# **Anne Janes Papakonstantinou**

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## **EDUCATION**

University of Houston, Ed. D. 1992 Curriculum and Instruction (Mathematics) Dissertation: "An Examination of High School Students' Understanding of the Concept of Function"
Rice University, M. A. 1971 Mathematics Thesis: "K-Theory and the Hopf Invariant"
Rice University, B. A. 1969 Mathematics and French **PROFESSIONAL EXPERIENCE**Rice University School Mathematics Project Director (2000-present) Executive Director (1994-1999) Director of Research (1995-1998) Coordinator (1991-1993)

Master Teacher (1987-1989)

Rice University Wiess School of Natural Sciences

Clinical Professor (2003-present)

Project Director and PI, DOE Eisenhower and Teacher Quality awards (1994-2018)

Project Director and PI, NSF Robert Noyce Teaching Teaching Fellowship (2016-present)

Project Director and Co-PI, NSF Mathematics Leadership Institute (2004-2011)

Chem 570, guest lecturer (Spring, 2007)

Senior Personnel, NSF SENCER (2004-2005): co-taught CHEM 235/ANTH 235 (Fall, 2004; Fall, 2005)

Management Team, NSF GK-12 Fellows (1999-2003)

Co-Director NSF Equity Initiatives for Science and Mathematics (1997-2000)

Rice University Department of Mathematics

Graduate Teaching Seminar presenter (1998-present)

Lecturer (1998-1999): Math 111 (Fall, 1997; Fall, 1998); Math 112 (Spring, 1999)

Rice University Kinder Institute for Urban Research, Houston Education Research Consortium, Advisory Board (2011-present)

Rice University Communicators (2007-present)

Rice University Outreach Council/Steering Committee Member (1997-2007; 2011-present); Vice-Chair (2005-2007) Rice University Richard Tapia Center, Mathematics Instructor (Summer, 2015; Summer, 2016)

University of Houston, Adjunct Faculty at the Graduate Level in the College of Education (2005-2006), (2015-2016)

Institute for Advanced Study/Park City Mathematics Institute, Rice University Site Coordinator (1995-2012) Houston ISD, Curriculum Department

Co-author and implementer, Geometry Initiative (2003-2005); Algebra Initiative (1996-2005) Rice University Department of Education/Education Certification Program

Lecturer (2000-2003): Undergraduate and Graduate Seminar in Teaching Mathematics (Fall, 2000; Fall, 2001; Fall, 2002)

Clinical Professor (1995-2000): Undergraduate and Graduate Seminar in Teaching Mathematics (Spring, 1996; Spring, 2000)

Adjunct Assistant Professor of Education (1993-1995): Undergraduate and Graduate Seminar in Teaching Mathematics (Spring, 1993; Spring, 1994; Spring, 1995)

Master Teacher of Mathematics (1981-1991)

Rice University School of Continuing Studies

Mathematics Coordinator of the Advanced Placement Fall Institute (Fall, 1997)

Baylor/Rice Mathematics/Science Leadership Program, Co-Director (1992-1998)

Houston ISD Alternative Certification Program, Mathematics Instructor (1992-1994)

Houston ISD, Mathematics Teacher (August, 1971-June, 1996)

The Rice School (January, 1994-May, 1996); Director of Curriculum (January, 1994-June, 1996) High School for the Performing and Visual Arts (August, 1989-January, 1994)

Sharpstown Senior High School (August, 1971-June, 1989); Mathematics Department Chair (1977-1989); Mu Alpha Theta sponsor (1972-1989)

### AWARDS AND HONORS

- E. Glenadine Gibb Achievement Award presented by the Texas Council of Teachers of Mathematics (2013) Rice University Women's Resource Center IMPACT Award (2011)
- Who's Who in Education (2005)
- Texas SSI Ambassador (1997)
- Who's Who of American Women, 19th Edition (1994)
- Phi Kappa Phi Honor Society (1991)
- Who's Who in American Education, 3rd Edition (1991)
- Career Ladder Level III (1987-2010)
- Presidential Award for Excellence in Science and Mathematics Teaching nominee (1986, 1989)
- Advanced Placement Award nominee (1986)
- Outstanding Young Alumnus of Rice University nominee (1986)
- Texas Excellence Award for Teaching Excellence nominee (1986)
- Notable Women of Texas (1984)
- Elizabeth Brand Award for Teaching Excellence, presented by the American Association of Petroleum Landmen (1981)
- Houston ISD Teacher of the Year (1981)
- Houston ISD 3rd runner-up Teacher of the Year (1980)
- Outstanding Mathematics Teacher, presented by the Sam Houston Chapter of the Society of Professional Engineers (1980)
- Young Educator nominee, Houston ISD (1980)

#### UNIVERSITY ACADEMIC ADVISING/SUPERVISION

Maria Franshaw, Houston Baptist University Department of Educational Leadership Supervisor for Field Experience for Doctorate (2018) Adem Ekmekci, Rice University School Mathematics Project post-doctoral researcher; Advisor (2013-2016)

- Richard Parr, University of Houston Department of Educationnal Leadership and Policy Studies
  - Ed.D. Disseration: Investigating the Effects of Sustained Professional Development on Campus and District Mathematics Programs: An Analysis of the Rice University Mathematics Leadership Institute Dissertation Committee Member (2015)
- Yasemin Copur-Gencturk, Rice University School Mathematics Project post-doctoral researcher; Advisor (2012-2013)
- Juli Ratheal, University of Texas of the Permian Basin

External Reviewer for Tenure and Promotion to the rank of Associate Professor (2009)

- Sara Ptomey, Sam Houston Sate University Department of Educational Leadership and Counseling
  - Pd.D. Thesis: Student Achievement in High School Mathematics Compared to TAKS Mathematics Scores in Five Vertical Areas of an Urban School District
  - Dissertation Committee Member (2006)
- Adrienne Sack, University of Texas at Austin

Plan II Honors Program Thesis: Hyperbolic Geometry in Origami

- Second Reader (2005)
- Jacqueline Sack, University of Houston Department of Curriculum and Instruction

Ed.D. Dissertation: Paths Toward Mathematics Teachers' Empowerment: A Narrative of Issues Surrounding High School Reform,

Dissertation Committee Member (2005)

Subhash Candra Ray, University of Kalyani Department of Education

Ph.D. Thesis: *Influence of Creativity, Intelligence and Motivation Upon Achievement in Mathematics,* External Examiner (2002)

- Sara Ptomey, University of Houston Department of Educational Leadership and Cultural Studies Supervisor for Internship Program for Administrator Certification (2000)
- Jan Casey, University of Houston Department of Educational Leadership and Cultural Studies Supervisor for Internship Program for Administrator Certification (1995)
- Tamara Anthony Carter, Rice University Department of Computational and Applied Mathematics Master's Thesis: An Introduction to Linear Algebra: A Curricular Unit for Pre-Calculus Students, Co-chair with Professor R. Tapia (1995)

# PROFESSIONAL INVOLVEMENTS

- The Children's Museum of Houston, Education Committee (1999-present); Math Advisory Committee (1999present); Reviewer of ExxonMobil *Magnificent Math Moments* (2015); Advisory Panel for NSF "Everyone Counts" grant (2004-2007); Co-designer of the mathematics exhibit "Everyone Counts!" (1999-2000) Energy Institute High School, Advisory Team (2014-present)
- The Rice School/La Escuela Rice, University Advisory Committee (1994-1999); SDMC Community Member (2010-present); Advisory Board National Wildlife Federation's Resilience Ambassadors Program (2018-present)
- Harris County Department of Education, Alternative Certification Division Advisory Committee (2012-present)
- National Council of Supervisors of Mathematics, Reviewer for NCSM Journal of Mathematics Education Leadership (2012-present)
- National Council of Teachers of Mathematics, Professional Development Services Committee (2004 -2007); Professional Development Focus Task Force (2008); Reviewer for *NCTM Mathematics Teacher* (2009present)
- CONTEX, Reviewer of Proposals (2018)
- Texas Council on Economic Education (TCEE), Reviewer of Personal Financial Literacy lessons (2013-2016) *Algebra Nation*, Reviewer of Algebra I curriculum (2015)
- Southern Regional Education Board, Reviewer of mathematics lessons (2015)
- Houghton Mifflin Harcourt, Reviewer of their new high school mathematics series (2014)
- Big Ideas Learning, Reviewer of their new high school mathematics series (2014)
- Texas Education Agency, Geometry STAAR University Content Validation Panel (2010- 2013); Algebra I STAAR University Content Validation Panel (2012-2013); Algebra II STAAR University Content Validation Panel (2012-2013)
- The Math Forum, Advisory Board (2004-2010)
- Scientia Conference on Research and Innovation inUndergraduate Science and Engineering Education, Conference Planning Committee (February, 2011)
- St. Agnes Academy, Advisory Board for the Young Women's Online Journal of Teaching and Learning Mathematics (2007-2010)
- Teacher Quality Grants Program Instructional Leadership Committee Member (2007-2009)
- Texas A & M University, Advisory Board for the Department of Teaching, Learning & Culture's Math TEKS Connections Project (2006-2007)
- KIPP Houston High School, evaluator of the Science Inquiry Projects and Presentations (2006)
- Teacher Quality Grants Program Evaluation Advisory Committee member (2005-2007)
- Action Algebra, HISD weekly television show on Channel 18, co-producer (2005-2006)
- KIPP Houston High School, panelist for seniors' graduation projects and presentations (2005)
- McDougal Littell, Reviewer of their new high school mathematics series (2004-2005)
- PUMPing Up Math Achievement, Pershing/RUSMP Houston A+ Challenge, co-planner and co-instructor (2004-2009)
- SCIMAST 2004 Texas Spring Forum, planning committee and presenter (Spring, 2004)
- Klein Independent School District, director of the GT Action Team's revision of the GT Grades 4-Algebra I

