

## Edward W. Woolery

University of Kentucky  
Department of Earth and Environmental Sciences  
Lexington, KY 40506-0053

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### Education:

University of Kentucky	Geological Sciences (Geophysics)	PhD	1998
University of Kentucky	Geological Sciences (Geophysics)	MS	1993
University of Kentucky	Civil Engineering	BSCE	1996
Eastern Kentucky University	Geology	BS	1985

### Appointments:

James S. Hudnall Endowed Professorship in Geology, *University of Kentucky* (2022–present)  
Professor, Geophysics, *University of Kentucky* (2014–present)  
Chair, *Earth & Environmental Sciences, University of Kentucky* (2019–present)  
Associate Chair, *Earth & Environmental Sciences, University of Kentucky* (2017–2019)  
Director of Graduate Studies, *Earth & Environmental Sciences, University of Kentucky* (2013–2020)  
Geophysics Faculty Associate, *Kentucky Geological Survey* (2001–present)  
Faculty Fellow, *James B. Beam Institute for Kentucky Spirits, University of Kentucky* (2022–present)  
Associate Professor, Geophysics, *University of Kentucky* (2007–2014)  
Assistant Professor, Geophysics, *University of Kentucky* (2001–2007)  
Visiting Research Fellow, *Institute of Crustal Dynamics, China Earthquake Admin.* (2011–2016)  
Adjunct Assistant Professor, *University of Kentucky* (1999–2001)  
Research Geophysicist (Geologist IV), *Kentucky Geological Survey* (1998–2001)  
Chief Geologist, *U.S. Army Corps of Engineers, Louisville District* (1997–1998)  
Civil Engineer (Geotechnical), *U.S. Army Corps of Engineers, Louisville District* (1996–1998)  
Research/Teaching Assistant, *University of Kentucky* (1991–1996)  
Geologist, *U.S. Army Corps of Engineers, Louisville District* (1986–1991)  
Physical Scientist, *Defense Mapping Agency* (1985–1986)

### Courses Taught: († included Course Development)

#### University of Kentucky – Department of Earth and Environmental Sciences

EES 150 – Earthquakes and Volcanoes  
EES 155 – Earthquakes and Quantitative Reasoning†  
EES 295 – Geoscience Orientation  
EES 550 – Fundamental Geophysics†  
EES 560 – Geophysical Field Methods†  
EES 670 – Exploration Seismology†  
EES 675 – Earthquake Seismology†  
EES 625 – Topics in Geophysics: Paleoseismology†  
EES 625 – Topics in Geophysics: Engineering Geology†  
EES 625 – Topics in Geophysics: Glacial and Quaternary Geology† (co-taught)

#### University of Kentucky – Department of Civil Engineering

CE 471G – Soil Mechanics  
CE 679 – Geotechnical Earthquake Engineering

### Graduate Advisory Committee Chair: (\* = completed; ‡ = co-chair)

(31) Stephanie Vicroy, M.S., 2022, (30) ‡Rowan Rich, M.S., 2022, (29) \*Cooper Cearley, M.S., 2019, (28) \*Brooks Rosandich, M.S., 2017, (27) \*Drew Burford, M.S., 2017, (26) \*Clara Rose, M.S., 2015, (25) \*Andrew Holcomb, M.S., 2015, (24) \*Paul Rodriguez Asihama, M.S., 2014, (23) \*Marie Cooper, M.S., 2014, (22) \*‡Wisam Muttasher, Ph.D. 2014, (21) \*N. Seth Carpenter, Ph.D. 2013, (20) \*Clayton Brengman, M.S. 2012, (19) \*‡Alice Orton, M.S. 2012, (18) \*Carrington Wright, M.S. 2011, (17) \*‡Matthew Crawford, Ph.D. 2011, (16) \*Ali Al-Mayahi, Ph.D. 2010, (15) \*Jamin Frommel, M.S. 2010, (14) \*Shoba Gowda, M.S. 2010, (13) \*David Butler, M.S. 2009, (12) \*Anthony Paschall,

M.S. 2009, (11) \*Daniel Hunter, M.S. 2008, (10) \*Bethany Overfield, M.S. 2007, (9) \*Kenneth Macpherson, Ph.D. 2006, (8) \*Cora Anderson, M.S. 2006, (7) \*Jonathan McIntyre, M.S. 2006, (6) \*James Whitt, M.S. 2005, (5) \*David Vance, M.S. 2004, (4) \*Frederick Rutledge, M.S. 2002, (3) \*William Reid, M.S. 2002, (2) Jennifer Sorrells, M.S. 2002 (dec.), (1) \*Ting-Li Lin, M.S. 2001

**Graduate Advisory Committee Member: (\*completed)**

- (96) Chrispin Gabriel, Ph.D., 2022, *Department of Civil Engineering*
- (95) Callia Cortese, M.S., 2022, *Department of Earth and Environmental Sciences*
- (94) Meredith Swallom, Ph.D., 2021, *Department of Earth and Environmental Sciences*
- (93) Matthew Hurley\*, M.S., 2021, *Department of Civil Engineering*
- (92) Justin Anderson, Ph.D., 2021, *Department of Civil Engineering*
- (91) Ryan Gold, Ph.D., 2021, *Department of Earth and Environmental Sciences*
- (90) Cody Hutchinson, Ph.D., 2020, *Department of Civil Engineering*
- (89) Daniel Francis, Ph.D., 2020, *Department of Civil Engineering*
- (88) John Dilworth, Ph.D., 2020, *Department of Earth and Environmental Sciences*
- (87) Brooks Rosandich, Ph.D., 2020, *Department of Earth and Environmental Sciences*
- (86) Aspen Davis\*, M.S., 2019, *Department of Earth and Environmental Sciences*
- (85) Nicholas Duda\*, M.S., 2019, *Department of Civil Engineering*
- (84) Taylor Arrowood\*, M.S., 2019, *Department of Earth and Environmental Sciences*
- (83) Hillary Johnson, M.S., 2019, *Department of Earth and Environmental Sciences*
- (82) Sarah Johnson, Ph.D., 2018, *Department of Earth and Environmental Sciences*
- (81) Yuping Wang, M.S., 2018, *Department of Earth and Environmental Sciences*
- (80) Meredith Swallom\*, M.S., 2018, *Department of Earth and Environmental Sciences*
- (79) Faisal Ahmed\*, Ph.D., 2018, *Department of Civil Engineering*
- (78) Leah Newman, M.S., 2017, *Department of Earth and Environmental Sciences*
- (77) Antonia Bottoms, M.S., 2017, *Department of Earth and Environmental Sciences*
- (76) Eva Lyons\*, Ph.D., 2017, *Department of Earth and Environmental Sciences*
- (75) Laura Streib\*, M.S., 2017, *Department of Earth and Environmental Sciences*
- (74) Harrison Donaghy\*, M.S., 2017, *Department of Civil Engineering*
- (73) Majid Mahmoodabadi, Ph.D., 2017, *Department of Civil Engineering*
- (72) Joseph Lucas\*, M.S., 2013, *Department of Earth and Environmental Sciences*
- (71) Rachel Durham\*, M.S., 2015, *Department of Earth and Environmental Sciences*
- (70) Zachary Perlman\*, M.S., 2015, *Department of Earth and Environmental Sciences*
- (69) Patrick Ryan\*, M.S., 2015, *Department of Earth and Environmental Sciences*
- (68) Rachel Adams\*, M.S., 2015, *Department of Civil Engineering*
- (67) Sekyi Intsiful\*, M.S., 2015, *Department of Civil Engineering*
- (66) Anne Fendick\*, M.S., 2014, *Department of Earth and Environmental Sciences*
- (65) Kade Carlson\*, M.S., 2014, *Department of Earth and Environmental Sciences*
- (64) Ann Hislop\*, Ph.D., 2014, *Department of Earth and Environmental Sciences*
- (63) Patrick Baldwin\*, M.S., 2014, *Department of Earth and Environmental Sciences*
- (62) Ryan Ortiz\*, M.S., 2015, *Department of Civil Engineering*
- (61) Xu Zhang\*, M.S., 2014, *Department of Civil Engineering*
- (60) Joshua Wells\*, M.S., 2014, *Department of Civil Engineering*
- (59) Ann Harris\*, Ph.D., 2014, *Department of Earth and Environmental Sciences*
- (58) Corey Burkett\*, M.S., 2013, *Department of Earth and Environmental Sciences*
- (57) Elliot Magoto\*, M.S., 2013, *Department of Civil Engineering*
- (56) Melinda Jean-Louis\*, M.S., 2013, *Department of Civil Engineering*
- (55) Zachary Moore\*, M.S., 2013, *Department of Earth and Environmental Sciences*
- (54) Stephen Prosser\*, M.S., 2013, *Department of Earth and Environmental Sciences*
- (53) Jason Hartell\*, Ph.D., 2014, *Department of Agriculture Economics (Outside Examiner)*
- (52) Julie Floyd\*, M.S., 2013, *Department of Earth and Environmental Sciences*
- (51) Dibya Koirala\*, Ph.D., 2013, *Department of Earth and Environmental Sciences*
- (50) Kirk Jenkins\*, M.S., 2013, *Department of Civil Engineering*
- (49) Bhamidipati Raghava\*, Ph.D., 2013, *Department of Civil Engineering*
- (48) Sleem Kreba\*, Ph.D., 2013, *Department of Soil Science (Outside Examiner)*
- (47) Jason Curd\*, M.S., 2013, *Department of Civil Engineering*
- (46) Le Cao\*, M.S., 2013, *Department of Civil Engineering*

