

GERARD E. D'SOUZA

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PROFESSIONAL EXPERIENCE

□ Full-Time Faculty Positions

- May '99 - present* Professor of Agricultural and Resource Economics, Division of Resource Management, Davis College, West Virginia University. [May '95 - August '99: Graduate Coordinator, Agricultural and Resource Economics Program].
- July '84 - April '99* Associate Professor (1992-99), Assistant Professor (1986-92), and Visiting Assistant Professor (1984-86) of Agricultural and Resource Economics, Division of Resource Management, West Virginia University.

□ Other Positions

- Apr '04 - present* Faculty Research Associate, Regional Research Institute, West Virginia University.
- Oct -Nov '99 & Sept-Dec '00* Visiting Professor, University of the Virgin Islands, St. Croix. Collaborated on various Experiment Station research projects as part of a sabbatical assignment.
- June '97* Resident writer, Blue Mountain Center, New York. Worked on a book.
- Aug '96* Consultant to IICA (Interamerican Institute for Cooperation on Agriculture), San Jose, Costa Rica, on a VOCA (Volunteers in Overseas Cooperative Assistance) sustainable development-related research project.
- Fall '91* Visiting Scholar, Henry Wallace Institute for Alternative Agriculture, Greenbelt, MD.
- May '78 - June '84* Graduate Research Assistant (May 1983 - June 1984 Research Associate), Department of Agricultural Economics, Mississippi State University.

EDUCATION

- Ph.D. Agricultural Economics, Mississippi State University, 1983.
- M.S. Agricultural Economics, Mississippi State University, 1980.
- B.S. Agricultural Sciences, University of Agricultural Sciences, Bangalore, India, 1977.

PUBLICATIONS

A. Books, Book Chapters, & Book Reviews:

- D'Souza, G.E. and T.G. Gebremedhin, editors. *Sustainability in Agricultural and Rural Development*. Aldershot, UK and Brookfield, VT, USA: Ashgate Publishing Co. 1998. 245 pp.

D'Souza, G. E., J. Ikerd, and L. Kemmet. "Sustainability and Size: Are Small Farms More Sustainable?" In *Sustainability in Agricultural and Rural Development*, G.E. D'Souza and T.G. Gebremedhin, eds. Aldershot, UK and Brookfield, VT, USA: Ashgate Publishing Co. 1998. pp 21-45.

D'Souza, G. Book review – *India and Global Climate Change: Perspectives on Economics and Policy from a Developing Country*. M.A. Toman et al., eds. Washington, DC: Resources for the Future Press, 2003. 366 pp. Book review for: *American Journal of Agricultural Economics* 88: 270-272.

B. Journal Articles:

Evans, J., M. Sperow, G. D'Souza, and E. Rayburn. "Stochastic Simulation of Pasture-Raised Beef Production Systems and Implications for the Appalachian Cow-Calf Sector." *Journal of Sustainable Agriculture* (forthcoming).

Borisova, T., G. D'Souza, D. Miller, and W. Labys. "Remaining Competitive at the Regional level: Developing a Local Aquaculture Industry." *Journal of Aquaculture Economics & Management* (forthcoming).

Borisova, T. P. Vantaram, G. D'Souza, D. Miller, and C. Zabriski. "Web-Based Tool for Economic Analysis of Fish Transportation Decisions." *World Aquaculture* (forthcoming).

Brown, C., J. Gandee, and G. D'Souza. "West Virginia Farm Direct Marketing: A County Level Analysis." *Journal of Agricultural and Applied Economics*, 38(2006): 575-584.

Bennett, B., G. D'Souza, T. Borisova, and A. Amarasinghe. "Willingness to Consume Genetically Modified Foods – The Case of Fish and Seafood." *Journal of Aquaculture Economics and Management* 9(2005): 331-345.

D'Souza, G., D. Miller, K. Semmens and D. Smith. "Mine Water Aquaculture as an Economic Development Strategy: Linking Coal Mining, Fish Farming, Water Conservation and Recreation." *Journal of Applied Aquaculture*. 15(2004): 159-172.

Crocker, D. and G. D'Souza. "Spatial Characteristics of Delisted CERCLIS Sites: An Application and Policy Implications for Brownfields Redevelopment." *Environmental Practice* 4(2002): 19-30.

Jones, K. and G. D'Souza. "Trading Poultry Litter at the Watershed Level: A Goal Focusing Application." *Agricultural and Resource Economics Review* 30(2001): 56-65.

Smearman, S., G. D'Souza, and V. Norton. "External Costs of Aquacultural Production in West Virginia." *Environmental and Resource Economics*. 10(1997): 167-175.

Teegerstrom, T., G. D'Souza, P. Osborne, and K. Jones. "To Contract or Not to Contract? A Decision Theory and Portfolio Analysis of Cattle Contract Grazing." *Agricultural and Resource Economics Review* 27(1997): 205-215.

D'Souza, G.E. and B.T. Walton III. "A Guide to Internet Resources in Sustainable Development." *Review of Agricultural Economics*: 19(1997): 122-127.

D'Souza, G.E. and J. Ikerd. "Small Farms and Sustainable Development: Is Small More Sustainable?" *Journal of Agricultural and Applied Economics* 28(1996): 73-83.

Magadlela, A.M., M.E. Dabaan, W.B. Bryan, E.C. Prigge, J.G. Skousen, G.E. D'Souza, B.L. Arbogast and G. Flores. "Brush Clearing on Hill Land Pasture with Sheep and Goats." *Journal of Agronomy and Crop Sci.* 174(1995): 1-8.

