

MYLES J. WATTS

Agricultural Economics & Economics Department
Montana State University
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EDUCATION:

- **Ph.D., Agricultural Economics**, University of Nebraska, Lincoln, July 1978
- **M.S., Applied Economics**, Montana State University, Bozeman, December 1975
- **B.S., Agricultural Business**, Montana State University, Bozeman, June 1973

EMPLOYMENT HISTORY:

- Professor of Agricultural Economics, Department of Agricultural Economics and Economics, Montana State University, Bozeman (July 1990–present)
- Department Head, Department of Agricultural Economics and Economics, Montana State University, Bozeman (January 1985–October 1991; September 1995–November 2002; co-Head July 2006–June 2009)
- Associate Professor of Agricultural Economics, Department of Agricultural Economics and Economics, Montana State University, Bozeman (July 1984–July 1990)
- Assistant Professor of Agricultural Economics, Department of Agricultural Economics and Economics, Montana State University, Bozeman (July 1978–July 1984)
- Instructor, Department of Agricultural Economics, University of Nebraska, Lincoln (September 1975–January 1976; September 1976–January 1977; September 1977–July 1978)
- Graduate Research Assistant, Department of Agricultural Economics, University of Nebraska, Lincoln (February 1976–August 1976; February 1977–August 1977)
- Rancher, Miles City, Montana — Involved in a family ranch partnership (June 1973–August 1975)
- Teaching Assistant, Department of Agricultural Economics and Economics, Montana State University, Bozeman (September 1972–June 1973)

PROFESSIONAL SOCIETIES AND RECOGNITIONS:

- Distinguished Scholar Award, College of Agriculture, Montana State University (First Recipient) 2013
- Farmer Mac Board of Directors. Nominated by Senator Mitch McConnell, appointed by President Barack Obama, confirmed by United States Senate, 2010-current, Vice Chairman of Board 2012-current
- Co-Editor, *Journal of Agricultural and Resource Economics*, 2009-2012
- Distinguished Scholar, Western Agricultural Economics Association, 2006
- Outstanding Masters Thesis Award (with J. Chovosta, Graduate Student), Western Agricultural Economics Association, 1998 (Honorable Mention with R. Rucker)
- Outstanding Journal Article Award, American Agricultural Economics Association, 1996 (Honorable mention with J.T. LaFrance)
- Editor, *Journal of Agricultural and Resource Economics*, 1991–1995.
- MSU College of Agriculture Teaching Honor Roll, 1979, 1980, 1981
- American Economics Association
- Western Agricultural Economics Association
- American Agricultural Economics Association
- Omicron Delta Epsilon

- Gamma Sigma Delta
- Outstanding Graduate Student, Department of Agricultural Economics, University of Nebraska (1977)
- National Science Foundation Fellowship to pursue master's thesis research (September 1973–June 1975)

MAJOR RESEARCH EFFORTS:

- Risk management with primary interest in risk mitigation mechanisms. Involved in over 100 insurance efforts, mostly with crop and livestock insurance including reinsurance. Actuarial efforts with various data deficiencies including limited data.
- Measurement and implementation of safety and soundness regulation of financial institutions both domestically and internationally.
- Use of public lands for grazing of domestic livestock.
- Tax and other policy influences on water quality.

PUBLICATIONS:

Refereed Journal Articles and Book:

