

## CURRICULUM VITA

Joan Ferrini-Mundy

President, University of Maine and University of Maine at Machias  
Vice Chancellor for Research and Innovation, University of Maine System

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05/24/2023

### EDUCATION

#### **University of New Hampshire, Department of Mathematics, College of Engineering and Physical Sciences**

1980	Ph.D.	Mathematics Education (Minor: Research Methodology/Statistics)
1977	M.S.	Mathematics
1975	B.S.	Mathematics Education, summa cum laude

### EXPERIENCE

#### **2021 – present: University of Maine System, Orono, Maine**

Vice Chancellor for Research and Innovation, University of Maine System

#### **2018 – present: University of Maine, Orono, Maine**

President, University of Maine

President, University of Maine at Machias

Professor, Department of Mathematics & Statistics, effective 01/24/2022

University of Maine Graduate Faculty Member, effective 05/15/2023

Member of the Maine Center for Research in STEM Education, effective 5/2023

#### **2007 – 2018: National Science Foundation, Arlington, Virginia**

Member of U.S. Government Senior Executive Service, 2011–2018

Chief Operating Officer (COO), June 2017 – June 2018; Acting COO, February–June 2017

Assistant Director, Education and Human Resources, February 2011–January 2017

Acting Assistant Director, Directorate for Education and Human Resources, Intergovernmental

Personnel Act assignment from Michigan State University, January 2010–January 2011

Acting Executive Officer, Directorate for Education and Human Resources, Intergovernmental

Personnel Act assignment from Michigan State University, January 2009–December 2009

Inaugural Director, Division of Research on Learning in Formal and Informal Settings, Directorate for

Education and Human Resources, Intergovernmental Personnel Act assignment from Michigan State University, January 2007–December 2009

#### **1999 – 2011: Michigan State University, East Lansing, Michigan**

On unpaid leave of absence, January 2011 – January 2012

Intergovernmental Personnel Act appointment at the National Science Foundation, January 2007–  
January 2011

Associate Dean for Science and Mathematics Education, College of Natural Science, 1999–2006

Director, Division of Science and Mathematics Education, College of Natural Science, 1999–2006

University Distinguished Professor of Mathematics Education, 2005–January 2012  
Professor of Mathematics, College of Natural Science, 1999–January 2012  
Professor of Teacher Education, College of Education, 1999–January 2012

**1995 – 1999: National Research Council, National Academy of Sciences, Washington, D.C.**

Associate Executive Director, Center for Science, Mathematics, and Engineering Education, 1997–1999  
Director, Mathematical Sciences Education Board, 1995–1999

**1983 – 1999: University of New Hampshire, Durham, New Hampshire**

On leave, National Research Council, summer 1995 – summer 1999  
Professor of Mathematics, College of Engineering and Physical Sciences, 1994–1999  
On leave as Visiting Scientist, Teacher Enhancement Program, Science and Engineering Education,  
National Science Foundation, 1989–1991  
Associate Professor of Mathematics with tenure, 1987–1994  
Assistant Professor of Mathematics, 1983–1987  
Director or Co-Director, Master of Science for Teachers Program, 1985–1995

**1982 – 1983: Mount Holyoke College, South Hadley, Massachusetts**

Visiting Assistant Professor of Mathematics  
Co-director and Co-founder (with Jere Confrey) of SummerMath for Teachers Program

**1980 – 1982: University of New Hampshire, Durham, New Hampshire**

Postdoctoral Research Associate, Department of Mathematics Focus: gender equity in mathematics and science

**1975 – 1980: University of New Hampshire, Durham, New Hampshire**

Doctoral Student, Mathematics Education, Department of Mathematics  
Teaching Assistant, Department of Mathematics  
Experience: developmental mathematics courses, calculus tutoring

**1977 – 1979: St. Paul's School, Concord, New Hampshire**

Secondary school mathematics teacher, soccer coach, and dormitory supervisor

## **PUBLICATIONS**

- Ferrini-Mundy, Joan (2021) Positives in pandemics – Extension’s role grows during COVID-19 crisis. *Portland Press Herald*, op-ed, March 11, 2021.
- Ferrini-Mundy, J. (2020) 100 days in, pandemic proves payoff of public investment in UMaine research. *Bangor Daily News* op-ed June 26, 2020.
- Ferrini-Mundy, Joan. The University of Maine: Playing all positions in the policy game. *Maine Policy Review* 29.1 (2020): 6–7, <https://digitalcommons.library.umaine.edu/mpr/vol29/iss1/1>.
- Ferrini-Mundy, J. (2017). Education reform, research, and policy: Interwoven influences on mathematics education in the United States. In J. Cai (Ed.), *First compendium for research in mathematics education*. Reston, V.A.: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., Scherer, L., & Singer, S.R. (2016). The reform of undergraduate science, technology, engineering and mathematics education in context: Preparing tomorrow's STEM

- professionals and educating a STEM-savvy public. In G.C. Weaver, W.D. Burgess, A.L. Childress, & L. Slakey (Eds.), *Transforming institutions: Undergraduate STEM education for the 21st century*. West Lafayette: Purdue University Press.
- Reckase, M.D., McCrory, R., Floden, R.E., Ferrini-Mundy, J., & Senk, S.L. (2015). A multidimensional assessment of teachers' knowledge of algebra for teaching: Developing an instrument and supporting valid inferences. *Educational Assessment*, 20(4), 249–267.
- Hoyles, C. & Ferrini-Mundy, J. (2013). Policy implications of developing mathematics education research. In M.A. Clements, A.J. Bishop, C. Keitel, J. Kilpatrick, & F.K.S. Leung (Eds.), *Third International Handbook of Mathematics Education* (pp. 485–515). New York, N.Y.: Springer.
- Ferrini-Mundy, J. (2013). Driven by diversity. *Science*, 340 (6130), 278.
- Ferrini-Mundy, J. (2013). Perspectives américaines. In M.F. Chevallier- Le Guyader & J-M Dabadie (Eds.) *Partager la science: L'illettrisme scientifique en question*. Actes Sud, IHES.
- Ferrini-Mundy, J. & Lakhani, H. (2013). Education programs to develop talent: A U.S. perspective. In *United States-China: Comparative Government Organization and Operation in Science and Technology Innovation*. Woodrow Wilson International Center for Scholars: Washington, D.C.
- McCrory, R., Floden, R., Ferrini-Mundy, J., Reckase, M.D., & Senk, S.L. (2012). Knowledge of algebra for teaching: A framework of knowledge and practices. *Journal for Research in Mathematics Education*, 43(5), 584–614.
- Kim, D. J., Ferrini-Mundy, J., & Sfard, A. (April 2012). Does language impact mathematics learning? Comparing English and Korean speaking university students' discourses on infinity. *International Journal of Educational Research*, Vol. 51/52.
- Kim, D., Sfard, A., & Ferrini-Mundy, J. (2010). Students' colloquial and mathematical discourses on infinity and limit: A comparison of U.S. and Korean students. *School Mathematics*, 12(1), 1–15.
- Kim, D., Ferrini-Mundy, J., & Sfard, A. (2010). Comparison of native-English and native-Korean speaking university students' discourses on infinity and limit. In M.M.F. Pinto and T.F. Kawasaki (Eds.), *Proceedings of the 34th Conference of the International Group for the Psychology of Mathematics Education*, Vol.1. Belo Horizonte, Brazil: PME.
- Ferrini-Mundy, J., & Guçler, B. (2009). Discipline-based efforts to enhance undergraduate STEM education. In R. Baldwin (Ed.), *Improving the climate for undergraduate teaching and learning in STEM fields: New directions for teaching and learning* (pp. 55–67). San Francisco: Jossey-Bass.
- Ferrini-Mundy, J. (2008). What core knowledge do doctoral students in mathematics education need to know? In R. Reys & J. Dossey (Eds.), *U.S. doctorates in mathematics education. CBMS Issues in Mathematics Education*, Vol. 15 (pp. 63–74). Washington, D.C.: American Mathematical Society.
- Ferrini-Mundy, J., & Breaux, G. (2008). Perspectives on research, policy, and the use of technology in mathematics teaching and learning in the United States. In M.K. Heid & G.W. Blume (Eds.), *Research on technology and the teaching and learning of mathematics, cases and perspectives* (pp. 427–448). Charlotte, N.C.: Information Age Publishing.
- Gersten, R., Ferrini-Mundy, J., Benbow, C., Clements, D., Loveless, T., Williams, V., Arispe, I., & Banfield, M. (2008). Report of the task group on instructional practices. In National Mathematics Advisory Panel, *Foundations for success: Reports of the task groups and subcommittees* (pp. 6-iii–6-224).
- Ferrini-Mundy, J., Burrill, G., & Schmidt, W. (2007). Building teacher capacity for implementing curricular coherence: Mathematics teacher professional development tasks. *Journal of Mathematics Teacher Education*, 10(6), 311–324.
- Ferrini-Mundy, J., & Floden, R.E. (2007). Educational policy research and mathematics education. In F. K. Lester, Jr. (Ed.), *Second handbook of research on mathematics teaching and learning* (pp.

