richard Carpenter, Mario J. Miranda, and Barry J. Barnett. "Index Insurance for Weather Risk in Low Income Countries." USAID Microenterprise Development (MD) Office, USAID/DAI Prime Contract

- LAG-I-00-98-0026-00 BASIS Task Order 8, Rural Finance Market Development, December, 2006.
- Katchova, Aneila and Mario J. Miranda. "A Dynamic Model of Microlending in the Developing Countries." Working Paper, University of Illinois, 2005.
  - Miranda, Mario J., and Dmitry V. Vedenov. "Credit, Savings, Insurance, and Market Contracts in Long-Run Agricultural Risk Management." Working Paper, Department of Agricultural Economics, The Ohio State University, 2005.
  - Miranda, Mario J., and Yong Chen. "Solving the Krussel-Smith Heterogeneous Agent Model Numerically via History Truncation." Working Paper, Department of Agricultural Economics, The Ohio State University, 2005.
  - Miranda, Mario J., Upmanu Lal, Abedalrazq F. Khalil, and Hyun-Han Kwon "Actuarial Analysis of an ENSO-Based Risk Transfer Product for Peru", Working Paper, Department of Agricultural Economics, The Ohio State University, 2005.
  - Rodriguez, Jorge, Claudio Gonzalez, and Mario J. Miranda. "Co-Insurance Contracts under Dynamic Default Risk". Working Paper, Department of Agricultural Economics, The Ohio State University, 2005.
  - Miranda, Mario J. *Numerical Methods for Economists: A Primer*. Department of Agricultural Economics, The Ohio State University, March, 2004.
  - Fackler, Paul W. and Mario J. Miranda. "Solving Nonlinear Rational Expectations Models." Working Paper, Department of Agricultural Economics, The Ohio State University, 2003.
  - Surjandari, Isti, Marvin Batte, and Mario J. Miranda. "Spatial Analysis of Economic Gains from Variable Rate Input Applications." Working Paper, Department of Agricultural Economics, The Ohio State University, 2001.
  - Binici, Turan, Mario J. Miranda, and Carl Zulauf. "Rainfall Insurance for the Dryland Region of Turkey." Working Paper, Department of Agricultural Economics, The Ohio State University, 2000.
  - Miranda, Mario J. and Dmitry V. Vedenov. "Innovations in Agriculture and Natural Disaster Insurance." Working Paper, Department of Agricultural Economics, The Ohio State University, December, 2000.
  - Miranda, Mario J. and Dmitry V. Vedenov. "Design and Pricing of Rainfall Insurance Programs." Working Paper, Department of Agricultural Economics, The Ohio State University, December, 2000.
  - Miranda, Mario J. *Standard Reinsurance Simulator 2.0: Technical Reference*, Monograph, Department of Agricultural Economics, The Ohio State University, September, 2000.
  - Glauber, Joseph W. and Mario J. Miranda. "Price Stabilization, Revenue Stabilization, and the Natural Hedge." Working Paper, Department of Agricultural Economics, The Ohio State University, 1999.
  - Miranda, Mario J. and Xiongwen Rui. "An Empirical Reassessment of the Nonlinear Rational Expectations Commodity Storage Model." Working Paper, Department of Agricultural Economics, The Ohio State University, 1999.
  - Fackler, Paul W. and Mario J. Miranda. "Hybrid Methods for Continuous Space Dynamic Programming." Working Paper, Department of Agricultural Economics, North Carolina State University, 1999.

- Birchler, Donald, Ian Sheldon, and Mario J. Miranda. "Forward Contracts for Inputs as a Cause of Dumping in Markets for Processed Agricultural Goods." Working Paper, Department of Agricultural Economics, The Ohio State University, 1999.
- Miranda, Mario J. *AgRisk 1.0: Technical Reference*, Monograph, Department of Agricultural Economics, The Ohio State University, September, 1999.
- Hopkins, Jeffrey, Gary D. Schnitkey, Mario J. Miranda, and Luther Tweeten. "Learning From Yield Monitors." Working Paper, Department of Agricultural Economics, The Ohio State University, August, 1998.
- Schnitkey, Gary D. Jeffrey Hopkins, Mario J. Miranda, and Luther Tweeten. "Learning from Site-Specific Information: Bayesian Applications to Precision Agriculture." Working Paper, Department of Agricultural Economics, The Ohio State University, 1998.
- Hopkins, Jeffrey, Gary D. Schnitkey, Mario J. Miranda, and Luther Tweeten. "Optimal Cropland Degradation with Reversible and Irreversible Components." Working Paper, Department of Agricultural Economics, The Ohio State University, 1998.
- Nguyen, Genevieve and Mario J. Miranda. "Redistribution of Resources under Uncertainty and the Dynamics of Indigenous Risk Sharing Institutions." Working Paper, Department of Agricultural Economics, The Ohio State University, August, 1997.
- Miranda, Mario J. *Lecture Notes in Dynamic Computational Economics and Finance*. Department of Agricultural Economics, The Ohio State University, August 1994.
- Miranda, Mario J. *Pricing Crop Yield Options using Y-Opt 1.0*, Monograph, Department of Agricultural Economics, The Ohio State University, October, 1993.
- Glauber, Joseph W. and Mario J. Miranda. "Enhancing U.S. Exports: A Comparison of Marketing Loans and Export Subsidies." Working Paper, Department of Agricultural Economics, The Ohio State University, 1988.
- Miranda, Mario J. and Joseph W. Glauber. "Price Supports, Deficiency Payments and Market Stabilization." Staff Paper, School of Business Administration, University of Connecticut, 1987.
- Glauber, Joseph W. and Mario J. Miranda. "A Rational Expectations Model of Inventory Holding Under Risk and Uncertainty." Staff Paper, School of Business Administration, University of Connecticut, 1986.
- Glauber, Joseph W. and Mario J. Miranda. "The Effects of Marketing Loans on Agricultural Markets." Staff Paper, School of Business Administration, University of Connecticut, 1986.
- Miranda, Mario J. "A Computable Rational Expectations Model for Agricultural Price Stabilization Programs." Staff Paper, School of Business Administration, University of Connecticut, 1986.
- Lowry, Mark N. and Mario J. Miranda. "Convenience Yields and the Short-Run Behavior of Markets for Non-Farm Commodities." Staff Paper, Department of Mineral Economics, The Pennsylvania State University, 1986.
- Lowry, Mark N. and Mario J. Miranda. "Speculative Storage and the Seasonality of Markets for Heating Fuels." Staff Paper, Department of Mineral Economics, The Pennsylvania State University, 1986.