mathematics curriculum (2003-2004); curriculum audit of Algebra I and Geometry curricula (2012) Pin Oak Middle School, Commencement speaker (June, 2003)

- Texas Education Agency Teacher Mathematics Academies, lead mathematics trainer (2002-2005)
- Texas Leadership Conference: Using Modeling, Visualization, and Data Management as Tools for Transferring Current Research into High School Mathematics and Science (March, 2002)
- "Integrated Physics and Chemistry and Algebra I Project," Region IV and Texas Instruments writing team (2001-2002)

"Rethinking Middle School Mathematics: Geometry," TEXTEAMS Institute, writing team (2001-2002) "High School Geometry: Supporting the TEKS and TEKS," TEXTEAMS Institute, writing team (2001-2002) Advanced Academic Study Group for the Jesse H. Jones High School Vanguard Program (2001-2002) National Science Foundation Southwest Regional Conference, facilitator and speaker (December, 2001) The Charles A. Dana Center, editor of the Texas Algebra I Study (February, 2000); member of the TEXTEAMS

Algebra I Advisory Committee (2000-2005); member of the Algebra Assessment Advisory

Committee (2000-2005); advisory board member of the FIPSE project, *Supporting and Strengthening Standards-based Mathematics Teacher Preparation*, (2001-2005)

Houston Urban Systemic Initiative, Design Team (1997-1998); Conference Planning Committee (1998-1999);

Conference Program Committee (1998-1999); University Coalition member (1999-2005) "Algebra II/Pre-Calculus Institute," TEXTEAMS Institute, academic advisor/reviewer (1997–1999)

- "Geometry for All," TEXTEAMS Institute, writing team (1997-1998)
- Texas Statewide Systemic Initiative, Calculus Multimedia Discussion (May, 1997)
- Algebra On-Line: Teachers Talk to Teachers, Houston ISD video series for Channel 18, co-producer and presenter (1996-2002)
- Cypress-Fairbanks ISD, site visit team member for mathematics program review (1996)
- TEXTEAMS Mathematics Institutes: Algebra I; Algebra 1: 2000 and Beyond; Geometry for All; Geometry; Rethinking Middle School Mathematics: Geometry; High School Geometry: Supporting the TEKS and TAKS; and Algebra II/Pre-Calculus, Master Trainer (1995-2006)
- *OWLink*, Rice University interactive teledistance, A. P. Calculus for high school calculus classes locally and statewide (1995-1999)
- Houston Independent School District Science Fair, judge (May, 1994)
- Annunciation School, K-8 mathematics curriculum consultant (1993-2001)
- Sharpstown Senior High School Science Fair, judge (February, 1993; February, 1996)
- Houston ISD/Rice K-8 Planning Committee, Professional Development Task Force (1993)
- Educational Testing Service SAT-2 Study, table leader for readers (November, 1992)

Educational Testing Service/The College Board Mathematics Achievement Committee Member (1991-1994)

Leading Mathematics Education into the 21st Century - Texas Style (Spring, 1991) Region IV team member

- Texas Educational Agency Mathematics Textbook Proclamation Advisory Committee Member (1991)
- Houston ISD Committees: Task Force for Educational Excellence (1981), Committee on Competency Requirements for Teachers (1982), Career Ladder (1985), Gifted Students, Area II Instructional, Administrators Selection (1986), Curriculum Advisory (1987-1988, 1988-1989), Ombudsman (1989), Distance Learning Development (1997), Graduation Requirements Task Force (2005), Mathematics and Science Initiative Task Force (2005), SMART Project Grant Steering Committee (2007-2014), focus group for Grading and Promotion/Rentention Policies (2009), HISD ACP Advisory Committee (2009-2014), K-12 HISD STEM Standards and Performance (2014-present)
- Contest organizer: Houston ISD Area II Number Sense Tournament (1980), Houston ISD Junior High Number Sense Competition (1981), Sharpstown Senior High School Invitational Mathematics/Science
- Tournament (1971-1989), Sharpstown High School Fundamentals of Mathematics Tournament (1989) Mac Millan Publishing Company, consultant (1982)
- Houston ISD Mathematics Department, teacher inservice organizer (1981)
- Houston Council of Teachers of Mathematics, parliamentarian (1980-1982)
- Houston ISD Textbook Committees: trigonometry, analytical geometry, pre-calculus, probability & statistics, elementary analysis, calculus, independent studies, informal geometry (1975-1994)

## PRESENTATIONS AND VIDEO SPOTS

#### 2018

- "A tale of two functions: Exploring cubic functions," with J. Papakonstantinou, Conference for the Advancement of Mathematics Teaching, Houston, TX. (July, 2018)
- "Games to actively engage your Algebra II students in learning," with J. Papakonstantinou, Conference for the Advancement of Mathematics Teaching, Houston, TX. (July, 2018)
- "The Rice University Noyce Master Teaching Fellowship Program (DUE # 1556006): Evaluation update for year 1 and year 2" with A. Ekmekci, & R. Parr. Poster presented at 2018 Noyce Summit, Washington, DC. (July, 2018)
- "Noyce teacher noticing when observing other Noyce and non-Noyce teachers," with A. Ekmekci, P. Sheppard, & R. Parr. Poster presented at 2018 Noyce Summit, Washington, DC. (July, 2018)
- "Lessons learned from a unique collaboration opportunity between two Noyce programs at two different universities (Rice-ULL)." A. Ekmekci, P. Sheppard, & R. Parr. 2018 Noyce Summit, Washington, DC. (July, 2018)

#### 2017

"Why Choose Math?" Young Women's STEM Conference, South Early College, Houston ISD (March, 2017)

"The Rice University Robert Noyce Master Teaching Fellowship Program," with R. Parr, 2017 NSF Noyce Summit, Washington DC (July, 2017)

# 2016

- "Integrating TI-84 Calculator Technology into the Algebra I Classrooms," with R. Parr, Houston ISD (August, 2016-March, 2017)
- "Integrating TI-84 Calculator Technology into the 7<sup>th</sup>-Grade Classrooms," with J. Casey, Houston ISD (Fall, 2016-March, 2017)
- "Exploring Crucial Skills for Success in Advanced Mathematics," with R. Parr, RUSMP course (Fall, 2016)
- "Changes in Mathematics TEKS and Resources for Directors and Teachers," with R. Parr, Texas Higher Coordinating Board Teacher Quality Grants Directors' Meeting, Fort Worth, TX (March, 2016)
- "Mathematics Teachers' Motivational Beliefs: The Effect of the School-Work Environment," with D. M. Corkin & A. Ekmekci, Annual Meeting of the American Educational Research Association, Washington DC (April, 2016)
- "Techniques that Support Novice and Struggling Mathematics Teachers," with R. Parr, National Council of Supervisors of Mathematics Annual Conference, Oakland, CA (April, 2016).
- "Texas Instruments Calculator Training for Algebra I Teachers," with R. Parr, Houston ISD Mathematics Job Alike Days, Houston, TX (August, 2016)
- "STEAM: Connecting Mathematics, Art, and Science," with R. Parr, S. Troutman, & C. White, STEM Innovatorsin-Training Experience Houston, TX (October, 2016)

