Hollylynne S. Lee

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Academic Background

University of Virginia
Ph.D. in Mathematics Education, advisor Joe Garofalo, May 2000
Dissertation: Children's Probabilistic Reasoning with a Computer Microworld
College of William and Mary
M.A.Ed. in Secondary Education--Mathematics, 1995
The Pennsylvania State University
B.S. in Secondary Mathematics Education, 1991

University Experience

North Carolina State University August 2000-current
Department of Science, Technology, Engineering, and Mathematics Education
- Professor of Mathematics & Statistics Education, May 2013-current
- Associate Professor of Mathematics Education, May 2006-2013
- Assistant Professor of Mathematics Education, August 2000 – May 2006

University of Virginia Fall 1996 - Spring 2000
Graduate Fellow for the Center for Technology and Teacher Education, 1997-2000
Adjunct Instructor for the Division of Continuing Education, 1997-2000
Graduate Assistant in Dept. of Curriculum, Instruction, and Special Education, 1996-97
Longwood College May 1996
University Supervisor (supervised K-12 practicum students)
College of William and Mary 1994-96
Graduate Assistant for Mathematics Education and Special Education
Westmoreland County Community College Fall 1991 - Jan 1992
Adjunct Instructor for Applied Mathematics.

K-12 Teaching Experience

Garner High School (Garner, NC) Fall 2000
Collaborated and co-taught AP Statistics with regular classroom teacher
Virginia Murray Elementary School (Charlottesville, VA) 1997 - 1998
Collaborated and co-taught 1st & 3rd grade mathematics with regular classroom teacher
Venable Elementary School (Charlottesville, VA) Spring 1997
Taught 4th grade after-school mathematics enrichment class
Toano Middle School (Williamsburg, VA) 1994 - 95
Taught 8th grade Algebra I
First Flight Middle School (Kill Devil Hills, NC) Jan 1992-June 1994
Taught 8th grade Algebra I & Pre-Algebra.

Manteo High School (Manteo, NC) Summer 1992
Taught Algebra I and Geometry

Honors, Awards, and Recognition

2018 Awarded the RTI University Faculty Scholar for 2018-2019. This award provides release time for partial leave from NC State to work on collaborative projects with research scientists at RTI. The focus of our work will be on ways to infuse more data science in K-12 settings.

2018 Finalist for NC State Outstanding Graduate Mentor award. Final award decision pending from Graduate School.

2017 College of Education nominee for the Alumna Distinguished Undergraduate Professor award. Not awarded at university level.

2016 Nominated as lead designer for the Teaching Statistics Through Data Investigations MOOC for Educators course for the *Prize for Excellence in Educational Design* by the International Society for Design and Development in Education, not awarded in 2016 but nomination will be considered again in 2018.

2014 Appointed by American Statistical Association as *Editor* of STEW [Statistics Education Web: An online journal of K-12 statistics lessons].

2014 Selected by editor to serve as member of *Editorial Board* for journal Mathematical Thinking and Learning.

2014 Named a *Friday Faculty Fellow* at the Friday Institute for Educational Innovation

2014 Received *Outstanding Teaching Award* and became member of Academy of Outstanding Teachers at NC State University.

2014 Selected for *Alumnae Association Outstanding Teacher Award*.

2014 Nominated by College of Education for *Outstanding Research Award*, but not selected at University level.

2013 Named an NC State *University Faculty Scholar*.

2013 Selected by editor to serve as an *Associate Editor* for Statistics Education Research Journal.

2012 Awarded the *National Technology Leadership Initiative Fellowship for Mathematics Education*, co-sponsored by the Society for Technology and Teacher Education and Association of Mathematics Teacher Education, for best research paper "Teachers' Statistical Problem Solving with Dynamic Technology: Research Results Across Multiple Institutions."

2009-11 Elected *Eastern Regional College Vice President* for the NC Council of Teachers of Mathematics.

2008-09 Selected by Board to serve as *Co-Editor* of the Sixth Monograph of the Association of Mathematics Teacher Educators.

2002 Awarded the *National Technology Leadership Initiative Fellowship for Mathematics Education*, co-sponsored by the Society for Technology and Teacher Education and Association of Mathematics Teacher Education for best research.

2000 Received *Honorable Mention in the Learning Software Design Competition* for Probability Explorer sponsored by the University of Minnesota Design Institute.

1999-2000 Received a *Dissertation Research Award* from the Curry School of Education.

1998 Awarded 1st place in grade 3-5 category for "Do Vampires Really Exist?" and 2nd place in grade 9-12 category for "Analyzing the Relationship Between Smoking and Lung Cancer" in *Microsoft/ASCD lesson plan contest*.

1995-96 Elected *Vice-President of Kappa Delta Pi*, educational honor society, College of William and Mary.

1996 Awarded *Nelson Memorial Scholarship*, for dedication to teaching and learning, College of William and Mary.
1993 Nominated by Dare County, NC, for *National Sallie Mae First Year Teacher*.

Scholarship (previously published under H. S. Drier and H. Stohl)

Google Scholar Profile: http://scholar.google.com/citations?user=q14UEEIAAAAJ

Refereed Journal Articles

Lovett, J. & **Lee, H. S**. (in press, 2018). Preservice secondary mathematics teachers' preparedness to teach statistics: A call for reform. To appear in *Journal of Statistics Education*.

McCulloch, A. W., Hollebrands, K. F., **Lee, H. S.,** Harrison, T. R., & Mutlu, A. (2018). Factors that influence secondary mathematics teachers' uses of technology. *Computers & Education 123*, 26-40. https://doi.org/10.1016/j.compedu.2018.04.008**.**

Harrison, T. R. & **Lee, H. S.** (2018). iPads in the mathematics classroom: Developing criteria for selecting appropriate learning apps. *International Journal of Education in Mathematics Science and Technology* 6(2), 155-172.

Harrell-Williams, L., Lovett, J. N., **Lee, H. S.,** Pierce, R., Sorto, A., & Lesser, L. (2017). Validation of scores from the high school version of the Self-Efficacy to Teach Statistics instrument using preservice mathematics teachers. *Journal of Psychoeducational Assessment.* Article first published online: October 18, 2017, https://doi.org/10.1177/0734282917735151

Lovett, J. N. & **Lee, H. S.** (2017). Incorporating multiple technologies into teacher education: A case of developing preservice teachers' understandings in teaching statistics with technology. *Contemporary Issues in Technology and Teacher Education 17*(4), 440-457. Retrieved from http://www.citejournal.org/volume-17/issue-4-17/mathematics/incorporating-multiple-technologies-into-teacher-education-a-case-of-developing-preservice-teachers-understandings-in-teaching-statistics-with-technology.

Lee, H. S., & Stangl, D. (2017). Design and implementation of professional development MOOCs for teachers of statistics. *AMSTAT News (Special issue on Statistics Education),* September, Available online: http://magazine.amstat.org/blog/2017/09/01/pd_teachers/

Lovett, J. N., & **Lee, H. S.** (2017). New standards require teaching more statistics in high school: Are preservice mathematics teachers ready? *Journal of Teacher Education 68(3),* 299-311. http://journals.sagepub.com/doi/10.1177/0022487117697918

[JTE featured an interview with us about this article in their Insiders Blog in September 2017. The interview was picked up by EdPrepMatters and redistributed on their website.]

Campbell, M. P., & **Lee, H. S.** (2017). Examining secondary mathematics teachers' opportunities to develop mathematically in professional learning communities. *School Science and Mathematics 117*(3-4), 115-126.

Lee, H. S., Doerr, H. M., Tran, D., & Lovett, J. N. (2016). The role of probability in developing learners' models of simulation approaches to inference. *Statistics Education Research Journal*, 15(2), 216-238. Online: http://iase-web.org/documents/SERJ/SERJ15(2)_Lee.pdf .

Hollebrands, K. F., **Lee, H. S.** (2016). Characterizing questions and their focus when pre-service teachers implement dynamic geometry tasks. *Journal of Mathematical Behavior 43*, 148-164.

Lovett, J. N., & **Lee, H. S.** (2016). Making sense of data: Context matters. *Mathematics Teaching in the Middle School 21*(6), 338-346.

Lee, H. S., & Stangl, D. (2015). Professional development MOOCs for teachers of statistics in K-12. *Chance 28*(3), 56-63. Online: http://dx.doi.org/10.1080/09332480.2015.1099368

Starling, T., & **Lee, H. S.** (2015). Synchronous online discourse in a technology methods course for middle and secondary prospective mathematics teachers. *Contemporary Issues in Technology and Teacher Education*, *15*(2), 106-125. http://www.citejournal.org/vol15/iss2/mathematics/article2.cfm

Thrasher, E. P., Perry, A. F., & **Lee, H. S.** (2014). High leverage iPad apps for the mathematics classroom. *Mathematics Teacher 107(9)*.

Lee, H. S., Kersaint, G., Harper, S., Jones, D. L., Driskell, S. O., Leatham, K., Angotti, R., & Adu-Gwamfi, K. (2014). Prospective teachers' use of transnumeration in solving statistical tasks with dynamic statistical software. *Statistics Education Research Journal, 13(1),* 25-54. [authors in order of contribution, Lee 50%, Kersaint 20%, others shared 30%]

Lee, H. S., Starling, T. T., & Gonzalez, M. D. (2014). Connecting research to practice: Using data to motivate empirical sampling distributions. *Mathematics Teacher* 107(6), 465-469.

Lee, H. S., Harper, S., Driskell, S. O., Kersaint, G., & Leatham, K. (2012). Teachers' statistical problem solving with dynamic technology: Research results across multiple institutions. *Contemporary Issues in Technology and Teacher Education 12*(3), [Online Serial].

Lee, H. S., & Lee, J. T. (2011). Enhancing prospective teachers' coordination of center and spread: A window into teacher education material development**.** *The Mathematics Educator, 21*(1), 33-47.

Wilson, P. H., **Lee, H. S.,** & Hollebrands, K. F. (2011). Understanding prospective mathematics teachers' processes for making sense of students' work with technology. *Journal for Research in Mathematics Education, 42*(1), 42-67. [Authors contributed equally, order is reverse alphabetical.]

Wilson, P. H., **Lee, H. S.,** & Hollebrands, K. F. **(**2010). An alternative development of measures of center and spread using dynamic diagrams. *Centroid 36(2),* p. 6-11.

Lee, H. S., Angotti, R. L., & Tarr, J. E. (2010). Making comparisons between observed data and expected outcomes: Students' informal hypothesis testing with probability simulation tools. *Statistics Education Research Journal*, 9(1), 68-96.

Lee, H. S., & Lee, J. T. (2009). Reasoning about probabilistic phenomena: Lessons learned and applied in software design. *Technology Innovations in Statistics Education 3*(2).

Lee, H. S., & Hollebrands, K. (2008). Preparing to teach mathematics with technology: An integrated approach to developing technological pedagogical content knowledge. *Contemporary Issues in Technology and Teacher Education* [Online serial], *8*(4).

Weber, K., Maher, C., Powell, A., & **Lee, H. S**. (2008). Learning opportunities from group discussions: Warrants become the objects of debate. *Educational Studies in Mathematics 68*(3), 247-261.

Lee, H. S., & Hollebrands, K. (2006). Students' use of technological features while solving a mathematics problem. *Journal of Mathematical Behavior 25*(3), 252-266.

Underwood, J., Hoadley, C., **Lee, H. S**., Hollebrands, K. F., DiGiano, C., & Renninger, K. A. (2005). IDEA: Identifying design principles in educational applets. *Educational Technology Research and Development 53*(2), 99-112.

Lee, H. S. (2005). Facilitating students' problem solving: Prospective teachers' learning trajectory in a technological context. *Journal of Mathematics Teacher Education 8*(3), 223-254.

Kersaint, G., Horton, B., **Stohl, H.,** & Garofalo, J. (2003). Technology beliefs and practices of mathematics education faculty. *Journal of Technology and Teacher Education 11*(4), 549-577.

Stohl, H., & Tarr, J. E. (2002). Developing notions of inference with probability simulation tools. *Journal of Mathematical Behavior 21*(3), 319-337.

Stohl, H. (2002). Using electronic tools to investigate rational number relationships. *ON-Math: The Online Journal of School Mathematics 1*(1), [On-line serial http://my.nctm.org/eresources/view_article.asp?article_id=2071].

Drier, H. S. (2001). Teaching and learning mathematics with interactive spreadsheets. *School Science and Mathematics 101*(4), 170-179.

Drier, H. S. (2001). Conceptualization and design of Probability Explorer: A research-based journey towards innovative educational software. *Tech Trends 45*(2), 22-24. [invited article]

Harper, S. R., Schirack, S. O., **Stohl, H.,** & Garofalo, J. (2001). Learning mathematics and developing pedagogy with technology: A reply to Browning and Klespis. *Contemporary Issues in Technology and Teacher Education, 1*(3) [Online serial http://www.citejournal.org/vol1/iss3/currentissues/mathematics/article1.htm].

Vasquez-Levy, D., Garofalo, J., Timmerman, M., & **Drier, H. S.** (2001). Teacher's rationales for scoring students' problem solving work. *School Science and Mathematics 101*(1), 43-48.

Drier, H. S. (2000). The Probability Explorer: A research-based microworld to enhance children's intuitive understandings of chance and data. *Focus on Learning Problems in Mathematics 22*(3-4), 165-178. [Special issue on technology and mathematics.]

Drier, H. S. (2000). Investigating mathematics as a community of learners. *Teaching Children Mathematics 6*(6), 358-363. [Special issue on children as mathematicians.]

Garofalo, J., **Drier, H. S**., Harper, S. R., Timmerman, M.A., & Shockey, T. (2000). Promoting appropriate uses of technology in mathematics teacher preparation. *Contemporary Issues in Technology and Teacher Education, 1*(1), 66-88. [Online serial http://www.citejournal.org/vol1/iss1/currentissues/mathematics/article1.htm].

Drier, H. S. (1999). Do vampires exist? Using spreadsheets to investigate a common folktale. *Learning and Leading with Technology 27*(1), 22-25.

Drier, H. S., Dawson, K., & Garofalo, J. (1999). Technology, mathematics, and interdisciplinary connections: Not your typical math class. *Educational Leadership 56*(5), 21-25.

Drier, H. S., & Lee, J. K. (1999). Learning about climate: An exploration in geography and mathematics. *Social Studies and the Young Learner 12*(1), 6-10.

Drier, H. S. (1998). How are graphing calculators used in mathematics classrooms? Teachers' beliefs and practices. *Curry Journal of Education* (1), 39-50.

Heinecke, W., & **Drier, H. S.** (1998). Research for better classroom practices and policy. *Educational Forum 62*, 273-280.

Books

Batanero, C., Chernoff, E., Engel, J., **Lee, H. S.,** & Sanchez, E. (2016). *Research in teaching and learning probability: An International Congress of Mathematical Education Topical Surv*ey. (40 pages), Springer. http://www.springer.com/us/book/9783319316246 [authors in alphabetical order]

Hollebrands, K. F., & **Lee, H. S.** (2012). *Preparing to teach mathematics with technology: An integrated approach to geometry*. (170 pages). Dubuque, IA: Kendall Hunt Publishers.