- Miranda, Mario J. *Analysis of Rational Expectations Models for Storable Commodities under Government Regulation*. Ph.D. Thesis, University of Wisconsin - Madison, June 1985.

### **Invited Paper Presentations**

- Miranda, Mario J. "Aplicaciones Innovadoras de Seguros Agropecuarios a Base de Indexados Para Promover el Crédito Agrícola en los Pequeños Productores." Presented at the International Seminar on Catastrophic Agricultural Insurance for Development Banks, Association of Latin American Development Banks (ALIDE), November 4, 2015.
- Miranda, Mario J. "Agricultural Index Insurance - Lessons Learned and Ways Forward." Presented at Food and Agriculture Organization of The United Nations, Rome, Italy, August 3, 2015.
- Miranda, Mario J., Francis Mulangu and Kathleen M. Farrin. "Agricultural Index Insurance and Credit in Africa: Lessons Learned and Ways Forward." Presented at the Climate Change and Multi-Dimensional Sustainability in African Agriculture, Sokoine University of Agriculture, Morogoro, Tanzania, June 3-5, 2015.
- Miranda, Mario J. and Kathleen M. Farrin. "A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption." Presented at the Annual Meetings of Allied Social Science Associations, Boston, MA, January 5, 2015.
- Miranda, Mario J. and Randall Romero-Aguilar. "CompEcon: Open Source Software for Dynamic Economic Modelling." Presented at the International Monetary Fund Workshop on Building Tools for Heterogeneous Agents Modeling, Washington DC, December 4, 2014.
- Miranda, Mario J., Joseph W. Glauber and Randall Romero-Aguilar. "Effects of Trends in Chinese Production, Consumption, and Price Support Policies on World Grain Price Volatility and Food Security." Presented at the World Bank Conference on Managing Food Price Volatility and Agricultural Trade Policy, Washington, DC, September 19, 2014.
- Miranda, Mario J. "Using Weather Index Insurance to Promote the Efficiency of Agricultural Credit Markets in Developing Countries." Sokoine University of Agriculture, Morogoro, Tanzania, August 4, 2014.
- Miranda, Mario J. "Coupled Credit and Index Insurance Contracts and Farm Technology Adoption." AFRACA International Fin4Ag Conference on Revolutionizing Finance for Agrivalue Chains, Nairobi, Kenya, July 16, 2014.
- Romero-Aguilar, Randall and Mario J. Miranda. "Drivers of World Grain markets in the Short and Long run." Presented at the 2nd International ZEF-IFPRI Workshop on Food Price Volatility and Food Security, Bonn, Germany, July 8, 2014.
- Glauber, Joseph W. and Mario J. Miranda. "Effects of Southern Hemisphere Production on Stocks, Trade and Prices." Presented at the 2nd International

- ZEF-IFPRI Workshop on Food Price Volatility and Food Security, Bonn, Germany, July 8, 2014.
- Miranda, Mario J. and Kathleen M. Farrin. "Coupled Credit and Index Insurance Contracts and Technical Transformation in Developing Countries: A Structural Dynamic Heterogeneous Agent Modelling Approach." Presented to the Department of Agricultural and Applied Economics, University of Georgia, Athens, Georgia, August 14, 2013.
  - Miranda, Mario J. and Kathleen M. Farrin. "Effects of Index Insurance on Aggregate Agricultural Loan Defaults and Technical Transformation." Presented at
    - Peking University, Beijing, China, June 21, 2013.
    - East China Normal University, Shanghai, China, June 24, 2013.
    - China Agricultural University, Beijing, China, June 25, 2013.
    - Research Center for Rural Economy, Beijing, China, July 1, 2013.
    - Central University of Finance and Economics, Beijing, China, July 3, 2013.
    - Chinese Academy of Agricultural Science, Beijing, China, July 4, 2013.
    - Renmin University of China, Beijing, China, July 9, 2013.
  - Miranda, Mario J., Donald F. Larson, and Kathleen M. Farrin. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Presented at the International Food Policy Research Institute - University of Bonn Conference on Food Price Volatility and Food Security, Bonn, Germany, January 31 to February 2, 2013.
  - Miranda, Mario J. "Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor." Presented to The World Bank, Development Research Department, Washington, DC, April 19, 2012.
  - Miranda, Mario J. and Kathleen M. Farrin. "Weather Index Insurance for Developing Countries." Presented to The Inter-American Development Bank, Washington, DC, June 27, 2012.
  - Miranda, Mario J. "Asset Liquidity, Savings, and Consumption Smoothing in a Village Economy Exposed to Systemic Income Risk", Presented at the Annual Meetings of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 23, 2011.
  - Miranda, Mario J. "Summary of Conference Findings", Presented at the Weather Index Insurance Workshop sponsored by the Alliance for Green Revolution in Africa, Cape Town, South Africa, Sep 18, 2010.
  - Miranda, Mario J. "Summary of Conference Findings", Presented at the Designing Index Based Weather Risk Management Programs Workshop, The World Bank, Washington, DC, December 13-15, 2010.
  - Miranda, Mario J. "Overview of Computational Techniques for the Analysis of Dynamic Economic Models", Presented to the Departments of Economics and Finance, University of Bergamo, Bergamo, Italy, May 17, 2010.
  - Miranda, Mario J. "El-Nino Southern Oscillation Index Insurance for Peruvian Agriculture", Presented to the School of Business, Technological University of Monterrey, Guadalajara, Mexico, April 20, 2010.

