

VITA

COLLEGE OF SCIENCES AND HUMANITIES

PART I. PERSONAL DATA

Name *Petra Zimmermann*
Department *Geography*

Current Rank *Associate Professor*

A. EDUCATION

Degree	Date	University	Major	Minor
<i>Ph.D.</i>	<i>May 31, 2003</i>	<i>University of Delaware</i>	<i>Climatology</i>	
<i>M.S.</i>	<i>August 31, 1995</i>	<i>University of Delaware</i>	<i>Geography-Climatology</i>	
<i>B.A.</i>	<i>December, 1990</i>	<i>Kutztown University</i>	<i>Geography</i>	

B. PROFESSIONAL EMPLOYMENT PRIOR TO ARRIVAL AT BALL STATE

Visiting Instructor, University of Iowa, Academic Year 2002-2003
Instructor, Kutztown University, Fall 1995

C. INITIAL EMPLOYMENT AT BALL STATE

Date *August 22, 2003*

Rank *Assistant Professor*

D. PROMOTIONS AT BALL STATE

Effective Date	From (rank)	To (rank)
<i>July 1, 2009</i>	<i>Assistant Professor</i>	<i>Associate Professor</i>

E. FIELD(S) OF PROFESSIONAL SPECIALIZATION

Climatology, physical geography, quantitative methods, climate education, GIS

PART II. ACCOMPLISHMENTS

A. COURSES TAUGHT

GEOG 101: Earth, Sea, Sky

-both face-to-face and online

GEOG 230 (now METC 230): Elementary Meteorology

-both face-to-face and online

GEOG 265: Introduction to Geographic Information Systems

GEOG 331 (now METC 331): Global Climatology

GEOG 332 (now METC 332): Climate Change and Modification

GEOG 425 (now METC 425): Physical Meteorology

GEOG 451 (now METC 451): Dynamic Meteorology

METC 426: Client-based Forecasting (Immersive)

GEOG 323: Tourism and the Geography of Food

GEOG 369: Professional Experience

GEOG 479: Practical Experience

GEOG 495: Readings and Special Studies in Geography and Earth Sciences

GEOG 299x: Special Topics (Developing the Cardinal Weather Service)

NREM 309: Human Dimensions of Global Change

NREM 341 (now 241, Air Resources): Air Quality

*NREM classes taught to fill absence of faculty on leave

a. Implementer of instructional innovation

Fall 2017—Developing the Cardinal Weather Service (an immersive class).

This course is an experimental one for which we were funded through the provost's office. The course requires students to generate weather forecasts for actual community clients. This will be offered as a regular class in the future.

Spring 2013—taught a redesigned GEOG 332 (Climate Change) in interactive classroom as part of the Learning Space Initiative

-this required revamping of the course to take advantage of the technology and physical space

Fall 2012—taught GEOG 265 (Introduction to GIS) as part of the Learning Space Initiative

-this required revamping the course to take advantage of the technology and physical space

Fall 2006 to Spring 2007—worked with Minnetrista project through its conclusion, which involves a partnership with Minnetrista Cultural Center and using Option 4 students with interests in broadcast meteorology. This program,

in conjunction with *The Magic School Bus*, a children's science program that was broadcast from Minnetrista, involves several teams of students broadcasting not only weather forecasts, but also meteorology science segments geared toward children. Students gain an **immersive** learning experience.

2004 – 2008—instituted public presentation sessions for students in GEOG265. Students are required to present their GIS projects in an event that is open to the public. Poster sessions continue to be an innovative part of GEOG265.

b. Initiator of new programs/courses

2017—developing a new course (with Nathan Hitchens) Client-Based Forecasting, an outgrowth of our Immersive Learning Project (see previous section)

2013—taught Climate Change and Modification (GEOG 332) and redesigned it for ILS Node Room

2012 (Fall) and 2013 (Spring)—redesigned GEOG 265 (Introduction to Geographic Information Systems) for ILS Mediascape room

2007—developed and taught Climate Change and Modification, a this is a new 300-level course that addresses issues including global warming and climate change; **this course is now required for all Option 4 (Meteorology and Climatology) majors**

2007-2008—active in developing a Certificate Program in Geographic Information Science (certificate program has been approved by Undergraduate Education Committee)

2007-2008—developed GEOG 230 (Elementary Meteorology) online course for the School of Extended Education

2005—developed Dynamic Meteorology, an undergraduate/graduate course for the Professional Meteorologist track of Option 4; **this course helps satisfy the National Weather Service Requirements.**

2004—developed Physical Meteorology, an undergraduate/graduate course for the Professional Meteorologist track of Option 4; **this course helps satisfy the National Weather Service Requirements.**

c. Thesis/dissertation committee member or chairperson

* note: year(s) after student's name indicates time period as member or chair

Master's Thesis Advisor

Mitchell Larue (2018-2020)—Assessing Spatial Variability of Climate Change Vulnerability Across the City of Muncie. **Graduated Summer 2020.**

Mayss Saadoon (2017-2018)—Effects of Regional Wind Transportation of Photochemical Air Pollution in Central Indiana. **Graduated Summer 2018.**

Caleb Saylor (2016-2017)—Exploring the Relationship Between Land Us/Land Cover Type and Wet-Bulb Globe Temperature. Defended October 2017. **Graduated December 2017.**