- 1247–1279). Charlotte, N.C.: Information Age Publishing.
- Ferrini-Mundy, J. (2006). Making change in school mathematics: Lessons about the interactions among research, policy, and practice from the PROM/SE Project. Plenary talk in *Proceedings of the Annual Conference on Mathematics Education*, Korea Society of Mathematics Education, Seoul, Korea.
- Ferrini-Mundy, J. (2006). Foreword. In Tobey, C.R., & Keeley, P., *Mathematics curriculum topic study: Bridging the gap between standards and practice*. Sage Publications.
- Ferrini-Mundy, J. (2005). The TIMSS 2003 and PISA 2003 reports: Sustaining focus and concern about the state of mathematics education in the United States. *Education Statistics Quarterly*, 6(4): 26–28.
- Ferrini-Mundy, J., & Powell, J.C. (2005). Opportunities for researchers. *The Natural Selection: The Journal of BSCS*, Winter 2005, 33–35.
- Ferrini-Mundy, J., & Schmidt, W. (2005). International comparative studies in mathematics education: Opportunities for collaboration and challenges. *Journal for Research in Mathematics Education*, 36(3), 164–175.
- Ball, D. L., Ferrini-Mundy, J., Kilpatrick, J., Milgram, J., Schmid, W., & Schaar, R. (2005). Reaching for common ground in K–12 mathematics education. *Notices of the American Mathematical Society*, 52(9), 1055–1058.
- Kim, D.J., Sfard, A., & Ferrini-Mundy, J. (2005). Students' colloquial and mathematical discourses on infinity and limit. In H.L. Chick & J.L. Vincent (Eds.), *Proceedings of the 29th Conference of the International Group for the Psychology of Mathematics Education*: Vol. 3 (pp. 201–208). Melbourne, Australia.
- Kim, D., Sfard, A., & Ferrini-Mundy, J. (2005, October). Students' colloquial and mathematical discourses on limit. In G.M. Lloyd, M.R. Wilson, J.L.M. Wilkins, & S.L. Behm (Eds.), *Proceedings of the 27th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* [CD-ROM]. Eugene, Ore.: All Academic.
- Ferrini-Mundy, J. (2004). Preparing scholars in mathematics education. In C. Kiselman, E. Melin, & M. Neytcheva (Eds.), *Graduate school in mathematics and computing, FMB, and graduate school in mathematics education, FMD, open house* (pp. 25–43). Uppsala, Sweden.
- Ferrini-Mundy, J. (2004). National standards, local control of curriculum: Setting the course of mathematics education in the United States. In H. Fujita, Y. Hashimoto, B.R. Hodgson, P.Y. Lee, S. Lerman, & T. Sawada (Eds.), *Proceedings of the Ninth International Congress on Mathematics Education* (pp. 126–127). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Ferrini-Mundy, J. (2004). Studying the role and influence of standards on K–12 mathematics education. In F.K. Lester & J. Ferrini-Mundy (Eds.), *Proceedings of the NCTM Research Catalyst Conference* (pp.1–8). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J. (2004). What does it mean to be standards-based? Issues in conceptualizing, measuring, and studying alignment with standards. In F.K. Lester & J. Ferrini-Mundy (Eds.), *Proceedings of the NCTM Research Catalyst Conference* (pp. 25–32). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, Joan. (2004). Summary of perspectives panel I: Policy, practice, and research. In F.K. Lester & J. Ferrini-Mundy (Eds.), *Proceedings of the NCTM Research Catalyst Conference* (pp. 103–106). Reston, VA: National Council of Teachers of Mathematics.
- Lester, F.K. & Ferrini-Mundy, J. (Eds.) (2004). *Proceedings of the NCTM Research Catalyst Conference*. Reston, VA: National Council of Teachers of Mathematics. (ERIC Document Reproduction Service No. ED 495228)
- Senk, S., Keller, B., & Ferrini-Mundy, J. (2004). The mathematical preparation of teachers: K–12. Report of a workshop at Michigan State University. Mathematical Association of America

