

Ryan E. Baxter

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EDUCATION

Doctor of Philosophy, Geography, The Pennsylvania State University (2024)

Master of Science, Geography, The Pennsylvania State University (1999)

Bachelor of Arts, Environmental Sciences and Geography, Northwestern University (1997)

APPOINTMENTS

Associate Teaching Professor, Department of Geography, Penn State (2018 – present)

Assistant Research Professor (Senior Research Assistant), John A. Dutton e-Education Institute, Penn State (2011 – 2018)

Senior Research Assistant, Institutes of Energy & the Environment, Penn State (2007 – 2011)

Research Assistant, Institutes of Energy & the Environment, Penn State (2000 – 2007)

TEACHING

Geospatial System Analysis and Design, Geog 583 (online)
5 – 10 students. Spring 2024.

Cloud & Server GIS, Geog 865 (Co-Author) (online)
8 – 25 students. Spring 2018, Fall 2018, Spring 2019, Summer 2019, Fall 2019, Spring 2020, Summer 2020, Fall 2020, Spring 2021, Summer 2021, Fall 2021, Summer 2021, Fall 2021, Spring 2022, Summer 2022, Fall 2022, Spring 2023, Summer 2023, Fall 2023

Introduction to Geographic Information Science, Geog 260 (resident)
35 – 70 students. Fall 2018, Spring 2019, Spring 2020, Spring 2021, Spring 2022, Spring 2024

Environmental Applications of GIS, Geog 487 (online)
10 – 18 students. Fall 2017, Fall 2018, Summer 2018, Spring 2024

Nature of Geographic Information, Geog 482 (online)
52 – 110 students. Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Summer 2016, Fall 2016, Spring 2017

Geographic Information Systems, Geog 363 (resident)
20 – 48 students. Fall 2011, Fall 2012, Spring 2013

Mapping Our Changing World, Geog 160 Web (online)

15 – 102 students. Spring 2007, Spring 2008, Spring 2009, Summer 2009, Spring 2010

Mapping Our Changing World, Geog 160 (previously Geog 121) (resident)

110 – 165 students. Spring 2005, Fall 2006, Fall 2007, Summer 2008, Fall 2008, Fall 2009, Spring 2011, Spring 2012

ADVISING

(Graduate Faculty status, Form P, conferred in 2016)

Phillip Purvis, MGIS (Graduated in 2023)

Neil Rose, MGIS (Graduated in 2021)

Angel Bisbee, MGIS (Graduated in 2021)

Amy Farley, MGIS (Graduated in 2021)

Matthew Erb, MGIS (Graduated in 2021)

Joe Sawruk MGIS (Graduated in 2020)

Nadia Caira, MGIS (Graduated in 2020)

Angela Bozeman, MGIS (Graduated in 2020)

Berrett Doman, MGIS (Graduated in 2018)

Travis Bock, MGIS (Graduated in 2017)

Caitlin (Lucas) Birdsong, MSSDS (in progress)

GRANTS

Pennsylvania Spatial Data Access (PASDA), The Official Geospatial Data Clearinghouse for the Commonwealth of Pennsylvania (2000 – present)

Co-Principal Investigator (since 2020)

Named-personnel (prior to 2020)

Funding Source: Governor's Office of Administration, Office for Information Technology (2004 – present);

Pennsylvania Department of Environmental Protection (2000 – 2004)

\$315,000 per year

Cooperating Technical Partners (CTP) Community Outreach and Mitigation Strategies: Pennsylvania Flood Risk Mapping Application (2019 – present)

Co-Principal Investigator

Funding Source: Federal Emergency Management Agency

\$150,000 per 2 years

Flood Mitigation for Pennsylvania's Rural Communities: Community-Scale Impact of Federal Policies (2015 – 2017)

Co-Principal Investigator

Funding Source: The Center for Rural Pennsylvania, a Legislative Agency of the PA General Assembly

\$50,000

Abandoned agricultural land in the northeastern US: a GIS-based analysis of estimates, causes, and envisioned uses (2014 - 2015)

Co-Principal Investigator

Funding Source: Northeast Warm-Season Woody Biomass Consortium Seed Grant Program

\$24,349

OTHER RESEARCH PROJECTS

Pennsylvania Underground Mine Maps (2012 – present)

Funding Source: Pennsylvania Department of Environmental Protection

Lead developer and administrator of a system that manages and publishes tens of thousands of georeferenced underground mine maps.