Nicholas Eckstein (2015-2018) --Undergraduate Forecast Skill by Class Level and Participation Time in the WxChallenge National Weather Forecasting Contest: 2005 – 2016. **Graduated Spring 2018**

Caitlyn Pennington (2016-2017)—The Change in Flood Extent over the West Fork of the White River (2005-2015). **Graduated Summer 2017.**

Brent Pesel (2014-2015)—Testing Hospital Capacities for Response to a Mass Casualty Urban Tornado Event. **Graduated Summer 2015.**

Katelyn Dotson (2012-2014)—The Impact of the Atlantic Meridional Mode (AMM) on North Atlantic Tropical Cyclone Activity. **Graduated Summer 2014.**

Laura Giboo (2010) Examination of the Chicago Urban Heat Island **Graduated Summer 2011**

Matthew Murray (2008-2009) **Graduated Summer 2009:**
Examining Post-Evacuation Plans for Hurricane Evacuees using Westerly, Rhode Island as a Test Case

Matthew Aleksa (2006-2008) **graduated Spring 2008:** The Effects of Teleconnection Patterns on Lake-Effect Snowfall in the Lake Erie Snowbelt, 1951-2007

Nathan Eckstein (2005-2007) **graduated Summer 2007:**
Impacts of the El Nino Southern Oscillation on Eastern United States Moisture Advection: The Role of Tropical North Atlantic Sea-Surface Temperatures

Bryan Smith (2006-2007): **graduated Fall 2007:**
Climatology of Cool Season Severe Thunderstorms in the East-Central United States, 1995-2007

Carrie Haisley (2006-2007): El Nino, La Nina, and Indiana Hydrology (did not finish)

Mic Conliffe (2007) Case study of a long-lived squall line supercell that produced multiple tornadoes in Indiana (did not finish)

Jennifer Kuchar (2005-2007) did not finish

Master's Thesis Committee Member

Zachary Johnson: 2016-2017
Jose Algarin Ballesteros: 2016-2017
Nicholas Wiggins (Architecture): 2014—Graduated 2014
Keith Jazska: 2011-2013—Graduated 2013
Qian Ma: 2012-2013—Graduated 2013
Steven LaVoi: 2010-2012—Graduated 2012
Anthony Phillips: 2010-2012—Graduated 2012
Holly Rauwolf Widen 2011—Graduated
Jose Martinez-Colon: 2009 (NREM)—Graduated
Andrea Schlump: 2009, did not finish
Michael Morales: 2008-2009, did not finish
Robert Berger: 2006- 2007 (Graduated 2007)
Douglas Berry: 2004-2005 (Graduated 2005)
Gordon Strassberg: 2003-2005 (Graduated 2005)
Simone Lewis: 2004-2005 (Graduated 2005)
Andrew Shears: 2005 (Graduated 2005)
Nathan Hitchens: 2005-2006 (Graduated 2006)
Michael Hanni-Wells: 2003-2004 (Graduated 2004)

Doctoral Committee Member

Richard Whitman (2016-2017) NREM, Ed.D. (Ball State)
Benjamin England: 2014-2015 Biology/Science Education (Ball State)
Anthony Phillips: 2012--2015 (University of Virginia)
Sunday Goshit: 2003-2007 (University of Iowa)
-note: this is his real name

- d. Research paper/creative project adviser
none
- e. Special assignments, e.g., independent studies, coordination of courses

Fall 2021—Independent Study advisor for Zachary Hagemeyer

Spring 2021—Senior Honors Thesis advisor for Nathan Gidley

Spring 2020—Senior Honors Thesis advisor for Nathan Gagnon

Spring 2016—Taught NREM 309 when a faculty member left on a sudden medical leave

Fall 2016—Independent study advisor for Jose Algarin Ballesteros (graduate student)

Spring 2014—Independent study advisor for Rene Lawson

Fall 2011-Spring 2012—GEOG 101 Lab Coordinator

Summer 2011—Independent study advisor for Andrew DuVall (GEOG/METC 332)

Fall 2010—supervised climatology/GIS project for Korey Klein, Derek Lawalin, and Doyle McIntosh; project poster won first prize at Indiana GIS Conference

Summer 2010—Independent study advisor for Andrew DuVall and Bradley Hoffman (GEOG/METC 331)

Fall 2009—Independent study advisor for Ryan Hensler

Fall 2009—Independent study advisor for Korey Klein

Fall 2009—Independent study advisor for Doyle McIntosh

Spring 2009—Taught Air Quality (NREM 341); I taught this course (required for NREM majors) because the original instructor went on medical leave (and has since passed away).

Spring 2008 and Fall 2007—served as independent study instructor for three audiology doctoral students (Jennifer Graber, Blair Mattern, Amanda Boldman)

-students were learning GIS and Spatial Analysis techniques for Audiology practices

Spring 2008—developed online Elementary Meteorology course for Ball State's Independent Learning Program in School of Extended Education

Spring 2007—served as instructor for online GEOG 331, Global Climatology (allowing distance education students to finish this course after their instructor left the university); I instructed students after their regular course instructor (Dr. David Arnold) left Ball State University for another position.

f. Creative teaching grants

2018—CSH Microgrant (with N. Hitchens):

to create awareness for the Cardinal Weather Service by having a Scramble Light giveaway. **Amount: \$300**

2012--ILS Faculty Development Workshop (May 2012): Stipend of \$1000

-Summer technological consultation with iLearn
-Eno interactive whiteboard training with Steelcase Education Solutions
-involvement with Faculty Learning Communities
-participant in ILS research: Interactive Learning Spaces: Student Attributes and Outcomes