Fiske, W.A., G.E. D'Souza, J.J. Fletcher, T.T. Phipps, W.B. Bryan, and E.C. Prigge. "An Economic and Environmental Assessment of Alternative Forage-Resource Production Systems: A Goal-Programming Approach." *Agricultural Systems* 45(1994): 259-270.

- D'Souza, G.E., D. Cyphers, and T.T. Phipps. "Factors Affecting the Adoption of Sustainable Agricultural Practices." *Agricultural & Resource Economics Review* 22(1993): 159-165.
- Onafowora, O.A., G.E. D'Souza, and D. Colyer. "Modeling State Agriculture: An Application and Some Implications." *Northeastern Journal of Agricultural & Resource Economics* 19(1990): 132-44.
- D'Souza, G.E. "The Purchase-Versus-Lease Decision Revisited after the 1986 Tax Reform Act." *Journal of Agribusiness* 8(1990): 59-71.
- D'Souza, G.E., E.W. Maxwell, W.B. Bryan, and E.C. Prigge. "Economic Impacts of Extended Grazing Systems." *American Journal of Alternative Agriculture* 5(1990): 120-25.
- D'Souza, G.E., A. Hoque, and C.E. Bohac. "Fuel From Crops: Economic and Environmental Issues." *Journal of Soil and Water Conservation* 44(1989): 274-78.
- D'Souza, G.E., R.F. Romero, and D.K. Smith. "The Investment Potential of Warm-Season Grasses for Hill-Land Beef Producers." *Northeastern Journal of Agricultural & Resource Economics* 17(1988): 56-63.
- D'Souza, G.E. "Structure of the U.S. Soybean Processing Industry in the 1990s." *Agribusiness: An International Journal* 4(1988): 11-23.
- D'Souza, G.E. and T.D. Phillips. "Spatial Characteristics of the U.S. Soybean Processing Industry." *Midsouth Journal of Economics* 7(1983): 309-17.
- Allen, A.J., G.E. D'Souza, W.L. Bateman, T.D. Phillips, and E.A. Stennis. "An Analysis to Project the Effects of the Tennessee-Tombigbee Waterway System on the Mississippi Soybean and Feed Grain Transportation Market." *Midsouth Journal of Economics* 6(1982): 113-24.

C. Proceedings Papers:

- Evans, J. and G. D'Souza. "Economics of Pasture-Raised Beef: An Application of @RISK and Stochastic Modeling." In *Proceedings of the IASTED International Conference on Environmental Modeling and Simulation*, St. Thomas, US Virgin Islands, November 29-December 1, 2006. pp 77-82.
- Bennett, B. and G. D'Souza. "Consumer Attitudes toward GM Fish: Industry and Policy Implications." In *Proceedings of the IASTED International Conference on Environmental Modeling and Simulation*, St. Thomas, US Virgin Islands, November 22-24, 2004. pp 113-116.
- Bendapudi, R. and G. D'Souza. "U.S. Conservation Policies and Sustainable Development Principles: Consistency or Contradictory?" In *Proceedings, World Congress on Managing and Measuring Sustainable Development*, August 2000. [<http://members.home.net/gdufour99/DSouza.html>].
- D'Souza, G.E. "Toward a Microeconomic Framework for Analyzing Sustainable Agriculture: A Review and Synthesis." In *Sustainable Agriculture: Conceptual and Methodological Issues*, Proceedings of an Organized Symposium, Amer. Agr. Econ. Assoc. Annual Meeting, San Diego, Aug. 1994. Publ. by the Coop. Agr. Research Prog., Tenn. State U., Nashville. pp. 11-31.
- D'Souza, G.E., A.M. Vanderpool, A. McCauley, C.M. Gempeasaw, and J.R. Bacon. "Aquaculture Market Development in a Non-Traditional Area: Survey Results and Strategies." In *Proceedings of the Seventh International Conf. of the International Inst. of Fisheries Econ. & Trade*, Keelung, Taiwan, July 18-21, 1994.

Prigge, E.C., W.B. Bryan, E.S. Goldman, and G.E. D'Souza. "Early and Late Season Grazing of Cocksfoot and Tall Fescue Hay Fields Overseeded with Red Clover." *In Proceedings of the XVII International Grassland Congress*, 1993, pp.663-664.

Lasat, M., W.B. Bryan, E.C. Prigge, T. Pasha, and G.E. D'Souza. "Effect of Grazing Height and Intensity on Composition and Productivity of Native Pastures." *In Proceedings of the Amer. Forage Grasslands Conf.*, Blacksburg, VA, 6-9 June, 1990. pp. 133-36.

D. Monographs and Working Papers:

Amarasinghe, A., C. Brown, G. D'Souza, and T. Borisova. "The Impact of County Level Factors on Obesity in West Virginia." Regional Research Institute (RRI) Research Paper #2006-14. West Virginia University (WVU). 2006. 28 pp.

Amarasinghe, A., G. D'Souza, C. Brown, and T. Borisova. "A Spatial Analysis of Obesity in West Virginia." RRI Research Paper #2006-13. West Virginia University. 2006. 38 pp.

Amarasinghe, A., G. D'Souza, C. Brown, and H. Oh. "The Influence of Socioeconomic and Environmental Factors on Health and Obesity in Rural Appalachia." Regional Research Institute Research Paper #2006-12. West Virginia University. 2006. 33 pp.

Borisova, T., G. D'Souza, B. Benham and E.F. Dukes. "Developing a Roadmap for Public Involvement in TMDL Implementation Plan (IP) Development: A Review and Synthesis of Literature." WVU Div. of Resource Management RESMWP 05-05. March 2005. 25pp.