- [With J. Castibalanco Calderon]. "Assessing Credit Riskiness around the World." To be submitted to *The Journal of Finance*.
- [With J.L. Steele, J.P. Shimshak, and J.T. LaFrance]. "The Public Resource Management Game." Near submission to *Econometrica*.
- [With J.A. Atwood, B. Beattie]. (2014) "Water Degradation Implications When Whole-farm Irrigation Water is Binding." *Water Resources and Economic Journal* December.
- [With A. Bekkerman and V.H. Smith]. (2012) "The SURE Program and Incentives for Crop Insurance Participation." *Agricultural Finance Review* Vol. 72, no 3: 381-401.
- [With V. Smith]. "New Standing Disaster Program: An Invitation to Moral Hazard." *Applied Economic Perspectives and Policies*, Vol. 32, no. 1 (Spring 2010): 154-169.
- [With B. Beattie and R. Taylor]. "The Economics of Production." Krieger Publishing Company: FL, 2009.
- [With J. Vanek and G. Brester]. "Genetic Selection in the Beef Industry: Are Feeder Cattle Producers Compensated for Improving Carcass Quality?" *Journal of Agricultural and Resource Economics* Vol. 3, no. 3 (Dec. 2008): 349-363.
- [With J.A. Atwood, and S. Shaik]. "Are Crop Yields Normally Distributed?: A Reexamination." *American Journal of Agricultural Economics* Vol. 85, no. 4 (Nov. 2003): 888-901.
- [With B.R. Beattie, and M.T. Holt]. "On the Function Coefficient, Eulers Theorem, and Homogeneity in Production Theory." *Review of Agricultural Economics* Vol. 24, no. 1 (Spring/Summer 2002): 240-249.
- [With J.A. Atwood and, S. Shaik]. "Can Normality of Yields Be Assumed for Crop Insurance?" *Canadian Journal of Agricultural Economics* Vol. 50, no. 2 (July 2002): 171-184.
- [With J. Chvosta, and R.R. Rucker]. "Transaction Costs and Cattle Marketing: The Information Content of Seller-Provided Data at Bull Auctions." *American Journal of Agricultural Economics* Vol. 83, no. 2 (May 2001): 286-301.

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- [With D. Buschena]. "(How) Do Prerequisites Matter? Analysis of Intermediate Microeconomics and Agricultural Economics Grades." *Review of Agricultural Economics* Vol. 23, no. 1 (Spring/Summer 2001): 203-213.
 - [With L. Egan]. "Some Costs of Incomplete Property Rights with Regard to Grazing Permits." *Land Economics* Vol. 74, no. 2 (May 1998): 171-185.
 - [With G. Haynes]. "Finance Companies and Small Business Borrowers: Does the Pawn Shop Label Fit?" *Entrepreneurship and Small Business Finance* Vol. 5, no. 1 (February 1996).
 - [With J.A. Atwood and A. E. Baquet]. "An Examination of the Effects of Price Supports and Federal Crop Insurance Upon the Economic Growth, Capital Structure, and Financial Survival of Wheat Growers in the Northern High Plains." *American Journal of Agricultural Economics* Vol. 78, no. 1 (February 1996): 212-224.
 - [With C.L. Wambolt]. "Long Term Recovery of Wyoming Big Sagebrush." *Journal of Environmental Management* Vol. 46, no. 1 (February 1996): 95-102.
 - [With J.T. LaFrance] "Public Grazing in the West and 'Rangeland Reform '94.'" *American Journal of Agricultural Economics* Vol. 77, no. 3 (August 1995): 447-461.
 - [With J.T. LaFrance]. "Guidelines for Western Journal of Agricultural Economics Authors." *Western Journal of Agricultural Economics* Vol. 16, no. 2 (December 1991), ("Soft" Review).
 - [With C. Wambolt]. "Economic Evaluation of Wyoming Big Sagebrush (*Artemisia tridentata*) Control Methods." *Weed Technology* Vol. 3, no. 4 (October/December 1989).
 - [With R.N. Johnson]. "Contractual Stipulations, Resource Use and Interest Groups: Implications from Federal Grazing Contracts." *Journal of Environmental Economics and Management* Vol. 16, no. 1 (1989): 87-96.
 - [With J.A. Atwood, G.A. Helmers, and L.J. Held]. "Incorporating Safety-First Constraints in Linear Programming Production Models." *Western Journal of Agricultural Economics* Vol. 13, no. 1 (July 1988): 29-36.
 - [With J.A. Atwood and G.A. Helmers]. "Chance-Constrained Financing as a Response to Financial Risk." *American Journal of Agricultural Economics* Vol. 70, no. 1 (February 1988): 79-89.
 - [With B.R. Beattie]. "The Proper Preeminent Role of Central Disciplines and Learned Societies in Setting the Agenda at Land Grant Universities." *Western Journal of Agricultural Economics* Vol. 12, no. 2 (December 1987): 95-103.
 - [With J.A. Atwood, L.J. Held, and G.A. Helmers]. "Performance of Risk Income Models Outside of the Original Data." *Southern Journal of Agricultural Economics* Vol. 18, no. 2 (December 1986): 113-123.
 - [With J.T. LaFrance]. "The Value of Protein in Feed Barley for Beef, Dairy and Swine Feeding." *Western Journal of Agricultural Economics* Vol. 11, no. 1 (July 1986): 76-81.
 - [With G.A. Helmers and J.A. Atwood]. "Relevancy of Cash Flow in Firm Financial Management." *Agribusiness: An International Journal* (Winter 1985).
 - [With G.A. Helmers, L.J. Held, and J.A. Atwood]. "Deviation Constrained Programming: The Impact on Risk-Income Frontiers." *North Central Journal of Agricultural Economics* Vol. 6, no. 2 (July 1984): 142-

