

March 15, 2016

VITA

Charles W. Abdalla, Ph.D.

Professor of Agricultural and Environmental Economics
The Pennsylvania State University, University Park, Pennsylvania

Address

201-B Armsby Building
Department of Agricultural Economics, Sociology, and Education
The Pennsylvania State University
University Park, PA 16802
Phone: (814) 865-2562 Fax: (814) 865-3746
E-mail: CAbdalla@psu.edu

Education

The Pennsylvania State University, Bachelor of Science, 1979
Major: Environmental Resource Management

Michigan State University, Master of Science, 1982
Major: Agricultural Economics

Michigan State University, Master of Arts, 1983
Major: Economics

Michigan State University, Ph.D., 1985
Major: Agricultural Economics

Present Position

Professor of Agricultural and Environmental Economics, The Pennsylvania State University
Member of the Graduate Faculty, The Pennsylvania State University
Affiliated Faculty, Penn State Institutes for Energy and the Environment,
The Pennsylvania State University
Affiliated Faculty, Environmental and Natural Resources Institute,
College of Agricultural Sciences, The Pennsylvania State University

Previous Positions

Research/Teaching Assistant, 1979-1984, Michigan State University, East Lansing, Michigan
Gilbert F. White Fellow, 1992-1993, Resources for the Future, Washington, D.C.
Visiting Scholar, 2007-2008, Oregon State University, Corvallis, Oregon
Visiting Scholar, 2014-2015, Colorado State University, Fort Collins, Colorado

Professional Affiliations

Agricultural and Applied Economics Association
Northeast Agricultural and Resource Economics Association

Honors and Awards (2000 - present)

National Awards

R. J. Hildreth Award for Excellence in Public Issues Education, 2000. Land Use Conflict: When City and Country Clash Project. (Co-chaired committee that planned and implemented this publication).

R. J. Hildreth Award for Excellence in Public Issues Education, 2001. Animal Confinement Policy project. (Member of committee that planned and implemented this project).

R. J. Hildreth Award for Excellence in Public Issues Education, 2005. What the Public Values about Farmland workshop and publications. (Helped plan parts of this workshop, facilitated several breakout sessions, prepared summary proceedings, co-edited full proceedings).

2008 Best CHOICES Article Award. American Agricultural Economics Association. This national award recognized the outstanding contribution of the article to improved understanding and improved policies. The article's title is "Water Quality Trading and Agriculture: Recognizing the Challenges and Policy Issues Ahead" published in the June 2007 issue of CHOICES. Co-recipients: T. Borisova, D. Parker, and K. Saacke Blunk.

Silver Award in the Web/Social Media/Online Courses category. 2014. (Co-recipients were J. Fetter, J. Drohan, S. Smith, D. Yoxtheimer) for the Role of Water in Shale Gas Drilling in the Mid-Atlantic region interactive videos -- A Water Drop on a Journey - Shale Gas Drilling in the Mid-Atlantic. Association of Natural Resource Extension Professionals (ANREP).

Regional Awards

Regional Rapid Response Award, Mid-Atlantic Regional Water Program, 2006. For timely regional educational materials and programs on the 2005 sign-up for the Conservation Security Program in targeted Mid-Atlantic watersheds.

Regional Teamwork Award, Mid-Atlantic Regional Water Program, 2007. For educational materials and programs on water quality credit trading. Co-recipients: K. Saacke Blunk, D. Parker, T. Borisova, K. Stephenson, and M. Ribaud.

USDA 2010 “Project of Excellence” for “Educational Efforts on Water Quality Credit Trading Policies.” Selected by the leadership of the National Water Program, A Partnership of USDA-NIF and the Land and Universities. Other team members included D. Parker (U of MD), K. Stephenson (VA Tech) and T. Borisova (U of FL).

Northeast Regional Award for Education Technology Team 2012 (with N. Fogle, C. Loveland, J. Turack, and P. Wulfhorst) National Association of Community Development Extension Professionals. Program that received the award was the Marcellus Shale Educational Webinar Series. Monthly webinar series from November 2009 – March 2012.

University Awards

University Faculty Outreach Award, The Pennsylvania State University, 2006

College Awards

2009 Extension Director’s Spirit Award for Outstanding Technology, Marcellus Shale Educational Webinar Series. Co-recipients included: J. Kowalski, M. Douglass, and J. Turack.

Extension Director’s Team Award - 2010 Member, Safe Drinking Water Program Team - Water Resources Natural Work Group, 2010.

Selected Publications (2000 - present)

Articles Published in Refereed Journals

Dodd, A. and C. Abdalla. Strengthening Environmental Policy Education Through Qualitative Research: Experience with Pennsylvania’s Nutrient Management Act Regulatory Review. *Journal of Extension*. 42(5). (Oct. 2004). <http://www.joe.org/joe/>

Abdalla, C. and A. Dodd. When to Adapt State Nutrient Management Policies. *Journal of Soil and Water Conservation*. 60(1): 14-19. (Jan./Feb. 2005).

Ready, R.C. and C.W. Abdalla. The Amenity and Disamenity Impacts of Agriculture: Estimates from a Hedonic Pricing Model. *American Journal of Agricultural Economics*. 87(2): 314-326. (May 2005).

McCann, L., Abdalla, C., Jenner, M., and R. Massey. Improved Manure Management and Utilization: A Systems Approach. *Renewable Agriculture and Food Systems*. 20(3): 127-135. (Sept. 2005).

Lanyon, L.E., Arrington, K.R., Abdalla, C.W. and D.B. Beegle. Phosphorus Budgets for Pennsylvania Cropland: 1939 to 2002. *Journal of Soil and Water Conservation*. 61(2): 51-58. (March/April 2006).

Abdalla, C.W. and J.L. Lawton. Environmental Issues in Animal Agriculture. *Choices*. 21(3) Third Quarter. (2006). <http://www.choicesmagazine.org/>

Ishler, V., Dodd, A., Abdalla, C., Martin, G., Meinen, R.J., Mikesell, R.E. and J.L. Weld. Agricultural Environmental Programming in Pennsylvania: Increasing Visibility and Relevancy of Extension. *Journal of Extension*. 44(4). (Aug. 2006). <http://www.joe.org/>

Abdalla, C., Borisova, T., Parker, D. and K. Saacke Blunk. Water Quality Credit Trading and Agriculture: Recognizing the Challenges and Policy Issues Ahead. *Choices*. Second Quarter, (June 2007). <http://www.choicesmagazine.org/>

Abdalla, C. and A. Dodd. 2008. Technical Assistance Options. *Journal of Soil and Water Conservation* 63(3):66A-67A (May 2008)

Abdalla, C. Land Use Policy: Lessons from Water Quality Markets. *Choices* (23(4):22-28, Fourth Quarter (2008) <http://www.choicesmagazine.org/>

Abdalla, C. W. Rimsaite, R. and B. Swistock. Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas Exploration, *Journal of Environmental Studies and Sciences*, Spring 2013.

Refereed Articles in Books or Proceedings (2000 – present)

Abdalla, C.W. Competition for Land Use: Agricultural Rural/Urban Interface. *Encyclopedia of Animal Science*, New York, Marcel Dekker (2004). Online version: www.dekker.com

Dodd A. and C. Abdalla. Policy Issues: Local/State Land Use Regulation. *Encyclopedia of Animal Science*, New York, Marcel Dekker (2004). Online version: www.dekker.com

Sharpley, A. N. Withers, P. J.A., Abdalla, C W. and A. R. Dodd. Strategies for the Sustainable Management of Phosphorus. pp. 1069-1101. In J.T. Sims, and A.N. Sharpley (ed.) *Phosphorus: Agriculture and the Environment*. Am. Soc. of Agron., Madison, WI. (2005).