Web application designed, programmed, and maintained:

Pennsylvania Mine Map Atlas - <http://www.minemaps.psu.edu>

\$35,000 per year

Penn State Data Commons (2010 – present)

Funding Support: Penn State Institutes of Energy & the Environment

Lead developer, database administrator, and system administrator

Web application designed, programmed, and maintained:

Penn State Data Commons - <http://www.datacommons.psu.edu>

Causes and Consequences of social disparities in water (dis)trust and (in)security in Pennsylvania (2021 – 2023)

Spatial Data Analyst

Funding Source: Penn State Social Sciences Research Institute

\$50,000

NoiseQuest (2004 – 2017)

Funding Source: Federal Aviation Administration

Fisheries and Aquatic Resources Node, National Biological Information Infrastructure (2000 – 2012)

Lead application developer

Funding Source: U.S. Department of Interior, Geological Survey

Mid-Atlantic Information Node, National Biological Information Infrastructure (2005 – 2012)

Lead application developer

Funding Source: U.S. Department of Interior, Geological Survey

Bird Information Node, National Biological Information Infrastructure (2009 – 2012)

Lead application developer

Funding Source: U.S. Department of Interior, Geological Survey

Critter Quest (2008 – 2012)

Lead application developer

Funding Source: Pennsylvania Center for Environmental Education

MapAsheville (2008 – 2010)

Lead application developer

Funding Source: City of Asheville, North Carolina

Maryland Department of Natural Resources & the Multi-State Aquatic Resources Information System (MARIS) Fisheries Database Project (2005 – 2009)

Funding Source: American Fisheries Society

Real-Time National Weather Data MapService (2006)

Lead application developer

Funding Source: Penn State GIS Council

Yellowstone Cutthroat Trout Survey (2006)

Project manager and database developer

Funding Source: U.S. Department of Interior, Geological Survey

2nd Pennsylvania Breeding Bird Atlas (2006)

Funding Source: Carnegie Museum

Interactive Album of Map Projections, Penn State Online Master's in GIS Program (2005)

Funding Source: NSF

Web application designed, programmed, and maintained:

Interactive Album of Map Projections - <http://projections.mgis.psu.edu>

Penn State Applied Research Laboratory (2003 - 2005)

Imagery Analyst

Funding Source: U.S. Department of Defense

PUBLICATIONS

PEER-REVIEWED ARTICLES

Baxter, R.E., Calvert, K.E. (2017). Estimating Available Abandoned Cropland in the United States: Possibilities for Energy Crop Production. *Annals of the American Association of Geographers*, 107(5): 1162-1178.

Feyereisen, G.W., Camargo, G.G.T., **Baxter, R.E.**, Baker, J., Richard, T.L. (2013). Cellulosic Biofuel Potential of a Winter Rye Double Crop across the U.S. Corn-Soybean Belt. *Agronomy Journal*, 105(3): 631 – 642.

Baxter, R.E., Feyereisen, G.W., Yu, Y., Richard, T.L. (2011). Winter crop and residue biomass potential in China. *Biofuels*, 2(5): 503 – 513.

Broda, H., **Baxter, R.E.** (2003). Using GIS and GPS technology as an instructional tool. *The Social Studies*, 94(4): 158-160.

Broda, H., **Baxter, R.E.** (2002). Using GIS and GPS Technology as an Instructional Tool. *The Clearing House*, 76(1): 49-52.

BOOK CHAPTERS

Calvert, K.E., Stephen, J., Blair, M.J., Cabral, L., **Baxter, R.E.**, Mabee, W. (2017). Assessing the spatial, economic and environmental implications of biorefining technologies: insights from North America. *Handbook for the Geographies of Technology*, edited by B. Warf. Edward Elgar.

