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PROFESSIONAL PREPARATION

Ph.D.	The University of Iowa	Environmental Engineering, December 2003
M.S.	State University of New York at Buffalo	Environmental Engineering, September 1999
B.S.	State University of New York at Buffalo	Civil Engineering, September 1996
A.S.	Monroe Community College	Engineering Science, May 1989
A.S.	Monroe Community College	Liberal Arts, General Studies, May 1988

PROFESSIONAL EXPERIENCE

July 2006 to Present	Assistant Professor, Department of Civil Engineering
July 2007 to May 2010	Faculty-in-Residence, Engineering Residential College, University Housing and College of Engineering
January 2005 to July 2006	Adjunctive Professor, Department of Civil Engineering
July 2004 to July 2006	Associate Engineer, Idaho Department of Environmental Quality
August 2002 to July 2004	Plant Engineer, Hydroblend, Inc., Nampa, Idaho
June 2001 to August 2001	Visiting Scientist, International Institute for Applied Systems Analysis, Laxenburg, Austria, Young Scientist Summer Program, Transboundary Air Pollution
July 1998 to August 2002	Research and Teaching Assistant, The University of Iowa, Department of Civil and Environmental Engineering
August 1995 to July 1998	Research and Teaching Assistant, State University of New York at Buffalo, Department of Civil, Structural, and Environmental Engineering
April 1990 to August 1995	Structural Designer, The Sear-Brown Group, Rochester, New York

AWARDS AND HONORS

2012 Boise State University, Foundation Scholar Award in Service
This award honors faculty members who have demonstrated ongoing commitment, expertise, and accomplishment in service at Boise State University.

2012 Boise State University, Center for Teaching and Learning, Travel Award

2010 Boise State University, Provost's Excellence in Advising Award
Award recipients selected based on evidence of effective advising qualities, distinguishing advising practices, and those who have made a significant contribution to advising at Boise State University.

2009 Boise State University, Women's Center, Women Making History
This award honors extraordinary Idaho women leading extraordinary lives by recognizing their work, challenges, and successes making a difference in the community every day.

2008 Boise State University, Division of Student Affairs, Faculty Partner Award, Nominee
This award recognizes outstanding faculty members at Boise State University who serve

as positive role models, showing their commitment to the shared values of academic excellence, caring, citizenship, fairness, respect, responsibility, and trustworthiness while providing support and service to students beyond classroom teaching or research responsibilities.

- 2007 Boise State University, Center for Teaching and Learning, Travel Award
- 2002 The University of Iowa, Department of Civil and Environmental Engineering Fellowship
- 2001 Midwest Environmental Chemistry Workshop, Outstanding Poster Presentation
- 2001 American Association of University Women, Selected Professions Engineering Dissertation Fellowship, Mabelle H. McCullough American Scholar
This fellowship supports women scholars completing doctoral dissertations, conducting postdoctoral research, or finishing research for publication. Recipients are United States citizens or permanent residents.
- 2000 International Association of Great Lakes Research, C.S. Mott Scholarship
This scholarship is awarded annually to promising Ph.D. students whose dissertation research is likely to make a significant contribution to the understanding of large lakes.
- 2000 International Association of Great Lakes Research, Travel Award
- 2000 The University of Iowa, Women in Science and Engineering, Travel Award
- 2000 The University of Iowa, Department of Civil and Environmental Engineering Fellowship
- 2000 The University of Iowa, Center for Global and Environmental Research, Field Research Travel Grant
- 1999 The University of Iowa, Department of Civil and Environmental Engineering Neil B. Fisher Fellowship
- 1999 The University of Iowa, Department of Civil and Environmental Engineering Fellowship
- 1986 Edison Technical and Occupational Education Center, Senior of the Year
- 1986 Daughters of the American Revolution, Good Citizen
This award is given to outstanding high school seniors for their contributions to their communities and schools.
- 1984 Girl Scouts of America, Gold Award
This is the highest award in Girl Scouts earned by girls ages 14 to 18, recognizing the leadership efforts and impact girls have on their communities.

