

HEATHER C. HILL
Harvard Graduate School of Education
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Cambridge MA 02138
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ACADEMIC PREPARATION

- 2000 Ph.D. Political Science, University of Michigan, Ann Arbor
Concentrations: American Government, Public Policy,
Research Methods
- 1992 B.A. Political Science, Swarthmore College, Swarthmore PA.

JOURNAL PUBLICATIONS

Kraft, M. & Hill, H.C. (in press) Cultivating ambitious mathematics instruction through online coaching: A randomized trial. *American Educational Research Journal*.

Charalambous, C. Y., Hill, C. Y., & Chin, M. (2020). Mathematical content knowledge and knowledge for teaching: exploring their distinguishability and contribution to student learning. *Journal of Mathematics Teacher Education*. DOI: 10.1007/s10857-019-09443-2

Litke, E., & Hill, H. C. (2020). Exploring Central Tendencies: The Teaching of Data and Statistics in Elementary Mathematics Classrooms. *The Elementary School Journal*, 120(3), 480-506.

Hill, H. C., Lynch, K., Gonzalez, K. E., & Pollard, C. (2020). Professional development that improves STEM outcomes. *Phi Delta Kappan*, 101(5), 50-56.

Hill, H. C., Lovison, V., & Kelley-Kemple, T. (2019). Mathematics Teacher and Curriculum Quality, 2005 and 2016. *AERA Open*, 5(4), DOI: 10.1177/2332858419880521.

Penuel, W. R., & Hill, H. C. (2019). Building a Knowledge Base on Research-Practice Partnerships: Introduction to the Special Topic Collection. *AERA Open*, 5(4), 2332858419891950.

Hill, H. C., Charalambous, C. Y., & Chin, M. J. (2019). Teacher characteristics and student learning in mathematics: A comprehensive assessment. *Educational Policy*, 33(7), 1103-1134.

Hill, H. C., & Erickson, A. (2019). Using implementation fidelity to aid in interpreting program impacts: A brief review. *Educational Researcher*, 48(9), 590-598.

Kaufman, J. H., Engberg, J., Hamilton, L. S., Yuan, K., & Hill, H. C. (2019). Validity

Evidence Supporting Use of Anchoring Vignettes to Measure Teaching Practice. *Educational Assessment*, 24(3), 155-188.

Lynch, K., Hill, H. C., Gonzalez, K., & Pollard, C. (2019). Strengthening STEM instruction in schools: Learning from research. *Policy Insights from the Behavioral and Brain Sciences*, 6(2), 236-242.

Lynch, K., Hill, H.C., Gonzalez, K. & Pollard, C. (2019). Strengthening the research base that informs STEM instructional improvement efforts: A meta-analysis. *Educational Evaluation and Policy Analysis*. DOI: 0162373719849044.

Kelcey, B., Hill, H. C., & Chin, M. J. (2019). Teacher mathematical knowledge, instructional quality, and student outcomes: a multilevel quantile mediation analysis. *School Effectiveness and School Improvement*. DOI: [10.1080/09243453.2019.1570944](https://doi.org/10.1080/09243453.2019.1570944)

Hill, H. C., Litke, E., & Lynch, K. (2018). Learning lessons from instruction: Descriptive results from an observational study of elementary classrooms. *Teachers' College Record*, 120(12), 1-46.

Hill, H.C. & Chin, M. (2018) Teachers' knowledge of students: Defining a domain. *American Educational Research Journal*, DOI: 0002831218769614.

Hill, H. C., Corey, D. L., & Jacob, R. T. (2018). Dividing by Zero: Exploring Null Results in a Mathematics Professional Development Program. *Teachers College Record*, 120(6).

Hill, H., Charalambous, C., & Chin, M. (2018). Teacher characteristics and student learning: toward a comprehensive examination. *Educational Policy*. DOI: 10.1177/0895904818755468

Beisiegel, M., Mitchell, R., & Hill, H. C. (2018). The design of video-based professional development: An exploratory experiment intended to identify effective features. *Journal of Teacher Education*, 69(1), 69-89.

Hill, H. C. (2017). The Coleman Report, 50 years on: What do we know about the role of schools in academic inequality? *ANNALS of the American Academy of Political and Social Science*, 674(1), 9-26.