Lee, H. S., Hollebrands, K. F., & Wilson, P. H. (2010). *Preparing to teach mathematics with technology: An integrated approach to data analysis and probability*. (160 pages) Dubuque, IA: Kendall Hunt Publishers.

Mewborn, D. M., & **Lee, H. S.** (Eds). (2009). *Scholarly practices and inquiry in the preparation of mathematics teachers: The sixth monograph of the Association of Mathematics Teacher Educators.* San Diego, CA: Association of Mathematics Teacher Educators.

Refereed Book Chapters

Avineri, T., **Lee, H. S.,** Lovett, J. N., Tran, D., & Gibson, T. (2018). Design and impact of MOOCs for mathematics teachers. In J. Silverman & V. Hoyos (Eds.), *Distance Learning, E-Learning and Blended Learning of Mathematics: International Trends in Research and Development* (pp. 185-200). Springer: Cham, Switzerland

Lee, H. S. (2018). Probability concepts needed for teaching a repeated sampling approach to inference. In C. Batanero & E. Chernoff (Eds.), *Teaching and Learning Stochastics: Advances in Probability Education Research* (pp. 89-102). Springer: Cham, Switzerland

Arnold, P., Confrey, J., Jones, S., **Lee, H. S**., & Pfannkuch, M. (2018). Learning trajectories in statistics education. In D. Ben-Zvi, K. Makar, & J. Garfield, (Eds.), *International Handbook of Statistics Education* (pp. 295-326). Springer: Cham, Switzerland. [authors in alphabetical order, invited refereed]

Hollebrands, K. F., McCulloch, A., & **Lee, H. S.** (2016). Prospective teachers' incorporation of technology in mathematics lesson plans. In M. Niess, S. Driskell, & K. F. Hollebrands (Eds.), *Handbook of research on transforming mathematics teacher education in the digital age (pp. 272-292).* Hershey, PA: IGI Global. [blind refereed]

Lee, H. S. (2013). Quantitative reasoning in a digital world: Laying the pebbles for future research frontiers. In R. L. Mayes & L. L. Hatfield (Eds.), *Quantitative Reasoning in Mathematics and Science Education: Papers from an International STEM Research Symposium, WISDOM e Monograph #3* (pp. 65-82). Laramie, Wyoming: University of Wyoming College of Education. [Invited refereed chapter]

Lee, H. S., & Lee, J. T. (2011). Simulations as a path for making sense of probability. In K. Hollebrands & T. Dick (Eds). *Focus in High School Mathematics on Reasoning and Sense Making with Technology* (pp. 69-88). Reston, VA: National Council of Teachers of Mathematics. [Invited refereed chapter]

Lee, H. S., & Hollebrands, K. F. (2011). Characterizing and developing teachers' knowledge for teaching statistics. In C. Batanero, G. Burrill, C. Reading, & A. Rossman (Eds.), *Teaching Statistics in School Mathematics - Challenges for Teaching and Teacher Education: A joint study of the International Commission of Mathematics Instruction and International Association of Statistical Education* (pp. 359-369), Springer. [Invited refereed chapter]

Lee, H. S., Ives, S. E., Starling, T. T., & Hollebrands, K. F. (2010). Knowledge for teaching statistics with technology: Examining mathematics teacher educators' planning. In J. Luebeck, & J. Lott, (Eds.), *Mathematics Teaching: Putting research into practice at all levels: The seventh monograph of the Association of Mathematics Teacher Educators* (pp. 7-23). San Diego, CA: Association of Mathematics Teacher Educators.[refereed chapter]

Lee, H. S., & Mewborn, D. S. (2009). Mathematics teacher educators engaging in scholarly practices and inquiry. In D. S. Mewborn & H. S. Lee (Eds.), *Scholarly practices and inquiry in the preparation of mathematics teachers* (pp. 1-6). San Diego, CA: Association of Mathematics Teacher Educators.

Heid, M. K., & **Lee, H. S.** (2008). Using technology in teaching and learning mathematics: What should doctoral students in mathematics education know? In R. Reys and J. Dossey (Eds.) *U.S. doctorates in mathematics education: Developing stewards of the discipline* (pp. 117-125). Conference Board of the Mathematical Sciences. [Invited refereed chapter]

Tarr, J. E., **Lee, H. S**, & Rider, R. (2006). When data and chance collide: Drawing inferences from empirical data. In G. Burrill (Ed.), *Thinking and reasoning with data and chance: 2006 yearbook of the NCTM* (pp. 139-149). Reston: VA: National Council of Teachers of Mathematics. [Double-Blind Refereed chapter]

Stohl, H. (2005). Probability in teacher education and development. In G. Jones (Ed.), *Exploring probability in school: Challenges for teaching and learning* (pp. 345-366). Kluwer Academic Publishers. [Invited submission, blind reviewed]

Stohl, H. (2003). Do vampires exist? Using spreadsheets to investigate a common folktale. In I. W. Baugh & A. Raymond (Eds.), *Making math success happen: The best of learning and leading with technology* (pp. 85-88). Eugene, OR: International Society of Technology in Education. [reprint of article published in 1999, chosen as an exemplary article for inclusion in this book.]

Garofalo, J., & **Drier, H. S.** (2000). Cases about scoring assessment: Right or wrong? In W. Bush (Ed.) *Classroom assessment for school mathematics: Cases and discussion questions for grades 6-12*, (pp.36-39). Reston, VA: National Council of Teachers of Mathematics. [Double-Blind Refereed chapter.]

Refereed Proceedings

Lee, H. S., Lovett, J. N., & Mojica, G. M. (2018). Designing for educators in a Teaching Statistics MOOC: Design principles and use of multimedia to support participant engagement. In M. A. Sorto, A. White, & L. Guyot (Eds.), *Looking back, looking forward. Proceedings of the Tenth International Conference on Teaching Statistics* (ICOTS10, July, 2018), Kyoto, Japan. Voorburg, The Netherlands: International Statistical Institute. Online: https://icots.info/10/proceedings/pdfs/ICOTS10_9G3.pdf .

Mojica, G. M., **Lee, H. S.**, Lovett, J. N., & Azmy, C. A. (July 2018). Impacts of a Teaching Statistics MOOC on educators' perspectives and practice. In M. A. Sorto, A. White, & L. Guyot (Eds.), *Looking back, looking forward. Proceedings of the Tenth International Conference on Teaching Statistics* (ICOTS10, July, 2018), Kyoto, Japan. Voorburg, The Netherlands: International Statistical Institute. Online: https://icots.info/10/proceedings/pdfs/ICOTS10_C159.pdf

Hudson, R., **Lee, H. S.**, Casey, S., Finzer, B., Mojica, G. M., Azmy, C., & Eide, A. (2018). Designing e-modules to support preservice mathematics teachers' statistical thinking. In M. A. Sorto, A. White, & L. Guyot (Eds.), *Looking back, looking forward. Proceedings of the Tenth International Conference on Teaching Statistics* (ICOTS10, July, 2018), Kyoto, Japan. Voorburg, The Netherlands: International Statistical Institute. Online: https://iase-web.org/icots/10/proceedings/pdfs/ICOTS10_9A2.pdf.

Lee, H. S., Lovett, J. N., & Mojica, G. M. (2017). Characterizing impacts of online professional development on teachers' beliefs and perspectives about teaching statistics. In E. Galindo, & J. Newton, (Eds.). (2017). *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 407-414). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Azmy, C. **& Lee, H. S.** (2017). Preservice secondary mathematics teachers understanding of binomial distribution. In E. Galindo, & J. Newton, (Eds.). (2017). *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1060-1063). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Lovett, J. N., & **Lee, H. S.** (2017). Preservice secondary mathematics teachers' statistical knowledge: Snapshot of strengths and weaknesses. In E. Galindo, & J. Newton, (Eds.). (2017). *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1048-1055). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Harrell-Williams, L. M., Lovett, J. N., Pierce, R. L., Sorto, M. A., **Lee, H. S**., & Lesser, L. M. (2017). Middle grades SETS instrument: Psychometric comparison of middle and high school pre-service mathematics teachers. In E. Galindo, & J. Newton, (Eds.). (2017). *Proceedings of the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1064-1067). Indianapolis, IN: Hoosier Association of Mathematics Teacher Educators.

Tran, D., & **Lee, H. S.** (2016). Designing massive open online courses for educators around the world: The case of Teaching Statistics. In H. MacGillivray, M. Martin and B. Phillips (Eds.), *Proceedings of the 9th annual Australian Conference on Teaching* Statistics (OZCOTS) (pp. 77-82), Canberra, Australia. Online: http://iase-web.org/documents/anzcots/OZCOTS_2016_Proceedings.pdf.

Lee, H. S., & Doerr, H. M. (2016). A framework of probability concepts needed for teaching repeated sampling approaches to inference. In *Conference Proceedings of the 13th*

International Congress on Mathematical Education (8 pages). Hamburg, Germany. Online: http://iase-web.org/documents/papers/icme13/ICME13_I6_HSLee.pdf.

Tran, D., **Lee, H. S.,** & Doerr, H. M. (2016). Developing teachers' reasoning about comparing distributions: A cross-institutional effort. Proceedings of the *39th annual conference of the Mathematics Education Research Group of Australasia*.

Pulis, T., & **Lee, H. S.** (2015). Secondary mathematics teachers' approaches to statistical investigations with multivariate data sets using technology**.** In *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 463-466).* East Lansing, Michigan. https://msu.edu/~brakoni1/PMENA-2015-PROCEEDINGS-2015-11-04.pdf

Thrasher, E. P., Starling, T., Lovett, J.N., Doerr, H. M., & **Lee, H. S.** (2015). The influence of a graduate course on teachers' self-efficacy to teach statistics. In *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (pp. 447-454).* East Lansing, Michigan. https://msu.edu/~brakoni1/PMENA-2015-PROCEEDINGS-2015-11-04.pdf

Lee, H. S., Tran, D., Nickell, J., & Doerr, H. M. (2015). Simulation approaches for informal inferences: Models to develop understanding. In K. Krainer & N. Vondorva, (Eds.) *Proceedings of the Ninth Congress of European Society for Research in Mathematics Education*. (pp. 707-714). Prague, Czech Republic: Charles University in Prague, Faculty of Education and ERME . https://hal.archives-ouvertes.fr/CERME9-TWG05.

Jacobs, B., **Lee, H. S.,** Tran, D., & Doerr, H. M. (2015). Improving teachers' reasoning about sampling variability: A cross institutional effort. In K. Krainer & N. Vondorva, (Eds.) *Proceedings of Ninth Congress of European Research in Mathematics Education (pp. 692-699,* Prague, Czech Republic: Charles University in Prague, Faculty of Education and ERME. https://hal.archives-ouvertes.fr/CERME9-TWG05.

Lee, H. S., Doerr, H. M., Arleback, J. B., Pulis, T. (2013). Collaborative design work of teacher educators: A case from statistics. In M. V. Martinez & A. C. Superfine (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 357-364). Chicago, IL.

Pulis, T., & **Lee, H. S.** (2013). High school mathematics teachers' statistical question posing. In M. V. Martinez & A. C. Superfine (Eds.), *Proceedings of the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 365-368). Chicago, IL.

Hollebrands, K. F., **Lee, H. S**., Starling, T. T., Gonzalez, M. D., & Pulis, T. (2012). Prospective high school mathematics teachers' design and implementation of dynamic geometry tasks. L. R. Van Zoest, J. –J. Lo, & J. L. Kratky (Eds.). *Proceedings of the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1123-1126). Kalamazoo, MI: Western Michigan University.

Lee, H. S., Kersaint, G., Harper, S. R., Driskell, S. O., & Leatham, K. R. (2012). Prospective teachers' statistical problem solving with dynamic technology: Research results across multiple institutions. In P. Resta (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2012* (pp.). Chesapeake, VA: AACE.

Lee, H. S., Driskell, S. O., Harper, S. R., Leatham, K. R., Kersaint, G., & Angotti, R. L. (2011). Prospective teachers' use of representations in solving statistical tasks with dynamic statistical software. In L. R. Wiest & T. Lamberg (Eds.), *Proceedings of the*

thirty-third annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education (pp. 268-275). Reno, NV: University of Nevada, Reno October. Available online.

Gonzalez, M. D., & **Lee, H. S.** (2011). Middle school students' growth in understanding of probabilistic inference. In L. R. Wiest & T. Lamberg (Eds.), *Proceedings of the thirty-third annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education* (pp. 1069-1075). Reno, NV: University of Nevada, Reno October. Available online.

Keene, K. A., Lee, J. T., & **Lee, H. S.** (2011). Linking instructor moves to classroom discourse and student learning in differential equations classrooms. In the *Proceedings of Research in Undergraduate Mathematics Education* conference, Portland, OR.

Lee, H. S., & Lee, J.T. (2009). Students' interpretations of probability distributions in a simulation environment. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.) *Proceedings of the thirty-first annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education* (pp. 609-617). Georgia State University, Atlanta, GA, October. Available online:.

Ives, S. E., **Lee, H. S.**, & Starling, T. (2009). Preparing to teach mathematics with technology: Lesson planning decisions for implementing new curriculum. In the *Proceedings of Research in Undergraduate Mathematics Education* conference, Raleigh, NC. Available online http://mathed.asu.edu/crume2009/Ives_LONG2.pdf.

Lee, H. S., Keene, K. A., Lee, J. T., Holstein, K., Early, M.E., Eley, P. (2009). Pedagogical content moves in an inquiry-oriented differential equations class: Purposeful decisions to further mathematical discourse. In the *Proceedings of Research in Undergraduate Mathematics Education* conference,, Raleigh, NC. Available online http://mathed.asu.edu/crume2009/HLee_LONG.pdf.

Keene, K. A., Lee, J. T., **Lee, H. S.**, Early, M.E., Eley, P. Holstein, K., (2009). An investigation of one instructor's mathematical knowledge for teaching: Developing a preliminary framework. In the *Proceedings of Research in Undergraduate Mathematics Education* conference, Raleigh, NC. Available online http://mathed.asu.edu/crume2009/Keene_LONG.pdf.

Lee, H. S., & Lee, J. T. (2008). The use of intervals to help coordinate understandings of center and spread: A preliminary report. In the *Proceedings of Research in Undergraduate Mathematics Education* conference, San Diego, CA. Available online http://cresmet.asu.edu/crume2008/Proceedings/Lee&Lee%20LONG.pdf

Hauk, S., **Lee, H.S**., Marongelle, K., & Weber, K. (2008). Panel Report on doctoral programs in mathematics education. In the *Proceedings of Research in Undergraduate Mathematics Education* conference, San Diego, CA.San Diego, CA. Available online http://www.rume.org/crume2008/Hauk_SHORT.pdf.

Lee, H.S., & Mojica, G. F. (2008). Examining teachers' practices: In what ways are probabilistic reasoning and statistical investigations supported? *Proceedings of the Joint Study of the International Commission of Mathematics Instruction and International Association of Statistical Education*. Monterrey, MX, June. Available online http://www.stat.auckland.ac.nz/~iase/publications/rt08/T2P14_Lee.pdf.