- (45) Jordan Kirkendoll\*, M.S., 2013, *Department of Civil Engineering*
- (44) Sara Federschmidt\*, M.S., 2012, *Department of Earth and Environmental Sciences*
- (43) Philip Wolf\*, M.S., 2012, *Department of Earth and Environmental Sciences*
- (42) Bhamidipati Raghava\*, M.S., 2012, *Department of Civil Engineering*
- (41) Brock Kidd\*, M.S., 2011, *Department of Civil Engineering*
- (40) Derrick Dennison\*, M.S., 2011, *Department of Civil Engineering*
- (39) Taylor Taluski\*, M.S., 2011, *Department of Civil Engineering*
- (38) Eric Anderson\*, Ph.D., 2011, *Department of Earth and Environmental Sciences*
- (37) Cosmas Kuijo\*, Ph.D., 2011, *Department of Earth and Environmental Sciences*
- (36) Mahnaz Sepehrmanesh\*, M.S., 2011, *Department of Earth and Environmental Sciences*
- (35) Melissa Ditty\*, M.S., 2011, *Department of Earth and Environmental Sciences*
- (34) Bryan Embry\*, M.S., 2011, *Department of Civil Engineering*
- (33) Christian Wilder\*, M.S., 2011, *Department of Civil Engineering*
- (32) Forrest Webb, M.S., 2011, *Department of Earth and Environmental Sciences*
- (31) Ganesh Tripathi\*, Ph.D., 2011, *Department of Earth and Environmental Sciences*
- (30) Bradley Rister, Ph.D., 2011, *Department of Civil Engineering*
- (29) Corrie Walton-Macaulay\*, Ph.D., 2011, *Department of Civil Engineering*
- (28) Alfred Susilo, Ph.D., 2011, *Department of Civil Engineering*
- (27) Jonathan Huff\*, M.S., 2010, *Department of Civil Engineering*
- (26) Christopher Jones\*, M.S., 2010, *Department of Civil Engineering*
- (25) Ashley Gilbert\*, M.S., 2010, *Department of Earth and Environmental Sciences*
- (24) Susmitha Nambuthiri\*, Ph.D., 2009, *Department of Soil Science (Outside Examiner)*
- (23) Ali Salehian\*, Ph.D., 2009, *Department of Civil Engineering*
- (22) Elizabeth Dodson\*, M.S., 2009, *Department of Earth and Environmental Sciences*
- (21) Ganesh Tripathi\*, M.S., 2008, *Department of Earth and Environmental Sciences*
- (20) Lauren Little\*, M.S., 2007, *Department of Civil Engineering*
- (19) Elizabeth Mayo\*, Ph.D., 2007, *Department of Physics (Outside Examiner)*
- (18) Andrew Lageman\*, M.S., 2006, *Department of Civil Engineering*
- (17) John Allen\*, Ph.D., 2006, *Department of Earth and Environmental Sciences*
- (16) Brian Cook\*, Ph.D., 2006, *Department of Earth and Environmental Sciences*
- (15) Aaron Rosenstiel\*, M.S., 2006, *Department of Civil Engineering*
- (14) Tanmay Singhal\*, M.S., 2006, *Department of Mechanical Engineering*
- (13) Yuang Peng\*, Ph.D., 2005, *Department of Civil Engineering (Outside Examiner)*
- (12) Erwin Supranata\*, Ph.D., 2004, *Department of Civil Engineering*
- (11) Joshua Sexton\*, M.S., 2004, *Department of Geological Sciences*
- (10) John Hickman\*, Ph.D., 2004, *Department of Geological Sciences*
- (9) Madhusudhana Reddy Thummaluru\*, M.S., 2003, *Department of Civil Engineering*
- (8) Jaydip Gosh, Ph.D., 2003, *Department of Geological Sciences*
- (7) Bei Su\*, Ph.D., 2002, *Department of Civil Engineering*
- (6) Donald Surles\*, Ph.D., 2002, *Department of Geological Sciences*
- (5) Tina White, M.S., 2001, *Department of Geological Sciences*
- (4) Steven Jusczuk\*, Ph.D., 2001, *Department of Geological Sciences*
- (3) Gary McDowell\*, M.S., 2000, *Department of Geological Sciences*
- (2) Steven Wood\*, M.S., 2000, *Department of Geological Sciences*
- (1) Seth Berman\*, M.S., 1999, *Department of Geological Sciences*

#### **Post-Doctoral/Visiting Scholar Sponsor:**

- (10) Kevin Woller, Visiting Scholar (Geophysics) 2022-23, Pioneer Natural Resources Inc., (ret.)
- (9) Rong Xu, Visiting Scholar (Geophysics) 2020, Lanzhou Institute of Seismology
- (8) Gengqing Zhu, Visiting Scholar (Geophysics) 2014, Earthquake Administration of Fujian Province
- (7) Caibo Hu, Post-Doctoral Scholar (Geophysics) 2012, Peking University
- (6) Jiwei Feng, Visiting Scholar (Seismology) 2012-13, Inst. of Engineering Mechanics-China Earthquake Admin.
- (5) Yi Du, Visiting Scholar (Neotectonics) 2012, Institute of Crustal Dynamics-China Earthquake Admin.
- (4) Xugeng Chen, Visiting Scholar (Geophysics) 2011, Institute of Crustal Dynamics-China Earthquake Admin.
- (3) Jingwei Liu, Visiting Scholar (Geophysics) 2010, Institute of Crustal Dynamics-China Earthquake Admin.
- (2) Dongxia Wang, Post-Doctoral Scholar (Civil Engineering/Geophysics) 2003–2005, Univ. of Akron
- (1) Bao-Ping Shi, Post-Doctoral Scholar (Seismology), 2002–2003, Univ. of Nevada-Reno

### **Undergraduate and High School STEM Research Sponsor:**

(12) John Sader (Dunbar High School STEM Program, 2021-2022), (11) Alexander Murphie (NRES, Fall 2019), (10) Chase Lockhart (Summer-Fall 2014), (9) Taylor Chapman (summer 2014), (8) Fei Wang (Fall 2013), (7) Andrew Holcomb (2012–2013), (6) Cate Burton (summer 2010–2011), (5) Travis Richards (summer 2006), (4) Chrystina Smith (summer 2006), (3) Andrew Lynch (2005), (2) Cora Anderson (2005–2006), (1) David Vance (2001–2004)

### **Pedagogic Service:**

- Member, 2022-Present, Endowed Professors Committee, UK College of Arts and Sciences
- External Program Review, 2018, University of Southern Illinois, Dept. of Geology
- Member (ex-officio), 2019-Present, Kentucky Geological Survey Advisory Board
- Associate Director, 1999-2019, Kentucky Seismic and Strong-Motion Network
- Chair, 2018-19, China Initiative Committee, UK Dept. Earth & Environmental Sciences
- EES Liaison, 2012, KGS Earth Modeling and Visualization Laboratory
- Full Member, 2004-Present University of Kentucky Graduate Faculty
- Associate Member, 2001-2004 University of Kentucky Graduate Faculty
- Member, 2001-2003 Kentucky Governor's Earthquake Task Force
- Vice Chair, 2000-2004 Association of Engineering Geologists–Ohio Valley Section
- Chair, 2005-2007 Association of Engineering Geologists–Ohio Valley Section
- Member Representative, 2003-Present Incorporated Research Institutions for Seismology (IRIS)
- Faculty Advisor, 2010-2015, Semper Fi Society, University of Kentucky Student Activities
- Invited Ph.D. Committee Member, 2010, Carlton University, Dept. Civil Engineering, Ottawa, Canada
- Member, Seismic Site Characterization Guidelines Advisory Board, 2010–2012, Geological Survey of Canada (Commission géologique du Canada)
- Chair, 2011 College of Engineering Committee for Named Chairs and Professorships
- Member, 2011-12 Department of Civil Engineering 5-Year Review Panel
- Chair, 2011-12 Pioneer Natural Resources Professor in Stratigraphy Search Committee
- Chair, 2012-13 Pioneer Natural Resources Professor in Stratigraphy Search Committee
- Chair, 2014 Computational Geophysics Search Committee
- Member, 2013-15 Stable Isotope Geochemistry Search Committee
- Member, 2011 Lecturer Search Committee, Dept. of Earth & Environmental Sciences
- Acting Director, Spring 2011, Dept. Earth & Environmental Sciences Undergraduate Studies
- Member, 2011-12 Curriculum Committee, Dept. Earth & Environmental Sciences
- Member, 2013-14 Curriculum Committee, Dept. Earth & Environmental Sciences
- Member, 2014-15 Curriculum Committee, Dept. Earth & Environmental Sciences
- Member, 2016-17 Curriculum Committee, Dept. Earth & Environmental Sciences
- Member, 2011, Seismic Network Operator Search Committee, Kentucky Geological Survey
- Chair, 2012, EES Chair Search Committee, College of Arts and Sciences
- Chair, 2016, EES Chair Search Committee, College of Arts and Sciences
- Chair, 2012-13, EES Space Committee
- Peer Reviewer, Scientific Report of Investigation, 2010, United States Geological Survey
- Peer Reviewer, National Science Foundation
- Peer Reviewer, German Research Foundation
- Peer Reviewer, Scholarly Journals
  - Science
  - Bulletin of the Seismological Society of America
  - Journal of Geophysical Research, Solid Earth
  - Geological Society of America Bulletin
  - Geophysical Journal International
  - Earthquake Spectra
  - Seismological Research Letters
  - Geophysical Research Letters
  - Journal of Geodynamics
  - Tectonophysics
  - Journal of Environmental and Engineering Geophysics

