

MICHAEL D. STEELE

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EDUCATION

University of Pittsburgh (Pittsburgh, PA)
Doctor of Education, Mathematics Education 2006

Rensselaer Polytechnic Institute (Troy, NY)
Master of Science, Natural Sciences 1997
Bachelor of Science, Mathematics 1995
Certificate for Secondary Mathematics Teaching (Grades 7-12)

Secondary Mathematics Teaching License, State of Indiana

WORK EXPERIENCE

Program Officer (2021-2023 Intermittent Expert)
Division of Research on Learning, National Science Foundation 2018-present

Professor of Mathematics Education
Department of Teaching & Learning, University of Wisconsin-Milwaukee 2018-2023

Chair, Department of Teaching & Learning (*formerly Curriculum and Instruction*)
School of Education, University of Wisconsin-Milwaukee 2015-2018

Associate Professor of Mathematics Education
Department of Teaching & Learning, University of Wisconsin-Milwaukee 2013-2018

Assistant Professor of Mathematics Education
Department of Teacher Education, Michigan State University 2006-2013

Graduate Student Researcher and Teaching Assistant
Department of Curriculum and Instruction, University of Pittsburgh 2002-2006

Senior Curriculum Developer
Middle School MathWings Project Success for All Foundation (Baltimore, MD)
1999-2002

Adjunct Professor
Master of Healthcare Administration program, Seton Hall University 1997-2006

Mathematics and Physics Teacher
St. Michaels Junior/Senior High School (St. Michaels, MD) 1996-1999

RESEARCH INTERESTS

mathematical knowledge for teaching in secondary mathematics
practice-based teacher education

design and implementation of mathematics teacher professional development

implementation of secondary mathematics curriculum materials

research ethics, integrity, and security

PUBLICATIONS

Refereed Journal Articles

- Keiser, R. S., Steele, M. D., & Abdurrezak, A. (2023). Building a culture of research security in the U.S. Research Ecosystem. *NCURA Magazine*, March/April 2023.
- Steele, M. D. (2022). Spatial reasoning with open-ended tasks: The wet shipping crate. *Wisconsin Mathematics Teacher*, 2022(1).
- Nabb, K., Steele, M. D., & Murawska, J. (2020). Call to Action: Expanding Mathematical Knowledge for Teaching in early college mathematics. *AMTE Connections* 30(1).
- Steele, M. D. (2020). This is what they'll see next year: Busting myths at the high school-college transition. *MAA Focus* 40(1), 28-34.
- Steele, M. D. (2019). Tools for facilitating meaningful mathematics discourse. *Mathematics Teaching in the Middle School* 24(6), 354-361.
- Remillard, J., Baker, J. Y., Steele, M. D., Hoe, N. D., & Traynor, A. (2017). Universal algebra I policy, access, and inequality: findings from a national survey. *Educational Policy and Practice Archives* 25(101).
- Steele, M. D. (2017). The Wisconsin Association of Mathematics Teacher Educators: Supporting teacher education and professional development in the Badger State. *Wisconsin Teacher of Mathematics* 69, 29-31.
- Rogers, K. C. & Steele, M. D. (2016). Mathematical tasks and opportunities for preservice elementary teachers to engage in reasoning-and-proving processes. *Journal for Research in Mathematics Education* 47, 372-419.
- Herbel-Eisenmann, B. A., Johnson, K., Otten, S., Cirillo, M., & Steele, M. D. (2015). Mapping talk about the mathematics register in a secondary mathematics teacher study group. *The Journal of Mathematical Behavior* 40, 29-42, available at <http://www.sciencedirect.com/science/article/pii/S0732312314000546>.
- Steele, M. D., Johnson, K. R., Otten, S., Herbel-Eisenmann, B. A., & Carver, C. (2015). Learning about algebra teaching, learning, and leading: Engaging principals in content-based professional development. *Journal of Research on Leadership Education* 10(2), 127-150. doi:10.1177/1942775115569353, available at <http://jrl.sagepub.com/content/early/2015/02/02/1942775115569353.full.pdf>
- Steele, M. D. (2014). Let the pilot fly the plane: Advocating for our work as teachers. *Wisconsin Teacher of Mathematics*, 66(1), 30-35.
- Boston, M., & Steele, M. D. (2014). Analyzing students' work to reflect on instruction: The Instructional Quality Assessment as a tool for instructional leaders. *Journal of Mathematics Education Leadership* 16, 21-33.
- Moore, A. J., Gillett, M., & Steele, M. D. (2014). Fostering student engagement in the flip. *Mathematics Teacher* 107(6), 420-425.

- Steele, M. D., Hillen, A. F., & Smith, M. S. (2013). Developing mathematical knowledge for teaching in a methods course: The case of defining function. *Journal of Mathematics Teacher Education* 16, 451-482.
- Steele, M. D. (2013). Exploring the mathematical knowledge for teaching geometry and measurement through the design and use of rich assessment tasks. *Journal of Mathematics Teacher Education* 16, 245-268.
- Herbel-Eisenmann, B. A., Steele, M. D., & Cirillo, M. (2013). (Developing) teacher discourse moves: A framework for professional development. *Mathematics Teacher Educator*, 1(2), 181-196.
- Steele, M. D., & Hillen, A. F. (2012). Content-focused methods courses: Integrating pedagogy and mathematical content that is central to the 7-12 curriculum. *Mathematics Teacher Educator* 1(1), 52-69.
- Steele, M. D. & Rogers, K. A. C. (2012). Relationships between mathematical knowledge for teaching and teaching practice: The case of proof. *Journal of Mathematics Teacher Education*, 15, 159-180.
- Richmond, G., Juzwik, M. M., & Steele, M. D. (2011). Trajectories of teacher identity development across institutional contexts: Constructing a narrative approach. *Teachers College Record*, 113(9), 1863-1905. <http://www.tcrecord.org/> ID Number: 16177.
- Carver, C. L., Steele, M. D. & Herbel-Eisenmann, B. (2010). Principals + Algebra (-Fear) = Instructional Leadership. *Journal of Staff Development*, 31(5), 30-33.
- Leinhardt, G. & Steele, M. D. (2005). Seeing the complexity of standing to the side: Instructional dialogues. *Cognition and Instruction*, 23, 87-163.
- Steele, M. D. (2005). Comparing reasoning structures and knowledge bases in discussions of mathematics and pedagogy. *Journal of Mathematics Teacher Education*, 8, 291-328.
- Steele, M. D. (2000). Winds of change. *The Banneker Banner*, 18(2), 27-31.

Refereed Monographs, Book Chapters, and Conference Proceedings

- Steele, M. D. & Sagrillo, J. (in press). A journey from content and pedagogy to justice: The evolution of a mathematics and science teacher community of practice. In Thanheiser, E. & Koestler, C. (Eds.), *AMTE Professional Book Series Volume 6*.
- Steele, M. D. (in press). "Why are you doing *that?*" Higher education's incentive systems and our values in mathematics education. In Nank, S & Murawska, J. (Eds.), *Empathetic storytelling to critically challenge systemic educational structures*.
- Bales, B., Blecking, A., Steele, M.D., & Berg, C. (2019, April). Countering post-truth perceptions: Micro-credentialing urban math and science teachers' action research to improve student learning. Proceedings of the American Educational Research Association Annual Meeting, Toronto, ON.
- Steele, M. D. & Smith, M. S. (2018). The mathematical tasks framework and formative assessment. In E. A. Silver & V. L. Mills (Eds.), *Eliciting and using evidence of student thinking to guide instruction: Linking formative*

- assessment to other effective instructional practices* (pp. 103-126). Reston, VA: National Council of Teachers of Mathematics.
- Smith, M. S., Boyle, J., Arbaugh, F., Steele, M. D., & Stylianides, G. (2014). Cases as a vehicle for developing knowledge needed for teaching. In Y. Li, E. A. Silver, & S. Li (Eds.), *Transforming mathematics instruction: Multiple approaches and practices* (pp. 311-334). Heidelberg: Springer.
- Cirillo, M., Steele, M. D., Otten, S., Herbel-Eisenmann, B. A., McAneny, K., & Riser, J. Q. (2014) Teacher Discourse Moves: Promoting Productive and Powerful Discourse. In Karp, K. (Ed.), *Annual Perspectives in Mathematics Education (APME) 2014: Using Research to Improve Instruction* (pp. 141-150). Reston, VA: NCTM.
- Steele, M. D., Remillard, J., & Baker, J. Y. (2014). Algebra I policy and practice: Examining opportunities to learn and universal early algebra policies. Proceedings of the annual meeting of the American Educational Research Association, Philadelphia, PA.
- Johnson, K. R., Steele, M. D., Herbel-Eisenmann, B. A., Leatham, K. R., Peterson, B. E., Stockero, S., Van Zoest, L., Almeida, I., & Merrill, L. (2013). Classroom mathematics discourse: Broadening perspectives by integrating tools for analysis. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter, Chicago, IL.
- Suh, H., Musselman, A. T., Herbel-Eisenmann, B. A., & Steele, M. D. (2013). Teacher positioning and agency to act: Talking about “low-level” students. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter, Chicago, IL.
- Cavanna, J. M., Steele, M. D., Herbel-Eisenmann, B. A., & Cirillo, M. (2013). The myth of planning: Teachers’ development in supporting mathematics discourse. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter, Chicago, IL.
- Hoe, N. D., Baker, J., Keazer, L. M., Steele, M. D., & Remillard, J. (2013). Charting the LANDSCAPE of school district algebra policies: Findings from a national survey. Proceedings of the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Steele, M. D., & Musselman, A. T. (2013). Identity development through mathematics discourse: Teacher learning about positioning. Proceedings of the Mathematics Education and Society 7 Conference, Cape Town, South Africa.
- Kim, O., Remillard, J., Steele, M. D., Blunk, M., Piecham, M., & Lewis, J. (2012). Measuring instruction in relation to curriculum use. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter, Kalamazoo, MI.
- Rogers, K. C., & Steele, M. D. (2012). Reasoning-and-Proving Tasks in a Geometry and Measurement Textbook for Prospective Elementary Teachers. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter, Kalamazoo, MI.