Penuel, W. R. Briggs, D. C. Davidson, K.L., Herlihy, C., Sherer, D., Hill, H.C., Farrell, C.C., Allen, A-R. (2017). How school and district leaders access, perceive, and use research. *AERAOpen*, 3(2), 1-17

Jacob, R.T., Hill, H.C. & Corey, D. (2017) The impact of professional development on teachers' mathematical knowledge for teaching, instruction, and student achievement. *Journal of Research on Educational Effectiveness*. DOI: 10.1080/19345747.2016.1273411

Blazar, D., Braslow, D., Charalambous, C. Y., & Hill, H. C. (2017). Attending to general and mathematics-specific dimensions of teaching: Exploring factors across two observation instruments. *Educational Assessment*, 22(2), 71-94.

Coburn, C. E., Hill, H.C. & Spillane, J.P. (2016) Alignment and accountability in policy design and implementation: The Common Core State Standards and implementation research. *Educational Researcher*, 45(4) 243–251.

Hill, H. C., Blazar, D., & Lynch, K. (2015). Resources for teaching. *AERA Open*, 1(4).

Kelcey, B., McGinn, D., & Hill, H. (2014). Approximate measurement invariance in cross-classified rater-mediated assessments. *Frontiers in Psychology*, 5(1469).

Herlihy, C., Karger, E., Pollard, C., Hill, H.C., Kraft, M.A., Williams, M. & Howard, S. (2014). State and local efforts to investigate the validity and reliability of scores from teacher evaluation systems. *Teachers College Record*, 116(1), 1-28.

Hill, H. C., Beisiegel, M., & Jacob, R. (2013). Professional development research consensus, crossroads, and challenges. *Educational Researcher*, 42(9), 476-487.

Hill, H.C. & Grossman, P. (2013). Learning from teacher evaluations: Challenges and opportunities. *Harvard Education Review* 83, 371-384.

Hill, H.C., Charalambous, C. Y., McGinn, D., Blazar, D., Beisiegel, M., Humez, A. Kraft, M., Litke, E. & Lynch, K. (2012). Validating arguments for observational instruments: Attending to multiple sources of variation. *Educational Assessment* 17, 88-106.

Hill, H.C., Umland, K. L., Litke, E. & Kapitula, L. (2012). Teacher quality and quality teaching: Examining the relationship of a teacher assessment to practice. *American Journal of Education*, 118, 489-519.

Hill, H.C., Charalambous, C. Y. & Kraft, M. (2012). When rater reliability is not enough: Observational systems and a case for the G-study. *Educational Researcher* 41(2), 56-64.

Hill, H.C., & Charalambous, C.Y. (2012). Teaching (Un)Connected Mathematics: two teachers' enactment of the *Pizza* problem. *Journal of Curriculum Studies*, 44(4), 467-487.

Hill, H.C. & Charalambous, C. Y. (2012). Teacher knowledge, curriculum use, and quality of instruction: Lessons learned and open issues. *Journal of Curriculum Studies*, 44(4) 559-576.

Charalambous, C. Y., Hill, H. C., & Mitchell, R. N. (2012). Two negatives don't always make a positive: Exploring how limitations in teacher knowledge and the curriculum contribute to instructional quality. *Journal of Curriculum Studies*, 44(4), 489-513.

Charalambous, C. Y., & Hill, H. C. (2012). Teacher knowledge, curriculum materials, and quality of instruction: Unpacking a complex relationship. *Journal of Curriculum Studies*, 44(4), 443-466.

Hill, H.C., Kapitula, L.R. & Umland, K. L (2011). A validity argument approach to evaluating value-added scores. *American Educational Research Journal* 48(3), 794-831.

Charalambous, C.Y., Hill, H. C., & Ball, D. L. (2011). Preservice teachers' learning to provide instructional explanations: How does it look and what might it take? *Journal of Mathematics Teacher Education* 14(6), 441-463.

Hill, H.C. (2011). The nature and effects of middle school mathematics teacher learning experiences. *Teachers' College Record* 113(1), 205-234.

Learning Mathematics for Teaching. (2011). Measuring the mathematical quality of mathematics teaching. *Journal for Mathematics Teacher Education* 14(1), 25-47.

Hill, H.C. (2010). The nature and predictors of elementary teachers' Mathematical Knowledge for Teaching. *Journal for Research in Mathematics Education*, 41 (5), 513-545.

Hill, H.C. (2009). Evaluating value-added models: A measurement perspective. *Journal of Policy and Management*, 28, 702-209.

Hill, H.C. & Ball, D.L. (2009). The curious — and crucial — case of Mathematical Knowledge for Teaching. *Phi Delta Kappan*, 91, 68-71.