#### 2015

- "Mathematics Teachers' Beliefs about Teaching and Learning Mathematics," with A. Ekmekci & D. Corkin, Annual Meeting of the Research Council on Mathematics Learning, Las Vegas, NV, (February, 2015)
- "Technology Using Habits of Mathematics Teachers," with D. Corkin & A. Ekmekci, Annual AERA Meeting, Chicago, IL (April, 2015)
- "Leveraging University/School District Partnerships to Support Mathematics Learning for ALL," with R. Parr, Annual NCSM Conference, Boston, MA (April, 2015)
- "Fostering Collaborative Planning," with R. Parr, KIPP Summer Leadership Conference, Houston, TX (June, 2015)
- "Hands-on Activities for the Algebra II Classroom," Conference for Advancement of Mathematics Teaching, Houston, TX. (June, 2015)
- "Techniques that Support Struggling and Novice Teachers," with R. Parr, S. Troutman, & C. White, Rice University School Mathematics Project Annual Administrators' Day, Houston, TX (June, 2015)
- "Making the Case for Including the Arts in STEM Courses, The Latino Education Summit, Houston, TX invited speaker (September, 2015)

# 2014

- "Ten Ways Mathematics Leaders Can Support Novice Teachers," Annual NCSM Conference, New Orleans, LA (April, 2014)
- "Mathematics Teacher Leadership: A Sustainable Approach to Improve Mathematics Education," with A. Ekmekci & R. Parr, Poster presented at the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education. Vancouver, Canada (2014, July)
- "Improving Mathematics Education in the Greater Houston Community and Across Texas: 1987 Present," Spring ISD Administrators (October, 2014)

"The Relationship between The Rice School/La Escuela Rice and Rice University," The Rice School/La Escuela Rice Flag Dedication Ceremony (November, 2014)

- "Diagnosing Students' Misconceptions in Mathematics through Error Analysis (Grades 6-8)," Houston Independent School District (November, 2014)
- "Examining Mathematical Proof through the Lens of Euclidean Constructions," NCTM Regional Conference, Houston, TX (November, 2014)

#### 2013

"A Conversation about Academic Language in the Mathematics Classroom in Light of the ELPS," Beaumont ISD (February, 2013)

- "Classroom practices of high school math teachers: A longitudinal analysis," with Y. Copur-Gencturk, Paper presented at the Annual National Council of Teachers of Mathematics Research Conference, Denver, CO (April. 2013)
- "The impact of content-focused and sustained professional development on standards-based high school mathematics instruction," with Y. Copur-Gencturk & R. Parr, Paper presented at the 2013 Annual Meeting of American Educational Research Association (AERA), San Francisco, CA (April, 2013)

"Connecting Geometric Constructions to Mathematical Proof," NCTM Annual Meeting, Denver, CO (April, 2013) "Exploring Sequences and Series through Multiple Representations," NCTM Annual Meeting, Denver, CO (April, 2013)

"Explore the Content of the Revised K-8 Mathematics TEKS," Texas Association of Supervisors of Mathematics Fall 2013 Meeting, Austin, TX (October, 2013)

#### 2012

"The Mathematics of the Rice Campus," Rice UnConvention (April, 2012)

"Exploring Finite Differences through Multiple Representations," NCTM Annual Meeting, Philadelphia, PA (April, 2012)

"Connecting with Conics," NCTM Annual Meeting, Philadelphia, PA (April, 2012)

- "Improving Mathematics Education in the Greater Houston Community and Across Texas: 1987 Present," Rice University K-12 Forum, (May, 2012)
- "Exploring Finite Differences through Multiple Representations," Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2012)

#### 2011

- "The Rice University Mathematics Leadership Institute: Teachers' Professionalism, Students' Achievement, and System Change," National Science Foundation Math and Science Partnership (MSP) Learning Network Conference, Washington, DC (January, 2011)
- "A Conversation about Academic Language in the Mathematics Classroom in Light of the ELPS," The International Space Science Educational Trust, Houston, TX (February, 2011)
- "STEM Career Options," Texas Diversity Council, Rice University (June, 2011)
- "Exploring Finite Differences through Multiple Representations," featured session at the 2011 Conference for the Advancment if Mathematics Teaching, Grapevine, TX (July, 2011)

# 2010

- "A Conversation about Academic Language in the Mathematics Classroom in Light of the ELPS," Society of Rice University Women, Houston, TX (February, 2010)
- "Assessing Educational Programs and Identifying Quality Instruction," The International Space Science Educational Trust, Houston, TX (February, 2010)
- "A Lesson Study Project: Connecting Theory and Practice Through the Development of an Exemplar Video for Algebra I Teachers and Students," Annual NCSM Conference, San Diego, CA (April, 2010) "Searching for Solutions to Solution Sets," NCTM Annual Meeting, San Diego, CA (April, 2010)

"In Light of the ELPs, A Conversation about Academic Language for the Mathematics Classroom," featured session at the 2010 Conference for the Advancement of Mathematics Teaching, San Antonio, TX (July, 2010)

#### 2009

- "The Development of Texas Master Mathematics Teachers through the Rice University Leadership Institute," National Science Foundation Math and Science Partnership (MSP) Learning Network Conference, Washington, DC (January, 2009)
- "A Conversation about Language in the Mathematics Classroom," featured session at the 2009 Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2009)

"Catalyst for Change: The Rice University School Mathematics Project's Campus Mathematics Program Assessment Protocol," Texas School Improvement Conference, Austin, TX (October, 2009)

## 2008

"Is there Life After Linear Functions?" Expanding Your Horizons Conference (March, 2008)

"Is there Life After Linear Functions?" featured session at the 2008 Conference for the Advancement of Mathematics Teaching, Dallas, TX (July, 2008)

"A Potpourri of Problems from the Press" featured session at the 2008 Conference for the Advancement of Mathematics Teaching, Dallas, TX (July, 2008)

# 2007

- "Bringing Together Professor, Graduate Student, and Teacher via Challenging Mathematics Curricula," MSP Learning Network Conference, Washington, DC (January, 2007)
- "Course on the Conic Sections," Aldine ISD (Spring, 2007)
- "Teaching A Job or a Profession," with Mike Desiderio, Southwest Educational Research Association, San Antonio, TX (February, 2007)
- "What Parents and Educators Should Know about Dependency Relationships in the Study of Algebra," Expanding Your Horizons Conference (March, 2007)
- "What US Mathematics Leaders Can Learn from the Dutch about Aligning Curriculum, Instruction, Assessment, and Professional Development," Annual NCSM Conference, Atlanta, GA (March, 2007)
- "The Intersection of Origami and Non-Euclidean Geometries," NCTM Annual Meeting, Atlanta, GA (March, 2007)
- "Vertical Articulation in Mathematics in the SHS feeder pattern," Sharpstown Senior High School feeder pattern (April, 2007)
- "Investigating the Inverses of Functions," RUSMP Summer Campus Program (June, 2007)
- "Investigating Functional Inverses from the Concrete to the Symbolic," featured session at the 2007 Conference for the Advancement of Mathematics Teaching, San Antonio, TX (June, 2007)
- "A Tale of Two Functions: Exploring Cubic Functions," featured session at the 2007 NCTM Regional Conference, Houston, TX (November, 2007)
- "Assessing the Understanding of Solutions of Equations and Systems: Results from the NSF Rice Mathematics Leadership Institute," featured session at the 2007 NCTM Regional Conference, Houston, TX (November, 2007)
- "Dependency Relationships: Connecting Language to Mathematics," A National Middle School Summit, Houston, TX (November, 2008)
- "Exploring Linear Functions through Multiple Representations," A National Middle School Summit, Houston, TX (November, 2008)

# 2006

- "Measure IT!" Harris County Department of Education (January, 2006)
- "The Concept of Scale in the Senior High School Mathematics Classroom," Clear Creek ISD (January-March, 2006) "Problem Solving Using Tangrams," Expanding Your Horizons Conference (February, 2006)
- "Elementary Mathematics Resources for Teacher Quality Leaders," Teacher Quality Workshop, Austin, TX (March, 2006)
- "Analysis of Teacher Needs in Developing a Teacher Quality Program," Teacher Quality Workshop, Austin, TX (March, 2006)
- "Leadership Development: Rice University/School District Collaboration," Rice University Center for Excellence and Equity in Education Conference for educators from the United Kingdom (April, 2006) [paper may be found at rusmp.rice.edu]
- "Let's Get All of Our Students in the Mathematics Fast Track," featured talk at the 2006 Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2006)
- "Assessing the Understanding of Solutions of Equations and Systems: Results from the NSF Rice Mathematics Leadership Institute," featured session at the 2006 Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2006)
- "Vertical Articulation of Mathematics Concepts in the High School Curriculum, Clear Creek ISD (October, 2006)
- "Conversations about Curriculum," Annunciation Orthodox School (November, 2006)