Steele, M. D., Johnson, K. R., Herbel-Eisenmann, B., & Carver, C. (2010). Leadership content knowledge: A case of principal learning in algebra. Proceedings of the annual meeting of the Psychology in Mathematics Education Group – North America Chapter. Columbus, Ohio.

Steele, M. D. (2008). Shifting roles, shifting perspectives: Experiencing and investigating pedagogy in teacher education. In F. Arbaugh & P. M. Taylor (Eds.), *Inquiry into mathematics teacher education* (pp. 109-118). Association of Mathematics Teacher Educators (AMTE) Monograph Series, Volume 5. San Diego: AMTE.

Steele, M. D. (2008). Building bridges: Cases as catalysts for the integration of mathematical and pedagogical knowledge. In M. S. Smith & S. N. Friel, *Cases in mathematics teacher education: Tools for developing knowledge needed for teaching* (pp. 57-72). Association of Mathematics Teacher Educators Monograph series, Volume 4. San Diego: AMTE.

Books, Professional Development Curricula, and Other Resources

Steele, M. D. (2022). Effective Mathematics Teaching Practices, High School. Professional learning module, Indiana Learning Lab, <https://inlearninglab.com/resources/effective-mathematics-teaching-practices-high-school-self-paced-course>

Steele, M. D. (2022). Effective Mathematics Teaching Practices, Middle School. Professional learning module, Indiana Learning Lab, <https://inlearninglab.com/resources/effective-mathematics-teaching-practices-middle-school-self-paced-course>

Smith, M. S., Steele, M. D., and Sherin, M. (2020). *The 5 Practices in Practice: Successfully Orchestrating Mathematics Discussions in Your High School Classroom*. Newbury Park, CA: Corwin Press.

Arbaugh, F., Smith, M. S., Boyle, J., Stylianides, G., and Steele, M. D. (2019). *We reason and we prove for all mathematics: Building students' critical thinking*. Newbury Park, CA: Corwin Press.

Steele, M. D. and Huhn, C. (2018). *A quiet revolution: One district's story of radical curricular change in high school mathematics*. Washington, DC: Information Age Press.

Herbel-Eisenmann, B. A., Cirillo, M., Steele, M. D., Otten, S., & Johnson, K. (2017). *Mathematics discourse in secondary classrooms (MDISC): A case-based professional development curriculum*. Sausalito, CA: Math Solutions.

Smith, M. S., Steele, M. D., and Raith, M. L. (2017). *Taking Action: Implementing Effective Mathematics Teaching Practices in Grades 6-8*. Reston, VA: NCTM.

National Council of Teachers of Mathematics Principles to Actions Toolkit Team. (2015). Principles to Actions Professional Learning Toolkit. <http://www.nctm.org/PtAToolkit/>

Technical Reports and Other Non-Refereed Writings

Global Research Council (2022). Statement of Principles on Research ethics, integrity, and culture in the context of rapid-results research (lead author). Accessed on 29 June 2022 at

https://globalresearchcouncil.org/fileadmin/documents/GRC_Publications/SoP_Research_Ethics_May_2022.pdf

- Global Research Council (2021). Discussion paper: Research ethics, integrity, and culture in the context of rapid-results research (lead author). Accessed on 29 June 2022 at https://globalresearchcouncil.org/fileadmin/documents/GRC_Publications/GRC_Discussion_Paper_Research_Ethics_Final.pdf
- Steele, M. D. (2021). Research ethics, integrity, and culture in the context of rapid-results research. Commissioned discussion paper for the Global Research Council Annual Meeting.
- Hendrix, T., Steele, M. D., & Strutchens, M. (2017). *AMTE Standards for Preparing Teachers of Mathematics Executive Summary*. Raleigh, NC: Association of Mathematics Teacher Educators.
- Steele, M. D., Remillard, J., Baker, J. Y, Keazer, L., & Herbel-Eisenmann, B. (2016). *Learning about new demands in schools: Considering algebra policy environments (LANDSCAPE): Findings from a national survey*. Philadelphia: Consortium for Policy Research in Education at the University of Pennsylvania. Available at <http://www.cpre.org/landscape>
- Steele, M. D. (2006). *Middle grades geometry and measurement: Examining change in knowledge needed for teaching through a practice-based teacher education experience*. Available from ProQuest Dissertations and Theses database. (UMI No. 305248105)
- Matsumura, L. C., Slater, S. C., Junker, B., Peterson, M., Boston, M., Steele, M. D., & Resnick, L. (2006). *Measuring reading comprehension and mathematics instruction in urban middle schools: A pilot study of the Instructional Quality Assessment*. National Center for Research on Evaluation, Standards, and Student Testing (CRESST) CSE Report 681.

EDITORIALS, REVIEWS, AND INTERVIEWS

- Steele, M. D., Gneiting, C. S., & Johnson, K. R. (2023). Tools, Evidence, and Implications: Weighing Issues of Scale in Describing an Intervention. *Mathematics Teacher Educator* 11(2).
- Steele, M. D., Johnson, K. R., Fonbuena, L. C., & Gneiting, C. S. (2023). The Impact of *Mathematics Teacher Educator* on Our Colleagues and Our Field. *Mathematics Teacher Educator* 11(1).
- 'I do not have 2-3 months off': Teachers on summer break are working, a lot. Max Cohen, USA Today, July 11, 2019. Available at <https://www.usatoday.com/story/news/education/2019/07/11/teachers-summer-break-jobs-work-living-wage/1524677001/>
- Do parents see math as 'less useful' than reading? Sarah D. Sparks, Education Week, May 9, 2017. Available at <http://www.edweek.org/ew/articles/2017/05/10/do-parents-see-math-as-less-useful.html>
- Voices in the field: Education researchers join D.C. March for Science. Sarah D. Sparks, Education Week, April 22, 2017. Available at

http://blogs.edweek.org/edweek/inside-school-research/2017/04/education_researchers_join_mar.html

Parental frustration over Common Core math. Hour-long guest (including call-in questions) on the Joy Cardin Show, Wisconsin Public Radio, June 10, 2014. Available at <http://www.wpr.org/shows/parental-frustration-over-common-core-math>

Uncommon frustration: Parents puzzled by Common Core Math. Erin Richards, Milwaukee Journal Sentinel, June 5, 2014. Available at <http://archive.jsonline.com/news/education/uncommon-frustration-parents-puzzled-by-common-core-math-b99281204z1-261921571.html>

PROFESSIONAL PRESENTATIONS

Steele, M. D. (2023, April). Funding opportunities at the National Science Foundation. Invited address, Purdue University, West Lafayette, IN.

Steele, M. D. (2023, March). The 5 practices in practice: Orchestrating Productive Discourse in Your Mathematics Classroom. Invited keynote, Rhode Island Mathematics Teacher Association, Providence, RI.

Steele, M. D. (2023, February). Modernizing High School Mathematics: Designing equitable pathways and structures. Indiana Council of Teachers of Mathematics Annual Meeting, Indianapolis, IN.

Steele, M. D. (2023, February). Collaborating with districts to modernize secondary mathematics: Lessons from the Launch Years Leadership Network. Annual Meeting of the Association of Mathematics Teacher Educators, New Orleans, LA.

Steele, M. D. (2022, December). Catalyzing change in high school through four pivotal understandings. National Council of Teachers of Mathematics Regional Meeting, Baltimore, MD.

Steele, M. D. (2022, September). Radical curricular change in high school: Detracking, Pathways, and Student Supports. National Council of Teachers of Mathematics Annual Meeting, Los Angeles, CA.

Steele, M. D. (2022, September). Publishing in Mathematics Teacher Educator. National Council of Teachers of Mathematics Research Conference, Los Angeles, CA.

Steele, M. D. (2022, September). Leveraging State Systems to Support Mathematics Modernization: Content, Pedagogy, and Systemic Structures. Invited address, Association of State Supervisors of Mathematics, Costa Mesa, CA.

Steele, M. D. (2022, April). The 5 practices in practice: Overcoming the challenges to productive high school math discourse. National Council of Teachers of Mathematics Regional Conference, Indianapolis, IN.

Steele, M. D. (2022, March). Discourse-focused, Asset-based Math Teaching: The Five Practices (and friends!) in Practice. Invited keynote, Rhode Island Mathematics Teachers Association.