2007—winner of ESRI Tele-Atlas Scholarship (for work in GIS education)
-featured in ESRI Podcast at 2007 ESRI Education User Conference,
-I was recognized for my **Spatial Analysis workshop** and my **GIS student poster sessions as innovative methods in GIS education**
Amount: \$400.00

g. Other

Fall 2019: Internship Supervisor for Cameron Chinn
--Meteorology internship for student serving as Athletics Liaison

2019 (July): Invited talk for area teachers on Employment Opportunities in GIS

-at Ball State University (Bracken Library)
-Invited by Shireen DeSouza (Biology)

Summer 2019: Internship Supervisor for Caleb Fogel
--GIS internship

2018: Interactive Learning Space Mentor for Dr. Nathan Hitchens

Summer 2018: Canvas Basics workshop

Summer 2018: Canvas Assignments workshop

Summer 2018: Canvas Transitions workshop

Summer 2015-2019-- Facilitated the Applied Math in Science Workshop for Big M Math Camp program

This program is a summer math camp for approximately 56 5th and 6th graders; I run the workshop every summer.
(Rebecca Pierce, PhD, Mathematical Sciences, Program Coordinator/Director)

Spring 2016—Internship Supervisor for Dustin Motte and Alison Curry
(Geography undergraduate students)

Summer 2013—served as faculty mentor to Dr. Bill Rogers (Biology) and Dr. Joshua Gruver (NREM) as part of the Interactive Learning Space Initiative: instructing and mentoring them in how to best use the interactive learning spaces in TC 412 and TC 414

Summer 2013—presentation at the Interactive Learning Space Initiative Workshop for new faculty in the initiative

2012-2013—was selected (though competitive process) to teach in the Interactive Learning Spaces (TC412 and TC414) as part of the Interactive Learning Space Initiative

2007-2017—Faculty Director for the Ball State Weather Station and Meteorology/Climatology Lab, which enhances educational experiences for

Option 4 majors and augments their applications for employment at the National Weather Service (NWS); instituted a tutoring policy for student lab assistants, in which assistants on duty serve as on-call tutors for Elementary Meteorology students who need assistance in understanding concepts. Worked with students to provide Official Game Day forecasts for Ball State University Football Games, which are broadcast in Muncie, Fort Wayne, and Indianapolis. This provides experiential learning opportunities for Option 4 students.

2007 – 2008—Internship Supervisor

-for Krystle Rodgers

-for Gregory Hornbeek

-above students were part of a GIS-based Business Fellows project

2007—Senior honors thesis advisor for Elizabeth Stechshulte

2006 - 2008—Faculty Advisor, Ball State Storm Chase Team

I took on the position as Faculty Advisor after the David Arnold left Ball State for another position. Because Ball State receives much favorable media attention from the Storm Chase Team, I felt that it was very important that the team remain viable. **Among the accomplishments achieved under my direction is the standing room only talk given by Tim Samaras**, perhaps the most well known storm chaser and a regular fixture on the National Geographic channel. **Additionally, I worked to establish a set of storm chase protocols with the help of Larry Cistrelli, a university attorney. These guidelines, which had not existed before, permit the team to undergo chases within parameters designed to protect the safety of the students as much as possible during a potentially dangerous activity.**

2007—Departmental representative for Science Advising Night (ad hoc advising advice for current and potential students)

December 2006: worked with John Ogren of the Indianapolis NWS Office, on a short workshop for students interested in working for the NWS

3. Advanced Study, Additional Accomplishments, and Professional Improvement

2019: selected as Gamma Theta Upsilon's Faculty of the Year for the Department

2017: Immersive Course (developing the Cardinal Weather Service) selected as Shafer Fellows project

2012-2013: participated in the Faculty Learning Community for the Interactive Learning Space Initiative

2008—invited to participate in a Physical Geography symposium (on education); only 10 faculty from around the country attended at this Symposium. Tucson, Arizona. February 7-10.

2004—Selected for competitive workshop. Participation in the 2004 Spatial Perspectives on Analysis for Curriculum Enhancement (SPACE) workshop sponsored by Center for Spatially Integrated Social Science (CSISS) and sponsored by the National Science Foundation. Columbus, Ohio (The Ohio State University). **June 28 – July 2.**

B. EVIDENCE OF RESEARCH, PUBLICATION, CREATIVE ENDEAVORS, OR OTHER SCHOLARLY PRODUCTIVITY

1. Refereed publications (excluding abstracts), published or accepted for publication

2018. Zimmermann, P., L. Stallings, R. Pierce, and D. Largent. 2018 "Classroom Interaction Redefined: Multidisciplinary Perspectives on Moving Beyond Traditional Classroom Spaces to Promote Student Engagement". **Journal of Learning Spaces 7(1), pp. 45-61. Contribution: 25%.**

2015. Zimmermann, P.A. Cooking with Alcohol. SAGE Encyclopedia of Alcohol.

2015. Zimmermann, P.A. Alcohol and Fine Dining. SAGE Encyclopedia of Alcohol.

2014. Zimmermann, P.A. Gasoline, Reformulated. SAGE Encyclopedia of Transportation (Mark Garrett, ed.)

2014. Zimmermann, P.A. Sulfur Dioxide. SAGE Encyclopedia of Transportation (Mark Garrett, ed.)

2012 Zimmermann, P.A. Pollution, Air. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Zimmermann P.A. Glaciers, Retreating. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Zimmermann, P.A. Winds, Easterlies. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Zimmermann, P.A. Radiation, Short Wave. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Zimmermann, P.A. Radiation, Long Wave. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Coleman, J.S.M. and P.A. Zimmermann, Southern Oscillation. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2012 Zimmermann, P. A. and J. S. M. Coleman, Detection of Climate Changes. In Encyclopedia of Global Warming and Climate Change, 2nd ed. (SAGE Publications).