- CRAFTY Curriculum Foundations Project. In S.L. Ganter & W. Barker (Eds.), *A collective vision: Voices of the partner disciplines*. MAA Reports Series (pp. 145–156). Washington, D.C.: Mathematical Association of America.
- Ferrini-Mundy, J., & Graham, K.J. (2003). The education of mathematics teachers in the United States after World War II: Goals, programs, and practices. In J. Kilpatrick & G. Stanic (Eds.), *A history of school mathematics*: Vol. 2 (pp. 1193–1308). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., & Martin, W.G. (2003). Using research in policy development: The case of the National Council of Teachers of Mathematics' Principles and Standards for School Mathematics. In J. Kilpatrick, W.G. Martin, & D. Schifter (Eds.), *A research companion to the Principles and Standards for School Mathematics* (pp. 395–419). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., Burrill, G., & Breaux, G. (Eds.) (2003). Mathematics education around the world: Bridging policy and practice. *Reflections from the 2001 Park City Mathematics Institute International Panel on Policy and Practice in Mathematics Education*. Princeton, N.J.: Institute for Advanced Study. Retrieve from <http://mathforum.org/pcmi/>
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- Ferrini-Mundy, J., Burrill, G., & Breaux, G. (Eds.). (2002). Mathematics education around the world: Bridging policy and practice. *Reflections from the 2002 Park City Mathematics Institute International Panel on Policy and Practice in Mathematics Education*. Princeton, N.J.: Institute for Advanced Study. Retrieve from <http://mathforum.org/pcmi/int2002report>.
- Ferrini-Mundy, J., & Findell, B. (2001). The mathematical education of prospective teachers of secondary school mathematics: Old assumptions, new challenges. In T. Rishel (Ed.), *Mathematics and the mathematical sciences in 2010: What should students know?* (pp. 31–41). Washington, D.C.: Mathematical Association of America.
- Ferrini-Mundy, J. (2000). The standards movement in mathematics education: Reflections and hopes. In M.J. Burke & F.R. Curcio (Eds.), *Learning mathematics for a new century. 2000 yearbook* (pp. 37–50). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J. (2000) Principles and standards for school mathematics: A guide for mathematicians. *Notices of the American Mathematical Society*, 47(8), 868–876.
- Ferrini-Mundy, J. (2000). The National Council of Teachers of Mathematics' new Principles and standards for school mathematics: Implications and challenges. *Mathematical Association of America-Michigan Section-MAA-Newsletter*, 27(1), 7–11.
- Ferrini-Mundy, J., (2000). Promising approaches for helping prospective elementary teachers learn mathematics for teaching: Where are we? Moderator's summary. In *Proceedings of the Conference Knowing and Learning Mathematics for Teaching* (p. 125). Washington, D.C.: National Research Council.
- Ferrini-Mundy, J., & Martin, W.G. (2000). Developing Principles and Standards for School Mathematics: The role of feedback and advice. *New England Mathematics Journal*, 32(2), 6–17.
- Heid, M.K., Harel, G., Ferrini-Mundy, J., & Graham, K. (2000). Advanced mathematical thinking: Implications of various perspectives on advanced mathematical thinking for mathematics education reform. In M.L. Fernandez (Ed.), *Proceedings of the Twenty-second Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education*: Vol.1 (pp. 33–38). Columbus, Ohio: ERIC Clearinghouse for Science, Mathematics, and Environmental Education. (ERIC Document Reproduction Service No. ED446945)
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Mathematical Association of America.

- Heid, M.K., Ferrini-Mundy, J., Graham, K., & Harel, G. (1999). The role of advanced mathematical thinking in mathematics education reform. In F. Hitt & M. Santos (Eds.) *Proceedings of the Twenty-first Annual Meeting North American Chapter of the International Group for the Psychology of Mathematics Education: Vol. 1* (pp.164–169). Columbus, Ohio: ERIC Clearinghouse for Science, Mathematics, and Environmental Education. (ERIC Document Reproduction Service No. ED433998)
- Ferrini-Mundy, J. (1998). What have we learned for the future? In J. Ferrini-Mundy, K. Graham, L. Johnson, & G. Mills (Eds.), *Making change in mathematics education: Learning from the field* (pp. 129–141). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J. (1998, September). Learning from the math standards. *The Science Teacher*, 65(6), 27–29.
- Ferrini-Mundy, J., Graham, K., Johnson, L., & Mills, G. (Eds.). (1998). *Making change in mathematics education: Learning from the field*. Reston, VA: National Council of Teachers of Mathematics.
- Heid, M.K., Ferrini-Mundy, J., Graham, K., & Harel, G. (1998). The role of advanced mathematical thinking in mathematics education reform. In S.B. Berenson, K.R. Dawkins, M. Blanton, W.N. Coulombe, J. Kolb, K. Norwood et al., (Eds.) *Proceedings of the Twentieth Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education: Vol. 2* (pp. 53–58). Columbus, Ohio: ERIC Clearinghouse for Science, Mathematics, and Environmental Education. (ERIC Document Reproduction Service No. ED430776)
- Fennell, F., Ferrini-Mundy, J., Ginsburg, H., Greenes, C., Murphy, S., & Tate, W. (1998). *Silver Burdett Ginn Mathematics. K-6 program*. Parsippany, N.J.: Silver Burdett Ginn.
- Ferrini-Mundy, J. (1997). Reform efforts in mathematics education: Reckoning with the realities. In S. Friel & G. Bright (Eds.), *Reflecting on our work: NSF Teacher Enhancement in K–6 mathematics* (pp. 113–132). Lanham, MD: University Press of America.
- Ferrini-Mundy, J., & Graham, K. (1997). Goals and conceptual framework. In J. Ferrini-Mundy & T. Schram (Eds.), *The Recognizing and Recording Reform in Mathematics Education Project: Insights, issues, and implications*. Journal for Research in Mathematics Education, Monograph Number 8 (pp. 5–15). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., & Johnson, L. (1997). Highlights and implications. In J. Ferrini-Mundy & T. Schram (Eds.), *The Recognizing and Recording Reform in Mathematics Education Project: Insights, issues, and implications*. Journal for Research in Mathematics Education, Monograph Number 8 (pp. 111–128). Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., & Johnson, L. (1997). Building the case for standards-based reform: Is mathematics our existence proof? In D.M. Bartels & J. Sandler (Eds.), *Implementing science education reform: Are we making an impact?* (pp. 157–186). Washington, D.C.: American Association for the Advancement of Science.
- Ferrini-Mundy, J., & Schram, T. (Eds.). (1997). *The Recognizing and Recording Reform in Mathematics Education Project: Insights, issues, and implications*. Journal for Research in Mathematics Education, Monograph Number 8. Reston, VA: National Council of Teachers of Mathematics.
- Ferrini-Mundy, J., Lappan, G., & Phillips, E. (1997). Experiences with patterning. *Teaching Children Mathematics*, 3(6), 282–288.
- Bybee, R.W., & Ferrini-Mundy, J. (1997). Editorial. *School Science and Mathematics*. 97(6), 281–282.
- Bybee, R.W., Ferrini-Mundy, J., & Loucks-Horsley, S. (1997). National standards and school science and mathematics. *School Science and Mathematics*, 97(6), 325–334.
- Ferrini-Mundy, J. (1997). Response to core curriculum in context: History, goals, models, challenges. In J. Dossey (Ed.), *Proceedings of the conference Confronting the core curriculum: Considering change in the undergraduate mathematics major* (pp. 15–16). Washington, D.C.: Mathematical

Association of America.