- Miranda, Mario J. "Introduction to Computational Economics", Presented to the Department of Economics, University of Guadalajara, Guadalajara, Mexico, April 19, 2010.
- Miranda, Mario J. "Survey of Modern Portfolio Theory", Presented to the School of Business, Technological University of Monterrey, Guadalajara, Mexico, Apr 21, 2010.
- Miranda, Mario J. "Systemic Risk, Index Insurance, and Agricultural Contracting in Developing Countries". Presented at the Conference on the Financing Agricultural Value Chains, San Jose, Costa Rica, January 21-23, 2010.
- Miranda, Mario J. and Claudio Gonzalez-Vega. "Index Insurance and the Optimal Management of Loan Portfolios in Rural Microfinance Institutions in the Presence of Systematic Risk." Presented at the Annual Meeting of the Allied Social Science Associations, Atlanta, GA, January 1-5, 2010.
- Miranda, Mario J. "Agricultural Insurance in Developing Countries: Practitioner's Perspectives", Presented at the Convening on Agricultural Insurance in Developing Countries, Bill and Melinda Gates Foundation, Seattle, WA, September 21, 2009.
- Miranda, Mario J. "Seguros Indexados para Países en Desarrollo: Aplicación al Riesgo Catastrófico El Niño" en Perú" Presented at the Universidad del Pacifico, Lima, Perú, September 4, 2009.
- Miranda, Mario J. "Riesgo Sistémico, Índice de Seguros y Manejo Óptimo de Portafolios de Préstamos Agrícolas en Países en Desarrollo." Presented at the Pontificia Universidad Católica del Perú, Lima, Perú, September 3, 2009.
- Miranda, Mario J. "Riesgo Sistémico, Seguros de Índice y Manejo Optimo de Carteras de Crédito Agropecuario en Países en Desarrollo". Presented at the Centro de Investigación y Docencia Económicas (CIDE), México City, México, August 28, 2009.
- Miranda, Mario J. "Index Insurance and the Optimal Management of Rural Bank and Microfinancial Institution Loan Portfolios in the Presence of Systemic Risk", Presented at the University of Kentucky, Lexington KY, May 6, 2009.
- Miranda, Mario J. "Index Insurance: Its Importance and Its Impediments" at The Boulder-Bergamo Forum on Access to Financial Services: Expanding the Rural Frontier, University of Bergamo, Italy, September 19, 2008.
- Miranda, Mario J. "Index Insurance for the Management of Catastrophic Risk in Developing Countries ", at the Pontificia Universidad Católica del Perú, Lima, Peru, August 26, 2008.
- Miranda, Mario J. "The Frontier of Computational Economics ", at the Centro de Investigacion y Docencia Economicas (CIDE), Mexico City, Mexico, June 18, 2008.
- Miranda, Mario J. "Index Insurance: Lessons from El Niño and Microfinance in Peru", at the Centro de Investigacion y Docencia Economicas (CIDE), Mexico City, Mexico, June 17, 2008.
- Miranda, Mario J. "Recent Advances in Computational Economics", Distinguished Faculty Lecture, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, May 1, 2008.



- Miranda, Mario J. "Numerical Methods in Economics" presented at the Pontifical Catholic University of Peru, Lima, Peru, December 16, 2005.
- Miranda, Mario J. "Savings, Borrowing, and Insurance in Long-Run Risk Management", presented to the Department of Agricultural Economics, Purdue University, West Lafayette, Indiana, April 22, 2004.
- Miranda, Mario J. "Numerical Methods for Macroeconomic Models with Heterogeneous Agents", presented to the Department of Economics, University of Washington, Seattle, Washington, April 2, 2004.
- Miranda, Mario J. "Collocation Methods for Stochastic Dynamic Economic Models", presented to the Department of Economics, Iowa State University, March 23, 2002.
- Miranda, Mario J. "Modern Approaches to the Numerical Solution of Stochastic Dynamic Economic Models", presented at the 6th International Conference in Economics, Middle Eastern Technical University, Ankara, Turkey, September 12, 2002.
- Miranda, Mario J. "Innovations in Agricultural and Natural Disaster Insurance" at the American Social Science Association Meetings in New Orleans, January 5-7, 2001.
- Miranda, Mario J and Dmitry V. Vedenov. "Numerical Solution to Dynamic Oligopoly Games with Capital Investment". Presented at Stanford Institute for Theoretical Economics Conference on Computational Economics and Economic Theory, Stanford, California, August 1-4, 2000.
- Miranda, Mario J. "Optimal Index Insurance Designs" at the Agroasemex Conference on New Directions in International Agricultural Insurance, Queretaro, Mexico, June 18-21, 2000.
- Miranda, Mario J. "Advanced Computational Economics and Finance", Short Course, Bilkent University, Ankara, Turkey, April 24-28, 2000.
- Miranda, Mario J. "Promising Practices in Rural Finance". Presented at Conference on Innovative Approaches to Crop Yield Insurance in Developing Countries, Frankfurt, Germany, San Jose, Costa Rica, December 13-15, 1999.
- Miranda, Mario J. "Coping with Risk: Are Rural Insurance Mechanisms Possible". Presented at Conference on New Development Finance, Frankfurt, Germany, September 27-October 2, 1999.
- Miranda, Mario J. "Critique of Agricultural Risk Models". Presented at the Symposium on The Farm Safety Net: What's in it for Agricultural Insurance, Annual Conference of the American Agricultural Economics Association, Nashville, Tennessee, September 27-October 2, 1999.
- Miranda, Mario J. "Computational Solution to Constrained Dynamic Games with Application to Commodity Markets". Presented at Stanford Institute for Theoretical Economics Conference on Computational Economics and Economic Theory, Stanford, California, July 4-8, 1999.
- Miranda, Mario J. "Innovations and New Approaches to Traditional Insurance Programs". Presented at World Bank Conference on Microfinance and Rural Finance: Where are We Going, Cusco, Peru, June 6-10, 1999.