2009. **Zimmermann, Petra A.** Kyoto Protocol. In **Sage Green Series: Green Energy.** (Sage Publications).
2009. **Zimmermann, Petra A.** Heat Island Effect. In **Sage Green Series: Green Energy.** (Sage Publications).
2009. **Zimmermann, Petra A.** Heating Degree Day. In **Sage Green Series: Green Energy.** (Sage Publications).
2009. **Zimmermann, Petra A.** Acid Rain. In **Sage Green Series: Green Politics.** (Sage Publications).
2009. **Zimmermann, Petra A.** Air Quality. In **Sage Green Series: Green Cities.** (Sage Publications).
2008. **Zimmermann, Petra A.** Evaluation of an Environmentally-based Spatial Population Model. **The Indian Geographical Journal**, Vol. 82 (1) Acceptance rate approximately 40%
2008. **Zimmermann, Petra A.** Using GIS in Immersive Educational Experiences: An Example. **Proceedings of the 2008 ESRI Education User Conference—Professional Papers.** Web Proceedings and Proceedings CD. Acceptance rate unknown.
2008. **Zimmermann, Petra A.** and J. S. M. Coleman, Detection of Climate Changes. In **Encyclopedia of Global Warming and Climate Change** (Sage Publications).
2008. **Zimmermann, Petra A.**, Easterly Winds. In **Encyclopedia of Global Warming and Climate Change.** (Sage Publications).
2008. **Zimmermann, Petra A.**, Long Wave Radiation. In **Encyclopedia of Global Warming and Climate Change.** (Sage Publications).
2008. **Zimmermann, Petra A.**, Short Wave Radiation. In **Encyclopedia of Global Warming and Climate Change.** (Sage Publications).
2008. Coleman, Jill S. M. and **Petra A. Zimmermann.** Southern Oscillation. In **Encyclopedia of Global Warming and Climate Change.** (Sage Publications).
2006. **Zimmermann, Petra A.**, On the Use of Environmental Variables to Help Estimate Human Population Distribution. **The Indian Geographical Journal**, Vol. 81 (2), published July 2007. Acceptance rate approximately 40%

Prior to Ball State University

1999. **Zimmermann, P. A.** A hydroclimatic approach to assessing wildfire risk in Pennsylvania. 1999. **The Pennsylvania Geographer** 37(2), 20-41. Acceptance rate approximately 60%

2. Contracts, Grants and Funding for research/creative endeavors

a. External

2017. *Let's Chat! Using Salons to Bring Scientists and the Community Together.* Fund for Positive Engagement, Campus Compact. **Petra A Zimmermann, PI.** \$5000. Not funded.

2016. *Contract from IUPUI/The Polis Center for Hazards Mapping and the support of Student GIS Interns (funded for \$11,000)*

2015. "STEM-ing the Future: Understanding Climate Change with Geospatial Technologies at the Interface of Sciences and Social Studies", National Science Foundation, DRL (Discovery Research) K-12, Dec. 2015
Shireen DeSouza, PI , **Petra A Zimmermann** and Jörn Seemann, Co-PIs—\$1,237,408. Not Funded

2014. *Flyover Feasts: Exploring Culinary Geography with an Immersive Cooking Show (Discovery Program).* **Petra A Zimmermann, PI.** Rodney Smith, Co-PI. \$19,500. Not funded.

2014. *Learning of Geospatial Technologies Through STEM Informal Science Experiences (NSF AISL Pathways Program).* Josephine S. M. Desouza, PI. **Petra A. Zimmermann, Co-PI.** \$296,916. Not funded.

2013—Co-PI on NOAA Grant for Professional Development Opportunities for K-12 Educators to Build a Weather Ready Nation. With John Frye, Alissa Haas (both of UW-Whitewater) and Nathan Hitchens (BSU). **BSU portion was \$437,836.** Not funded.

2009—Principal Investigator on EPA Grant for Replacing a Fossil by Digging Deep: Air Quality Monitoring during the Transition from Coal to Geothermal District Heating and Cooling at Ball State University. With James C. Eflin (Co-PI). **Grant submitted for \$499,961.** Not funded.

2008—NASA Grant for Changing Climate in a Changing World. With James C. Eflin (Principal Investigator), Roy Weaver (Co-PI), Jerrall Cassidy (Co-PI), Petra Zimmermann (Co-PI), and Amy Gregg (Co-PI). **Grant submitted for \$499,894.** Not funded.