Abdalla, C.W. Environmental Issues. *The Future of Animal Agriculture in North America*. Farm Foundation. (April 2006). (Also printed in French and Spanish.) <http://www.farmfoundation.org/projects/documents/EnvironmentalIssues.pdf>

Published Abstracts (2000 – present)

Wang, S. and C.W. Abdalla. A Comprehensive Analysis of the Determinants of the Swine Industry's Expansion in Pennsylvania. *Agricultural and Resource Economics Review*. 29(2): 256. (Oct. 2000).

Pease, J. and C. Abdalla. Economic Issues of Water Quality Protection Affecting Confined Hog and Poultry Production in the Mid-Atlantic States. *Journal of Agricultural and Applied Economics*. pp. 384-385. (Aug. 2002).

Abdalla, C.W. and R.C. Ready. Does Intensive Agriculture Depress Property Values? Results and Implications from Berks County, PA. *Agricultural and Resource Econ. Review*. 32(2): 298. (Oct. 2003).

Abdalla, C., Gollehon, N., Norris, P., Parker, D. and J. Pease. Can Performance-Based Policies Improve Agricultural Land and Water Policy? Issues and Opportunities in New State Approaches to CAFOs and Other Farms. *Ag and Resource Econ Review*. 34(2): 287. (Oct. 2005).

Abdalla, C. and K. Saacke Blunk. Mail Surveys as Tools for Assessing Local Officials' Water Mgmt, Education and Technical Assistance Needs" USDA-CSREES Water Conf., Feb 2008 Sparks, NV. (Selected presentation)

Abstract: <http://www.usawaterquality.org/conferences/2008/abstracts/Abdalla08.pdf>

Abdalla, C., D. Parker: and K. Stephenson. Evaluation Framework for State Water Quality Credit Trading Programs in the Mid- Atlantic Region, USDA-CSREES Water Conference, St Louis, MO. Feb.2009. <http://www.usawaterquality.org/conferences/2009/Abstracts/Human-oral/Abdalla09.pdf>

Abdalla, C. "Water Resource Issues and Policies Associated with Energy Development: Challenges and Opportunities Related to Shale Gas in the Northeast and Mid-Atlantic." 2010 Land Grant and Sea Grant National Water Conference, Hilton Head, SC. March 2010. <http://www.usawaterquality.org/conferences/2010/PDF's/Abdalla.pdf>

Abdalla, C., Drohan, J., Rahm, B., Jacquet, J., Becker, J., Collins, A., Klaiber, Poe, G. and D. Grantham Water's Journey through the Shale Gas Drilling and Production Processes in the Mid-Atlantic Region. 2012 Proceedings of the Land Grant And Sea Grant National Water Conference, Portland, OR. May 2012. <http://www.usawaterquality.org/conferences/2012/poster%20abstracts/Abdalla.pdf>

Abdalla, C., Rimsaite, R. and B. Swistock. Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas. Marcellus Summit: Real Issues, Balanced Perspectives. University Park, October 2012. http://www.pe.tamu.edu/blasingame/data/z_web_Archive/20121011_PSU_MARC_Summit/

Editorial Publications (2000 – present)

Libby, L.W. and C.W. Abdalla. *Protecting Farmland at the Fringe: Do Regulations Work? Strengthening the Research Agenda*. Conf. Proc. Ohio State Univ., Columbus, OH. (Aug. 2002).

Abdalla, C.W. *What the Public Values about Farm and Ranch Land*. Summary Proceedings of a Workshop held Nov. 12-13, 2003, in Baltimore, MD. University Park, PA. NERCRD Reg. Rural Development Paper (RDP) No. 23, 39 pp. (Aug. 2004).

Books and Book Chapters (2000 – present)

Ready, R.C. and C. Abdalla, The Impacts of Land Use on Nearby Property Values: Estimates from a Hedonic House Price Model. Pp. 202-218 in *Land Use Problems and Conflicts: Causes, Consequences and Solutions*. S.J. Goetz, J.S. Shortle and J.C. Bergstrom, eds. Routledge Research in Environmental Economics: London and New York. (2005).

Articles Published in Non-refereed Journals (2000 – present)

Abdalla, C., Becker, J.C., Cook-Huffman, C., Gray, B., Hanke, R., and N. Welsh, Community Conflicts Over Intensive Livestock Operations: How and Why Do Such Conflicts Escalate? *Drake Journal of Agricultural Law*, 7(1): 7-42 (Spring 2002).

Abdalla, C. The Industrialization of Agriculture: Implications for Public Concern and Environmental Consequences of Intensive Livestock Operations. *Penn State Journal of Environmental Law* 10(2):175-191. (2002).

<http://www.nationalaglawcenter.org/bibliography/results/?id=50&page=3>.

Contributions to Proceedings Volumes (2000 – present)

Abdalla, C.W. A Changing Animal Agriculture: Implications for Economies and Communities in the NE and Middle Atlantic States. *Proc. of Managing Nutrients and Pathogens from Animal Agriculture: A Conference for Nutrient Management Consultants, Extension Educators and Producer Advisors*, NRAES: Ithaca, NY. NRAES -130. Pp. 25-36. (2000).

Ready, R.C. and C.W. Abdalla. The Amenity and Disamenity Impacts of Agriculture: Open Space or Animals. SERA-IEG 30 Workshop, *Human and Animal Waste Mgmt. and the Impact of Industry Concentration on Resource Allocation in the Southern Region*. Lexington, KY. (2003).

Abdalla, C and A. Dodd. Nutrient Management Policy: Pennsylvania Views About Progress, Challenges, and Future Directions. Proceedings of the American Water Resources Association, Spring Specialty Conference, Agricultural Hydrology and Water Quality Conference, Kansas City, MO. 2003 (on CD).

Mikesell, R.E., Kephart, K.B. and C.W. Abdalla. Social Issues related to the Swine Industry. Pp. 1-11 in *Swine Odor and Manure Mgmt.* U. of IL Pork Industry Conf. Champaign, IL. (2003).

Research Reports to Sponsor (2000 – present)

Ready, R. C. and C.W. Abdalla GIS Analysis of Land Use on the Rural-Urban Fringe: The Impact of Land Use and Potential Local Disamenities on Residential Property Values and on the Location of Residential Development in Berks County, Pennsylvania. Final Report to the Northeast Regional Center for Rural Development. June 2003.

Ready, R. C. and C.W. Abdalla. The Impact of Open Space and Potential Local Disamenities on Residential Property Values in Berks County, Pennsylvania, Final report to Citizens for Pennsylvania's Future (PENNFUTURE). June 2003.

Abdalla, C. and A. Dodd. Choosing an NRCS Technical Service Provider. Report to USDA-NRCS, Harrisburg, PA, 2 pp. December 2003.

Abdalla, C.W. and K. Saacke Blunk. Pennsylvania Local Government and Water Resources Management: 1991 and 2006. Final Report to the Center for Rural PA. 138 pp. (May 2007).

Parker, D., Stephenson, K., Abdalla, C., Shabman, L., Shortle, J., Jones, C., Angstadt, W., King, D., Rose, R. and D. Hansen. Evaluation Framework for Water Quality Trading Programs in the Chesapeake Bay Watershed. Report to Chesapeake Bay Program STAC. 30 pp. (May 2009).
<http://www.chesapeake.org/stac/Pubs/nutrient%20trading%20evaluation.pdf>

Abdalla, C., Rimsaite R. and B. Swistock. Understanding Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas Exploration. Final report to the PA Water Resources Research Center, Penn State University, 3 pp., May 2012.

Gottschalk, K., Abdalla, C., Benham, B., Chambers, R., Gardner, N., Howarth, R., Johnston, M. Maloney, K. and D. Wardrop. Exploring the Environmental Effects of Shale Gas Development in the Chesapeake Bay Watershed. Report to the Chesapeake Research Consortium, Edgewater, MD. STAC (Chesapeake Bay Program Scientific and Technical Committee) Publ. #13-01, 32 pp., January 2013.