Borisova, T., G. D'Souza, N. Khandelwal, B. Benham, and M.L. Wolfe. "Analysis of Sediment Reduction Strategies for Abrams Creek Benthic TMDL Using PredICT Software." WVU Division of Resource Management Paper RESMWP-05-06. April 2005. 8pp.

Evans, J. and G. D'Souza. "Changes in Water Quality due to Alternative Agricultural Practices and Products: An Overview." WVU Division of Resource Management Paper RESMWP-05-07. March 2005. 25pp.

Borisova, T., G. D'Souza, D. Miller, and C. Zabriskie. "Optimum Shipment Patterns for West Virginia Aquaculture Products - PART I: Growers." WVU Division of Resource Management Paper RESMWP-04-01. June 2004. 31 pp.

Borisova, T., G. D'Souza, D. Miller, and C. Zabriskie. "Optimum Shipment Patterns for West Virginia Aquaculture Products - PART II: Processors." WVU Division of Resource Management Paper RESMWP-04-02. June 2004. 30 pp.

Baer, Alexander and Gerard D'Souza. "To Market, To Market, To Sell Some Organic Produce: The Economics of Organic Farming During the Transition Phase." WVU Division of Resource Management Paper RESMWP-04-05. 2004. 17 pp..

D'Souza, G. *The Agriculture Sector in the US Virgin Islands* – a series of 3 monographs describing production and consumption trends; structural characteristics; and business management tools. Agricultural Experiment Station, University of the Virgin Islands, St. Croix, 2003.

Valencia, E., L.E. Sollenberger, and G. D'Souza. *Pasture Production and Economics* – a series of 2 monographs describing pasture establishment; and pasture management. Agricultural Experiment Station, University of the Virgin Islands, St. Croix. 2002.

- Gandee, J. and G. D'Souza. "Agriculture in the West Virginia Economy." Div of Resource Management, West Virginia Univ, 2002. [<http://www.caf.wvu.edu/gdsouzawww/agricultureinWVeconomy.pdf>].
- Godfrey, R.W. and G.E. D'Souza. "Hair Sheep Production in the US Virgin Islands: Management Practices and Economic Analysis." Agricultural Experiment Station Bulletin. University of the Virgin Islands, St. Croix. 2001.
- San, N., D. Miller, G. D'Souza, D. Smith, and K. Semmens. "West Virginia Trout Enterprise Budgets." Version 2. Pub. #AQ01-1. WVU Extension Service, Morgantown, WV. 2001.
- Crocker, D., G. D'Souza, T. Phipps, and P. Schaeffer. "Role of Brownfields in Sustainable Land Use: A Spatial Econometrics Approach." R.M. Publication No. 98-03, Division of Resource Management, WVU, Nov. 1998. [<http://www.geocities.com/CapitolHill/6338/bfields.html>].
- Jones, K., G. D'Souza, A. Collins, T. Phipps, and D. Bhumbra. "Trading Poultry Litter at the Watershed Level in West Virginia: A Goal Focusing Application." R.M. Publication No. 98-01, Division of Resource Management, West Virginia University, April 1998.
- D'Souza, G.E. "Sustaining West Virginia Agriculture in a Changing Environment." *1996 Annual Report*, W.Va. Agr. & For. Expt. Sta., Morgantown, 1997: 22.
- D'Souza, G.E. and B. Walton. "A Guide to INTERNET Resources in Sustainable Development." ARE Program, Division of Resource Management, West Virginia University, Version 4, May 3, 1996. [<http://www.caf.wvu.edu/gdsouzawww/>].
- D'Souza, G.E. "Environmental Quality and Natural Resource Use in West Virginia: A Summary of Research in Sustainability." *1994 Annual Report*, WV Agr. & For. Expt. Sta., 1995: 12-14.
- D'Souza, G., A. Vanderpool, A. McCauley, C. Gempesaw, II, and J. Bacon. "The Marketing Potential of Aquaculture Products in WV: A Survey of Consumer, Restaurateur, and Wholesaler Attitudes. R.M. Pub. 93-01, Div. of Reso. Mgmt., West Virginia Univ, July 1993.
- D'Souza, G.E. "A Market Assessment of the Fertilizer By-Product from E-Beam Flue Gas Desulfurization." Proj. report, Science Applications International Corp, McLean, VA, 1993.
- D'Souza, G.E. and D. Cyphers. "Sustainable Agriculture Adoption: Effects of Groundwater Contamination and Other Factors." *1992 Ann. Report*, WV Agr. & For. Expt. Sta., 1993: 7.
- Collins, A.R., D.A. Fritsch, G.E. D'Souza, and R.G. Diener. "The Economics of Composting Poultry Litter." Coop. Extn. Svc. Report, WVU, Aug. 1992.
- D'Souza, G.E. "Towards a Framework for the Microeconomic Analysis of Sustainable Agriculture." R.M. Pub. 91_12, Div. of Reso. Mgmt., WVU, Dec. 1991.
- Cyphers, D., G.E. D'Souza and T.T. Phipps. "Alternative Agriculture Adoption: Effects of Ground Water Contamination and Other Factors." R.M. Pub. 91-11, Div. of Reso. Mgmt., WVU, Dec. 1991.
- D'Souza, G.E. "The Aquaculture Alternative for Cool, Hill Country." R.M. Pub. 91/5, WVU, Aug ' 91.
- D'Souza, G.E. "The Purchase-Versus-Lease Decision: A Model, an Illustration, and the Impacts of Tax Policy." R.M. Pub. 90/5, Div. Reso. Mgmt., WVU, May 1990.