2008—Contract for Riverine Flood Analysis, Part 1 from FEMA and National Institute of Building Sciences (NIBS) through IUPUI. **Funded for \$9450.00**
-included funding for a graduate student over the summer

2008—Contract for Riverine Flood Analysis, Part 2 from FEMA and National Institute of Building Sciences (NIBS) through IUPUI. **Funded for \$14,175.00**
-included funding for a graduate student over the summer

2008—Discovery Grant for Development Of In-House Internships Within The Geography Department: A Pilot Project. Proposal submitted for \$5200.00. Not funded

2005—Center for Spatially Integrated Social Science (CSISS), funded through the National Science Foundation to develop on-campus spatial analysis workshop for social science disciplines. **Proposal funded for \$1250.00**

b. Internal

2017. Developing the Cardinal Weather Service (Provost Immersive Learning Grant). **Petra A Zimmermann** and Nathan Hitchens, Co-PIs. **Funded for \$10.860.00.**

2015 "Flyover Feasts: Exploring Culinary Geography through an Immersive Cooking Show "Provost's Immersive Learning Grant . \$36,499.63. not funded

2009—Emerging Media Innovation Grant for **Citizen Science, Citizen Sensors: Employing Social Media in Climate Science.** Proposal selected for funding, \$5000.00

2009—ASPiRE Program (for International Travel). **\$400.00** (funded)

2009—SUBMIT Program. **\$675.00**

2007—Submitted proposal for Business Fellows: **Assessing The Spatial Characteristics Of Patients For A Private Audiology Practice: A Business Fellows Proposal.** Proposal accepted and funded.

2007—Submitted proposal for Enhanced Provost Initiative, Immersion. **Student Opportunities In Geographic Information Systems,** Not funded.

2005—New Faculty grant (Internal Grant) for summer graduate assistant. **Proposal funded for \$1260.00.**

3. Papers presented at professional meetings (invited or refereed)

2019. P.A. Zimmermann. The Cardinal Weather Service: A Student-Driven Community Resource.—2019 Association of American Geographers Annual Meeting, Washington, DC April 2019

2018: P.A. Zimmermann. The Cardinal Weather Service: Successes and Pitfalls of a Student-Driven Forecasting Service.—2018 Association of American Geographers Annual Meeting, New Orleans, CA April 2018

2016: P.A. Zimmermann. Does Climate Have a Role in the Definition of Local Foods?—2016 Association of American Geographers Annual Meeting, San Francisco, CA April 2016

2015: P.A. Zimmermann. "Defining Local: Is a Common Definition for "Local" Food even Possible?"—2015 Association of American Geographers Annual

Meeting, Chicago, IL April 2015

2014: P.A. Zimmermann. Comparing Introductory GIS Students Taught in Different Classroom Environments. 34th Annual International Lilly Conference on College Teaching, Miami, OH. November 2014.

2014: P.A. Zimmermann. Examining Physical Space Differences on Student Learning in GIS. 2014 Annual Meeting of the Association of American Geographers, Tampa, FL. April 2014.

2014: P.A. Zimmermann. Comparing Introductory GIS Students Taught in Different Classroom Environments. 34th International Lilly Conference on College Teaching, Oxford, OH. November.

2013: D. L. Largent, R. Pierce, L. Stallings, and P. Zimmermann. Classroom Interaction Redefined: A Multidisciplinary Perspective on Moving beyond Traditional Classroom Spaces to Promote Student Engagement. 33rd Annual Lilly Conference on College Teaching, Miami, OH. November 2013.

2013: P.A. Zimmermann. Physical Space, Collaborative Learning, and Introductory GIS Education: Does It Matter? 2013 Annual Meeting of the Association of American Geographers, Los Angeles, April 2013.

2012: P. A Zimmermann and Michael E. Holmes. Weather and Media Consumption: An Updated Analysis. In Climate Change and Behaviors Session, 2012 Annual Meeting of the Association of American Geographers, New York, Feb. 2012

2011: P.A. Zimmermann and Michael E. Holmes. Weather And Media Consumption Across Space: Does The Weather Influence Our Viewing, Listening, Surfing? In Climate Change and Behaviors Session, 2011 Annual Meeting of the Association of American Geographers, Seattle (WA), April 2011.

2010: P.A. Zimmermann. Using Emerging Media in Geographic Education: Strategies, Issues and Examples. 2010 Annual Meeting of the Association of American Geographers, Washington, DC. April 2010.

2009: P.A. Zimmermann. Investigating the Role of Climate in Human Population Distribution. Annual Meeting of the Association of American Geographers, Boston (MA). April.

2008: P. A. Zimmermann. Using GIS in Immersive Educational Experiences: An Example. 2008 ESRI Education User Conference, San Diego, California, (August) Paper was selected for inclusion in the 2008 ESRI International User Conference Proceedings CD and Web Proceedings

2008: P. A. Zimmermann. Investigating the role of climate in human population distribution. In GIS, Modeling, and Mapping Geography session. Association of American Geographers Annual Meeting, Boston, Massachusetts. (April).

2006: P. A. Zimmermann. Space matters: a workshop on spatial analysis for non-geographers. In session sponsored by (Geography Education, Spatial Analysis and Modeling, and Geographic Information Science and Systems Specialty Groups). Association of American Geographers Annual Meeting, Chicago, Illinois. (March).

2005: P.A. Zimmermann. Rules-based population modeling: are climate variables necessary? In sponsored session (Spatial Analysis and Modeling). Association of American Geographers Annual Meeting, Denver, Colorado. (April).

2004: P. A. Zimmermann and C. J. Willmott. A refined rules-based model for distributing human populations at high spatial resolutions. In special session on Geographical Perspectives on Complex Systems. Association of American Geographers Annual Meeting, Philadelphia, Pennsylvania (March).