#### 2005

- "A Look at Frequently-Made Errors in Mathematics and How to Fix Them," Expanding Your Horizons Conference (February, 2005)
- "Deductive Reasoning Across the Content Areas," High School For the Performing and Visual Arts (February, 2005) "Building Effective Relationships with School Districts to Address Common Challenges: The Rice University
  - School Mathematics Project," Title V Faculty Leadership Program Developmental Mathematics Summit keynote address, University of Houston Downtown, Houston, TX (April, 2005)

"Math in Today's World," American Association of University Women, Houston, TX (April, 2005)

"Let's Get All of Our Students in the Pre-AP and AP Mathematics Fast Track," 2005 AP National Conference, Houston, TX (July, 2005)

- "Problem Solving in the High School Mathematics Classroom," Aldine ISD (September- November, 2005)
- "Linear Equations and Systems: Assessing Student and Teacher Understanding: Results from the NSF Rice Mathematics Leadership Institute," Charles A. Dana Center's Annual Mathematics and Science Higher Education Conference, Austin, TX (November, 2005)

# 2004

- "Using the Media to Learn Mathematics," Klein ISD Gifted and Talented Action Team (January, 2004) [paper may be found at rusmp.rice.edu]
- "Investigating Perimeter and Area," Alcott Elementary School (February, 2004)
- "The Rice University School Mathematics Project," Wiess School of Natural Sciences K-12 Faculty Resource Committee (February, 2004)

"Exploring the TI CBR and TI CBL 2," SCIMAST Texas Spring Forum (March, 2004)

- "Let's Get All of Our Students in the Mathematics Fast Track," Expanding Your Horizons (March, 2004); Annual Meeting of the National Council of Teachers of Mathematics, Benjamin Bannaker keynote address, Philadelphia, PA (April, 2004)
- "The Impact of a Professional Development Program on Teachers' Self-Efficacy," research pre-session at the Annual Meeting of the National Council of Teachers of Mathematics, Philadelphia, PA (April, 2004) "Graphing Calculator Workshop for Career and Technology Teachers," HISD (June, 2004)
- "Geometry Module," training of trainers sessions in Fort Worth, TX (May, 2004); University of Houston, Houston, TX (May, 2004); Rice University, Houston, TX (August, 2004); 10<sup>th</sup> Annual October Mathematics Higher Education Conference, Austin, TX (October, 2004)

"Investigating the Inverses of Functions Using Patty Paper," Conference for the Advancement of Mathematics Teaching, San Antonio, TX (August, 2004)

#### 2003

- "Differentiated Instruction, Strategies for Teaching Subtraction, and Error Analysis," Annunciation School (January, 2003)
- "Assessment in the Middle School Mathematics Classroom," Annunciation School (January, 2003)

"Developing a Numerate Society," Delta Kappa Gamma (January, 2003)

- "Using the Media to Learn Mathematics," Rice University School Mathematics Project Spring Networking Conference (February, 2003), Expanding Your Horizons Conference (April, 2003), Burbank Middle School mathematics department (December, 2003) [paper may be found at rusmp.rice.edu]
- "The Rice University School Mathematics Project's Urban Program in the Houston Independent School District's North District," National Council of Supervisors of Mathematics Annual Conference, San Antonio, TX (April, 2003) [paper may be found at rusmp.rice.edu]
- "University/School District Collaboration for Change: Houston's *Project CLEAR Algebra I*," National Council of Teachers of Mathematics Annual Conference, San Antonio, TX (April, 2003) [paper may be found at rusmp.rice.edu]
- "Information for Planning a Successful Professional Development Program for Teachers," Rice University Human Resources Forum (May, 2003)
- "Teacher Retention: A Priority for Us All," Move IT Math USA National Conference, dinner speech, South Shore Harbour, TX (June, 2003)
- "We've Come A Long Way Since the "New Math" of the 50s," Conference for the Advancement of Mathematics Teaching, keynote address, Houston, TX (July, 2003)

## 2002

"Implementing Houston ISD's Project CLEAR Algebra I," Houston ISD training (February, 2002)

"HISD's Project CLEAR Algebra I: Activities to Support the Learning of Algebra," Expanding Your Horizons Conference (March, 2002)

"Texas Instruments/Region IV IPC/Algebra I," state leader training (May, 2002)

- "Texas Education Agency Mathematics Academy for 5th-and 6th-grade teachers," (July, 2002)
- "Integrating the TI 83+ into the High School Geometry Classroom," Houston ISD (July, 2002; August, 2002;

3-day sessions during October 2002 and November 2002)

"Building Mathematics Leaders in PreK-12 Education," Rice University Center for Excellence and Equity in Education Conference for educators from the United Kingdom (October, 2002)

#### 2001

- "Logic Activities for the Middle School Mathematics Classroom," Expanding Your Horizons Conference (March, 2001)
- "Teacher Retention: A Priority for Us All," Fort Bend Council of Teachers of Mathematics Annual Banquet (May, 2001)
- "Critical Thinking Across the Content Areas," The Rice School (August, 2001)
- "Developing Logical Thinking in Grades K-12," Aldine ISD (Fall, 2001)
- "Logic Activities for the Pre-A.P. Mathematics Classroom," School-To-Careers Advanced Placement Conference, Houston, TX (Fall, 2001)
- "Conversations about Curriculum: Planning Instruction," Annunciation School (Fall, 2001)
- "Activities from the TEXTEAMS Algebra II/Precalculus Institute," Lamar Consolidated ISD (Fall, 2001)
- "Math in the Fast Track," Society of Rice University Women (November, 2001)
- "University/School District Collaboration for Change," Houston Independent School District and Annenberg Challenge Conference for the University of Toledo (November, 2001)
- "Implementing Houston ISD's Project CLEAR Algebra I," Houston ISD training (July, October, November, December, 2001)
- "University/School District Collaboration to Support the Development of Professional Learning Communities," National Science Foundation Southwest Regional Conference, San Antonio, TX (December, 2001)
- "The Impact of RUSMP Programs," National Science Foundation Southwest Regional Conference, San Antonio, TX (December, 2001)

#### 2000

- "Logic Activities for the Geometry Classroom," Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2000)
- "The Rice University School Mathematics Project," Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 2000)
- "Developing the Concept of Number," Houston ISD Southeast District workshop series (October, 1999-February, 2000)
- "Activities to Develop Proportional Reasoning," Houston Council of Teachers of Mathematics Annual Conference (February, 2000)
- "Planning Instruction Using the RUSMP *Learning Plan*: A Sample," Expanding Your Horizons (April, 2000); Equity Initiatives for Science and Mathematics: Equitable Classroom Practices Institute (June, 2000)
- "Assessment Strategies for School Mathematics," GK-12 Fellows Seminar (May, 2000); Equity Initiatives for Science and Mathematics: Science Mathematics Institute (July, 2000)
- "University/School District Collaboration for Change: Houston's Algebra Initiative," Texas Association for Supervision and Curriculum Development, Annual Conference, Houston, TX (October, 2000)
- "Features of a High-Quality Professional Development Program," Eisenhower Technical and Financial Assistance Meeting - Special Session for New 2000-2001 Project Directors, Austin, TX (December, 2000)

### 1990s

- "The Concept of Function," Houston ISD (1990)
- "Cooperative Learning in Algebra," Parts I & II, Houston ISD Energizer Workshops (Fall, 1990 & Spring, 1991) "Functions," San Jacinto Council of Teachers of Mathematics (1990)
- "The Development and Application of a Test to Measure Secondary Students' Concept of Function," Southwest Educational Research Association, Austin, TX (January, 1991)
- 'Make Mine Algebra: Word Problems and the Real World," The Houston Business Committee for Educational Excellence Teachers Showcase (February, 1991)
- "Writing as a Problem-Solving Process," Conference for the Advancement of Mathematics Teaching, Houston, TX, (August, 1991)