- Onafowora, O.A., D. Colyer and G.E. D'Souza. "Impacts of External Factors on WV Agriculture: A Disaggregated Econometric Analysis." R.M. Pub. 90/3, Div. Reso. Mgmt., WVU, April 1990.
- D'Souza, G.E. and E.W. Maxwell. "Impacts of Extending the Grazing Season on Beef Cow/Calf Profitability in West Virginia." *1988 Annual Report*, W. Va. Agr. & For. Expt. Sta., Morgantown, 1989:66.(Co-author of other reports in same publication, pp. 20-21; 22-23; 51-52; 55-56; and 58).
- D'Souza, G.E., M.B. Materu, D.K. Smith, A. Hoque, and G.W. Zinn. "Agriculture in the Economic Development of WV: An I-O Analysis." Misc. Pub. 20. WV Agr. & For. Expt. Sta., April 1988.
- D'Souza, G.E. "Alternatives in Financing Assets: The Business and Personal Purchase Versus Lease Decision." Misc. Pub. 18. WV Agr. & For. Expt. Sta., Morgantown, Dec. 1986.
- D'Souza, G.E. and D.K. Smith. "Model for Evaluating the Economic Potential of Warm-Season Grasses for Livestock Feeding." *Annual Report*, WV Agr. & For. Expt. Sta., Morgantown, 1986: 29-32.
- D'Souza, G.E. and G.V. Eagan. "Evaluating the Financial Health of Your Farm." Extension Fact Sheet 201. W. Va. Coop. Extn. Svc., Morgantown, Oct. 1986.
- D'Souza, G.E. and J.H. Clarke. "Agriculture in the West Virginia Economy." Misc. Pub. 16. W. Va. Agr. & For. Expt. Sta., Morgantown, Oct. 1986.
- D'Souza, G.E., T.D. Phillips, and W.J. Free. "The U.S. Soybean Processing Industry: Optimum Size, Number and Location." TVA Bul. Y193, Southern Coop. Series Bul. 312, Jan. 1986. (Related paper on this topic by same authors: Agr. Econ. staff paper 65, Miss. State, Feb. 1984).
- D'Souza, G.E. and C.E. Bohac. "Agricultural Fuel Crops: 201-County Tennessee Valley Region - Policy Assessment." TVA/ONRED/AWR-85/10. Chattanooga, TN, Oct. 1985.
- Madewell, C.E., G.E. D'Souza, Y. Esensoy, J. Broder and G.S. Simpson. "Agricultural Fuel Crops: 201-County Tennessee Valley Region." Circ. Z-158. TVA, Muscle Shoals, AL, Dec. 1983.
- D'Souza, G.E., A.J. Allen, W.L. Bateman, T.D. Phillips, and E.A. Stennis. "The Impact of the Tennessee-Tombigbee Waterway System on the Mississippi Grain Economy." Agr Econ Staff Paper 49, Miss. State Univ., Sept. 1980. (Related papers: AEC Tech. Pub. 24 & Staff Paper #58).

E. Conference Papers/Presentations:

- Baer, A. and G. D'Souza. "An Economic Assessment of Organic Farming: Implications for Sustainable Development of Rural Areas." Accepted for presentation at the International Conference on "21st Century Challenges to Sustainable Agri-Food Systems, Biotechnology, Environment, Nutrition, Trade and Policy, Bangalore, India, March 15-17, 2007.
- Semmens, K., Y-H Wang, R. Turton, T. Borisova, G. D'Souza, and D. Miller. "Application of Raceway Design Simulation System to Create a Production Plan for a Small Flowing Water System Serving the Recreational Market in WV." Accepted for presentation at the World Aquaculture Society annual meeting, New Orleans, February 2007.
- Collins, A., M. Benson, T. Borisova, and G.D'Souza. "Differences among Watershed Sub-Populations in Willingness to Pay for Water Quality Improvements: The Impact of TMDL Development." Selected paper, presented at the American Agricultural Economics Association annual meeting, Long Beach, CA, July 26, 2006.

