

# Laurie O. Cavey

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## Academic Degrees

North Carolina State University, Raleigh, NC

- 2002 Ph. D., Mathematics Education
- 1992 M. S., Mathematics
- 1990 B. S., Mathematics

## Professional Experience

Boise State University, Boise, ID

- 2009-present Assistant Professor, Mathematics Education

James Madison University, Harrisonburg, VA

- 2008-2009 Associate Professor, Mathematics Education
- 2006-2009 Director, Content Teaching Academy
- 2002-2008 Assistant Professor, Mathematics Education

North Carolina State University, Raleigh, NC

- 1999-2002 Research Assistant, Center for Research in Mathematics and Science Education
- 1992-1994 Visiting Faculty, Department of Mathematics
- 1990-1992 Teaching Assistant, Department of Mathematics

Martin Middle School, Raleigh, NC

- 1999 Mathematics Instructor Internship

Meredith College, Raleigh, NC

- 1998 Visiting Faculty, Department of Mathematics and Computer Science

North Carolina School of Science and Mathematics, Durham, NC

- 1994-1998 Mathematics Instructor, Department of Mathematics and Computer Science

## Professional Organizations

Association of Mathematics Teacher Educators

Idaho Council of Teachers of Mathematics

Mathematical Association of America

National Council of Teachers of Mathematics

Research on Undergraduate Mathematics Education

## Scholarship

### Publications

Whitenack, J.W., Cavey, L. O., Ellington, A.J. (in review). *Argumentation and the Role of Proof Making in the Preparation of K-5 Mathematics Specialists*. Revised paper submitted to the Journal for Research in Mathematics Education on August 9, 2011.

Kinzel, M., Cavey, L. O., Walen, S., Rohrig, K. (2011). How do mathematicians make sense of definitions? *Proceedings of the Special Interest Group of the Mathematical Association of American on Research in Undergraduate Mathematics Education*. Portland, OR.

Cavey, L. O. & Mahavier, W. T. (2010). Learning from, and responding to, algebra students' questions. *The Mathematics Teacher*, 104(2), pp. 133-137.

Whitenack, J.W., Cavey, L. O., Ellington, A.J. (2009) The instructor's important role in supporting mathematical arguments in a K-5 mathematics specialist program. *Proceedings of the Special Interest Group of the Mathematical Association of American on Research in Undergraduate Mathematics Education*. Raleigh, NC.

Cavey, L. O., Mahavier, W. T., Parker, G. E., & White, A. (2007). MathNerds and Mathematical Knowledge for Teaching. The Constructivist. *The Association for Constructivist Teaching*. Vol. 18 (1) (See <http://www.odu.edu/educ/act/journal/vol18no1/index.html>).

Cavey, L. O., Whitenack, J. W., Lovin, L. A. (2006). Investigating teachers' mathematics teaching understanding: A case for coordinating perspectives. *Educational Studies in Mathematicss*, 64, 19-43.

Cavey, L. O., Whitenack, J. W. (2005) Using a Mathematical Lens to Investigate A Prospective Middle School Teacher's Understanding of Slope. *Proceedings of the twenty-seventh annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Roanoke, VA, October 2005.

Lovin, L. A., Kidd, J. B., & Cavey, L. O. (2005). Proof in mathematics: How can you be sure and what difference does it make for teachers? *Connections*, Summer.

Cavey, L. O., Berenson, S. B. (2005). Learning to teach high school mathematics: Patterns of growth in understanding right triangle trigonometry during lesson plan study. *Journal of Mathematical Behavior*, 24, 171-190.

Lovin, L. A., Cavey, L. O., Whitenack, J. W. (2004) *Evidence and justification: Prospective K-8 teachers' proof-making and proof-evaluating*. *Proceedings of the 26<sup>th</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*. Toronto, Canada.

Whitenack, J. W., Lovin, L. A., Cavey, L. O. (2004). A case for proof making for middle-grades prospective teachers. *Journal of Mathematics and Science*, 7, 29-36.

Clark, M. R., Berenson, S. B., Cavey, L. O. (2003). A comparison of ratios and fractions and their roles as tools in proportional reasoning. *Journal of Mathematical Behavior*, 22(3), 297-317.