SCIENTIFIC AND PROFESSIONAL ACTIVITIES

- National Effective Teaching Institute II (NETI II), American Society for Engineering Education (October 2012, Scheduled)
- Process Oriented Guided Inquiry Learning (POGIL) Northwest Regional Workshop (July 2012)
- Excellence in Civil Engineering Education II (ExCEEed II), American Society of Civil Engineers (June 2012)
- Member, Association of Environmental Engineering and Science Professors (2009 to Present)
- Member, American Chemical Society (2008 to Present)
- Member, American Society for Engineering Education (2008 to Present)
- National Effective Teaching Institute I (NETI I), American Society for Engineering Education (July 2008)
- Member, Air and Waste Management Association, Pacific Northwest International Section (2008 to Present)
- Excellence in Civil Engineering Education I (ExCEEed I), American Society of Civil Engineers (July 2007)

Symposium Chair, American Association for the Advancement of Science, Pacific Division
(June 2007)

Associate Member, American Society of Civil Engineers, Southern Idaho Section
(2006 to Present)

Professional Engineer, State of Idaho Registration No. 12509 (2006 to Present)

Member, National Civil Engineering Honor Society, Chi Epsilon (1995 to Present)

GRADUATE AND UNDERGRADUATE STUDENTS

Tawna M. Groom (B.S. Civil Engineering, Research Advisor, 2012 to Present)

Trevor T. Anderson (B.S. Civil Engineering, Research Advisor, 2012 to Present)

Neil K. Miyaoka (B.S. Civil Engineering, Internship Advisor, 2012)

Jason E. Thomas (B.S. Civil Engineering, Internship Advisor, 2012)

Douglas R. Davidson (M.S. Hydrologic Sciences, Comprehensive Committee, 2012)

James P. Anderson (B.S. Civil Engineering, Internship Advisor, 2012)

Raymond D. McEwan II (B.S. Civil Engineering, Internship Advisor, 2012)

William A. Johnson, IV (B.S. Civil Engineering, Research Advisor, 2011 to 2012)

Tye Tingey (M.Eng. Civil Engineering, Comprehensive Committee, 2011 to 2012)

Dan Kluck (M.Eng. Civil Engineering, Comprehensive Committee, 2011)

Josh Laramie (M.Eng. Civil Engineering, Comprehensive Committee, 2011)

Neil Fox (M.Eng. Civil Engineering, Comprehensive Committee, 2011)

Muluken Muche (M.Eng. Civil Engineering, Comprehensive Committee, 2011)

Benjamin F. Seely (M.S. Civil Engineering, Thesis Committee Chair, 2009 to 2011)

Jeremy A. Dyer (B.S. Civil Engineering, Internship Advisor, 2011)

Marcus P. Rasulo (B.S. Civil Engineering, Internship Advisor, 2011)

Boise State University, NASA Microgravity University Team (Faculty Advisor, 2010 to 2011)

Boise State University, Department of Construction Management, Associated Schools of
Construction Competition, LEED Team (Faculty Advisor, 2010 to 2011)

Harlan Sangrey (M.S. Civil Engineering, Thesis Committee, 2010 to 2011)

Larry L. Waters (M.Eng. Civil Engineering, Comprehensive Committee, 2010 to 2011)

Tressa Nicholas (M.S. Civil Engineering, Thesis Committee, 2010)

Michael Pook (M.S. Electrical and Computer Engineering, Thesis Committee, 2010 to 2011)

Sumathy Sinnathamby (M.Eng. Civil Engineering, Comprehensive Committee, 2008 to 2010)

Eric E. Clark (M.S. Civil Engineering, Thesis Committee Chair, 2006 to 2010)

Michael Owen (M.S. Electrical and Computer Engineering, Thesis Committee, 2007)

Jesse D. Dillon (B.S. Construction Management, Research Advisor, 2007 to 2009)

Laura J. McNinch (B.S. Civil Engineering, Research Advisor, 2007 to 2010)

Ashley L. Zumwalt (B.S. Civil Engineering, Research Advisor, 2007 to 2009)

Stephanie Carroll (M.Eng. Civil Engineering, Comprehensive Committee, 2006)

COURSES TAUGHT OR CO-TAUGHT

CE 120	Introduction to Civil Engineering (Undergraduate)	Taught: FA06, SP07, FA07
CE 280	Civil Engineering Case Studies (Undergraduate)	Taught: SP07
CE 320	Principles of Environmental Engineering (Undergraduate)	Taught: FA12 (Scheduled)