- Amarasinghe, A., G. D'Souza, C. Brown, and T. Borisova. "A Socio-Economic and Spatial Analysis of Obesity in Appalachia." Selected paper, presented at the American Agricultural Economics Association annual meeting, Long Beach, CA, July 26, 2006.
- Collins, A., M. Benson, T. Borisova, and G. D'Souza. "The Impact of Watershed Location and TMDL Development on Willingness to Pay for Water Quality Improvements." Selected paper, presented at the Northeast Agricultural Economics Association 2006 annual meeting, Mystic, CT, June 11-14, 2006.
- Borisova, T., M. Benson, A. Collins, G. D'Souza, and B. Benham. "Benefits From Improved Water Quality: An Economic Valuation Study on The Opequon Watershed in West Virginia and Virginia", Selected paper, presented at the USDA-CSREES National Water Conference, San Antonio, TX, February 5-9, 2006,
- D'Souza, G. and A. Baer. "To market, To Market, To Sell Some Organic Products: An Economic Assessment of Organic Farming." Selected paper, presented at the 15th IFOAM Organic World Congress, Adelaide, Australia. Sept 20-23, 2005. (Published in conference proceedings).
- Amarasinghe, A., G.H. Gebremariam, G. D'Souza, and T. Phipps. "A Dynamic Optimization Approach in Evaluating Investment Benefits for Wetlands Restoration." Selected paper, presented at the Northeastern Agricultural & Resource Economics Association annual meeting, Annapolis, MD, June 12-15, 2005. (Abstract published in *Agr & Reso Econ Review* 34(2005): 285).
- Bennett, B. and G. D'Souza. "Willingness to Consume Genetically Modified Fish: Industry and Policy Implications." Selected paper, accepted for presentation at the World Aquaculture Society annual conference, Bali, Indonesia, May 9-13, 2005.
- Borisova, T., K. Semmens and G. D'Souza. "Economic Analysis of Production of Female Green Sunfish x Male Bluegill Hybrids in WV." Selected paper, presented at the Aquaculture America conference, New Orleans, LA, January 17-20, 2005.
- Miller, D., K. Semmens and G. D'Souza. "Trout Culture as a Post-Mining Land Use in WV – A Case Study." Selected paper, presented at the Aquaculture America conference, New Orleans, LA, January 17-20, 2005.
- D'Souza, G. and D. Miller. "Economics of Mine Water Aquaculture." Selected paper, presented at the Amer. Society of Mining & Reclamation annual meeting, Morgantown, WV, April 20-22, 2004.
- Evans, J., G. D'Souza, M. Sperow, and E. Rayburn. "An Economic Analysis of Pasture-Raised Beef Systems in Appalachia." Selected paper, accepted for presentation at the American Agricultural Economics Association annual meeting, Denver, CO, August 1-4, 2004.
- Borisova, T., G. D'Souza, D. Miller, and C. Zabriskie. "A Geographic Analysis of the Marketing Strategies for the WV Aquaculture Industry." Selected paper, presented (by co-author) at the SOFOR GIS Conference, Athens, GA, December 16-17, 2004.
- Bennett, B. and G. D'Souza. "Consumer Attitudes toward GM Fish: Industry and Policy Implications." Selected Paper, presented at the IASTED International Conference on Environmental Modeling and Simulation, St. Thomas, US Virgin Islands, November 22-24, 2004.
- Gandee, J., C. Brown and G. D'Souza. "A Spatial and Demographic Analysis of Farm Direct Marketing." Selected paper, accepted for presentation at the International Food and Agribusiness Management Association annual conference, Montreux, Switzerland, June 12-15, 2004.

- Evans, J. and G. D'Souza. "The Economics of Pasture-Raised Beef in the US: Implications for Industry, Trade, and Biotechnology." Selected paper, accepted for presentation at the International Consortium on Agricultural Biotechnology Research, Ravello, Italy, July 8-11, 2004.
- Gandee, J., C. Brown, and G. D'Souza. "A Spatial and Demographic Analysis of Direct farm Marketing: Industry and Policy Implications." Selected Paper, 14th annual International Food & Agribusiness Management assoc. (IAMA) annual conference, Montreux, Switzerland, June 12-15, 2004.
- Gandee, J., G. D'Souza, and C. Brown. "The Role of Spatial and Demographic Characteristics in Direct Farm Marketing: An Econometric Approach." Selected paper, American Agricultural Economics Association annual meeting, Montreal, Canada, July 27-30, 2003.
- Bennett, B., G. D'Souza, R. Rosenberger and D. Smith. "Genetically Modified Fish and Seafood: Consumer Attitudes, Marketing Strategies & Policy Implications." Selected Paper, 7th Int'l Conf on Public Goods & Public Policy for Ag Biotechnology, Ravello, Italy, June 29-July 3, 2003.
- D'Souza, G., D. Miller, K. Semmens, and D. Smith. "Mine Water Aquaculture as an Economic Development Strategy..." Selected paper, special session on the Economic Impacts of Aquaculture at the Aquaculture America conference, Louisville, KY, February 2003.
- Bendapudi, R., G. D'Souza and A. Collins. "The Impact of Urbanization on Land Use Decisions and Sustainability: The Case of the Conservation Reserve Program." Selected paper, presented (by co-author) at the NAREA Land Use Policy Workshop, Camp Hill, PA, June 11-13, 2002.
- Godfrey, R. and G. D'Souza. "Development of an Enterprise Budget for Hair Sheep Production in the US Virgin Islands." Selected paper, presented (by co-author) at the American Society of Animal Science, Northeast section annual meeting, Baltimore, MD, July 24 - 28, 2000.
- Crocker, Donald and G. D'Souza. "Spatial Characteristics of Brownfields: Implications for Sustainable Land Use." Selected paper, NAREA annual meeting, Morgantown, WV, June 27-29, 1999. (Abstract in *Agr. & Reso. Econ. Rev.* 28(1999): 235).
- Jones, K. and G. D'Souza. "Trading Poultry Litter at the Watershed Level: A Goal Focusing Application." Selected paper, AAEE annual meeting, Salt Lake City, UT, August 2-5, 1998. (Abstract in *Amer. J. Agr. Econ.* 80(1998): 1188).
- Smearman, S.C., G.E. D'Souza, and V.J. Norton. "External Costs of Aquaculture Production: An Application to West Virginia." Selected paper, presented at NAREA annual meeting, Sturbridge, MA, June 22-24, 1997. (Abstract in the *Agr. & Reso. Econ. Rev.* 27(1997): 261)
- D'Souza, G.E. and T. Teegerstrom. "Contract Grazing of Beef Cattle: A Decision Theory and Portfolio Analysis." Presented at EUNITA Seminar, "Risk Management Strategies in Agriculture: State of the Art and Future Perspectives," Wageningen, The Netherlands, January 7-10, 1996.
- D'Souza, G. and J. Ikerd. "Small Farms and Sustainable Development: Is Small More Sustainable?" Invited paper, presented at the SAEA annual meeting, Greensboro, N.C., February 3-7, 1996.
- Smearman, S.C., L.A. Blanciforti, G.E. D'Souza, and C.M. Gempesaw. "Consumer Preferences for Farm-Raised Trout: An Application to West Virginia." Selected paper, NAREA annual meeting, Newark, DE, June 27-29, 1994. (Abstract in the *Agr. & Reso. Econ. Rev.* 23(1994): 249).