150.

- [With L.J. Held and G.A. Helmers]. "A Comparison of Target MOTAD to MOTAD." *Canadian Journal of Agricultural Economics* Vol. 32 (March 1984): 175-186.
- [With L.J. Held]. "Comparing Acceleration of New ACRS Versus Prior Law Double Declining Balance Depreciation: A Present Value Approach." *North Central Journal of Agricultural Economics* Vol. 5, no. 2 (July 1983): 11-17.
- "Machinery Repair Functions and Depreciation." *North Central Journal of Agricultural Economics* Vol. 4, no. 1 (January 1982): 69-72.
- [With G.A. Helmers]. "Machinery Cost and Inflation." *Western Journal of Agricultural Economics* Vol. 6, no. 2 (December 1981): 129-145.
- [With G.A. Helmers]. "Inflation and Machinery Cost Budgeting." *Southern Journal of Agricultural Economics* Vol. 11, no. 2 (December 1979): 83-88.

Presented Papers:

- [With A. Kellom, J. Peterson, J. Vanek, and M. Harbo]. "The Effects of Age and Source Verification of Calves on Value Received on Superior Livestock Video Auctions." *Proceedings of Western Section, American Society of Animal Science*, Vol. 59, 2008: 137-139.
- "Public Land Grazing Contracts." Presented at WAEA, 2006.
- "Participation in Crop Insurance." Presented at AAEEA meeting, 2000.
- [With J.A. Atwood and S. Shaik]. "Assessment of Implementability of Income Protection." USDA, Risk Management Agency, Project Report, 2001.
- [With L. Egan]. "Some Costs of Incomplete Property Rights with Regard to Federal Grazing Permits." Presented at the annual meeting of the AAEEA, 1997.
- [With J. Chovosta and R. Rucker]. "The Information Content of Seller-Provided Data in Cattle Auctions." Presented at the annual meeting of the AAEEA, 1997.
- "Issues in Developing Revenue Insurance Products." Presented at the annual meeting of the AAEEA, San Antonio, Texas, July 1996.
- [With J.T. LaFrance]. "Privatizing Land Use Rights on Public Lands." Presented at the annual meeting of the AAEEA, 1996.
- [With J.A. Atwood, and V.H. Smith]. "Lemons, List Prices, and Other Problems with Measuring Economic Depreciation Rates for Agricultural Machinery." Presented at the annual meeting of the WAEA, Portland, Oregon, July 1991. [Abstract published in the *Western Journal of Agricultural Economics*, December 1991.]
- [With J. Goroski, V.H. Smith, and J.A. Atwood]. "Economic Depreciation and Tax Policy: The Case of Combine Harvesters." Presented at the annual meeting of the AAEEA, Vancouver, B.C., Canada, August 1990. [Abstract published in the *American Journal of Agricultural Economics*, December 1990.]
- [With J.A. Atwood]. "Safety-First Programming: A Zero-One Approach." Paper presented at the annual meeting of the AAEEA, Baton Rouge, Louisiana, August 1989. [Abstract published in the *American Journal*

of Agricultural Economics, December 1989.]