CE 321	Principles of Environmental Engineering Laboratory (Undergraduate)	Taught: FA12 (Scheduled)
CE 341	Civil Engineering Construction Materials Laboratory (Undergraduate)	Taught: SP09
CE 420/520	Environmental Chemistry (Undergraduate/Graduate)	Taught: SP10
CE 423/523	Air Pollution Control Engineering (Undergraduate/Graduate)	Taught: SP05, SP11
CE 425/525	Wastewater Treatment Plant Systems and Design (Undergraduate/Graduate)	Taught: FA09, FA11
CE 483	Senior Design Project II (Undergraduate)	Co-Taught: SP09, SP10, SP11, SP12
CE 485	Review of Civil Engineering (Undergraduate)	Co-Taught: FA08, SP09, FA09, SP10, FA10, SP11, FA11, SP12, FA12 (Scheduled)
CE 633	Contaminant Hydrogeology (Graduate)	Taught: SP06, SP08, FA11
ENGR 150/250	Engineering Residential College Seminar (Undergraduate)	Taught: SP08, FA08, SP09, FA09, SP10
ENGR 210	Engineering Statics (Undergraduate)	Taught: SP05, FA07, SP09, SP11

CURRENT RESEARCH PROJECTS

Successful Adoption of Innovation in Engineering Education: Faculty Characteristics and Environmental Perceptions. This research project investigates the characteristics of faculty members who successfully adopt engineering education innovations and studies the impact of their working environment on their decision to adopt. Additionally, the project investigates characteristics of faculty members who do not adopt engineering education innovations and whether that decision was affected by perceptions of their working environment. Principal Investigator: Davis, K.A. Co-Investigator: Miller, S.M. Co-Investigator: Perkins, R. National Science Foundation (NSF) Division of Engineering Education and Centers (EEC), Program Manager: Cheville, A.: January 2011 to December 2012, \$144,002.

Idaho Scholarships for Transfer Students. This project provides scholarships in civil engineering, electrical and computer engineering, materials science and engineering, mechanical and biomedical engineering, computer science, and mathematics. The main goals of this project are to decrease the time to graduate and increase the retention of the transfer student cohort. Scholarships ranging from \$2,000 to \$10,000 will be awarded annually over the five-year grant period. Principal Investigator: Callahan, J. Co-Investigator: Bullock, D. Co-Investigator: Moll, A. Co-Investigator: Jain, A. Co-Investigator: Miller, S. National Science Foundation (NSF) Division of Undergraduate Education (DUE), Program Manager: Everett, L.J.: July 2011 to June 2016, \$600,000.

PAST RESEARCH PROJECTS

***In Situ* Aerosol Dispersion Monitoring with Reliable Wireless Sensor Networks.** A research project utilizing reliable wireless sensor networks to measure particulate matter (PM) size, abundance, and chemical characteristics that will then be used to calibrate remote sensed data from the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (*CALIPSO*). Principal Investigator: Miller, S.M. Co-Investigator: Medidi, S. National Aeronautics and Space Administration (NASA) Idaho Space Grant Consortium (ISGC): June 2009 to March 2010, \$50,000.

Particulate Matter Response Surface Model (PM RSM) Development for Aviation Activities Evaluation. A collaborative research project of the Partnership for Air Transportation Noise and Emissions Reduction (PARTNER) Center of Excellence (CoE) relating changes in aviation emissions to changes in local air quality. (Program Manager: Mohan L. Gupta, Ph.D.), Principal Investigator: Arunachalam, S. (University of North Carolina at Chapel Hill). Co-Investigators: Miller, S.M. (Boise State University), Waitz, I. A (Massachusetts Institute of Technology). Federal Aviation Administration (FAA): January 2007 to September 2010, \$45,000.

Water Reuse System Long-term Water Quality Monitoring. A research project to establish a baseline data set to evaluate the suitability of reclaimed water for public use in other high density building applications. Principal Investigator: Miller, S.M. Boise State University, Office of Sponsored Projects: July 2007 to June 2009, \$5,000.

Models, Models Everywhere: An Initiative to Educate the Next Generation of Environmental Modelers. A research project utilizing HP Tablet PCs and modeling software to create experiential learning modules which effectively engage students in environmental modeling. (Program Manager: Jim Vanides, M.Ed.), Principal Investigator: Miller, S.M. Co-Investigator: Murgel, G.A. Hewlett-Packard (HP) Corporate Philanthropy: June 2007 to December 2008, \$68,000.