- Steele, M. D. & Sagrillo, J. (2022, February). Developing justice-focused mathematics teacher leaders through a university-district microcredentialing partnership. Association of Mathematics Teacher Educators Annual Conference, Henderson NV.
- Steele, M. D. (2022, February). Catalyzing change in high school through four pivotal understandings. National Council of Teachers of Mathematics Regional Conference, New Orleans, LA.
- Steele, M. D. (2021, January). Publishing in Mathematics Teacher Educator. National Council of Teachers of Mathematics Research Conference, virtual.
- Steele, M. D. (2021, December). The 5 practices in practice: Overcoming the challenges to productive high school math discourse. Invited keynote, Illinois Council of Teachers of Mathematics.
- Steele, M. D. (2021, November). Research ethics, integrity, and culture in the context of rapid-results research. Keynote presentation, Global Research Council Regional Meeting (Far East), Beijing, China.
- Steele, M. D. (2021, November). The 5 practices in practice: Overcoming the challenges to productive high school math discourse. Invited address, National Council of Teachers of Mathematics Virtual Conference.
- Steele, M. D. (2021, November). Research ethics, integrity, and culture in the context of rapid-results research. Keynote presentation, Global Research Council Regional Meeting (Africa), Harare, Zimbabwe.
- Steele, M. D. (2021, October). Research ethics, integrity, and culture in the context of rapid-results research. Keynote presentation, Global Research Council Regional Meeting (Middle East), Kuwait City, Kuwait.
- Steele, M. D. (2021, October). Research ethics, integrity, and culture in the context of rapid-results research. Keynote presentation, Global Research Council Regional Meeting (Europe), Madrid, Spain.
- Steele, M. D. (2021, October). Championing our profession: The national and local challenges in developing and supporting mathematics teachers and what you can do. Invited keynote, Wisconsin Association of Mathematics Teacher Educators.
- Steele, M. D. (2021, October). New challenges and opportunities: Taking stock of national progress in modernizing mathematics pathways. Invited keynote, Ohio Department of Education.
- Steele, M. D. (2021, June). Championing our profession: Recruiting and retaining math teachers and how you can help. Invited keynote, Pennsylvania Association of Mathematics Teacher Educators.
- Steele, M. D. (2021, April). Championing our profession: Recruiting and retaining math teachers and how you can help. Invited address, National Council of Teachers of Mathematics Annual Meeting, virtual.
- Steele, M. D. (2021, May). Opening up opportunities for rich classroom discourse: The 5 Practices in Practice. Invited presentation, Wisconsin Mathematics Council.

- Murawska, J., Steele, M. D., & Nabb, K. (2021, February). Mathematics Knowledge for Teaching Early College Mathematics: Tacit and Explicit Assumptions. Annual meeting of the Association of Mathematics Teacher Educators, virtual.
- Steele, M. D. (2020, December). Focus on Middle School: Discourse and Productive Struggle. Invited national workshop, National Council of Teachers of Mathematics, virtual.
- Steele, M. D. (2020, November). New research and practice frontiers in the two-year college landscape. Annual meeting of the American Mathematical Association of Two-Year Colleges, virtual.
- Steele, M. D. (2020, November). Innovating in Mathematics Teacher Education: Creativity in a Dynamic Landscape. Annual meeting of the School Science and Mathematics Association, virtual.
- Steele, M. D. (2020, April). The 5 Practices in Practice: Successfully orchestrating productive mathematics discussions in your high school classroom. Invited session, National Council of Teachers of Mathematics Annual Conference, virtual convening due to COVID-19.
- Steele, M. D., & Smith, M. S. (2020, April). The 5 Practices in Practice: Successfully orchestrating productive mathematics discussions in your high school classroom. Invited session, NCSM Annual Meeting, virtual convening due to COVID-19.
- Cirillo, M., & Steele, M. D. (2020, April). Facilitating Purposeful, Productive, and Powerful Discourse in Secondary Classrooms. NCSM Annual Meeting, canceled due to COVID-19.
- Steele, M. D. (2020, March). The Intractable Problem of High School Mathematics: Using Research and Practice to Instigate Curricular Change. Invited address, Middle Tennessee State University Mathematics and Science Education Symposium Series.
- Steele, M. D. (2020, March). Radical change in high school mathematics: Addressing wicked problems of tracking, acceleration, and curricular change. Invited presentation, Amplify Education Math Leadership Summit, San Diego, CA.
- Smith, M. S. & Steele, M. D. (2020, February). Facilitating productive mathematical discussions: Digging deeper into the Five Practices. Annual meeting of the Association of Mathematics Teacher Educators, Phoenix, AZ.
- Chval, K., Gomez, C. N., & Steele, M. D. (2020, February). Looking down the AMTE road. Plenary presentation, Annual Meeting of the Association of Mathematics Teacher Educators, Phoenix, AZ.
- Steele, M.D. (2019, November). Content, pedagogy, field: New partnerships across the 6-16 continuum. Invited presentation, Annual meeting of the American Mathematical Association of Two-Year Colleges, Milwaukee, WI.
- Steele, M.D., Wilkerson, T., & Fulmore, L. (2019, November). Perspectives on key equity issues and practices. Invited presentation, Annual meeting of the American Mathematical Association of Two-Year Colleges, Milwaukee, WI.

- Steele, M.D. (2019, November). Effective teaching and teacher education in science and mathematics: Research and policy. Invited presentation, Annual meeting of the School Science and Mathematics Association, Salt Lake City, UT.
- Steele, M.D. (2019, September). Catalyzing change in high school mathematics: Addressing wicked problems of tracking, acceleration, and curricular change. Invited presentation, Indiana Council of Teachers of Mathematics, Indianapolis, IN.
- Steele, M.D. (2019, September). Taking Action in Mathematics Teacher Education: Effective teaching and effective teacher learning. Invited keynote presentation, Indiana Council of Teachers of Mathematics, Indianapolis, IN.
- Steele, M.D. (2019, September). Building storylines in mathematics teacher education: AMTE Standards and NCTM Principles to Actions in dialogue. Invited keynote presentation, Association of Mathematics Teacher Educators Texas, Waco, TX.
- Steele, M.D. (2019, September). Taking Action in your Classroom: Implementing the Eight Effective Mathematics Teaching Practices in Grades 6-8. Invited presentation, National Council of Teachers of Mathematics Regional Conference, Boston, MA.
- Steele, M.D. (2019, September). Orchestrating productive discussions in high school: The five practices in practice. National Council of Teachers of Mathematics Regional Conference, Boston, MA.
- Steele, M.D. (2019, June). Taking Action in your Classroom: Implementing the Eight Effective Mathematics Teaching Practices. Invited keynote presentation, Conference for the Advancement of Mathematics Teaching, San Antonio, TX.
- Steele, M.D. (2019, June). Taking Action in Grades 6-8: Purposeful Questioning & Productive Struggle. Invited keynote presentation, Conference for the Advancement of Mathematics Teaching, San Antonio, TX.
- Steele, M.D. (2019, May). Who is a mathematics teacher educator? Lessons from AMTE's Standards for Preparing Teachers of Mathematics. Invited keynote presentation, Alabama Association of Mathematics Teacher Educators, Birmingham, AL.
- Steele, M.D. (2019, May). Taking action in mathematics teacher education: Effective teaching and effective teacher learning. Invited keynote presentation, New Jersey Association of Mathematics Teacher Educators, Trenton, NJ.
- Bales, B., Blecking, A., Steele, M.D., & Berg, C. (2019, April). Countering post-truth perceptions: Micro-credentialing urban math and science teachers' action research to improve student learning. American Educational Research Association Annual Meeting, Toronto, ON.
- Steele, M.D. (2019, April). Elevating and empowering teachers as partners in mathematics teacher education: What you can do. National Council of Teachers of Mathematics, San Diego, CA.
- Otten, S., Cirillo, M, & Steele, M.D. (2019, April). The language spectrum in mathematics classrooms: Supporting instruction that empowers students in multiple contexts. National Council of Supervisors of Mathematics, San Diego, CA.

- Steele, M.D. (2019, April). Who is a mathematics teacher educator? Lessons from AMTE's Standards for Preparing Teachers of Mathematics. National Council of Supervisors of Mathematics, San Diego, CA.
- Steele, M.D. (2019, March). AMTE Standards for Preparing Teachers of Mathematics: Implications for preparation and induction. Invited keynote presentation, Michigan Association of Mathematics Teacher Educators, Holland, MI.
- Steele, M.D. (2019, March). Taking action in mathematics teacher education: Effective teaching and effective teacher learning. Invited keynote presentation, Iowa Association of Mathematics Teacher Educators, Des Moines, IA.
- Graf, A., Nabors Olah, L., Hauk, S., Steele, M.D., & Briars, D. (2019, March). How can organizations and CIME participants work together towards a vision for mathematical modeling in K-16? Invited panel discussion, Critical Issues in Mathematics Education conference, Berkeley, CA.
- Philipp, R. A., Steele, M. D., Myers, M., Gutiérrez, R., MacArthur, K., & Jackson, C. (2019, February). Challenges and opportunities on our journeys of embodying our commitment to equity. Invited plenary presentation, Association of Mathematics Teacher Educators Annual Meeting, Orlando, FL.
- Rigelman, N., & Steele, M. D. (2019, February). edTPA and the Standards for Preparing Teachers of Mathematics: Synergies and opportunities. Association of Mathematics Teacher Educators Annual Meeting, Orlando, FL.
- Steele, M. D. (2018, November). Goals, tasks, and conceptual understanding: Taking Action to enhance learning opportunities. Invited presentation, National Council of Teachers of Mathematics Regional Conference, Kansas City, MO.
- Steele, M. D., & Huhn, C. (2018, October). A quiet revolution: One district's story of radical curricular change in high school mathematics. National Council of Teachers of Mathematics Regional Conference, Hartford, CT.
- Steele, M. D. (2018, October). Developing procedural fluency from conceptual understanding: implications for lesson and unit design. National Council of Teachers of Mathematics Regional Conference, Hartford, CT.
- Steele, M.D. (2018, October). Going deep with mathematics: Look fors and ask mes. Invited presentation, Mathematical Proficiency for Every Student Conference, Wisconsin Dells, WI.
- Steele, M.D. (2018, September). Taking action in mathematics teacher education: Effective teaching and effective teacher learning. Invited keynote presentation, Association of Mathematics Teacher Educators-Texas, Waco, TX.
- Steele, M. D., Masek, J., & Bales, B. (2018, May). Teacher certification: From preparation to hire. Wisconsin Mathematics Council, Green Lake, WI.
- Chedister, M., Bernander, S., & Steele, M. D. (2018, May). Preservice teacher field experiences: Innovations in planning, teaching, and mentoring. Wisconsin Mathematics Council, Green Lake, WI.