Ribaudo, M., Abdalla, C., Stephenson, K. and L. Wainger. Critical Issues in Implementing Nutrient Trading Programs in the Chesapeake Bay Watershed. Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC) Pub. #14-002, Edgewater, MD. 49 pp. 2013.

Stephenson, K., Latane, A., Evanylo, G., Ogejo J., Beegle, D., Abdalla, C., Pease, J., McGrath, J., Ignosh, J., and T. Richard. Technical Analysis for Nutrient Crediting of Manure Conversion Technologies. Mid-Atlantic Water Program, National Institute of Food and Agriculture. USDA, 68 pp. July 2013.

Abdalla, C., Julius, S., Madhavan, P., Pease, J., Ribaudo, M. and K. Stephenson. . “Exploring Applications of Behavioral Economics Research to Environmental Policy in the Chesapeake Bay Watershed.” Research report to US EPA’s Chesapeake Research Consortium. STAC Publication Number 15-004, Edgewater, MD. 31 pp. December 2014.

Articles in In-House Publications (2000 – present)

Newsletters

Dodd, A. and C.W. Abdalla. February Permit Deadline for smaller CAFOs: Is Your Farm Affected? University Park, PA: Dept. of Ag. Economics and Rural Sociology. Penn State. *Farm Management Reports* 11(3): 5-7. (Nov. 2001).

Dodd, A. and C. Abdalla. Watershed Pollution Budgets: Pennsylvania’s New Approach to Restoring Polluted Waters, *Farm Economics*. Dept. of Ag. Econ. and Rural Soc., 4 pp. (Aug. 2002).

Abdalla, C. and A. Dodd. 2002 Farm Bill: Three Pressing Issues in Conservation. *Farm Bill Newsletter*, K. Bailey, ed. University Park, PA: Dept. of Ag. Economics and Rural Sociology. Penn State University. (<http://farmbill2002.aers.psu.edu/>) (Fall 2002).

Abdalla, C. and A. Dodd. Nutrient Management Policy: Pennsylvania Stakeholder Views of Policy, Progress, and Future Directions. University Park, PA: Dept. of Ag. Economics and Rural Sociology. Penn State. *Farm Management Reports*. 12(2): 10. (Nov. 2002).

Abdalla, C. and A. Dodd. Pennsylvania’s Nutrient Management Act: Progress, Challenges, and Future Directions, *Farm Economics*, Dept. of Ag. Econ. and Rural Soc., 4 pp. (Dec. 2002).

Dodd, A., Abdalla C. and L. Lanyon. New Report: Free Guide Explains New Federal Rules for Livestock, Poultry Farms. University Park, PA: Dept. of Ag. Economics and Rural Sociology. Penn State. *Farm Management Reports*. 13(1): 6-7 (June 2003).

Dodd, A. and C. Abdalla. Time is Ticking: Comment Period for Proposed Water Quality Regulations Closing November 5. University Park, PA: Dept. of Ag. Economics and Rural Sociology Penn State. *Farm Management Reports*. 14(2): 3 (Nov. 2004).

Abdalla, C. and J. Drohan. "Update on State Water Quality Rules Affecting Gas Extraction and Other Industries." *Natural Gas News*. June 2010.

Abdalla, C. "Penn State Extension publication addresses water withdrawals for Marcellus gas drilling." *Natural Gas News*. December 2010.

Staff Papers

Abdalla, C.W. and Y. Wang. Pennsylvania Local Officials Views and Policies Concerning Animal Agriculture. Dept. of Ag. Econ. and Rural Soc. Staff Paper 417. (June 2001).

Cooperative Extension Bulletins, Circulars and Other Written Materials (2000 – present)

National/Regional Publications

Dodd, A., Weidner, K., Abdalla, C. and T Simpson. The Conservation Security Program: A Guide for Interested Farmers. Mid-Atlantic Regional Water Quality Program. University Park, PA College of Ag Sciences. 12 pp. (March 2005). .

Dodd, A., Weidner, K., Abdalla, C. and T. Simpson. The Conservation Security Program: Encouraging and Rewarding Good Conservation. Mid-Atlantic Regional Water Quality Program. University Park, PA, College of Ag Sciences. 2 pp. (March 2005).

Saacke Blunk, K., Borisova, T., Abdalla C. and D. Parker. A Primer on Water Quality Credit Trading in the Mid-Atlantic Region. University Park, PA. 6 pp. (Nov. 2006, revised April 2009).

Parker, D., C. Abdalla, K. Stephenson and T. Borisova. "Educational Efforts on Water Quality Credit Trading Policies." 2011 USDA Land Grant/Sea Grant National Water Conference, Jan. 30 – Feb. 1, 2011, Washington, D.C.

http://www.usawaterquality.org/conferences/2011/regional/mid_atlantic/MID_Educational_efforts_WQ_credit_trading.pdf

Abdalla, C., J. Drohan, and J. Becker. "River Basin Approaches to Water Management in the Mid-Atlantic States." 28 pages. (February 2011).

Abdalla, C. and J. Drohan. Water Withdrawals for Development of Marcellus Shale Gas in Pennsylvania. Penn State Cooperative Extension, University Park, PA. 12 pp. (major revision of July 2009 publication) November 2010.)

Abdalla, C., Drohan, J., Rahm, B., Jacquet, J., Becker, J., Collins, A., Klaiber, Poe, G. and D. Grantham. Water's Journey Through the Shale Gas Drilling and Production Processes in the Mid-Atlantic Region. Penn State and Mid-Atlantic Water Program Bulletin, 10 pp. 2012.

Abdalla, C. W. August 2014. "Regional Water Management Institutions and Unconventional Gas Development in the Northeast/Central U.S." National Agricultural and Rural Development Policy Center Policy Brief.

http://www.nardep.info/uploads/Brief27_RegionalWaterGasDevelopment.pdf.

Other Regional Publications (2000 – present)

Dodd, A., Abdalla, C., Lanyon, L.E., and R.E. Graves. New Federal CAFO Rules: Which Pennsylvania Livestock and Poultry Operations Will Be Affected? Template created on a CD for regional adaptation of this publication was distributed in the Mid-Atlantic region. (2003)

State Extension Bulletins (2000 – present)

Drohan, J.R. and C.W. Abdalla. Valuing Pennsylvania's Water Resources. Penn State Cooperative Extension Bulletin, College of Ag. Sciences, University Park, PA, 22 pp. (2000).

Merideth, R., Drohan, J.R., Abdalla, C.W., Jessen, J.R. and E.D. Stevens. Groundwater Protection and Management in Pennsylvania: An Introductory Guide for Citizens and Local Officials. 3rd Edition, Penn State Cooperative Extension and the League of Women Voters Citizen Education Fund, 58 pp. (2001).

Drohan, J., Abdalla, C., Marshall, B. and E. Stevens. Community Groundwater Education in Pennsylvania: Lessons from Successful Project Leaders. University Park, PA, Penn State Cooperative Extension and League of Women Voters Citizen Education Fund. 2nd Edition. 22 pp. (2001).

Dodd, A., Abdalla, C., Beegle, D., Becker, J., Graves, R., Kephart, K., Lanyon, L., Patterson P., Weld, J., and Z. Wu. Shaping New EPA CAFO Rules: A Guide to the Proposals and Comment Process. Penn State Cooperative Extension Bulletin, College of Agricultural Sciences, 6 pp. (May 2001).

Dodd, A., C. Abdalla, L.E. Lanyon, R.E. Graves. New Federal CAFO Rules: Which Pennsylvania Livestock and Poultry Operations Will Be Affected? Penn State Cooperative Extension, University Park, PA. 6 pp. (2003).

Dodd, A., C. Abdalla, and D. Beegle. Changing Pennsylvania Nutrient Management Act Regulations: A Guide to the Proposed Changes and Public Comment Process. Penn State Cooperative Extension, College of Agricultural Sciences, University Park, PA. 10 pp. (2004).