Lee, H.S., & Hollebrands, K. F. (2008). Preparing to teach data analysis and probability with technology. *Proceedings of the Joint Study of the International Commission of Mathematics Instruction and International Association of Statistical*

Education. Monterrey, MX, June. Available online http://www.ugr.es/~icmi/iase_study/Files/Topic3/T3P4_Lee.pdf.

Lee, H.S., & Mojica, G. F. (2007). Teachers' use of probability experiments and simulations. *Proceedings of the twenty-ninth annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education (pp. 437-440)*. Lake Tahoe, UT, October. Available online.

Hollebrands, K. F, Wilson, P. H., & **Lee, H.S.** (2007). Prospective teachers use of a videocase to examine students' work when solving mathematical tasks using technology. *Proceedings of the twenty-ninth annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education (pp. 968-974)*. Lake Tahoe, UT, October. Available online.

Lee, H. S., Hollebrands, K.F, & Wilson, P.H. (2007). The use of research-based methods and materials for preparing to teach mathematics with technology. In D. K. Pugalee, A. Rogerson, & A. Schinck (Eds.), *Proceeding of the ninth International Conference, "Mathematics Education in a Global Community* (pp. 383-388), Charlotte, NC.

Maher, C., Powell, A., Weber, K, & **Lee, H. S**. (2006). Tracing middle school students' arguments. *Proceedings of the Twenty-Eighth Annual Meeting of the Psychology of Mathematics Education-North American Chapter*. Mexico, November.

Rider, R. L., & **Lee, H. S**. (2006). Differences in students' use of computer simulation tools and reasoning about empirical data and theoretical distributions. *Proceedings of the seventh International Conference on Teaching Statistics*, Salvador, Brazil, July.

Lee, H. S. (2005). Students' reasoning with small and large trials in probability simulations. In S. Wilson (Ed.), *Proceedings of the twenty-seventh annual meeting of the Psychology of Mathematics Education-North American Chapter*. Blacksburg, VA, October. http://www.allacademic.com/meta/p24814_index.html.

Lee, H. S., Tarr, J. E., & Powell, A. (2005). Working group for the complexity of learning to reason probabilistically. *Proceedings of the twenty-seventh annual meeting of the Psychology in Mathematics Education-North American Chapter*. Roanoke, VA, October.

Hollebrands, K. F., & **Stohl, H.** (2004). The interplay between technology design and students' control of problem solving. In D. McDougall (Ed.), *Proceedings of the twenty-sixth annual meeting of the Psychology of Mathematics Education-North American Chapter*. Toronto, Canada.

Walsh, S. J., Miller, T. K., **Stohl, H.,** & Deluca, W. V. (2004). Building a TeKnowledgy Greenhouse: An engineering and education learning community. *Proceedings of the American Society of Engineering Education Annual Conference & Exposition* (4 pages).

Miller, T. K., Walsh, S. J., **Stohl, H.,** & Haefner, L. A. (2003). Belshazzar: A simple tool for creating and publishing voice-annotated drawings on the web. *Proceedings of the American Society of Engineering Education Annual Conference & Exposition* (8 pages), Nashville, TN. [Available online http://asee.org/acPapers/2003-2537_Final.pdf]

Stohl, H. (2003). Prospective teachers' development of teaching with technology. In N. Pateman, B. Dougherty & J. Zilliox (Eds.), *Proceedings of the twenty-seventh annual meeting of the International Group for the Psychology of Mathematics Education*. Honolulu: Center for Research and Development Group, University of Hawaii.

Stohl, H., & Rider, R. (2003). Are these die fair? An analysis of students' technology-based exploration. In N. Pateman, B. Dougherty & J. Zilliox (Eds.), *Proceedings of the twenty-seventh annual meeting of the International Group for the Psychology of Mathematics Education*. Honolulu: Center for Research and Development Group, University of Hawaii.

Stohl, H. (2003). Preparing to teach mathematics with technology: Research implications for a learning trajectory. *Society for Information Technology and Teacher Education International Conference 2003*(1), (pp. 2961-2968). Albuquerque, NM.

Stohl, H. & Tarr, J. E. (2002). Using multi-representational computer tools to make sense of inference. In, D. Mewborn (Ed.), *Proceedings of the twenty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (vol 3, pp. 1317-1330) Athens, GA.

Drier, H. S. (2001). Beliefs, experiences, and reflections that affect the development of techno-mathematical knowledge. *Proceedings from the twelfth international meeting of the Society for Informational Technology and Teacher Education,* (pp. 1353-1358). Orlando, FL.

Drier, H. S. (2000). Children's meaning-making activity with dynamic multiple representations in a probability microworld. In M. 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 2, pp.691-696). Tucson, AZ.

Abramovich, S. & **Drier, H. S.** (1999). Preparing K-12 mathematics teachers to use a spreadsheet as an instructional tool. In J. Price, J. Willis, D. Willis, M. Jost, & S. Boger-Mehall (Eds.), *Proceedings from the tenth international meeting of the Society for Informational Technology and Teacher Education* (pp. 950-954). San Antonio, TX.

Abramovich, S., **Drier, H. S.**, Dugdale, S., Mochan, S., Neuwirth, E., & Woodward, J. (1999). Spreadsheets: A new form of educational software for school mathematics. In D. Thomas (Ed.), *Proceeding from the international meeting of Mathematics/Science Education and Technology* (pp. 390-395). San Antonio, TX.

Reports

Pearl, D., Garfield, J., delMas, R., Groth, R. E., Kaplan, J., McGowan, H., & **Lee, H. S.,** (2012). *Connecting research to practice in a culture of assessment in introductory collegiate-level statistics: Report arising from research retreat at American Statistical Association.* https://www.causeweb.org/research/guidelines/ResearchReport_Dec_2012.pdf.

Non-Refereed Publications

Lee, H. S. & Nickell, J. (2014). How a curriculum may develop Technological Pedagogical Statistical Knowledge: A case of teachers examining relationships among variables using Fathom**.** In *Proceedings of the International Conference on Teaching Statistics*. Flagstaff, AZ, July 2014. http://icots.net/9/proceedings/pdfs/ICOTS9_9E3_LEE.pdf

Lee, J. T., & **Lee, H. S.** (2014). Visual representations of empirical probability distributions when using the granular density metaphor. In *Proceedings of the International Conference on Teaching Statistics.* Flagstaff, AZ, July 2014. http://icots.net/9/proceedings/pdfs/ICOTS9_6E2_LEE.pdf

Nickell, J. & **Lee, H. S.** (2014). Designing opportunities for students to reason about the relationship between sources and structures of data. In *Proceedings of the International Conference on Teaching Statistics*. Flagstaff, AZ, July 2014. http://icots.net/9/proceedings/pdfs/ICOTS9_C254_NICKELL.pdf

Myers, M., & **Lee, H. S**. (2006). *Best practices for promoting algebraic thinking for improving learning for all students*. Research brief published by the National Educational Association.

Stohl, H., & Harper, S. R. (2004). Technology Tips Column: Graphing functions, tangents, and derivatives in Geometer's Sketchpad. *Mathematics Teacher 98*(2), 136-140.

Stohl, H., & Harper, S. R. (2004). Technology Tips Column: Using screen captures in your work as a mathematics teacher. *Mathematics Teacher 98*(3), 200-204.

Hollebrands, K. F., & **Stohl, H**. (2003). Technology Tips Column: Creating interactive spreadsheets for exploring functions. *Mathematics Teacher 96*(6), 452-456.

Hollebrands, K. F., & **Stohl, H**. (2003). Technology Tips Column: The use of spreadsheets for creating a parameter exploration of a linear function. *Mathematics Teacher 96*(7), 516-520.

Drier, H. S., Dawson, K., & Garofalo, J. (2000). Using technology and real world connections to teach secondary mathematics concepts, *ENC Focus: A Magazine for Classroom Innovators*. Eisenhower National Clearinghouse for Mathematics and Science Education.

Bull, G., Bull, G., & **Drier, H. S.** (1999). Mining the internet: Exploring data warehouses. *Learning and Leading with Technology 26*(8), 36-39.

Garofalo, J., Shockey, T., Harper, S. R., & **Drier, H. S.** (1999). Impact project at Virginia: Promoting appropriate uses of technology in mathematics. *Virginia Mathematics Teacher 25*(2), 14-15.

Drier, H. S. (1998). Do Vampires Really Exist? *Productivity in the Classroom* (Fall/Winter, 4). Microsoft Corporation.

Drier, H. S. (1996). *Research Brief #3: The teaching and learning of algebra: Identifying the best practices.* Williamsburg, VA: School-University Research Network.

Manuscripts Under Review or In Preparation

Harrell-Williams, L., Lovett, J. N., Lesser, L., **Lee, H. S.**, Sorto, A., Pierce, R., & Murphy, T. J. (under review). Measuring self-efficacy to teach statistics in grades 6-12 mathematics teachers. Submitted April 2018 as an invited chapter to be peer reviewed for the edited book *Assessment in Mathematics Education Contexts: Theoretical Frameworks and New Directions*.

Weber, V. L., **Lee, H. S**., & Woodard, R. (under review). Writing assignments to assess statistical thinking. Submitted to *Journal of Statistics Education*, May 2018.

Akoglu, K., **Lee, H. S.,** & Kellogg, S. (under review). Participating in a MOOC and a small learning community: How a blended approach to online learning makes a difference. Submitted June 2018 to *International Review of Research in Open and Distributed Learning*.

Williams, D., Hollebrands, K. F., Cudd, M., & **Lee, H. S.** (under review). Beginning high school teachers' organizations of students for learning and methods for teaching mathematics. Submitted August 2018 to *Research in Mathematics Education*.

Lee, H. S., Mojica, G. M. & Lovett, J. N., (in progress). Engagement and impacts of massive open online professional development for teaching statistics. To be submitted to *Technology, Knowledge, and Learning.*

Presentations (previously presented as H. S. Drier and H. Stohl)

Invited Presentations & Panels

Lee, H. S., Lovett, J. N., & Mojica, G. M. (July 2018). Designing for educators in a Teaching Statistics MOOC: Design principles and use of multimedia to support participant engagement. **Invited paper** presented at *the Tenth International Conference on Teaching Statistics*, Kyoto, Japan.

Hudson, R., **Lee, H. S.,** Casey, S., Finzer, B., Mojica, G. M., Azmy, C., & Eide, A. (2018). Designing e-modules to support preservice mathematics teachers' statistical thinking. **Invited paper** presented at *the Tenth International Conference on Teaching Statistics*, Kyoto, Japan.

Lee, H. S. & Barker, H. A. (May 2018). Building learning opportunities for future statisticians and data scientists. **Invited presentation** at local dinner to support teachers' engagement with the *Electronic Conference on Teaching Statistics*, Elon University, Elon, NC.

Lee, H. S. (January 2018). Teaching statistics and data science using large multivariate data and visualization tools. **Invited presentation** at the annual *Teaching Contemporary Mathematics conference*, NC School Science and Mathematics, Durham, NC.

Lee, H. S. (October 2017). Learning opportunities in statistics and data science in high school and college. **Invited presentation** at the *Mathematics Department Colloquium series*, Longwood University, Farmville, VA.

Lee, H. S. (June 2017). Impact of data presentation and tasks on learning opportunities in data science concepts. **Invited 2-hour webinar** through Concord Consortium. Video of recorded session available here. Slides available at http://bit.ly/DSE-june17

Erickson, T. (chair), Arnold, P., Gould, R., Hammerman, J., & **Lee, H. S.** (February 2017). Data science educational technology design. **Invited discussion leader** for session at *Data Science Education Technology* conference, Berkeley CA.

Reischman, F. (chair), Damelin, D., **Lee, H. S.,** Merrill, J.,Zieffler, A. (February 2017). Using simulations and modeling environments as data sources. **Invited discussion leader** for session at *Data Science Education Technology* conference, Berkeley CA.

Damelin, D. (chair), Busey, A., Kugler, T., **Lee, H. S.,** Roderick, S., & Talley, B. (February 2017). Reports from the Trenches. **Invited discussion leader** for session at *Data Science Education Technology* conference, Berkeley CA.

Lee, H. S. (August 2016). Designing opportunities to learn to teach statistics: Lessons from a MOOC for educators. **Invited webinar presentation** for the Teaching and Learning webinar series of the *Consortium for the Advancement of Undergraduate Statistics Education*. Available online.

Lee, H. S., & Doerr, H. M. (July 2016). A framework of probability concepts needed for teaching repeated sampling approaches to inference. **Invited paper** as part of the Topic Study Group on Probability Teaching and Learning at the *13th International Congress on Mathematical Education*. Hamburg, Germany.

Avineri, T., **Lee, H. S.,** Lovett, J. N., Tran, D., & Gibson, T. (July 2016). Design and impact of MOOCs for mathematics teachers. **Invited paper** as part of the Topic Study Group on

Distance and E-Learning at the *13th International Congress on Mathematical Education*. Hamburg, Germany.

Lee, H. S. (Chair), Lovett, J. N., Peters, S., & Franklin, C. (Discussant). (April 2016). *Teacher Development in Statistics Education: A critical examination of how teachers' experiences impact their knowledge, beliefs, and practices for teaching statistics.* **Invited Featured Research Symposium** at the annual Research Conference of the National Council of Teachers of Mathematics, San Francisco, CA.

Lee, H. S. (July 2015). *Stepping outside classroom walls: Designing experiences for teachers in a Massive Open Online Course [MOOC] on teaching statistics*. **Invited Plenary** for the International Association of Statistics Education Satellite Conference held before the 60th World Statistics Conference, Rio de Janeiro, Brazil.

Lee, H. S. (April 2015). *Mathematics and statistics: What are they good for anyway?* **Keynote speaker** at Elon University Mathematics and Statistics department Graduation and Awards Ceremony**,** Elon, NC.

Lee, H. S. (November 2014). *Using animations to create teaching and learning scenarios for mathematics teacher education*. **Invited Webinar** presentation given for the Association of Mathematics Teacher Educators.

Lee, H. S. & Nickell, J. (July 2014). How a curriculum may develop Technological Pedagogical Statistical Knowledge: A case of teachers examining relationships among variables using Fathom**. Invited paper presentation** in Session 9E at *the Ninth International Conference on Teaching Statistics*. Flagstaff, AZ.

Lee, J. T., & **Lee, H. S.** (July 2014). Visual representations of empirical probability distributions when using the granular density metaphor. **Invited paper** in Session 6E at *the Ninth International Conference on Teaching Statistics.* Flagstaff, AZ.

Hollebrands, K. F. & **Lee, H. S.** (March 2014). Teacher professional development in relation to digital media and tools. **Invited presentation** at the *Convening on K-12 Mathematics Education: Common Core, Digital Learning, and State Policy. H*eld at the Friday Institute for Educational Innovation, March 10-11, 2014.

Lee, H. S. (May 2013). *Envisioning the future K-12 teacher of statistics*. **Invited Plenary** at the biannual United States Conference on Teaching Statistics, Cary, NC.

Lee, H. S. (May 2012). *Quantitative Reasoning in a Technological World: Laying the Pebbles for Future Research Frontiers.* **Invited Plenary and Lead Scholar for Working Groups** at the International STEM Research Symposium: Quantitative Reasoning in Mathematics and Science Education, Savannah, GA.