- Teegerstrom, T. and G.E. D'Souza. "Contract Grazing of Beef Cattle: A Decision Theory/Portfolio Comparison." Selected paper, AAEE annual meeting, San Diego, Aug. 7-10, 1994. (Abstract in the *Amer. J. Agr. Econ.* 76(1994): 1263).
- D'Souza, G.E. "Toward a Microeconomic Framework for Analyzing Sustainable Agriculture: A Review and Synthesis." For symposium, "Sustainable Agriculture: Conceptual and Methodological Issues," Amer. Agr. Econ. Assoc. annual meeting, San Diego, Aug. 7-10, 1994.
- Bryan, W.B., E.C. Prigge, D. Flaherty, and G.E. D'Souza. "Buffer Grazing in the Appalachian Hills." Selected poster, Int'l Grassland Congress, New Zealand and Australia, Feb. 1993.
- Cyphers, D. and G.E. D'Souza. "Alternative Agriculture Adoption: Effects of Ground Water Contamination and Other Factors." Amer. Agr. Econ. Assoc. annual meeting, Baltimore, MD, Aug. 9-12, 1992. (Abstract in the *Amer. J. Agr. Econ.* 74 (1992): 1304).
- Shang, J., G.E. D'Souza, and V.J. Norton. "An Estimation of Geographic Differences in Beef Cattle Supply Response." Amer. Agr. Econ. Assoc. annual meeting, Baltimore, MD, Aug. 9-12, 1992. (Abstract in the *Amer. J. Agr. Econ.* 74 (1992): 1304).
- D'Souza, G.E., V. J. Norton, and J. Shang. "Geographic Differences in Beef Cattle Supply Response: An Alternative Approach." Selected poster, accepted for presentation at the XXI International Conf. of Agr. Economists, Tokyo, Aug. 22- 29, 1991.
- D'Souza, G.E. "Production Economics in the Sustainability Era." Symposium, NE Agr. & Reso. Econ. Assoc. annual meeting, Univ. of New Hampshire, June 17-19, 1991. (Abstract in the *Northeastern J. Agr. & Res. Econ.* 20(1991): 214).
- D'Souza, G.E. "The Purchase-Versus-Lease Decision Revisited after the 1986 Tax Reform Act." Midwest Business Econ. Assoc. annual meeting, Chicago, IL, Apr. 3-5, 1991.
- Bryan, W.B., E.C. Prigge, and G.E. D'Souza. "A Comparison of Conventional and Innovative Systems for Beef Cow/Calf Production." Selected paper, presented (by a co- author) at the N.E. Branch meetings of the American Society of Agronomy, Durham, NH, July 8-11, 1990.
- D'Souza, G.E. "The Purchase-Versus-Lease Decision: A Model, an Illustration, and the Tax Policy Impacts." Southern Reg. Sci. Assoc. annual meeting, Washington, D.C., Mar. 22-24, 1990.
- D'Souza, G.E. "Fuel from Crops: Economic Issues and Potential Environmental Impacts." Southern Regional Sci. Assoc. annual meeting, Chapel Hill, NC, Apr. 27-29, 1989.
- D'Souza, G.E. "Development of Water Supply Sources for Livestock: The Economic Framework." Workshop on pasture management, Jackson's Mill, WV, Nov. 15, 1988.
- D'Souza, G.E., D.K. Smith, and R.F. Romero. "An Economic Analysis of Alternative Beef-Cattle Grazing Systems." Amer. Agr. Econ. Assoc. annual meeting, Knoxville, TN, July 31 - Aug. 3, 1988. (Abstract in the *Amer. J. Agr. Econ.* 70(1988): 1185).
- Maxwell, E.W., G.E. D'Souza, W.B. Bryan, and E.C. Prigge. "Economics of Four Grass Meadow Production Systems for Beef Cow/Calf Enterprises." Presented by a co-author at the American Society of Agronomy, N.E. Branch annual meeting, West Virginia University, June 26-29, 1988. (Abstract in the *N.E. Branch Amer. Soc. Agron. Abstr.* (1988): 6).

- D'Souza, G.E., D.K. Smith, and M.B. Materu. "Agriculture and Economic Development of WV: An Input-Output Analysis." SRSA annual meeting, Morgantown, WV, Apr. 14-16, 1988.
- D'Souza, G.E. and A. Hoque. "Renewable Energy Sources: Economic and Environmental Issues, and Policy Alternatives." International Atlantic Economic Conference, Boston, Aug. 28-31, 1986.
- D'Souza, G.E. and T.D. Phillips. "Interregional Competition in Soybean Processing in the 90s." Selected paper, SAEA annual meeting, Biloxi, MS, Feb. 4-6, 1985. Abstract in the *SJAE* 17(1985): 202.
- D'Souza, G.E. and T.D. Phillips. "Spatial Characteristics of the U.S. Soybean Processing Industry." Midsouth Academy of Economists annual meeting, Jackson, MS, Feb. 17-19, 1983.
- D'Souza, G.E., A.J. Allen, W.L. Bateman, T.D. Phillips, and E.A. Stennis. "Impact of the Tennessee-Tombigbee Waterway System on the Mississippi Grain Economy." Southern Agr. Econ. Assoc. annual meeting, Atlanta, GA, Feb. 1-4, 1981. (Abstract: *Southern J. Agr. Econ.* 13(1981): 173).