- Steele, M. D. (2018, May). Developing procedural fluency from conceptual understanding: implications for lesson and unit design. Wisconsin Mathematics Council, Green Lake, WI.
- Steele, M. D. (2018, May). The new professionalism: Empowering teachers as researchers, accomplices, and agitators. Wisconsin Mathematics Council, Green Lake, WI.
- Steele, M. D. (2018, April). The new professionalism: Empowering teachers as researchers, accomplices, and agitators. Invited presentation, National Council of Teachers of Mathematics Annual Meeting, Washington, DC.
- Smith, M. S. & Steele, M. D. (2018, April). Implementing the eight effective mathematics teaching practices in your classroom. Invited pre-conference workshop, National Council of Teachers of Mathematics Annual Meeting, Washington, DC.
- Steele, M. D. (2018, February). From research to practice and back again: Developing high school teachers' action research capacity. Association of Mathematics Teacher Educators, Houston, TX.
- Steele, M. D. (2017, November). Facilitating meaningful mathematics discourse and productive struggle in middle school. National Council of Teachers of Mathematics Regional Conference, Chicago, IL.
- Steele, M. D. & Moran, C. (2017, November). Restorative circles to promote equity. Presentation at the National Council of Teachers of Mathematics Innov8 Conference, Las Vegas, NV.
- Steele, M. D. & Rigelman, N. (2017, November). edTPA and the Standards for Preparing Teachers of Mathematics: Synergies and opportunities. edTPA National Conference, San Jose, CA.
- Smith, M. S. & Steele, M. D. (2017, October). Implementing the eight effective mathematics teaching practices in your classroom. Invited pre-conference workshop, National Council of Teachers of Mathematics Regional Conference, Orlando, FL.
- Steele, M. D. (2017, July). Facilitating meaningful mathematics discourse: National Council of Teachers of Mathematics Interactive Institute. Lead middle school presenter, National Council of Teachers of Mathematics Summer Interactive Institute, Baltimore, MD.
- Ziegler, J., Kosiak, J., Steele, M. D., Kuennen, E., Scott, D., & Lawler, J. (2017, May). Panel discussion: What does it mean to be college ready in mathematics? Wisconsin Mathematics Council Annual Conference, Green Lake, WI.
- Chedister, M., Hertel, J., Schaal, L., & Steele, M. D. (2017, May). Teacher education in Wisconsin: WI AMTE Open Forum. Wisconsin Mathematics Council Annual Conference, Green Lake, WI.
- Richards, P., Lucas, C., Schaal, L., & Steele, M. D. (2017, May). Coaching forum: Coaching for content, pedagogy, and beliefs that lead to success. Wisconsin Mathematics Council Annual Conference, Green Lake, WI.

- Hertel, J., Chedister, M., & Steele, M. D. (2017, May). Understanding the edTPA performance assessment. Wisconsin Mathematics Council Annual Conference, Green Lake, WI.
- Steele, M. D. (2017, May). Questions, Discourse and Productive Struggle: Integrating three effective teaching practices. Wisconsin Mathematics Council Annual Conference, Green Lake, WI.
- Smith, M. S. & Steele, M. D. (2017, April). Taking action in middle school: implementing effective mathematics teaching practices. National Council of Teachers of Mathematics Annual Meeting, San Antonio, TX.
- Steele, M. D. (2017, April). Questions, Discourse and Productive Struggle: Integrating three effective teaching practices. National Council of Teachers of Mathematics Annual Meeting, San Antonio, TX.
- Smith, M. S. & Steele, M. D. (2017, April). Implementing the eight effective mathematics teaching practices in your classroom. Invited pre-conference workshop, National Council of Teachers of Mathematics Annual Meeting, San Antonio, TX.
- Cirillo, M., Goff, C., Herbel-Eisenmann, B., Pyne, E., & Steele, M. D. (2017, April). Learning about mathematics classroom discourse: The impact on three contexts. National Council of Teachers of Mathematics Research Conference, San Antonio, TX.
- Herbel-Eisenmann, B., Remillard, J., Steele, M. D., & Taton, J. (2017, April). Implications of algebra policies and practices for equity and access. National Council of Teachers of Mathematics Research Conference, San Antonio, TX.
- Steele, M. D. (2017, April). Developing high school mathematics teacher leaders: Lessons from a content-focused professional development project. National Council of Supervisors of Mathematics Annual Conference, San Antonio, TX.
- Steele, M. D. & Smith, M. S. (2017, April). Supporting middle grades teachers' development and use of the eight effective mathematics teaching practices. National Council of Supervisors of Mathematics Annual Conference, San Antonio, TX.
- Steele, M. D. (2017, March). Supporting productive struggle in mathematics classrooms. Invited address, M³ Initiative (MPS, MATC, UWM), Milwaukee WI.
- Steele, M. D. (2017, February). Integrating the NCTM Effective Mathematics Teaching Practices and edTPA into secondary mathematics teacher preparation. Association of Mathematics Teacher Educators, Orlando, FL.
- McLeod, K. & Steele, M. D. (2017, February). Geometry, instructional practice and leadership: Developing high school teacher knowledge and leadership. Association of Mathematics Teacher Educators, Orlando, FL.
- Steele, M.D. & Davis, K. (2016, December). Connecting high-leverage instructional practices and rigorous standards to mathematical literacy. Invited presentation, CESA 4, LaCrosse, WI.
- Steele, M. D. (2016, November). Moving to Action: Mathematics teaching practices to support diverse learners. Invited presentation, National Council of Teachers of Mathematics Innov8 Conference, St. Louis, MO.

- Steele, M. D. (2016, October). Moving to action with discourse-centered effective mathematics teaching practices. Keynote presentation, National Council of Teachers of Mathematics Regional Conference, Philadelphia, PA.
- Steele, M. D. (2016, October). That was then, this is now. Invited presentation, National Council of Teachers of Mathematics Regional Conference, Philadelphia, PA.
- McLeod, K., & Steele, M.D. (2016, October). Mathematical modeling and the GAIMME report. Milwaukee Area Mathematics Council fall meeting, Milwaukee, WI.
- Steele, M. D. (2016, August). Algebra for All: Beyond show and tell facilitating meaningful mathematical discourse. Presentation to New York City Public Schools, New York, NY.
- Berg, C.A. & Steele, M.D. (2016, June). A trio of tools for preparation of STEM teachers that provides a rich source of data and facilitates extensive analysis of teaching episodes. Science and Mathematics Teacher Imperative Annual Meeting, San Antonio, TX.
- Steele, M. D. (2016, May). WIMaTHS: Wisconsin Mathematical Tasks for High School. Wisconsin Mathematics Council Annual Meeting, Green Lake, WI.
- Steele, M. D. (2016, May). Moving to action: Fostering effective mathematics teaching practices in high school with the Principles to Actions toolkit. Wisconsin Mathematics Council Annual Meeting, Green Lake, WI.
- Steele, M. D. (2016, May). Moving to action: Fostering effective mathematics teaching practices in the middle grades with the Principles to Actions toolkit. Wisconsin Mathematics Council Annual Meeting, Green Lake, WI.
- McLeod, K., & Steele, M. D. (2016, April). Transformation geometry? It's just slides, flips, and turns, isn't it? What's the big deal. Invited presentation, Brookhill Institute of Mathematics IHE Geometry Summit, Waukesha, WI.
- Smith, M. S. & Steele, M. D. (2016, April). Moving to Action: Fostering effective mathematics teaching practices in the middle grades with the Principles to Actions Toolkit. National Council of Teachers of Mathematics Annual Meeting, San Francisco, CA.
- Steele, M. D. (2016, April). Supporting productive struggle in secondary classrooms. National Council of Teachers of Mathematics Annual Meeting, San Francisco, CA.
- Steele, M. D. (2016, April). Hot Topics: Common sense approaches to acceleration and compression in secondary mathematics. Invited presentation, National Council of Supervisors of Mathematics Annual Meeting, Oakland, CA.
- Steele, M. D. & Smith, M. S. (2016, April). Moving to Action: Fostering effective mathematics teaching practices in the middle grades with the Principles to Actions Toolkit. Focus Speaker presentation, National Council of Supervisors of Mathematics Annual Meeting, Oakland, CA.
- Steele, M. D. (2016, February). Exploring the effective mathematics teaching practices in middle and high school. Invited Keynote address, National Council of Teachers of Mathematics Winter Institute, Dallas, TX.

- Steele, M. D. & McLeod, K. (2016, January). Developing statistics knowledge and effective mathematics teaching practices in high school teachers. Association of Mathematics Teacher Educators, Irvine, CA.
- Huinker, D., Steele, M. D., & Hedges, M. (2016, January). Pathways project: Graduate model for developing regional leaders in mathematics education. Association of Mathematics Teacher Educators, Irvine, CA.
- Smith, M. S., Bill, V. L., Hillen, A., Dillon, F., Huinker, D., Boston, M., & Steele, M. D. (2016, January). Supporting teachers' development of NCTM's effective mathematics teaching practices: An exploration of new resources. Association of Mathematics Teacher Educators, Irvine, CA.
- Steele, M. D. (2015, December). Exploring the effective mathematics teaching practices in high school. Invited address, Mathematics Proficiency for All Students, Oconomowoc, WI.
- Steele, M. D. (2015, October). Exploring the effective mathematics teaching practices in high school. Invited address, Mathematics Proficiency for All Students, Green Bay, WI.
- Steele, M. D. (2015, October). Principles to Actions: Ensuring Mathematical Success for All - Exploring the effective mathematics teaching practices. Invited presentation, Santa Clara County Office of Education, San Jose, CA.
- Steele, M. D. (2015, July). Moving to action: Effective mathematics teaching practices in the middle grades. Adults Learning Mathematics 22 Conference, Alexandria, VA.
- Steele, M. D. (2015, May). Developing the Principles to Actions effective mathematics teaching practices. Wisconsin Mathematics Council, Green Lake, WI.
- Chedister, M., Anastasopoulos, L. P., Piecham, M. B., Blasi, Z, Steele, M. D., Louie, J., & Gates, M. (2015, April). The role of teacher beliefs in adopting a coherent Algebra 1 curriculum. American Educational Research Association, Chicago, IL.
- Silver, E. A., Hurlburt, M., Steele, M. D., Devine, G., Levi, L., & Adams, T. (2015, April). Wedding formative assessment to mathematics instructional frameworks: Something old, Something new. National Council of Supervisors of Mathematics annual meeting, Boston, MA.
- Herbel-Eisenmann, B.A., Cirillo, M., Steele, M. D., Cavanna, J., Muirhead, F. A., & Heck, D. (2015, April). Professional development on mathematics discourse: Investigating contexts of enactment. National Council of Teachers of Mathematics Research Conference, Boston, MA.
- Piecham, M. B., Gates, M., & Steele, M. D. (2015, April). CCSSM mathematical practice standards in action: Classroom strategies for implementation. National Council of Teachers of Mathematics annual meeting, Boston, MA.
- Steele, M. D. & Smith, M. S. (2015, April). Moving to action: Effective mathematics teaching practices in the middle grades. National Council of Teachers of Mathematics annual meeting, Boston, MA.