2003: P. A. Zimmermann and C. J. Willmott, Using environmental variables to distribute human populations spatially with an evaluation in California (poster). American Geophysical Union Fall Meeting, San Francisco, California (December).

Prior to Ball State University

2002: P. A. Zimmermann and C. J. Willmott. Revised rules for spatially distributing population for climate research. Association of American Geographers Annual Meeting, Los Angeles, California (March).

2002: Stevenson, M. L., K. Matsuura, P. A. Zimmermann, and C. J. Willmott. New raingage-based, gridded precipitation fields for the tropics.. Association of American Geographers Annual Meeting, Los Angeles, California (March).

2001: Stevenson, M. L., K. Matsuura, P. A. Zimmermann, and C. J. Willmott. Estimating monthly precipitation over the tropical land surface from raingage records. American Geophysical Union Fall Meeting, San Francisco, California (December).

2001: Zimmermann, P. A. and C. J. Willmott. A rules-based approach to high-resolution population mapping for use in climate research. Association of American Geographers Annual Meeting, New York, New York (March).

2000: Zimmermann, P. A., C. J. Willmott, K. Matsuura, and M. L. Stevenson. Climatic water availability and human population density. American Geophysical Union Fall Meeting, San Francisco, California (December).

1998: Zimmermann, P. A., C. J. Willmott, S. R. Webber, M. A. Rawlins, and D. Y. Graybeal. Improving water balance computations by modeling sub-monthly variations in precipitation. Association of American Geographers Annual Meeting, Boston, Massachusetts (March).

1997: Zimmermann, P. A. Assessing wildfire risk in Pennsylvania: a water budget approach. Pennsylvania Geographical Society Annual Meeting, York,

Pennsylvania (October).

1994: Zimmermann, P. A. A water budget approach to Pennsylvania wildfires. Association of American Geographers Annual Meeting, San Francisco, California (March).

1993: Zimmermann, P. A. The relationship between the climatic water budget and spring fire season wildfire occurrence in two Pennsylvania counties. Association of American Geographers—Middle States Division Annual Meeting, Newark, Delaware (October).

4. Professional/creative endeavor presentations (invited/sponsored)

2014—Invited Speaker. GPS and GIS: A Look at Two of the Most Useful Geospatial Technologies for TCOM class.

2013-2016—Invited Speaker. Discussion of food movements and Slow Food for Dr. Michael Hawkins GEOG 323 class (Tourism and the Geography of Food).

2013—Invited Speaker. Presentation of Interactive Teaching Space Pilot Study results for President Gora and Provost King (as part of a group of faculty showcasing the new learning spaces): Feb. 15, 2013

2011 Invited Guest Lecture (for NREM 309/509: Human Dimensions of Global Change). Lecture title: An Introduction to Global Climate Models (April 19, 2011)

2009 Invited Lecturer and Speaker, United Nations University Institute for Natural Resources in Africa, Operating Unit in Cameroon (UNU-INRA-OU/CM), Summer Training, IT2009: Geomatics. Invited to teach a short course on Spatial Analysis and GIS. Workshop sponsored by the United Nations and the University of Yaoundé, Cameroon. September 7-10, 2009.

2009 Invited Speaker Tech4U Technology Fair, Ball State University, GIS in the Classroom and Beyond. October 15.

2008 Invited Speaker, Graduation Ceremony for Elementary School Teachers, Indianapolis Public Schools, Science Education Workshop (June 20, 2008)
-invited by Associate Dean Susan Johnson

2008 Invited Speaker, Women's Roundtable: Bridging the Gap: Women Geographers at the Human/Physical Geography Interface. Sponsored by the Geographic Perspectives on Women Specialty Group, Committee on the Status of Women in Geography. April 18.

2006: Invited Speaker, Department of Criminology and Criminal Justice Seminar Series, Ball State University. Criminal justice, spatial analysis and GIS. Talk delivered to over 300 undergraduates and graduate students. April 6.

2006 Invited Panelist, Integration of GIS into the K-12 curriculum.

Association of American Geographers Annual Meeting, Chicago.
Sponsored by the Geographic Information Science and Systems and
Geography Education Specialty Groups. March 9.

2004 *Invited Speaker*, Department of Geography Colloquium Series, Kent
State University. A rules-based approach for estimating high resolution
population distributions for climate studies. April 16.

Prior to Ball State University

2003 *Invited Speaker*, Clyde Kohn Colloquium Series, Department of
Geography, University of Iowa. Talk about the weather: using environmental
variables to distribute human populations at high spatial resolutions.
February 21.

5. Development of exceptional curricular and course materials, such as
textbooks, CD-ROM's, videotapes, etc.
6. Audio tapes, videotapes, film, software, etc.
7. Non-refereed publications

Prior to Ball State University

1995. Selected maps in Oley Valley Heritage...the Colonial Years: 1700-
1775 by Philip E. Pendleton. Pennsylvania German Society and Oley Valley
Heritage Association. Kutztown, PA: Kutztown Publishing Co.

8. Published abstracts (excluding those included in papers in B1 above)

*Abstracts for all papers presented in Section B, Part 3 have been published in
the respective collection of abstracts.*

9. Sponsorship of student grants

Fall 2006-Brian Smith, travel grant to attend American Meteorological Society
Meeting

10. Advanced Study, Additional Accomplishments, and Professional
Improvement

2018—ArcPro Transition Workshop, **August**.