- Environmental and Engineering Geoscience
- International Journal of Coal Geology
- Journal of Earthquake Engineering
- Journal of Hydrology
- Journal of China University of Geosciences
- Geophysics
- The Leading Edge
- Journal of Pure and Applied Geophysics
- Journal of Soil Dynamics and Earthquake Engineering
- Journal of Applied Geophysics
- Engineering
- Technical Committee, 2017-18, Symposium on Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Nashville, Tn.
- Organizing Committee, Executive Chairman, 2017-18, 8<sup>th</sup> International Conference on Environmental and Engineering Geophysics (ICEEG2018), Hangzhou, P.R. China
- Academic Committee, Member, 2018 International Workshop on the Large-Scale Geophysical Laboratory Model Site, Lincheng, P.R., China
- Session Chair, 2018, Engineering Geophysics, 8<sup>th</sup> International Conference on Environmental and Engineering Geophysics (ICEEG2018), Hangzhou, P.R. China
- Session Co-Chair, 2008 North-Central Geological Society of America, "Neotectonics of the Central U.S."
- Session Chair, 2006 Highway Geophysics Conference, "Determination of Lithology"
- Session Chair, 2006 Highway Geophysics Conference, "Miscellaneous Geophysical Methods"
- Session Chair, 2004 International Conference on Environmental and Engineering Geophysics, Wuhan, P.R. China, "Seismic Acquisition, New Technologies, and Applications"
- Member, 2001-Present Graduate Committee, Dept. of Earth & Environmental Sciences
- Member, 2004-06 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Member, 2009-10 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Member, 2013-14 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Member, 2014-15 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Member, 2016-17 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Member, 2018-19 Personnel/Budget Committee, Dept. of Earth & Environmental Sciences
- Liaison, 2009-2010 College Diversity Board, Dept. of Earth & Environmental Sciences
- Member, 2005 Department Chair Search Committee, Dept. of Earth & Environmental Sciences
- Member, 2010 Hydrogeology Faculty Search Committee, Dept. of Earth & Environmental Sciences
- Member, 2011 Lecturer Search Committee, Dept. of Earth & Environmental Sciences
- Chair, 2006 Geophysics Faculty Search Committee, Dept. of Earth & Environmental Sciences
- Chair, 2007 Geophysics Faculty Search Committee, Dept. of Earth & Environmental Sciences
- Chair, 2009 Department Chair Search Committee, Dept. of Earth & Environmental Sciences
- Member, 2005 Staff Geophysicist Search Committee, Kentucky Geological Survey
- Coordinator, 2008 (Spring Semester) Rast-Holbrook Seminar Series
- Technical Advisor, 2001-Present Kentucky Cabinet of Health Services
- Technical Advisor, 2001-Present Kentucky Division of Waste Management
- Technical Advisor, 2003-Present Kentucky Research Consortium for Energy and Environment
- Distinguished Slemmon Mentor, 2002 Geological Society of America
- Consultant, 1999-2005 U.S. Army Corps of Engineers
- Consultant, 2000 Marathon-Ashland Petroleum Company
- Consultant, 1999-2005 FMSM Engineers, Inc.
- Consultant, 2008 AMEC Earth and Environmental, Inc.
- Consultant, 2010 DLZ Corporation
- Consultant, 2015-16 Gannett-Fleming
- Media Relations (Selected Interviews)
  - Evansville Courier Press/Associated Press, 2008, 18April2008 M5.2 Earthquake So. IL.
  - The Paducah Sun, 2007, Earthquake Impact on Soil
  - China Central Television, 2006, Earthquake Research – Tibetan Plateau
  - St. Louis Dispatch, 2006, Deep Seismic Borehole Observatory

- Louisville Courier Journal, 2006, Deep Seismic Borehole Observatory
- China Central Television, 2005, Scholarly Exchange – A Discussion with the Vice Governor, Gansu Province, PRC
- Associated Press, 2004, Minor Earthquake in Southeastern Kentucky
- Louisville Courier Journal, 2002, Darmstadt, IN Earthquake
- WLEX-TV (NBC-Lexington, KY), 2001, M6.8 Washington Earthquake
- WTVQ-TV (ABC-Lexington, KY), 2001, M6.8 Washington Earthquake

### **Professional Registration:**

- Professional Geologist; Commonwealth of Kentucky
- Certified - December, 1993, License No. – #113125 (Legacy – #1183)
- Engineer Intern (EIT); Commonwealth of Kentucky
- Certified - April, 1996; Eligible for Professional Engineer Exam (PE).

### **Professional Societies:**

- Society of Exploration Geophysicists  
 Near-Surface Geophysical Society  
 American Geophysical Union  
 Environmental and Engineering Geophysical Society  
 Association of Engineering Geologists/Ohio Valley Section, Association of Engineering Geologists  
 Seismological Society of America  
 American Society of Civil Engineers (lapsed)  
 Kentucky Geotechnical Engineering Society (lapsed)

## **Research and Scholarship**

### **Refereed Journal Publications and Book Chapters in Review/Preparation:**

(81) Woolery, E., \*B. Rosandich, and \*D. Burford, (*in preparation*). Segmentation of the Reelfoot fault, New Madrid seismic zone, USA – evidence from seismic-reflection mapping.

(80) Woolery, E., M. McGlue, and K. Woller, (*in preparation*). Small aperture SH-wave seismic reflection arrays in paleolimnological environments.

(78) \*Fedotova, A., W. Stephenson, E. Woolery, J. Odum, A. Leeds, N. Lindberg, \*C. Cearley, and R. Counts, (*in preparation*). SH-wave seismic reflection imaging of Late Quaternary deformation along the Caborn fault, Wabash Valley fault zone, USA.

(77) Woolery, E., W. Stephenson, J. Odum, A. Leeds, N. Lindberg, \*C. Cearley, R. Counts, and \*A. Fedotova, (*in preparation*). High-resolution SH-wave seismic reflection evidence for fault control origin of the Meadowbank geomorphic anomaly, Wabash Valley fault zone, USA.

(76) Woolery, E., \*C. Cearley, Z. Wang, K. Woller, J. Dortch, and M. Crawford, (*in preparation*). Late Quaternary neotectonic deformation along a hypothesized shear accommodation zone, New Madrid seismic zone.

(75) Woolery, E., \*D. Burford, \*B. Rosandich, D. Ravat, \*C. Rucker, (*in preparation*). Integrated geophysical imaging of the fault-controlled boundary of the Charleston uplift

(74) \*Gullett, M. M. McGlue, S. Ivory, E. Woolery, A. Almayahi, S. Zimmerman, (*in preparation*). Postglacial landscape-lakescape evolution in the Convict Creek Basin, eastern Sierra Nevada (California, USA).

(73) \*Dilworth, J., M. McGlue, K. Yeager, E. Woolery, R. Thigpen, \*S. Johnson, (*in preparation*). Late Quaternary depositional history of Moran Bay inferred from seismic reflection profiles and 14C-dated sediment cores.

(72) \*Swallow, M., \*R. Goldsby, J. Thigpen, \*S. Johnson, J. Dortch, E. Woolery, M. McGlue, and K. Yeager (*in preparation*). Linking modern fault slip between the Teton and Gallatin Ranges, Wyoming, USA: Implications for the paleo-Teton fault extension hypothesis and the growth of crustal-scale normal faults.

(71) McGlue, M., J. Thigpen, E. Woolery, S. Brown, and K. Yeager, (*in preparation*). Collapse of the paleo-Snake River delta shapes the stratigraphy of Jackson Lake (Grand Teton National Park).

(70) Counts, R., E. Woolery, R. Van Arsdale, S. Mahon, D. Larsen, \*A. Price, \*A. Ward, G. Beck (*in review*). Quaternary displacement on the Meeman-Shelby fault, eastern Arkansas: *Seismological Society of America*.

**Refereed Journal Publications and Book Chapters, Accepted/Published: (\* student author)**

(69) McGlue, M.M., \*Dilworth, J.R., \*Johnson, H.L., \*Whitehead, S., Thigpen, J.R., Yeager, K.M., Woolery, E.W., Brown, S.J., \*Cearley, C., \*Clark, G., \*Dixon, T.S., \*Goldsby, R.C., \*Helfrich, A., \*Hodelka, B.N., \*Johnson, S.E., \*Lo, E.L., \*Domingos Luz, L., \*Powell, N., \*Rasbold, G.G., \*Swanger, W. (accepted) Dam emplacement and recent water level change affect sedimentation in Jackson Lake, Grand Teton National Park (Wyoming, USA). *ES3 – Earth Science Systems and Society*

(68) \*Johnson, S., \*M. Swallow, J. Thigpen, M. McGlue, E. Woolery, K. Yeager, (2022) Quantifying post-glacial denudation rates in the Teton Range, Wyoming. *Earth and Planetary Science Letters*: v. 592, <https://doi.org/10.1016/j.epsl.2022.117643>

(67) Thigpen, R.T., S. Brown, M. McGlue, E. Woolery, \*R. Hoar, \*M. Swallow, W. Guenther, S. Gallen (2022). Catastrophic collapse of mountain topography along the Yellowstone track: *Lithosphere*. <https://doi.org/10.1111/>

(66) Wang, Z., N.S. Carpenter, E. Woolery, (2022). Scenario seismic hazard analysis and its applications in Kentucky, central United States: *in Earthquakes and Sustainable Infrastructure: neodeterministic (NDSHA) approach guarantees prevention rather than cure*; eds. G. Panza, V.G. Kossobokov, E. Laor, and B. DeVivo; book chapter, Elsevier Publishing.

(65) Hunter, J., H. Crow, W. Stephenson, A. Pugin, R. Williams, J. Harris, J. Odum, E. Woolery (2022). Seismic site characterization with shear wave (SH) reflection and refraction methods: *Journal of Seismology*. <https://doi.org/10.1007/s10950-021-10042-z>.

(64) \*Rong, X., L-M Wang, E. Woolery (2021). HSRV and site characteristics of the seismic and strong-motion stations in Gansu Province, China. In: J. An, J. Zhang, J. Xie (eds.) *New Approaches of Geotechnical Engineering: Soil Characterization, Sustainable Materials and Numerical Simulation*. GeoChina 2021. *Sustainable Civil Infrastructures*. Springer, Cham. [https://doi.org/10.1007/978-3-030-79641-9\\_2](https://doi.org/10.1007/978-3-030-79641-9_2)

(63) \*Zhu, Y., Z. Wang, N.S. Carpenter, E. Woolery, W. Haneberg, (2021). Mapping fundamental site periods and corresponding amplifications for the Jackson Purchase region of western Kentucky, central United States: *Bulletin of Seismological Society of America*. v. 111(4), <https://doi.org/10.1785/0120200300>.

(62) Counts, R., R. Van Arsdale, E. Woolery, M. Murari, L. Owen (2021). Late Holocene faulting in the Wabash Valley seismic zone of western Kentucky: Closing the gap between the Wabash Valley and New Madrid seismic zones: *Bulletin of Seismological Society of America*. <https://doi.org/10.1785/0120190089>.