Calvert, K.E., Stephen, J., Blair, M.J., Cabral, L., **Baxter, R.E.**, Mabee, W. (2017). The changing geographies of biofuel production. *Handbook for the Geographies of Energy*, edited by B. Solomon and K. Calvert. Edward Elgar.

Baxter, R.E. (2010). Geospatial Industry. *Encyclopedia of Geography*, edited by B. Warf. Sage Publications, Inc.

Kelly, M.C., Haupt, B.J., & **Baxter, R.E.** (2009). Internet map services and Web GIS: The new paradigm in spatial and temporal data integration over the Web. *Encyclopedia of Database Technologies and Applications*, (2nd ed.). Hershey, Pennsylvania: Idea Group, Inc.

Kelly, M.C., **Baxter, R.E.**, & Haupt, B.J. (2008). The evolution of spatial data infrastructure (SDI) geospatial data clearinghouses: Architecture and services. *Encyclopedia of Data Warehousing and Mining*, (2nd ed.). Hershey, Pennsylvania: Idea Group, Inc.

CONFERENCE PROCEEDINGS

Baxter, R.E., Plakkat, A., Camargo, G.G.T., Dubin, M., Rotz, C.A., Roth, G., Richard, T.L. (2009). Biofuels for the Bay: Cellulosic Double Crops in the Chesapeake Watershed. *Bioenergy Engineering conference proceedings*. October 11-14, 2009, Bellevue, WA. American Society of Agricultural and Biological Engineers.

MacEachren, A., Edsall, R., Haug, D., **Baxter, R.E.**, Otto, G., Masters, R., Fuhrmann, S., Qian, L. (1999). Virtual Environments for Geographic Visualization: Potential and Challenges. *Proceedings of the 1999 ACM Workshop on New Paradigms in Information visualization and Manipulation*, Kansas City, MO, pp. 35-40. ACM Press, New York, NY.

REPORTS

Fowler, L.B., **Baxter, R.E.**, Colby, S.J., Kelly, M.C., Kelly-Slatten, K., Zipp, K.Y., Duke, L.D., Weitzel, M. (2017). *Flood Mitigation for Pennsylvania's Rural Communities: Community-Scale Impact of Federal Policies*. The Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly.

Baxter, R.E., part of a team with the Chesapeake Bay Commission and the Commonwealth of Pennsylvania. (2010). *Chesapeake Biofuel Policies: Balancing Energy, Economy and Environment*. 2010 Chesapeake Bay Commission Annual Report.

Baxter, R.E. (2001). *Mapping in the 20th Century: GIS Resources for Teachers*. Environmental Education Council of Ohio. January Newsletter, vol. XIX, no. 4.

Bacastow, T., Kelly, M.C., **Baxter, R.E.** (1999). *Linking Pennsylvania's Ecological Databases*. (ER9907) Executive report prepared for the PA Dept. of Conservation and Natural Resources. Environmental Resources Research Institute, The Pennsylvania State University, University Park, PA.

TEXTBOOK AND ATLAS CONTRIBUTIONS

Baxter, R.E., Hudson, J.C. (1999). Map of United States and Canada Population Density. *Goode's World Atlas, 20th Edition*, edited by John C. Hudson and Edward B. Espenshade. Rand McNally & Company.

Hudson, J.C., **Baxter, R.E.**, Gray, J. (1999). Map of United States and Canada Agriculture. *Goode's World Atlas, 20th Edition*, edited by John C. Hudson and Edward B. Espenshade. Rand McNally & Company.

Hudson, J.C., **Baxter, R.E.** (1999). Map of United States and Canada Grain Trade. *Goode's World Atlas, 20th Edition*, edited by John C. Hudson and Edward B. Espenshade. Rand McNally & Company.

Baxter, R.E. (1997) Map of United States and Canada Grain Trade. *Regional Geography of the United States and Canada*, by Tom McKnight. New Jersey: Prentice Hall, Inc.