Cavey, L. O. (2002). Prospective teachers' growth in understanding school mathematics during lesson plan study: A theoretical perspective. *Proceedings of the 24<sup>th</sup> annual meeting of the North American chapter of the international group for the psychology of mathematics education*, Athens, GA.

Cavey, L. O., & Barnes, T. M. (2001). Mathematics teachers on track with technology. *Proceedings of the Society for Information Technology & Teacher Education*, Orlando, FL.

Cavey, L. O., Berenson, S. B., Clark, M. R., & Staley, K. N. (2001). Enhancing prospective teachers' understanding of what and how to teach through small-group collaboration. *Proceedings of the 23<sup>rd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Snowbird, UT.

Berenson, S. B., Cavey, L., Clark, M., & Staley, K. N. (2001). Adapting Pirie and Kieren's model of mathematical understanding to teacher preparation. *Proceedings of the 25<sup>th</sup> conference for the Psychology of Mathematics Education*, Utrecht, Netherlands.

Cavey, L. O. (2000). Teaching tasks as tools for assessment and tools for change. *Proceedings of the 22<sup>nd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Tucson, AZ.

Berenson, S. B., & Cavey, L. O. (2000). Thought and action in context: An emerging perspective of teacher education. *Proceedings of the 22<sup>nd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*, Tucson, AZ.

Berenson, S. B., Droujkova, M. A., Cavey, L. O., Smith, N. H., Barnes, T. M. (2000). Girls on track with information technology. *Meridian: A Middle School Computer Technologies Journal*, 3(1). North Carolina State University, Raleigh, NC.

## Presentations

### ***National/International***

Whitenack, J., Cavey, L., Ellington, A. (in review). *Using Argumentation to Explore Ideas Related to Proof Making*. Proposal submitted to the 2012 Annual Meeting of the American Educational Research Association.

Cavey, L., Kinzel, M., & Wang, S. (in review). *Mathematicians and the Role of Examples*. Proposal submitted to the Research Pre-session of the 2012 Annual Meeting of the National Council of Teachers of Mathematics.

Kinzel, M. T. & Cavey, L. O. (2011). *Thinking about definitions: What students say and what students do*. Poster session presented at the Research Pre-session of the 2011 Annual Meeting and Exposition of the National Council of Teachers of Mathematics.

Zawojewski, J., Johanning, Berry, R., Cavey, L. O., Kinzel, M. T., & Thomas, C. D. (2011). Tapping and mining your research for an article for teachers. Panel session given at the Research Pre-session of the 2011 Annual Meeting and Exposition of the National Council of Teachers of Mathematics.

Whitenack, J. W., Cavey, L. O., Ellington, A. J. (2009). *The Instructor's Important Role in Supporting Mathematical Arguments in a K-5 Mathematics Specialist Program*. Paper presented at the 2009 Conference on Research in Undergraduate Mathematics Education.

Cavey, L. O. & Mahavier, W. T. (2008). *Students' questions as a tool for learning to teach*. Presentation given at the annual meeting of the National Council of Teachers of Mathematics. Salt Lake City, UT.

Cavey, L. O. (2008). *Connecting content and process standards via alternative assessments*. Presentation given at the annual meeting for the Association of Mathematics Teacher Educators. Tulsa, Oklahoma.

Whitenack, J. W., Cavey, L. O., & Ellington, A. J. (2008). *Exploring rational numbers with K-5 mathematics specialists: A case for examining the density property*. Presentation given at the annual Joint Mathematics Meetings. San Diego, CA.

Cavey, L. O. (2007). *MathNerds assessment team report*. Presentation given at the tenth annual conference of The Legacy of R.L. Moore. Austin, TX.

Cavey, L. O. & Mahavier, W. T. (2007) *MathNerds and mathematical knowledge for teaching*. Presentation given at the annual meeting for the Association of Mathematics Teacher Educators. Irvine, CA.

Cavey, L. O. & Mahavier, W. T. (2007) *MathNerds, Moore method, and mathematics education: What do they have in common?* Panel session conducted at the annual Joint Mathematics Meetings. New Orleans, LA.