PEER-REVIEWED PUBLICATIONS

1. **Miller, S.M.**, Davis, K.A., Perkins, R. (2012) "Bridging the Valley of Death: A Preliminary Look at Faculty Views on Adoption of Innovations in Engineering Education", *2012 Conference and Exposition*, American Society for Engineering Education.
2. Davis, K.A., **Miller, S.M.**, Perkins, R. (2011) "Bridging the Valley of Death: A 360° Approach to Understanding Adoption of Innovations in Engineering Education", *2011 Conference and Exposition*, American Society for Engineering Education.
3. Brunelle-Yeung, E., Masek, T., Rojo, J.J., Levy, J.I., Arunachalam, S., **Miller, S.M.**, Waitz, I.A. "Methods for Assessing the Impact of Aviation Environmental Policies on Public Health", *Transport Policy – Special Issue*, Accepted for Publication in 2012.
4. **Miller, S.M.**, Hornbuckle, K.C. (2010) "Spatial and Temporal Variations in Persistent Organic Pollutants Impacted by Episodic Sediment Resuspension in Southern Lake Michigan", *Journal of Great Lakes Research*, 36(2): 256-266.
 - a. Times Cited: 1

5. **Miller, S.**, Pyke, P., Moll, A., Wintrow, M., Schrader, C., Callahan, J. (2009) “Successes of an Engineering Residential College Program within an Emerging Residential Culture”, In *Proceedings of 2009 Conference and Exposition*, American Society for Engineering Education.
6. **Miller, S.M.**, Clark, E.E. (2009) “Aviation Emissions Impact on Air Quality in the Western United States”, In *Proceedings of 102nd Annual Conference and Exhibition*, Air and Waste Management Association.
7. **Miller, S.M.**, Zumwalt, AL, Dillon, J.D., McNinch, L.J. (2009) “Long Term Water Quality in a Commercial Office Building's Water Reuse System”, In *Proceedings of 102nd Annual Conference and Exhibition*, Air and Waste Management Association.
8. Hornbuckle, K.C., Smith, G.L., **Miller, S.M.**, Eadie, B.J., Lansing, M.B. (2004) “Magnitude and Origin of Polychlorinated Biphenyl (PCB) and Dichlorodiphenyltrichloroethane (DDT) Compounds Resuspended in Southern Lake Michigan”, *Journal of Geophysical Research - Oceans*, 109, C05017, doi:10.1029/2003JC001917.
 - a. Times Cited: 3
9. **Miller, S.M.**, Green, M.L., DePinto, J.V., Hornbuckle, K.C. (2001) “Results from the Lake Michigan Mass Balance Study: Concentrations and Fluxes of Atmospheric Polychlorinated Biphenyls and *trans*-Nonachlor”, *Environmental Science and Technology*, 35(2): 278-285.
 - a. Times Cited: 52
10. **Miller, S.M.**, Sweet, C.W., DePinto, J.V., Hornbuckle, K.C. (2000) “Atrazine and Nutrients in Precipitation: Results from the Lake Michigan Mass Balance Study”, *Environmental Science and Technology*, 34(1): 55-61.
 - a. Times Cited: 37

PEER-REVIEWED PUBLICATIONS – UNDER REVIEW OR IN PREPARATION

1. **Miller, S.M.**, Seely, B.F., Murgel, G.A., Stephenson, D., “Laser Particulate Counter Calibration to a Micro-Orifice Uniform-Deposition Impactor”, *Aerosol Science and Technology*, In Preparation.
2. **Miller, S.M.**, Hornbuckle, K.C. “Evaluation of Polychlorinated Biphenyl Sources in Southern Lake Michigan”, *Chemosphere*, In Preparation.

PRESENTATIONS

1. 2012 Conference and Exposition of the American Society for Engineering Education, June 2012, San Antonio, Texas. Presentation Title: “Bridging the Valley of Death: A Preliminary Look at Faculty Views on Adoption of Innovations in Engineering Education”
2. 2011 Conference and Exposition of the American Society for Engineering Education, June 2011, Vancouver, British Columbia, Canada. Presentation Title: “Bridging the Valley of Death: A 360° Approach to Understanding Adoption of Innovations in Engineering Education”
3. Idaho Society of Professional Engineers, Southwest Chapter, May 2011, Boise, Idaho. Presentation Title: “The Answer My Friends – Is It Really Blowing in the Wind?”
4. NSF Engineering Education Awardees Conference, March 2011, Arlington, Virginia; Presentation Title: “Identifying Characteristics of Successful Engineering Education Innovation Adopters”