Lee, H. S. (May 2012). *Quantitative Reasoning in Science Education: Connections to Data and Chance with Technology in Mathematics Education.* **Invited Commentary on a Plenary** at the International STEM Research Symposium: Quantitative Reasoning in Mathematics and Science Education, Savannah, GA.

Dick, T., Zbeik, R. M., Heid, M. K., Dove, A., Burrill, G., **Lee, H. S**., Cohen, J., & Hollebrands, K. (April 2012). Linking research and practice: A focus on reasoning and sense making with technology. **Invited research symposium** presented at the annual meeting of the Research Presession of the National council of Teachers of Mathematics, Philadelphia, PA.

Lee, H. S., Harper, S., Driskell, S. O., Kersaint, G., & Leatham, K. (March, 2012). *Teachers' statistical problem solving with dynamic technology: Research results across multiple institutions.* **Invited featured research paper** presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Austin, TX.

Paper presented was based on the 2012 National Technology Leadership Initiative Fellowship Award.

Lee, H. S. (February, 2012). *Tapioca and technology: Lessons learned for a mathematics classroom*. **Invited Keynote Address** at the annual Conference on the Teaching of Mathematics 6-12, Sam Houston State University, TX.

Enders, F., Hilton, S., & **Lee, H. S.** (May, 2011). *A conceptual framework for statistics education: Identifying research priorities*. **Invited research-sponsored session** presented at the United States Conference on Teaching Statistics, Raleigh, NC.

Groth, R. E., Jacobbe, T., Madden, S., Zieffler, A., Lehrer, R. (Discussant), **Lee, H. S.** (Discussant), (April, 2011). *Research in statistics education: Current efforts and future directions.* **Invited Discussant for Research Symposium** held at the Research Presession of the Annual meeting of the National Council of Teachers of Mathematics, Indianapolis, ID.

Garfield, J. (chair), Jersky, B., delMas, R., Pearl, D., **Lee, H. S.,** & McGowan, H. (August, 2010). *Establishing a career in statistics education*. **Invited panelist** for session at the Joint Statistics Meeting, Vancouver, Canada.

Lee, H. S. (April, 2010). *Using concept maps to organize reviews of literature*. **Invited webinar presentation** for the Research participants of the Consortium for the Advancement of Undergraduate Statistics Education, April 6, 2010.

Lee, H. S., & Lee, J. T. (February, 2010). *Foundations in probability to support statistical reasoning*. **Invited webinar presentation** for the Teaching and Learning Series sponsored by the Consortium for the Advancement of Undergraduate Statistics Education, February 9, 2010. Archived at: http://www.causeweb.org/webinar/teaching/.

Lee, H. S. (November 2009). *Using Fathom to investigate univariate and bivariate distributions.* **Invited webinar presenter** for American Statistical Association Webinar Series on K-12 Statistics Education, November 17, 2009. Archived at: www.amstat.org/education/k12webinars.

Lee, H. S. (April 2009). *Technological statistical knowledge: How dynamic statistical software changes the landscape for statistical thinking.* **Invited keynote speaker** at Key Curriculum Press Technology Users Support Session held at the National Conference of Teachers Mathematics, Washington, DC.

Heid, M. K., & **Lee, H.S.** (September 2007). *Core knowledge of use of technology in mathematics education*. **Invited session presenters** and facilitators at the National Conference on Doctoral Programs in Mathematics Education. Kansas City, MO.

Rider, R. L., & **Lee, H. S**. (July 2006). *Differences in students' use of computer simulation tools and reasoning about empirical data and theoretical distributions.* **Invited paper** presented at the 7th International Conference on Teaching Statistics, Salvador, Brazil.

Lee, H. S. (June 2005). *The complexities of reasoning probabilistically.* **Invited lecturer** of 3-hour mini-course as part of the Mathematics Content Academy for Teachers at James Madison University, Harrisonburg, VA.

Lee, H. S. (March 2005). *Researching students' learning in computer-enabled contexts: Technological challenges and methods for capturing and analyzing video-based data.* **Invited methodological presentation** given for graduate students and faculty at Rutgers University.

Rachlin, S., **Stohl, H**., & Preston, R. (September 2004). *Content support for in-service middle grade teachers in the Middle Math Project.* **Invited session** presented at the Mathematical Preparation of Middle School Mathematics Teachers Conference, St. Louis, MO.

Stohl, H. (February 2004). *Tapioca and technology: What are they good for anyway?* **Keynote address** given at the Elon University High School Mathematics Contest, Elon, NC.

Stohl, H. (March 2003). *Preparing to teach mathematics with technology: Research implications for a learning trajectory*. **Keynote address** presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Albuquerque, NM.

Stohl, H. (March 2002). *Prospective teachers learning to facilitate social interaction and mathematical problem solving with technology tools.* **Invited featured research paper** presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Nashville, TN. Paper presented was based on the National Technology Leadership Initiative Fellowship Award.

Stohl, H. (May 2001). *Standards and research-based support for use of computers in middle school mathematics*. **Keynote address** presented at the Technology in Middle Grades Mathematics conference at the University of California-Davis.

Garofalo, J., Harper, S., and **Drier, H. S.** (January 2001). *Beginner's guide to incorporating technology into secondary methods courses.* **Invited mini-course** given at the fifth annual conference of Association of Mathematics Teacher Educators, Costa Mesa, CA.

Drier, H. S. (July 1998). *Spreadsheets as a tool for learning mathematics*. **Invited guest lecturer** as part of a lecture series on "Innovative Uses of Technology in Education" during the Summer Technology Institute for K-12 teachers at Shenandoah University, Winchester, VA.

Drier, H. S. (October 1998). *Using spreadsheets to explore mathematics*. **Invited workshop** presented at the annual meeting of the Tidewater Council of Teachers of Mathematics, Chesapeake, VA.

Drier, H. S. (October 1996). *Teaching and learning algebra*. **Invited presentation** at Algebra for Everyone: Teachers Networking for Success sponsored by the School-University Research Network at The College of William & Mary, Williamsburg, VA.

National / International Presentations

Mojica, G. M., **Lee, H. S.**, Lovett, J. N., & Azmy, C. A. (July 2018). *Impacts of a Teaching Statistics MOOC on educators' perspectives and practice*. Contributed paper presented at the Tenth International Conference on Teaching Statistics, Kyoto, Japan.

McCulloch, A. W., Hollebrands, K. F., **Lee, H. S**., Harrison, T., & Mutlu, A. (April 2018). *Factors that influence high school mathematics teachers' uses of technology.* Presented at the annual Research Conference of the National Council of Teachers of Mathematics. Washington, DC.

Lee, H. S., Mojica, G. F., & Azmy, C. A. (April 2018). *Investigating real world data with online visualization tools: Building future data scientists.* Presented at the annual meeting of the National Council of Teachers of Mathematics, Washington, DC.

Bradshaw, L., Famularo, L., **Lee, H. S**., & Masters, J. (April 2018). *Designing diagnostic inventories of cognition in education.* Presented as part of the research symposium on

Learning from our students' mistakes: Using information from incorrect, incomplete, and inefficient student responses, at the annual meeting of the American Educational Research Association conference, New York City, NY.

Mojica, G. F., **Lee, H. S.**, & Lovett, J. N. (January 2018). *Designing effective professional development in an online environment to support teachers' learning*. Presented at the annual meeting of the Association of Mathematics Teacher Educators, Houston Texas.

Lee, H. S. (organizer), Franklin, C., Bargagliotti, A., Casey, S., Hudson, R., Mojica, G. F., Azmy, C., Confrey, J., & Shah, M. (January 2018). *Activities to support the statistical education of teachers*. Extended session presented at the annual meeting of the Association of Mathematics Teacher Educators, Houston Texas.

Lee, H. S., Lovett, J. N., & Mojica, G. M. (October 2017). *Characterizing impacts of online professional development on teachers' beliefs and perspectives about teaching statistics.* Research report presented at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Indianapolis, Indiana.

Azmy, C. **& Lee, H. S.** (October 2017). *Preservice secondary mathematics teachers understanding of binomial distribution.* Brief report presented at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Indianapolis, Indiana.

Lovett, J. N., & **Lee, H. S.** (October 2017). *Preservice secondary mathematics teachers' statistical knowledge: Snapshot of strengths and weaknesses.* Research report presented at the 39th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Indianapolis, Indiana.

Lee, H. S. (organizer), Franklin, C. (Chair), Halverson, K., Mojica, G., Weber, V. L., Mutlu, A., & Posner, M. (August 2017). *Design, implementation, and impact of different approaches to professional development for teachers of statistics.* Panel presentation at the Joint Statistics Meeting, Baltimore, MD.

Harrell-Williams, L, Lovett, J., Koklu, O., **Lee, H. S.,** Sorto, A., Pierce, R., Lesser, L. M., & Franklin, C. (May 2017). *Using self-efficacy data to inform teacher preparation and professional development*. Session presented at United States Conference on Teaching Statistics, State College, PA.

Lee, H. S., Mojica, G. M., Hudson, R., Lovett, J., Casey, S., Azmy, C., & Akoglu, K. (May, 2017). *Bringing data and tools into classrooms through online large-scale teacher education.* Session presented at United States Conference on Teaching Statistics, State College, PA.

Akoglu, K. & **Lee, H. S.** (May 2017). *A MOOC and PLT: Blending two Professional development models to enhance teaching statistics.* Poster presented at United States Conference on Teaching Statistics, State College, PA.

Lee, H. S. (January 2017). *Preparing to teach mathematics and statistics with technology: A Decade of development and impact on preservice secondary mathematics teachers.* Poster presented at the NSF-funded projects poster session at the Joint Mathematics Meeting, Atlanta, GA.

McCulloch, A., **Lee, H. S.,** Hollebrands, K F., Chandler, K., & Lovett, J. N. (January 2016). *Preparing teachers to plan and implement technology-based algebra tasks using open access tools.* Extended session presented at the annual conference of the Association of Mathematics Teacher Educators, Irvine, CA.

Pulis, T., & **Lee, H. S.** (November 2015). *Secondary mathematics teachers' approaches to statistical investigations with multivariate data sets using technology***.** Presented at the

37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. East Lansing, Michigan.

Thrasher, E. P., Starling, T., Lovett, J.N., Doerr, H. M., & **Lee, H. S.** (November 2015). *The influence of a graduate course on teachers' self-efficacy to teach statistics.* Presented at the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. East Lansing, Michigan.

Lee, H. S., Doerr, H. M., Jacob, B., Starling, T. T., Pulis, T., Tran, D., Nickell, J., & Thrasher, E. (April 2015). *Development of teachers' statistical reasoning and confidence in teaching statistics.* Research Symposium session presented at the annual Research Conference of the National Council of Teachers of Mathematics, Boston, MA.

Nickell, J., **Lee, H. S.,** & Doerr, H. M. (April 2015). *Teachers' visual models of inference using simulation.* Research poster presented at the annual Research Conference of the National Council of Teachers of Mathematics, Boston, MA.

Lee, H. S., Tran, D., Nickell, J., & Doerr, H. M. (February 2015). *Simulation approaches for informal inferences: Models to develop understanding*. Research paper presented at the Ninth Congress of European Research in Mathematics Education, Prague, Czech Republic.

Jacobs, B., **Lee, H. S.,** Tran, D., & Doerr, H. M. (2015). *Improving teachers' reasoning about sampling variability: A cross institutional effort*. Research paper presented at the Ninth Congress of European Research in Mathematics Education, Prague, Czech Republic.

Lee, H. S., Bos, B., Ozgun-Koca, A., Berry, R., McCulloch, A., Nickel, J., Chandler, K. (February, 2014). *Supporting teachers in developing technology-based mathematics tasks.* Extended session presented at the annual conference of the Association of Mathematics Teacher Educators, Irvine, CA.

Thrasher, E. P., Perry, A. F., Hollebrands, K. F., & **Lee, H. S.** (February, 2014). *Supporting and retaining beginning mathematics teachers.* Extended session presented at the annual conference of the Association of Mathematics Teacher Educators, Irvine, CA.

Lee, H. S., Doerr, H. M., Arleback, J. B., Pulis, T. (November, 2013). *Collaborative design work of teacher educators: A Case from statistics.* Paper presented at the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL.

Pulis, T., & **Lee, H. S.** (November, 2013). *High school mathematics teachers' statistical question posing*. Paper presented at the 35th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Chicago, IL.

Lee, H. S., Pulis, T., & Casey, S. (May, 2013). *Preparing to Teach K-12 Statistics: Using Digital Tools for Teaching and Learning*. Presented at United States conference for Teaching Statistics, Raleigh, NC.

Pulis, T., Whitley, K. B., & **Lee, H.S.** (April 2013). *Collecting Live Data in Fathom*. Session presented at the annual meeting of the National Council of Teachers of Mathematics, Denver, CO.

Lee, H. S., Whitley, K. B., & Pulis, T. (April 2013). *Using Technology Simulations to Reason about Probability and Statistics*. Paper presented at the annual meeting of the National Council of Teachers of Mathematics, Denver, CO.

Hollebrands, K. F., Steketee, S., McCulloch, A. W., **Lee, H. S.,** & Whitley, K. B. (April 2013). *High School Student's Thinking About technology-based geometry functions*. An interactive paper session presented at the Research Presession of the National Council of Teachers of Mathematics, Denver, CO.

Hollebrands, K. F., **Lee, H. S.,** McCulloch, A. M., Dick, T., Jones, D., Berry, R. Q., Mohr-Schroeder, M., Stallings, L. (January, 2013). *Technology-based tasks in mathematics teacher education.* Extended session presented at the Association of Mathematics Teacher Educators, Orlando, FL.

Hollebrands, K. F., **Lee, H. S**., Starling, T. T., Gonzalez, M. D., & Pulis, T. (November, 2012). *Prospective high school mathematics teachers' design and implementation of dynamic geometry tasks.* Paper presented at the 34th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Kalamazoo, MI.

Hollebrands, K. F., **Lee, H. S.,** Starling, T. T., Gonzalez, M. D., Pulis, T. (April, 2012). *Preservice Mathematics Teachers' Design and Implementation of Interactive Geometry Tasks.* Paper presented at the annual meeting of the Research Presession of the National council of Teachers of Mathematics, Philadelphia, PA.

Lee, H. S., Starling, T. T., Gonzalez, M. D., & Pulis, T. (April, 2012). *Simulations as a Tool for Reasoning about Probability and Statistics.* Session presented at the annual meeting of the National Council of Teachers of Mathematics, Philadelphia, PA.

Lee, H. S., Harper, S., Driskell, S. O., Kersaint, G., & Leatham, K. (February, 2012). *Teachers' statistical problem solving with dynamic technology: Research results across multiple institutions.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators, Fort Worth, TX. **Authors awarded the National Technology Leadership Initiative Fellowship for Best Research Paper.**

Dick, T., Hollebrands, K., Zbeik, R. M., Heid, M. K., **Lee, H. S**., Burrill, G., & Cohen, J. (February, 2012). Sense making and reasoning with technology: An interactive panel. Three hour presession presented at the annual meeting of the Association of Mathematics Teacher Educators, Fort Worth, TX

Hollebrands, K. F., **Lee, H. S.,** Starling, T. T., Gonzalez, M. D., Pulis, T. (February, 2012). *Prospective teachers' design and implementation of technology-based geometry tasks.* Paper presented at the annual meeting of the Association of Mathematics Teacher Educators, Fort Worth, TX.