- Steele, M. D. & Cutter, E. (2015, March). Moving to action: Effective mathematics teaching practices in the middle grades. Teaching and Learning Conference 2015, Washington DC.
- Steele, M. D., McLeod, K., Brown, S., & Schock, B. (2015, February). Design features and outcomes in Common Core professional development for high school: Functions and modeling. Association of Mathematics Teacher Educators, Orlando, FL.
- Browning, C., Hillen, A. F., Smith, M.S., & Steele, M. D. (2015, February). Turning an AMTE presentation into a Mathematics Teacher Educator submission. Invited presentation, Association of Mathematics Teacher Educators, Orlando, FL.
- Kasbaum, D., & Steele, M. D. (2014, October). Preparing students for their futures: Reconceptualizing high school mathematics course offerings. Wisconsin Association of Supervisors and Curriculum Directors, Appleton, WI.
- Kasbaum, D., & Steele, M. D. (2014, October). Preparing students for their futures: Reconceptualizing high school mathematics course offerings. Invited address, Tri-State Mathematics Network, Platteville, WI.
- Steele, M. D. (2014, October). Preparing students for their futures: Reconceptualizing high school mathematics course offerings. Invited address, WI CESA Mathematics Network, Portage, WI.
- Steele, M. D. (2014, September). Preparing students for their futures: Reconceptualizing high school mathematics course offerings. Invited address, Wisconsin Mathematics Leadership Council, Waukesha, WI.
- Steele, M. D. (2014, September). Developing specialized content knowledge for teaching: Integrating content and pedagogy in secondary mathematics teacher education. Invited address, American Mathematical Society Fall Regional Meeting, Eau Claire, WI.
- Huinker, D., Kepner, H., Steele, M. D., McLeod, K., Ruszkiewicz, D., Mooney, M., & Schefelker, B. (2014, June). Lessons learned from the Milwaukee Mathematics Partnership. Invited panel discussion, Science and Mathematics Teacher Initiative, Milwaukee, WI.
- Steele, M. D. (2014, May). Mathematical knowledge for teaching: A tool to support beginning teachers. Wisconsin Mathematics Council, Green Lake, WI.
- Steele, M. D. (2014, May). Discovering mathematics, discoverable mathematics. Invited address, Wisconsin Mathematics Council, Green Lake, WI.
- Steele, M.D. (2014, May). Big ideas in high school mathematics: Reconceptualizing course offerings in the Common Core Era. Wisconsin Mathematics Council, Green Lake, WI.
- Cirillo, M., & Steele, M. D. (2014, April). Facilitating productive and powerful discourse through Teacher Discourse Moves. National Council of Supervisors of Mathematics, New Orleans, LA.
- Blasi, Z., Steele, M. D., Gropen, J., Gates, M., Piecham, M. B., Anastasopoulos, L., Louie, J., & Wedow, M. (2014, April). Measuring teachers' fidelity of implementation to CME Project Algebra 1. National Council of Teachers of Mathematics Research Conference, New Orleans, LA.

- Steele, M.D., Remillard, J., & Baker, J.Y. (2014, April). Algebra I policy and practice: Examining opportunities to learn and universal early algebra policies. American Educational Research Association, Philadelphia, PA.
- Rogers, K.C., & Steele, M. D. (2014, February). Graduate TAs teaching prospective elementary teachers about reasoning-and-proving: A case study. Association of Mathematics Teacher Educators, Irvine, CA.
- Steele, M.D., & Cavanna, J. (2014, February). The myth of planning: Patterns of participation in supporting teachers' development of rich discourse practices. Association of Mathematics Teacher Educators, Irvine, CA.
- Cirillo, M., Steele, M. D., Johnson, K., Cavanna, J., & McAneny, K. (2014, February). Facing multiple identities as designers, researchers, and teacher educators focused on classroom discourse. Association of Mathematics Teacher Educators, Irvine, CA.
- Johnson, K. R., Steele, M. D., Herbel-Eisenmann, B. A., Leatham, K. R., Peterson, B. E., Stockero, S., Van Zoest, L., Almeida, I., & Merrill, L. (2013, November). Classroom mathematics discourse: Broadening perspectives by integrating tools for analysis. *Psychology in Mathematics Education - North American Chapter*, Chicago, IL.
- Suh, H., Musselman, A. T., Herbel-Eisenmann, B. A., & Steele, M. D. (2013, November). Teacher positioning and agency to act: Talking about "low-level" students. *Psychology in Mathematics Education - North American Chapter*, Chicago, IL.
- Cavanna, J. M., Steele, M. D., Herbel-Eisenmann, B. A., & Cirillo, M. (2013, November). The myth of planning: Teachers' development in supporting mathematics discourse. *Psychology in Mathematics Education - North American Chapter*, Chicago, IL.
- Steele, M. D. & Crespo, S. (2013, May). Mathematics methods and the Common Core: Approaches to modeling and learning the Standards for Mathematical Practice. Invited address, Association of Mathematics Teacher Educators webinar series.
- Hoe, N. D., Baker, J., Keazer, L. M., Steele, M. D., & Remillard, J. (2013, April). Charting the LANDSCAPE of school district algebra policies: Findings from a national survey. American Educational Research Association, San Francisco, CA.
- Herbel-Eisenmann, B. A., Steele, M. D., & Otten, S. (2013, April). Mathematics discourse in secondary classrooms: Productive teacher moves and empowered students. National Council of Supervisors of Mathematics Annual Meeting, Denver, CO.
- Remillard, J., Herbel-Eisenmann, B. A., Steele, M. D., & Keazer, L. M. (2013, April). National trends in universal early algebra: Findings from a national study of early algebra policies. National Council of Supervisors of Mathematics Annual Meeting, Denver, CO.
- Keazer, L. M., Mark, J., Steele, M. D., Louie, J., Herbel-Eisenmann, B. A., Hoe, N. D., & Martin, C. (2013, April). Perspectives and strategies to support algebra

- success for all students. National Council of Teachers of Mathematics Research Pre-session, Denver, CO.
- Steele, M.D., & Musselman, A.T. (2013, April). Identity development through mathematics discourse: Teacher learning about positioning. Mathematics Education and Society 7 Conference, Cape Town, South Africa.
- Herbel-Eisenmann, B.A., Steele, M.D., & Keazer, L.M. (2013, February). The LANDSCAPE of opportunities to learn Algebra I. Mathematics Education Colloquium Series, East Lansing, MI.
- Steele, M.D., McAneny, K., Herbel-Eisenmann, B., & Cavanna, J. (2013, January). Connecting teacher discourse moves to mathematical and social goals. Association of Mathematics Teacher Educators, Orlando, FL.
- Smith, M.S., Arbaugh, F., & Steele, M.D. (2013, January). What teachers need to be able to do to engage students in reasoning and proving. Association of Mathematics Teacher Educators, Orlando, FL.
- Kim, O., Remillard, J., Steele, M.D., Blunk, M., Piecham, M., & Lewis, J. (2012, November). Measuring instruction in relation to curriculum use. Facilitator of working group, Psychology in Mathematics Education - North American Chapter, Kalamazoo, MI.
- Rogers, K.C., & Steele, M.D. (2012, November). Reasoning-and-Proving Tasks in a Geometry and Measurement Textbook for Prospective Elementary Teachers. Psychology in Mathematics Education - North American Chapter, Kalamazoo, MI.
- Herbel-Eisenmann, B., Steele, M.D., Johnson, K., & Theakston, A. (2012, July). Mathematics Discourse in Secondary Classrooms. Michigan Council of Teachers of Mathematics Annual Meeting, Traverse City, MI.
- Steele, M.D. (2012, June). Shaping the mathematical storyline: Leveraging student thinking through rich classroom discussions. Invited address, Integrating STEM Education Research into Teaching: Knowledge of Student Thinking National Conference, Orono, ME.
- Smith, M.S., Arbaugh, F., Steele, M.D., Boyle, J.D., Fulkerson, W., Knouk, N., & Vrabel, A. (2012, April.) Developing teachers' capacity to support students' reasoning and proving. National Council of Teachers of Mathematics Research Pre-session, Philadelphia, PA.
- Remillard, J., Kim, O., Piecham, M.B., Steele, M.D., Rienke, L., Blasi, Z., Anastasopoulos, L., & Louie, J. (2012, April.) Measuring teaching practice related to curriculum use. National Council of Teachers of Mathematics Research Pre-session, Philadelphia, PA.
- Boston, M. & Steele, M.D. (2012, April). Analyzing student work as a reflection on practice: Tools for research and professional development. National Council of Teachers of Mathematics Research Pre-session, Philadelphia, PA.
- Steele, M.D. (2012, March). Teacher education in the era of the Common Core: Engaging in mathematical practices as a teacher and learner. Invited address, Kentucky Center for Mathematics Annual Conference, Lexington, KY.