Hill, H.C. & Shih, J. (2009). Research commentary: Examining the quality of statistical mathematics education research. *Journal for Research in Mathematics Education*, 40, 241 – 250.

Delaney, S. F., Ball, D. L., Hill, H. C., Schilling, S.G., & Zopf, D. A. (2008). Adapting U.S. measures of “Mathematical Knowledge for Teaching” for use in Ireland. *Journal of Mathematics Teacher Education*, 11, 171-197.

Hill, H.C., Blunk, M. Charalambous, C., Lewis, J., Phelps, G. C. Sleep, L. & Ball, D.L. (2008). Mathematical Knowledge for Teaching and the Mathematical Quality of Instruction: An Exploratory Study. *Cognition and Instruction*, 26, 430-511.

Hill, H.C., Ball, D.L. & Schilling, S.G. (2008). Unpacking “Pedagogical Content Knowledge” *Journal for Research in Mathematics Education*, 39, 372-400.

Hill, H.C., Dean, C. & Goffney, I.M. (2007). Assessing elemental and structural validity: Data from teachers, non-teachers, and mathematicians. *Measurement: Interdisciplinary Research and Perspectives*, 5, 81-92.

Hill, H.C., Ball, D.L., Blunk, M. Goffney, I.M. & Rowan, B. (2007). Validating the ecological assumption: The relationship of measure scores to classroom teaching and student learning. *Measurement: Interdisciplinary Research and Perspectives*, 5, 107-117.

Schilling, S.G. & Hill, H.C. (2007). Assessing measures of Mathematical Knowledge for Teaching: A validity argument approach. *Measurement: Interdisciplinary Research and Perspectives*, 5, 70-80.

Schilling, S.G., Blunk, M. & Hill, H.C. (2007). Test validation and the MKT measures: Generalizations and conclusions. *Measurement: Interdisciplinary Research and Perspectives*, 5, 118-127.

Hill, H.C. & Lubienski, S.T. (2007). Teachers' mathematics knowledge for teaching and school context: A study of California teachers. *Educational Policy*, 21, 747-768.

Hill, H.C. (2007). Teachers' ongoing learning: Evidence from research and practice. *The Future of Children*, 17, 111-128.

Hill, H.C. (2007). Mathematical knowledge of middle school teachers: Implications for the No Child Left Behind Policy initiative. *Educational Evaluation and Policy Analysis*, 29, 95-114.

Hill, H.C., Rowan, B., & Ball, D.L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42, 371-406.

Hill, H.C. (2005). Content across communities: Validating measures of elementary mathematics instruction. *Educational Policy*, 19, 447-475.

Hill, H.C., Schilling, S.G., & Ball, D.L. (2004). Developing measures of teachers' mathematics knowledge for teaching. *Elementary School Journal*, 105, 11-30.

Hill, H. C. & Ball, D. L. (2004). Learning mathematics for teaching: Results from California's Mathematics Professional Development Institutes. *Journal of Research in Mathematics Education*, 35, 330-351.

Hill, H. C. (2004). Professional development standards and practices in elementary school mathematics. *Elementary School Journal*, 104, 215-31.

Hill, H.C. (2003). Understanding implementation: Street-level bureaucrats' resources for reform. *Journal of Public Administration Research and Theory*, 13, 265-282.

Hill, H. C. (2001). Policy is not enough: Language and the interpretation of state standards. *American Educational Research Journal*, 38, 289-320.

Cohen D. K. & Hill, H.C. (2000). Instructional policy and classroom performance: The mathematics reform in California. *Teachers College Record*, 102, 296-345.

EDUCATIONAL OPINION AND COMMENTARY

Hill, H.C. (2016) Teacher Evaluation in the United States: A case study.
<http://politikon.es/2016/04/19/18152/>

Hill, H.C. & Herlihy, C. (2011) Prioritizing teaching quality in a new system of teacher evaluation. *Education Outlook*. Downloaded 11/10/11 from
<http://www.aei.org/outlook/101089>.

Hill, H.C. (2009). Fixing teacher professional development. *Phi Delta Kappan*, 90, 470-477.

Ball, D.L., Hill, H.C. & Bass, H. (2005). Knowing mathematics for teaching: Who knows mathematics well enough to teach third grade, and how can we decide? *American Educator*, Fall 2005, 14-22.

BOOK & BOOK CHAPTERS

Ball, D. L., & Hill, H. C. (2008). Measuring teacher quality in practice. In D. H. Gitomer (Ed.), *Measurement issues and assessment for teaching quality*, pp. 80-98. Thousand Oaks, CA: SAGE Publications.