"Writing as a Problem-Solving Process," Parts I & II, Houston ISD Energizer Workshops (October, 1991)

- "Research on the Concept of Function: Implications for the Secondary Mathematics Teacher," Sam Houston State University (January, 1992)
- "Teaching the Concept of Function," Parts I & II, Houston ISD Energizer Workshops (February, 1992) "Preparing Students for the TAAS," Houston ISD Mathematics Department (June, 1992)
- "The Concept of Function: Implications for Algebra Teachers," Milby/Rice Mathematics Project (June, 1992); Rice University School Mathematics Project (June, 1992)
- "Technology, Manipulatives, and Cooperative Learning in the Teaching of Algebra," Duchesne Academy (August, 1992)
- "Research on the Function Concept: Implications for Mathematics Teachers," Conference for the Advancement of Mathematics Teaching (August, 1992)
- "On Target with TAAS," Houston ISD instructional video (Fall, 1992)
- "Teaching in Accordance with the NCTM Standards," Annunciation Orthodox School (Fall, 1992)
- "Math Strugglers, Pre-Requisite Skills, Reteaching, Sponge Activities," Houston ISD Alternative Certification Internship Training (Fall, 1992)
- "Testing, Monitoring, and Adjusting," Houston ISD Alternative Certification Internship Training (Fall, 1992) "The NCTM *Standards*, A Vehicle for Change," Lamar Consolidated ISD (Fall, 1992)

"Assessing Problem Solving," Webster Intermediate School (Fall, 1992)

- "The Fourth-Grade Mathematics Curriculum: What to Emphasize, How to Teach," Rees Elementary School (Fall, 1992)
- "The Rice University School Mathematics Project: University/School Partnership," Houston ISD Schools of Excellence Convention (Fall, 1992)
- "The Metric System: Problem-Solving Activities," Westbury HS (January, 1993)
- "The Best of Texas," Houston ISD video (January, 1993)
- "An Examination of High School Students' Understanding of the Concept of Function," Southwest Educational Research Association, San Antonio, TX, (January, 1993)
- "Problem-Solving Activities for High School Mathematics Classes to Develop Students' Higher-Order Thinking Skills," Houston ISD Energizer Workshop (February, 1993)
- "Problem-Solving Activities for Middle School Mathematics Classes to Develop Students' Higher-Order Thinking Skills," Houston ISD Energizer Workshop (February, 1993)
- "Mathematics and Science Activities to Prepare Students for TAAS," Black MS (February, 1993)
- "Writing as a Problem-Solving Activity," Foerster Elementary School (March, 1993)
- "Current Research on the Concept of Function: Implications for Mathematics Teachers," Northwest Area Coop, Workshop for Middle School Mathematics Teachers in Gifted/Talented Programs (April, 1993)
- "Patterns, Relations, and Functions," Northwest Area Coop, Workshop for Middle School Mathematics Teachers in Gifted/Talented Programs (April, 1993)
- "An Examination of High School Students' Understanding of the Concept of Function," American Educational Research Association, Atlanta, GA (April, 1993)
- "The Concept of Function: Research into Practice," Milby/Rice Mathematics Project (June, 1993); Rice University School Mathematics Project (June, 1993)
- "Introducing the Arithmetic Operations," Mathematics/Science Leadership Program (July, 1993)
- "Introduction to the TI-Explorer," Mathematics/Science Leadership Program (July, 1993; July, 1994); Harris County Alliance for Science, Mathematics, and Technology Education (June, 1995)
- "The Rice University School Mathematics Project," K-12 Activity in the Computational and Mathematical Sciences, Rice University Center for Research on Parallel Computation (July, 1993; June, 1997)
- "Critical Thinking in Today's Curriculum," Yates High School faculty retreat (August, 1993)
- "The Rice University School Mathematics Project," Alliance of Schools retreat sponsored by The Metropolitan Organization, Houston, TX (August, 1993)
- "Does a Summer Mathematics Project Really Affect Student Achievement and TAAS Scores?' Lamar University Summer 1994 Mathematics Institute Planning Conference, Orange, TX (October, 1993)
- "Mentoring: A Guide to Success," Association for Women in Science (October, 1993)
- "Assessment Methods in Mathematics," Hebrew Academy (October, 1993)
- "Diagnosis and Remediation in Mathematics," Houston ISD Alternative Certification Internship Training (October, 1993)
- "The Rice University School Mathematics Project," Rice Engineering Alumni (October, 1993)

- "Teaching Strategies to Introduce Linear Equations," Houston ISD-Alliance Schools Academic Year Workshop (October, 1993)
- "Cooperative Learning in the Mathematics Classroom," Houston ISD Core Curriculum Training (November, 1993; February, 1995)
- "A University-Based Mathematics Teacher Enhancement Program: Its History, Evolution, and Impact," Southwest Educational Research Association, Austin, TX (January, 1994)
- "Patterns, Relations, & Functions," Houston ISD Mathematics/Science Leadership Training (February-March, 1994); Harris County Alliance for Science, Mathematics, and Technology Education (June, 1995)
- "Cooperative Learning Activities to Teach the Concept of Function," Westbury HS (March, 1994)
- "Issues of Multiculturalism in Mathematics," Rice University Department of Education Colloquium (April, 1994)
- "Teaching Strategies to Introduce Linear Equations," Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 1994)
- "Introduction to the TI-82 Graphing Calculator," Rice University School Mathematics Project (June, 1994)
- "Introduction to Creative Publications' *MathLand* Technology," Rice University School Mathematics Project; Aldine/Rice Mathematics Project; Fort Bend/Rice Mathematics Project (Summer, 1994)
- "Hands-On Geometry," Aldine ISD (August, 1994)
- "Geometry Activities that Motivate," Aldine ISD (October, 1994)
- "Strategies for Success in Math," Schools of Excellence Convention (December, 1994)
- "Introduction to *MathLand*," Annunciation School (January, 1995); The Rice University School Mathematics Project (Summer, 1995); The Rice School/La Escuela Rice (August, 1995)
- "Houston ISD/Rice School A Partnership between Houston ISD and Rice University," Owen Wister Literary Society Alumnae (January, 1995); Society of Rice Women (March, 1995); Rice Faculty Women's Club (September, 1995)
- "Mathematics Activities for the Middle School Classroom," Houston ISD Middle School Conference (February, 1995)
- "Strategies for TAAS," Worthing High School through *OWLink* teledistance learning center (February, 1995)

"Assessing Your Mathematics Program," Jane Long Elementary School, Lamar CISD (February, 1995)

- "The Rice School/La Escuela Rice," Expanding Your Horizons Conference (March, 1995)
- "Algebra for Everyone: A Look at the Mathematics Sequence," Lee HS feeder-pattern, Houston ISD (March, 1995)
- "What to Look for in a Mathematics Program," The Kinkaid School (March, 1995)
- "The Rice University School Mathematics Project: A University-Based Mathematics Teacher Enhancement Project," National Council of Supervisors of Mathematics Annual Conference, Boston, MA (April, 1995); National Council of Teachers of Mathematics Annual Conference, Boston, MA (April, 1995); Coalition of Essential Schools: Texas/Greater Houston Area Spring Conference (April, 1995); Houston ISD Schools of Excellence Convention (December, 1995); National Council of Supervisors of Mathematics Annual Conference, San Diego, CA (April, 1996); Institute for Advanced Study/Park City Mathematics Institute, Princeton, NJ (July, 1996)
- "Family Math," Harris County Alliance for Science, Mathematics, and Technology Education (June, 1995)
- "Using Calculator Technology in the K-8 Classroom," Harris County Alliance for Science, Mathematics, and Technology Education (June, 1995; June, 1996; June, 1997)
- "The Rice University School Mathematics Project," Houston ISD Perspectives (video spot: July, 1995)
- "Investigations To Get Your Students Thinking, Talking, and Doing Mathematics," Conference for the Advancement of Mathematics Teaching, San Antonio, TX (August, 1995)
- "Thinking, Learning, Teaching: Critical Links," Houston ISD Reagan Feeder-Pattern Vanguard, SIGHTS, Advanced Placement Workshop (August, 1995)
- "What Research Says About Good Practice in Mathematics, Grades 5-8," Aldine ISD Conference on Algebra (August, 1995)
- "Functions: Patterns, Tables, Generating the Rule and Graphing," Houston ISD and North Forest ISD Mathematics Initiative Summit One (September, 1995)
- "Teaching Advanced Mathematics," Houston Area Coop on the Gifted and Talented, Adelle McClendon Memorial Speaker Series (October, 1995)
- "Mathematics for the 21st Century: University Perspective," Deer Park Excellence in Education Conference (October, 1995)