- Arbaugh, F., Smith, M.S., & Steele, M.D. (2012, February). Developing teachers' pedagogical practices for reasoning-and-proving: Learning to modify textbook tasks. Association of Mathematics Teacher Educators, Fort Worth, TX.
- Boston, M. & Steele, M.D. (2012, February). Analyzing student work as a reflection on practice: Tools for research and professional development. Association of Mathematics Teacher Educators, Fort Worth, TX.
- Steele, M.D., Herbel-Eisenmann, B., Cirillo, M., Chapin, S., & Salinas, A. (2012, February). Fostering productive and powerful mathematics classroom discourse: A discussion of research and professional education perspectives. Association of Mathematics Teacher Educators, Fort Worth, TX.
- Johnson, K.R., Otten, S., Cirillo, M., & Steele, M.D. (2012, February). Teacher discourse moves in context. Association of Mathematics Teacher Educators, Fort Worth, TX.
- Steele, M.D., Arbaugh, F., & Boyle, J. (2011, April). Enhancing the reasoning-and-proving content of textbook tasks: A site for teacher professional development. National Council of Supervisors of Mathematics, Indianapolis, IN.
- Herbel-Eisenmann, B., Steele, M.D., & Cirillo, M. (2011, April). Supporting secondary mathematics teachers' purposeful and powerful discourse. National Council of Teachers of Mathematics Research Pre-session, Indianapolis, IN.
- Cirillo, M., Herbel-Eisenmann, B., & Steele, M.D. (2011, April). Exploring triangle congruence: A rich, discourse-centered geometry task. National Council of Teachers of Mathematics, Indianapolis, IN.
- Otten, S., Herbel-Eisenmann, B., Cirillo, M., Steele, M.D., & Bosman, H. (2011, April). Students actively listening: A foundation for productive discourse in mathematics classroom. American Educational Research Association, New Orleans, LA.
- Otten, S., Nimitz, J., Todd, R., Steele, M.D., Cirillo, M., & Herbel-Eisenmann, B. (2011, February). Mathematical language: The relationship between context and precision. Math in Action conference of Grand Valley State University, Allendale, MI.
- Muirhead, F., Johnson, K. R., Theakston, A., Herbel-Eisenmann, B., Cirillo, M., & Steele, M.D. (2011, February). How might classroom discourse position secondary students as learners of mathematics? Math in Action conference of Grand Valley State University, Allendale, MI.
- Steele, M.D., Smith, M.S., & Hillen, A.F. (2011, February). Content-focused methods courses: Integrating pedagogy and mathematical content that is central to the 7-12 curriculum. Association of Mathematics Teacher Educators, Irvine, CA.
- Breyfogle, M.L., Hillman, S., Ives, S.E., McDuffie, A.R., Moeller, B., Rigelman, N., & Steele, M.D. (2011, February). Mathematics teacher educators working to assess the use of case-based materials. Association of Mathematics Teacher Educators, Irvine, CA.

- Howell, H., Jacobsen, E., & Steele, M.D. (2011, February). Open questions about the mathematical knowledge for teaching of secondary teachers. \Association of Mathematics Teacher Educators, Irvine, CA.
- Steele, M.D., (2010, November). Changing curriculum, changing practice: A study of secondary teachers' implementation of mathematical practice. Conference on the Study of the Enacted Curriculum, Tampa, FL.
- Steele, M.D., Johnson, K.R., Herbel-Eisenmann, B., & Carver, C. (2010, October). Leadership content knowledge: A case of principal learning in algebra. Psychology in Mathematics Education Group - North America Chapter. Columbus, Ohio.
- Steele, M.D. (2010, April). Graduate student, junior faculty, and researcher mentoring session. Invited panel discussion, National Council of Teachers of Mathematics Research Presession, San Diego, CA.
- Steele, M.D. (2010, April). Tools of the trade part 2: Linking research and practice. Invited address, National Council of Teachers of Mathematics, Research Presession, San Diego, CA.
- Steele, M.D., Herbel-Eisenmann, B., & Cirillo, M. (2009, November). Mathematics discourse in secondary classrooms: A materials development project. Discovery Research K-12 program meeting, National Science Foundation, Washington, DC.
- Steele, M.D. (2009, April). Mathematical knowledge for teaching reasoning and proving in practice. National Council of Teachers of Mathematics, Research Presession, Washington DC.
- Steele, M.D., Jansen, A., Flores, A., Newton, K., Wilkerson, T., & Sword, S. (2009, April). Mathematical experiences for mathematics educators: Exploring open mathematical spaces. National Council of Teachers of Mathematics Research Presession, Washington, DC.
- Steele, M.D. (2009, April). Examining mathematical knowledge for teaching in practice: Reflections on frameworks and conceptualizations. American Educational Research Association, San Diego, CA.
- Cervello, K.A., & Steele, M.D. (2009, April). Mathematics teaching assistants' mathematical knowledge for teaching the derivative. American Educational Research Association, San Diego, CA.
- Steele, M.D. (2009, April). Mathematics content and pedagogical knowledge of preservice and inservice teachers: A discussion. American Educational Research Association, San Diego, CA.
- Arbaugh, F., Smith, M.S., Steele, M.D., & Taylor, C. (2009, February). Cases of Reasoning and Proving (CORP): Materials for secondary mathematics teacher education. Association of Mathematics Teacher Educators, Orlando, FL.
- Steele, M.D. & Cervello, K. A. (2008, March). Relationships between mathematical knowledge for teaching and teacher practice: The case of proof. American Educational Research Association, New York, NY.

- Steele, M.D. (2007, April). So what IS proof? Using inquiry and revisiting to develop teachers' mathematical knowledge for teaching. American Educational Research Association, Chicago, IL.
- Steele, M.D. (2007, March). So what IS proof? Two cases of teacher learning through inquiry. National Council of Teachers of Mathematics Research Presession, Atlanta, GA.
- Steele, M.D. (2006, October). Developing a model of mathematical knowledge for teaching. Invited address, Fall meeting of the Knowles Science Teaching Foundation, San Diego, CA.
- Slater, S.C., Matsumura, L.C., Boston, M., & Steele, M.D. (2006, April). Measuring instructional quality in mathematics: Lessons learned from the development of the Instructional Quality Assessment (IQA) toolkit. American Educational Research Association, San Francisco, CA.
- Smith, M.S., Steele, M.D., & Boston, M. (2006, February). Focusing on challenging mathematical tasks: A strategy for improving teaching. Association of Mathematics Teacher Educators, Tampa, FL.
- Steele, M.D. (2004, April) Comparing reasoning structures and knowledge bases in discussions of mathematics and pedagogy. American Educational Research Association, San Diego, CA.
- Steele, M.D. (2003, April) Evaluating the effectiveness of case-based professional development in mathematics education. University of Pittsburgh Council of Graduate Students in Education, Pittsburgh, PA.

GRANTS, FELLOWSHIPS, AND INITIATIVES

Externally Funded Research and Development Projects

The Milwaukee Master Teacher Partnership

Principal Investigator (co-PIs Craig Berg, Anja Blecking)

National Science Foundation Noyce Track 3 (2016-2022)

Amount funded: \$2,452,184

Ramping Up to the Milwaukee Master Teacher Partnership

Principal Investigator (co-PIs Craig Berg, Anja Blecking)

National Science Foundation Noyce Track 3 (2015-2016)

Amount funded: \$74,991

Common Core High School Mathematics Leadership

Principal Investigator (co-PI Kevin McLeod)

Wisconsin ESEA Improving Teacher Quality Title IIA (2014-2016)

Amount funded: \$216,000

Pathways for Teacher Leadership in Mathematics

Co-Principal Investigator (w/DeAnn Huinker)

Wisconsin ESEA Improving Teacher Quality Title IIA (2014-2017)

Amount funded: \$365,000

Core Math Partnership

Senior Staff (PIs Kevin McLeod, DeAnn Huinker)
US Department of Education MSP (2014-2016)
Amount funded: \$115,000

Common Core High School Mathematics: Transforming Instruction for a New Era

Senior Staff (PIs Kevin McLeod, DeAnn Huinker)
Wisconsin ESEA Improving Teacher Quality Title IIA (2013-2014)
Amount funded: \$115,000

Learning About New Demands in Schools:

Considering Algebra Policy Environments [LANDSCAPE]

Co-Principal Investigator (w/ B. Herbel-Eisenmann, J. Remillard)
NSF REESE (2011-2015) DRL-1108833
Amount funded: \$1,441,431

Changing Curriculum, Changing Practice (Mathematical Practices Implementation study)

Co-Principal Investigator (w/ A. Cuoco, S. Sword, et al.)