(61) Gold, R., W. Stephens, R. Briggs, C. DuRoss, E. Kirby, E. Woolery, J. Delano, J. Odum (2020). Seismic reflection imaging of the low-angle Panamint normal fault system, eastern California: *Journal of Geophysical Research*. <https://doi.org/10.1029/2020JB020243>

- (60) Wang, Q., Z. Wang, Y. Su, X. Zhong, L. Wang, H. Ma, G. Zhang, E. Woolery, K. Liu (2020). Characteristics and mechanism of the landslide in Yongguang village, Minxian County, China: *Natural Hazards*, <https://doi:10.1007/s11069-020-04360-7>.
- (59) McGlue, M. and E. Woolery (2020). High resolution CHIRP seismic profiling reveals basin floor morphology and shallow stratigraphy at Convict Lake (California, USA): *Quaternary International*, <https://doi:10.1016/j.quaint.2020.09.014>.
- (58) Miao, F., \*N.S. Carpenter, Z. Wang, E. Woolery (2020). High-accuracy discrimination of blasts and earthquakes using neural networks with multiwindow spectral data. *Seismological Research Letters*: v. 91(3), p. 1646–1659, <https://doi:10.1785/0220190084>.
- (57) \*Carpenter, N.S., \*Holcomb, A., E. Woolery, Z. Wang (2020). A method to determine the minimum detection threshold for a regional seismic network in the Rome Trough of eastern Kentucky. *Seismological Research Letters*: v. 91(3), p. 1831–1845, <https://doi:10.1785/0220190015>.
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### **Pending Grants, Contracts, Stipends, and Gifts:**

Co-PI, Project CHARGE—Climate Change and Natural Hazards in Appalachia: Towards Resilience and Geoscience Equity

Agency: *National Science Foundation—EPSCoR Track 1*  
Period: 2023-2028  
Amount: \$20,000,000

### **Funded Grants, Contracts, Stipends, and Gifts:**

(60) PI, Integrated Geophysical Surveying of Seismotectonic Structure in the new Madrid Seismic Zone, Central United States (student support for field investigation)

Agency: *U.S. Dept. of Energy/KRCEE*  
Period: 01-Oct-2022 to 30-Sept-2023  
Amount: \$5,000

(59) Co-PI, Research Supplement for New Objectives: Cataclysmic Erasure of Mountain Topography and Major Unrealized Seismic Hazards in the Northern Basin and Range

Agency: *National Science Foundation*  
Period: 01-Jul-2022 to 31-Jan-2023  
Amount: \$46,267

(58) Co-PI, Cataclysmic Erasure of Mountain Topography and Major Unrealized Seismic Hazards in the Northern Basin and Range

Agency: *National Science Foundation*  
Period: 01-Feb-2020 to 31-Jan-2023  
Amount: \$580,146

(57) PI, VISTA20 Signal Processing Software w/ 3D and VSP, Univ. Gift Program (**non-competitive**)

Agency: *Schlumberger, WesternGeco LLC.*  
Period: 31-Sep-2020 to 30-Sep-2023  
Amount: \$554,743

(56) Co-PI, Improving Estimates of Ground-Motion Site Response in the New Madrid and Wabash Valley Seismic Zones

Agency: *U.S. Geological Survey*  
Period: 01-Jan-2020 to 31-Dec-2020  
Amount: \$64,462

(55) PI (**Internal**), Administrative Research Supplement (**non-competitive**)

Agency: *University of Kentucky, College of Arts and Science*  
Period: 01-July-2019 to 30-Jun-2023  
Amount: \$240,000

(54) PI, Integrated Geophysical Surveying of Seismotectonic Structure in the new Madrid Seismic Zone, Central United States

Agency: *U.S. Dept. of Energy/KRCEE*  
Period: 01-May-2018 to 30-Sept-2022  
Amount: \$18,481

(53) PI, High-Resolution Seismic Imaging for Earthquake Hazards in the United States: Collaborative Research between the U.S. Geological Survey and University of Kentucky

Agency: *U.S. Geological Survey*  
Period: 22-May-2017 to 21-May-2022  
Amount: \$36,078

- (52) PI, VISTA16 2-D Seismic Signal Processing Software, Univ. Gift Program (**non-competitive**)  
Agency: *Schlumberger, WesternGeco LLC.*  
Period: 23-Jun-2017 to 01-Jul-2020  
Amount: \$313,950
- (51) Co-PI, PXD Geomechanics V1  
Agency: *Pioneer Natural Resources, Inc.*  
Period: 17-Apr-2015 to 01-Sep-2016  
Amount: \$88,999
- (50) PI, Seismic Potential of the New Madrid Seismic Zone's Reelfoot Fault: Collaborative Research with the University of Memphis and University of Kentucky  
Agency: *U.S. Geological Survey*  
Period: 01-Jan-2014 to 30-Apr-2015  
Amount: \$45,650
- (49) Co-PI, Brady Sand Mine: Phase I Seismic Investigation  
Agency: *Pioneer Natural Resources, Inc.*  
Period: 01-Apr-2014 to 31-Mar-2015  
Amount: \$86,745
- (48) PI, Kingdom Suites Modeling Software, University Gift Program (**non-competitive**)  
Agency: *IHS, Inc.*  
Period: 10-Sep-2013 to 09-Dec-2021  
Amount: \$627,210
- (47) PI, Nano-Particle Geophysical Support: Seismic Modeling Pt. 3  
Agency: *U.S. Dept. of Energy/KRCEE*  
Period: 01-Oct-2012 to 30-Sep-2013  
Amount: \$29,000
- (46) PI, Towards Construction of the Central United States Seismic Observatory and Calibration Site: Defining the Geologic Site Model—Part 2  
Agency: *U.S. Geological Survey*  
Period: 01-Jun-2011 to 31-Dec-2012  
Amount: \$67,672
- (45) PI, Nano-Particle Geophysical Support: Seismic Modeling Pt. 2  
Agency: *U.S. Dept. of Energy/KRCEE*  
Period: 27-Feb-2012 to 30-Sep-2012  
Amount: \$22,275
- (44) PI, High-resolution P- and S-Wave Velocity Structure of the Post-Paleozoic Sediments in the Upper Mississippi Embayment: Collaborative Research between the University of Kentucky and the University of Memphis  
Agency: *U.S. Geological Survey*  
Period: 01-Jul-2009 to 30-Jun-2011  
Amount: \$89,567
- (43) PI, Nano-Particle Geophysical Support: Seismic Modeling  
Agency: *U.S. Dept. of Energy/KRCEE*  
Period: 01-Apr-2009 to 30-Sep-2011  
Amount: \$68,612

- (42) PI, Ground Motion Site Effects in the Wabash Valley Region from the 18 April 2008 Mt. Carmel, IL Earthquake and Aftershocks  
Agency: *U.S. Geological Survey*  
Period: 01-Jul-2009 to 30-Jun-2010  
Amount: \$45,896
- (40) PI, Kingdom Software, University Gift Program (non-competitive Gift)  
Agency: Seismic Micro-Technology, Inc.  
Period: 01-Aug-2009 to 31-Jul-2012  
Amount: \$727,050
- (39) PI (Internal), 48-Channel Engineering Seismograph  
Agency: *University of Kentucky, Vice President of Research/College of Arts and Science*  
Period: 01-May-2009 to 30-Jun-2009  
Amount: \$61,000
- (38) PI, UK Paducah Gaseous Diffusion Plant – Seismic Review  
Agency: *Kentucky Department for Public Health*  
Period: 01-Jul-2008 to 30-Jun-2009  
Amount: \$27,471
- (37) PI, Geophysical Investigation – Green River Dam Seepage Investigation  
Agency: *U.S. Army Corps of Engineers/AMEC Earth and Environmental Inc.*  
Period: 15-May-2008 to 30-Jun-2008  
Amount: \$27,868
- (36) Co-PI, Toward Construction of the Central United States Seismic Observatory and Calibration Site: Phase III, Instrumentation  
Agency: *U.S. Geological Survey*  
Period: 01-Jul-2008 to 30-Jun-2009  
Amount: \$55,850
- (35) PI, Toward Construction of the Central United States Seismic Observatory and Calibration Site: Phase II, Defining the Geologic Site Model  
Agency: *U.S. Geological Survey*  
Period: 01-May-2008 to 30-Apr-2009  
Amount: \$58,617
- (34) Co-PI, Analysis of Wolf Creek Dam Rehabilitation Project  
Agency: *Federal Emergency Management Agency (through University Office of President)*  
Period: 01-Oct-2007 to 30-Sep-2008  
Amount: \$203,057
- (33) Co-PI, Mid-America Integrated Seismic Networks – UKY  
Agency: *U.S. Geological Survey*  
Period: 01-Feb-2007 to 31-Jan-2010  
Amount: \$108,871
- (32) PI, Integrated Geophysical Imaging of Subsurface Geologic Conditions across the Northwest Contaminant Plume, Paducah Gaseous Diffusion Plant  
Agency: *U.S. Dept. of Energy/Ky. Research Consortium for Energy and Environment*  
Period: 01-Aug-2007 to 30-Sep-2008  
Amount: \$38,937

- (31) PI (Internal), Microgravimeter (Major Research Equipment Acquisition Competition)  
Agency: *University of Kentucky, Vice President of Research*  
Period: 01-Jul-2007 to 30-Jun-2008  
Amount: \$85,000
- (30) PI, Central United States Seismic Observatory: Phase I, Deep Borehole Installation  
Agency: *U.S. Geological Survey*  
Period: 01-Aug-2006 to 31-Jul-2007  
Amount: \$45,345
- (29) Co-PI, Deep Borehole in the New Madrid Seismic Zone, Central United States  
Agency: *U.S. Dept. of Energy/Ky. Research Consortium for Energy and Environment*  
Period: 01-May-2006 to 30-Apr-2007  
Amount: \$200,000
- (28) PI, High-resolution P- and S-Wave Velocities of the Post-Paleozoic Sediments in the Upper Mississippi Embayment: Collaborative Research between the University of Kentucky and the University of Memphis  
Agency: *U.S. Geological Survey*  
Period: 01-Mar-2006 to 28-Feb-2007  
Amount: \$34,991
- (27) PI (Internal), Geophysical Equipment for Teaching (A&S Instruction Enhancement Competition)  
Agency: *University of Kentucky, Dean, College of Arts and Sciences*  
Period: 01-Jan-2006 to 30-Jun-2006  
Amount: \$104,000
- (26) PI (Internal), Pseudo-Random Seismic Energy Source (Major Research Equipment Acquisition)  
Agency: *University of Kentucky, Vice President of Research*  
Period: 01-Jul-2005 to 30-Jun-2006  
Amount: \$21,920
- (25) Co-PI, Earthquake Hazard and Risk in the Urban Area: Collaborative Research between the University of Kentucky and the Lanzhou Institute of Seismology, China Earthquake Administration  
Agency: *National Science Foundation – MCEER*  
Period: 01-Jun-2005 to 31-Aug-2005  
Amount: \$5,000
- (24) PI, High-Resolution Geophysical and Geological Investigations of Lower Wabash Valley Fault System Neotectonics  
Agency: *U.S. Geological Survey*  
Period: 01-Apr-2005 to 31-Mar-2006  
Amount: \$47,498
- (23) PI, Holocene Fault Investigation, C-746-U Landfill, PGDP  
Agency: *U.S. Dept. of Energy/Ky. Research Consortium for Energy and Environment*  
Period: 01-Dec-2004 to 31-Sep-2005  
Amount: \$25,000
- (22) PI, S- and P-wave Velocity Measurements at Seismic Network Expansion Sites  
Agency: *U.S. Dept. of Energy/Ky. Research Consortium for Energy and Environment*  
Period: 01-Dec-2004 to 31-Sep-2005  
Amount: \$20,574