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p d w k h p d w f d c h q r z o n g j h # z k d w # n q r z o n g j h # p d w h u # l q g # z k d w # evidence counts? In F. Lester (Ed.), *Handbook for Research on Mathematics Education* (2nd ed), p. 111-155. Charlotte, NC: Information Age Publishing.

Hill, H.C. (2006). Language matters: How characteristics of language complicate policy implementation. In M.I. Honig (Ed.), *New directions in education policy implementation: Confronting complexity*. Albany, NY: SUNY Press.

Cohen, D.K. & Hill, H.C. (2001) *Learning policy: When state education reform works*. New Haven, CT: Yale University Press.

CONFERENCE PROCEEDINGS

Hill, H.C. (in press). Measuring Secondary Teachers' Knowledge of Teaching Mathematics: Developing a Field. Proceedings of the 13th International Congress on Mathematics Education.

UNDER REVIEW

Hill, H.C., Lovison, V. & Kelley-Kemple, T. (2019). Evaluating Post-NCLB Mathematics Teacher Quality. Cambridge, MA: Harvard University

IN PREPARATION

Hill, H.C., Mancenido, Z. & Loeb, S. Research designs for teacher education.

TECHNICAL REPORTS

Learning Mathematics for Teaching. (2006). *A Coding rubric for measuring the Quality of Mathematics in Instruction*. Ann Arbor, MI: Authors.

FUNDED RESEARCH

Developing Teachers' Mathematical Knowledge for Teaching. \$249,000. Co-principal investigator with Deborah L. Ball. University of California Office of the President. 9/01-10/02.

Developing Teachers' Mathematical Knowledge for Teaching. \$1,112,498. Principal Investigator with Deborah L. Ball and Hyman Bass, co-principal investigators. National Science Foundation. 10/02-9/05.

Design, validation, and dissemination of measures of content knowledge for teaching mathematics. \$249,751. Principal Investigator with Deborah L. Ball and Hyman Bass, co-principal investigators. National Science Foundation (0233456). 10/02-9/03

Design, validation, and dissemination of measures of content knowledge for teaching mathematics. \$4,265,727 Principal Investigator with Deborah L. Ball, Stephen Schilling, and Hyman Bass, co-principal investigators. National Science Foundation (0335411). 10/03-9/08.

Measuring Mathematical Knowledge for Teaching: Evaluation module development and Dissemination. \$1,048,194. Principal Investigator with Deborah L. Ball. National Science Foundation (0535816), 5/06-4/09.

Measuring mathematical knowledge for teaching using computerized adaptive testing. \$717,000. Stephen G. Schilling, principal investigator. Heather C. Hill and Geoffrey Phelps, co-investigators. National Science Foundation. 10/06-10/09

Improving the measurement of classroom mathematics instruction. \$400,000. Principal investigator. Spencer and William T. Grant Foundations (#200900175), 6/1/09-9/1/13.

Creation and dissemination of upper-elementary mathematics assessment modules. \$1,499,746. Principal investigator with Robin T. Jacob and Judy Hickman, co-principal investigators. National Science Foundation (0831450). 5/1/09-7/31/13

National Center for Teacher Effectiveness. \$9,997,888 Co-principal investigator with Tom Kane. Institution for Educational Sciences (R305C090023). 7/1/09-6/30/14.

Teacher effectiveness research team: Mathematics. \$712,067. Principal investigator with co-principal investigator Jon R. Star. Teachescape from the Bill and Melinda Gates Foundation, 8/1/09-11/19/11.

Investigating the effect of Mathematical Knowledge for Teaching and instruction on student outcomes. \$4,744,006 Principal investigator with Robin Jacob, Geoffrey Phelps, and Doug Corey, co-principal investigators. National Science Foundation (0918383). 9/1/09-8/31/14.

Exploring methods for improving teachers' Mathematical Quality of Instruction. \$420,577. Principal investigator with Mary Beisiegel and Rebecca Mitchell, co-principal investigators. National Science Foundation (1221693). 12/1/12 – 11/30/15

Elementary school math professional development impact evaluation. \$496,587. Subcontract from American Institutes for Research, Mike Garet and Geoffrey Borman, co-PIs. 10/1/12-3/31/16

Developing Common Core classrooms through rubric-based coaching. \$1,499,674. National Science Foundation (1348144). 2/1/14-1/31/17.

National Center for Research in Policy and Practice. Harvard subaward: \$1,538,023. Co-principal investigator with Bill Penuel, Derek Briggs, Cynthia Coburn and James Spillane. Institute for Educational Studies. R305C140008. 7/1/14-6/30/19.