Erbacher, C., & **Lee, H. S.** (January, 2012). *Engaging students in reasoning about the logic of hypothesis testing.* Paper presented as part of the Contributed Paper Session "Innovations in Teaching Statistics in the New Decade" at the Joint Mathematics Meeting, Boston, MA.

Lee, H. S., Driskell, S. O., Harper, S. R., Leatham, K. R., Kersaint, G., & Angotti, R. L. (October, 2011). *Prospective teachers' use of representations in solving statistical tasks with dynamic statistical software*. Paper presented at the thirty-third annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education. Reno, NV.

Gonzalez, M. D., & **Lee, H. S.** (October, 2011). Middle school students' growth in understanding of probabilistic inference. Paper presented at the thirty-third annual meeting of the North American Chapter of the International Group for the Psychology in Mathematics Education. Reno, NV.

Lee, H. S., Franklin, A., Thrasher, E. (July, 2011). *Providing opportunities for teachers to take a scholarly lens towards designing and implementing research-based tasks.* Session at the sixth annual National Science Foundation Robert Noyce Teacher Scholarship Program Conference, Washington, DC.

Lee, H. S., Driskell, S., Harper, S., Jones, D. L., Kersaint, G. (April, 2011). *Creating a framework to examine mathematics teachers' exploratory data analysis.* Presented at the Research Presession of the Annual Meeting of the National Council of Teachers of Mathematics. Indianapolis, IN.

Keene, K. A., **Lee, H. S.,** & Lee, J. T. (February, 2011). *Linking instructor moves to classroom discourse and student learning in differential equations classrooms*. fourteenth Annual Conference on Research in Undergraduate Mathematics Education, Portland, OR.

Lee, H. S., Hollebrands, K. H., Starling, T. T., & Gonzalez, M. D. (January, 2011*). Preparing to teach mathematics with technology [PTMT]: Engaging practices and materials for technology-using mathematics teacher educators.* Three-hour faculty professional development presession presented at the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.

Lee, H. S., Klein, K., & Pylypiw, N. (July, 2010). *Developing a community of scholars.* Poster session presented at the NSF Robert Noyce Teacher Scholarship Program Conference: Building Excellence in STEM Teaching, Washington, DC.

Washington, H. T. & **Lee, H. S.** (April, 2010). *Building a community of scholars in a teacher education program.* Presented at the annual meeting of the National Council of Teachers of Mathematics, San Diego, CA.

Lee, H. S., Ives, S. E., Gonzalez, M. D., Starling, T. A., & Shaughnessy, J. M. (January, 2010). *Helping teachers develop their technological pedagogical statistical knowledge (TPSK)*. Presented at the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.

Lee, H. S., Hollebrands, K. H., Washington, H. T., Mewborn, D. M., & Thomas, C. (January, 2010). *Supporting and preparing talented secondary mathematics teachers for high needs schools.* Symposium presented at the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.

Lee, H. S., Hollebrands, K. H., Smith, R. C., & Gonzalez, M. D. (January, 2010). *Preparing to teach mathematics with technology [PTMT]: Engaging practices and materials for technology-using mathematics teacher educators.* Four-hour faculty professional development presession presented at the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.

Lee, H. S., & Lee, J.T. (September, 2009). *Students' interpretations of probability distributions in a simulation environment.* Paper presented at the thirty-first annual meeting of the Psychology in Mathematics Education-North American Chapter. Atlanta, GA.

Lee, H. S. (June, 2009*). Preparing middle and secondary teachers to use technology in statistics*. Poster presented at the United States Conference on Teaching Statistics, Columbus, OH.

Hilton, S., Holcomb, J., & **Lee, H. S.** (June 2009). *Making research relevant: Planting seeds for future research in statistics education.* Session presented at the United States Conference on Teaching Statistics, Columbus, OH.

Lee, H. S. (Chair), Hollebrands, K.F., Smith, R.C., Ives, S.E., Niess, M. Bowers, J., Zbiek, R. M. (April, 2009). *Technology pedagogy and content knowledge for mathematics teachers.* Research symposium presented at the Research Presession of the National Council of Teachers of Mathematics, Washington, DC.

Ives, S. E., **Lee, H. S.**, & Starling, T. (February, 2009). *Preparing to teach mathematics with technology: Lesson planning decisions for implementing new curriculum*. Paper presented at the annual conference of Research in Undergraduate Mathematics Education, Raleigh, NC.

Lee, H. S., Keene, K. A., Lee, J. T., Holstein, K., Early, M.E., Eley, P. (February, 2009). *Pedagogical content moves in an inquiry-oriented differential equations class: Purposeful decisions to further mathematical discourse*. Paper presented at annual conference of Research in Undergraduate Mathematics Education, Raleigh, NC.

Keene, K. A., Lee, J. T., **Lee, H. S.**, Early, M.E., Eley, P. Holstein, K., (February, 2009). *An investigation of one instructor's mathematical knowledge for teaching: Developing a preliminary framework.* Paper presented at the annual conference of Research in Undergraduate Mathematics Education, Raleigh, NC.

Lee, H.S., & Mojica, G. F. (June 2008). *Examining teachers' practices: In what ways are probabilistic reasoning and statistical investigations supported?* Paper presented at the Joint Study of the International Commission of Mathematics Instruction and International Association of Statistical Education. Monterrey, MX.

Lee, H. S., & Hollebrands, K. F. (June 2008). *Preparing to teach data analysis and probability with technology.* Paper presented at the Joint Study of the International Commission of Mathematics Instruction and International Association of Statistical Education. Monterrey, MX.

Lee, H. S., Lee, J. T., Konold, C., Abrahamson, D., Vahey, P., Rubin, A. (April 2008). *Contrasting perspectives on connecting important ideas in probability*. Symposium presented at the Research Presession of the National Council of Teachers of Mathematics Salt Lake City, UT.

Lee, H. S., & Lee, J. T. (February, 2008*). Emphasizing coordination of measures of center and spread via focus on intervals instead of point values*. Paper presented at the annual conference of Research in Undergraduate Mathematics Education, San Diego, CA.

Hauk, S., **Lee, H. S.,** Marongelle, K., & Weber, K. (February, 2008). *Doctoral programs in mathematics education.* Panel session presented at the annual conference of Research in Undergraduate Mathematics Education, San Diego, CA.

Lee, H. S., & Mojica, G. F. (October 2007). *Teachers' use of probability experiments and simulations.* Paper presented at the twenty-ninth annual meeting of the Psychology of Mathematics Education-North American Chapter. Lake Tahoe, UT.

Hollebrands, K. F, Wilson, P. H., & **Lee, H. S.** (October 2007). *Prospective teachers use of a videocase to examine students' work when solving mathematical tasks using technology.* Paper presented at the twenty-ninth annual meeting of the Psychology of Mathematics Education-North American Chapter. Lake Tahoe, UT.

Lee, H. S. (September 2007). *Earning the doctoral degree in mathematics education at NC State: The past decade.* Poster presented at the National Conference on Doctoral Programs in Mathematics Education. Kansas City, MO.

Lee, H. S., Hollebrands, K. F., & Wilson, P. H. (September 2007). *The use of research-based methods and materials for preparing to teach mathematics with technology.* Presented at the ninth International Conference on Mathematics Education in a Global Community, Charlotte, NC.

Lee, H. S. (Chair), Hollebrands, K. F., Mojica, G. M., Wilson, P. H., Maher, C., Palius, M., Alston, A., & Liu, Y. (March 2007). *Learning to teach probability with a simulation approach: Focus on teachers.* Research symposium presented at the Research Presession of the National Council of Teachers of Mathematics, Atlanta, GA.

Lee, H. S., Hollebrands, K. F., & Wilson, P. H. (March 2007). *Preparing to teach mathematics with technology: Research-based methods and materials.* Presented at the annual conference of the National Council of Teachers of Mathematics, Atlanta, GA.

Hollebrands, K., **Lee, H. S.**, & Wilson, H. (January 2007). *Preparing to teach mathematics with technology: Prospective teachers' interpretations of students' mathematical thinking.* Research paper presented at the annual meeting of the Association of Mathematics Teacher Educators, Irvine, CA.

Maher, C., Powell, A., Weber, K, & **Lee, H. S**. (November 2006). *Tracing middle school students' arguments.* Research paper presented at the twenty-eighth annual meeting of the Psychology of Mathematics Education-North American Chapter. Mexico.

Powell, A. (Chair), Maher, C., Weber, K., Pedrick, L., Francisco, J., Shay, K., **& Lee, H. S.** (April 2006). *The development of probabilistic reasoning among urban students.* Research symposium presented at the Research Presession of the National Council of Teachers of Mathematics, St Louis, MO.

Powell, A. (Chair), Maher, C., **Lee, H. S.,** Weber, K., & Alston, A. (April 2005). *Mathematics initiative, students of color, and the development of probabilistic reasoning.* Research symposium presented at the Research Presession of the National Council of Teachers of Mathematics, Anaheim, CA.

Lee, H. S. (January 2005). *The complexities of teachers' knowledge of probability: Results from research to inform teacher education*. Research report presented at the annual meeting of the Association of Mathematics Teacher Educators, Dallas, TX.

Hollebrands, K.F., & **Stohl, H.** (October 2004). *The interplay between technology design and students' control of problem solving*. Research report presented at the twenty-sixth annual meeting of the Psychology of Mathematics Education-North American Chapter. Toronto, Canada.

Stohl, H. (Chair), Maher, C., English, L., Berry, E., Tarr, J. E., Pratt, D., & Shaughnessy, J. M. (April 2004). *Research on students' learning of probability: Implications and connections*. Research symposium and papers presented at the Research Presession of the National Council of Teachers of Mathematics, Philadelphia PA.

Renninger, K. A., Sinclair, N., Hand, V. M., **Stohl, H**., Alejandre, S. & Underwood, J. S. (July 2004). *Students' interest for and work with applet-enhanced word problems*. Paper presented at sixth International Conference of the Learning Sciences, Santa Monica, CA.

Stohl, H. (July 2003). *Prospective teachers' development of teaching with technology.* Paper presented at the twenty-seventh annual meeting of the International Group for Psychology of Mathematics Education, Honolulu, HI.

Stohl, H., & Rider, R. (July 2003). *Are these die fair: An analysis of students' technology-based exploration*. Poster presented at the twenty-seventh annual meeting of the International Group for Psychology of Mathematics Education, Honolulu, HI.

Underwood, J., Hoadley, C., DiGiano, C., **Stohl, H**., & Hollebrands, K. (April 2003). *Design principles of the ESCOT math environments.* Paper presented at The American

Educational Research Association Meeting. Chicago, IL. Available in ERIC http://files.eric.ed.gov/fulltext/ED477693.pdf

Stohl, H., & Tarr, J. E. (October 2002). *Using multi-representational computer tools to make sense of inference.* Paper presented at the twenty-fourth annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education, Athens, GA.

Stohl, H., & Tarr, J. (April 2002). *Engaging students in probabilistic reasoning using simulations and dynamic representations*. Computer workshop presented at the annual meeting of the National Council of Teachers of Mathematics, Las Vegas, NV.

Stohl, H. (April 2002). *Prospective teachers learning to facilitate social interaction and mathematical problem solving with technology tools*. Paper presented at the annual meeting of the American Educational Research Association as part of the symposium Teaching with Technology: Implications for Teacher Education, chaired by Carolyn Everton. New Orleans, LA.

Stohl, H., & Underwood J. (April 2002). *Design principle: Provide multiple linked representations.* Poster presented at the annual meeting of the American Educational Research Association as part of the symposium Design Principles for Educational Software, chaired by Marcia Linn. New Orleans, LA.

Stohl, H., Harper, S. R., & Enderson, M. (January 2002). *Prospective teachers' development of mathematical, pedagogical, and technological knowledge*. Research symposium at the sixth annual conference of the Association of Mathematics Teacher Educators, San Antonio, TX. **Individual paper awarded the National Technology Leadership Initiative Fellowship for Best Research Paper.**

Rasmussen, S., Matthews, S., & **Stohl, H.** (January 2002). *Data-driven mathematics and statistics with Fathom*. Invited mini-course given at the sixth annual conference of the Association of Mathematics Teacher Educators, San Antonio, TX.

Stohl, H. (October, 2001). *Learning to facilitate and analyze students' problem solving with technology.* Poster presented at the twenty-second annual meeting of the International Group for the Psychology of Mathematics Education, North American Chapter, Snowbird, UT.

Drier, H. S. (March, 2001). *Beliefs, experiences, and reflections that affect the development of techno-mathematical knowledge*. Research paper presented at annual international meeting of Society for Informational Technology and Teacher Education, Orlando, FL.

Grable, L., Spires, H., Lambert, J., Beal, C., Park, J., **Drier, H. S.**, & Alibrandi, M. (March 2001). *Ridges and bridges: MentorNet collaboration yields a watershed of preservice infusion*. Paper Panel presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Orlando, FL.

Drier, H. S. (October, 2000). *Children's meaning-making activity with dynamic multiple representations in a probability microworld.* Research paper presented at the twenty-first annual meeting of the International Group for the Psychology of Mathematics Education, North American Chapter, Tucson, AZ.

Drier, H. S. (April, 2000). *Using the Probability Explorer to investigate chance and proportional reasoning.* Computer workshop presented at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL.

Harper, S.R., Garofalo, J., & **Drier, H. S.** (April, 2000). *Preparing preservice secondary school teachers to use technology appropriately.* Session presented at the annual meeting of the National Council of Teachers of Mathematics, Chicago, IL.

Drier, H. S. (March, 2000). *Improving children's probabilistic reasoning with technology*. Paper presented at the annual meeting of the Research Council on Mathematics Learning, Las Vegas, NV.

Garofalo, J., **Drier, H. S.**, Harper, S. R., Enderson, M., Horton, B., & Pullano, F. (February, 2000). *Integrating technology in preservice secondary methods courses: Evaluation and dissemination of Impact Project materials.* Session presented at the annual meeting of the Association of Mathematics Teacher Educators, Charlotte, NC.

Drier, H. S. (June, 1999). *Creating interactive spreadsheets with Microsoft Excel and Visual Basic for Applications.* Workshop presented at the Barrett Lectures: Successful Strategies for the Use of Technology in the Teaching of Mathematics, University of Tennessee Knoxville, TN.

Drier, H. S. (June, 1999). *Facilitating the effective integration of various technologies in secondary mathematics methods courses*. Session presented at the Barrett Lectures: Successful Strategies for the Use of Technology in the Teaching of Mathematics, University of Tennessee Knoxville, TN.

Drier, H. S. & Garofalo, J. (June 1999). *Impact Project: Facilitating effective integration of technology in mathematics education*. Session presented at the annual meeting of the National Educational Computing Conference, Atlantic City, NJ.

Drier, H. S. & Garofalo, J. (April 1999). *Using computer microworlds to explore mathematics.* Computer workshop presented at the annual meeting of the National Council of Teachers of Mathematics, San Francisco, CA.