Cavey, L. O. (2006). *MathNerds and the development of mathematical knowledge for teaching*. Presentation given at the annual meeting for the Association of Constructivist Teaching. Chicago, IL.

Cavey, L. O. (2006). *Constructivism and Moore: Searching for connections*. Presentation given at the ninth annual conference of The Legacy of R.L. Moore. Austin, TX.

Harris, T., Cavey, L. O., Pence, H. (2006). *Constructivist conversations: Taking theory and practice to the next level*. Presentation given at the annual meeting for the Association of Constructivist Teaching. Chicago, IL.

Cavey, L. O., Lovin, L. A. (2005). *Mathematical and pedagogical residues of problem-solving tasks in methods courses*. Presentation given at the 9<sup>th</sup> annual conference of the Association of Mathematics Teacher Educators. Dallas, TX.

Cavey, L. O., Whitenack, J. W. (2005) *Using a mathematical lens to investigate a prospective middle school teacher's understanding of slope*. Revised paper presented at the twenty-seventh annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Roanoke, VA.

Whitenack, J. W., Cavey, L. O., & Lovin, L. A. (2003). *Teaching well in K-12 mathematics classrooms: Understanding teachers' mathematical understandings*. (Ruth Heaton, Discussant). Presentation given as a research pre-session at the 81<sup>st</sup> annual meeting of the National Council of Teachers of Mathematics. San Antonio, Texas.

Cavey, L. O., & Barnes, T. M. (2001). *Mathematics teachers on track with technology*. Presentation given at the Society for Information Technology & Teacher Education. Orlando, FL.

Cavey, L. O., Berenson, S. B., Clark, M. R., & Staley, K. N. (2001). *Enhancing prospective teachers' understanding of what and how to teach through small-group collaboration*. Presentation given at the 23<sup>rd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Snowbird, UT.

Cavey, L. O. (2000). *Teaching tasks as tools for assessment and tools for change*. Poster presented at the 22<sup>nd</sup> annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Tucson, AZ.

Berenson, S. B., Cavey, L. O., Clark, M. R. (2000). *Teacher preparation at North Carolina State University*. Presentation given at the Emerald Isle Research Conference on High School Mathematics Teacher Preparation. Emerald Isle, NC.

Berenson, S. B., & Cavey, L. O. (2000). *Thought and action in context: An emerging perspective of teacher education*. Presentation given at the twenty-second annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Tucson, AZ.

Berenson, S. B., Barnes, T. M., Cavey, L. O., Knight, V. E., & Smith, N. H. (2000). *Girls on track: Middle grade girls modeling community problems-A experiment in progress*. Presentation given at the Joint Mathematics Meetings. Washington, D. C.

## **Regional/Local**

Cavey, L. O. (2011). *Introduction to GeoGebra*. Presentation accepted for the annual meeting of the Idaho Council of Teachers of Mathematics. Idaho Falls, Idaho.

Cavey, L. O. (2009). *Developing students' understanding of mathematical definitions: Why bother?* Presentation given at the mathematics graduate student seminar. Boise, Idaho.

Cavey, L. O., Kinzel, M. Walen, S. (2009). *Beyond cross multiplication: Making sense of proportional situations*. Presentation given at the annual meeting of the Idaho Council of Teachers of Mathematics. Boise, Idaho.

Cavey, L. O. (2009). *Proportional reasoning 101*. Presentation given at the 30<sup>th</sup> annual conference of the Virginia Council of Teachers of Mathematics. Virginia Beach, VA.

Cavey, L. O. (2007). *The mathematics of teaching*. Invited colloquium speaker for the Department of Mathematics & Statistics at Texas State University. San Marcos, TX.

Cavey, L. O. (2007). *Real teaching and learning in mathematics and science*. Invited dinner presentation for the PRISM Conference. Harrisonburg, VA.

Cavey, L. O., Woodland, W., & Mahavier, W. T. (2007). *MathNerds mentoring networks*. Presentation given at tenth annual conference of The Legacy of R.L. Moore. Austin, TX.