2006—InQsit workshop. **November**.

2005—Participant in weeklong Mastering Grantsmanship Workshop at Ball State (through the Office of Research and Sponsored Programs) May.

11. Other (including work submitted but not yet accepted for publication)

C. EVIDENCE OF PROFESSIONAL SERVICE

1. Service to the academic community

- a. Committee work: Department, College, University

Department

Chair, Department Promotion and Tenure Committee: 2019-2020; 2017-18

Career Fair for 9th graders in Wabash, Huntington, Grant, and Miami Counties, 2019 (at the Honeywell Center in Wabash), sponsored by Wabash County United Fund (April 30, 2019)—recruitment for Meteorology and GIS

Department Representative, Meet Your Major (for undeclared students) 2019 (September 11)

Department Representative, Explore Ball State Day for high school students 2019 (March 14)

Acting Chair, 2018 July 12 – Aug. 10.

Website Redesign Copy, 2018

Chair, Graduate Curriculum Committee: 2017-present

Member, Merit Salary Committee: 2017 (4th member)

Chair, Chair Election Committee: Fall 2017

Representative, Cardinal Preview Days: 1-2 times per year, every year

*Chair, Undergraduate Curriculum Committee 2013-present
-largely responsible for the new Meteorology and
Climatology major (METC), approved by ICHE
August 9, 2017*

Chair, Search Committee (Cartography position) 2014

Chair, Search Committee (Cartography position) 2013
-search failed

Member, Search Committee (GIS Tenure Track), 2011

Member, Department Promotion and Tenure Committee—
2012-2013

Chair, Peer Evaluation Committee 2011-present

Chair, Pandemic Plan Committee 2009 – 10
-developed and wrote Departmental Pandemic Plan

Winter Commencement Ceremony 2003 – present, except for
2016

Meteorology Internship Coordinator, 2005 - present

Member, Undergraduate Curriculum Committee, 2005 -
present

Option 4 Liaison—Prospective Student Contact, 2005 -
present

Member, Course Evaluation Committee 2009

Chair, Department Promotion and Tenure Committee 2010-
2011; 2007 – 2008; 2005 - 2006

Member, Search Committee (Urban Geography/GIS Tenure-
Track Position), 2008 - 2009

Member, Search Committee (Urban Geography/GIS Tenure-
Track Position), 2007 - 2008

Member, Meteorology/Climatology Search Committee
(Tenure-Track Position 1), 2006 - 2007

Member, Meteorology/Climatology Search Committee
(Tenure-Track Position 2), 2006 - 2007

Phone-a-thon, 2006; 2003

Merit Salary Committee, 2005 – 2006

Chair, Search Committee—Cartography position, 2004 - 2005

Undergraduate Curriculum Committee, 2004 - 2005

Option 4 Reorganization Committee, 2004 – 2005

BA/BS Ad-hoc Committee, 2003

College

*CSH Administrative Support Task Force **Spring 2021***

*Chair, College Promotion and Tenure Criteria Subcommittee
Fall 2019; Fall 2010*

*Chair, College Promotion and Tenure Social Sciences
Subdomain Committee: **2017-2018***

*College Curriculum Committee, **2011-2013***

*Member, NREM Promotion and Tenure Committee (**2018;
2014-2016**); they did not have enough tenured faculty
for a full committee*

*Dean's Council, **2010—2013***

*Chair, Salary Appeal Panel, **2010, 2011***

*Member, College Promotion and Tenure Committee, **2019-
2020; 2017 – 2018; 2010 – 2011; 2007 – 2008; 2005 - 2006***

*Member, Promotion and Tenure Criteria Subcommittee, **Fall
2017; Fall 2007 - 2008***

*Project Management Task Force, **2006***

*Women in Science Committee, **2006 – present***

*Representative for Science Advising Night, **2006; 2007***

University

*Judge, GIS Day Student Competition **November 2022***

*Judge (Semi-finals), Three-Minute Thesis Competition:
January 2019*

*COTE (Council on the Environment): **Spring 2017; Fall 2016***

*Teaching Evaluation Committee: **2016***

*Graduate Education Committee: **2014-2016***

*Chair, Curriculum Affairs Subcommittee, Graduate Education
Committee: **Fall 2014-Spring 2015***

*Reviewer, General Faculty Research Grants, Subcommittee 3,
Fall 2010*

Reviewer, Emerging Media Innovation Grants Spring 2010

*Ball State University Representative to CUSIS (Coalition of
Universities for Spatial Information Science): 2005 - 2010*

*Provost Speaker Selection Committee for Bracken
Lectureship Series on the Environment: 2008*

*Field Station and Environmental Education Center
Committee 2007-2015*

Representative to Academic Policies Council: 2004 - 2005

c. Special lectures, interdepartmental contributions

April 2010—Geography representative to College Awareness Day

*November 2007—Coordinated GIS Day (coordinated student project
demonstrations)*

November 2006—Coordinated student work for GIS Day

November 2004—Contributor to GIS Day

d. Administrative and counseling/advising duties

*July 2020 – present Department Chair, Department of Geography and
Meteorology (* name changed from Department of Geography in July 2021)*

Prior to election as chair

*I have represented the department in place of the chair at numerous meetings
at the request of the chair (Kevin Turcotte and, previously, Gopalan Venogopal)
throughout the years. Meetings include Academic Leadership Council, Chairs
meeting, Board of Trustees meeting, and College meeting at the start of the Fall
Semester.*