- Miranda, Mario J. "The Simple Analytics of Catastrophic Risk." Presented at World Bank Roundtable on Agricultural Risk Management, Washington, DC, February 17, 1999.
- Miranda, Mario J. "Teaching Computational Economics in an Applied Economics Program." Plenary session of the Fourth Annual Meetings of the Society for Computational Economics, Stanford California, July 1997.
- Miranda, Mario J. "Frontiers of Applied Economics: Numerical Modeling in Agricultural and Resource Economics." First Annual Research Frontiers Seminar, Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Miranda, Mario J. "Estimating Structural Models of Commodity Markets with Government and Private Stockholding." The University of Illinois, Champaign, Illinois, September 1994.
- Miranda, Mario J. "Agricultural Insurance and Disaster Assistance Programs: A Critique." Presented at the American Enterprise Institute Conference on the 1995 Farm Bill, Washington, DC, November 1994.
- Miranda, Mario J. and Joseph W. Glauber. "Uninsurable Systemic Risk and the Failure of Crop Insurance Markets: A Case for Area-Yield Options." Presented at the Workshop on Designing New Programs for Managing Farm Production and Price Risks in the 21st Century: The Challenge for Agricultural Economists, Annual Meeting of the American Agricultural Economics Association, San Diego, California, August 1994.
- Glauber, Joseph W. and Mario J. Miranda. "Area Yield Reinsurance." Presented at Annual Meeting of the Western Economic Association, Vancouver, Canada, July 1994.
- Miranda, Mario J. "Systemic Risk, Crop Insurance, and Area-Yield Options Contracts." Board of Directors of the Chicago Board of Trade, Chicago, Illinois, July 1994.
- Miranda, Mario J. "Estimation of Nonlinear Rational Expectations Models using Polynomial Projection Methods." Conference on Computational Economics, sponsored by the International Federation of Automatic Control, Amsterdam, The Netherlands, June, 1994.
- Miranda, Mario J. "Recent Advancements in Numerical Solution Methods for Dynamic Agricultural Decision Models." Annual Meeting of the Nordic Research Project on Risk and Structural Change, Oslo, Norway, May, 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." The University of Wisconsin, Madison, Wisconsin and Iowa State University, Ames, Iowa, March 1993; Purdue University, West Lafayette, Indiana and the University of Illinois, Champaign, Illinois, March 1994; North Carolina State University, Durham, North Carolina, April 1994.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Rational Risk Response Models for Storable Commodities." Presented at Annual Meeting of the SR-232 Conference on Applied Risk Analysis, San Antonio, Texas, March 1991.

- Glauber, Joseph W. and Mario J. Miranda. "Providing Catastrophic Yield Protection through a Modified Deficiency Payment Program." Presented at the University of Maryland - University of Saskatchewan Conference for the Improvement of Crop Insurance, Regina, Saskatchewan, April 1990.
- Miranda, Mario J. "Analysis of Rational Expectations Models for Agricultural Markets Subject to Government Intervention." Presented at The World Bank, March 1986.

### **Selected Paper Presentations**

- Glauber, Joseph W. and Mario J. Miranda. "The Effects of Southern Hemisphere Crop Production on Trade, Stocks and Price Integration." Selected presentation, Triennial Conference of the International Association of Agricultural Economists, Milan, Italy, August 8-14, 2015.
- Chaudhry, Muhammad I. and Mario J. Miranda. "Structural Determinants of Adoption of Artificial Insemination among Livestock Farmers in Pakistan", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Liu, Xianglin, Yingmei Tang and Mario J. Miranda. "Does Past Experience with Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Gallenstein, Richard A., Khushbu Mishra, Mario J. Miranda, and Abdoul G. Sam. "Willingness to Pay for Rainfall Index Insurance Backed Loans and Basis Risk in Northern Ghana", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Romero-Aguilar, Randall and Mario J. Miranda. "Sustainability of Regional Food Reserves When Default Is Possible", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Mishra, Khushbu, Mario J. Miranda, and Abdoul G. Sam. "Gender and Dynamics of Agricultural Technology Adoption: Evidence from Uganda", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Li, Yiting and Mario J. Miranda. "Mitigation Index Insurance for Developing Countries: Insure the Loss or Insure the Signal? Selected Presentation", Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Guizar, Isai, Mario J. Miranda and Claudio Gonzalez-Vega. "Financial Intermediation and Poverty Trap Dynamics over the Life Cycle." Selected presentation, Annual Meeting of the Agricultural and Applied Economics Association, San Francisco, CA, July 26-28, 2015.
- Guizar, Isai, Claudio Gonzalez-Vega and Mario J. Miranda. "Uneven Influence of Credit and Savings Deposits on the Dynamics of Technology Decisions and

- Poverty Traps.” Selected presentation, Fourth European Research Conference on Microfinance, Geneva, Switzerland, June 1-3, 2015.
- Liu, Xianglin, Yingmei Tang, and Mario J. Miranda. “Does Past Experience in Natural Disasters Affect Willingness-to-Pay for Weather Index Insurance? Evidence from China.” Presented at the Annual Meeting of the Midwest Economics Association, St. Louis, MO, March 27-29, 2015.
  - Farrin, Kathleen M. and Mario J. Miranda. “Premium Benefits? A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
  - Romero Aguilar, Randall S., Shu-Ling Chen, Xianglin Liu, and Mario J. Miranda. “The Global Food Price Crisis and China-World Rice Market Integration: A Spatial-Temporal Rational Expectations Equilibrium Model.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
  - Yen, Meng-Fen and Mario J. Miranda. “The Wage Premium and Market Structure: The Case of South Korea and Taiwan.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
  - Guizar-Mateos, Isai, Mario J. Miranda, and Claudio Gonzalez-Vega. “The Role of Credit and Savings in the Dynamics of Technology Decisions and Poverty Traps.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
  - Miranda, Mario J., Kathleen M. Farrin, Donald F. Larson, and Shu-Ling Chen. “Differential Effects of Food Security Policies on Subsistence Farmers and the Urban Poor.” Presented at the Annual Meeting of the Agricultural and Applied Economics Association, Washington, DC, August 4-6, 2013.
  - Miranda, Mario J. and Kathleen M. Farrin. “A Heterogeneous Agent Model of Credit-Linked Index Insurance and Farm Technology Adoption.” Presented at the International Agricultural Risk, Finance, and Insurance Conference, Vancouver, Canada, June 16-18, 2013.
  - Collier, Benjamin, Jerry R. Skees, and Mario J. Miranda. “On the Efficient Management of Natural Disaster Risk Using Credit and Index Insurance.” 2012 Annual Meeting of the Agricultural and Applied Economics Association, Seattle, WA, August 12-14, 2012.
  - Liu, Pu and Mario J. Miranda. “Tail Dependence among Agricultural Insurance Indices: The Case of Iowa County-Level Rainfalls.” Presented at the Agricultural & Applied Economics Association 2010 Annual Meeting, Denver, Colorado, July 25-27, 2010.
  - Miranda, Mario J. “Systemic Risk, Index Insurance and Optimal Management of Agricultural Loan Portfolios in Developing Countries”, Presented at the Conference of the African Association of Agricultural Economists, Cape Town, South Africa, Sep 22, 2010.