"Research on the Concept of Function: Implications of Mathematics Teachers," National Council of Teachers of Mathematics Southern Regional Conference, Houston, TX (November, 1995)

"Problem-Solving Activities for Grades Pre K- 3," Park Place Elementary School (November, 1995)

"Algebra I in light of the End-of-Course Algebra I Examination," Reagan HS (November, 1995)

"Problem-Solving Activities for First-Grade Students," Holden Elementary School (December, 1995)

"Exploring Area and Perimeter," North Forest Independent School District (January, 1996)

"Investigations with Geoblocks," Houston Council of Teachers of Mathematics Annual Conference (January, 1996); Houston ISD North Central District (April, 1996); Rice University School Mathematics Project (June, 1996; June, 1997; June, 1998); Conference for the Advancement of Mathematics Teaching, Dallas, TX (August, 1996); Expanding Your Horizons (April, 1999)

"From Counting to Calculus: Explorations with Color Tiles," Golfcrest Elementary School (January, 1996)

- "Student Success in Mathematics: Implications for Parents and Teachers," Sharpstown HS PTO meeting (February, 1996)
- "Hands-On Teaching in the Middle School Mathematics Classroom," Aldine ISD (February, 1996)

"Reading Mathematics," Sharpstown High School (February, 1996)

"Preparing for the Advanced Placement Calculus Examination," *OWLink* teledistance learning center, weekly mathematics series (Spring, 1996; Fall 1996-Spring 1997; Fall 1997-Spring 1998)

- "Hands-On Teaching in the Elementary School Mathematics Classroom, Aldine ISD (March, 1996) "Math in the Fast Track," Expanding Your Horizons and *OWLink* teledistance presentation (April, 1996)
- "Investigations To Get Your Students Thinking, Talking, and Doing Mathematics," National Council of

Teachers of Mathematics Annual Conference, San Diego, CA (April, 1996)

"Developing Function Sense: Part I," Aldine ISD (August, 1996); Houston ISD (September, 1996)

"Developing Number Sense," Deer Park ISD (August, 1996)

"Developing Function Sense: Part II," Aldine ISD (October, 1996)

"Fostering Success in Mathematics," Sugar Mill Elementary School PTA meeting (November, 1996)

- "A Brief Look at the TEXTEAMS Algebra and Geometry Institutes," Alief ISD (August, 1998)
- "Fostering Success in Your School's Algebra Program," Houston ISD Mathematics Summit V: Administrators' Session (January, 1997)
- "Exploring Area and Perimeter Functions," Houston ISD Mathematics Summit V (January, 1997)
- "Two Interesting Cubic Functions to Explore," Houston Council of Teachers of Mathematics Mini-Conference (February, 1997)
- "Developing Number Sense in Second Grade," Houston ISD North Central District (February, 1997)
- "Developing Number Sense in Third Grade," Houston ISD North Central District (February, 1997)
- "Developing Function Sense," Expanding Your Horizons (April, 1997), Conference for the Advancement of Mathematics Teaching, Houston, TX (July, 1997); Houston Council of Teachers of Mathematics Mini-Conference (February, 1998), Expanding Your Horizons (April, 1998)
- "Advanced Placement Vertical Teaming in Mathematics," Michael DeBakey High School for Health Professions, (April, 1997); Sharpstown High School feeder pattern (July, 1997)
- "Professional Development Opportunities for Teachers of Mathematics," Rice University Mathematical and Computational Sciences Awareness Workshop (June, 1997)
- "Algebra I: Patterns, Relations, and Functions," Conference for the Advancement of Mathematics Teaching Preconference two-day session, Houston, TX (July, 1997)
- "Supporting Advanced Placement Calculus in the Pre-Calculus Curriculum," Rice University Advanced Placement Fall Institute (October, 1997)

"Investigating Patterns and Functions," Houston ISD Algebra Initiative (October, 1997)

- "Pre-College Mathematics Via Interactive Teledistance: Rice University and K-12 Schools," International Conference on Technology in Collegiate Mathematics, Chicago, IL (November, 1997)
- "Textbook Selection: What to Look for in a Mathematics Program," Friendswood ISD (January, 1998)
- "Effective Teaching Strategies for the Algebra I End-of Course Exam," Keynote Address, Targeting Rising Expectations Forum sponsored by PLATO Education, Houston, TX (February, 1998)
- "Successful Teaching Practices for Mathematics Instruction," video spot on Channel 13 TV (February, 1998) "Professional Growth Opportunities for Grades 7-12 Mathematics Teachers: An Urban Perspective," Moving

On Mathematically in Ohio Conference, Athens, OH (March, 1998)

"OWLink Calculus," Texas State Board of Education, interactive teledistance presentation (March, 1998)

- "A Tale of Two Functions: Explore Two Interesting Cubic Functions with Paper Folding, Rainbow Cubes, and Graphing Technology," National Council of Teachers of Mathematics Annual Conference, Washington, DC (April, 1998)
- "Developing Important Concepts in Mathematics," Houston ISD North District (May, 1998), Aldine ISD (May, 1998)
- "The Rice University School Mathematics Project," Channel 13 video spot (June, 1998)

"Equitable Practices in the Mathematics Classroom," Equity Initiatives in Science and Mathematics, Summer Program (July, 1998; June, 1999)

- "The Rice University School Mathematics Project," Houston ISD Schools of Excellence Convention (August, 1998)
- "Exploring Real-World Function is Algebra II," Aldine ISD (August, 1998)
- "What Pre-Calculus Teachers Need to Know About the A. P. Calculus Exams," Aldine ISD (August, 1998)
- "Effective Teaching Strategies for the E. O. C. Algebra I Exam," Algebra-on-Line video (January, 1999)
- "Exploring Real-World Functions in Algebra Using Graphing Technology," Houston ISD North Central District (February, 1999)

"Implication for Algebra II in Light of *Standards 2000*," Aldine ISD (February, 1999)

- "University/School District Collaboration for Change: Houston's Algebra Initiative," National Council of Supervisors of Mathematics Annual Conference, San Francisco, CA (April, 1999)
- "The Rice University School Mathematics Project," Lamplighter Schools Providers' Forum, Houston, TX (May & June, 1999)

"Patterns in Mathematics," HU-LINC Science Leadership Program (June & July, 1999)

"Project Evaluation: The Rice University School Mathematics Project," Eisenhower Technical and Financial Assistance Meeting - Special Session for New 1999-2000 Project Directors, Austin, TX (August, 1999)

"A Potpourri of Activities for the Geometry Classroom," Aldine ISD (August, 1999) "Targeting Interdisciplinary Activities," Houston ISD North Central District (September, 1999-February, 2000) "Logic Activities for the Geometry Classroom," Houston ISD (October, 1999)

#### 1980s

"The Sharpstown High School Math Department," Sharpstown Rotary Club (1981)

- "A.P. Calculus and the new textbook: Calculus: Concepts and Calculations," Houston ISD (1982)
- "Fostering Positive Attitudes and Motivating Teachers," Houston ISD (1982)

"What Colleges can do to better improve Teacher Training," School College Articulation Task Force Conference, Houston, TX (1982)

"Teaching Conics in Algebra II," Houston ISD (1983)

"Conics," Houston Council of Teachers of Mathematics Mini-Conference (1983)

"The Importance of Homework in Mathematics," TV Channel 8 (1983)

"Conics Applications in Advanced Mathematics," Fort Bend ISD (1983)

"Inequalities and Absolute Value in First Year Algebra," Houston ISD (1985)

"Test-Taking Strategies," Houston ISD 3-day workshop (1985-1986)

"Homework Hotline," TV Channel 8 (1986)

"Investigating Curriculum Documents, Support Materials, and the Instructional Objectives in High School Advanced Mathematics Courses," Houston ISD (1987)

"Project Access," TV Channel 8 (1987)

### 1970s

"Algebra II Curriculum: Scope & Sequence," Houston ISD (1975)

"Enrichment Topics in Algebra," Houston ISD (1976)

"Seminar on Advanced Topics," Houston ISD (1979)

"Mathematics Curriculum, Textbook Selection & Reading in Mathematics," Houston ISD (1979)