National Science Foundation Discovery Research K-12 Program (2010-2015) DRL-1019945

Subcontract amount funded: \$366,774

M-DISC Mathematics Discourse in Secondary Classrooms:

A Case-Based Professional Development Curriculum

Co-Principal Investigator (w/ B. Herbel-Eisenmann, M. Cirillo)

National Science Foundation Discovery Research K-12 Program (2009-2015) DRL-0918117

Amount funded: \$2,100,000

Building Capacity in Algebra

Co-Principal Investigator (w/ C. Carver, B. Herbel-Eisenmann)

Michigan Department of Education Teacher Quality Grant Program (2008-2010)

Amount funded: \$200,000

Cases of Reasoning and Proving in Secondary Mathematics

Senior Staff (PIs Margaret S. Smith, Fran Arbaugh)

National Science Foundation DR K-12 (2007-2014) DRL-0732798

Subcontract amount funded: \$178,790

Internally Funded Research

Exploring Mathematical Knowledge, Enhancing Mathematical Conversations Pilot

Co-Principal Investigator (w/ B. Herbel-Eisenmann)

Michigan State University College of Education Seed Grant (2008-2009)

Amount requested: \$9,800

Investigating Practicing Teachers' Mathematical Knowledge for Teaching Reasoning and Proving

Principal Investigator

Michigan State University College of Education Seed Grant (2006-2007)

Amount funded: \$5,000

Middle grades geometry and measurement: Examining change in knowledge needed for teaching through a practice-based teacher education experience

Co-principal Investigator (2005-2006)

University of Pittsburgh School of Education Alumni Doctoral Fellowship

Amount funded: \$2,500

University of Pittsburgh School of Education Student Research Fund

Amount funded: \$1,500

Advisory Activities, Fellowships, and Professional Initiatives

Preparing Graduate Students to Teach Undergraduate Mathematics

NSF Project housed at the University of Maine

Natasha Speer, Principal Investigator

National Council of Supervisors of Mathematics/Association of Mathematics Teacher Educators Task Force on Formative Assessment: Task Force Panelist & Author

Edward Silver and Valerie Mills, Principal Investigators

National Council of Teachers of Mathematics Principles to Actions Professional Development Team: Author

Margaret S. Smith and Victoria Bill, Principal Investigators

FIRSTMATH study: Expert reviewer

Maria Teresa Tatto and Kiril Bankov, Principal Investigators

Algebra: A Challenge at the Crossroads of Policy and Practice: Advisory Board Member

NSF Project (RAPID) housed at the University of Pittsburgh

Mary Kay Stein, Principal Investigator

Kentucky Center for Mathematics: Special Advisor

State of Kentucky

Examining Curriculum Interactions in Teacher Education (ExCITE) Conference: Conference Co-Director

Center for the Study of School Mathematics: Research Fellow

NSF Project housed at the Education Development Center, Newton MA

Sarah Sword, Principal Investigator

Thought Experiments in Mathematics Teaching: Research Fellow

NSF Project housed at the University of Michigan and University of Maryland

Patricio Herbst & Dan Chazan, co-Principal Investigators

TEACHING AND PROFESSIONAL EXPERIENCE

University of Wisconsin-Milwaukee (Milwaukee, WI) **Instructor**, 2013-present
Teaching Secondary Mathematics [CURRINS 532]

This course for senior undergraduates and post-baccalaureate students develops secondary teacher candidates' teaching practice in the context of high school mathematics. Specifically, the course focuses on the selection of mathematical tasks of high cognitive demand, ways to productively use student thinking, and lesson planning that supports an inquiry-based classroom. The mathematical content of the course focuses on algebra through the secondary curriculum. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, tracing candidates' identity development as mathematics teachers, and teaching and reflecting on lessons based on tasks with a high level of cognitive demand.

Student Teaching Mathematics [CURRINS 432]

This course for senior undergraduates and post-baccalaureate students serves three purposes: to continue to develop secondary teacher candidates' teaching practices, to address and support problems of practice in student teaching, and to develop the artifacts and evidence base for the edTPA teacher certification assessment portfolio. The mathematical content of the course focuses on reasoning-and-proving through the secondary curriculum. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, transitioning from lesson to unit planning, and teaching and reflecting on lessons based on tasks with a high level of cognitive demand, and the completion of an action research project.

Analysis of Instruction: High-Leverage Mathematics Teaching Practices
[CURRINS 714]

This course is a special mathematics-specific section of a core course in the Masters in Curriculum and Instruction program. This course, designed for practicing mathematics teachers and teacher leaders across the K-12 spectrum, engages participants in the study of research-based high-leverage teaching practices. The course focuses on the eight Mathematics Teaching Practices described in NCTM's Principles to Actions (2014) and the research articles that undergird the teaching practices. Course activities include practitioner and research article readings and discussions, the reading/viewing and analysis of narrative and video cases using the high-leverage practices, three brief artifact analyses in which teachers and coaches use the high-leverage practices as lenses for their own practice, and a teaching and learning case study in which teachers and coaches analyze their planning, teaching, and enactment in a classroom episode or instructional intervention.

Principles and Practices of Geometry and Geometric Reasoning [CURRINS 625]

This masters course considers the content of geometry and measurement as represented in K-12 school mathematics, with a focus on the transformational

approach embodied by the Common Core State Standards for Mathematics. Activities include exploring mathematics content as learners, examining research about student learning of geometry and measurement, and considering the pedagogy and mathematical knowledge for teaching geometry & measurement.

Integrating Research on Mathematics Thinking and Learning into Curriculum and Instruction [CURRINS 864]

The focus of this doctoral course is to consider the ways in which mathematics education research informs and shapes issues of curriculum and instruction in mathematics. The course will consider research from various theoretical perspectives (behaviorist, cognitive, situative, sociocultural) and relate both the use of those perspectives and the outcomes of research using those perspectives to mathematics education. We will analyze, discuss, and compare landmark research studies that apply these perspectives and frameworks to the work of analyzing learning. We will compare the affordances and constraints of perspectives and frameworks in researching teacher learning, and consider implications for our own research designs. The mathematics content that these frameworks analyze will span the K-12 spectrum.

Program Director, Secondary Mathematics

Responsibilities include overseeing all aspects of the secondary mathematics teacher certification program, including recruitment of candidates, evaluation of applicants for admission, coordination of mathematics methods curriculum, arranging placements and field instruction staffing, observing teacher candidates, and resolving teacher candidate issues.

Michigan State University (East Lansing, MI) **Instructor**, 2006-2013

Teaching and Learning Mathematics with Problem Solving [TE 857]

This masters-level course is a part of the online Masters of Arts in Curriculum and Instruction program. It invites teachers and other education professionals across the K-16 spectrum to engage in a consideration of the nature of mathematical problem solving, effective strategies for engaging students in problem solving, and the intersection of problem solving with the domains of modeling and classroom culture. Teachers engage in individual and collaborative online problem solving through the use of discussion boards and video, and the discussion of readings and videos from educators, educational researchers, and other professionals about the nature of the problem solving process. Culminating assignments include the design and teaching of a problem solving lesson featuring a high cognitive demand task, the design of a problem solving task integrating modeling, and a self-study project investigating the role of classroom norms in supporting problem solving practice.

Mathematics Education Proseminar II [MTHE 927]

This doctoral course is the second in a two-course series that provides a survey of critical topics in mathematics education research. This course focuses on four areas: learning, teaching, assessment, and policy. The course

also aims to develop first- and second-year doctoral students' writing skills through weekly written reflections on readings, in-depth critical analyses of two articles, and the construction of a literature review within one of the four focus areas. Assignments are differentiated between first- and second-year students, with the second-year literature review also serving as a part of students' second-year research practicum proposals.

Reflection and Inquiry into Teaching Practice I & II (Mathematics) [TE 802/4]

The goal of this graduate-level course is to support student teachers in their full-year teaching internship with respect to the teaching of mathematics. Specifically, the course seeks to develop a critical and reflective stance towards the work of teaching. Course activities include developing a mathematics teaching philosophy, planning, teaching, and reflecting on lessons and units, and conducting action research.

Teaching Subject Matter to Diverse Learners (Mathematics) [TE 407]

Crafting Teaching Practice (Mathematics) [TE 408]

The goal of these senior-level courses is to help secondary preservice teacher candidates develop their teaching practice. Specifically, the course focuses on the selection of mathematical tasks of high cognitive demand, ways to productively use student thinking, and lesson planning that supports an inquiry-based classroom. The mathematical content of the course focuses on algebra through the secondary curriculum in TE 407 and geometry and measurement in TE 408. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, and creating lessons based on tasks with a high level of cognitive demand.

Critical Content in School Mathematics: Geometry & Measurement [MTHE 842]

This doctoral course considers the content of geometry and measurement as represented in K-12 school mathematics. Activities include exploring mathematics content as learners, examining research about student learning of geometry and measurement, and considering the pedagogy and mathematical knowledge for teaching geometry & measurement.

Special Topics in K-8 Mathematics: Geometry and Measurement [SME 600]

This course was designed as a pilot for a proposed Masters in Mathematics for Middle School Teachers program currently under development. The intensive two-week course focused on big ideas related to geometry and measurement, making connections to student-centered pedagogical practices and exploring student work.

Laboratory & Field Experience in Curriculum, Instruction, & Teacher Education [TE 994]

This doctoral course provides support in the form of a year-long seminar for graduate students teaching or supervising student teachers in the teacher preparation program. Activities include readings on teacher preparation and the design of a research project investigating an aspect of teacher preparation practice (including supervision).

Teaching Subject Matter to Diverse Learners (Mathematics) [TE 401]

The goal of this senior-level course is to help elementary preservice teacher candidates develop their teaching practice. Specifically, the course focuses on the selection of mathematical tasks of high cognitive demand, ways to productively use student thinking, and lesson planning that supports an inquiry-based classroom. The mathematical content of the course includes rational numbers, number and operation, patterns and functions, and proportional reasoning. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, and creating lessons using high cognitive demand tasks.

Subject Area Leader, Secondary Mathematics

Team leader for the secondary mathematics teacher preparation program. Responsibilities include coordination of mathematics methods curriculum, overseeing course and field instruction staffing, working with new graduate students teaching in the program, coordinating field placements, and resolving teacher candidate issues.

Course Co-Supervisor, Mathematical Investigations II [MTH 202]

Assisted in developing the syllabus and activities for the course, participated in weekly meetings of graduate students assigned to course sections

University of Pittsburgh (Pittsburgh, PA) Instructor, 2002-2006

Special Topics in Middle Grades Mathematics: Geometry and Measurement

The goal of this graduate-level course is to help individuals develop proficiency as teachers of mathematics with a particular focus on middle grades geometry and measurement. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, and creating lessons based on tasks with a high level of cognitive demand.