Strengthening the Research Base that Informs STEM Workforce and Curriculum Improvement Efforts. \$327,023. Principal investigator with Katherine Lynch. National Science Foundation. NSF-1348669. 11/1/14-10/30/16.

Survey of U.S. Middle School Mathematics Teachers and Teaching. \$2,999,404. Principal investigator with Barbara Gilbert and Dan McGinn. National Science Foundation. NSF 1417731. 7/1/14-6/30/17.

The Mathematical Knowledge for Teaching Measures: Refreshing the Item Pool. \$2,998,220. Principal investigator with Corinne Herlihy, Steve Schilling and Merrie Blunk. NSF-1620914. 12/1/16-11/30/19

Improving Capacity in Teacher Education. \$49,809. Principal investigator for conference grant. Spencer Foundation-201900121.

Building and Sustaining the Capacity of Local Math Coaches to Support College- and Career-Ready Mathematics Instruction. \$1,399,306.00 Co-principal investigator with Kirk Walters. IES R305A190195.

SELECTED INVITED ADDRESSES

Star, J.R. & Hill, H.C. (May, 2016). Panorama de la formación de profesores de matemáticas. Talk delivered at the Departamento de Didáctica de las Matemáticas, Universidad Complutense de Madrid (UCM) y Área de Didáctica de las Matemáticas, Universidad Rey Juan Carlos de Madrid (URJC).

Hill, H.C. (April, 2016). Teacher Evaluation Reform in the U.S.: A Case Study. Talk delivered at the Education Regional Government of Madrid.

Hill, H.C. (March, 2016). Randomized trial meets the real world: Exploring and explaining null results in federally-funded RCTs. Talk delivered at University of Virginia.

Hill, H.C. (February, 2016). Política educativa y la mejora de la enseñanza en EEUU. Talk delivered at the Consejería de Educación, Madrid, Spain.

Hill, H.C. (May, 2015) Dividing by Zero: Exploring Null Results in a Mathematics Professional Development Program. Talk delivered at Peabody College, Vanderbilt.

Hill, H.C. (2014). Lessons learned from instruction: Results from a study of upper-elementary mathematics classrooms. Talk delivered at Stanford, UMass Dartmouth, National Council of Supervisors of Mathematics (featured speaker), National Center for Teacher Effectiveness Conference.

Hill, H.C. (July, 2008). *Improving teacher professional development*. Council of Chief State School Officers Meeting, Amelia Island, Florida.

Hill, H.C. (January, 2008). *Improving teacher professional development*. National Science Foundation-National Governor's Association Meeting, Washington, D.C.

Hill, H.C. (June, 2007). *Measuring effectiveness in teacher education*. Mathematics Science Research Institute Knowledge for Teaching Mathematics Conference.

Hill, H.C. (November 2006, January 2007). *Effective continuing teacher education*. Math Science Partnerships Support Workshops.

Hill, H.C. (April, 2006) *Teachers' ongoing learning: Evidence from research and practice*. Princeton: Future of Children.

Hill, H.C. (May, 2005) *Effects of mathematical knowledge for teaching on student achievement*. Knowledge for Teaching Mathematics Conference sponsored by the Mathematics Sciences Research Institute.

Ball, D.L. & Hill, H.C. (March 2005) *Studying instructional improvement*. Santa Monica, CA: RAND Corporation.

Hill, H.C. (December 2004) *Developing measures of content knowledge for teaching mathematics*. California State University, Northridge.

Hill, H.C & Ball, D. L. (November 2004) *Evaluating Professional Development Using SII/LMT Measures*. Consortium for Policy Research in Education Executive Board Meeting, Philadelphia PA.

Ball, D. L., Hill, H.C. & Phelps, G. C. (January 2004) *Developing measures of content knowledge for teaching*. Measurement of Instruction: Technical challenges and implications for research, policy, and practice. Consortium for Policy Research in Education.

Hill, H.C. (June 2004) *Effects of teachers' mathematical knowledge for teaching on student achievement*. Michigan State Policy Forum, Washington DC.

Hill, H. C. (October, 2003) *Learning (about) policy*. U.S. Secretary's conference on high schools, Washington, DC.