Garofalo, J., **Drier, H. S.**, & Pullano, F. (April 1999). *Using technology to integrate social studies with mathematics*. Session presented at the annual meeting of the National Council of Teachers of Mathematics, San Francisco, CA.

Harper, S. R., Shockey, T., **Drier, H. S.**, & Garofalo, J. (April, 1999). *Exploring recursion through various technologies*. Session presented at the annual meeting of the National Council of Teachers of Mathematics, San Francisco, CA.

Abramovich, S. & **Drier, H. S.** (March, 1999). *Preparing K-12 mathematics teachers to use a spreadsheet as an instructional tool*. Paper presented at the annual international meeting of the Society for Informational Technology and Teacher Education, San Antonio, TX.

Watson, K., **Drier, H. S.**, & Garofalo, J. (March, 1999). *Using technology tools to integrate mathematics and social studies*. Poster session presented at the annual international meeting of the Society for Informational Technology and Teacher Education, San Antonio, TX.

Abramovich, S., **Drier, H. S.**, Dugdale, S., Mochan, S., Neuwirth, E., & Woodward, J. (March, 1999). *Spreadsheets: A new form of educational software for school mathematics?* Panel discussion held at the annual international meeting of Mathematics and Science Educational Technology, San Antonio, TX.

Drier, H. S., Rushton, S. R., & Shockey, T. (April, 1998). *Algebra in the middle school? You bet!* Workshop session presented at the annual meeting of the National Council of Teachers of Mathematics, Washington, D.C.

Drier, H. S. (March, 1998). *Exploring probability with preservice teachers using dominoes, dice, and technology.* Poster session presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Washington, D.C.

Garofalo, J., Shockey, T., **Drier, H. S.**, & Rushton, S. (March, 1998). *Guidelines for incorporating technology into mathematics*. Paper presented at the annual international meeting of the Society for Informational Technology and Teacher Education, Washington, D.C.

Regional Presentations

Starling, T. S., & **Lee, H. S.** (October, 2013). *Developing the meaning of mean*. Session at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Thrasher, E., Perry, A., **Lee, H. S.,** Hollebrands, K., Hall, W., Early, M., & Swandby, A. (October, 2012). *Using iPads to enhance the mathematics classroom.* Session at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Monrose, N., Franklin, A., & **Lee, H. S.** (March, 2012). An analysis on student justifications on probability concepts and implications for instruction using technology. Session presented at the *Southwest Regional Conference of the Mathematical Association of America,* Scottsdale, AZ.

Starling, T. T., & **Lee, H. S.** (October, 2011). *That is so random.* Workshop session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Lee, H. S., Brannan, T., Childs, K., Clay, L., Franklin, A., Hall, W., Jordan, L., Limer, C., Pawelka, E., Searfoss, A., Thrasher, E., & Washington, H. (October, 2011). *Teacher led inquiry into fostering reasoning and motivation.* Session at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Lee, H. S., Swandby, A., & Klein, K. (March, 2011). *Activities to promote motivation and reasoning for mathematics teachers.* Session presented at the Robert Noyce Scholarship Southeast Regional Conference, Greenville, SC.

Hollebrands, K. F., **Lee, H. S.,** Washington, H. T., & Noyce Scholars (October, 2010). *Activities to promote reasoning and sense making in the high school mathematics classroom.* Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Lee, H. S., & Starling, T. T. (2010). *Designing and using simulations to investigate probability with Fathom and Probability Explorer.* Workshop **s**ession presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Lee, H. S., Hollebrands, K. F., Washington, H. T., Hernandez, J., Ward, J., & Ray, G. (October, 2009). *Classroom communication to promote equity and engagement.* Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Wilson, H. & **Lee, H. S.** (October, 2007). *Supporting bivariate data analysis with univariate techniques with Fathom 2.0.* Session presented at the annual Central Regional conference of the National Council of Teachers of Mathematics, Kansas City, MO.

Wilson, H., Hollebrands, K., & **Lee, H. S**. (October 2006). *From univariate to bivariate analysis with Fathom.* Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Lee, H. S., Hollebrands, K., & Wilson, H. (October 2006). *PTMT: An integrated approach.* Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Hollebrands, K., **Lee, H. S**., & Wilson, H. (October 2005). *Using video cases to prepare teachers to teach mathematics using technology*. Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Campbell, M., & **Stohl, H.** (October 2004). *Developing integrated mathematics lessons: An undergraduate research project.* Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Stohl, H., & Gildersleeve, R. (November 2003). *Connections among fractions, proportional reasoning, and probability*. Computer workshop presented at the Southern regional conference of the National Council of Teachers of Mathematics, Charleston, SC.

Stohl, H., & Campbell, M. (October 2003). *Connecting empirical and theoretical probability with simulations*. Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Stohl, H., Norgaard, N, & Tuprah, K. (October 2002). *Middle Math Project: A focus on chance and data analysis*. Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Charlotte, NC.

Stohl, H., & Hollebrands, K. F. (October 2001). *Technology as a vehicle for promoting mathematical reasoning*. Session presented at the annual conference of the North Carolina Council of Teachers of Mathematics, Greensboro, NC.

Drier, H. S., Berman, S., & Brown, J. (October 2000). *Teaching with technology: Exemplar lessons, intuitive software, and internet resources.* Session presented at the Eastern regional conference of National Council of Teachers of Mathematics, Philadelphia, PA.

Drier, H. S. (October 1999). *Teaching with technology: An exploratory approach to mathematics education*. Session presented at the Eastern regional conference of National Council of Teachers of Mathematics, Pittsburgh, PA.

Drier, H. S. (October 1999). *Probabilistic reasoning with the Probability Explorer microworld.* Paper presented at the Eastern regional conference of National Council of Teachers of Mathematics, Pittsburgh, PA

Dawson, K., Mason, C., & **Drier, H. S.** (March 1999). *Integrating technology into secondary mathematics and social studies instruction*. Session presented at the annual conference of the Virginia Society of Technology in Education, Norfolk, VA.

Drier, H. S., & Harper, S. R. (February 1999). *Middle school mathematics for the 21st century*. Workshop session presented at the Southeast regional conference of the National Council of Teachers of Mathematics, Charlotte, NC.

Garofalo, J., & **Drier, H. S.** (February 1999*). Integrating social studies into the mathematics curriculum*. Session presented at the Southeast regional conference of the National Council of Teachers of Mathematics, Charlotte, NC.

Harper, S. R., Shockey, T., **Drier, H. S.** & Garofalo, J. (February 1999). *Exploring recursion through various technologies.* Session presented at the Southeast regional conference of the National Council of Teachers of Mathematics, Charlotte, NC.

Drier, H. S., & Garofalo, J. (May 1998). *Using microworlds to enhance the teaching and learning of mathematics.* Presented at the annual conference of the Virginia Society of Technology in Education, Roanoke, VA.

White, P., & **Drier, H. S.** (May 1998). *Get some M.A.T.H. (Math and Technology Help) today.* Presented at the annual conference of the Virginia Society of Technology in Education, Roanoke, VA.

Garofalo, J., **Drier, H. S.**, Shockey, T., & Harper, S. R. (May 1998). *An introduction to graphing calculators.* Workshop session at the annual conference of the Virginia Society of Technology in Education, Roanoke, VA.

Shockey, T., Harper, S. R., & **Drier, H. S.**, (May 1998). *Exploring mathematics with technology: Data analysis activities.* Presented at the annual conference of the Virginia Society of Technology in Education, Roanoke, VA.

Drier, H. S. (October 1997). *Exploring probability with Dominoes and Dice*. Presented at the annual meeting of the Tidewater Council of Teachers of Mathematics, Virginia Beach, VA.

White, P., & **Drier, H. S.** (April 1997). *Technology is alive in this classroom*. Presented at the annual conference of Virginia Society of Technology in Education, Virginia Beach, VA.

Drier, H. S. (March 1997). *How are graphing calculators used in secondary mathematics classrooms? Teachers' beliefs and practices*. Paper presented at the annual conference of Virginia Educational Research Association, Richmond, VA.

Drier, H. S. (March 1997). *Getting ready for algebra: Strategies for success*. A workshop session presented at the annual meeting of the Virginia Council of Teachers of Mathematics, Charlottesville, VA.

Drier, H. S. (March 1996). *Literacy Passport Test: Predicting success for general and special education students.* Paper presented at the annual conference of Virginia Educational Research Association, Richmond, VA.

Flanagan, S. S., & **Drier, H. S.** (March 1996). *Literacy Passport Test and new SOL: Providing math success for general and special education students*. Paper presented at the annual conference of Virginia Council of Teachers of Mathematics, Hampton, VA.

Grant Activity

Externally funded grants

Preparing to Teach Mathematics with Technology-Examining Students' Practices [PTMT-ESP]. Collaborative grant awarded by the National Science Foundation (October 2018-September 2023). Project will build from and expand materials from prior funded PTMT projects, with a focus on developing and researching impacts of high quality video case materials of high school students' thinking and practices while engaging in algebraic tasks with dynamic technology tools. All video case materials will be added to the PTMT portal (go.ncsu.edu/ptmt) and made freely available for use in mathematics education teacher education. PI: Jennifer Lovett, Middle Tennessee State University; Co-PIs: Allison McCulluch, University of NC-Charlotte, **Hollylynne Lee**, NC State University, and Charity Cayton, East Carolina University. (**$1,779,314**)

Diagnostic Inventories of Cognition in Education [DICE]. Grant awarded by the department of Education through the Institute of Education Sciences (July 2017-June 2021). Project will develop to a freely-available, web-based formative assessment system that efficiently provides teachers with valid, timely, and actionable feedback about student cognition in probabilistic reasoning. This will be a truly formative assessment system that reliably and accurately diagnoses cognitively-based misconceptions to identify key concepts for which students need targeted instruction to yield improved student outcomes. We will test methods for designing and scoring concept inventories that profile multivariate reasoning with the ultimate goal of aiding teachers in implementing an effective formative assessment process. PI: Laine Bradshaw, University of Georgia, Co-PIs: **Hollylynne Lee**, Roger Azevedo, NC State University; Jessica Masters and Lisa Famularo, Research Matters Inc. ($**1,500,000**).

Enhancing Statistics Education with E-Modules [ESTEEM]. Grant awarded by the National Science Foundation (September 2016-August 2020). Project aims to develop, implement, and examine impact of materials and online data analysis tools for use in undergraduate mathematics teacher education to better prepare preservice teachers for teaching statistics. PI: **Hollylynne Lee**, Co-PI, William Finzer, Stephanie Casey, Rick Hudson. ($**1,500,000**).

A Networked MOOC for Teaching Statistics Through Data Investigations: An initiative of HI-RiSE at the Friday Institute. Grant awarded by the American Statistical Association (April 2016-June 2018). Project aims to engage teachers in a blended approach to professional development by supporting 10 small professional learning teams across the country to engage in the Teaching Statistics Through Data Investigations MOOC-Ed and meet in small groups to discuss course material and make plans for impacting their practices at the local level. PI: **Hollylynne Lee**. (**$15,000**).

Massive Open Online Courses for Educators-Phase II. Grant awarded by the William and Flora Hewlett Foundation (November 2015-June 2018). Grant is focused on continuing to offer three MOOC-Ed courses developed in 2014-15 and enhancing them with micro-credentialing as well as developing 2-3 additional MOOC-EDs for supporting secondary mathematics teachers. PI: Glenn Kleiman, Co-PI: **Hollylynne Lee**, Senior Researcher: Karen Hollebrands. **($500,000**).

Noyce Mathematics Education Teaching Scholars Phase II at NC State. Grant awarded by the National Science Foundation (September 2012-August 2019). Grant is a continuation of the project started in 2007. Funds will provide new scholarships to 14 undergraduate

and graduate students pursuing double degrees in mathematics education and mathematics or statistics and obtaining initial licensure for teaching secondary mathematics. Project also focuses on retention of scholars as practicing teachers and research on effective practices. PI: Karen Hollebrands, Co-PIs: **Hollylynne Lee**, Molly Fenn, and Laura Bottomley. **($800,000**).

Preparing to Teach Mathematics with Technology: Expanding, Transforming, and Community Building. Grant awarded by the National Science Foundation (September 2011-June 2017). Project continues work started in the grant listed below to develop and evaluate an Algebra module, build a community of mathematics teacher educators across the US using our approach, and research any transformative impacts on the development of prospective teachers understanding of how to use technology in teaching. PI: **Hollylynne Lee**, Co-PIs: Karen Hollebrands & Allison McCulloch. (**$687,735**)

Preparing to Teach Mathematics with Technology: An Integrated Approach. Grant awarded by the National Science Foundation (September 2008-August 2012). Proposal is to continue the work started in the grant listed below to develop Geometry module and provide professional development for teacher educators across the US for implementing the modules. We aim to develop and test the modules and submit materials for commercial publication. PI: Karen Hollebrands, Co-PI: **Hollylynne Lee**. **($500,400**)

Noyce Mathematics Education Teaching Scholars at NC State. Grant awarded by the National Science Foundation (September 2007-August 2014). Grant funds will provide scholarships to 28 undergraduate and graduate students pursuing double degrees in mathematics education and mathematics or statistics and obtaining initial licensure for teaching secondary mathematics. PI: **Hollylynne Lee**, Co-PIs: Karen Hollebrands, Irina Kogan, and Pam Arroway. **($950,000**).

Preparing Prospective Mathematics Teachers to Teach with Technology: An Integrated Approach. Grant awarded by the National Science Foundation (June 2005-December 2007). One of the main intellectual merits of this project will be to develop and test a model for teacher preparation that we hypothesize should integrate knowledge of mathematics, technology, pedagogy and student thinking. The goal of the full-scale project will be to develop curriculum materials in the form of modules. The specific objective for this proof-of-concept project is to create one prototype module for Data Analysis and Probability. PI: **Hollylynne Lee**, Co-PIs: Karen Hollebrands & Lee Stiff. **($75,000**)

TeKnowledgy Greenhouse: An Engineering and Education Learning Community. Awarded by National Science Foundation. Grant is a planning grant (October 2003-2005) for the Colleges of Education and Engineering at NC State University to foster a learning community that can draw upon the strengths of both fields and generate innovative solutions for the engineering education of K-12 and undergraduate students. A planning grant allowed us to establish a community culture for faculty and students at a research-intensive university to work together on educational issues of teaching, research, and societal needs. PI: **Stohl (Lee),** Co-PIs: Bill Deluca, Steve Walsh, & Tom Miller. **($100,000**)

Identifying Emergent Design Principles through Analysis of Learning Technology in Action. (May 2002-May 2003) Co-PI on a grant sponsored by CILT (Center for Innovative Learning Technologies—an NSF funded Center) to examine mathematical java applets for contributing design principles for the CILT design principles database (http://www.design-principles.org). PI: Jody Underwood of ETS (Educational Testing

Service). Co-PIs include **Stohl (Lee**), Karen Hollebrands, NCSU, Chris Hoadley, Penn State, and Chris DiGiano, SRI. ($**10,000**)

The North Carolina Middle Math Project: A professional development project to improve grade 6-8 mathematics education. Awarded by National Science Foundation as a 4-year collaborative effort of the University of North Carolina system (January 2002-2006). Collaborated with faculty across the state to design and deliver a course on Teaching and Learning Data and Probability (one of 3 courses developed in project) to 145 middle grade teachers in NC pursuing National Board certification. PI: **Stohl** with Co-PI Sarah Berenson for subcontract with NC State. **($285,806**).