Special Topics in Middle Grades Mathematics: Algebra as the Study of Patterns & Functions

The goal of this graduate-level course is to help individuals develop proficiency as teachers of mathematics with a particular focus on the topic of patterns and functions. Course activities include solving and discussing mathematical tasks, analyzing narrative and video cases of teaching, analyzing and discussing student work, and creating lessons based on tasks with a high level of cognitive demand.

Intern Seminar: Secondary Mathematics for Masters of Arts in Teaching

The goal of this seminar is to support year-long interns in the day-to-day issues of teaching and learning. Additional course topics include interacting with supervisors, mentor teachers, and administration; lesson planning; preparation for job searching.

Graduate Student Research Associate

A Study of Teacher Education: Research on Instructional Design (ASTEROID)

Collaborators: Margaret S. Smith, Gaea Leinhardt, James G. Greeno, Randi A. Engle, Joyce Fienberg, Amy F. Hillen, Elizabeth K. Hughes

Enhancing Secondary Mathematics Teacher Preparation (ESP) Project
Collaborators: Margaret S. Smith, Melissa Boston, Jennifer Mossgrove

Cognitive Language for Teaching Project

Collaborators: Robert Glaser, James G. Greeno, Margaret S. Smith, Amy F. Hillen, Carla van de Sande

Scaling Up Project

Collaborators: Mary Kay Stein, Stephanie Sutherland, Michael Hogel

Project Consultant

Instructional Quality Assessment Project, Institute for Learning

Collaborators: Lindsay Clare Matsumura, Sharon Cadman Slater, Melissa Boston

ACADEMIC ADVISING

Advisor/Dissertation Committee Chair

Steven Gorski	Department of Teaching and Learning, UWM
Melissa Manley	Department of Teaching and Learning, UWM
Amber Schreve	Department of Teaching and Learning, UWM
Jenny Sagrillo	Department of Teaching and Learning, UWM
Sarah Kasten	Division of Science and Mathematics Education Exploring the interaction between a field experience and one preservice teacher learning to anticipate students' mathematical responses (defended April 2009) Current position: Associate Professor, Northern Kentucky University
Kimberly Rogers	Program in Mathematics Education The proof is in the practice? Graduate teaching assistants and future teachers (defended May 2012) Current position: Associate Professor, Bowling Green State University
Kate Johnson	Department of Teacher Education (advisor only) Illuminating the Identities of Mathematics Teachers and Mathematics Teacher Educators (defended July 2013) Current position: Associate Professor, Brigham Young University
Leah Rineck	Department of Curriculum and Instruction, UWM A Holistic Developmental Mathematics Course for All Learners (defended July 2020) Current position: University of Wisconsin-Madison

Member of Guidance or Dissertation Committee

Mustafa Demir	Department of Counseling, Educational Psychology, and Special Education, Michigan State University (defended January 2009)
Samuel Otten University	Program in Mathematics Education, Michigan State (defended May 2012)
Kari Selleck	Education Policy, Michigan State University (defended June 2012)
Sarah Roller	Department of Teacher Education, Michigan State University (defended June 2015)

NATIONAL SERVICE

Leadership

Association of Mathematics Teacher Educators
President (2019-2021), President-Elect (2018-2019), Past President (2021-2022)
Member-At-Large, Board of Directors (2016-2018)
Chair, Standards Dissemination Task Force (2017-2018)
Professional Development Committee (2013-2015; 2016-2018)

Conference Board of Mathematical Sciences Executive Committee (2020-2023)

Teacher Study Group 7 (Algebra Teaching) Strand Leader, International Commission on Mathematics Instruction 14 (2016-2021)

National Council of Teachers of Mathematics (NCTM)
High School Mathematics Project appointee (2022-2024)
Board of Directors (2023-2026)

NCTM NCATE/CAEP Program Reviewer, mathematics education (2012-2016)

Presidential Awards for Excellence in Mathematics and Science Teaching award reviewer (2016 Wisconsin, 2019 National)

Editor

Mathematics Teacher Educator Journal (2021-2025)

Editorial Board

Review of Educational Research (2007-2012)
Journal of Research in Leadership Education (2015-present)

Grant Reviewer

National Science Foundation

Manuscript Reviewer

Cognition and Instruction
Journal for Research in Mathematics Education
Journal of Mathematics Teacher Education
Teaching and Teacher Education
Review of Educational Research
American Educational Research Journal
Journal of Teacher Education
Instructional Science
Journal of Research in Leadership Education
Mathematics Teacher Educator
Mathematics Teacher
Mathematics Teaching in the Middle School
National Council of Teachers of Mathematics Research Conference
American Educational Research Association Annual Meeting

REGIONAL AND STATE SERVICE

Leadership

Wisconsin Association of Mathematics Teacher Educators
President (2016-2018), Board of Directors (2018-2022)
Project Director, Wisconsin High School Mathematics Curriculum Innovation
(2014-2017)
Wisconsin State Mathematics Initiative Materials Reviewer (2014)

Professional Development and Consulting

Arbor Park (IL) District 145
Elementary mathematics discourse consultant, 2021-2022

Avon (IN) Community Schools
Mathematics Instructional Practice and Equity workshop, March 2016

Brebuief Jesuit Schools
Mathematics education professional development, 2021-2022

Greendale (WI) Community Schools
Mathematics Instructional Practice and coaching workshop series,
2016-2020

Hamilton Southeastern School District
Mathematics education professional development, 2021-2022

Indiana Department of Education
Secondary Mathematics Modernization Consultant, 2021-present

Kenosha Unified School District
Mathematics Instructional Practices series (9 day-long workshops),
2017-2018

Mequon-Theisville School District
Curriculum and Assessment Study Group Leader, 2013-2014

Milwaukee Area Technical College
Common Core Professional Development, February 2014 (w/K. McLeod)

Milwaukee Public Schools
Algebra as the Study of Patterns and Functions workshop, March 2014
Springboard curriculum study, August 2014

Noblesville (IN) Schools
Curriculum adoption consultant, 2021-present

South Dakota Department of Education
Mathematics Instructional Practice workshop, August 2018

Santa Clara (CA) County Office of Education
Mathematics Instructional Practice workshop, October 2015

St. Francis School District
Curriculum Implementation Advising, April 2014

Troy (MI) School District
Mathematics Instructional Practices professional development and
curriculum guidance, 2018-2021

Wauwatosa School District
Mathematics K-12 Audit Team, November 2014-May 2015
Professional Development consultant, May 2015-August 2018

Westfield Washington School District
Mathematics education professional development, 2021-present

Whitefish Bay (WI) Community Schools
Mathematics Instructional Practice and coaching workshop, June 2016

Whitnall (WI) Community Schools
Mathematics Instructional Practice and coaching workshop series,
2016-2017

Zionsville (IN) Community Schools
Mathematics and science education consultant, 2019-present

Grant Reviewer

National Science Foundation Division of Research on Learning, 2013-2017
Wisconsin STEM grant program, 2016

UNIVERSITY, COLLEGE, AND DEPARTMENT SERVICE

University of Wisconsin-Milwaukee

Chair, Department of Curriculum and Instruction	2015 - 2018
Faculty Senate	2015 - 2017
Visioning and Restructuring Committee, School of Education	2015 - 2017
NWQ ALC Instructional Development and Technology Subcommittee	2014 - 2016
Faculty Assembly, School of Education (coordinating committee, 2014-2015)	2013 - 2017
Early Adolescence-Adolescence Program Committee (chair, 2014-2015)	2013 - 2021
Executive Committee, Department of Curriculum and Instruction	2013 - 2021

Michigan State University

Teacher Preparation Committee, Department of Teacher Education (Chair, 2011-2012; Recorder, 2010-2011)	2006 - 2012
Curriculum Committee, College of Education	2010 - 2011
Teacher Education Task Force, Department of Teacher Education	2009 - 2012
Faculty Advisory Committee, Department of Teacher Education (Chair, 2008-2009)	2008 - 2012
Subject Area Leader for mathematics, Secondary teacher preparation program, Department of Teacher Education	2007 - 2013
Admissions Committee, Mathematics Education PhD (Chair, 2007-2010)	2006 - 2012
Comprehensive Examination Committee, Mathematics Education PhD PhD Academic Program Policy Committee, Department of Teacher Education	2012 - 2013
	2007 - 2008

Secondary Mathematics Coordinator & Lead Writer, TEAC Accreditation Team
2006 - 2008
Department of Teacher Education

Course Supervisor, MTH 202, Department of Mathematics 2007

Textbook Selection Committee, MTH 201-202, Department of Mathematics 2006
- 2008

PROFESSIONAL AFFILIATIONS

National Council of Teachers of Mathematics
Association of Mathematics Teacher Educators
National Council of Supervisors of Mathematics
American Educational Research Association
Special Interest Groups: Research in Mathematics Education
Indiana Council of Teachers of Mathematics
Psychology in Mathematics Education - North America

FELLOWSHIPS, AWARDS, AND HONORS

National Science Foundation

Special Act Award, 2022

Association of Mathematics Teacher Educators/National Council of Teachers of Mathematics

Best reviewer (inaugural recipient), Mathematics Teacher Educator, 2017

University of Wisconsin-Milwaukee

Service Award Nominee, School of Education, 2016

University Council for Educational Administration

Journal of Research in Leadership Education Best Article Award, 2016

National Council of Teachers of Mathematics

Finalist, Linking Research and Practice Outstanding Publication Award, 2014
(Fostering Student Engagement with the Flip)

Michigan State University

Undergraduate Recognition Award, 2007, 2010

University of Pittsburgh

School of Education Alumni Doctoral Fellowship, 2005
School of Education Student Research Fund Award, 2005
Graduate Student Research Fellowship, 2002-2006

Maryland Council of Teachers of Mathematics

Distinguished Service Award, 2002

Rensselaer Polytechnic Institute

Phalanx Leadership Honor Society, 1996
Archer Center Student Leadership Award, 1995, 1996
Rensselaer Scholarship, 1991-1993