# TEXTEAMS MATHEMATICS INSTITUTES PRESENTATIONS

TEXTEAMS Pre-Calculus Institute, Part II, Houston ISD (January, 2006) TEXTEAMS Algebra II Institute, Part II, Houston ISD (January, 2004; November, 2005) TEXTEAMS Algebra II/Pre-Calculus Institute, Part I, Houston ISD (May, 2003; Fall, 2005) TEXTEAMS High School Geometry: Supporting TEKS and TAKS, Houston ISD (October, 2003); Aldine ISD (June, 2004)

- TEXTEAMS High School Geometry: Supporting TEKS and TAKS, local leader training, Houston ISD (Spring, 2003)
- TEXTEAMS Rethinking Middle School Mathematics: Geometry, local leader training for the Houston area (May, 2002)
- TEXTEAMS Algebra 1: 2000 and Beyond, local leader training for the Houston area (Fall, 2001)

TEXTEAMS Algebra II/Pre-Calculus Institute, Aldine ISD (Fall, 2000); Houston ISD (Fall, 2000; Spring, 2001; Fall 2001; Spring 2002; Spring 2003); Lamar CISD (Spring, 2002)

- TEXTEAMS Geometry for All, Train the Trainers Sessions (May, 1998; June, 1998); Houston ISD (Spring, 2000; Spring, 2001)
- TEXTEAMS Geometry Institute, in Education 590 (Summer, 1997; Summer, 1998)
- TEXTEAMS Algebra I Institute, Science Academy, Medical High School, Teachers Academy, Mercedes, TX (Spring, 1997)
- TEXTEAMS Algebra I Institute: Train the Trainers Sessions, (Spring, 1997)
- TEXTEAMS Algebra I & Geometry Institutes, Eisenhower High School, (August, 1997-May, 1998)

TEXTEAMS Algebra I Institute, in Education 595 (Fall, 1996; Spring, 1997; Fall, 1997; Fall, 1998; Fall, 1999); in Education 590 (Summer, 1997; Summer, 1998); in Education 580 (Summer, 2000); in Education 580 (Summer, 2001)

# SELECTED WRITTEN MATERIALS AND PUBLICATIONS

- The Rice School rocks, Rice at Large, 37, p.11. (Fall, 2018)
- Teachers share summer STEM externship experiences at RUSMP Networking Conference. Village News, 33(17), pp. 1, 12.

Rice School Rocks! Village News, Volume 32, No. 42 (March 27, 2018)

RUSMP helps HISD students with computer coding. Rice News (December 11, 2017)

- International Hour of Code at The Rice School/La Escuela Rice. Village/Southwest News. Volume 32, No. 28 (December 12, 2017)
- *The Rice School/La Esceula Rice hosts an eclipse watch party* Village/Southwest News, Volume 32, No. 14 (September 5, 2017)
- *Rice Math Camps, Program at St. Mark's, Episcopal* Village News/Southwest News, Volume 32, No. 9 (August 1, 2017) with Dana Smith and Richard Parr
- Mathematics teachers' motivational beliefs: The effects of the school-work environment with D. Corkin, & A. Ekmekci. Paper presented at the 2016 Annual Meeting of American Educational Research Association. Washington, DC (April, 2016)
- Warming Up to STEM Courtside, Rice at Large, Issue 30 (Spring 2016)

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Warming Up to STEM Courtside, Village News/Southwest News, Volume 30, No. 31 (December 29, 2015)
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- *The Rice School/La Escuela Rice Hold Successful STEM Fall Festival*, Village News/Southwest News, Volume 30, No. 28 (December 8, 2015)
- Sustainable changes in teacher practices: a longitudinal analysis of the classroom practices of high school mathematics teachers (2015) with Y. Copur-Genturk. Journal of Mathematics Teacher Education (Volume 18, No. 3)
- Antecedents of teachers' educational beliefs about mathematics and mathematical knowledge for teaching among inservice teachers in high poverty urban schools, (2015) with D. Corkin & A. Ekmekci. The Australian Journal of Teacher Education. (Volume 40, Issue 9, pp. 31-62)
- *Rice University Progam Hosts Math Teachers*, Village News/Southwest News, Volume 30, No.5 (June 30, 2015) *Mathematics Transforms Hirsch Elementary School*, Rice at Large, 27 (Spring 2015)
- *The collective effects of teachers' educational beliefs and mathematical knowledge on students' mathematics achievement* (2015) with A. Ekmekci & D. Corkin, In T. G. Bartell, K. N. Bieda, R. T. Putnam, K. Bradfield, & H. Dominguez (Eds.), Proceedings of the 37th annual meeting of the North American Chapter
  - of the International Group for the Psychology of Mathematics Education, (pp. 884-887). East Lansing, MI: Michigan State University
- *Technology using habits of mathematics teachers* (April, 2015) with *A*. Ekmekci & D. Corkin. Paper presented at the 2015 Annual Meeting of American Educational Research Association (AERA). Chicago, IL.
- The Relationship Between Teacher Related Factors and Mathematics Teachers' Educational Beliefs about Mathematics (2015) with A. Ekmekci & D. Corkin. In Che, S. M. and Adolphson, K. A. (Eds.),

Proceedings of the 42nd Annual Meeting of the Research Council on Mathematics Learning, (pp. 146-154). Las Vegas, NV

- Doing Math Courtside: RUSMP Sums Things Up during Rice Basketball's Warm-up. Village News/Southwest News, Volume 29, No.30 (December, 2014)
- Rice School Instills Awe for Math, Rice at Large, Issue 25 (Summer 2014)

Mathematics teacher leadership: A sustainable approach to improve mathematics education (2014) with A. Ekmekci & R. Parr. In Oesterle, S., Nicol, C., Liljedahl, P., & Allan, D. (Eds.), Proceedings of the 38th Conference of the International Group for the Psychology of Mathematics Education and the 36th Conference of the North American Chapter of the Psychology of Mathematics Education, (Volume 6), (p. 379). Vancouver, Canada: PME.

*The Rice School's New Math Club Completes a Successful First Year*, Village News/ Southwest News, Volume 28, No. 50 (May 2014).

Rice Mathematics Project Trains Mathematics Leaders, Village News, Volume 28, No. 42 (March 2014)

Rice Offers Solutions in Developing Mathematics Leaders, Rice at Large, Issue 23 (Winter 2014)

- 2014 Summer Campus Program: RUSMP Teacher Quality Program for K-12 Teachers (2014) with A. Ekmekci & Anderson (RUSMP DN: 14-01). Houston, TX: Rice University School Mathematics Project.
- Math Classes for Teachers at the Rice School, Village News, Volume 27, No. 46 (April 2013)

Program InspiresHouston Students to Explore Mathematics, Rice at Large, Issue 20 (Winter 2013)

Motivation and Disposition: Pathways to Learning Mathematics (Seventy-Third Yearbook) review in Mathematics Teacher (Volume 105, Number 9, May 2012, p. 716)

RUSMP to Celebrate 25 Years of Mathematic Engagement, Rice at Large Issue 17 (Winter 2012)

Characteristics of Lead Teachers and their roles in the institutionalization of the Rice University Mathematics Leadership Institute on their campuses: A case study (2012) with A. McCoy, R. Parr, & N. Kamau http://hub.mspnet.org/index.cfm/24013

Mathematics, Science, Tornadoes and Hurricanes, Rice at Large, Issue 16 (Fall 2011)

Galveston Students Visit Rice University, Village News (June 28, 2011)

- Island students explore space, science at Rice, Galveston County The Daily News (Volume 169, Number 76, June 25, 2011)
- Galveston Students Experience Science, Mathematics Ouside the Classroom, Rice News (June 24, 2011)
- The Alberta High School Math Competitions 1957-2006: A Canadian Problem Book review in Mathematics Teacher (Volume 104, Number 3, October 2010, p. 237)
- *Galveston Students Visit Rice University*, Galveston County The Daily News (Volume 168, Number 116, July 30, 2010)

Teaching – A job or profession: The perception of educators (2010) with M. Desiderio & D. Martinez,

The Educational Forum (Volume 74, number 4, pp. 289-296)

- Galveston Students Visit the Rice University Campus, Village News (July 27, 2010)
- Project GRAD Students Learn Advanced Mathematics at Rice University, Village News (July 6, 2010); Southwest News (July 6, 2010)
- Differentiation Assessment in Middle and High School Mathematics and Science review in Mathematics Teacher (Volume 103, Number 7, March 2010, pp. 541-542)
- The Rice University Mathematics Leadership Institute/Houston Independent School District Lesson Study Project (2010) with R. Parr, Proceedings of the 2010 National Science Foundation Math and Science Partnership (MSP) Learning Network Conference (January, 2010)
- The Development of Texas Master Mathematics Teachers through the Rice University Leadership Institute (2009) with R. Parr & J. Sack http://mli.mspnet/org/index.cfm/
- Impossible? Surprising Solutions to Counterintuitive Conundrums review in Mathematics Teacher (Volume 102, Number 8, April 2009, p. 640)

The Way I See It: Magical mathematical tour of the Rice campus, Rice News (March 28, 2008)

Math Teachers Hone Their Skills at Rice Summer Campus Program, Rice at Large, Issue 4 (Summer, 2007)

- Strengthening Mathematics Teachers' Pedagogical Content Knowledge Through Collaborative Investigations in Combinatorics (2007) with A. McCoy, A. Hill, J. Sack, & R. Parr. In Lamberg, T., & Wiest, L. R. (Eds.), Proceedings of the 29th annual meeting of the North American Chapter of the International Group for the
  - Psychology of Mathematics Education, (pp. 887-889). Lake Tahoe, NV.