- Ferrini-Mundy, J. (1997). Issues in mathematics teacher education and development. In J. Price & J. Jacobs (Eds.), *Teaching, learning, and learning teaching* (pp. 3–10). Reston, VA: National Council of Teachers of Mathematics.
- Leiva, M.A., Brown, R.G., Coes, L., Cooper, S., Ferrini-Mundy, J., Herman, A., et al. (1997). *Algebra 1: Explorations and applications*, and *Algebra 2: Explorations and applications*. Evanston, Ill.: McDougal Littell/Houghton Mifflin.
- Ferrini-Mundy, J., (1996). Mathematical thought-in-action: Rich rewards and challenging dilemmas. In D. Schifter (Ed.), *What's happening in math class: Envisioning new practices through teacher narratives: Vol. 1* (pp. 77–86). Newark, Del.: International Reading Association, and New York Teachers College Press.
- Ferrini-Mundy, J., & Johnson, L. (1996). The place of problem solving in U.S. mathematics education K-12 reform: A preliminary glimpse. In D. Zhang, T. Sawada, & J. Becker (Eds.), *Proceedings of the China-Japan-U.S. seminar on mathematical education* (pp. 136–151). Carbondale: Southern Illinois University.
- Ferrini-Mundy, J., & Graham, K. (1994). Research in calculus learning: Understanding of limits, derivatives, and integrals. In J. Kaput & E. Dubinsky (Eds.), *Research issues in undergraduate mathematics: Preliminary analysis and results*. Washington, D.C.: Mathematical Association of America.
- Ferrini-Mundy, J., & Johnson, L. (1994). Implementing the Curriculum and Evaluation Standards: Recognizing and recording reform in mathematics: New questions, many answers. *The Mathematics Teacher*, 87(3), 190–194.
- Ferrini-Mundy, J., & Lauten, D. (1994). Connecting research and teaching: Learning about calculus learning. *The Mathematics Teacher*, 87(2), 115–121.
- Lauten, A.D., Graham, K., & Ferrini-Mundy, J. (1994). Student understanding of basic calculus concepts: Interaction with the graphics calculator. *The Journal of Mathematical Behavior*, 13, 225–237.
- Ferrini-Mundy, J., & Lauten, D. (1993). Teaching and learning calculus. In P.S. Wilson (Ed.), *Research ideas for the classroom: High school mathematics* (pp. 155–176). New York: Macmillan.
- Lappan, G., & Ferrini-Mundy, J. (1993). Knowing and doing mathematics: A new vision for middle grades students. *Elementary School Journal*, 93(5), 625–641.
- Ferrini-Mundy, J. (1993). [Review of the book *Schools, mathematics, and the world of reality*, R. Davis and C. Maher]. *Journal for Research in Mathematics Education*, 24(5), 477–483.
- Ferrini-Mundy, J. (1992, Fall–Winter). How responsible should the high schools be for preparing students for college: How responsible should the colleges be for accommodating entering students? *Mathematics in College*, 39–40.
- Leiva, M., Ferrini-Mundy, J., & Johnson, L. (1992). Playing with blocks: Visualizing functions. *The Mathematics Teacher*, 85(8), 641–646, 652–654.
- Ferrini-Mundy, J., & Gaudard, M. (1992). Secondary school calculus: Preparation or pitfall in the study of college calculus? *Journal for Research in Mathematics Education*, 23(1), 56–71.
- Ferrini-Mundy, J., & Graham, K. (1991). An overview of the calculus curriculum reform effort: Issues for learning, teaching, and curriculum development. *The American Mathematical Monthly*, 98(7), 627–635.
- Ferrini-Mundy, J., & Lappan, G. (1991). Reform in mathematics education: Opportunities and challenges for all. *Notices of the American Mathematical Society*, 38(8), 895–898.
- Lappan, G., & Ferrini-Mundy, J. (1990). Implementing the NCTM Curriculum and evaluation standards for school mathematics in grades 5–8: Obstacles and opportunities. *School Science and Mathematics*, 90(6), 486–493.
- Schoen, H., & Ferrini-Mundy, J. (1991). Successes and hurdles in changing mathematics curriculum

- instruction: Issues for discussion relative to the NCTM Curriculum and Evaluation Standards. In C. Firestone & C. Clark (Eds.), *Telecommunications as a tool for educational reform: Implementing the NCTM mathematics standards* (pp. 51–60). Forum Report. Washington, D.C.: The Aspen Institute, Communications and Society Program.
- Graham, K., & Ferrini-Mundy, J. (1990). Functions and their representations. *The Mathematics Teacher*, 84(3), 209–216.
- Ferrini-Mundy, J., Gaudard, M., Shore, S., & Van Osdol, D. (1990). How quality is taught can be as important as what is taught. *Quality Progress XXIII*, 56–59.
- Ferrini-Mundy, J., & Zia, L. (1989). Project CALCulate: Computer aided learning of calculus using spreadsheets. *Collegiate Microcomputer*, VII (4), 300–304.
- Balomenos, R.H., Ferrini-Mundy, J., & Dick, T. (1987). Geometry for calculus readiness. In M.M. Lindquist (Ed.), *Geometry today: 1987 yearbook*. Reston, VA: National Council of Teachers of Mathematics. Reprinted in *75th Yearbook of the National Council of Teachers of Mathematics*, 2013.
- Ferrini-Mundy, J. (1987). Spatial training for calculus students: Sex differences in achievement and in visualization ability. *Journal for Research in Mathematics Education*, 18(2), 126–140.
- Ferrini-Mundy, J. (1986). Industrial training in quality improvement – Part III: A first course, a Group Approach to Problem Solving. In R. Davidson & J. Swift (Eds.), *Proceedings of the Second International Conference on Teaching Statistics*. University of Victoria, British Columbia.
- Ferrini-Mundy, J. (1986). [Review of the journal article, On the aesthetics of mathematical thought, T. Dreyfus and T. Eisenburg]. *College Mathematics Journal*, 17(4).
- Rector, J., & Ferrini-Mundy, J. (1986). Formal mathematics study and teachers' beliefs and conceptions: Interactions and influences. In G. Lappan & R. Even (Eds.), *Proceedings of the Eighth Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 256–261). E. Lansing: Michigan State University. Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education. (ERIC Document Reproduction Service No. ED301443)
- Ferrini-Mundy, J. (1985). Overview: The Fifth International Congress on Mathematical Education. *New England Mathematics Journal*, XVII (2), 3–4.
- Mundy, J.F., Waxman, B.L., & Confrey, J. (1983). Educating mathematics teachers: The cognitive process/constructivist perspective. In J.C. Bergeron & N. Herscovics (Eds.), *Proceedings of the Fifth Annual Meeting of Psychology of Mathematics Education – North America*, (Vol. 2, 196–204). Montreal, Canada.

## **TECHNICAL REPORTS, COMMITTEE REPORTS, and OTHER WRITINGS**

- Maine Innovation Economy Advisory Board, *Maine Innovation Economy Action Plan, 2023-2027*. (May 2023). (Chair of MIEAB)
- Maine Department of Economic and Community Development, State of Maine, and the Office of Governor Janet T. Mills. *Maine Economic Development Strategy 2020–2029: A Focus on Talent and Innovation*. (November 2019). (Member of writing group)
- The University of Maine System. *The University of Maine System Research and Development Plan, FY 2020 – FY 2024: R&D to promote industry, business and community growth in Maine and to ensure the sustainability of the University of Maine System*. (May 2019)
- The University of Maine System Board of Trustees. *Re-envisioning Learning and Instruction for the University of Maine System – A strategic framework for continued academic transformation*. (October 2018) (with Robert Neely and Karen Kimball)
- Institute of Education Sciences, U.S. Department of Education, and the National Science