- (21) PI, High-Resolution Geophysical and Geological Investigations of Late Quaternary Deformation in the Lower Wabash Valley Fault Zone  
Agency: *U.S. Geological Survey*  
Period: 01-Apr-2004 to 31-Mar-2005  
Amount: \$54,158
- (20) PI, Ground Motion Site Effects in the Wabash Valley Region from the 18 June 2002 Darmstadt Earthquake  
Agency: *U.S. Geological Survey*  
Period: 01-Apr-2004 to 31-Mar-2005  
Amount: \$45,774
- (19) PI, Seismic Hazard Assessment of the Jackson Purchase, Western Kentucky  
Agency: *U.S. Dept. of Energy/Ky. Research Consortium for Energy and Environment*  
Period: 01-Jan-2004 to 31-Dec-2005  
Amount: \$86,885
- (18) Co-PI, Mid-America Integrated Seismic Networks – UKY  
Agency: *U.S. Geological Survey*  
Period: 01-Jan-2004 to 31-Jan-2007  
Amount: \$107,921
- (17) PI, CHS04 Paducah Gaseous Diffusion Plant: Seismological and Geotechnical Oversight  
Agency: *Kentucky Cabinet for Health Services*  
Period: 01-Jul-2003 to 30-Jun-2004  
Amount: \$25,401
- (16) PI, CHS Paducah Gaseous Diffusion Plant: Seismological and Geotechnical Oversight  
Agency: *Kentucky Cabinet for Health Services*  
Period: 01-Jul-2002 to 30-Jun-2003  
Amount: \$26,212
- (15) Co-PI, Preliminary Seismic Hazard Assessment for Western Kentucky  
Agency: *Western Kentucky Energy and Economic Consortium*  
Period: 01-Aug-2002 to 31-Jan-2003  
Amount: \$112,989
- (14) PI, Seismic Modeling Algorithms (EDUCATIONAL)  
Agency: *Seismic Micro-Technology*  
Period: 01-Mar-2002 to 01-Sep-2005  
Amount: \$216,480
- (13) PI, A Comprehensive Geotechnical Investigation and Borehole Accelerometer Array Installation in the New Madrid Seismic Zone.  
Agency: *U.S. Geological Survey*  
Period: 01-Apr-2002 to 31-Mar-2003  
Amount: \$68,892
- (12) PI, Installation of a Vertical Strong-Motion Array–McCracken County, Kentucky.  
Agency: *U.S. Dept. of Energy*  
Period: 01-Jan-2002 to 30-Jun-2004  
Amount: \$25,000
- (11) Co-PI, Seismic Hazard Maps and Time Histories for the Seismic Design of Highway Bridges  
Agency: *Kentucky Department of Transportation*  
Period: 01-Jan-2002 to 31-Dec-2002  
Amount: \$46,020



- (10) PI, Ground-motion Assessment of the C-746-U Landfill–Paducah Gaseous Diffusion Plant  
Agency: *Kentucky Division of Waste Management*  
Period: 01-Jul-2002 to 30-Jun-2004  
Amount: \$53,557
- (9) PI, Earthquake Hazard Assessment of CERCLA Cell–Paducah Gaseous Diffusion Plant  
Agency: *Kentucky Cabinet for Health Services*  
Period: 01-Jul-2001 to 30-Jun-2002  
Amount: \$22,750
- (8) PI, Research Staff Participation in Oversight Program–Paducah Gaseous Diffusion Plant  
Agency: *Kentucky Cabinet for Health Services*  
Period: 01-Jan-2001 to 30-Jun-2001  
Amount: \$7,975
- (7) PI, An Integrated Geophysical Assessment of Late Quaternary Neotectonics along the Northern Mississippi Embayment Extension of the Fluorspar Area Fault Complex.  
Agency: *U.S. Geological Survey*  
Period: 01-Apr-2000 to 31-Mar-2001  
Amount: \$72,908
- (6) Co-PI, A Surface-to-Bedrock S-wave Investigation of the Post-Paleozoic Sediments across the Upper Mississippi Embayment between the 35<sup>th</sup> and 36<sup>th</sup> Parallels.  
Agency: *U.S. Geological Survey*  
Period: 01-Jan-2000 through 31-Dec-2001  
Amount: \$112,816
- (5) PI, Geophysical Investigation of Mississinewa Dam, Miami County, Indiana  
Agency: *U.S. Army Corps of Engineers*  
Period: 01-Dec-1999 to 01-Mar-2000  
Amount: \$16,000
- (4) PI, Seismic Reflection Investigation of Neotectonic Structure: J.T. Myers Locks/Dam, Indiana  
Agency: *U.S. Army Corps of Engineers*  
Period: 01-Sept-2000 to 01-Mar-2001  
Amount: \$20,000
- (3) PI, Upgrade of a 48-channel, IFP, Engineering Seismograph.  
Agency: *Federal Emergency Management Agency*  
Period: 01-Mar-2000  
Amount: \$15,000
- (2) Co-PI, Expansion of the Kentucky Seismic and Strong-Motion Network.  
Agency: *Kentucky Department of Disaster and Emergency Services*  
Period: 01-Jan-1999 to Jun-2000  
Amount: \$57,812
- (1) Co-PI, Development of 250-year Earthquake Time Histories for Kentucky’s County Seats.  
Agency: *Kentucky Transportation Center*  
Period: 01-Jan-2000 to 30-Jun-2000  
Amount: \$7,500

**Published Abstracts with Presentations:** (\* student author)

(161) Dilworth, J.\*, C.J. Cortese\*, M.M. McGlue, J.R. Thigpen, K.M. Yeager, E.W. Woolery, S.J. Brown, 2022. Preliminary high resolution seismic stratigraphic and sediment core investigation of Jackson Lake (Wyoming): *Geological Society of America Abstracts with Programs*, v. 54, <https://doi:10.1130/abs/2022NC-375614>.

- (160) Cortese, C.\*, J.R. Thigpen, M.M. McGlue, E.W. Woolery, K.M. Yeager, J.R. Dilworth\*, (2022). Attempting to close the seismic “gap” along the Teton Fault through seismic mapping of potential seismites in Jackson Lake, Wyoming, USA: *Geological Society of America Abstracts with Programs*, v. 54, <https://doi:10.1130/abs/2022AM-380462>.
- (159) Goldsby, R.\*, M. Swallow\*, J.R. Thigpen, S. Johnson, J. Dortch, E.W. Woolery, M.M. McGlue, K.M. Yeager, (2022). Linking Teton and east Gallatin Fault motion across the Yellowstone hotspot track, Wyoming, USA: Implications for ongoing extension beneath Yellowstone and extension of the active Teton Fault: v. 54, <https://doi:10.1130/abs/2022AM-381527>.
- (158) Yeager, K.M., S.J. Whitehead\*, J.R. Dilworth\*, M.M. McGlue, H. Johnson\*, K.J. Schindler, J.R. Thigpen, E.W. Woolery, (2022). High-resolution lake infill modeling at Jackson Lake, Wyoming. International Association of Limnogeology – International Paleolimnology Association (IAL-IPA) Joint Meeting, Nov. 27-Dec. 1, Bariloche, Argentina (accepted)
- (157) Whitehead, S.J.\*, K.M. Yeager, J.R. Dilworth\*, K.J. Schindler, H.L. Johnson\*, J.R. Thigpen, E.W. Woolery, M.M. McGlue, (2022). Spatial variability of sediment accumulation in Jackson Lake, Wyoming. International Association of Limnogeology – International Paleolimnology Association (IAL-IPA) Joint Meeting, Nov. 27-Dec. 1, Bariloche, Argentina (accepted)
- (156) Dilworth, J.R\*., C.J. Cortese\*, J.R. Thigpen, S.J. Whitehead\*, K.M. Yeager, E.W. Woolery, M.M. McGlue, (2022). High resolution seismic and sediment core investigation of Moran Bay, Jackson Lake, WY. American Geophysical Union Annual Meeting, Dec. 12-16, Chicago, IL (accepted)
- (155) Johnson, H.\*, M. McGlue, R. Thigpen, E. Woolery, K. Yeager, S. Brown (2022). Recent paleolimnological history of Jackson Lake: Grand Teton National Park, Wyoming: *Geological Society of America Abstracts with Programs*, v. 54, <https://doi:10.1130/abs/2022NC-375324>.
- (154) Dilworth, J. \*, C. Cortese\*, M. McGlue, R. Thigpen, E. Woolery, K. Yeager, S. Brown (2022). Preliminary high-resolution seismic stratigraphy and sediment core investigation of Jackson Lake (Wyoming): *GSA SE Section Meeting* <https://doi.org/10.1130/abs/2022NC-375614>
- (153) Johnson, S.\*, M. Swallow\*, J. Thigpen, M. McGlue, E. Woolery, J. Dortch, S. Gallen, K. Yeager (2021). Post-glacial fluvial inefficiency: *Geological Society of America Abstracts with Programs*, v. 53, <https://doi:10.1130/abs/2021AM-371378>.
- (152) McGlue, M.M., J.R. Dilworth\*, H.L. Johnson\*, K.M. Yeager, J.R. Thigpen, E.W. Woolery, S.J. Brown, C. Cearley\*, G. Clark\*, T.S. Dixon\*, R.C. Goldsby\*, A. Helfrich\*, B.N. Hodelka\*, S.E. Johnson\*, L. Domingos-Luz\*, N. Powell\*, G.G. Rasbold, W. Swanger\*, S.J. Whitehead\*, 2021. Sublacustrine geomorphology and deepwater chemostratigraphy reveal effects of dam installation at Jackson Lake (Wyoming, USA): *Geological Society of America Abstracts with Programs*, v. 53, <https://doi:10.1130/abs/2021AM-365379>.
- (151) Johnson, S.\*, M. Swallow\*, J. Thigpen, M. McGlue, and E. Woolery, (2020). A comparison of post-glacial sediment volumes from source to sink in Moran and Snowshoe Canyons, Teton Range, Wyoming: *Geological Society of America Abstracts with Programs*.
- (150) Johnson, H.\*, M. McGlue, J. Thigpen, E. Woolery, K. Yeager, S. Brown (2021). High-Resolution CHIRP seismic reflection profiling of Jackson Lake (Grand Teton National Park, Wyoming): *Geological Society of America Southeast Section Meeting*
- (149) Carpenter, N.S., Z. Wang, E. Woolery, (2020). Can proxies adequately approximate site resonance; *Eastern Section of the Seismological Society of America – 92<sup>nd</sup> Annual Meeting*.
- (148) Wang, Z., N.S. Carpenter, E. Woolery, M. Kalinski (2020). New site correction factors and design response spectra– their applications in the central United States; *Eastern Section of the Seismological Society of America – 92<sup>nd</sup> Annual Meeting*.