INVITED GUEST LECTURES

Spatial Data Models. Guest lecture presented to Geog 260 – Intro to Geographic Information Science. (2023)

Land Opportunities for Biofuel Production. Guest lecture presented to IB 497A - Sustainability and International Business. (Every semester from 2014 – present)

Abandoned Cropland. Guest lecture presented to Geog 530 – Geography of Energy. (2015)

INVITED PRESENTATIONS

Baxter, R.E. (2020). *How do I get to a Best Practices State?* Presented as a panelist in the *Managing ArcGIS In Higher Education* session at the ESRI Education Summit. Online venue due to COVID.

Baxter, R.E. (2019). *Penn State Data Commons*. Presented to the Aviation Sustainability Center (ASCENT) of the Federal Aviation Administration (FAA). University Park, PA.

Baxter, R.E. (2017). *Penn State Data Commons*. Presented to the Dutton Institute Leadership Team. University Park, PA.

Baxter, R.E. (2016). *Faculty Experiences using Canvas*. Presented to a Dutton Institute Brown-Bag event. University Park, PA.

Baxter, R.E. (2016). *PASDA*. Presented at the Penn State GIS Day event at the University Library. University Park, PA.

Baxter, R.E. (2015). *Spatial Approaches to Bio Energy Production Opportunities*. Presented to a meeting of visiting scholars in the NEWBio project.

Baxter, R.E. (2013). *Penn State Online GIS Programs*. Participated in a panel discussion and presented at the NW Pennsylvania GIS Conference. Clarion, PA.

Baxter, R.E. (2012). *Downloads and Double Crops*. Department of Geography Coffee Hour.

Baxter, R.E. (2008). *Downloads, Map Viewers and Web Services: Data Access at Pennsylvania's Spatial Data Clearinghouse*. Presented at Lafayette College. Easton, PA.

CONFERENCE AND OTHER PRESENTATIONS

● denotes Baxter was presenter.

Baxter, R.E. (2024). *Drivers of Cropland Abandonment in the United States*. Presented at the Annual Meeting of the American Association of Geographers (hybrid session). Honolulu, HI. ●

Baxter, R.E., Smithwick, E.A.H. (2024). *Spatial Patterns of Cropland Abandonment and Opportunities for Renewable Energy*. Presented at the Annual Meeting of the International Association for Landscape Ecology – North American Regional Chapter. Oklahoma City, OK. ●