*2010 – present Faculty advisor to approximately 15 students per
semester*

2009-2011

Served as faculty mentor to Dr. Matthew Wilson

2007-2011

Served as faculty mentor to Dr. David Call

Served as faculty mentor to Dr. Jill Coleman

Fall 2009

Serving as faculty advisor to 14 departmental majors (Option 4)

Fall 2008

Serving as faculty advisor to 17 departmental majors (Option 4)

Fall 2007

Serving as faculty advisor to 17 departmental majors (Option 4)

2006-2007

Served as faculty mentor to Dr. Jill Coleman

Fall 2006

Serving as faculty advisor to 29 departmental majors (Option 4)

Fall 2005

Serving as faculty advisor to 37 departmental majors (Option 4)

Fall 2004

Serving as faculty advisor to 18 departmental majors (Option 4)

2. Service related grants funded
none

3. Offices held in local, regional, state, national, and international professional organizations

2014-15—Board Member, Geography Education Specialty Group. Association of American Geographers (national organization)

2012—Session Organizer, Climate Change and Behaviors. Annual Meeting of the Association of American Geographers, New York.

2011—Session Organizer. Annual Meeting of the Association of American Geographers, Seattle, WA.

2010—Session Organizer (Geography Education Session). Annual Meeting of the Association of American Geographers., Washington, DC

4. Editorships, review panels

Served as Reviewer

2022. Cambridge University Press Textbook proposal reviewer (2)

2021. Cambridge University Press Textbook proposal reviewer (1)

2019, November, National Science Foundation. Ad-hoc reviewer for Grant Proposal (in progress)

2017, November, National Science Foundation. Ad-hoc reviewer for Grant Proposal

2016, November, National Science Foundation Review Panel. Arlington, VA. Reviewer of 12 grant proposals and on-site panel participant.

2016, April, National Science Foundation Review Panel. Arlington, VA. Reviewer of 16 grant proposals and on-site panel participant.

2015, November, National Science Foundation Review Panel. Arlington, VA. Reviewer of 13 grant proposals and on-site panel participant.

2015, April, National Science Foundation Review Panel. Arlington, VA. Reviewer of 16 grant proposals and on-site panel participant.

2014, Spring, National Science Foundation Ad-Hoc Reviewer for Grant Proposal.

2018 Reviewed proposal for Ball State's Digital Scholarship Lab (1)

Journal Reviewer

International Journal of Biometeorology: 2010 (2)

2007 (1)

2006 (1)

Earth Interactions: 2010 (1)

Papers in Applied Geography: 2007 (1)

Proposal reviewer: *Modern Meteorology (Hybrid textbook proposal)* Pearson (2011)

5. Service to the local, state, regional, national, and international communities

Numerous in-person tours and interviews with prospective Ball State Geography/Meteorology and Climatology students, 4-12 per year

July 2017; July 2016: Served as a fake patient for the Ball State Audiology Clinic (training for 6 Aud. D. students total); necessitated learning a script and role-playing

Fall 2009—Invited Speaker, Sunrise Rotary Club. *Engagement and Excitement: Student Education and Involvement in Meteorology and Climatology*. December 4.

Spring 2007—aided Minnetrista Cultural Center's Magic School Bus opening celebration

2007—contributor to ESRI Education blog

*2007—contributed podcast to the ESRI User Conference site on GIS education
-downloadable from
http://www.esri.com/news/podcasts/speaker_series.html*

2003 – present—Media Liaison for Meteorology

Contribute to the community by answering questions from the media (e.g. The Star Press, Indianapolis Monthly, Indiana Business News) as well as questions from the general public (e.g. someone calling to find out where they can get weather data)

6. **Advanced Study, Additional Accomplishments, and Professional Improvement**

2022. CCAS Chair Discussion: Case Studies of Difficult Faculty and Departmental Situations (February)

2020. CCAS online seminar for Department Chairs (Dec. 1-4)

2020. DOSL Boot Camp (July 27-31)

2019 Dare To Lead: Professional Development Book Discussion and Workshop (Ball State University, Sept. 19)

2019 Fundamentals of Publishing Community-Engaged Work (Ball State University, March 20)

2019 Faculty Writing Club (Spring)

2019 and 2017 EduRisk: Protecting Children: Identifying and Reporting Sexual Misconduct (required for working with Big M Math Camp)

2018 CITI Human Subjects Basic Refresher Training Course

2018 CITI RCR for Social, Educational, and Behavioral Researchers Training Course

2017 ESRI WebAtlas Webinar (February)

*2017 Immersive Learning Luncheon and Meeting (August 17)
-objective was to provide help and mentoring to faculty leading immersive learning projects for Fall 2017*

2015 CITI Human Subject Training (recertification)

2011 Google Docs Training (Ball State University) May 2011

*2007—Communication in the Workplace Workshop (November 3, 2007)
Business Fellows Workshop*

2007—*Creativity and Innovation Workshop (October 27, 2007)*
Business Fellows Workshop

2007—*Business Fellows Mentoring Workshop (June 25 – 28, 2007)*

2004—*Diversity Workshop (for College of Sciences and Humanities) (March 2, 2004)*

2003—*Introduction to Community of Scholars (COS) workshop (through the Office of Academic Research and Sponsored Programs).*

D. ADDITIONAL ACCOMPLISHMENTS

1. Recognitions
 none
2. Awards
 none