Cavey, L. O. (2007). *MathNerds and measuring mathematical knowledge for teaching*. Presentation given at the annual meeting of the Virginia Council of Teachers of Mathematics. Virginia Beach, VA.

Cavey, L. O. (2007). *Mathematical inhibitions and reality: Riding the wave of rigor*. Invited 9-16 focus group presentation given at the annual meeting of the Virginia Council of Teachers of Mathematics. Virginia Beach, VA.

Cavey, L. O. (2007). *MathNerds in Virginia*. Presentation given for mathematics faculty at Angelo State University. San Angelo, TX.

Cavey, L. O. (2006). *Tembisa Child Academy*. Presentation given at the November meeting for the Shenandoah Valley Chapter of Phi Delta Kappa. Bridgewater, VA.

Cavey, L. O. (2006). *Mathematics Education: What are the issues?* Presentation given for mathematics faculty members at University of Mary Washington as part of a training workshop for the 2006-07 MSP grant. Fredericksburg, VA.

Cavey, L. O. (2006). *Can we all be average? An introduction to TinkerPlots*. Presentation given at the annual meeting of the Virginia Council of Teachers of Mathematics. Blacksburg, VA.

Cavey, L. O. (2006). *MathNerds and learning how to teach*. Presentation given at the annual meeting of the Virginia Council of Teachers of Mathematics. Blacksburg, VA.

Cavey, L. O. (2003). *Developing proportional reasoning in grades 6-8*. 2003 SOL Content/Teaching Academy. Harrisonburg, VA.

Cavey, L. O. (2003). *Exploring technological tools to teach probability conceptually*. 2003 SOL Content/Teaching Academy. Harrisonburg, VA.

Cavey, L. O., Whitenack, J. W. (2003). *Facilitating students' understanding of rational numbers: Exploring innovative activities in K-8 mathematics*. Presentation given at the annual conference of the Virginia Council of Teachers of Mathematics. Richmond, VA.

Lovin, L. A., Cavey, L. O., Whitenack, J. W. (2003). *Evidence and justification: Prospective K-8 teachers' proof-making and proof-evaluating*. Statewide conference on the preparation of middle school science and mathematics teachers. Harrisonburg, VA.

Cavey, L. O. (2002). *Developing proportional reasoning in Algebra I*. Presentation given at the annual conference for the Virginia Valley Council of Teachers of Mathematics. Harrisonburg, VA.

Cavey, L. O., Clark, M. R., Staley, K., Teachey, A. O., Droujkova, M. A. (2001). *Qualitative investigations of pre-service and in-service mathematics teachers' knowledge*. Presentation given at the North Carolina Association of Researchers in Education. Charlotte, NC.

Cavey, L. O., & Williams, E. D. (2001). *Exploring the importance of ratio and proportion in middle school curriculum*. Presentation given at the thirty-first annual conference of North Carolina Council of Teachers of Mathematics. Greensboro, NC.

Berenson, S. B., Cavey, L. O., Williams, E. D., Clark, M. R., Staley, K. N. (2001). *Learning what and how to teach: Building the knowledge base of teaching secondary mathematics*. Poster presented at the annual Spotlights Across the Curriculum: A Faculty Showcase of Effective Practices, Campus Writing and Speaking Program. North Carolina State University, Raleigh, NC.

Smith, N. H., Cavey, L. O. (2000). *Sports algebra*. Presentation given at the annual Sonja Kovalevsky Day. Meredith College, Raleigh, NC.

Cavey, L. O., Barnes, T. M., (1999). *Girls on track*. Presentation given at Instructional Technology-Expo. North Carolina State University, Raleigh, NC.

Cavey, L. O., Droujkova, M. A., Smith, N. H., Williams, E. D. (1999). *Mathematical explorations of urban problems*. Presentation given at the joint meeting of the North Carolina Council of Teachers of Mathematics and the School Science and Mathematics Association. Greensboro, NC.

Berenson, S. B., Penick, J. E., Cavey, L. O., Droujkova, M. A., Popovec, B. L., (1999). *Examining good practice in teaching mathematics and science*. Presentation given at the joint meeting of the North Carolina Council of Teachers of Mathematics and the School Science and Mathematics Association. Greensboro, NC.