- (147) Gold, R., W. Stephenson, R. Briggs, C. DuRoss, E. Kirby, E. Woolery, J. Odum, J. Delano (2020). Seismic reflection imaging of the low-angle Panamint Valley normal fault system, eastern California, USA. *European Geosciences Union, Vienna, Austria, abs. EGU2020-5625*.
- (146) Zhu, Y., Z. Wang, N. Carpenter, E. Woolery, W. Haneberg (2020). Fundamental site period and peak amplification maps for the Jackson Purchase region in the New Madrid seismic zone: *Seismological Society of America Annual Meeting, Albuquerque, NM*.
- (145) Carpenter, S., Z. Wang, J. Hickman, E. Woolery (2020). Does the eastern Kentucky Rome trough interrupt or bound the eastern Tennessee seismic zone: *Seismological Society of America Annual Meeting, Albuquerque, NM*.
- (144) Yichuan, Z., Z. Wang, S. Carpenter, E. Woolery, W. Haneberg (2020). Fundamental site period and peak amplification maps for the Jackson Purchase region in the New Madrid seismic zone: *Seismological Society of America Annual Meeting, Albuquerque, NM*.
- (143) Carpenter, N.S., Z. Wang, E. Woolery (2020). Should site response be incorporated into central and eastern US hazard maps?: *Seismological Society of America Annual Meeting, Albuquerque, NM*.
- (142) Wang, Z., N.S. Carpenter, E. Woolery, M. Kalinski (2020). Ground-motion site response and new physics-based site correction factors for design response spectrum: *Seismological Society of America Annual Meeting, Albuquerque, NM*.
- (141) \*Carpenter, N.S., \*A. Holcomb, E. Woolery, Z. Wang, J. Hickman (2019). Natural seismicity observations in and around the eastern Kentucky Rome Trough from a temporary seismic network: *Eastern Section of the Seismological Society of America – 91<sup>st</sup> Annual Meeting*.
- (140) \*Carpenter, N.S., Z. Wang, E. Woolery, J. Hickman (2019). Site response from deep rock layers in the Illinois Basin revealed by S-wave H/V: *Eastern Section of the Seismological Society of America – 91<sup>st</sup> Annual Meeting*.
- (139) Wang, Z., \*N.S. Carpenter, E. Woolery (2019). Correction factors for ground-motion site response in the central United States: *Eastern Section of the Seismological Society of America – 91<sup>st</sup> Annual Meeting*.
- (138) McGlue, M., E. Woolery, \*M. Black, S. Ivory, A. Almayahi, S. Zimmerman (2019). Preliminary stratigraphy and <sup>14</sup>C chronology at Convict Lake (Eastern Sierra Nevada): *Geological Society of America Annual Meeting, Phoenix, AZ, abs. no. 248-9*.
- (137) McGlue, M., R. Thigpen, E. Woolery, S. Brown (2019). A first look at new CHIRP seismic reflection profiles from Jackson Lake (Grand Teton National Park): *Geological Society of America Annual Meeting, Phoenix, AZ, abs. no. 25-6*.
- (136) \*Helfrich, A., \*M. Swallow, \*S. Johnson, R. Thigpen, M. McGlue, E. Woolery, S. Brown, N. McQuarrie (2019). Utilizing apatite (U-TH)/HE analyses, landscape and kinematic modeling to examine the relative efficacy of climatic and tectonic forcing in an active tectonic system: Teton Range, WY: *Geological Society of America Annual Meeting, Phoenix, AZ, abs. no. 284-3*.
- (135) Thigpen, R., S. Brown, M. McGlue, E. Woolery, \*R. Hoar, W. Guenther, S. Gallen, \*M. Swallow (2019). Cataclysmic collapse of mountain topography along the Yellowstone hotspot track: *Geological Society of America Abstracts with Programs*, **51**, <https://doi.org/10.1130/abs/2019AM-340575>.
- (134) \*Brannon, M., M. McGlue, J. Thigpen, E. Woolery (2019). Seismic reflection profiles reveal possible sub-lacustrine paleo-deltas in Jackson Lake (WY): *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C., abs. no. 06-05*.

- (133) \*Streib, L., \*B. Spencer, \*M. Swallow, E. \*Lo, M. McGlue, J. Thigpen, E. Woolery, S. Brown (2019). Understanding sediment accumulation and distribution in Jackson Lake, Wyoming using CHIRP seismic surveying: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 06-06.
- (132) \*Gudmunson, E., \*J. Wilson, \*F. Harris, \*C. Denham, E. Woolery, M. McGlue, J. Thigpen, S. Brown (2019). Combining CHIRP seismic reflection and LIDAR data to understand the structural architecture and slip partitioning of the northern Teton fault near Jackson Lake, Wyoming: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 06-03.
- (131) Rosandich, B., E. Woolery, D. Burford, Z. Wang, J. Harris (2019). Near-surface geophysical investigation of a hypothesized Quaternary-active shear zone accommodation – New Madrid seismic zone: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 37-12.
- (130) \*Burford, D., \*B. Rosandich, E. Woolery, D. Ravat, \*Y. Wang (2019). Integrated seismic-reflection and microgravity imaging across the southern boundary of the Charleston uplift, New Madrid seismic zone, USA: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 37-10.
- (129) McGlue, M., E. Woolery, \*M. Black, A. Almayahi (2019). Preliminary stratigraphy and chronology of Convict Lake (CA), eastern Sierra Nevada: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 36-08.
- (128) \*Bottoms, A., M. McGlue, E. Woolery, W. Andrews (2019). Uncovering the characteristics of the Salt River paleo-lake in north-central Kentucky: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 36-06.
- (127) \*Johnson, S., J. Thigpen, M. McGlue, E. Woolery (2019). Preliminary quantification of sediment storage in Moran and Avalanche canyons in Grand Teton National Park, Wyoming, USA: *Geological Society of America Southeastern Section – 68<sup>th</sup> Annual Meeting, Charleston, S.C.*, abs. no. 30-13.
- (126) Woolery, E., M. McGlue, R. Van Arsdale, A. Alimayahi, (2019). Using small aperture S-wave reflection arrays for near-surface paleolimnological applications in the central U.S.A: *Seismological Society of America Annual Meeting*
- (125) Wang, Z., \*N.S. Carpenter, E. Woolery (2019). Strong ground motion site effects in the central United States – issues and alternatives: *Seismological Society of America Annual Meeting, Seattle, WA.*
- (124) \*Carpenter, N.S., Z. Wang, E. Woolery (2019). Resolving S-wave velocity structure from weak-motion S-wave HVSR: *Seismological Society of America Annual Meeting, Seattle, WA.*
- (123) Gold, R., W. Stephenson, E. Kirby, E. Woolery, R. Briggs, C. DuRoss, J. Delano, J. Odum, A. Leeds, D. Paris, I. Sethanant, W. Dassow (2019). High-resolution seismic reflection imaging of low-angle Panamint Valley normal fault system, eastern California: *Seismological Society of America Annual Meeting, Seattle, WA.*
- (122) Thigpen, J.R., M. Swallow\*, M. McGlue, S. Brown, E. Woolery, R. Hoar\*, R. and S. Gallen, (2018). Was the northern extent of the Teton fault ‘erased’ by the Yellowstone hotspot? Defining the active northern extent of this system. *American Geophysical Union Abstracts with Programs*, **T33A-07**.
- (121) McGlue, M and E. Woolery (2019). CHIRP seismic profiles reveal basin floor morphology and shallow stratigraphy at Convict Lake (eastern Sierra Nevada): *PACLIM 2019*, p. 37.
- (120) \*Muttashar, W., L. Bryson, M. McGlue, E. Woolery (2018). A methodology for characterizing and classifying unconsolidated inorganic fine-grained sediments: *Geological Society of America, Abstract #321722*.