- Chen, Shu-Ling and Mario J. Miranda. "Effects of Insurance on Farmer Crop Abandonment." Presented at the Annual Conference of the American Agricultural Economics Association, Portland, Oregon, July, 2007.
- Chen, Shu-Ling and Mario J. Miranda, "Dynamic Analysis of Farmer's Crop Insurance Decision." The Taiwan Economic Association - Chinese Economic Association in North America Joint Conference, Taipei, Taiwan, December 17, 2006.
- Chen, Shu-Ling and Mario J. Miranda. "Modeling Yield Distribution in High Risk Counties: Application to Texas Upland Cotton", American Agricultural Economics Association Annual Meetings, Long Beach, CA, July 23-26, 2006.
- Chen, Shu-Ling and Mario J. Miranda. "Modeling Multivariate Extreme-Event Crop Yield Densities", Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
- Vedenov, Dmitry V., Mario J. Miranda, Joseph W. Glauber, and Robert Dismukes. "Economic Analysis of the Standard Reinsurance Agreement", Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
- Vedenov, Dmitry V. and Mario J. Miranda. "Portfolio Allocation and Alternative Structures of the Standard Reinsurance Agreement", Presented at Annual Meeting of the American Agricultural Economics Association, Denver, Colorado, August 2004.
- Vedenov, Dmitry V. and Mario J. Miranda. "Long-Term Agricultural Risk Management: Crop Insurance vs. Savings and Borrowings." Presented at the Conference on Risk in Agriculture and Resource Management, Gulf Shores, Alabama, March 27, 2004.
- Katchova, Ani L., Mario J. Miranda, and Claudio Gonzalez-Vega. "A Dynamic Model of Microlending in the Developing Countries." Presented at Annual Meeting of the American Agricultural Economics Association, Chicago, Illinois, August 2001.
- Vedenov, Dmitry V. and Mario J. Miranda, "Rainfall Insurance for Midwest Crop Production", Presented at Annual Meeting of the American Agricultural Economics Association, Chicago, Illinois, August 2001.
- Katchova, Ani L., Ian M. Sheldon, and Mario J. Miranda, "A Dynamic Model of Oligopsony and Oligopoly in the Potato Processing Industry", Presented at Annual Meeting of the American Agricultural Economics Association, Tampa, Florida, August 2000.
- Schnitkey, Gary D. Jeffrey Hopkins, Mario J. Miranda, and Luther Tweeten. "Learning from Site-Specific Information: Bayesian Applications to Precision Agriculture." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.
- Hopkins, Jeffrey, Gary D. Schnitkey, Mario J. Miranda, and Luther Tweeten. "Optimal Cropland Degradation with Reversible and Irreversible Components." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.
- Makki, Shiva, and Mario J. Miranda. "Self-Insurance and the Utility of Standard Risk Management Contracts." Presented at Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah, August 2-5, 1998.

- Makki, Shiva, Luther Tweeten, and Mario J. Miranda. "Wheat Storage-Trade Interactions under Domestic and Production Uncertainty." Presented at Annual Meeting of the American Agricultural Economics Association, Toronto, Canada, July 27-30, 1997.
- Schreiner, Mark, Doug Graham, and Mario Miranda. "Choices by Poor Households When the Interest Rate for Deposits Differs from the Interest Rate for Loans." Presented at Annual Meeting of the International Agricultural Economics Association, Sacramento, California, August 1997.
- Schreiner, Mark, Doug Graham, and Mario Miranda. "The Effects of the Interest Rates for Lending and Borrowing on Subsistence Households." Presented at Annual Meeting of the International Agricultural Economics Association, Sacramento, California, August 1997.
- Graham, Doug, Mario Miranda, and Mark Schreiner. "The Effects on Peasant Households of Access to Formal Deposits and Loans." Presented at Annual Meeting of the American Agricultural Economics Association, San Antonio, Texas, August 1996
- Makki, Shiva, Mario J. Miranda, and Luther Tweeten. "Storage-Trade Interactions in Commodity Markets." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Hentchel, Eva, Mario J. Miranda, and Allan Randall. "Enforcing Pollution Control Regulation Using Two Types of Inspections, a Reputation Indicator and Self Reports." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Rui, Xiongwen and Mario J. Miranda. "Salvaging the Nonlinear Rational Expectations Commodity Storage Model." Presented at Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana, August 1995.
- Miranda, Mario J. and Xiongwen Rui. "Maximum Likelihood Estimation of Nonlinear Rational Expectations Asset Pricing Models." Presented at The First Annual Conference of the Society for Computational Economics, Austin, Texas, May 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." Presented at Annual Meeting of the American Agricultural Economics Association, Orlando, Florida, August 1993.
- Sun, Theresa Y. and Mario J. Miranda. "Wheat Market Dynamics under Rational Expectations and Government Price Support Programs." Presented at the Annual Meeting of the Missouri Valley Economic Association, Memphis, Tennessee, February, 1993.
- Schnitkey, Gary D. and Mario J. Miranda. "The Impact of Pollution Controls on Livestock-Crop Producers." Presented at Annual Meeting of the American Agricultural Economics Association, Baltimore, Maryland, August 1992.
- Miranda, Mario J. and Joseph W. Glauber. "Intraseasonal Demand for Fall Potatoes Under Rational Expectations." Presented at Annual Meeting of the American Agricultural Economics Association, Baltimore, Maryland, August 1992.

- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding," Presented at Annual Meeting of the American Agricultural Economics Association, Manhattan, Kansas, August 1991.
- Miranda, Mario J. "Area-Yield Crop Insurance Reconsidered." Presented at Annual Meeting of the American Agricultural Economics Association, Vancouver, British Columbia, August 1990.
- Miranda, Mario J. and Joseph W. Glauber. "The Effects of Price Supports on the Valuation of Options on Agricultural Futures Markets." Presented at the Chicago Board of Trade Fall Research Seminar, Durham, North Carolina, December 1989.
- Miranda, Mario J. and Joseph W. Glauber. "International Trade, Speculative Storage and Commodity Price Stability." Presented at The International Commodity Market Modeling Conference, The World Bank, Washington, DC, October 1988.
- Glauber, Joseph W. and Mario J. Miranda. "Enhancing U.S. Exports: A Comparison of Marketing Loans and Export Subsidies." Presented at Annual Meeting of the American Agricultural Economics Association, Knoxville, Tennessee, August 1988.
- Glauber, Joseph W. and Mario J. Miranda. "A Rational Expectations Model of Inventory Holding Under Risk and Uncertainty." Presented at Annual Meeting of the American Agricultural Economics Association, Reno, Nevada, July 1986.

### **Other Presentations**

- Gallenstein, Richard A., Khushbu Mishra, Abdoul G. Sam, and Mario J. Miranda. "Using Index Insurance to Improve Access to Credit among Smallholder Farmers in Northern Ghana", Presented at the BASIS Annual Meeting in Berkeley, CA, October 29-30, 2015.
- Miranda, Mario J. "Credit, Savings, and Insurance in Agricultural Risk Management." US Department of Agriculture, Economic Research Service, Washington, DC, January 20, 2015.
- Miranda, Mario J. "Managing Microfinance Institution Agricultural Portfolio Risk using Weather Index Insurance." Association of Rural Banks – Northern Chapter (ARB), Tamale, Ghana, July 24, 2014.
- Miranda, Mario J. "How to Prepare for the Job Market." Ohio State University Department of Agricultural, Environmental and Development Economics PhD Seminar Roundtable, January 27, 2009.
- Miranda, Mario J. "Teaching Computational Economics in an Applied Economics Graduate Program". Presented at Annual Conference of the Society for Computational Economics, Amsterdam, Netherlands, July 11, 2004.
- Vedenov, Dimitry V., Mario J. Miranda, J.W. Glauber, and R. Dismukes, "Economic Analysis of the Standard Reinsurance Agreement", Risk Management Agency, U.S. Department of Agriculture, Kansas City, MO, August 5, 2003.
- Miranda, Mario J. "Numerical Methods for the Solution of Nonlinear Dynamic Economic Models", presented to the Department of Economics, The Ohio State University, March 25, 2002.

- Miranda, Mario J. "Challenges faced by University Teachers." Presented to the Department of Agricultural, Environmental, and Development Economics, The Ohio State University, April 5, 2000.
- Miranda, Mario J. "Optimal Index Insurance Design." Presented to the World Bank Research Group, Washington, DC, June 18, 2000.
- Miranda, Mario J. "The Standard Reinsurance Historical Simulator." Presented to the Crop Insurance Industry Actuarial Research Group, Chicago, Illinois, January 13, 2000.
- Miranda, Mario J. and Paul W. Fackler. "Hybrid Methods for Continuous Space Dynamic Programming". Presented at Annual Conference of the Society for Computational Economics, Boston, Massachusetts, June 24-26, 1999.
- Rui, Xiongwen and Mario J. Miranda. "Salvaging the Nonlinear Rational Expectations Commodity Storage Model." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1995.
- Miranda, Mario J. "Systemic Risk, Reinsurance, and the Failure of Crop Insurance Markets." Presented at the First Annual Conference on Risk in Agriculture and Resource Management, Gulf Shores, Alabama, March 1994.
- Blue, Neil, Joao Martines-Filho, Mario J. Miranda, and Scott Irwin. "Dynamic Hedging Strategies for Soybean Producers." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1994.
- Miranda, Mario J. and Gary D. Schnitkey. "Structural Estimation of Dynamic Stochastic Discrete Choice Models in Agriculture." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, February 1993.
- Schnitkey, Gary D. and Mario J. Miranda. "The Impact of Pollution Controls on Livestock-Crop Producers." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, January 1992.
- Miranda, Mario J. "Area-Based Crop Insurance." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, May 1991.
- Miranda, Mario J. "Area-Based Agricultural Insurance." Presented at the Second Annual Conference on Farm Income Enhancement, Columbus, Ohio, February 1991.
- Miranda, Mario J. and Joseph W. Glauber. "Estimation of Dynamic Nonlinear Rational Expectations Models of Primary Commodity Markets with Private and Government Stockholding." Presented at the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1991.
- Miranda, Mario J. "Estimation of Dynamic Nonlinear Rational Expectations Models of Price Formation in Markets for Storable Commodities Subject to Government Price Supports." Presented to the Department of Agricultural Economics and Rural Sociology, The Ohio State University, October 1990.



- Sun, Theresa Y. and Mario J. Miranda. “The Dynamics of Supply, Demand, and Price for Wheat Programs Under Rational Expectations.” Presented at the NCR- 134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1990.
- Miranda, Mario J. “The Economic Efficiency of the Proposed Area Loss Plan for Federal Crop Insurance.” Presented to the Federal Crop Insurance Task Force, U.S. Department of Agriculture Economic Research Service, September 1989.
- Miranda, Mario J. and Joseph W. Glauber. “The Effects of Price Supports on the Valuation of Options on Agricultural Futures Contracts.” Presented at the NCR- 134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1989.
- Glauber, Joseph W. and Mario J. Miranda. “Subsidized Put Options as Alternatives to Price Supports.” Presented at the NCR- 134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1989.
- Miranda, Mario J. and Joseph W. Glauber. “Subsidized Put Options as Alternatives to Price Supports.” Presented at the Symposium on Options, Futures, and Agricultural Commodity Programs, Washington, DC, February 1988.
- Miranda, Mario J. “A Computable Rational Expectations Model for Agricultural Price Stabilization Programs.” Presented at Bi- Annual Joint Meeting of The Operations Research Society of America and The Institute of Management Science, Miami Beach, Florida, December 1987.
- Glauber, Joseph W. and Mario J. Miranda. “The Effects of Marketing Loans on Agricultural Markets.” Presented at the NCR- 134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management, Chicago, Illinois, April 1987.
- Miranda, Mario J. “Analysis of Rational Expectations Models for Agricultural Markets Subject to Government Intervention.” Presented to the Department of Agricultural Economics, University of Wisconsin--Madison, January 1986.