Cavey, L. O. (1998). *Why do Markov chains converge?* Presentation given at the annual Teaching Contemporary Mathematics Conference. Durham, NC.

Cavey, L. O. (1997). *Not in my backyard, you don't! Investigating trash accumulation in pre-calculus*. Presentation given at the annual Teaching Contemporary Mathematics Conference. Durham, NC.

Cavey, L. O. (1996). *Helping students understand graphs of trigonometric functions*. Curriculum materials presented at the annual NCCTM Regional Meeting. Raleigh, NC.

Cavey, L. O. & Hernandez, M. L. (1995). *Learning to teach contemporary mathematics*. Presentation given at the NCSSMST Annual Professional Conference. Lynchburg, VA.

Hernandez, M. L. & Cavey, L. O. (1995). *Using group-work effectively in the contemporary mathematics classroom*. Presentation given at the annual Teaching Contemporary Mathematics Conference. Durham, NC.

### Grant Activity

2011-2012                      *American Honda Foundation Grant*. Coauthored funding proposal in support of the establishment of IDo-Teach, a replication of the U-Teach secondary mathematics and science teacher preparation program. Requested \$60,000.

- 2010-2011 *Micron Foundation Grant.* Coauthored funding proposal in support of the establishment of IDo-Teach, a replication of the U-Teach secondary mathematics and science teacher preparation program. Awarded \$300,000.
- Travel Grant.* Submitted internal COAS grant to support travel to the Research Pre-session of the 2011 Annual Meeting and Exposition of the National Council of Teachers of Mathematics. Awarded \$400.
- 2006-2007 *Mathematics and Science Partnership Competitive Grant Program.* Program supported graduate level mathematics courses to mathematics teachers working in 'at-risk' secondary schools with a diverse student population. Principal Investigator: David Carothers, in collaboration with Laurie Cavey and Judy Kidd. Awarded \$158,776.
- 2005-2006 *Preparing Highly Qualified Middle School Mathematics Teachers Across Virginia.* Virginia Department of Education. Principal Investigator: Laurie O. Cavey in collaboration with David Carothers. Awarded \$28,080.
- 2004 *Developing a Community of Future Mathematics Educators.* JMU College of Education Mini-Grant. Awarded \$500.
- 2003-2005 *Preparing Highly Qualified Middle School Mathematics Teachers Across Virginia.* Virginia Department of Education. Principal Investigator: Laurie O. Cavey in collaboration with David Carothers and Joy Whitenack. Awarded \$97,885.
- 2001-2003 *Teachers on Track with Technology.* Eisenhower Professional Development Program. Principal Investigator: Sarah B. Berenson, in collaboration with Laurie O. Cavey and M. R. Clark. Awarded \$29,998.

## Teaching

### Boise State University, Boise, ID

*Mathematics Curriculum* (Summer 2011). Graduate course for teachers.

*Teaching The Calculus* (Spring 2011). Graduate course for teachers.

*Structure of Arithmetic for Teachers I. (Fall 2009-2010).* Mathematics course designed for prospective elementary and middle grades teachers.

*Calculus I* (Spring 2010). Calculus course designed for engineering and other science majors.

*Teaching of Algebra* (Summer 2010). Graduate course for teachers.

*Mathematics Education Seminar* (Fall 2010). One-credit course for secondary education majors. Mathematical focus: proportional reasoning.

*Mathematics in Secondary Schools* (Fall 2010 & 2011). Methods for teaching secondary mathematics.

### James Madison University, Harrisonburg, VA

*Master's Degree Project Advisor. (Spring 2007-2009).* Supervised the completion of action research projects conducted by students in the Master of Education in Mathematics program.

*Mathematics Methods.* (Fall 2002-2009). Taught mathematics methods courses for prospective middle and high school teachers.

*Fundamentals of Mathematics.* (Fall 2002-2009). Taught mathematics course designed for prospective elementary and middle school teachers.