- Baxter, R.E.** (2023). *Deploying ArcGIS Enterprise in Education and Production Settings*. Presented at the ESRI User Conference. San Diego, CA. ●
- Baxter, R.E.** (2023). *Spatial Patterns of Abandoned Cropland and their Suitability for Renewable Energy Production*. Presented at the Annual Meeting of the International Association for Landscape Ecology – North American Regional Chapter. Riverside, CA. ●
- Baxter, R.E.**, Spayd, J.F., Kelly, M.C. (2019). *The PASDA Model: The GIS Data Clearinghouse in the Era of Big, Fast Data*. Presented at the ESRI User Conference. San Diego, CA. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2019). *Data Access in Pennsylvania*. Presented at the Pennsylvania State GIS Conference. State College, PA. ●
- Baxter, R.E.**, Spayd, J.F. (2018). *Pennsylvania Spatial Data Access (PASDA)*. Presented at the GIS Day Conference, Harrisburg Area Community College. Harrisburg, PA. ●
- Baxter, R.E.** (2018). *GIS Activities at Penn State: GIS Users Group and the Data Commons*. Presented at the Penn State GIS Day Event. University Park, PA. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2018). *Penn State Data Commons*. Poster presented at the Penn State Energy Days conference. University Park, PA. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2018). *Building the New PA Basemap through Data Development, Sharing and Service Delivery*. Presented at the Pennsylvania State GIS Conference. State College, PA. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2018). *Pennsylvania Spatial Data Access*. Presented at the Pennsylvania Society of Land Surveyors, 2015 Surveyor's Conference. Hershey, PA. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2017). *Pennsylvania Spatial Data Access*. Presented at the Pennsylvania State GIS Conference. State College, PA. ●
- Baxter, R.E.** (2016). *Abandoned Cropland as an Energy Production Opportunity*. Presented to the NEWBio Energy Scholars program. University Park, PA. ●
- Limpisathian, P.W., **Baxter, R.E.**, Calvert, K.E. (2016). *Spatial Analysis of Biofuel Production Potential in the Northeastern United States*. Poster presented at the NEWBio Annual Meeting. University Park, PA. ●
- Limpisathian, P.W., **Baxter, R.E.**, Calvert, K.E. (2016). *Spatial Analysis of Bio-Refining Potential in the Northeast US*. Poster presented at the Annual Meeting of the American Association of Geographers. San Francisco, CA.
- Baxter, R.E.**, Kelly, M.C., Spayd, J.F., Dane, S. (2016). *Penn State Data Commons*. Presented at the Penn State Data Day event at the University Library. University Park, PA. ●
- Limpisathian, P.W., **Baxter, R.E.**, Calvert, K.E. (2016). *Spatial Analysis of Bio-Refining Potential in the Northeast US*. Poster presented at the Penn State Energy Days conference. University Park, PA.
- Baxter, R.E.**, Calvert, K.E. (2016). *Estimates and Explorations of Abandoned Cropland in the United States*. Presented at the Annual Meeting of the American Association of Geographers. San Francisco, CA. ●
- Weinstein, K., **Baxter, R.E.**, Calvert, K.E. (2015). *Spatial Analysis of Abandoned Cropland*. Poster presented at the NEWBio Annual Meeting. Morgantown, WV. Awarded second prize in a research poster competition. ●

- Weinstein, K., **Baxter, R.E.**, Calvert, K.E. (2015). *Spatial Analysis of Abandoned Cropland in the United States*. Poster presented at the PSIEE research poster session. Awarded first place in a poster contest.
- Baxter, R.E.**, Kelly, M.C., Spayd, J.F. (2015). *Pennsylvania Spatial Data Access Overview*. Presented at the Pennsylvania State GIS Conference. State College, PA. ●
- Baxter, R.E.**, Spayd, J.F. (2015). *What's New at PASDA*. Presented at the Harrisburg Area Community College (HACC) GIS Day Conference. Harrisburg, PA. ●
- Baxter, R.E.** (2015). *Abandoned Cropland*. Presented to the May All-Hands meeting of the NEWBio project. University Park, PA. ●
- Baxter, R.E.** (2015). *Overview of PASDA*. Presented to the Penn State GIS Users Group. ●
- Baxter, R.E.**, Calvert, K.E. (2015). *Revisiting Abandoned Agricultural Land in the US*. Presented at the Annual Meeting of the Association of American Geographers. Chicago, IL. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2015). *Pennsylvania Spatial Data Access*. Presented at the Pennsylvania Society of Land Surveyors, 2015 Surveyor's Conference. Hershey, PA. ●
- Kelly, M.C., Spayd, J.F., **Baxter, R.E.**, Dane, S., Haupt, B.J. (2014). *Informatics and Data Management at PSIEE*. Poster presented at the Penn State Institutes of Energy & the Environment Open House. University Park, PA. ●
- Baxter, R.E.**, Calvert, K.E., Richard, T.L. (2014) *New Estimates of Abandoned Agricultural Land in the US*. Poster presented at the NEWBio Annual meeting. Geneva, NY. ●
- Baxter, R.E.** (2014). *Pennsylvania Spatial Data Access (PASDA)*. Presented at the GIS Day Conference, Harrisburg Area Community College. Harrisburg, PA. ●
- Baxter, R.E.**, (2014). *Underground Mine Map Atlas*. Presented at the GIS Day Conference, Harrisburg Area Community College. Harrisburg, PA. ●
- Baxter, R.E.** (2013). *PASDA and the New Mine Map Atlas*. Presented at the NW Pennsylvania GIS Conference. Clarion, PA. ●
- Baxter, R.E.** (2013). *PASDA*. Presented at the Pennsylvania State GIS Conference. State College, PA. ●
- Baxter, R.E.** (2013). *PASDA*. Presented at the GIS Day Conference, Harrisburg Area Community College. Harrisburg, PA. ●
- Baxter, R.E.** (2012). *A Spatially-Explicit Model of Switchgrass Production in the Mid-Atlantic United States*. Presented at the Annual Meeting of the Association of American Geographers. New York, NY. ●
- Baxter, R.E.** (2011). *Technology Developments at PASDA*. PA GIS Conference. Harrisburg, PA. ●
- Baxter, R.E.** (2010). *PASDA Update: a New Tool for Viewing and Downloading Imagery*. NW Pennsylvania GIS Conference. Clarion, PA. ●
- Feyereisen, G.W., Camargo, G.G.T., **Baxter, R.E.**, Baker, J., Richard, T.L. (2010) *Biofuel Potential of Cellulosic Double Crops across the U.S. Corn-Soybean Belt*. Presented at the SWCS Sustainable Feedstocks for Advanced Biofuels Conference. Atlanta, GA.