Internally funded grants

Mathematics Education Program: Reaching and Engaging More. PIs: **Hollylynne Lee**, Karen Hollebrands, Cyndi Edgington, Derek Williams. Grant funded to support development of an online graduate certificate and initial scholarships for enrolling students. October 2017. (**$13,000**).

Attracting and Recruiting Top Graduate Students in Mathematics and Science Education. PI: **H. Lee**. Grant funded through Graduate School at NC State and Department of STEM Education. September 2011. (**$3,500)**.

Creating connected handheld computing environments. PI: Karen Hollebrands, Co-PI: **Stohl**. Grant funded through College of Education Computer & Technology Committee, November 2002. (**$8,028**)

Investigation of middle grade learners' probabilistic reasoning in a digital learning environment. PI: **Stohl**. Grant awarded by NC State's Faculty Research and Professional Development program, December 2000. (**$5,000**)

Integrating hand-held and desktop technologies. PI: **Stohl**. Grant funded through College of Education Computer & Technology Committee, November 2000. (**$4,171**)

Collaborative Scholarly Activities

External

UNC Faculty Entrepreneurship. Participated in 4 day workshop (May 2016) with other faculty across UNC System to engage in entrepreneur education and process for developing start-up companies or innovative entrepreneurial ways to get research into practice for high impact.

Mathematical Proficiency for Teaching. Invited participant in a collaborative group of about 50 mathematics educators across the country engaged in considering how to use a framework and situations to inform secondary mathematics teacher education courses. Group led by Patricia Wilson, University of Georgia and Kathleen Heid, Penn State University. Work is based on NSF funded project. First three day working conference held at University of Georgia in Spring 2010.

Research Advisory Board for the Consortium for the Advancement of Undergraduate Statistics Education. Appointed to this board in Spring 2009. The members are from different institutions and fields such as Statistics, Educational Psychology, and Mathematics Education. The mission of the board is to establish the area of statistics education research as a recognized discipline with a visible presence, connect researchers

from diverse disciplines that inform knowledge about teaching and learning statistics, collect and disseminate resources on research in statistics education, promote statistics education research. We meet several times a year as a group and each member is assigned to a research team of statistics educators from across the US for a two-year period to mentor and facilitate their research in an area of statistics education.

Informal Mathematical Learning grant at Rutgers University (NSF-funded grant). I collaborated (2004-2006) with researchers on this project focusing on the learning of middle-school students. The study focused in-depth on (1) the mathematical ideas and forms of mathematical reasoning that middle-school students develop and use as they investigate well-defined, open-ended tasks; (2) the patterns of discourse among the students as they build solutions to each task; and (3) over the course of the study, changes that occur in students' views about mathematics and about themselves as mathematical thinkers. The setting is an informal after-school program for students of Hubbard Middle School in Plainfield, NJ, an economically depressed, urban school district with 98% African American and Latino students. The research group met several times a year.

Studying the Development of Mathematical Reasoning: R.B. Davis International Invitational Conference. I participated in this invitational conference with about 25 researchers in mathematics education from 6 different countries. Researchers share current research projects, theories under development, and participate in small group data analysis sessions. *Meeting Dates:* October, 2004 Emerald Isle, NC; June, 2003 Umea, Sweden; October 2000, Emerald Isle, NC.

IDEA: Identifying Design Principles in Educational Applets. Collaborative effort with researchers at Educational Testing Service, SRI, the Math Forum at Drexel, Penn State University, and North Carolina State University. We examined the design of and students' work with 42 educational java applets created by the ESCOT (Educational Software Components of Tomorrow) project. Purpose was to extract a general set of design principles that can guide future design and development of educational applets that are created to be used with specific mathematical problems. Researchers met face-to-face over 3 different 4-day periods in 2002 and had numerous teleconferences.

International Working Group on The Complexity of Learning to Reason Probabilistically. I have been the co-chair of this group of about 30 international researchers. The group meets once a year as part of the meetings for the Psychology of Mathematics Education - North American Chapter and the International Group of the Psychology of Mathematics Education. As Co-chair, I maintain the website and listserv, write the research descriptions and goals for annual proceedings, and plan collaborative activities during the annual meeting. In addition, through this group, about 10 researchers have used the software I developed (Probability Explorer) and tasks used in prior research in their own research. This is allowing cross-cultural and multi-contextual comparisons of students' probabilistic reasoning.

Internal

Data Science Initiative 2015-current

Working with faculty across campus to develop faculty capacity for data science education and big data research, as well as developing curricular options for undergraduate and graduate education.

MOOC-Ed Initiative 2014-current

Working with colleagues at the Friday Institute for Educational Innovation to develop and evaluate Massive Open Online Courses for professional educators. I am the lead designer on the MOOC Teaching Statistics Through Data Investigations. Also collaborating on research across all MOOC-Ed to examine impact on teachers' practices. http://mooc-ed.org/tsdi

Digital Transformation of Learning Faculty Cluster at the Friday Institute

Collaboration with faculty across disciplines such as Computer Science, Learning Sciences, Psychology, Mathematics Education, Science Education. The faculty cluster share work on design, development, and research on digital tools for learning and teaching.

NCSU STEM faculty initiative

Participate in meetings (several times per semester) with STEM faculty in disciplines across campus to discuss issues of teaching and research and to plan collaborative efforts. 2009-current.

Statistics Education Group

Engage in cross-department collaborations between statistics and mathematics education faculty and graduate students. Research studies are conducted by faculty and graduate students in the context of undergraduate statistics courses. Group meets regularly to discuss research and practices in statistics. Development of a co-major at the PhD level between Statistics and Mathematics Education is being planned. 2005-current.

TeKnowledgy Greenhouse.

As part of this planning grant, I worked with faculty in several departments within NC State University (e.g., Electrical Engineering, Chemical Engineering, Physics, Computer Science, Design) in seeking ways to engage in collaborative efforts that are mutually beneficial for the education of engineering undergraduates and the recruitment of students grades 6-12 to STEM-related majors. Faculty have met numerous times throughout the year, including a 4-day retreat in summer 2004. 2003-2005.

Mathematics and Science Education Collaboratory.

As part of the Friday Institute for Educational Innovation, I was the co-chair (with Eric Wiebe) of this collaboratory that included 25 faculty members. Faculty gathered on a bimonthly schedule to share research interests, data analysis, and collaborative efforts. 2003-2007

Teaching and Mentoring

Courses Taught since Fall 2000

Over the past 14 years, my teaching load has varied from 2-4 courses per academic year, depending on grant activities. Class sizes typically range from 12-25.
EMS 203 Introduction to Teaching and Learning Mathematics
EMS 480/580 Teaching Mathematics with Technology (online since Fall 16)
EMS 474 Teaching Mathematics Topics in the Middle Grades
EMS 471 Supervision of Mathematics Student Teaching (Middle and High School)
EMS 513 Teaching and Learning Algebraic Thinking
EMS 519 /ST 519 Teaching & Learning Statistical Thinking (online since Summer 15)
EMS 581 Advanced Applications of Technology in Mathematics Education

EMS 770 Foundations in Mathematics Education
EMS 792x Mathematics Education Literature and Research Methods
ED 795 Special Topics: Qualitative Methods for Examining Teaching and Learning
EMS 802 Seminar in Mathematics Education
EMS 851 Doctoral Practicum in Mathematics Teacher Education

Mentoring of Students

Doctoral

Chair/Co-Chair:

Current: Tyler Pulis, Christina Azmy, Asli Mutlu, Taylor Harrison, Heather Barker, Zachary Vaskalis

Graduated:

Kemal Akoglu (2018, pursuing position in Turkey)
Victoria Weber (2017, Teaching Assistant Professor, University of Notre Dame)
Marggie Gonzalez, (2016, Assistant Professor, University of Puerto Rico)
Jennifer Nickell Lovett (2016, Assistant Professor, Middle Tennessee State University)
Ayanna Perry (2013, Director of professional development, Knowles Teaching Scholars)
Tyrone Washington (2012, Assistant Professor, Millersville University),
Tina Starling (2011, Teaching Assistant Professor, NC State University)
Amanda Lambertus (2010, Assistant Professor, Arkansas State University),
Sarah Ives (2009, Assistant Professor, California State University-Sacramento),
Rachel Kenney (2008, Assistant Professor, Purdue University),
Robin Rider (Angotti) (2004, Associate Professor, University of Washington Bothell),

Committee Member:

Current: Nancy Smith, Preference Evens

Graduated: William Hall (2017), Samet Okumus (2016), Tamar Avineri (2016), Carrie Lineberry (2015), Megan Ryals (2014), Jennifer Sloan (2013, Statistics), Charity Cayton (2012), Krista Holstein (2012), Ryan Smith (2010), Julie Beier (2008, Mathematics), Maria Droujkova (2004), Min Jung Kim (2004, Comparative Biomedical Sciences), Katrina Staley (2003), C.E. Davis (2003), Matthew Clark (2003), Angela Teachey (2003), Laurie Cavey (2002)

Masters (*Advisor for M.Ed., **chair of thesis committee for M.S.)

Current: Haley Harrison**, Suzanne Jordan*

Graduated: Kelly Laveroni*(2017), Greg Ray* (2017), Nick Koberstein* (2016), Josh Jenkins* (2015), Nina Bailey* (2015), Kemal Akoglu** (2014), Jenna Rice**(2013), Taylor Harrison**(2013), Feezah Ishmail* (2012), Shana King*(2012), Meagan Laskowski* (2011), Gail Kweon* (2011), Janet Bailey* (2011), James Hedges* (2010), Marggie Gonzalez** (2010), Breanna Harrill* (2009), Morgan Loughridge* (2009), Karen Klien* (2009), Matt Campbell** (2009), Candace Blackwood* (2008), Mary Klinikowski* (2008), Lindsay Holland (2008), Cyndi Edgington (2008), John Henderson (2008), Jera Mendenhall*(2007), Christine Mainey* (2007), Katie Park* (2007), Bethany Hudnutt** (2007), Amanda Lambertus (2007), Gemma Mojica ** (2006), Lee Ann Ochs* (2004), Eleanor Pusey** (2003), Kate Mansi** (2003), Paula Johnson (2002), Ashley Allain (2001), Deborah Mills** (2001)

Undergraduate Research

Derrick McCann, STEM Education scholar (2016-currrent)

Jenna Rice (Statistics education project through AGEP 2010-11)
Co-mentor for summer research through AGEP (2007-8): Dana Jones, Jenadayi Harmon.
Research Mentor for 2 Park Scholars: Matt Campbell (2001-05), Lauren Riggs (2004-06)

Noyce Mathematics Education Teaching Scholars

Participate in mentoring of 36 graduate and undergraduate Noyce Scholars, 2008-current. Activities include bi-weekly seminars in Fall and Spring, engaging in action research, providing special topic workshops and summer institutes, taking scholars to professional conferences, and engaging in social events. Mentoring begins while scholars are in teacher education program, and extends through their first 4 years of teaching.

Materials Development

Preparing to Teach Mathematics with Technology 2005-2017

For over a decade, I worked with colleagues Karen Hollebrands and Allison McCulloch (and our advisory board) to develop, field test, revise, implement, and disseminate a series of three modules to assist teacher educators to prepare middle and secondary teachers to teach mathematics using dynamic technology tools. Modules include text, digital technology files, videos of students and teachers working with technology, sample solutions, facilitator guides, and suggested readings. Two modules were published by Kendall Hunt in 2010 and 2012. To better meet needs of teacher educators and preservice teachers, all materials were converted to digital formats and an online portal was created to house all materials, with access made free. In 2017, videocases from interviews and classroom observations of teachers using technology were created and added to the portal. http://go.ncsu.edu/ptmtportal.

Center for Technology and Teacher Education 1997-2003

Part of a team developing materials to help preservice and inservice teachers learn how to effectively integrate technology into middle and secondary mathematics classes. The materials utilize Microsoft Excel, The Geometer's Sketchpad, MicroWorlds (Logo), the WWW, java applets, and graphing calculators. Materials have been disseminated for use in mathematics content and methods courses at other colleges and universities. Materials and our guidelines can be viewed online at curry.edschool.virginia.edu/teacherlink/math.

University of Virginia Continuing Education 1997-2000

Developed a 3-credit graduate course on the "Teaching and Learning of Algebra," including a comprehensive course packet. Most algebraic concepts are developed through pattern-based situations and utilize real world applications, concrete materials, and technology tools. I conducted training sessions for other adjunct faculty.

Virginia Department of Education 1997-1998

Collaborated with several mathematics educators to design an institute for enriching K-5 teachers' knowledge about patterns, functions and algebra. Piloted the 3-day institute twice during 1997. Materials distributed through Virginia Department of Education.

School-University Research Network 1996

Designed three activity packets for teachers to improve the teaching and learning of algebraic concepts in upper elementary, middle school, and Algebra I. The activities were designed to correlate with the 1995 Virginia Standards of Learning. Materials distributed to teachers in 14 school divisions in Virginia.

Software, App, & Open Educational Resource Development

ESTEEM Foundational Module 2017-current

In January 2018, the ESTEEM project launched the open education resource site for disseminating statistics teacher education curriculum materials. These materials are multimedia in nature (text, video, online apps) and are disseminated as complete packages that be downloaded and imported into three Learning Management Systems: Moodle, Blackboard, and Canvas. Registration for the site is free. See http://hirise.fi.ncsu.edu/esteem to gain access.

PTMT portal 2015-current

In December 2015, the open educational resource portal for the Preparing to Teach Mathematics with Technology project went live (see materials development above). The portal continues to be updated as materials are revised. http://friday.institute/ptmt

Massive Open Online Courses for Educators 2014-current

Designer and instructor for creating open educational resources (briefs, instructional videos, frameworks, video cases, professional development guides, etc) that are part of free online courses offered for educators through the Friday Institute for Educational Innovation. Courses include:

Teaching Statistics Through Data Investigations (Lead instructor & designer)

Teaching Mathematics with Technology (support designer)

Balancing Mummies 2013-2015

Worked with graduate students in a serious games class to design and develop an online game intended to teach a conceptual approach to the arithmetic mean as a balancing point. Collaboration among a mathematician, myself, and computer science faculty and graduate students. Applet is currently being field tested with middle grades students and teachers (Spring 2014). Available at http://pyramid.mitchall.com/Test/index.html

Technology-Based Problems of the Week 2000-2002

As part of the ESCOT (Educational Software Components of Tomorrow) project, researchers, teachers, and software developers integrated various software components to create innovative applets and accompanying problems for middle school mathematics. The NSF-funded grant was a collaboration between SRI's Center for Technology in Learning and the MathForum.com. Available at http://www.mathforum.com/escotpow

Probability Explorer 1998-2003

Designed and developed a microworld for elementary and middle school students to explore probability and rational number concepts with such devices as coins, dice, spinners, and marbles as well as real world events such as the weather, sports and the lottery. Have conducted extensive research on students' reasoning using this software.