Dodd, A., C. Abdalla, and J. Becker. Make Your Voice Heard: Commenting on Proposed Water Pollution Regulations for CAFOs and Other Agricultural Operations. Penn State Cooperative Extension, College of Agricultural Sciences, University Park, PA. 10 pp. (2004).

Beegle, D., A. Dodd, and C. Abdalla. Interim Phosphorus Management Policy for Nutrient Management Plans in Pennsylvania. Penn State Cooperative Extension, College of Agricultural Sciences, University Park, PA. 2 pp. (2004).

Abdalla, C. and A. Dodd. Choosing an NRCS Technical Service Provider. Penn State Cooperative Extension, College of Agricultural Sciences, University Park, PA, 2 pp. (2004).

Dodd, A., Abdalla, C. and D. Beegle. Changing PA Nutrient Management Act Regulations: A Guide to the Proposed Changes and Public Comment Process. Penn State Cooperative Extension, College of Agricultural Sciences, University Park, PA 10 pp. (2004).

Becker, J., Abdalla, C. and D. Beegle. Questions and Answers about the "ACRE" Program (*Act 38 of 2005, House Bill 1646*). Penn State Cooperative Extension, College of Ag Sciences University Park, PA. 4 pp. (July 2005).

Arrington, K., Abdalla, C., Beegle, D., Graves, R., and K. Saacke Blunk. Nutrient Budgets for Pennsylvania Cropland: What Do They Reveal and How Can They Be Used? Penn State Cooperative Extension, College of Ag Sciences University Park, PA. 12 pp. (August 2007).

Abdalla, C.W., Drohan, J.R., Becker, J.C. and K. Saacke Blunk. A Primer on Water Access and Allocation in Pennsylvania. Penn State Cooperative Extension, College of Ag Sciences University Park, PA. 16 pp. (December 2007).

Drohan, J.R., Abdalla, C.W. and T.W. Kelsey. Country Living: A Homeowners' Guide. Penn State Cooperative Extension, College of Ag Sciences University Park, PA. 15 pp. (March 2009).
Abdalla, C. and J. Drohan. Water Withdrawals for Development of Marcellus Shale Gas in Pennsylvania. Penn State Cooperative Extension, University Park, PA. 12 pp. (July 2009).

Abdalla, C. and J. Drohan. Shaping Proposed Changes to Pennsylvania's Total Dissolved Solids Standard: A Guide to the Proposal and the Commenting Process. 8 pp. December 2009.

Fact Sheets (2000 – present)

Dodd, A., and C. Abdalla. Shaping New EPA CAFO Rules: A Guide to the EPA's Nov. 2001 Notice of Data Availability. Dept. of Ag. Ec and Rur Soc., Univ. Park, PA, 2 pp. (Nov. 2001).

Dodd, A. and C. Abdalla. February Permit Deadline for smaller CAFOs: Is Your Farm Affected? Dept. of Ag. Econ and Rural Soc., University Park, PA, 4 pp. (Dec. 2001).

Saacke Blunk, K. and C. Abdalla. Status of Pennsylvania's Water Quality Trading Program. (State-specific insert accompanying regional A Primer on Water Quality Credit Trading in the Mid-Atlantic Region publication). 2 pp. (March 2007).

Abdalla, C. and J. Drohan. Gas Exploration in the Marcellus Shale: Water Resources Concerns We all have a stake in sound public policies for water management. 4 pp.. August 2009..

Other Written Materials (2000 – present)

Becker, J.C., Abdalla, C.W., Welsh, N., Gray, B. and C. Cook-Huffman. A Guidebook on Community Participation in Addressing Disputes Over Intensive Livestock Operations. Pennsylvania Department of Agriculture, 107 pp. (2000).

Abdalla, C. and A. Dodd. Nutrient Management Policy: Pennsylvania Stakeholder Views of Policy, Progress, and Future Directions. Dept. of Ag Econ. and Rur. Soc., Penn State University, Univ. Park, PA. (2002).

Abdalla, C., and K. Saacke Blunk, Nutrient and Water Policy Education: A Cooperative Extension Program, 2 pages, (December 2007). Distributed at the 2008 Farm Show and available at <http://nutrientwaterpolicy.aers.psu.edu/Documents/Nutrient%20&%20Water%20Policy%20Education%20Program%20Brochure.pdf>

Use of Materials in Popular and Trade Press Articles/Media Interviews (2000 – present)

Abdalla, C., Drohan, J. and J. Becker. Our 21st Century Water Needs, pp. 3-4, in *Water is Life: The Availability of Water in Pennsylvania*. Harrisburg, PA, Department of Environmental Protection. (2001).

Dodd, A., Abdalla, C. and D. Beegle. Changing PA Nutrient Management Act Regulations: A Guide to the Proposed Changes and Public Comment Process. Reprinted in special issue of *Lancaster Farming* on Nutrient Management Issue. (2/12/05).

Quoted in "Going Green to Earn 'the Green' by C. Shupp Espenshade. *Lancaster Farming* <http://www.lancasterfarming.com/node/554> (5/04/2007)

Interviewed for "Out of Balance: Scientists Grapple with Excess Nutrient Problem in the Susquehanna River Watershed" by J. Mulhollem, *Pennsylvania Agriculture*. (Summer 2007).

Internet Websites, Webinars (2000 – present)

National/ Regional

National Directory of Cooperative Extension Expertise on Land Use Issues.

<http://www.psu.edu/dept/aers/landuse/> (Developed as part of national land use task force co-chaired by the candidate and funded by the Farm Foundation; revised Summer 2000).

What's Under the CAFO Radar Screen? Workshop: Exploring Water Quality Concerns Related to Small and Mid-size Animal Operations in the U.S. <http://www.smallfarmwater.aers.psu.edu/> (Co-developed with S. Rossman) (2005).

Nutrient Budgets in the Mid-Atlantic Region. <http://mawaterquality.org/> (Co-developed with L. Lanyon, K. Arrington, D. Parker, D. Hansen, J. Pease, and A. Collins). (2004-2006)

Fetter, J., J. Drohan, Smith, S., Abdalla C. and D. Yoxtheimer, "The Role of Water in Shale Gas Drilling: Shale Gas Drilling in the Mid-Atlantic."

<http://extension.psu.edu/naturalresources/water/youth/shale-gas-drilling>

Updates to two online presentations, True or False - Common Concerns About Water and Shale Gas Drilling in the Mid-Atlantic Region; and "A Water Drop on a Journey - Shale Gas Drilling in the Mid-Atlantic." Penn State Extension and the Mid-Atlantic Water Program, Updated October 2015 (originally produced in 2013) and transferred into ATLAS format.

<http://extension.psu.edu/natural-resources/water/youth/shale-gas-drilling/water-journey>

<http://extension.psu.edu/natural-resources/water/youth/shale-gas-drilling/true-false>

State

Pennsylvania Local Officials Views and Policies Concerning Animal Agriculture.

<http://www.psu.edu/dept/aers/ViewsAnimalAg/> (2000)

Agricultural Air Quality. <http://agenvpolicy.aers.psu.edu/airquality/menu.htm>, as part of the Agricultural Air Quality: Emerging Issues and Policies in-service (October 2003). (Co-developed site design with A. Dodd).

Penn State Land Use Studies. <http://landuse.psu.edu> (Developed with R. Ready and S. Rossman). (2004)

Nutrient and Water Policy Update Website. <http://agenvpolicy.aers.psu.edu/>

Department of Ag. Economic and Rural Sociology Department (Co-developed concept and site design with A. Dodd in 2001; updated with K. Saacke Blunk in August 2007).

Marcellus Shale Educational Webinar Series) co-developed with M. Douglass, J. Kowalski, and J. Turack), 2009 – 2012. (Still continues under leadership of Dave Messersmith.)

Videos, Slide-sets, PowerPoint Presentations on compact discs (2000 – present)

Dodd, A., Abdalla, C. and J. Drohan. Valuing Pennsylvania's Water Resources. Overheads and PowerPoint presentation on CD accompanying completed bulletin on the same topic. (2000).