Bals, B., Camargo, G.G.T., Dale, B., Feyereisen, G.W., **Baxter, R.E.**, Kim, S., Richard, T.L. (2010) *Maximizing Bioenergy Output from Currently Managed Lands: A U.S. Case Study*. Presented at the Global Sustainable Bioenergy Convention. Minneapolis, MN.

Baxter, R.E., Plakkat, A., Camargo, G.G.T., Dubin, M., Roth, G., Adler, P., Richard, T.L. (2010). *Cellulosic Biofuel Feedstock Potential in the Chesapeake Bay Watershed*. Poster Presented at the NE SunGrant Conference. Syracuse, NY. ●

Plakkat, A., Camargo, G.G.T., **Baxter, R.E.**, Dubin, M., Roth, Rotz, C.A., Richard, T.L. (2009). *Biofuels for the Bay: Cellulosic Double Crops in the Chesapeake Watershed*. Presented at the Bioenergy Engineering Conference. Bellevue, WA. ●

Baxter, R.E., Kelly, M.C., Haupt, B.J., Spayd, J.F. (2009). *Internet Map Services Using NOAA's Weather Data: A vital Tool*. Presented at the Penn State Applied Research Laboratory. University Park, PA. ●

Haupt, B.J., Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2008). *Weather and Climate Data Map Services*. Presented at the ESRI International User Conference. San Diego, CA. ●

Baxter, R.E., Kelly, M.C., Haupt, B.J., Spayd, J.F. (2008). *GIS Clearinghouses and Biological/Temporal Data: Challenges and Opportunities*. Presented at the ESRI International User Conference. San Diego, CA. ●

Baxter, R.E., Haupt, B.J., Kelly, M.C., Spayd, J.F. (2008). *Live, Remote Access to Dynamic Weather Forecasts from Geospatial Clients*. Presented at the Annual Meeting of the Association of American Geographers. Boston, MA. ●

Haupt, B.J., Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2008). *Weather Based Internet Map Services: Bringing NOAA's Weather Data to Your Desktop*. Poster presented at the American Meteorological Society Annual Meeting. New Orleans, LA. (Winner of Best Poster Award) ●

Kelly, M.C., Haupt, B.J., **Baxter, R.E.**, & Spayd, J.F. (2007). *Fisheries and Aquatic Resources NBII*. Presented at the Oceans Biodiversity Information Conference. Halifax, Nova Scotia.

Haupt, B.J., Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2007) *The Development of Map Services using Data from the NDFD and the NWS*. Presented at the ESRI International User Conference. San Diego, CA.

Settelmaier, J., Waters, K., Haupt, B.J., **Baxter, R.E.**, Kelly, M.C. (2007) *Exploring ArcIMS Services to Deliver National Weather Service Datasets in Support of Decision-Makers*. Presented at the ESRI Federal User Conference. Washington, DC.