- "Comments on Dynamic Programming." Invited paper presented at the annual meeting of the WAEA, Honolulu, Hawaii, July 1988.
- [With G.A. Helmers, J.A. Atwood, and L.J. Held]. "Financial Performance of Risk-Income Modules." Paper presented at the annual meeting of the WAEA, July 1987. [Abstract published in the *Western Journal of Agricultural Economics*, December 1987.]
- [With L.J. Held, G.A. Helmers, and J.A. Atwood]. "Effect of Machinery Cost Economies on Diversified Risk-Efficient Plans." Paper presented at the annual meeting of the WAEA, July 1987. [Abstract published in the *Western Journal of Agricultural Economics*, December 1987.]
- [With L.J. Held, G.A. Helmers, and J.A. Atwood]. "Impact of Business Versus Financial Risk on Risk Income Choices." Paper presented at the annual meeting of the AAEA. [Abstract published in the *American Journal of Agricultural Economics*, December 1986.]
- [With J.A. Atwood and G.A. Helmers]. "Reduction of Second Degree Stochastic Efficient Sets Using Safety-First Type Constraints." Paper presented at the annual meeting of the WAEA, July 1985. [Abstract published in the *Western Journal of Agricultural Economics*, December 1985.]
- [With M.D. Copeland]. "Income Taxes and Distribution of Asset Ownership." Paper presented at the annual meeting of the WEA, 1985.
- [With B.E. Bravo-Ureta]. "Tax Policy and Invariant Asset Valuations Under Inflation." Paper presented at the annual meeting of the AAEA, 1984.
- [With G.A. Helmers, and L.J. Held]. "Farm Firm Programming Models Using Risk and Annual Income Targets." Paper presented at the annual meeting of the Western Agricultural Economics Association, 1983.
- [With G.A. Helmers, and L.J. Held]. "Estimating the Impact of Safety-First Risk Constraints on Risk-Income Frontiers." Paper presented at the annual meeting of the AAEA, 1982. [Abstract published in the *American Journal of Agricultural Economics*, December 1982.]
- [With G.A. Helmers]. "The Effect of Inflation and Income Tax on Machinery Cost and Optimum Replacement." Paper presented at the winter meeting of the American Society of Agricultural Engineers, 1981.
- [With G.A. Helmers]. "Tax and Inflation Adjustments for Machinery Cost Models." Paper presented at the annual meeting of the AAEA, 1978. [Abstract published in the *American Journal of Agricultural Economics*, December 1978.]
- [With G.A. Helmers]. "Land Appreciation Rates and Economic Justification of Land Values." Paper presented at the annual meeting of the AAEA, 1977. [Abstract published in the *American Journal of Agricultural Economics*, December 1977.]

Other Publications and Papers:

- [G. Haynes and D. Young]. "Project 2030." Department of Agricultural Economics and Economics, Montana State University, 2013
- [G. Brester and G Reusche]. "Introduction to Agricultural Insurance and Risk Management." International Finance Corporation, World Bank Group, 2013.

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- [G. Brester and G. Reusche]. "Actuarial Basics." International Finance Corporation, World Bank Group, 2013.
 - [G. Brester and G. Reusche]. "Data and Information Management." International Finance Corporation, World Bank Group, 2013.
 - [G. Haynes and D. Young]. "Fiscal Impacts of an Aging Population in Montana." *Montana Business Quarterly* (Autumn 2008).
 - [With J.A. Atwood]. "Using Satellite-Based and/or Weather Station Information to Construct Smaller than County Sized Area Insurance Instruments." SCC-76 Economics and Management of Risk in Agriculture and Natural Resource Meetings, Myrtle Beach, SC, March 16-18, 2006.
 - [With D. Young]. "Understanding School Finances." *Montana Policy Review* (Summer 2005).
 - [With D. Young]. "Montana School Quality." *Montana Business Quarterly* (Summer 2005).
 - [With J. Atwood]. "Analysis of Difference Between IP and MPCIR Rates (Cotton Review)." Staff Paper Number 2001-01, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With J. Atwood]. "Examination of Adverse Selection in Crop Insurance." Staff Paper Number 2001-02, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With J. Atwood and S. Shaik]. "Assessment of Implementability of Income Protection," Department of Agricultural Economics and Economics, Montana State University, Bozeman, December 2001.
 - "Agricultural Outlook." *Montana Business Quarterly* (Winter 2000).
 - [With B. Sowell]. "Range/Pasture Crop Insurance: Stage 1 Report." Staff Paper Number 2000-1, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With C. Prince]. "Optional Units." Staff Paper Number 2000-3, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With I. Anderson]. "The Effects of Adverse Selection and Effective Coverage Levels of Crop Insurance Participation." Staff Paper Number 2000-4, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With J. Atwood, and S. Shaik]. "Low Risk Farmer." Staff Paper Number 2000-5, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With J. Atwood]. "Rating Avocado Revenue Insurance: An Overview." Staff Paper Number 2000-6, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With J. Atwood, J. Driscoll, and V. Smith]. "Federal Crop Insurance Programs, History, Practice and Issues". Staff Paper Number 1999a- 4, 5, 6, Department of Agricultural Economics and Economics, Montana State University.
 - "Agricultural Outlook." *Montana Business Quarterly* (Winter 1999)
 - [With D. Buschena]. "Land Use in the Northern Great Plains: What Does the Future Hold?" Chapter 9 in 2000 WTO Negotiations (Young, Johnson and Smith, eds.) 1999.