Saacke Blunk, K., Borisova, T., Abdalla, C. and D. Parker. PowerPoint presentation created to introduce A Primer on Water Quality Credit Trading in the Mid-Atlantic Region bulletin. (2007).

Fetter, J., J. Drohan, Smith, S., Abdalla C. and D. Yoxtheimer, "The Role of Water in Shale Gas Drilling: Shale Gas Drilling in the Mid-Atlantic." Penn State Extension and the Mid-Atlantic Water Program. CD, 2013.

Exhibits (2000 – present)

Dodd, A. and C. Abdalla. Nutrient and Water Policy Update. Exhibit showcasing the Penn State Cooperative Extension Web site (<http://agenvpolicy.aers.psu.edu>). Exhibit and supporting brochure used at Ag Progress Days, 8/03, 8/04 and 8/06).

Saacke Blunk, K., Abdalla, C., and J.C. Becker. Nutrient and Water Policy Update. Exhibit showcasing the Extension Web site (<http://agenvpolicy.aers.psu.edu>). (Supervised person who developed this exhibit and supporting brochure that was used at Ag Progress Days, Aug. 07).

Abdalla, C. "Gas Exploration in the Marcellus Shale: Water Resources Concerns: We all have a stake in sound public policies for water management." Ag Progress Days. August 2009.
Research report to sponsor:

Papers Presented at Technical and Professional Meetings (2000 – present)

Abdalla, C.W. Invited Presenter, Economic and Community Issues Related to Confined Feeding Operations. Presentation at Symposium on CAFO Policies and the Role of Economists, NAREA Annual Meeting, Kingston, RI. (June 2000).

Abdalla, C.W. "Regional Differences in Local Official Views toward Animal Agriculture" Poster presented at the 2000 Community Development Society Meetings, Saint John, NB. (July 2000).

Abdalla, C.W., Becker, J., Cook-Huffman, C., Gray, B., Hanke, R. and N. Welsh. The Potential for Conflict Management Approaches to Address Community Conflicts Over Agriculture. Paper presented at the Community Dev. Society Annual Mtg., St. John, New Brunswick. CN (July 2000).

Abdalla, C.W. Environmental Challenges Facing Extension Economists, Organized Symposium on Water Quality Problems related to Agriculture. AAEA Meetings, Chicago, IL. (Aug. 2001).

Dodd, A, and C. Abdalla. "Changing Environmental Policies Impacting Animal Agriculture: An Opportunity for Extension to Provide Timely, Balanced, and Comprehensive Public Policy Education," Animal Residuals 2002 Conference and Workshop, Washington, D.C. (May 2002).

Lanyon, L.E. Abdalla, C.W. and R.E. Graves. Developing the Strategic Spatial and Temporal Framework for Water Quality Education and Coordination in PA.. 2003 USDA-CSREES National Water Conference. Tucson, AZ. (Jan. 2003).

Lanyon, L.E. Abdalla, C.W. and R.E. Graves. Developing the Strategic Spatial and Temporal Framework for Water Quality Education and Coordination in PA. 2003 USDA-CSREES National Water Conference. Tucson, AZ. (Jan. 2003). (Selected poster).

Ready, R.C. and C.W. Abdalla. The Amenity and Disamenity Impacts of Agriculture - Open Space or Animals? SERA-IEG 30 Workshop Human and Animal Waste Management and the Impact of Industry Concentration on Resource Allocation in the Southern Region. Lexington, KY. (May 2003).

Ready, R.C. and C.W. Abdalla. The Amenity Value of Agriculture - Open Space or Animals? Presented at the American Agricultural Economics Association Annual Meetings, Montreal Quebec, Canada (July 2003), and at the Annual Meeting of the USDA-CSREES Regional Research Project W-1133, Las Vegas, NV. (Feb. 2003).

Abdalla, C.W. and A. Dodd. Nutrient Management Policy: Pennsylvania Views. National Conference: American Water Resources Association, Spring Specialty Conference, Kansas City, MO. (May, 2003).

Abdalla, C.W and R.C. Ready. Does Intensive Agriculture Depress Property Values? Results and Implications from Berks County, PA." Selected paper, NAREA Meeting, Portsmouth, NH. (June 2003). (Selected paper).

Abdalla, C.W., Economic Issues and Opportunities for Policy Innovation in the New EPA CAFO rules. Organized Symposium on Transaction Costs and Federal CAFO policy. AAEA Annual Meetings, Montreal, Quebec, CN. (July 2003). (Invited presentation.).

Abdalla, C.W. Organized Symposium on NRI-funded programs on Farmland Protection, AAEA/RSS Annual Meetings. P. Hipple, organizer. Montreal, Quebec, CN. (July 2003).

What the Public Values about Farm and Ranch Land. USDA-ERS, Farm Foundation and NERCRD sponsored workshop, Baltimore, MD. (November 2003). (Consultant on workshop design, breakout session organizer and leader, session co-moderator, editor of proceedings).

Ishler, V., Dodd, A., Meinen, R., Mikesell, B., Weld, J., Abdalla, C. and G. Martin. Agricultural-Environmental Programming in Pennsylvania: Making Connections, Building Capacity, Increasing Credibility. Assoc. of Natural Res. Extension Prof. Annual Meeting, Wheeling, WV. (May 2004).

Abdalla, C.W., Dodd, A.R., Lanyon, L.E. and R.E. Graves. State Decision-making: CAFO Rules in the Mid-Atlantic Region, Selected poster presented at the 2004 USDA-CSREES National Water Conference. Clearwater, FL. (Jan. 2004). (Selected poster).

Abdalla, C., Lambert, D. and J. Skees. Academic Freedom versus Institutional Constraints in Performing Controversial Research, AAEA Organized Symposium (selected), Denver CO. (2004). (Symposium organizer and presenter).

Abdalla, C.W., State Decision-making: CAFO Rules in the Mid-Atlantic Region, Selected poster presented at the 2005 USDA-CSREES National Water Quality Conference, "Integrating Research, Extension and Education," San Diego, CA. (Jan. 2004). (Selected poster).

Arrington, K. Abdalla, C.W., Arrington, K., Hanson, D. and L. Lanyon. Development of Nutrient Budgets for the Mid-Atlantic Region. Selected poster presented at the 2005 USDA-CSREES National Water Conference. San Diego, CA. (Jan. 2004). (Selected poster).

Abdalla, C., Norris, P., Pease, J., Parker, D. and J. Pritchett. Small and Mid-Size Animal Operations: Exploring Education, Incentives, and Policies for Water Quality Protection. USDA-CSREES Water Conference. San Antonio, CA. (Feb. 2005). (Selected poster).

Abdalla, C.W. NAREA Meeting, Small Farm and Water Quality, Organized Symposium, (selected) Annapolis, MD. (Symposium organizer and presenter) (June 2005).

Arrington, K. Abdalla, C.W., Hanson, D. and L. Lanyon. Development of Nutrient Budgets for the Mid-Atlantic Region. Soil and Water Cons. Society Meeting, Rochester, NY. (Aug. 2005).

Abdalla, C.W., Arrington, K., Hanson, D. and L. Lanyon. Use of Nutrient Budgets in the Mid-Atlantic Region. Soil and Water Cons. Society Meeting, Rochester, NY. (Aug. 2005).

Abdalla, C. Environmental Issues in North American Animal Agriculture. Southern Agricultural Economics Meetings, Orlando, FL. (Invited). (March 2006).

Abdalla, C.W. Environmental Issues in Animal Agriculture - The Future of Animal Agriculture in North America - Looking Back on a Multi-Disciplinary Industry/Policy Analysis. Organized Symposium. AAEA Annual Meeting, Long Beach, CA. (July 2006).