- Foundation. *Common Guidelines for Education Research and Development*. (August 2013). (Ex officio member of committee)
- National Science and Technology Council. *Federal Science, Technology, Engineering, and Mathematics (STEM) education 5-Year strategic plan*. (May 2013). Report from the Committee on STEM Education. (co-chair of writing group)
- National Science and Technology Council Subcommittee on Education. (2008). *Finding out what works: Agency efforts to strengthen evaluation in federal science, technology, engineering and mathematics (STEM) education programs*. Washington, D.C.: National Science and Technology Council Education Subcommittee. (member of evaluation subgroup)
- National Mathematics Advisory Panel. (2008). *Foundations for success: The final report of the National Mathematics Advisory Panel*. Washington, D.C.: U.S. Department of Education. (ex officio panel member representing NSF)
- Michigan Department of Education. (2007). *Final report of the Teacher Preparation Policy Study Group*. Lansing, Mich.: Michigan Department of Education. (project director, principal author with David Osta)
- Michigan Department of Education Office of School Improvement. (2006). *High school content expectations*. Lansing, Mich.: Michigan Department of Education. (chair of writing group)
- Estry, D.W. & Ferrini-Mundy, J. (2005). *Quantitative Literacy Task Force final report and recommendations*. East Lansing: Michigan State University.
- Michigan Department of Education Office of School Improvement. (2004). *Mathematics grade level content expectations*. Lansing, Mich.: Michigan Department of Education. (chair of writing group)
- National Science Foundation Directorate for Education and Human Resources Mathematics Education Expert Panel. (2004). *Review of the mathematics education portfolio, 1994 – 2002*. Internal report. Arlington, VA: National Science Foundation. (senior advisor, co-author with Janice Earle and Karen King)
- National Science Foundation Directorate for Education and Human Resources Mathematics Education Expert Panel. (2004). *Review of the mathematics education portfolio, 1994 – 2002. Executive summary*. Arlington, VA: National Science Foundation. (senior advisor, co-author with Janice Earle and Karen King)
- RAND Mathematics Study Panel. (2002). *Mathematical proficiency for all students: Toward a strategic research and development program in mathematics education*: RAND Education and Science and Technology Policy Institute. (committee member)
- Research Advisory Committee and Standards Impact Research Group Report. Ferrini-Mundy, J. (2002). Mathematics education research: Can the field deliver? *Journal for Research in Mathematics Education*, 33(5), 313–318.
- Wilson, S., Floden, R., & Ferrini-Mundy, J. (2001). *Teacher preparation research: Current knowledge, recommendations, and priorities for the future*. University of Washington, Center for the Study of Teaching Policy.
- Martin, W.G., Ferrini-Mundy, J., & Lindquist, M.L., (2000). *The shaping of Principles and Standards for School Mathematics: From discussion draft to final document*. (Draft technical report). Reston, VA: National Council of Teachers of Mathematics.
- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: Author. (chair of writing group)
- National Council of Teachers of Mathematics Standards 2000 Writing Group. (1998). *Principles and standards for school mathematics: Discussion draft*. Reston, VA: Author. (chair of writing group)
- Ferrini-Mundy, J., & Soucy-McCrone, S. (1994–1998). *Evaluation reports, Mathematics for Tomorrow Project* Educational Development Center. Durham: University of New

Hampshire.

- Ferrini-Mundy, J., Lauten, D., & Graham, K. (1998). *Calculus Consortium based at Harvard Evaluation and Documentation Project Report, 1998*. Durham: University of New Hampshire.
- Mathematical Sciences Education Board. (1997). *Toward excellence in K-8 mathematics education*. Letter report. Washington, D.C., National Academy Press. (staff lead at NRC)
- Mathematical Sciences Education Board. (1996). *The preparation of teachers of mathematics: Considerations and challenges*. Letter report. Washington, D.C.: National Academy Press. (staff lead at NRC)
- Center for Science, Mathematics, and Engineering Education. (1996). *Mathematics and science education around the world: What can we learn from the Survey of mathematics and science opportunities and the Third international mathematics and science study?* Washington, D.C.: National Academy Press. (staff lead at NRC)
- Lindquist, M., Ferrini-Mundy, J., & Kilpatrick, J. (1997). Guest editorial. *Journal for Research in Mathematics Education*, 28(4), 394–395.
- Burrill, G., Choate, J., Ferrini-Mundy, J., Monk, S., Moore-Harris, B., Phillips, E., et al. (1997). A framework for constructing a vision of algebra: A discussion document. In *The nature and role of algebra in the K–14 curriculum: Proceedings of a national symposium*. Washington, D.C.: National Academy Press.
- Ferrini-Mundy, J. (1996). Justification and reform. Report of the Research Advisory Committee. *Journal for Research in Mathematics Education*, 27(5), 516–520.
- Ferrini-Mundy, J., & Campbell, P. (1992). Issues concerning evidence. Research Advisory Committee Report. *Journal for Research in Mathematics Education*, 23(4), 341–344.
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- Ferrini-Mundy, J., & Johnson, M. (1989). The mathematics education of underserved and underrepresented groups: Continuing challenge. Research Advisory Committee Report. *Journal for Research in Mathematics Education*, 20(4), 371–375.

## CONGRESSIONAL TESTIMONY AND LEGISLATIVE APPEARANCES

- Briefing to the Maine State Legislature Innovation, Development, Economic Advancement and Business (IDEA) Committee, *University of Maine System Research and Innovation* (January 2023)
- Presentation to the Maine State Legislature Advisory Panel to Better Understand and Make Recommendations Regarding the Implications of Genome-Editing for the Citizens of the State, *University of Maine System Education & Research Perspective on Fostering a Vibrant Biotechnology Sector in the State* (October 2022).
- Testimony on Behalf of the University of Maine System in Support of LD 1816, *An Act to Promote Labor Education Through the University of Maine System*. (January 2022).
- Testimony at hearing *An Act To Encourage Research To Support the Maine Offshore Wind Industry*, before the Committee on Energy, Utilities and Technology of the Maine State Legislature. (May 2021).
- Testimony at hearing *An Act To Ban Biological Males from Participating in Women’s Sports and An Act To Prohibit Biological Males from Participating in School Athletic Programs and Activities Designated for Females at Schools That Receive Federal Funding* (May 2021).
- Participant in briefing on *College Affordability* before the Maine State Legislature Committee on

Innovation, Development, Economic Advancement and Business. (January 2021).

Testimony at the hearing *Inclusion in Tech: How Diversity Benefits All Americans*, before the Subcommittee on Consumer Protection and Commerce of the Committee on Energy and Commerce, U.S. House of Representatives, representing the University of Maine. (March 2019).

Participant in briefing on University of Maine/UMM Marine Resources, before the Joint Standing Committee on Marine Resources of the Maine State Legislature. (January 2019).

Testimony at the hearing *National Science Foundation Part II: Future Opportunities and Challenges for Science* before the Subcommittee on Research and Technology of the Committee on Science, Space, and Technology, U.S. House of Representatives, representing the NSF. (March 2017).

Testimony at the hearing *Closing the Talent Gap in Federal Information Technology* before the Subcommittee on Information Technology for the Committee on Oversight and Government Reform, U.S. House of Representatives, representing the NSF. (September 2016).

Testimony at the hearing *STEM Education: The Administration's Proposed Reorganization* before the Committee on Science, Space, and Technology, U.S. House of Representatives, representing the NSF. (June 2013).

Testimony at the hearing *Undergraduate and Graduate STEM Education* before the Committee on Science and Technology, Subcommittee on Research and Education, U.S. House of Representatives, representing the NSF. (February 2010).

Testimony at the hearing *Beyond the Classroom: Informal STEM Education*, before the Committee on Science and Technology, Subcommittee on Research and Science Education, U.S. House of Representatives, representing the NSF. (February 2009).

Testimony at the hearing *Improving Teacher Quality*, before the Committee on Appropriations, Subcommittee on Labor, Health and Human Services, Education and Related Agencies, U.S. House of Representatives, while at MSU. (March 2004).

Testimony at the hearing *Implementation of the Math and Science Partnership Program: Views from the Field*, before the Committee on Science, Subcommittee on Research, U.S. House of Representatives, while at MSU (October 2003).