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- [With J.T. LaFrance]. Chapter 16: "Contract Design for Public Lands Grazing." Designing Institutions for Environmental and Resources Management. Eds. E.T. Loehman and D.M. Kilgour. Edward Elgar Publishers, NY, March 1998.
 - [With J. Atwood, and A. Baquet]. "Income Protection," Staff Paper Number 1997-9, Department of Agricultural Economics and Economics, Montana State University, Bozeman.
 - [With H. Fretwell]. "Montana's Agriculture and Other Basic Industries." Published by Montana State University, Bozeman, Montana, October 1996.
 - [With J.T. LaFrance]. "Cows, Cowboys, and Controversy: The Grazing Fee Issue." Book chapter in *Multiple Conflicts over Multiple Uses* (1994).
 - [With J.A. Atwood] "Bootstrapping for Risk Estimation When Setting Premiums on Crop Insurance." *Statistics Research Seminar*, Department of Statistics, Montana State University, November 1994.
 - [With J.A. Atwood]. "Bootstrapping Discrete Markovian Transition Probabilities with Complete and Reduced Sets of State Variables." Published in *Quantifying Long Run Agricultural Risks and Evaluating Farmer Responses to Risk. Proceedings of a seminar sponsored by Southern Regional Project S-232*. Department of Resource Economics and Policy, University of Maine, Orono, Maine, June 1993.
 - "Agricultural Outlook." *Montana Business Quarterly* (Winter 1993).
 - [With P. Seibrasse]. "Tax Reform or Revision? Montana Must Decide." *Special Bulletin of the Montana Extension Service*, May 1993.
 - [With S. Zhihua]. "State Budgets and Montana Experiment Station Funding." Staff Paper Number 1993-3, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1993.
 - [With P. Seibrasse]. "Montana Taxes." Staff Paper Number 1993-4, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1993.
 - [With J.A. Atwood, B.E. Bravo-Ureta, G.A. Helmers, and V.H. Smith]. "Implications of Tax Policy for Farm Structure." Book chapter in *Farm Structure*, Iowa State Press, 1993.
 - "Agricultural Outlook." *Montana Business Quarterly* (Winter 1992).
 - "Report of the Agricultural Land Advisory Committee." Prepared for the Montana Department of Revenue, Helena, 1992.
 - [With G.A. Helmers]. "Measurement Issues Relating to Economic Analysis." Chapter 3 in *Costs and Returns for Agricultural Commodities - Advances in Concepts and Measurements* (Ahearn and Usasavada, eds.), Westview Press, 1992.
 - "An Economic Analysis of Wyoming Big Sagebrush Control." *Montana AgResearch* (Summer/Fall 1990).
 - "Extension and Non-Extension Funded Faculty Relationships." Paper prepared for the annual meetings of the Western Agricultural Economics Council, Tucson, Arizona, 5-6 January 1989.
 - [With J.B. Johnson, A.E. Baquet, and D. Griffith]. "Setting Maximum Acceptable Rental Rates for Counties According to Criteria Specified in CRP-92." Staff Paper Number 88-15, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1988.