RESEARCH GRANTS AND PROJECTS

(a) Externally funded:

- 2006-09: "Effective Strategies for Reducing Nutrient Loads from the Opequon Watershed." National Fish and Wildlife Foundation (sub-contract through Va Tech, C. Heatwole, Project Coordinator). PI for WVU. \$1 million total funding (\$100,542 to WVU).
- 2006-07: "Economic Analysis of an Alternative raceway Material." Northeastern Regional Aquaculture Center. Project Coordinator (with D. Miller, co-PI). \$73,996.
- 2006-08: "Aquaculture Product and Marketing Development." Co-Investigator (with K. Semmens, PI). Total (WVU) project funding: \$693,165.
- 2005: "Public Participation in Watershed Management and the TMDL Process." Mid-Atlantic Regional Water Quality Project (through U. of MD). PI (T. Borisova *et al.*, co-PIs). \$30,000.
- 2003-06: "Aquaculture Systems Analysis: Models, Applications, and Implications..." Canaan Valley Institute research grant. PI (with D. Miller, co-PI). \$122,030.
- 2002-08: "Mid-Atlantic Water Quality Coordination Project." USDA, CSREES (sub-contract through Univ. of Maryland). Co-PI (with Tom, Basden, PI). \$43,992 (years 1-3); \$58,023 (years 4-6).
- 2000-08: "Pasture-Based Beef Systems for Appalachia: Land & Pasture Use, Supplementation, & Systems Analysis." USDA-ARS. Co-investigator (with W. Bryan, PI). Total (WVU) project funding: \$248,785 (yr 1); \$541,571 (yr 2); \$541,466 (yr 3); \$589,711 (yr 4); \$582,242 (yrs 5-7).
- 2002-05: "Comparison of Organic Farming Systems Using Off-Farm Nitrogen with and without Animals." USDA-SARE Grant. Co-PI (with J. Kotcon, PI). \$149,968.
- 2002-03: Mid-Atlantic Greenhouse and Nursery Survey. Farm Credit of the Virginias. Co-PI (with D. Smith and S. Verlinden). \$20,000 to Davis College for internship and survey.
- 2002-05: "Vegetation Management Effects on Ecological and Economic Stability of Tree Crop-Livestock Systems." USDA/T-STAR Tropical-Sub-Tropical Agriculture Research project. Economics consultant to project (E. Valencia and C. Ramcharan, PIs). \$8,000 during '03-04 to RM Division.

- 2001-02: West Virginia Farm Management Risk Management Assessment. WV Dept of Agriculture. Co-investigator (with T. McConnell, PI). \$7,000 for FY 02 to Div of Resource Management.
- 1999-02: "Transition Methods to Convert from Conventional to Organic Agricultural Systems." USDA NRI-CGP Agricultural Systems Program. Co-investigator (with J. Kotcon, PI). \$103,329.
- 1999-02: "Systems of Transition from Conventional to Organic Agricultural Production." USDA-SARE Grant. Cooperator (with J. Kotcon, Project Coordinator). \$217,247.
- 1998-01: "Aquaculture Food and Marketing Development Project." USDA-CSREES Special Grant Research Program. Co-investigator (with K. Semmens, PI; and P. Kenney, C. Logar, T. Ponzurick, D. Smith, et al., fellow co-investigators). Total (WVU) project funding: \$560,864 (yrs 1&2); \$701,700 (yr. 3); \$700,014 (yr. 4); \$685,620 (yr. 5).
- 1998-01: "Cow-Calf Production Systems in Appalachia." USDA NRI-CGP Agricultural Systems Program. Co-PI (with W. Bryan, E. Prigge, and E. Rayburn). \$210,000.
- 1993-94: Co-investigator (with John Holmgren, PI) of an \$86,353 contract from Science Applications International Corp., McLean, VA for research on "E-Beam Scrubbing of Industrial Flue Gases."
- 1988-93: Co-investigator (with W. Bryan and E. Prigge) of a grant from the USDA/SARE program for pasture research. Renewed for five years, with cumulative funding of \$91,664.
- 1992-93: Co-PI (with A. Vanderpool) of a \$3,615 grant from the WVU Extn. Svc. and the Conservation Fund's Freshwater Inst. (through U. of Delaware) for aquaculture market research.
- 1991-92: \$6,000 scholarship from the Wallace Institute for Alternative Agriculture (near Washington, D.C.) to conduct research on conceptual issues pertaining to the economics of sustainability.
- 1983-84: PI of a \$40,000 one-year personal services contract from the Tennessee Valley Authority for work on a renewable energy and a grain marketing research project.

(b) Internally- Funded Grants/Research Projects:

- 2004-05: "Obesity, Technology, and Policy: Exploring the Connections and Implications for Sustainable Development of Appalachia." WVU Regional research Institute. \$10,000 awarded to PI to develop and submit an externally-funded grant proposal.
- 1986-97: Awarded six faculty travel or development grants by WVU totaling over \$2,000, to support participation in professional meetings, and a \$500 teaching grant to internationalize a course.
- 1993-94: WVU-CAF faculty development grant of \$1,650 for transportation expenses to visit selected universities in Western Samoa and New Zealand, May 1994.
- 1991-92: Co-PI (with A. Collins) of a six-month, \$13,496 grant from the WV Cooperative Extension Service to conduct a poultry-litter composting feasibility study for WV.
- 1990-91: Sole investigator of a \$3,820 one-year grant from the WVU Senate Research Grant program to conduct an economic feasibility study on aquaculture in West Virginia.