Baxter, R.E., (2006). *Cutting-Edge functionality and Access to PAMAP Data at PASDA*. Presented at the Central Appalachian GIS Conference. Washington, PA. ●

Kelly, M.C., **Baxter, R.E.**, Walrath, D. (2006). *Evolution of a GIS Data Clearinghouse: From FTP to WebServices*. Presented at the ESRI International User Conference. San Diego, CA. ●

Kelly, M.C., **Baxter, R.E.**, Walrath, D. (2006). *Interactive GIS Services in Pennsylvania*. Presented at the Commonwealth Prevention Alliance Conference. State College, PA.

Baxter, R.E., Spayd, J.F., Kelly, M.C. (2006). *Cutting-Edge GIS Data Search and Retrieval*. Presented at the Pennsylvania State GIS Conference. Harrisburg, PA. ●

Baxter, R.E. (2006). *A Data and Metadata Architecture to Support Advanced Spatial Data Clearinghouse Functionality*. Presented at the Annual Meeting of the Association of American Geographers. Chicago, IL. ●

- Campbell, C., **Baxter, R.E.**, Spayd, J.F. (2005). Poster presentation titled *A Mapping Application for the Delaware River*. Presented at the USGS National Biological Information Infrastructure All-Node Meeting. Albuquerque, NM. ●
- Kelly, M.C., **Baxter, R.E.**, Spayd, J.F. (2005). *Utilizing Dynamic Internet MapServices*. Presented at the Pennsylvania State GIS Conference. Harrisburg, PA. ●
- Baxter, R.E.** (2004). *Advanced Online Spatial Data Access and Processing*. Presented at the Western Pennsylvania GIS Conference. Washington, PA. ●
- Baxter, R.E.** (2004). *Online Data Access and Mapping in Pennsylvania*. Presented at the Annual Meeting of the Association of American Geographers. Philadelphia, PA. ●
- Baxter, R.E.** (2003). *Data Sharing and Access in Pennsylvania*. Presented at the Rural Geospatial Innovations in America Conference. State College, PA. ●
- Baxter, R.E.** (2003). *Data Sharing and Access in Pennsylvania*. Presented at the New York State GIS Conference. Albany, NY. ●
- Baxter, R.E.** (2003). *Online Mapping and Data Processing Tools*. Presented at the Western Pennsylvania GIS Conference. Washington, PA. ●
- Baxter, R.E.** (2003). *Pennsylvania Census 2000 Mapper*. Presented at the Pennsylvania State GIS Conference. Harrisburg, PA. ●
- Baxter, R.E.** (2003). *Pennsylvania Spatial Data Access - The Evolution of Online Data Access Tools*. Presented at the Towson University GIS Conference. Towson, MD. ●
- Baxter, R.E.** (2003). *Pennsylvania Spatial Data Access - Online Data Access Tools*. Presented at the Delaware State GIS Conference. Newark, DE. ●
- Baxter, R.E.** (2002). *Processing Data with ArcIMS at the Pennsylvania Spatial Data Clearinghouse*. Presented at the ESRI International User Conference. San Diego, CA. ●
- Baxter, R.E.** (2001). *Online Data Processing and Access*. Presented at the Second Annual California University GIS Conference. California, PA. ●
- Baxter, R.E.** (2001). *Demonstration of ArcIMS applications*. Presented at the ESRI International User Conference. San Diego, CA. ●
- Baxter, R.E.**, Pfeiffer, C. (2001). *GIS and online data access training*. Presented to members of several Pennsylvania state agencies. Harrisburg, PA. ●
- Baxter, R.E.** (2001). *GIS Data Distribution and Use via the Internet*. Presented at TUGIS 2001, 14th Annual Geographic Information Sciences Conference. Baltimore, MD. ●
- Baxter, R.E.** (2000). *WebGIS at PASDA*. Presented at the WebGIS 2000 Conference. State College, PA. ●
- Baxter, R.E.** (2000). *WebGIS at PASDA*. Presented at the Pennsylvania State Data Center User Conference. Harrisburg, PA. ●

Hudson, J.C., **Baxter, R.E.**, Gray, J. (1998). *Generalized Farming Types in the United States*. Poster presented at the Annual Meeting of the Association of American Geographers. Boston, MA.