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- [With J.B. Johnson and A.E. Baquet]. "Fallow Economics." *Crops and Soils Magazine* (1987), American Society of Agronomy.
 - "Analyzing Financial Health and Liquidation." Staff Paper Number 86-5, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1986.
 - [With J.B. Johnson, A.E. Baquet, and C. Miller]. "The Economics of Alternative Tillage Methods and Cropping Systems: Major Land Resource Areas 53A and 58A in Eastern Montana." Bulletin 1351, Montana Cooperative Extension Service, Montana State University, Bozeman, September 1986.
 - [With J.B. Johnson]. "The Relationship of Inflation to Agricultural Income, Asset Values and Firm Financial Analysis." Staff Paper Number 85-6, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1985. [Reprinted in the 1985 NCR-117 Proceedings.]
 - [With J.A. Atwood and G.A. Helmers]. "Safety-First Models Based on Sample Statistics." In: *Risk Analysis for Agricultural Production Firms: Concepts, Information Requirements, and Policy Issues*. Department of Agricultural Economics, Michigan State University, 1985.
 - [With G.A. Helmers]. "Developing Inflation-Free Cost and Returns for Risk and Other Economic Analysis." Paper presented at the annual meeting of the GPC-10 Regional Committee and published in proceedings, 1985.
 - [With C.A. Roheim and C.R. Taylor]. "Economic Feasibility of Small Wind Energy Generator Systems." Staff Paper Number 85-1, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1985.
 - [With J.T. LaFrance]. "The Value of Feed Barley in Beef, Dairy, and Swine Feeding." Staff Paper Number 85-5, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1985.
 - [With L.D. Bender and J.B. Johnson]. "Economic Incentives for the Conversion of Rangeland to Cropland." Bulletin 1302, Montana Cooperative Extension Service, Montana State University, Bozeman, November 1983.
 - [With G.I. Goodman]. "IRA's: More Than a Retirement Account." *Big Sky Economics* (December 1982), Montana Cooperative Extension Service.
 - [With R.M. Schultz and D.J. Dunn]. "Debt Servicing Capacity and Inflation." *Big Sky Economics* (September 1982), Montana Cooperative Extension Service.
 - [With G.I. Goodman, D.J. Dunn, and M.S. Stauber]. "How Often Should Alfalfa Stands Be Replaced?" *Big Sky Economics* (June 1982), Montana Cooperative Extension Service.
 - [With R.W. Schultz]. "Land as an Investment." Staff Paper Number 82-5, Department of Agricultural Economics and Economics, Montana State University, Bozeman, June 1982.
 - [With D.J. Dunn]. "Machinery Acquisition and Tax Management." Staff Paper Number 82-4, Department of Agricultural Economics and Economics, Montana State University, Bozeman, May 1982.
 - [With L.J. Held and G.A. Helmers]. "Deriving a More Efficient Risk-Income Frontier: The MONID Approach." Paper presented at the annual meeting of the GPC-10 Regional Committee, May 1982 (and published in proceedings, 1982).

- [With C.A. Roheim]. "Management Under Financial Crisis." Staff Paper Number 82-1, Department of Agricultural Economics and Economics, Montana State University, Bozeman, January 1982.
- [With G.A. Helmers]. "Machinery Cost and Inflation." In: *Developing and Using Farm and Ranch Cost of Production and Return Data*. Great Plains Agricultural Council Publication No. 95, January 1981.
- [With R.J. Downer]. *Public and Private Grazing Resources in Montana with Emphasis on Forest Service Administered Grazing*. Montana Agricultural Experiment Station Research Report No. 164, November 1980.
- [With G.A. Helmers]. "Machinery Cost and Income Taxes." Staff Paper Number 80-12, Department of Agricultural Economics and Economics, Montana State University, Bozeman, 1980.
- "Impacts of Tax Policy on Machinery Investment." Invited paper presented at the meeting of the Great Plains Resource Economics Committee, 5 June 1979.
- "Growth, Expansion, Profitability, and Survival in Agriculture." Paper presented at the Montana Agricultural Loan Officers Annual Conference, 1979.
- [With G.A. Helmers]. "Machinery Depreciation." *Successful Farming* (February 1978).
- [With G.A. Helmers]. "Methodological Discussion and Illustration of Capital Budgeting Used to Estimate Annual Machinery Costs." Staff Paper, Department of Agricultural Economics, University of Nebraska, Lincoln, September 1977.
- "Labor Value and Farm Machinery Size." *Cornhusker Economics* (June 1977), Cooperative Extension Service, University of Nebraska, Lincoln.
- "Tax Exemption or Tax Credit?" *Cornhusker Economics* (April 1977), Cooperative Extension Service, University of Nebraska, Lincoln.
- [With G.A. Helmers]. "Machinery Trading and Tax Alternatives." *Farm, Ranch, and Home Quarterly* (Winter 1977), University of Nebraska, Lincoln.
- "Estimated Cost of Spoil Bank Reclamation Alternatives" (Master's Thesis). Staff Paper Number 75-24, Department of Agricultural Economics and Economics, Montana State University, Bozeman, December 1975.