Parker, D., and C. Abdalla, Assessing Outcomes of Water Quality Trading Programs, 2nd National Water Quality Trading Conference, Pittsburgh, PA. (May 2006). D. Parker was presenter. (Selected paper).

Parker, D., and C. Abdalla, Water Quality Trading Assessment, Soil and Water Conservation Society Annual Meeting, Keystone, Colorado. (July 2006). (Selected paper).

Abdalla, C. and D. Parker. Toward a Framework for Evaluating Success of a PS/NPS Trading Program. Shallow Waters Workshop, US EPA. Atlantic City, NJ. (Sept. 2006).

Abdalla, C. Environmental Issues in Animal Agriculture. Economic Research Service - USDA Washington, D.C. (Nov. 14, 2006). (Invited presentation).

Saacke Blunk, K., Abdalla, C. and A. Dodd. Communicating Environmental Policy: Fostering State/Regional Synergism in Policy Outreach, 2007 USDA-CSREES National Water Conference, Savannah, GA. (Jan./Feb. 2007). (Selected presentation).

Borisova, T., Saacke Blunk, K., Abdalla, C. and D. Parker. Comparative Analysis of Water Quality Credit Trading Programs in the Mid-Atlantic States, 2007 USDA-CSREES National Water Conference, Savannah, GA. (Jan./Feb. 2007). (Selected poster).

Abdalla, C.W. Extension's Role in Water Quality Credit Trading. 2007 USDA-CSREES National Water Conference, Savannah, GA. (Jan./Feb. 2007). (Invited presentation).

Abdalla, C. The Future of Animal Agriculture in North America" to university and governmental researchers at the University of British Columbia and through video-conferencing to a down-linked research facility location. (Invited seminar).

Abdalla, C. Dealing with Water Quality and More at a River Basin Scale: Experience with Trading and Other Concepts in the Willamette River Basin. NAREA Annual Meeting, Organized Symposium. Quebec City, June 30-July 1, 2008. (Symposium organizer and presenter).

Abdalla, C. Institutional Approaches for Managing Conflicts over Agricultural Issues Organized Symposium Institutional Analysis of Environmental Issues – The Right Tool for the Right Job. AAEA Annual Meeting, Orlando, FL. July 27-29, 2008. (Invited participant).

Abdalla, C. and K. Saacke Blunk. Mail Surveys as Tools for Assessing Local Officials' Water Management, Education and Technical Assistance Needs. 2008 USDA-CSREES Water

Conference, Feb 2008, Sparks, NV. (Selected presentation).

Abdalla C. and K Stephenson. Performance of Market-based Environmental programs EPA Chesapeake Bay Program's Scientific and Technical Advisory Committee (STAC) meeting, Annapolis MD. March 2009.

Abdalla C., Evaluation Framework for Water Quality Trading Programs in the Chesapeake Bay Watershed. Chesapeake Bay Scientific and Technical Advisory Committee (STAC), Annapolis MD. June 2009.

Water Resource Issues and Policies Associated with Energy Development: Opportunities and Challenges Related to Shale Gas in the Northeast and Mid-Atlantic Regions. USDA-CSREES Water Conference, Hilton Head, SC. Feb. 2010. (Selected presentation).

Kowalski, J. Abdalla, C. Turack, J. and Mark Douglass. "Extending Extension's Boundaries." 2009 Hendrik Best Practices for Adult Learners Conference, University Park, PA, May 2009. (Selected presentation)

Abdalla, C., Parker, D. and K. Stephenson. A Water Quality Credit Trading Evaluation Framework for the Mid Atlantic Region. 2009 USDA-CSREES Water Conference, Feb 2009, St. Louis, MO. (selected presentation).

Abdalla. C., "Water Resource Issues and Policies Associated with Energy Development: Challenges and Opportunities Related to Shale Gas in the Northeast and Mid-Atlantic." Selected presentation, 2010 Land Grant and Sea Grant National Water Conference, Hilton Head, SC. March 1, 2010.

<http://www.usawaterquality.org/conferences/2010/PDF's/Abdalla.pdf>

Abdalla, C., Technical Analysis of Water Quality Crediting Procedures for Manure Conversion. Scientific and Technical Advisory Committee to EPA's Chesapeake Bay Program, Annapolis, MD. March 2012.

Abdalla, C., Drohan, J., Rahm, B., Jacquet, J., Becker, J., Collins, A., Klaiber, Poe, G. and D. Grantham Water's Journey through the Shale Gas Drilling and Production Processes in the Mid-Atlantic Region. Presented at the Land Grant And Sea Grant National Water Conference, Portland, OR. May 2012. (Selected poster).

Abdalla, C., Water Institutions and Energy Issues: Federal, Regional and State Roles in Shale Gas Development in the Northeast US. Presented at Performance of Institutional Innovations to Address Multi-jurisdictional Water Management Problems. Organized symposium. (Selected session), American Applied Economics Association Annual Meetings, Seattle WA, August 2012.

Rimsaite, R., Abdalla, C. and B. Swistock. Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas. Marcellus Summit 'Real Issues, Balanced Perspectives,' Applied Research Poster Session. October 2012. (Selected poster).

Rimsaite, R., Abdalla, C. and B. Swistock. Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas Exploration. The Impact of Energy Extraction on Local Communities. Pittsburgh PA, November 2012. (Selected presentation).

Abdalla, C., Edmundson C. and A. Klaiber. Marcellus Shale Natural Gas Drilling Operators' Choice of Wastewater Disposal Method. The Impact of Energy Extraction on Local Communities. Pittsburgh PA, November 2012. (Selected presentation).

Abdalla, C. W. "Institutions, Policy Innovation & Evaluation – Science Ripe for Policy-making." Chesapeake Bay Commission staff, January 6, 2013. (Invited presentation).

Abdalla, C. W. "Multi-state Water Management Institutions and Unconventional Gas Development: Environmental and Economic Impacts in the Marcellus and Utica Shale Regions." Northeastern Agricultural and Resource Economics Association (NAREA), 2014 Post-Conference Workshop Program on Unconventional Gas and Oil Development: Economic and Environmental Impacts. June 3-4, 2014. (Selected presentation).

Abdalla, C. W. "Water Management Institutions' Impact on Shale Gas Development in the Northeast US." Dept. of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO. October 30, 2014 (Invited seminar).

Participation on Graduate Student Committees (2000 – present)

Shengkun Wang, Agricultural Economics, M.S.Thesis, Agricultural Economics, 2000 (Chair)

Caitlyn Edmundson, Marcellus Shale Natural Gas Drilling Operators' Choice of Wastewater Disposal Method." Agricultural and Resource Economics M.S. thesis. 2012 (Chair)

Paula Randall, Thesis title: Economic Impact and Recovery of Hurricane Sandy on Belmar, New Jersey: The response of the municipality and business sector. Community and Economic Development Program (CEDEV) Masters paper 2014 (Chair).

Funded Projects, Grants and Contracts (2000- Present)

Abdalla, C.W., Becker, J.C., Gray B., Cook-Huffman, C. and N. Welsh. Alternative Conflict Resolution Strategies that Address Community Problems. Pennsylvania Department of Agriculture. \$146,031. (1999-01). (Co-PI).

Smith, S.M., Kelsey, T.W., Shields, M., Abdalla, C., Patterson, P. and K. Kephart. Economic and Fiscal Impacts of Agriculture in Pennsylvania. Pennsylvania Department of Agriculture. \$108,347. (1999-01). (Co-PI).

Abdalla, C.W. National Land Use Regulation Conference Planning. Farm Foundation, \$4,500. (2000). (PI).

Dodd, A.R. and C.W. Abdalla. Support to Facilitate Dissemination of Time Sensitive Agricultural Environmental Policy Information and Resources to County Agents. Dept. of Ag. Econ. and Rural Soc.. – Strategic Initiative Grants Program. \$2,000. (2001). (Co-PI).