*Connections in Mathematics (Spring 2006 & 2008).* Worked collaboratively with mathematics faculty members to develop and teach the capstone course for mathematics majors with minors in secondary education.

*Teaching Mathematics with Technology (Fall 2004, 2007).* Developed and taught graduate level research-based methods course in using technology for teaching mathematics.

*Student Teacher Supervisor.* (Spring 2004 - 2006). Supervised secondary mathematics student teachers.

*Seminar in Mathematics Education (Fall 2006).* Developed and taught graduate level research-based course on current trends in teaching mathematics.

#### North Carolina State University, Raleigh, NC

*Professional Development Coordinator.* (1999-2002). *Girls on Track.* Joint responsibility with Dr. Sarah B. Berenson and other personnel for planning and implementing professional development programs for teachers and guidance counselors.

*Program Director.* (Summer 2000-2001). *Girls on Track.* Full responsibility for overseeing the planning and implementation of the 2001 *Girls on Track* Summer Camp.

*Camp Instructor.* (1999-2001). *Girls on Track.* Joint responsibility with Dr. Sarah B. Berenson (PI), and other personnel, in planning and providing instruction for an NSF supported project. Provided instruction for the professional development program for mathematics teachers and guidance counselors, and for the summer camp for middle school girls.

*Curriculum Developer.* (1999-2001). *Girls on Track.* Joint responsibility with Dr. Sarah B. Berenson in the development of mathematical investigations appropriate for Algebra I students that use technology as a tool for learning.

*Methods Instructor.* (Fall, 2000 & Spring 2001). Co-taught the introductory and senior level undergraduate methods course for prospective secondary mathematics teachers.

*Student Teacher Supervisor.* (Fall 2000). Supervised middle school mathematics student teachers during their professional semester under the supervision of Dr. Glenda Carter and Dr. Karen Norwood.

*Visiting Faculty.* (1992-1994). Department of Mathematics. Full responsibilities for teaching precalculus, first semester calculus for engineering majors, first and second semester calculus for other majors, and the supervision of grading assistants.

*Teaching Assistant.* (1990-1992). Department of Mathematics. Responsibilities included teaching precalculus and first and second semester calculus courses, leading problem solving sessions, and grading papers.

#### Martin Middle School, Raleigh, NC

*Mathematics Instructor.* (Fall 1999). Taught an eighth grade Algebra I class under the supervision of Ashley Parrott and Dr. Sarah B. Berenson.

#### Meredith College, Raleigh, NC

*Visiting Faculty.* (Fall 1998). Taught a first semester calculus course, intermediate algebra, and a course in MS Windows software applications.

#### North Carolina School of Science and Mathematics, Durham, NC

*Mathematics Instructor.* (1994-1998). Taught discrete mathematics, calculus, precalculus, and finite mathematics using computers and graphing calculators as tools for student learning. Attended weekly planning meetings with other calculus and precalculus teachers to share teaching ideas.

*Academic Advisor* for six to eight students each year (1995-1998). Responsibilities included familiarizing students with their academic opportunities, assisting students in course selection, and electronically registering students at the end of each year.

*Curriculum developer* for precalculus and finite mathematics courses.

*Editor and contributor* to the second edition of *Contemporary Precalculus Through Applications*.

## **Service**

### University level

#### *Boise State University*

2011-present	IDoTeach Program, co-director with Louis Nadelson
2011	CID course proposal review committee, chair
2010-2011	STEM Scholar Research Group, member

#### *James Madison University*

2008-2009	Graduate Council
2008-2009	Faculty Senate and Faculty Concerns subcommittee
2008	External Review Team member, Academic Program Review for the Department of Mathematics & Statistics
2008	College of Education Assistant Dean Search Committee, chair
2002-2009	Administrative Head for the development and implementation of Masters of Education degree in mathematics.
2002	Administered the correlation of JMU course requirements with Virginia Community College System for the secondary mathematics program

### College/Department level

#### *Department of Mathematics, Boise State University*

2011-present	College Tenure and Promotion Committee
2010-2011	Mathematics Education Search Committee
2010-2011	Mathematics Secondary Education Program Revision Committee
2010-present	MATH 157/257 Coordinator.
2009-present	Mathematics Education Research Team Coordinator.
2009-present	Concurrent Enrollment Committee.
2009-present	Teaching Evaluation Committee.