(c) Hatch (formula-funded) Research projects:

2005-10: Regional Project NC_TEMP1001 – “Influence of Food Environments on Food Patterns and Population Health.” Co-investigator for West Virginia (with C. Brown and C. Fitch).

2004-09: State Project #WV 447 - “Productivity, pest management and soil quality in organic farming systems.” Co-investigator (with J. Kotcon, PI).

2002-07: Regional Project NE-1012 (WV 425): “Sustaining Local Food Systems in a Globalizing Environment: Forces, Responses, Impacts.” Co-investigator for West Virginia (with C. Brown).

1999-05: State Project #WV 411, “Implications of The New Agriculture for West Virginia.” Principal Investigator (co-investigators: A Collins, J. Fletcher, T. Phipps, K. Semmens, & D. Smith).

1997-02: Regional Project #NE-185 (WV 395), “Commodities, Consumers, and Communities: Local Food Systems in a Globalizing Environment.” Co-investigator for West Virginia (with D. Smith).

1994-99: State project WV 375, "Conceptual & Empirical Investigations into Sustainability with Implications for WV Agriculture." PI (co-investigators : J. Fletcher and T. Phipps).

1991-96: State project WV 353, "Increasing the Productivity of Forage-Livestock Systems." Co-PI (with W. Bryan and E. Prigge).

1989-94: State project WV 339, "Technology, Profitability and Ecology: Interactions at the Farm Level and Implications for WV Agriculture." PI (co-investigators: J. Fletcher and T. Phipps).

1984-89: State project WV 298, "Economics of Beef and Sheep Production Systems in West Virginia." P.I. beginning in July 1984 (original PI: R.O. Burton, Jr.).

COURSES TAUGHT

- Undergraduate: *Introductory Agricultural & Agribusiness Economics; Introductory Econometrics; Freshman Orientation; Farm Planning; Farm Management; Agribusiness Finance; Aquaculture Seminar.*
- Graduate: *Advanced Production Seminar; Production Economics; Quantitative Methods in Resource Economics.*

COMMITTEES AND SERVICE

- Student committees: Chair(ed) 35 M.S. and Ph.D. graduate student committees, and serve(d) as a member on approximately 50 others [a 1997 MS thesis directed was selected by the ARE program for Honorable Mention; and three theses directed (1998, 2003, 2004) were selected as Outstanding MS Theses].
- Graduate Program Coordinator, ARE Program, 1995-99: responded to inquiries; coordinated application reviews and GRA offers; assisted in recruiting; served as advisor to all incoming students.
- Other committees: Serve(d) as member or chair on over 20 departmental/college/university committees, ten professional association committees, and as a reviewer for numerous refereed journals and book publishers (Harcourt; Greenwood; Prentice-Hall; Thompson/South-Western). Chair, WVU Senate Library Committee for 1999-2000 (appointed); Chair, Division Promotion & Tenure committee for 1999-2000; and 2006-07 (elected); Chair, Davis College Promotion & Tenure committee for 2000-01 (elected);

Chair, Davis College Information & Technology committee for 2000-01 (appointed); and Chair, Division Curriculum committee for 2005-07 (appointed). Served as member on several other committees, including faculty search; course and curriculum committees; steering committees; and as an external evaluator for promotion and tenure. Also served as an Officer (since 1998; President in 2000-01) of Gamma Sigma Delta, Agricultural Honor Society.

- Community volunteer activities include assisting with flood recovery efforts; Special Olympics volunteer; elected to County Council of Schools; and career guest lecturing to area grade schools.

INTERNATIONAL EXPERIENCE

Personal or business visits to South Pacific (Australia, New Zealand, W. Samoa, Hawaii); Asia (India); Europe (Italy, Netherlands and Great Britain); Latin America (Costa Rica); and the Caribbean (U.S. Virgin Islands).

AWARDS AND HONORS

- Inducted into Sigma Xi, Scientific Research Society, 2004.
- Outstanding Research Award, Division of Resource Management, West Virginia University, 2003-04.
- Member, Northeastern Agricultural & Resource Economics Association Board of Directors, 2000-03 (elected position).
- Gamma Sigma Delta Senior Faculty Certificate of Merit, 2000.
- Member, WVU Faculty Senate, 1998-01 (elected position), re-elected for 2005-08; and member, Senate Executive committee, 2000-01 (elected position).
- Selected as one of two participants from the WVU Davis College in the annual U.S. Land Grant University ESCOP/ACOP Leadership Development Program, 2001-02.
- Served on a USDA NRI competitive grants review panel, 1998 and 2000.
- Outstanding Teaching Award, WVU Division of Resource Management [20 faculty], 96-97 and 97-98.
- Invited speaker, Alpha Tau Alpha Spring Symposium, 1998.
- Honorary FFA Member, 1998.
- Who's Who in America; Who's Who in American Finance and Industry; Who's Who in the World; and International Directory of Distinguished Leadership, 9th (millenium) edition.
- The *Science Guide's* "4 Test Tube Award" for excellence in scientific web publishing, 1997.
- Member of Editorial Board, *Agricultural and Resource Economics Review*, 1993-96; and member, EU-Pacific Region Agricultural Project Expert Data Working Group for South Pacific region, 1995.
- Inducted into Gamma Sigma Delta (Honor Society of Agriculture), 1989.
- Who's Who Among Students in American Universities and Colleges, 1983-84.
- Outstanding Doctoral Student Award, Dept. of Agricultural Economics, Miss. State University, '82-83.