RUSMP Celebrates 20 Years of Service, Rice at Large, Volume 1, No. 1 (Summer, 2006)

Math Curriculum Adds Up, Houston Chronicle (March 11, 2006)

*Effective professional development: Defining the vital role of the Master Teacher* with P. Cruz, N. Kamau, R. Parr, S. Troutman, R. Ward, & C. White, *NCSM Journal of Mathematics Education Leadership* (Fall/Winter 2012-2013, Volume 14, Number 2, pp. 49-60)

*Measure IT!*, manuscript commissioned by the Harris County Department of Education Foundation, with R. Parr & J. Sack (2005) also at http://rusmp.rice.edu

Houston ISD's Algebra II Model lessons (Units 1 and 2), with R. Parr (2004)

- Professional Development to Support the NCTM Standards: Lessons Learned from the Rice University School Mathematics Project's Summer Campus Program, with R. Parr, H. Schweingruber, & P. Cruz, NCSM Journal of Mathematics Education Leadership (Spring, 2004)
- *The Geometry Module*, for the Texas Education Agency and the Texas Higher Education Coordinating Board (Spring, 2004) also at http://rusmp.rice.edu/Content.aspx?id=153
- The Rice University School Mathematics Project in What Works in the Elementary School: Results-Based Staff Development, National Staff Development Council (2002)
- The Rice University School Mathematics Project in What Works in the High School: Results-Based Staff Development, National Staff Development Council (2002)
- The Rice University School Mathematics Project's Summer Campus Program, in the Delaware Professional Development Center, with R. Parr (2001)
- *The Rice University School Mathematics Project's Urban Programs*, in the Delaware Professional Development Center, with R. Parr (2001)

Houston ISD's Algebra I Project CLEAR, with R. Parr and M. Franshaw (2001)

- Mathematics Assessment Project, manuscript prepared for Southwestern Educational Development Laboratory, with R. Parr, M. Lilly, & H. Maclean (2001)
- University/School District Collaboration for Change: Houston's Algebra Initiative, with E. Herbert, M. Rohr, & H. Schweingruber, manuscript presented at the National Council of Supervisors of Mathematics Annual Conference, San Francisco, CA (1999)
- Professional Development to Support the NCTM Standards: Lessons from the Rice University School Mathematics Project, with H. Schweingruber, E. Herbert, & R. O. Wells, Jr., RUSMP REPORT (1999)
- The Rice University School Mathematics Project in What Works in the Middle: Results-Based Staff Development, National Staff Development Council (1999)
- HU-LINC Mathematics Needs Assessment, with H. Schweingruber (1999)
- Houston Independent School District Middle School Mathematics Syllabus, with M. Rohr (August, 1999; August, 2000)
- Professional Growth Opportunities for Grades 7-12 Mathematics Teachers: An Urban Perspective. (1998), with J. Casey. Proceedings from the Moving On Mathematically in Ohio Conference, Athens, OH
- Houston Independent School District Algebra I Syllabus, with E. Herbert & M. Rohr (August, 1997; August, 1998; August, 1999; August, 2000)
- Algebra On-Line: Teachers Talking to Teachers (23 videos on algebra for Cable TV with associated Web site: http://riceinfo.rice.edu/armadillo/algebra), co-produced with E. Herbert through Houston ISD (1996-2000)
- The Marshall Plan: Rice University Mathematics Affiliates Program, with S. Berger, R. O. Wells, Jr., & J. D. Austin, Schools in the Middle (November/December, 1996)
- *Rice University Urban Mathematics Program: The Revere Middle School STAR Program*, with M. Stanley & R. O. Wells, Jr., RUSMP REPORT (1996)
- The Rice University School Mathematics Project's Houston Urban Program at Christa Mc Auliffe Middle School in Fort Bend ISD, with S. Hemphill & C. Quast, RUSMP REPORT (1996)

CRPC GirlTECH, with J. Casey & C. Lanius RUSMP REPORT (1996)

*The Rice University School Mathematics Project*. CENTERPIECE, publication of the Rice University Center for Education (Fall, 1995)

An Introduction to Linear Algebra: A Curricular Unit for Pre-Calculus Students with T. Anthony & R. Tapia

Mathematics/Science Leadership Program: A Houston Collaborative for Alternative Certification Teachers. (1994), with B. Tharp. Proceedings from the 4th National Conference on Alternative Certification, Washington, DC.

- Student Effects of a Teacher Enhancement Project, with J. D. Austin, M. Dial, & R. O. Wells, Jr., RUSMP REPORT (1994)
- Effects of an Integrated Mathematics/Science Program on Changing Teachers' Beliefs about Their Teaching, with B. Tharp & L. Miller, RUSMP REPORT (1994)
- Handbook on the Teaching and Learning of Mathematics, with M. Franshaw. Rice University Department of Education publication (1993)
- RUSMP LOG, Rice University School Mathematics Project Newsletter, editor (1992-1997)

# An Examination of High School Students' Understanding of the Concept of Function, (1992) unpublished doctoral dissertation

*Texas Mathematics Teacher*, Texas Council of Teachers of Mathematics Journal, editorial board (1991-1992) "The Development and Application of a Test to Measure Secondary Students' Concept of Function," paper

presented at Southwest Educational Research Association, San Antonio, TX (January, 1991) "Geometry in Our World," tabloid, *The Houston Post* (April, 1991)

Rice University School Mathematics Project Evaluation Report: 1988, 1989, 1996

Metro Houston Council of Mathematics contests: Calculus (1977-1978), Algebra (1979-1980)

Houston ISD curriculum materials: geometry, algebra, trigonometry, analytical geometry, pre-calculus, calculus (1975-1994)

*The Protractor*, Houston Council of Teachers of Mathematics publication, editor (1975-1977, 1980-1982)

# CURRENT COLLABORATORS IN EDUCATION

Jan Casey (formerly Spring Branch ISD), Danya Corkin (UHDT), Adem Ekmekci (Rice University), Alice Fisher (Houston ISD), Maria Franshaw (River Oaks Baptist School), Cynthia Lanius (formerly Math Forum), Ann McCoy (Mental Health of America - Houston), Lance Menster (Houston ISD), Richard Parr (Rice University), Richard Tapia (Rice University), Susan Troutman (Rice University), Robin Ward (Rice University, Carolyn White (Rice University) [Peter Hlebowitsh, University of Alabama (Dissertation Chair)]

# CURRENT AND PRIOR SUPPORT

AIM Foundation, Algebra Nation, The Joe Barnhart Foundation, Big Ideas Learning, CASIO America, The Children's Museum of Houston, Code.Org, Exxon Education Foundation, The George Foundation, Harris County Department of Education, Houston A+ Challenge, Houghton Mifflin Harcourt, Multicultural Education and Counseling through the Arts, National Science Foundation, Region IV Educational Service Center, Schlumberger, Shell Westhollow, Southern Regional Education Board, Southwest Educational Development Laboratory, Southwestern Bell, Texas Council on Economic Education, Texas Education Agency, Texas Higher Education Coordinating Board, Texas Instruments, Texaco Foundation, Toyota Foundation, The University of Texas at Austin, The University of Texas Charles A. Dana Center, collaborating schools and school districts

# **PROFESSIONAL AFFILIATIONS**

American Educational Research Association Association for Supervision and Curriculum Development National Council of Supervisors of Mathematics National Council of Teachers of Mathematics TODOS

9/28/2018