Libby, L.W. and C.W. Abdalla. Protecting Farmland at the Fringe: Do Regulations Work?: Strengthening the Research Agenda. NE Regional Center for Rural Development (\$13,000) and other Regional Centers for Rural Development (\$4,000). (Total: \$17,000). (2001). (Co-PI).

Abdalla, C.W., Lanyon, L.E., Graves, R.E. and D.B. Beegle. Mid-Atlantic Regional Water Quality Project. USDA CSREES Water Quality Integrated Research, Education and Extension Competitive Grants Program. \$160,494. (2002-04). (Co-PI Institutional lead for Pennsylvania).

Ready R.C. and C.W. Abdalla. Large-Scale Animal Operations and Property Values in Berks County, Pennsylvania. Citizens for Pennsylvania's Future. \$15,735. (2002-03). (Co-PI).

Abdalla, C.W. Small and Mid-Size Animal Operations: Exploring Education, Incentives and Policies for Water Quality Protection. USDA CSREES Community and Economic Systems Division. \$20,000. (2003-05). (PI).

Abdalla, C.W., Lanyon, L.E., Graves, R.E. and D.B. Beegle. Mid-Atlantic Regional Water Project. USDA CSREES Water Quality Integrated Research, Education and Extension Competitive Grants Program, \$80,245 (2004 -05). (Co-PI, Institutional lead for Pennsylvania).

Abdalla, C.W. and A.R. Dodd. Technical Service Provider Fact Sheet Project. USDA Natural Resources Conservation Service. Pennsylvania State Office, Harrisburg. \$1,250. (2003-04). (PI).

Abdalla, C.W. and A.R. Dodd. State Concentrated Animal Feeding Operation (CAFO) Policies in the Mid-Atlantic Region. Mid-Atlantic Regional Water Quality (406) Project Mini-Grant Program. \$4,895. (2004-05). (PI).

Abdalla, C.W. and A.R. Dodd. Increasing Understanding and Farmer Participation in the Conservation Security Program. Mid-Atlantic Regional Water Quality (406) Project Mini-Grant Program. \$20,000. (2004-05). (PI).

Abdalla, C.W. Can Performance-Based Policies Improve Agricultural Land and Water Policy?

Issues and Opportunities in New State Approaches to CAFOs and other Farms. Farm Foundation. \$20,000. (2005-06). (PI).

Abdalla, C.W. Future of Animal Agriculture in North America Project (Environmental Working Group graduate research assistant support). Farm Foundation. \$6,600. (2005-06). (PI).

Abdalla, C.W. and A.R. Dodd. Pennsylvania Local Government and Water Resources Management: 1991 and 2005. Center for Rural Pennsylvania. \$48,760. (2005-06). (PI).

McManis, K., Abdalla, C. and K. Saacke Blunk. Susquehanna Greenway in Cambria County. Penn State's Econ. and Community Dev, Thematic Initiative Fund. \$1,500. (2006-07). (Co-PI).

Abdalla, C., Becker, J., Beegle, D., Graves, R., Ishler, V., Swistock, B., and S. Clemens. Mid-Atlantic Regional Water Quality Program. University of MD. U.S.D.A.-CSREES. (2005 - 09). (Lead PI). \$80,000.

Abdalla, C., Becker, J., Beegle, D., Brasier, K., Graves, R., Ishler, V., Swistock, and S. Clemens. Mid-Atlantic Regional Water Program. University of Maryland/USDA-CSREES. (2006-09). (Lead PI for PA). \$85,000.

Abdalla, C., Becker, J., Beegle, D., Brasier, K., Graves, R., Ishler, V., Saacke Blunk, K., Swistock, and S. Clemens. Mid-Atlantic Regional Water Program. University of Maryland/USDA-CSREES. (2007-09) (Lead PI for PA). \$57,500.

Abdalla, C., Borisova, T., Parker, D., Saacke Blunk, K. and K. Stephenson. Next Steps in Water Quality Trading Education in the Mid-Atlantic Regional Water Program. University of Maryland mini-grant program. (2007-2009). (Co-PI). \$10,000.

Parker, D., Abdalla, C., and K. Stephenson, Water Quality Credit Trading: Issues in Uncertainty, Evaluation, and Verification. Scientific and Technical Advisory Committee, Chesapeake Bay Program/Mid-Atlantic Water Program, (2007-08). \$14,000. (Co-PI).

Strengthening Partnerships for Integrated Water Quality/Quantity Education and Management in the Mid-Atlantic Region. C. Abdalla, J. Becker, A. Jarrett, (PSU); D. Parker (UMD); A. Collins, F. Holehouse; (WVU), J. Pease, G. Evanylo, K. Stephenson, (VTU) and D. Hansen (DE), Mid-Atlantic Regional Water Program. University of Maryland internal competitive-grants program (2008-2010) \$28,000. (Lead PI for regional initiative)

Luloff, A.E., Finley J. and C. Abdalla. Marcellus Shale Development, Water Resources, and Local Communities: Understanding Potential Impacts to Interrelated Human and Natural Resource Systems, College of Ag. Sciences 2008 Seed Grant Program. \$10,000..

Parker, D., Abdalla, C., and K. Stephenson, Water Quality Credit Trading: Issues in Uncertainty, Evaluation, and Verification. Workshop and White Paper. Scientific and Technical Advisory Committee, Chesapeake Bay Program and the Mid-Atlantic Regional Water Program, (2007-2009). \$14,000.

Goetz, S. and C. Abdalla. "Appalachian Assessment of Natural Assets: Water" project funded by the Appalachian Regional Commission via sub-contract with West Virginia University. October 2009 – September 2010. \$25,000.

Swistock, B., C. Abdalla, S. Sjolander, D. Rizzo, S. Boser, T. McCarty, J. Clark, P. Wulfhorst, M. Madden. "Public Education on Water Issues Related to Marcellus Gas Drilling." March 1, 2010 – February 28, 2011, Pennsylvania Water Resources Center, \$17,500.

Abdalla, C., Klaiber, A. and B. Swistock. Understanding Municipal Officials' Decisions to Lease Watershed Lands for Marcellus Shale Gas Exploration. PA Water Resources Research Center, 2011-2012. USGS. \$9,360.

Abdalla, C., Julius, S., Madhavan, P., Pease, J. Ribaud, M. and K. Stephenson. "Exploring Applications of Behavioral Economics Research to Environmental Policy-making in the Chesapeake Bay Watershed." Chesapeake Research Consortium. Edgewater, MD. 2014. \$9,500

Service (2000 – present)

Service to the University

Departmental Committees

Faculty Search Committee, Environmental Sociology Research/Extension Position, 2001.
Promotion and Tenure Committee, 2003-07
AERS Marcellus Shale faculty/staff research work group
Strategic Planning efforts (water quantity-quality – co- chair, extension and energy, members).
Social Affairs Committee, Member, 2003-04, 2008-09; 2012 - 2013
Agricultural Economics Ph.D. Exam Committee, Member, 2011-12
Member, Planning Committee, 2013 CEDEV Summer Institute
AESE Honors and Awards Committee, Chair, 2008-2014
Extension Committee, Chair, 2013-2014. 2015-16, Member
AESE Information Technology Committee, 2015-16,

College Committees

Faculty Honors and Awards committee, member, 2003-05; chair, 2004-05.
Curricular Affairs Committee, 2004-05.

Member, conference planning committee. A Balancing Act: Nutrient Management Summit. Sponsored by Penn State University, PA Department of Agriculture and PA Department of Environmental Protection. 2004-05.

Peer reviewer, one proposal for CAS 2008 Seed Grant Program. 2008.

Peer reviewer, county educator's teaching effectiveness. 2008

Extension Marcellus Shale ECD and Environmental Programming Groups, 2008 - 2010

Planning committee for May 2010 Extension Marcellus In-service workshop.

Planning committee for October 2011 Extension Marcellus Environmental multi-state in-service workshop, Chair.