Testimony at the hearing *Why and How You Should Learn Math and Science*, before the House Science Committee, U.S. House of Representatives, with Rodger Bybee, representing the National Research Council. (March 1999).

## EXTERNAL FUNDING

*UMS Transforms Harold Alfond Foundation \$240 Million Investment*. 2020–2032. D. Malloy, Lead. J. Ferrini-Mundy, C. Dorsey, Co-PIs, G. Garland, Project Director, Harold Alfond Foundation. Awarded to the University of Maine System.

*Presidential Grants for Alternative Academic delivery. "Teaching Remote Labs and Faculty Ambassador Program,"* J. Ferrini-Mundy, PI 2020–2021. Davis Educational Foundation. Awarded to the University of Maine.

*The Michigan Science Olympiad and Michigan State University partnership*. 2004–2008. J. Ferrini-Mundy, Project Manager, 2004–2006. Dart Foundation. Awarded to Michigan State University.

*Dow Corning New Era Internship Program*. 2004–2007. J. Ferrini-Mundy, Project Manager 2004–2006. Dow Corning Foundation. Awarded to Michigan State University.

*Knowing Mathematics for Teaching Algebra*. 2004–2007. J. Ferrini-Mundy, PI (through 2006); S. Senk, R. Wallace, and R. Floden, Co-PIs. National Science Foundation Research on Learning and Evaluation Program. Awarded to Michigan State University.

*Promoting Rigorous Outcomes in Mathematics/Science Education (PROM/SE)*. 2003–2008. J. Ferrini-Mundy, PI (through 2006); W. Schmidt, G. Leroi, P. Bates, and T. Joyner, Co-PIs.

- National Science Foundation, Mathematics and Science Partnership Program. Awarded to Michigan State University.
- Making Content and Context Central: The Michigan State University Teachers for a New Era Initiative.* 2002–2007. B. Steidle, Project Manager; R. Floden and J. Ferrini-Mundy (through 2006), Co-PIs. Carnegie Corporation of New York and other foundations. Awarded to Michigan State University.
- Studying the Role and Influence of the National Council of Teachers of Mathematics Standards: A Catalyst Conference.* 2002–2004. J. Rubillo, PI; J. Ferrini-Mundy and K. Krehbiel, Co-PIs. National Science Foundation Research on Learning and Education Program. Awarded to National Council of Teachers of Mathematics.
- A Study of Algebra Knowledge for Teaching at the Secondary Level.* 2001–2004. J. Ferrini-Mundy, PI; S. Senk and D. Chazan, Co-PIs. National Science Foundation Research on Learning and Evaluation Program. Awarded to Michigan State University.
- Using Videos for Professional Development. A Conference Grant.* 2001–2002. R. Bybee, PI; J. Ferrini-Mundy, Co-PI. National Science Foundation. Awarded to Biological Sciences Curriculum Study.
- A Study of the Context for Developing Leadership for Mathematics and Science Education.* 2001–2003. J. Gallagher, PI; J. Ferrini-Mundy and R. Floden, Co-PIs. National Science Foundation Elementary, Secondary and Informal Education Applied Research Program. Awarded to Michigan State University.
- The Michigan Mathematics Teacher Preparation Forum.* 2000–2001. J. Ferrini-Mundy, PI; G. Burrill, Project Director. Michigan Department of Education Eisenhower Program. Awarded to Michigan State University.
- The Middle School Mathematics Standards Study Group.* 2000–2001. J. Ferrini-Mundy, PI; D. Berk, Project Director. Michigan Department of Education Eisenhower Grant. Awarded to Michigan State University.
- Partnerships for Reform in Mathematics Education in New Hampshire,* 1993–1996. J. Ferrini-Mundy and F. Prevost, Co-PIs. Noyce Foundation. Awarded to University of New Hampshire.
- Evaluation of Calculus Consortium Based at Harvard.* 1993–1997. J. Ferrini-Mundy, PI. National Science Foundation Division of Undergraduate Education. Awarded to Harvard University, subcontracted to University of New Hampshire.
- Evaluation of the Mathematics for Tomorrow Project.* 1993–1996. J. Ferrini-Mundy, PI. National Science Foundation Teacher Enhancement Program. Awarded to Education Development Center, Newton, MA, subcontracted to University of New Hampshire.
- New Hampshire Teacher Fellow Program.* 1993–1994. J. Ferrini-Mundy, D. VanOsdol, and W. Bonnice, Co-PIs. New Hampshire State Department of Education Eisenhower Program. Awarded to University of New Hampshire.
- Recognizing and Recording Reform in Mathematics Education: Studying the Effects of the NCTM Standards.* 1992–1996. J. Ferrini-Mundy, PI. Exxon Education Foundation. Awarded to National Council of Teachers of Mathematics. Subcontracted to University of New Hampshire.
- Improvement of Graduate Student Teaching in Mathematics.* 1992–1995. J. Ferrini-Mundy and L. Zia, Co-PIs. U.S. Department of Education Fund for the Improvement of Postsecondary Education Program. Awarded to University of New Hampshire.
- Middle School Masters Program.* 1992–1993. K. Graham and J. Ferrini-Mundy, Co-PIs. New Hampshire State Department of Education Eisenhower Program. Awarded to University of New Hampshire.
- Functions Institute for Secondary School Teachers.* 1991–1992. J. Ferrini-Mundy and K. Graham, Co-

PIs. New Hampshire State Department of Education Eisenhower Program. Awarded to University of New Hampshire.

*Summer Institute for Elementary Mathematics and Science Teachers*. 1989–1990. J. Kull and J. Ferrini-Mundy, Co-PIs. New Hampshire State Department of Education.

*Project ENABLE-Calculus Curriculum Development*. 1988–1989. J. Ferrini-Mundy and D. Van Osdol, Co-PIs. National Science Foundation Calculus Planning Grant.

*New Hampshire In-Service Geometry Video-Workshop Project*. 1986–1988. J. Ferrini-Mundy and R. Balomenos, Co-PIs. U.S. Department of Education FIPSE Program.

*Gifted Education for Mathematics Students*. 1986–1988. J. Ferrini-Mundy and R. Balomenos, Co-PIs. UNH GEMS, NH State Department of Education.

*Honors Program and Regional Teacher Development in Mathematics and Science*. 1985–1989. J. Ferrini-Mundy and R. Balomenos, Co-PIs. National Science Foundation Teacher Enhancement Program.

*Increasing the Mathematics Participation of New Hampshire Girls*. 1981–1982. J. F. Mundy, P.I. National Science Foundation Information Dissemination in Science Education Grant.