#### *College of Education, James Madison University*

2008-2009	Technology Committee
2007-2009	NCATE assessment management (also 2002-2004)

2005-2008	Mathematics Education Search Committee, chair 2005-2007.
2006-2008	Faculty Development & Support Committee, chair 2007-2008.
2005-2008	Personnel Advisory Committee, chair 2007-2008
2002-2005	Faculty Qualifications, Performance and Development Committee
2003-2009	Scholarship Committee

#### Professional Organizations

2010-present	Co-editor, <i>Connecting Research to Teaching Department, The Mathematics Teacher</i> , National Council of Teachers of Mathematics
2009-present	Reviewer, <i>The Mathematics Teacher</i> , National Council of Teachers of Mathematics
2009-present	Reviewer, <i>Journal of Research in Mathematics Education</i> , National Council of Teachers of Mathematics
2006-present	Reviewer, <i>Mathematics Teaching in the Middle School</i> , National Council of Teachers of Mathematics
2007-2009	Staff member, Virginia Mathematics and Science Coalition
2003-2005	Four-year university representative for the Virginia Council of Teachers of Mathematics.
Summer 2008	Revised Mathematics Standards of Learning for Virginia.
Summer 2008	AMTE Monograph Editorial Panel for the 6th Monograph of the Association of Mathematics Teacher Educators.
2005-2008	Editorial Board for <i>Connections</i> , a newsletter publication of the Association of Mathematics Teacher Educators.
2000-2005	Reviewer, Proceedings of the meeting North American Chapter of the International Group for the Psychology of Mathematics Education.

#### K-12 Collaborative Projects

August 1-3, 2011	<i>Fractions Workshop Instructor</i> (“Teaching and Learning Rational Numbers: Thinking about the Big Ideas”). Collaborated with M. Kinzel to organize and lead a three-day workshop for teachers. Concurrent Enrollment at Boise State University sponsored this event.
April 9, 2011	<i>E-day Instructor</i> (“The Power of One”). Led two back-to-back 1.5-hour sessions for middle grades students visiting Boise State University for a day. This event is sponsored by The Society of Hispanic Professional Engineers and is designed to encourage youth to consider STEM careers.
August 2-3, 2010	<i>Calculus Workshop Instructor</i> (“Teaching and Learning Calculus: Thinking about the Big Ideas”). Organized and led a two-day workshop for local high school calculus teachers. Concurrent Enrollment at Boise State University sponsored this event.
2006-2009	<i>Director, JMU Content Teaching Academy</i> . Administrator for a summer professional development program for Virginia teachers, which is a collaborative effort between James Madison University and The Virginia Department of

Education. Administrative duties include supervising a part-time employee, student workers, 15 faculty members who plan the instruction for each Academy, and managing a \$500,000 budget. The academy served an average of 600 educators per year for a week-long institute.

- 2005-2008 *MathNerds*. Online tool used to connect students in grades 6-12 with prospective secondary mathematics teachers. Collaborate with local teachers and university mathematicians.
- Spring 2007, 2008 *Conversations Between Mathematicians*. Developed and implemented project with Brian Nussbaum from Thomas Harrison Middle School that connects prospective teachers with sixth grade students through mathematics investigations.
- Spring 2007 *Algebra Exploratory*. Developed curriculum and assisted with teaching at Harrisonburg High School in two sections of an experimental course designed for students who had previously been unsuccessful with algebra.
- 2004-2006 *6-12 Mathematics Academy Chair, JMU Content Teaching Academy*. Collaborated the Virginia Department of Education to plan a summer professional development program for middle and high school mathematics teachers. Participation averaged about 88 teachers each year.

## Honors and Awards

- 2008 Essie Glass Award for excellence in scholarship and teaching, James Madison University
- 2001 Extraordinary Leadership Award, Girls on Track Camp
- 1992 Outstanding Teaching Assistant Award, Mathematics Department, North Carolina State University, Raleigh, NC