WORKSHOPS DEVELOPED AND TAUGHT

Exploring Data Resources at PASDA. One-hour workshop.

PA/NJ Electric Utility Cooperatives, GIS Section. State College, PA. (2018)

Introduction to ArcIMS. Full-day pre-conference workshop.

Towson University GIS Conference. Towson, MD. (2007)

Towson University GIS Conference. Towson, MD. (2006)

Pennsylvania State GIS Conference. Harrisburg, PA. (2005)

Towson University GIS Conference. Towson, MD. (2005)

Rural Geospatial Innovations in America Conference. State College, PA. (2004)

Towson University GIS Conference. Towson, MD. (2004)

Pennsylvania State GIS Conference. Harrisburg, PA. (2003)

Rural Geospatial Innovations in America Conference. State College, PA. (2003)

Towson University GIS Conference. Towson, MD. (2003)

Advanced ArcIMS. Full-day post-conference workshop.

Towson University GIS Conference. Towson, MD. (2007)

Towson University GIS Conference. Towson, MD. (2006)

Towson University GIS Conference. Towson, MD. (2005)

ArcIMS I: Introduction to ArcIMS. Half-day pre-conference workshop.

Pennsylvania State GIS Conference. Harrisburg, PA. (2002)

ArcIMS II: Advanced Architecture and Customization. Half-day pre-conference workshop.

Pennsylvania State GIS Conference. Harrisburg, PA. (2002)

Introduction to GIS for Educators. 2-hour workshop.

Environmental Education Council of Ohio, NE Region Conference. Peninsula, OH. (2002)

Introduction to GIS for Educators. 2-hour workshop.

Ohio Department of Natural Resources, Ohio Federation of Soil and Water Conservation Districts, Education Workshop. Painesville, OH. (2001)

Integrating GIS with Internet Applications – Introduction to ArcIMS. Half-day pre-conference workshop.

Pennsylvania State GIS Conference. Harrisburg, PA. (2001)

Introduction to GIS for Teachers. 2-hour workshop.

Environmental Education Council of Ohio, NE Region Conference. Peninsula, OH. (2001)

SERVICE

UNIVERSITY COMMITTEES

Penn State Research IT Constituency Group (RIT-CG) (2021 – present)

Inaugural Member

Invited by Penn State CIO

Penn State Research Data Storage Working Group (2024)

Invited Penn State IT

Penn State IT Advisory Council (ITAC) (2021 – present)

Penn State GIS Users Committee (2003 – present)

Charter Member

Penn State Data Governance Committee (2016 - 2017)

COLLEGE COMMITTEES

College of Earth & Mineral Sciences Non-Tenure Faculty Promotion Committee (2019 – present)

Committee Chair (2020 – Present)

DEPARTMENT COMMITTEES

Department of Geography Non-Tenure Faculty Promotion Committee (2018 – 2019)

Member of the Environmental Resources Research Institute IT Committee (2001)

EXTERNAL SERVICE

Reviewer for the journal, Progress in Energy (2024)

Reviewer for the journal, Environmental Research Letters (2023)

Reviewer for the journal, Land Use Policy (2019)

Book reviewer for Springer Publishing (2016)

VOLUNTEERING

INTERNAL

Judge for the College of Earth & Mineral Sciences Graduate Research Showcase (2020 - 2023)

Judge for the Penn State Undergraduate Exhibition (2018, 2022)

Judge for the College of Earth & Mineral Sciences Celebration of Undergraduate Engagement (CUE) research Expo (2022)

Faculty interviewer for applicants to the Penn State Millennium Scholars Program (2022)

Judge for the Penn State Graduate Exhibition (2019, 2021)