## AWARDS AND HONORS

Appointed member of the President’s Committee on National Medal of Science, appointed by President Joseph R. Biden, March 2022

Accepted Congratulations on behalf of the University of Maine at “Sentiment” conferred by Maine State Legislature on University of Maine’s attainment of an R1 top-tier research university classification, March 2022

Seaman A. Knapp Memorial Lecturer, U.S. Department of Agriculture's National Institute of Food and Agriculture (NIFA) and the Association of Public and Land-grant Universities (APLU), October 2020

Selection to Maine Chapter of the International Women’s Forum, October 2020

Honorary member of All Maine Women, spring 2019

NSF Director’s Award, June 2018

Selected Fellow of the American Mathematical Society, 2017

Presidential Distinguished Rank Award, Distinguished Executive, U.S. Government, 2016

Invited speaker, 13<sup>th</sup> International Congress of Mathematical Education, Hamburg, August 2016

Invited Project NExT Lecturer on Teaching, Mathematical Association of America, Joint Mathematics Meetings, January 2016

Elected member of the Executive Committee, Association for Women in Mathematics, November 2013

Elected Fellow of the American Association for the Advancement of Science, 2011

Invited Ninth Judith E. Jacobs Lecturer, Association of Mathematics Teacher Educators, January 2011

Invited James R.C. Leitzel Lecturer, Mathematical Association of America Mathfest, August 2009

Michigan State University Distinguished Professor, 2005

Committee on Institutional Cooperation Academic Leadership Program, 2001–2002

Louise Hay Award for Contributions to Mathematics Education. Association for Women in Mathematics, 1999

Richard H. Balomenos Service Award, New Hampshire Association of Teachers of Mathematics, 1993

University of New Hampshire Excellence in Public Service Award, 1993

University of New Hampshire Women's Commission Recognition, 1992  
Outstanding Service Award, National Science Foundation, 1991  
University of New Hampshire Distinguished Teaching Award, 1987  
Phi Beta Kappa, Phi Kappa Phi, Pi Mu Epsilon, 1974–1975

## **SELECTED PROFESSIONAL ACTIVITIES**

Member, Board of Directors, Transforming Postsecondary Education in Mathematics (TPSE), February 2023 – Present  
Chair, APLU Council of Presidents, November 2022- present  
Chair, Conference Board of the Mathematical Sciences (CBMS), 2022 – Present  
Chair, America East Conference Academic Consortium Board of Presidents, 2022 – Present  
Member, America East Conference Academic Consortium Board of Presidents, 2018 – 2022  
Member, NCAA Division I Presidential Forum, 2022 – Present  
Member, Maine Public Board of Trustees, 2022 – Present  
Member, Governor's Workforce Cabinet, 2021 – Present  
Board Member and Chair, Maine Innovation Economy Advisory Board, May 2022 - present (appointed by Governor Janet Mills)  
Executive Committee Member, Association of Public & Land Grant Universities, 2021–present  
Member, President's Committee on the National Medal of Science, March 2022–present  
Co-lead, University of Maine System design, review, and allocation of \$35M in American Rescue Plan funding through Governor Mills' Maine Jobs and Recovery Plan, May 2021–present  
Board Member, Engineering Research Visioning Alliance (ERVA) Advisory Board, February 2021–present  
Member, Maine Department of Economic and Community Development Executive Steering Committee, January 2021–present  
Chair, Maine Department of Education Review Committee for the Roux Institute at Northeastern University, January 2020–June 2020  
Member, AAU-APLU Joint Research Security Presidential Working Group, 2020 – 2021  
Chair of Northern Universities Cluster, APLU *Powered by Publics: Scaling Student Success* project, January 2019–present  
Chair, University of Maine System Scientific Advisory Board for COVID-19, April 2020–present  
Member, Mathematics Standards Review Committee, Maine Department of Education, January 2019–May 2019  
Member, National Academy of Sciences Board on Higher Education and the Workforce, January 2019 – present  
Member, Writing Team and Chair of Education Subcommittee, Maine Governor's Strategic Economic Development Plan, April 2019–November 2019  
Chair, Academic Advisory Team, FocusMaine, August 2019 – May 2023  
Board Member, Maine and Co, July 2018–present  
Board Member, Maine Center Ventures, September 2018–present  
Board Member Ex Officio, University of Maine Foundation, July 2018–present  
Member, University of Maine System Presidents Council, July 2018–present  
Senior Advisory Group, Air Force Institute of Technology review, 2018 - 2019  
Harvard University Graduate School of Education Seminar for New Presidents Leadership Program, Cambridge, MA July 2018, participant  
International Mathematics Expert Group for the Programme for International Student Assessment

(PISA), 2017– present

National Science Foundation, Goal Co-Leader for NSF Agency Priority Goal on public participation in scientific research, 2016–January 2017

National Science Foundation, co-lead assistant director for NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES), launched February 2016

National Science Foundation, Alan Alda Leadership in Communication training, July 2015

Co-Chair, Federal Coordination in STEM Education Task Force, National Science and Technology Council, 2014–2017

Co-leader for Federal Cross Agency Priority Goal on STEM Education, 2014–2017

National Science Foundation, member of Director’s Review Board, 2012–2018, and Executive Resources Board, 2012–2016

National Science Foundation, Goal Leader for NSF Priority Goal on undergraduate education, 2012–2013

National Science Foundation representative (for NSF Director) on the National Board for Education Sciences, U.S. Department of Education, 2011–2017

Co-Chair of 5-Year STEM Education Strategic Plan Subcommittee, National Science and Technology Council Committee on STEM Education, 2011–2013

National Science Foundation, member of Accountability and Performance Integration Council, 2011–2012

College Board Mathematics Academic Advisory Committee, 2010

National Science Foundation, Goal Leader for NSF High Priority Performance Goal, 2009–2011

International Mathematics Expert Group for the Mathematics Framework, Programme for International Student Assessment (PISA), 2009–2012

National Science Foundation, Strategic Plan Committee, 2009

National Science Foundation, Facilitating Transformative and Interdisciplinary Research, Internal Working Group, 2008–2009

U.S. Department of Education, U.S. Steering Committee, Programme in International Student Assessment (PISA), 2008

National Science and Technology Council, Committee on Science Education Subcommittee, 2007–2009 (NSF representative)

President’s National Mathematics Advisory Panel, 2007–2008 (Subcommittee Co-Chair)

Michigan Department of Education Teacher Preparation Policy Study Group, 2006 (Project Director)

Michigan Department of Education Content Expectations for High School Mathematics Academic Review Group, 2005–2006 (Chair)

Michigan Department of Education Mathematics Grade Level Content Expectations Committee, 2004 (Chair)

Mathematical Association of America (MAA) Board of Governors (elected), 2003–2006

Michigan State University, Quantitative Literary Task Force, 2003–2004 (Co-chair)

NSF Directorate for Education and Human Resources Portfolio Review Project, 2002–2004 (Senior Advisor)

Institute for Advanced Study/Park City Mathematics Institute Mathematics Education Around the World: Bridging Policy and Practice Symposium, 2001-2003

Framework and Specifications for the Mathematics National Assessment of Educational Progress Committee, 2001–2002

International Program Committee for International Congress on Mathematical Education, 2001–2004

Michigan State University Mathematics Department Advisory Committee, 2000–2002, 2004– 2005

RAND/OERI Mathematics Education Research Study Panel, 2000–2003

National Council of Teachers of Mathematics (NCTM) Standards Impact Research Group (SIRG),

1999–2003 (Chair)  
NCTM Writing Group for Standards 2000, *Principles and Standards for School Mathematics*,  
(revision of NCTM Standards), 1996–2000 (Chair)  
Institute for Advanced Study/Park City Mathematics Institute Steering Committee, 1994–2006  
NCTM Board of Directors, elected, 1993–1996  
NCTM *Journal for Research in Mathematics Education* Editorial Panel, 1993–1995  
National Research Council (NRC) Mathematical Sciences Education Board, 1993–1995, 1999–2001  
MAA Committee on Research in Undergraduate Mathematics Education, 1991–2002  
NCTM Research Advisory Committee, 1987–1990 (Chair), 1995–1996