TEACHING:

Courses Taught	Level
Financial Engineering	Senior
Agricultural Finance	Junior
Conception to Consumption	Senior
Farm & Ranch Management	Junior
Managerial Economics	Junior
Microeconomic Theory	Graduate
Production Economics	Senior
Quantitative Methods In Economics	Senior; Graduate
Research Methodology	Graduate
Introductory Economics	Freshman

- Graduate Advising: Advised over 30 graduate students
- Financial Engineering: Led the Development of Financial Engineering Program at MSU

OUTREACH EDUCATION:

For the last several years, presented to non-academic groups about 35 to 50 times per year.

Topics include:

- Grazing policy on federal lands use and value of EPDs
- Animal identification
- Animal disease insurance
- EPDs
- Brucellosis policy alternatives
- Implications of changing demographics of Montana
- Federal crop insurance topics
- Agricultural land taxation
- Montana's tax policy and spending policy
- Arrow's Theorem and the Iraq War
- Agricultural credit
- Banking and insurance regulation
- Agricultural outlook
- Energy situation
- Corporate governance
- High school Teacher Education: About 6 to 8 teacher education presentations for continuing education or university credit

GRANTS:

- Evaluation of Brucellosis Management Alternatives in Yellowstone Park, United States Department of Interior (with R. Rucker), submitted in 2014, \$400,000.
- Economic Analysis of Brucellosis Management in the Greater Yellowstone Ecosystem, United States Department of Interior, (with R. R. Rucker), 2013-2014, \$38,259.
- Impact of Information Technologies, Montana Taxpayers Association, (with P. Barkey, University of Montana, 2012-2013, \$35,000.
- Variety Private Donors, Project 2030, (with G. Haynes, D. J. Young), 2012-2013, \$17,580.
- Variety Private Donors, Project 2030, 2008, \$20,000.
- RMA-USDA, (with J. Atwood), 2004-2005, \$15,000.
- Economic Education (through MCEE) (with V. Smith), 2005, \$10,000.
- Economic Issues Associated with Brucellosis Elimination in the GYA, APHIS-ERS/USDA (with D. Buschena), 2002-2003, \$50,000.

- Risk Management Agency (through WEA) (with J. Atwood), 2002, \$50,000.
- USDA/CSREES (with J. Atwood), 2001, \$92,000.
- USDA/CSREES (with J. Atwood), 2001, \$43,000.
- USDA/CSREES (with J. Atwood), 1999-2001, \$203,140.
- USDA/CSREES (with J. Atwood), 1999-2000, \$70,451.
- USDA/CSREES (with B. Sowell), 1999-2000, \$185,185.
- FCIC (with J. Atwood): Three grants 1998-2000, \$102,000, \$96,000, \$140,000.
- NSF (with R. Rucker), 1998-2000, \$102,039.
- FCIC (with J. A. Atwood): Two grants 1997-1999, \$34,000, \$26,000.
- CSREES/USDA (with R. Rucker): Information content of seller provided auction data, 1996-1998, \$54,047.
- FCIC (with J.A. Atwood and A.E. Baquet): Four grants, 1994–1996, \$99,334, \$96,831, \$60,400, \$48,000.
- MSGH, Agricultural Taxation, 1992–1993, \$3,000.
- FCIC, Whole Farm Crop Insurance (partial funding; with A. Baquet and J. Atwood), 1993–1994, \$33,000.
- FCIC (with A. Baquet), Crop Insurance and Farm Structure, 1992–1993, \$64,800.
- FCIC (with A. Baquet): To analyze the relationship between farm viability and crop insurance, 1992, \$40,000.
- USDA (with C. Wambolt): To analyze high stocking rates to control sagebrush, 1990, \$21,000.
- USDA (with C. Wambolt): To analyze high stocking rates to control sagebrush, 1987, \$9,800.
- USDA (with C. Wambolt): To analyze various sagebrush treatments, 1985, \$25,000.
- Montana Wheat & Barley Committee (partial funding; with A. Baquet): Whole Farm Crop Insurance 1993–1994, \$19,000
- Montana Wheat and Barley Committee (with J. LaFrance): Economic potential of high-protein barley, 1984, \$20,000.
- Soil Conservation Service (with J. B. Johnson): To study tillage practices in northeastern Montana, 1982, \$20,000.
- U.S. Forest Service: To study the influence of Forest Service administered grazing on ranch income, 1979, \$15,000.