### **Major Consulting Assignments - Domestic**

- U.S. Department of Agriculture Risk Management Agency, Multiyear Insurance, Inc. and The Iowa Corn Growers Association, Actuarial Certification of Multiyear Plan of Insurance for Corn and Soybean Producers, 2015.
- Hudson Insurance, “Actuarial Assessment of Area Revenue Combo Insurance”, 2011.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Swine Contract, 2006.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Dairy Cattle Contract, 2006.
- U.S. Department of Agriculture Risk Management Agency and FarmRisk, Inc., Actuarial Certification of Livestock Gross Margin for Cattle Contract, 2005.

- U.S. Department of Agriculture Risk Management Agency and AgForce, Inc., Actuarial Certification of Pasture, Rangeland, and Forage Vegetation Temperature-Constrained NDVI Index Contract, 2005.
- U.S. Department of Agriculture Risk Management Agency and AgForce, Inc., Actuarial Certification of Pasture, Rangeland, and Forage Vegetation Seasonal-Constrained Rainfall Index Contract, 2005.
- U.S. Department of Agriculture Risk Management Agency and Iowa Farm Bureau, "Actuarial Certification of Ethanol Insurance Contract," 2004.
- Risk Management Agency and Great American Insurance Co., "Actuarial Rating of Area Yield Indemnity Contract", 2003.
- Risk Management Agency and NAU Insurance, "Actuarial Certification of Group Risk Income Protection Harvest Revenue Option", 2003.
- The Chicago Board of Trade, "Analysis of the Iowa Corn Reinsurance Options Contract", 1994.

### **Major Consulting Assignments - International**

- The Food and Agriculture Organization of the United Nations and the Association of Latin American Development Banks (ALIDE). "Agricultural Credit Insurance in Latin America", 2015.
- The World Bank Agricultural Rural Development Department. "Review of Agricultural and Rural Development Department Research and Development Activities in Weather Risk Management, 2004-2010", 2012.
- The World Bank Agricultural Rural Development Department. "Ghana Agricultural Sector Risk Assessment", 2011.
- The World Bank Agricultural Rural Development Department. "Honduras Agricultural Sector Risk Assessment", 2011.
- U.S. Agency for International Development, PREMIER Project, "Economic and Actuarial Analysis of Catastrophic Drought Insurance for Bolivian Agriculture", 2005-2007.
- U.S. Agency for International Development, Development Alternatives, Inc., and GlobalAgRisk, Inc., "Hedging Weather-Driven Portfolio Risk for Microfinance Institutions in Peru: The El Nino-Southern Oscillation Index Insurance Contract", 2004-2007.
- The World Bank and Agricultural Risk Management Consulting, Inc., "Rainfall Insurance Contracts for Nicaragua", 1998-2001.
- The World Bank and Agricultural Risk Management Consulting, Inc., "Weather-Based Index Insurance: A Feasibility Study for Drought Insurance for Morocco", 2000.

### **Research Grants**

- Received \$4,352,188 in extramural funding since joining profession (2015 dollars).
- Miranda, Mario J. *Effects and Welfare Benefits of Public Agricultural Commodity Market Information and the Sustainability of International Buffer Stock*

- Agreements*. \$75,000. US Department of Agriculture, Office of the Chief Economist. Jan 2016 - Dec 2016.
- Miranda, Mario J. and Abdoul G. Sam. *Promoting Financial Inclusion and Technical Transformation among Smallholders in Tanzania: A Capacity-Building Exercise*. \$402,974. US Agency for International Development, Innovative Agricultural Research Initiative Project. Aug 2015 - Feb 2017.
  - Miranda, Mario J. *Credit, Savings, and Insurance in Agricultural Risk Management: Theory and Empirical Evidence*. \$120,000. US Department of Agriculture, Market and Trade Economics Division. Aug 2015-Feb 2017.
  - Miranda, Mario J. and Abdoul G. Sam. *Promoting Adoption of Improved Production Technologies among Smallholders in Ghana via Coupled Credit and Index Insurance Contracts*. US Agency for International Development, BASIS Assets and Market Access Research Program. \$811,085. Jul 2013 - Sep 2016.
  - Miranda, Mario J. *The Global Food Price Crisis and China World Rice Market Integration*. OSU Office for International Affairs Research Seed Grant. \$7,000. Apr 13 - Jun 14.
  - Miranda, Mario J. *Public Reserves, Price Volatility, and Sustainability of Multilateral Buffer Stock Agreements*. U.S. Department of Agriculture Office of the Chief Economist. \$184,017. Sep 12 - Dec 13.
  - Miranda, Mario J. *Optimal Management of Catastrophic Climate Risk: the Case of Peru*. OSU Office for International Affairs Study Grant. \$4,000. Jul 09 - Jun 10.
  - Miranda, Mario J. *Analysis of the Standard Reinsurance Agreement*. U.S. Department of Agriculture Economic Research Service. \$72,836. Sep 02 - Sep 04.
  - Miranda, Mario J. and Brian Roe. *AgRisk Online: Internet Delivery of Crop and Livestock Risk Management Tools*. National Institute of Food & Agriculture. \$50,000. Sep 01 - Sep 03.
  - Miranda, Mario J. *Risk Management Policy Analysis and Modeling*. U.S. Department of Agriculture Economic Research Service. \$29,000. Sep 00 - Sep 02.
  - Miranda, Mario J., Gary Schnitkey, and Scott H. Irwin. *Development of AgRisk 2000*. University of Illinois. \$204,000. Oct 98 - Sep 00.
  - Miranda, Mario J. *A Comprehensive Risk Management Education Program*. Purdue University. \$37,500. Feb 98 - Feb 03.
  - Miranda, Mario J. *Market Based Solutions to the Risk Management Problems of Rural America*. U.S. Department of Agriculture Fund for Rural America Planning Grant. \$25,000. Sep 97 - Sep 98.
  - Miranda, Mario J. *Analysis of Agricultural Risk and Insurance*. U.S. Department of Agriculture Economic Research Service. \$551,370. Jul 97 - Sep 02.
  - Miranda, Mario J. and Gary Schnitkey. *AgRisk: A Real-Time Risk Assessment Tool for Farmers*. U.S. Department of Agriculture. \$160,000. Jun 97 - Sep 98.
  - Miranda, Mario J. *Actuarial Soundness of Crop Reinsurance Agreement*. U.S. Department of Agriculture Economic Research Service. \$150,000. Sep 96 - Sep 02.
  - Miranda, Mario J. *Analysis of Revenue Insurance Based on Shortfalls in Per Acre Revenue*. U.S. Department of Agriculture Economic Research Service. \$50,000. Sep 93 - Sep 97.