Marcellus Summit, Co-Sponsored by Penn State Cooperative Extension. Member, Planning Committee and Session Moderator, 2010 and 2011,

Faculty Development committee, 2010 – 2012

University Committees

Selection Committee, Penn State University Faculty Outreach Award, 2007 (appointed)

Participation in University-wide Governance Bodies

Faculty Senate, 2004-07 (elected).

- Faculty Senate Curricular Affairs Committee, US and International Cultures Subcommittee, 2004-05.

- Faculty Senate Admissions, Records, Scheduling, and Student Aid Committee Member, 2005-07. Sub-committee on Retentions and Transfer, 2006-07.

Faculty Senate, (elected). Faculty Senate Admissions, Records, Scheduling, and Student Aid Committee, 2015 - 2016.

Administrative Support Work

Partnerships for the Bay. Represented Penn State College of Ag Sciences at All-Bay Meeting, PA State Association of Conservation Districts. Requested by J. Watson, Ag/Natural Resources Program Leader, and D. Jackson, Associate Dean for Extension. Grantville, PA, December 2005.

Presentation on Water Quality Credit Trading and panel member on market-based approaches to address environmental issues facing agriculture. Pennsylvania Ag Council meeting. April 2007.

External reviewer, Northeast Regional Center for Rural Development, Penn State University, University Park PA, October 2008.

Service to Society as a Representative of the University (2000 – present)

Service to Governmental Agencies

Member, Animal Waste Initiative: Promoting Environmental Stewardship Task Force, USDA-CSREES, 1997-00.

Panel Member, USDA, CSREES. Water Quality Grants Program, 2001.

Panel Member, USDA, CSREES. IFAFS Animal Waste Management Grants Program. 2001.

Proposal reviewer, U.S. Geological Survey in cooperation with the National Institutes for Water Resource. 2009.

At Large Member, (Elected) Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC). US EPA Region 3, Member, 2006 –2014. Member/or lead organizer of three project teams (state trading program evaluation framework, trading workshop, and behavioral economics).

Peer review of research publication, “Reducing Nutrient Loadings from Livestock Agriculture in the Chesapeake Bay Watershed.” USDA Economic Research Service, Washington, D.C. July 2015.

Service to Public and Private Organizations (2000 – present)

Reviewer, Land use book manuscript, Resources for the Future, 2004.

Chair, International Environmental Working Group, The Future of Animal Agriculture in North America (Canada, Mexico and US) Project, Farm Foundation, March 2005- April 2006
Listening session on Land Use Issues,. (invited participant) convened by the Environmental Finance Center and National Center for Smart Growth, Harrisburg, PA, August 2008.

Publication reviewer, Marcellus Shale Citizens’ Guide, PA Sea Grant program, 2010.
Scientific and Technical Advisory Committee, Chesapeake Bay Program,

Peer review of Extension publication “Citizen’s Guide to Environmental Trading Programs in Virginia.” Dept. of Agricultural and Applied Economics, Virginia Tech University, Blacksburg, VA. August 2015.

Service to the Disciplines and to the Profession (2000 – present)

Organizing Conferences and/or Serving on Conference Committees (2000 – present)

Protecting Farmland at the Fringe: Do Regulations Work?: Strengthening the Research Agenda. Baltimore, MD. September 2001. Northeast Regional Center for Rural Development and three other Regional Centers for Rural Development. (Co-organizer).

What the Public Values about Farm and Ranch Land. USDA-ERS, Farm Foundation and NERCRD sponsored workshop, Baltimore, MD. November 2003. (Consultant to conference leader on workshop design, session organizer and leader, research agenda session moderator).

Academic Freedom versus Institutional Constraints in Performing Controversial Research, American Agricultural Economics Association Organized Symposium (selected), Denver CO. (2004). (Co-organizer and presenter.)

Small Farm and Water Quality, Northeast Ag and Resource Economics Association Meeting, Organized Symposium (selected) Annapolis, MD. (June 2005). (Organizer and presenter)

Water Quality Credit Trading:: Issues in Uncertainty, Evaluation and Verification. Workshop. Funded by Scientific and Technical Advisory Committee, Chesapeake Bay Program, College Park, MD. May 2008. (Co-organizer and participant).

What We Have Learned from Applying Market-based Concepts to Water Quality Problems: Implications for Research, Education and Policy. Northeast Ag. and Resource Economics Association Meeting NAREA Annual Meeting, Organized Symposium. Quebec City, June 30/July 1, 2008. (co-organized symposium with D. Parker and K. Stephenson).
Editorial Advisory Board, Review of Agricultural Economics, 1997-2000.

AAEA Professional Publications - Quality of Research Discovery Award Committee, 1999-2001.

AAEA Representative on Council on Food, Agricultural and Resource Economics (C-FARE) Board. 2002-04.

Northeast Agricultural and Resource Economics Association, Nominations Committee, 2002-05.

Organizer. Performance of Institutional Innovations to Address Multi-jurisdictional Water Management Problems. Organized symposium. (Selected track session as part of the Institutional and Behavioral Economics Section of AAEA, American Applied Economics Association Annual Meetings, Seattle WA, August 2012.

Steering Committee Member and Session Facilitator. Exploring the Environmental Effects of Shale Gas Development in the Chesapeake Bay Watershed Conference. Sponsored by the Chesapeake Bay Program Scientific and Technical Committee (STAC). 2012.

Steering Committee Member and Workshop Proposal Co-author. Issues for Water Quality Trading in the Chesapeake Bay Watershed, Workshop. Sponsored by the Chesapeake Bay Program Scientific and Technical Committee (STAC). University Park, PA. 2013.

Leader, social science sub-committee of the Chesapeake Bay Program Scientific and Technical Committee (STAC). This subcommittee obtained a competitive grant and used it to hold an August 2014 workshop on applications of behavioral economics to clean-up of the Chesapeake Bay. Results were distributed to Chesapeake Bay federal and state decision makers and NGOs, 2014-2015.

Northeast Agricultural and Resources Economics Association (NAREA)

- Nominations Committee, 2002-05.
- Outstanding MS Thesis Award Selection Committee, member. 2012-2013. Chair 2014.
- NAREA Post-Conference Workshop “Unconventional Gas and Oil Development: Economic and Environmental Impacts.” Planning committee member for June 3-4, 2014., Morgantown WV.
- Board Member (elected) 2015 - 2018,
- Membership committee, 2015-2016.

Review of faculty members’ dossier for tenure and promotion at various professorial ranks at the following institutions: Colorado State University, University of Florida, Lebanon Valley College, Rutgers University, and the University of Vermont.

Association of Environmental and Resource Economists (AERE), Member 2011-13

American Applied Economics Association (AAEA). Member, section leadership and activities

AAEA Institutional and Behavioral Economics Section (IBES)

- Chair-elect, 2011-12, Chair, 2012-13, Past Chair, 2013-2014
- Outstanding Grad Student Paper Selection Committee, Member, 2011-12; Chair, 2012-13, -
- Member 2014
- Secretary/Treasurer, 2013- 2016.

Committee that reviewed selected papers for 2013 AAEA/Canadian Agricultural Economics Society Joint Annual Meeting, Washington DC, 2012-13.

Other Service to the Disciplines and Profession (2000 – present)

Peer Reviewer of Journal Articles for:

- *Agribusiness*
- *Agribusiness: An International Journal*
- *Agriculture and Human Values*
- *Agricultural and Resource Economics Review*
- *American Journal of Agricultural Economics*
- *Canadian Journal of Agricultural Economics*
- *Choices*
- *Journal of Agricultural and Applied Economics*
- *Journal of Soil and Water Conservation*
- *Land Economics*
- *Review of Agricultural Economics*
- *Water Resources Research*
- *Review of Regional Studies*
- *Journal of Regional Analysis & Policy*
- *Journal of the American Water Resources Association*
- *Journal of Regional Science and Urban Economics*

***Consulting* (2000 – present)**

Animal Waste Management Center, North Carolina State University, 2003.