Dominoes and Dice 1997-98

Designed and developed a microworld to help elementary and middle school students learn probability concepts. The environment is designed to be open-ended and enhance students' understanding with concepts such as sorting, classifying, randomness, fair, empirical and theoretical probability, combinations, permutations, and graphing. An

instructional unit to accompany the software was written by H. S. Drier and P. White. (microworld developed in Oracle Media Objects)

K-12 Teacher Development, Faculty Workshops and Courses

Hudson, R., Casey, S., **Lee, H. S.**, Mojica, G. F., & Azmy, C. (2018). *ESTEEM workshop for teacher educators.* A one-day workshop held for 12 faculty at institutions across the US to learn about strategies for preparing teachers to teach statistics and to become familiar with the ESTEEM project open-educational resource materials.

Lee, H. S. & Mathematics Education Team at Friday Institute (2017-current). *Teaching statistics through inferential reasoning.* A 5-unit Massive Open Online Course for Educators. About 70% of participants are classroom teachers (middle school through college level), while about 10% are teacher educators.

Lee, H. S., & Mojica, G. M. (May 2017). *Teaching and learning statistics in the middle grades*. Two day workshop held for 28 regional mathematics specialists in Texas as part of Mathematics Leadership Institute, University of Texas Austin.

Lee, H. S. & Mathematics Education Team at Friday Institute (2015-current). *Teaching statistics through data investigations.* A 5 unit Massive Open Online Course for Educators. Offered 7 times, thus far, with over 3500 registrants from 84 countries. About 64% of participants are classroom teachers, while about 12% are teacher educators.

Lee, H. S. (November 2014). *Using animations to create teaching and learning scenarios for mathematics teacher education*. One hour webinar as part of the webinar series for Association of mathematics teacher educators. 45 participants attended live, and webinar archived for members to view later.

Lee, H. S., & McCulloch, A. M. (May 2014). *Preparing to Teach with Technology: Faculty resources with a focus on Algebra.* Two hour webinar held for 10 faculty members from institutions across the country. Session recorded and posted for others to view.

McCulloch, A., **Lee, H. S., &** Hollebrands, K. F. (June 2013). *Preparing to Teach Mathematics with Technology: Faculty Professional Development in Algebra.* Three day institute for 25 faculty members from institutions across the country, held at NC State.

Lee, H. S., Hollebrands, K. F., & McCulloch, A. (May 2012). *Preparing to Teach Mathematics with Technology: Faculty Professional Development in Geometry, Data Analysis, and Probability.* Three day institute for 24 faculty members from institutions across the country, held at NC State.

Hollebrands, K. F., & **Lee, H. S.** (June 2011). *Preparing to Teach Mathematics with Technology: Faculty Professional Development in Geometry, Data Analysis, and Probability.* Co-taught one week institute for 18 faculty members from institutions across the country at the Friday Institute at NC State.

Lee, H. S., & Hollebrands, K. F. (July 2010). *Preparing to Teach Mathematics with Technology: Faculty Professional Development in Data Analysis, Probability and Geometry*. Co-taught one week for 15 faculty members from institutions across the country at the Friday Institute at NC State.

Lee, H. S., & Hollebrands, K. F. (June 2009). *Preparing to Teaching Mathematics with Technology: Faculty Professional Development in Data Analysis and Probability.* Held for one week for 7 faculty members from institutions across the country at the Friday Institute at NC State.

Lee, H. S. (Fall 2004 & Spring 2005). Learning to Use Technology Tools for Teaching High School Mathematics. Three-day workshop with teachers in Elizabeth City, NC.

Stohl, H. (September, 2003). Engaging Technology Tools for Data Analysis and Probability in the Middle School. One day workshop with teachers in Buncombe County, Asheville, NC.

Stohl, H. (Fall 2002). Algebra Success for All. A 2-day workshop given to teachers in military schools through the Department of Defense Education Activity. Workshops held in Germany and Atlanta, GA.

Stohl, H. (July 2002). Three Educational Technologies for Integrating Mathematics and Technology. A 2-day workshop given to educational officers and teachers at the NASA Research Center Office of Education, Langley, VA.

Stohl, H., & Hollebrands, K. (Spring 2002). Teaching Mathematics with Technology. A series of workshops (10 hours) with teachers from Cary High School, Cary, NC.

Drier, H. S. (2000-2001). Using a graphing calculator to investigate middle school mathematics. A series of workshops with teachers from Centennial Campus Middle School, Raleigh, NC.

Garofalo, J., **Drier, H. S.**, & Harper, S. R. (1999-2001). Integrating technology in middle and secondary school mathematics. A two-year professional development project with teachers as part of the XL Education Initiative Grant. Hamilton, Bermuda.

Drier, H. S. (1999-2000). Making mathematics matter. A year-long professional development project as part of a Toyota TIME Grant with middle school teachers. St. Gregory's School, Virginia Beach, VA.

Drier, H. S. (Fall, 1999). Using manipulatives to teach algebra concepts. A two-day workshop with high school teachers in Prince George Public Schools, Prince George VA.

Drier, H. S. (February, 1999). Using probability, statistics, and technology projects as a vehicle to meet many of the K-5 Virginia Standards of Learning. Workshop with elementary teachers in Amherst County Public Schools, Amherst, VA.

Garofalo, J., **Drier, H. S.**, Harper, S. R., Shockey, T., & Timmerman, M. (1998-99). Using technology to explore middle and secondary school mathematics. A three-day inservice project with teachers in Albermarle County Public Schools, Charlottesville, VA.

Drier, H. S., & Murray, M. (Fall, 1998). Explorations in K-5 probability and statistics. A two-day workshop with elementary teachers in Charlottesville Public Schools, Charlottesville, VA.

Drier, H. S. (November, 1998). Exploring probability and statistics in grades K-5. Workshop presented at the annual professional development conference of the Amherst Public Schools, Amherst, VA

Drier, H. S. (November, 1998). Developing reasoning with patterns, functions, and algebra in grades K-5 . Workshop presented at the annual professional development conference of the Amherst Public Schools, Amherst, VA

Drier, H. S. (July, 1998). Using manipulatives in middle school algebra. A two-day inservice project with middle school teachers in Newport News City Schools, Newport News, VA.

Harper, S. R., Shockey, T., & **Drier, H. S.** (July, 1998). Integrating the Virginia technology Standards of Learning into the eighth grade mathematics curriculum. A four day

inservice project with mathematics and technology teachers in Pittsylvania County Schools, Chatham, VA.

Drier, H. S. (1997-1998). Conducted a year-long project to improve the teaching, learning, and assessment of Algebra I with high school mathematics teachers. Project included model teaching, consultation and evaluation, workshops, and curriculum and assessment alignment. Louisa County Public Schools, Mineral, VA.

Drier, H. S. (Fall, 1996). TI-82 overview: An introduction to the graphing calculator. A two-day project with middle and high school teachers in Warren County Public Schools, Front Royal, VA.

Drier, H. S. (October, 1996). Algebra and the graphing calculator: Connections and applications. A workshop with middle and high school teachers in Winchester Public Schools, Winchester, VA.

Drier, H. S. (January, 1995). TI-81 overview: An introduction to the graphing calculator. A workshop with middle school teachers in the Williamsburg/James City County School Division.

Professional Service

Fields of Mathematics and Statistics Education

Statistics Teacher

Co-editor, January–September 2017 to launch this new online publication from the American Statistical Association

STEW: Statistics Education Web-an online journal of K-12 statistics lessons

Editor, June 2014 – September 2017

Statistics Education Research Journal

Associate Editor, March 2013-current

Mathematical Thinking and Learning

Editorial Board, May 2014-2017

NCTM-ASA Joint Committee on Statistics Education

Committee member, 2015-2017.

10th International Conference on Teaching Statistics.

Co-leader of Topic area Technology and Multimedia in Statistics Education. Wrote call for papers, reviewed proposals, chose invited papers and organized into sessions. Conference to be held in Kyoto, Japan. July 2018

9th International Conference on Teaching Statistics.

Served as invited **organizer** of papers for one session under the topic of Probability in Teaching Statistics. Conference held July 2014 in Flagstaff, AZ.

13th International Congress on Mathematical Education.
Invited to serve as a **lead team member** for the Topic Study Group focused on Probability. Conference to be held July 2016 in Hamburg, Germany.

Wyoming Institute for the Study and Development of Mathematical Education (WISDOMe).
Appointed member of the International Advisory Board (2013-2016).

Consortium for the Advancement of Undergraduate Statistics Education (CAUSE).
Appointed member of the **Research Advisory Board** (2009-2016).

NC Council of Teachers of Mathematics
Appointed member of the **Special Awards committee**. (2012-current)
Elected **Vice President for Colleges** in the Eastern Region and thus on Board of Directors (2009-2011)

Association of Mathematics Teacher Educators
Appointed member of **Technology Committee** (2012-2014)
Appointed member of **Membership Committee** (2002-2004)
Monograph Series. In 2007-08 served on **editorial review board**. In 2008-09 I was appointed **Co-editor** with Denise Mewborn.

On-Math: Technology Research into Practice column. Online mathematics education journal published by the National Council of Teachers of Mathematics. [review submissions, correspond with authors, edit accepted submissions.]
Editor of Research into Practice articles, 2007-2008.

Technology Tips (monthly column), Mathematics Teacher journal, published by the National Council of Teachers of Mathematics. [review submissions, correspond with authors, edit accepted submissions, write several columns per year.]
Editor, with co-editor Suzanne Harper (2003-2005).
Co-editor, with editor Karen Hollebrands (2002-2004).

Working Group on The Complexity of Learning to Reason Probabilistically, part of both the International Group for Psychology of Mathematics Education and the Psychology of Mathematics Education -North American Chapter
Co-chair with various faculty over the years (2003-2009)
Member (2000-2010)

Council for Technology in Mathematics Education, an affiliate of National Council of Teachers of Mathematics.
Steering Committee member (1999-2007)

Contributions to Mentoring and Evaluation of young scholars external to NCSU

- Mentor to a Community College faculty member as part of the TANGO project to improve statistics education at the community college level. Meet 2-3 hours per month to discuss progress and offer assistance. 2016-2017.
- Member of advisory board for CAREER grant for Dr. Susan Peters focused on teachers' understanding of variation, 2013-2018.

- Prepared external review for grant proposal at the *University of Cyprus* for project to develop measures of TPACK specific to mathematics, Spring 2012.
- External evaluations for promotion and tenure for faculty at different institutions (about 2-3 per year).
- Mentor of team of 4 young scholars in a research cluster focused on undergraduate statistics education, sponsored by CAUSE. (met bi-weekly to review progress and assist in all aspects of their research cycle). 2009-2011.
- Invited member of young scholar research mentoring session held at Psychology of Mathematics Education North American Chapter conference in 2009.
- Invited member of new professor mentoring session held at Association of Mathematics Teacher Education conference in 2011.

Grant Proposal Reviewer for National Science Foundation

Reviewer and panelist for grant proposals submitted to NSF under solicitations of REESE, DRK-12, CAREER, IUSE, and SBIR (2007-present).

Manuscript Referee: Review 1-3 manuscripts per year.

Mathematics Teaching in the Middle School (2000 - present).
Journal of Mathematical Behavior (2002-present)
Journal of the Learning Sciences (2003 - present)
Journal for Research in Mathematics Education (2003-present)

Proposal Reviewer:

International Congress in Mathematics Education (2015-present)
Congress for European Research in Mathematics Education (2014)
Psychology of Mathematics Education North American Chapter (2001-present)
National Educational Computing Conference (2000)

NC State Service

Departmental Service

Chair, Departmental Voting Faculty, 2017-18
Executive Committee member (advisors to department head), Spring 2014-2016
Mentor for one Assistant professor
Conduct Peer Teaching Reviews for colleagues (about 1-2 per year)
Graduate Program Coordinator in Mathematics Education, 2017-18, Fall 2015, 2009-14
Director of Graduate Programs in Mathematics Education, May 2006-2009

College of Education Committees

Undergraduate Courses and Curricula Committee, 2017-2018
Colleges of Education and Engineering-Task Force on development of Engineering Education doctoral program, 2015-current
PhD Revisioning Task Force, 2012-2014 (Co-Chair of Curriculum task force)
College Reappointment, Promotion and Tenure Committee, 2013-2016 (co-chair 2013-14, chair 2014-16)
College Research Methods Curriculum Committee, 2015-2017
Member of two faculty mentoring teams for Assistant/Associate professors in other departments in the College of Education, 2014-present.
Faculty Grievance Panel, elected member, 2012-2014

Program Coordinators Committee member 2007-2014
Graduate Studies Committee, 2007-2009
MAT Faculty Council, 2011-2014
Friday Institute for Educational Innovation,
Faculty Advisory Board, 2002-2006
Co-chair of the Mathematics and Science Collaboratory, 2003-2006
Research Committee member 2000 - 2001
Technology Committee member 2003-2006
NCATE review committees
Field Experiences Committee, member 2000-2001
Curriculum Committee, member 2005-2008

Faculty Search Committees
Associate Dean for Innovation and Research, Fall 2016
Dean, College of Education, Fall 2015-Spring 2016
Master of Arts in Teaching, Teaching Assistant Professor in STEM Ed, Spring 2013
Quantitative Research Methodologist search, Spring 2011
Department Head, Mathematics, Science, and Technology Education search, 2007-2008
Mathematics Education Searches,
Assistant Professor, committee member, 2017-2018
Teaching Assistant Professor, committee member, Spring 2017
Teaching Assistant Professor, Chair of Committee, Fall 2012
Assistant Professor (2 positions), Chair of committee, 2006-2007
Assistant Professor, Member of two committees, 2000-2001, Spring 2006
Elementary Mathematics Education Search, Spring 2006
Educational Foundations & Policy Search, 2004-2005

University Service
University Faculty Scholars Administrative Advisory Committee, 2016-current
Data Science Initiative, Faculty Advisory Committee, 2015-current
Member of Educational initiatives sub-committee, 2016-current
[advisory committee and sub-committee meets several times a year]
Graduate Student Research Symposium, Judge 2008, 2013
University Courses & Curriculum Committee, Spring 2011
Library Committee member 2000 - 2007
Park Scholar Program Academic and Research Mentor for 2 Park Scholars in Mathematics Education (2001-2005)

Service to NC Public Schools

NC Science Olympiads, coach for elementary and middle school teams in Durham Public School, 2015-present

Durham Public Schools Title I Parent Advisory Committee Steering Committee, 2017-current. Meet 5 times a year with representatives from all Title I schools in DPS and central administrators to discuss issues and advocate for resources and family involvement in Title I schools.

Volunteer mathematics teacher in several Wake and Durham county public elementary, middle, and high schools (4-6 days per year), 2012-current.

Volunteer Consultant for NC Department of Public Instruction on revisions to middle grade and high school mathematics Standard Course of Study, 2006-2014.

Current Memberships

Association of Mathematics Teacher Educators
National Council of Teachers of Mathematics
NC Council of Teachers of Mathematics
Psychology of Mathematics Education-North American Chapter
American Statistical Association
International Association of Statistics Education