- Miranda, Mario J. *Structural Determinants of U.S. Competitiveness in the World Soybean Complex*. National Institute of Food & Agriculture. \$100,000. Sep 93 - Sep 96.
- Miranda, Mario J. *Effect of Alternative Government Programs on the Distribution of Government Outlays*. U.S. Department of Agriculture Economic Research Service. \$27,500. Jun 92 - Dec 93.
- Miranda, Mario J. *Estimation of Dynamic Rational Expectations Models of Primary Commodity Markets*. OARDC Research Seed Grant. \$12,420. Sep 91 - Sep 92.
- Miranda, Mario J. *Stochastic Dynamic Programming Algorithms for Commodity Stabilization Policy Analysis*. OARDC Research Challenge Grant. \$9,310. Sep 90 - Sep 91.
- Miranda, Mario J. and Thomas Sporleder. *New Uses for Agricultural Products*. National Institute of Food & Agriculture. \$126,084. Jul 89 - Jun 92.
- Miranda, Mario J. *Use of Target Revenues versus Target Prices in Stabilizing Producer Income*. U.S. Department of Agriculture Economic Research Service. \$22,500. Apr 89 - Sep 92.
- Miranda, Mario J. *The Effects of Mandatory Production Controls on Public and Private Stockholding*. U.S. Department of Agriculture Economic Research Service. \$5,000. Sep 87 - Sep 88.
- Miranda, Mario J. *Use of Futures and Options Markets as Alternatives to Government Commodity Programs*. U.S. Department of Agriculture Economic Research Service. \$27,500. Sep 86 - Sep 87.
- Miranda, Mario J. *An Economic Analysis of the Effects of Government Price Support Programs*. U.S. Department of Agriculture Economic Research Service. \$38,000. Sep 85 - Sep 86.

### University Courses Taught

- Undergraduate: Managerial Economics, Introductory Statistics, Microcomputer Methods, Production Analysis
- Graduate: Applied Mathematics for Economists, Applied Economic Dynamics, Frontiers Seminar in International Development, Introduction to Computational Economics, Advanced Computational Economics, Finance and Risk Management

### Service to Profession

- Proposal Review Panel, National Institute of Food and Agriculture, 2014.
- Advisory Board, Society for Computational Economics, 1996-1998, 2002-2005
- Outstanding Dissertation Award Selection Committee, American Agricultural Economics Association, 1993-96, 2002-5, Chair in 2005.
- Selected Papers and Poster Review Committee, American Agricultural Economics Association, 1990, 1994, 1995, 1999, and 2000.
- Session Moderator, Annual Meeting of the American Agricultural Economics Association: 1994 and 1995.

- Manuscript Reviewer: American Economic Review, Review of Economic Studies, Review of Economics and Statistics, Journal of Economic Dynamics and Control, Journal of Applied Econometrics, International Journal of Economics, Journal of Computational Economics, American Journal of Agricultural Economics, Journal of Economic and Environmental Management, Journal of Agricultural and Resource Economics, Journal of Agricultural and Applied Economics, Journal of Risk and Insurance, Canadian Journal of Agricultural Economics, Geneva Papers on Risk and Insurance, Agribusiness: An International Journal, European Review of Agricultural Economics, Human and Ecological Risk Assessment, Journal of Economic Analysis and Policy and Review of Agricultural Economics; Journal of Testing and Evaluation.
- Book Reviewer: American Journal of Agricultural Economics, Canadian Journal of Agricultural Economics, Oxford Academic Press, Cambridge Academic Press, and Kluwer Academic Press.

### **Service to Department**

- Performance Evaluation Advisory Committee 2014-present.
- Development Economics Assistant Professor Search Committee (Chair) 2014-2015.
- Research and Graduate Program Leader, 2001-2004, 2008-2012.
- Standing Search Committee, 1999-2004, 2006-2010.
- Awards and Alumni Relations Committee, 2002-2010.
- Department Chair Search Committee, 1998, 2009-2010.
- Departmental Council, 1996-1998, 2008-2009.
- Andersons Chair Search Committee, 2003-2005.
- Graduate Studies Committee, 1991-1993, 1996-2000.
- Masters Program Reform Committee (Chair), 1997-1998.
- Seminar Committee, 1993-1997, Chair 1997.
- Doctoral Dissertation Award Committee, 1990, 1997.
- Strategic Planning Committee, 1995-1997.
- Computer Resources Committee, 1990-1996.
- Doctoral Qualifying Examination Committee, 1991-1992.
- Ad Hoc Committee on Undergraduate Curriculum Reform, 1990-1991.
- Agribusiness Masters Program Curriculum Reform Committee, 1989-1991.

### **Service to College and University**

- The Ohio State University, Graduate Studies Committee, Latin American Studies Program, Member, 2012-present.
- The Ohio State University, Advisory Board, Center for Latin American Studies, Member, 2012-present.
- Ohio State University Presidential Fellowship Committee, 2003-2010.
- Ohio State University Promotion & Tenure Committee, 2007-2010.

- College of Food, Agricultural & Environmental Sciences Promotion & Tenure Committee, 2004-2007, Chair, 2006-2007.
- Krauss Director's Fellowship Committee, 2007.
- Ohio State University Foreign Language Area Studies Fellowship Committee, 2004-2006.
- John Glenn Institute for Public Policy, Oversight Committee, 2000-2004.
- Program Committee, Battelle Endowment for the Humanities and Arts, 1994-1997.
- Hispanic Awareness Week, Host and Participant, 1988-1990, 1994.

### **Biographical Listings**

- Outstanding Young Men of America
- Who's Who in Finance and Industry

### **Academic Honoraries**

- Phi Kappa Phi
- Sigma Xi

### **Professional Associations**

- The American Agricultural Economics Association
- The American Economic Association
- Society for Computational Economics

### **Languages**

- Fluent Spanish.