## SELECTED RECENT TALKS AND PRESENTATIONS

University of Maine Research in STEM Education Center, From REU to RTL: The potential of  
research for illuminating issues of impact, assessment, and developmental growth. Colloquium,  
April 2023  
National Science Foundation, NSF ECR’s 10th Anniversary: Past, Present, and Future virtual panel, with  
Karen Marrongelle, James Moore, and Gregg Solomon, March 2023  
Association of Public and Land Grant Universities, Council of Presidents meeting, Public View of the  
Value of Higher Education, panel discussion, November 2022  
STAMP: A Convening of Alabama Mathematics Organizations, *Developing the Leaders and Innovators  
of Tomorrow: The Central Place of PK-6 Mathematical Sciences Education*, October 2022  
University of Maine Machias, *Strengthening and Expanding Partnerships: The Future of UMM*, October  
2022  
University of Maine, *Ferland Engineering Education and Design Center Dedication*, August 2022  
University of Maine, *Carnegie R1 Designation Town Hall Presentation*, May 2022  
University of Maine, *State of the University Address*, March 2022  
Nebraska Conference for Undergraduate Women in Mathematics, *Careers Using Mathematics*,  
January 21, 2022  
Maine Chamber of Commerce, *The Maine Take with Dana Connors, Maine Statehood Day*,  
March 15, 2021  
University of Maine, *State of the University Address*, February 2021  
The National Academies of Sciences, Engineering, and Medicine, *National Dialogue on Transforming  
STEM Teaching Evaluation in Higher Education Closing Session on Cross-Cutting Challenges  
and Opportunities to Improving Teaching Evaluation*, January 2021  
Maine Chamber of Commerce Education Foundation, *STEM Workforce Development in Maine,  
Challenges and Opportunities in Higher Education*, October 2020  
University of Maine Fall 2020 Convocation, *Learning, Discovering and Partnering with Inclusive  
Excellence as the Core*, September 2020  
Maine Chapter of the International Women's Forum, *Maine’s Research University: Leading and Learning  
through Change*, September 2020  
Israeli Ministry of Education, *PISA 2022 Mathematics Framework: Middle School Mathematics in Israel  
– looking ahead*, August 2020  
University of Maine, *State of the University Address*, February 2020  
The Margaret Chase Smith Policy Center Women of Power Reception – Presenter of Minerva Award,  
February 2020  
Cohen Institute for Leadership & Public Service, University of Maine, Summer High School Leadership  
Series, “*Leadership in Higher Education*,” July 2019  
Tufts University Institute for Research on Learning and Instruction, *The Place of Educational Research*



*in the Culture of Institutions: Reflections and Hopes in Higher Education and Beyond*, December 2019

University of Maine Fall 2019 Convocation, *Fostering Learner Success*, September 2019  
Maine Development Foundation Annual Conference, *The Role of Higher Education and the University of Maine in Economic Development*, September 2019  
Colloquium Series, Center for Research in STEM Education, University of Maine, *Integrating Research, Policy, and Practice in Mathematics Education: What Does it Mean to 'Make a Difference'?*, February 2019  
Michigan State University, College of Natural Science, *Mathematics and Statistics Association Summit*, March 2019.  
US-Spain Forum XXIII, presenter in session on *Education and Training in the Digital Era*, Jerez De La Frontera, Spain, November 2018  
U.S. Department of Education, *Math and Science Partnerships Annual Conference*, March 2016  
Seventh Thailand-U.S. Education Roundtable, Bangkok, keynote address, February 2016  
21st Century STEM: Integrate to Innovate Conference, Phoenix, Arizona (by video), keynote address, January 2016  
White House Summit on Next Generation High Schools, November 2015  
Ohio Student Success Summit, Columbus, Ohio, April 2015  
Business Higher Education Forum Partnerships, TIAA CREF Higher Education Leadership Conference, New York City, November 2014  
Global Learning Council Conference, Carnegie Mellon University, September 2014  
Conference on innovation and investment, Le Cercle des Économistes, Aix-en-Provence, France, July 2014

In addition, over the past several years, I have regularly spoken at national meetings of the Mathematical Association of America, American Mathematical Society, American Educational Research Association, and the National Council of Teachers of Mathematics. I also recently have given presentations at Michigan State University, Carnegie Mellon University, University of Illinois at Chicago, Florida International University, Navajo Technical University (commencement speaker, December 2015), Research Triangle Institute, The Pennsylvania State University (commencement speaker in College of Education 2014), Harvard University, Indiana University – Purdue University Indianapolis, Purdue University, University of Texas at El Paso, University of Illinois at Urbana Champaign, Sitting Bull College, North Carolina State University, Georgia Institute of Technology, Seoul National University, University of Nebraska-Lincoln, University of Minnesota, University of New Hampshire, and Michigan State University. I have spoken with a variety of boards and committees with the National Academies of Sciences, at meetings of NSF principal investigators, and multiple directorates.

## **DOCTORAL STUDENTS**

Corvell Cranfield, Ph.D. in Mathematics Education, PRIME program, Michigan State University, 2012. (Co-Advisor with S. Senk.) Currently National Mathematics Manager, National Education Collaboration Trust, South Africa.  
Dong-Joong Kim, Ph.D. in Mathematics Education, Department of Mathematics, Michigan State University, 2009. (Co-Advisor with A. Sford). Professor of Mathematics in Korea.  
Eric Wilmot, Ph.D. in Curriculum, Teaching, and Educational Policy, Department of Teacher Education, Michigan State University, 2008. (Co-advisor with S. Senk). Professor of Mathematics Education, C.K. Tedam University of Technology and Applied Sciences, Ghana.

- Xuhui Li, Ph.D. in Science and Mathematics Education, University of Texas at Austin, 2007. (External Co-Advisor with U. Triesman). Associate Professor of Mathematics Education, California State University, Long Beach.
- Dawn Berk, Ph.D. in Mathematics Education, Department of Mathematics, University of New Hampshire, 2004. (Co-Advisor with K. Graham). Associate Professor, University of Delaware.
- Bradford Findell, Ph.D. in Mathematics Education, Department of Mathematics, University of New Hampshire, 2001. (Co-Advisor with K. Graham). Associate Director of Mathematics Programs for Teachers, Department of Mathematics, The Ohio State University.
- Sharon Soucy McCrone, Ph.D. in Mathematics Education, Department of Mathematics, University of New Hampshire, 1997. Associate Dean and Professor, Department of Mathematics and Statistics, University of New Hampshire.
- Darien Lauten, Ph.D. in Curriculum and Instruction, Department of Education, University of New Hampshire, 1996. (Co-Advisor with S.N. Oja). Retired, Mathematics Department, Rivier College, Nashua, New Hampshire.
- Loren P. Johnson, Ph.D. in Curriculum and Instruction, Department of Education, University of New Hampshire, 1995. (Co-Advisor with T. Schram). Retired, Mathematics Department, University of California at Santa Barbara.
- Karen Geuther Graham, Ph.D. in Mathematics Education, Department of Mathematics, University of New Hampshire, 1986. Professor and Chair, Department of Mathematics and Statistics, University of New Hampshire.

References are available upon request.