5. 2009 Conference and Exposition of the American Society for Engineering Education, June 2009, Austin, Texas. Presentation Title: "Successes of an Engineering Residential College Program within an Emerging Residential Culture"
6. 102nd Annual Conference and Exhibition of the Air and Waste Management Association, June 2009, Detroit, Michigan. Presentation Title: "Aviation Emissions Impact on Air Quality in the Western United States"
7. 102nd Annual Conference and Exhibition of the Air and Waste Management Association, June 2009, Detroit, Michigan. Poster Title: "Long Term Water Quality in a Commercial Office Building's Water Reuse System"
8. Invited Presentation, Department of Chemistry and Biochemistry, Boise State University, March 2009, Boise, Idaho. Presentation Title: "Spatial and Temporal Variations in Persistent Organic Pollutants Impacted by Episodic Sediment Resuspension"
9. Living-Learning Programs Conference, Association of College and University Housing Officials-International, October 2008, Dallas, Texas. Presentation Title: "Our Freshman Year: Faculty and Residence Life Cognitions, Ruminations, and Angst About Living on Campus"
10. Air Toxics Summit, U.S. Environmental Protection Agency, Region 10, August 2008, Boise, Idaho. Poster Title: "Aviation Emissions Impact on Air Quality in the Western United States"
11. Advisory Board Meeting, Center for Environmental Sensing, Boise State University, August 2007, Boise, Idaho. Poster Title: "Aviation Emissions Impacts on Local Air Quality"
12. Invited Presentation, Department of Civil and Environmental Engineering, Washington State University, October 2006, Pullman, Washington. Presentation Title: "The Effects of Large-Scale Episodic Sediment Resuspension on Persistent Organic Pollutants in Southern Lake Michigan"
13. 46th Annual Meeting of the International Association of Great Lakes Research (IAGLR), June 2003, Chicago, Illinois. Presentation Title: "Persistent Organic Pollutants and Large-scale Episodic Sediment Resuspension in Southern Lake Michigan: Concentrations, Trends, and Signatures"
14. 45th Annual Meeting of the International Association of Great Lakes Research (IAGLR), June 2002, Winnipeg, Manitoba, Canada. Presentation Title: "Results of a 3- Year Field Study of Sediment Resuspension in Southern Lake Michigan: Effects of the Cycling of Persistent Organic Pollutants"
15. 24th Annual Midwest Environmental Chemistry Workshop, October 2001, Minneapolis, Minnesota. Poster Title: "Spatial and Temporal Variations of Persistent Organic Pollutants in Air and Water during Episodic Events-Great Lakes Experiment (EEGLE)" - *Outstanding* Poster Presentation Award.
16. 44th Annual Meeting of the International Association of Great Lakes Research (IAGLR), May 2001, Green Bay, Wisconsin. Presentation Title: "The Effects of Large-scale Episodic Sediment Resuspension on Persistent Organic Pollutants in Lake Michigan"
17. All-Hands Meeting of Episodic Events-Great Lakes Experiment (EEGLE), November 2000, Chicago, Illinois. Poster Title: "The Effects of Large-scale Episodic Sediment Resuspension on Persistent Organic Pollutants"
18. All-Hands Meeting of the Lake Michigan Mass Balance (LMMB), September 2000, Detroit, Michigan. Presentation Title: "Atrazine and Nutrients in Precipitation: Results for the Lake Michigan Mass Balance Study"

19. 43rd Annual Meeting of the International Association of Great Lakes Research (IAGLR), May 2000, Cornwall, Ontario, Canada. Presentation Title: "Large-scale Monitoring Efforts in Lake Michigan: EEGLE in the LMMBalance"
20. 42nd Annual Meeting of the International Association of Great Lakes Research (IAGLR), May 1999, Cleveland, Ohio. Presentation Title: "Error Propagation for PCB, *trans*-Nonachlor, Atrazine, and Nutrient Fluxes to Lake Michigan"
21. 21st Annual Midwest Environmental Chemistry Workshop, October 1998, Ann Arbor, Michigan. Presentation Title: "Lessons from the Lake Michigan Mass Balance for Persistent Organic Pollutants in Atmospheric Media"
22. 41st Annual Meeting of the International Association of Great Lakes Research (IAGLR), May 1998, Hamilton, Ontario, Canada. Presentation Title: "Spatial Interpolation of Gas-Phase Fluxes Across Lake Michigan"
23. 20th Annual Midwest Environmental Chemistry Workshop, October 1997, Bloomington, Indiana. Presentation Title: "The Influence of Sampling Site Location on Air-Water Exchange of Semi- Volatile Organic Compounds"
24. 40th Annual Meeting of the International Association of Great Lakes Research (IAGLR), May 1997, Buffalo, New York. Presentation Title: "Atmospheric Exchange ofSOCs with Lake Michigan"
25. Great Lakes Research Consortium (GLRC), February 1997, Syracuse, New York.