- (119) \*Swallow, M., R. Thigpen, \*R. Hoar, S. Brown, M. McGlue, E. Woolery (2018). Constraining spatial and temporal landscape response rates to Teton fault activity through apatite helium thermochronology and limnogeology: *Geological Society of America, Abstract #322631*.
- (118) Counts, R., E. Woolery, \*A. Eason, D. Larson, R. Van Arsdale (2018). Late Pleistocene and Holocene faulting southeast of the New Madrid seismic zone: The Joiner Ridge and Meeman-Shelby blind horsts, eastern Arkansas: *Geological Society of America, Abstract #319884*.
- (117) \*Carpenter, N.S., Z. Wang, E. Woolery (2018). Inversion of single-station S-wave HVSR for shallow velocity structure—Utility and limitations: *American Geophysical Union*.
- (116) \*Crawford, M. L. Bryson, E. Woolery, Z. Wang (2018). Long-term landslide monitoring using soil-water relationships and electrical resistivity tomography to estimate suction stress and shear strength: *American Geophysical Union*.
- (115) Thigpen, R., \*M. Swallow, \*R. Hoar, S. Brown, M. McGlue, E. Woolery (2018). Defining the active northern extent of the Teton fault: *American Geophysical Union*.
- (114) \*Muttashar, W., L. Bryson, E. Woolery (2018). Using wave velocities to predict compression behavior of normally-consolidated sediments: *2018 Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP)*, Abstract 145, Fast Times v. 23 p. 159.
- (113) Holcomb, A., N.S. Carpenter, Z. Wang, E. Woolery (2018). Results from monitoring microseismicity in the Rome Trough, eastern Kentucky: *CGU\_S\_02, Eastern Section of the Seismological Society of America – 90<sup>th</sup> Annual Meeting*
- (112) Harris, J., \*B. Rosandich, E. Woolery (2017). High-resolution seismic reflection imaging of the Reelfoot fault, New Madrid, Missouri: *Abstract 118807, NS23A-0003, American Geophysical Union Fall Meeting, New Orleans, LA*.
- (111) \*Carpenter, N.S., Z. Wang, E. Woolery, M. Rong (2017). Estimating site response in the northern Mississippi embayment with S-wave HVSR and recordings from deep vertical strong-motion arrays: *Abstract 214073, S13C-0675, American Geophysical Union Fall Meeting, New Orleans, LA*.
- (110) \*Lyon, E., M. McGlue, S. Kim, S. Zimmerman, E. Woolery (2017). Paleolimnology at June Lake (Mono County, CA): A new Holocene archive of environmental change?: *PACLIM 2017*
- (109) McGlue, M.M., S. Zimmerman, E. Woolery, \*B. Hodelka, \*E. Lyon, \*J. Lucas (2017). Opportunities in Developing Long Lake Sediment Records of Quaternary Hydroclimate in the Eastern Sierra Nevada (CA): *Geological Society of America Annual Meeting*
- (108) \*Lyon, E., \*D. Carden, \*B. Hodelka, \*J. Lucas, \*M. O'Dell, M. McGlue, E. Woolery (2017). Integrated high-resolution geological and geophysical evaluation of sedimentary architecture at June Lake, Mono County, CA: *GSA North Central and North Eastern Section Meeting*
- (107) \*Rucker, C., E. Woolery (2017). Constraining the northern boundary of the Charleston uplift using seismic reflection methods, *Seismological Society of America Annual Meeting, Denver, CO*.
- (106) \*Carpenter, N.S., Z. Wang, E. Woolery (2017). Toward estimating site effect in the central United States from HVSR and deep borehole recordings, *Seismological Society of America Annual Meeting, Denver, CO*.
- (105) \*Holcomb, A., \*N.S. Carpenter, E. Woolery, Z. Wang (2017). Eastern Kentucky microseismic monitoring project: year one network observations and detection threshold estimation, *Eastern Section of the Seismological Society of America – 89<sup>th</sup> Annual Meeting*.

- (104) \*Bregman, C., E. Woolery, Z. Wang, \*N.S. Carpenter (2016). Instrument correction and dynamic site profile validation at the Central United States Observatory, New Madrid seismic zone, *Abstract 118807, NS31A-1939, American Geophysical Union Fall Meeting, Dec. 12–16, San Francisco, CA.*
- (103) \*Carpenter, N.S., Z. Wang, M. Rong, E. Woolery (2016). Estimating site effect in the central U.S. from deep borehole and surface recordings of ambient noise and earthquake and blast shear waves, *Eastern Section of the Seismological Society of America – 88<sup>th</sup> Annual Meeting.*
- (102) \*Carpenter, N.S., Z. Wang, M. Rong, E. Woolery, M. Hamburger, G. Pavlis (2016). Estimating site effect in the central U.S. using horizontal-to-vertical spectral ratios from broadband recordings of earthquake and blast shear waves and ambient noise, *Abstract 196508, S43E-01, American Geophysical Union Fall Meeting, Dec. 12–16, San Francisco, CA.*
- (101) Wang, Z., E. Woolery, M. Rong (2016). Non-linear seismic site characterization using noninvasive geophysics and strong-motion recordings, *Seismological Society of America Annual Meeting, Reno NV.*
- (100) \*Carpenter, N.S., Z. Wang, E. Woolery (2016). The eastern Kentucky microseismic monitoring project: A public-private collaborative at the onset of unconventional oil and gas production in the Rome trough, eastern Kentucky, *Seismological Society of America Annual Meeting, Reno NV.*
- (99) \*Cooper, M., E. Beck, E. Woolery (2016). Integrated geophysical methods for correlating the upper Mississippi embayment aquifer system hydrostratigraphy: Jackson Purchase, western Kentucky, U.S.A., *Geological Society of America Southeastern Section – 65<sup>th</sup> Annual Meeting, Columbia, S.C.*
- (98) Woolery, E., R. Van Arsdale, \*M. Greenwood, W. Stephenson (2016). Reelfoot fault continuity across the axial fault, *Eastern Section of the Seismological Soc. of America–87<sup>th</sup> Annual Meeting*, v. 87, p. 253.
- (97) \*Rodriguez, P., \*N.S. Carpenter, E. Woolery (2016). Toward automated methodologies for discriminating between natural and manmade events using the OIINK seismic array, *Eastern Section of the Seismological Society of America – 87<sup>th</sup> Annual Meeting*, v. 87, p. 252.
- (96) \*Holcomb, A., \*N.S. Carpenter, E. Woolery, Z. Wang (2016). Monitoring induced microseismicity in the Rome trough, eastern Kentucky U.S.A., *Eastern Section of the Seismological Society of America – 87<sup>th</sup> Annual Meeting*, v. 87, p. 247.
- (95) \*Carpenter, N.S., Z. Wang, E. Woolery (2015). Monitoring microseismicity around wastewater injection wells and at the onset of unconventional oil and gas production in the Rome trough, eastern Kentucky, *American Association of Petroleum Geologists, Eastern Section – 44<sup>th</sup> Annual Meeting*, Indianapolis, IN, p. 29.
- (94) Rong, M., Z. Wang, E. Woolery, Y. Lu, X. Li (2015). Site-effects from the observed strong ground motions in western China, *Seismological Research Letters*, v. 86, n. 2b, p. 713.
- (93) \*Carpenter, N.S., E. Woolery, Z. Wang (2015). The Mw Perry County earthquake of 10 November 2012: Evidence of the eastern Tennessee seismic zone in southeastern Kentucky, *Geological Society of America Southeastern Section – 64<sup>th</sup> Annual Meeting*, March 19-20, 2015, Chattanooga, TN.
- (92) \*Greenwood, M., R. Van Arsdale, E. Woolery (2015). Investigation of the southeast Reelfoot fault, *Geological Society of America Southeastern Section – 64<sup>th</sup> Annual Meeting*, March 19-20, 2015, Chattanooga, TN.
- (91) \*Carpenter, S., \*C. Bregman, E. Woolery, Z. Wang (2015). Seismic wave propagation at the Central U.S. Seismic Observatory: Observations between bedrock and surface in the thick Mississippi embayment sediment, *Seismological Research Letters*, v. 86, p. 515.
- (90) Woolery, E. and \*A. Almayahi (2014). Recently discovered northeast-oriented transpression structure in the northern New Madrid seismic zone, *Seismological Research Letters*, v. 85, n. 2, p. 547.

- (89) \*Bregman, C., \*N.S. Carpenter, E. Woolery, Z. Wang (2014). Validation of the dynamic soil profile at the Central United States Seismic Observatory, New Madrid seismic zone, *Seismological Research Letters*, v. 85, n. 2, p. 461.
- (88) \*Carpenter, N.S., Z. Wang, E. Woolery (2014). Increasing seismic monitoring in the south-central Appalachians by the Kentucky Seismic and Strong Motion Network, *Geological Society of America Southeastern Section – 63<sup>rd</sup> Annual Meeting*, April 10-11, 2014, Blacksburg, VA.
- (87) Woolery, E. and \*A. Almayahi (2013). Northeast-oriented transpression structure and potential accommodation implications: Northern New Madrid seismic zone, USA, *Abstract S11A-2309*, 2013 Fall Meet. AGU, San Francisco, CA, 9–13 Dec.
- (86) Woolery, E. and \*A. Almayahi (2013). Near-surface SH-wave reflection and birefringence applications for fault assessment in unlithified sediment, central United States, *Seismological Research Letters*, v. 84, n. 2, p. 381.
- (85) Woolery, E., R. Van Arsdale, \*D. Pryne, R. Csontos (2013). Toward a geologic boundary characterization of the recently discovered Charleston uplift —New Madrid seismic zone, central United States, *Seismological Research Letters*, v. 84, n. 2, p. 376.
- (84) Woolery, E. (2012). Linear Ground-Motions in the Wabash Valley, Central United States: Two Decades of Unconventional Observations: *Abstract S51E-2457*, 2012 Fall Meet. AGU, San Francisco, CA, 3–7 Dec.
- (83) Chiu, S., J. Chiu, C. Langston, M. Withers, Z. Wang, E. Woolery (2012). Imaging of Shallow Crustal Structure in the Upper Mississippi Embayment Using Microearthquake Waveforms: *Abstract S51E-2466*, 2012 Fall Meet. AGU, San Francisco, CA, 3–7 Dec.
- (82) \*Pryne, D., R. Van Arsdale, E. Woolery (2012). The Charleston Uplift of Southeastern Missouri: *Geological Society of America 2012 Annual Meeting*, Abstracts with Program, Charlotte, N.C., 4–7 Nov.
- (81) \*Carpenter, N.S., Z. Wang, E. Woolery (2012). The Kentucky Seismic and Strong Motion Network: Upgrades and Expansion, *Seismological Research Letters*, v. 83, n. 2, p. 406.
- (80) Wang, Z., E. Woolery, L. Wang (2012). Seismic Hazard Assessment and Mitigation Policy for Tianshui, Gansu Province, China, *Seismological Research Letters*, v. 83, n. 2, p. 406.
- (79) Wang, Z. and E. Woolery (2011). Central United States Seismic Observatory – Some Preliminary Results, *83<sup>rd</sup> Annual Meeting of the Eastern Section of the Seismological Soc of America*, Little Rock, AR.
- (78) \*Almayahi, A., E. Woolery, S. Hampson (2011). SH-Wave Imaging of Potential Near-Surface Geologic Controls on Contaminant Plume Migration – Fluorspar Fault Complex, Western Kentucky, USA: *Eos Transactions AGU*, Fall Meet. Suppl., Abstract NS42A-05.
- (77) Woolery, E., \*\*Y. Lu, L. Wang, Z. Wang, S. Yucheng (2011). Fault Hazard Assessment in Urban Areas – Gansu Province, Northwestern China, *Seismological Research Letters*, v. 82, n. 2, p. 300.
- (76) Chiu, J., C. Obikili, E. Woolery Z. Wang (2011). High-Resolution Vp and Vs Structure of the Post-Paleozoic Sediments in Western Kentucky and Northwestern Tennessee of Upper Mississippi Embayment, Central USA, *Seismological Research Letters*, v. 82, n. 2, p. 322.
- (75) Chiu, S., J. Chiu, C. Langston, Z. Wang, E. Woolery (2011). Two-Dimensional Velocity Structure in the Upper Mississippi Embayment using Passive Seismic Waveforms, *Seismological Research Letters*, v. 82, n. 2, p. 322.