UNIVERSITY SERVICE/OUTREACH:

- MSU Research Council, 2014 to present
- Financial and Engineering Committee (EFIN), Chair, 2012 to present
- MSU Strategic Planning Committee, 2012 to present
- Search Committee, Department Head of Animal and Range Sciences, 2011
- Farmer Mac Board, 2010 to present; Vice Chairman, 2012 to present
- Advisory Board, College of Business, University of Montana, 2007 to 2011
- Member RMA Quality Control Group, 2005
- Department Head Advisory Committee, Majority of the time not Department Head
- Montana Tax Reform Committee Member, appointed by Governor, 2003-2005
- Montana Ag Land Advisory Committee Member, appointed by Governor, 2003-2005
- Search Committee Member for Dean, College of Letters and Sciences, 2002-2003
- Search Committee Chair for Associate Dean, College of Agriculture, 1999
- Search Committee Chair for Head of Animal and Range Science, 1997-1998
- Board of Directors/Executive Committee for MCEE, 1996 to present
- Montana Agricultural Advisory Committee, appointed by Governor (1995–2001)
- University Grievance Committee, Chair (1996–1997)
- Department Head Search Committee, Chair (1995)
- University Grievance Committee (1993–1995)
- Department of Sociology P & T Committee (1992)
- Graduate Affairs Committee, Department of Agricultural Economics and Economics, (Chair, 1992–1996)
- Montana Science and Technology Committee (1991–1992, appointed by Governor)

- Montana Land Advisory Committee, State of Montana (1989–1993, appointed by Governor)
- Governor's Ad Hoc Committee on Taxation, State of Montana (1988–1990, appointed by Governor)
- MONTS Program Oversight Committee (1989–1991)
- University Outreach Committee, Montana State University (1989–1990)
- Social Science Core Course Committee, Montana State University (1989–1990)
- Steering Committee for Accreditation Review, Montana State University (1989–1990)
- University Teaching Education Committee (UTEC), Montana State University (1988–1989)
- University Financial Records System (FRS) Committee, Montana State University (1988–1989)
- Governor's Budget Committee, Technical Advisor (1985–1990)
- Preparation of Montana Farm Survey [with J. Saltiel], Montana State University (1988–2003)
- Graduate Affairs Committee, Department of Agricultural Economics and Economics, Montana State University (1980–1985) (Chair, 1982–1985)
- Farm Management Extension Committee, Montana State University (1978–1987)
- Scholarship Committee, College of Agriculture, Montana State University (1978–1983) (Chair, 1981–1983)
- Resident Instruction Committee, Department of Agricultural Economics and Economics, Montana State University (1978–1980)
- Chair, Master's Degree in Agricultural Management Committee, Department of Agricultural Economics and Economics, Montana State University (1979) — Ad hoc committee to develop an M.S. degree in agricultural management for the consideration of departmental faculty
- Teaching Improvement Committee, College of Agriculture, Montana State University (1978–1979)
- Chair, Graduate Program Review Committee, Department of Agricultural Economics, University of Nebraska (1977)—Ad hoc committee established to review the graduate and undergraduate programs and to make both general recommendations about the entire program and specific recommendations about courses and course content
- Testified before various Congressional and legislative hearings and meetings
- Several Department and College reviews at other universities
- Several faculty grievance committees at other universities