- (74) Van Arsdale, R., K. Stevens, R. Cox, \*T. Deen, M. Velasco, E. Woolery, J. Harris (2011). Living on the Edge – Memphis, *Seismological Research Letters*, v. 82, n. 2, p. 302.
- (73) \*Butler, D., Z. Wang, E. Woolery, L. Wang, Z. Yuan (2011). Scenario-Based Seismic Hazard Assessment of Tianshui, Gansu Province, China, , *Seismological Research Letters*, v. 82, n. 2, p. 300.
- (72) \*Paschall, A., E. Woolery, R. Street (2011). Comparing the Observed and Predicted Linear Site Effect from the April 2008 Mount Carmel IL M5.2 Earthquake, Central United States, *Seismological Research Letters*, v. 82, n. 2, p. 298.
- (71) \*Gowda, S., E. Woolery, Z. Wang, J. McIntyre (2011). Comparing Predicted and Observed Peak Ground Acceleration at Two Vertical Strong-Motion Arrays in the Central United States, *Seismological Research Letters*, v. 82, n. 2, p. 322.
- (70) McIntyre, J., Z. Wang, E. Woolery, G. Steiner (2011). Instrumentation and Installation of the Central United States Seismic Observatory (CUSSO), *Seismological Research Letters*, v. 82, n. 2, p. 354.
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#### **Invited Presentations:**

- (KEYNOTE) 8<sup>th</sup> International Conference on Environmental and Engineering Geophysics, June 2018, “Fault-Controlled Contaminant Plume Migration: Inferences from SH-wave Reflection and Electrical Resistivity Experiments,” Hangzhou, P.R. China



- Institute of Crustal Dynamics–China Earthquake Administration, June 2018, “Enigmatic Site Effect: CUSSO–Vertical Borehole Array,” Beijing, P.R. China
- University of Memphis, Dept. of Earth Science Colloquium Series, February 2018, “Seismic-Reflection Experiments and Reelfoot Fault Segmentation,” Memphis, TN
- Environmental and Engineering Geophysical Society UK Student Chapter, September 2017, “Application of SH-Mode Seismic Imaging for Earthen Dams and Foundations”
- Kentucky Geological Survey Seminar Series, January 2017, “Toward Continuity and Accommodation in the New Madrid Seismic Zone?”
- American Institute of Professional Geologists – Kentucky Section, October 2015, Professional Development Conference: Geophysical Techniques and Applications – Non-Invasive Methods for Subsurface Characterization and Interpretation, “Reflection and Refraction Seismology: Concepts Review with Case Histories,” Lexington, KY.
- 5<sup>th</sup> International Conference on Environmental and Engineering Geophysics, June 2012, “SH-Wave Reflection Imaging in Unlithified Sediment–An Environmental and Seismic Hazards Application,” Changsha, P.R. China
- Institute of Crustal Dynamics–China Earthquake Administration, November 2011, “Enigmatic Earthquake Site Effect,” Beijing, P.R. China
- Fujian Earthquake Administration, November 2011, “Nature of the Earthquake Site Effect–An Overview,” Fuzhou, P.R. China
- Hubei Earthquake Bureau and Institute of Earthquake Engineering, “Nature of the Earthquake Site Effect–An Overview,”
- Lanzhou Institute of Seismology, October 2011, “Enigmatic Earthquake Site Effect,” Lanzhou, Gansu Province, P.R. China
- American Red Cross Bluegrass Chapter, June 2011, “Earthquakes and Earthquake Hazards in the Central United States,” Lexington, KY
- Kentucky Paleontology Society, September 2010, “Earthquakes–The Contemporary, Historical, and Paleoseismology of Kentucky and the Central United States,” Lexington, KY
- Institute of Crustal Dynamics–China Earthquake Administration, June 2010, “Assessing the Earthquake Site Effect,” Beijing, P.R. China
- Lanzhou Institute of Seismology, June 2010, “Assessing the Earthquake Site Effect,” Lanzhou, Gansu Province, P.R. China
- Lanzhou Institute of Seismology, July 2009, “Earthquake Site Effects: Examples from the Central U.S.,” Lanzhou, Gansu Province, P.R. China
- U.S. Geological Survey–Central and Eastern Region, October 2008, “CEUS Seismic Hazards: An Investigators 15+ Years of Geological, Geophysical, and Geotechnical Experiments and Applications,” Memphis, TN
- Kentucky Cabinet of Health Services, July 2008, “Seismic Hazards,” Frankfort, KY
- Kentucky Research Consortium for Energy and Environment, October 2007, “Neotectonics and Historical Seismicity in Western Kentucky,” Lexington, KY
- University of Memphis, May 2007, “Central United States Seismic Observatory and Calibration Site,” Memphis, TN
- University of Memphis, November 2006, “Shear Reflections and Fault Assessments: Examples from Northern Mississippi Embayment,” Memphis, TN
- Lanzhou Institute of Seismology, June 2005, “Quaternary Fault Assessments in the Central United States–Applications for High-Resolution SH-Wave Reflection Imaging,” Lanzhou, Gansu Province, P.R. China
- Northern Kentucky University, April 2005, “Geophysical Applications to Neotectonics,” Highland Heights, KY
- Kentucky Geological Survey, April 2005, “Shear Reflections: A Decade+ of High-Resolution Imaging,” Lexington, KY
- Institute of Crustal Dynamics: China Earthquake Administration, June 2004, “Neotectonics in the Central United States,” Beijing, P.R. China
- International Conference on Environmental and Engineering Geophysics, June 2004, “SH-Wave Seismic Reflection Imaging – Applications to High-Capacity Foundation Engineering,” Wuhan, P.R. China

- Case Western Reserve University, International Workshop on Stability of Tailings Dams, November 2003, "Seismicity in the Southern Appalachians," Cleveland, OH
- Central United States Earthquake Consortium, Tri-State Quaternary Mapping Conference, November 2003, "P- and S-Wave Data Acquisition: Land Surveys," Evansville, IN
- Eastern Kentucky University, Department of Earth Sciences, October 2003, "Anomalous Stress in Unlithified Sediment of the Northern Mississippi Embayment: Geotechnical and Geophysical Indicators for a Tectonic Origin," Richmond, KY
- Central United States Earthquake Consortium, June 2003, "The Origin and Significance of the Earthquake Site Effect," Nashville, TN
- Marshall University, 2003 Transportation Geohazards Symposium, July 2003, "SH-Wave Reflections in Karst Terrain: Mississinewa Dam, Indiana," Lexington, KY
- Kentucky Geological Survey-NEHRP Seismic Hazard and Design Map Workshop, November 2002, "Western Kentucky Seismicity and Neotectonics: Integrated Geophysical and Geological Solutions," Lexington, KY
- University of Cincinnati, Department of Geology, September 2002, "A Tectonic Origin for Anomalous In-Situ Stress in Near-Surface Sediment: Evidence from High-Resolution Seismic Reflection Images along the Lower Ohio River," Cincinnati, OH
- College of Charleston, Department of Geology, March 2001, "NEHRP Soil Classifications for Estimating Site-Dependent Seismic Coefficients in the Central Mississippi River Valley," Charleston, SC

#### **Invited Short Course Instructor:**

- Lanzhou Institute of Seismology, China Earthquake Administration, June-July 2006, "Near-Surface Reflection Seismology with Field Applications," Lanzhou, Gansu Province, P.R. China
- ASBOG Exam Workshop, "Geophysics," April 2000, Kentucky Geological Survey, Lexington, KY
- ASBOG Exam Workshop, "Geophysics," April 1999, Kentucky Geological Survey, Lexington, KY

#### **Other Training:**

- Certificate – University of Kentucky Provost Chairs Academy II, Lexington, KY – 01-04/20
- Certificate – University of Kentucky Provost Chairs Academy I, Lexington, KY – 09-12/19
- Certificate – Wilderness First Aid (Emergency Care and Safety Institute), Lexington, KY – 03/19
- Certificate – CPR/AED, American Red Cross, University of Kentucky, Lexington, KY – 04/19
- Certificate – Introduction to Geographic Information Systems (ARCVIEW) ESRI: Lexington, KY – 12/98 (16 hrs.)
- Certificate – Seismic Safety of Embankment Dams (II)  
U.S. Army Corps of Engineers WES: Vicksburg, MS – 06/98 (40 hrs.)
- Certificate – Seismic Safety of Embankment Dams: Groundmotion Design, Liquefaction, and Deformation  
U.S. Army Corps of Engineers WES: Vicksburg, MS – 05/97 (40 hrs.)
- Certificate – U.S. Army Ordnance and Explosives Workshop  
U.S. Army Corps of Engineers Ordnance and Explosives Center of Expertise and Design: Reno, NV – 06/97 (40 hrs.)
- Certificate – Geophysics for Environmental and Groundwater Applications  
National Water Well Association: San Francisco, CA – 06/90 (24 hrs.)
- Certificate – Risk Assessment for Superfund; Hazardous Toxic Waste Training Program  
U.S. Army Corps of Engineers/Environmental Protection Agency: Huntsville, AL – 10/89 (40 hrs.)
- Certificate – Soil and Geology Inspection with Sampling Techniques  
U.S. Army Corps of Engineers South Atlantic Laboratory: Marietta, GA – 12/85 (40 hrs.)