CONFERENCE PRESENTATIONS

Hill, H.C., Umland, K. & Litke, E. (2010). Teacher quality and quality teaching: Examining the relationship of a teacher exam to practice. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

Charalambous, C.Y., Hill, H.C. & Mitchell, R. N. (2010). Two negatives don't always make a positive: Exploring how limitations in teacher knowledge and the curriculum affect the quality of instruction. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

Hill, H.C., Umland, K. & Kapitula, L. (2010). Validating value-added scores: An instructional analysis. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

Hill, H.C. & Charalambous. C. Y. (2010) Teaching (un)connected mathematics: Three teachers' enactment of the pizza problem. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

Charalambous C.Y & Hill, H.C. (2010). Exploring preservice teachers' learning to provide instructional explanations. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.

Hill, H.C. (2006) *What role does mathematical knowledge for teaching play in instruction?* Paper presented at the annual meeting of the American Educational Research Association, Chicago IL.

Hill, H. C., Corey, D. L. (2006, April). *Examining the effectiveness of resources for mathematics instruction on student achievement*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, California.

Delany, S. F., Sleep, L., Ball, D. L., Bass, H., Hill, J. C., Dean, C. (2005, April). *Validating “Specialized Mathematics Knowledge for Teaching”: Evidence from mathematicians.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Blunk, M. L., Masters-Goffney, I., Hill, H. C., Zopf, D. (2005, April). *Validating measures of teachers’ knowledge for teaching mathematics: A videotape study.* Presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Ball, D. L., Hill, H. C., Bass, H. (2005, April). *Studying Mathematical Knowledge for Teaching.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.

Hill, H. C. (2004, April). *Using instructional logs and measures of teacher content knowledge to predict student performance.* Paper presented at the annual meeting of the American Educational Research Association, San Diego, California.

Hill, H. C. (2003, April). *Cultivating knowledge for teaching mathematics: Results from California’s Mathematics Professional Development Institute.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois.

Hill, H.C. & Collopy, R. M-B. (2003, April). *Tracing teachers’ development in recognizing and reconciling representations of linear functions within teaching practice.* Paper presented at the American Educational Research Association, Chicago, Illinois.

Hill, H. C., Phelps, G. C., Siegel, E., Callahan, P. (2002, April). *Practical guidelines for designing multiple choice items to measure teacher content knowledge for teaching.* Paper presented at the annual meeting for the American Educational Research Association, New Orleans, Louisiana.

Hill, H. C., Ball, D. L. (2002, April). *Instruction and knowledge for instruction: Comparing emergency and traditionally certified teachers in California.* Paper presented at the annual meeting for the American Educational Research Association, New Orleans, Louisiana.

Hill, H. C. (2000, April). *We talk a lot about ideal versions of professional development, but let’s get real: The content of mathematics professional development in one state.* Paper presented at the annual meeting for the American Educational Research Association, New Orleans, Louisiana.

Hill, H. C., Ball, D. L. (2000, April). *Consensus and dissent: Defining standards for mathematics instruction.* Paper presented at the annual meeting for the American Education Research Association, New Orleans, Louisiana.

Hill, H. C. (1999, April). *A theory of the conditions of effective instruction: How many of California's Title I students have access to these conditions?* Paper presented at the annual meeting for the American Education Research Association, Montreal, Canada.

Hill, H. C. (1999, April). *District interpretations of state frameworks.* Paper presented at the annual meeting for the American Education Research Association, Montreal, Canada.

MEASURES DEVELOPMENT AND DISSEMINATION

Developed *Mathematical Knowledge for Teaching* (MKT) measures, disseminated to program evaluation and research projects. As of June 2009, these measures have been adopted by roughly 200 projects investigating some aspect of teacher knowledge of mathematics for teaching.

Developing *Mathematical Quality of Instruction* measure. Plans for large-scale use in NCTE and Math Solutions study.

Other instruments developed include log of daily mathematics instruction (Study of Instructional Improvement) and measures of teachers' opportunity to learn in professional development (Study of Instructional Improvement; Learning Mathematics for Teaching).

ACADEMIC APPOINTMENTS

Jerome T. Murphy Professor of Education, Harvard Graduate School of Education

September 2013-Present

Professor, Harvard Graduate School of Education

December 2011-September 2013

Associate Professor, Harvard Graduate School of Education

July 2007-December 2011

Assistant Professor, University of Michigan School of Education

January 2006-June 2007

Associate Research Scientist, University of Michigan, Learning Mathematics for Teaching

September 2005-June 2007

Principal investigator on project which designs measures of teachers' knowledge for teaching mathematics, and uses these measures to identify factors which contribute to improved teacher knowledge. Responsibilities include project management, writing technical and scholarly reports, and measures dissemination.

Assistant Research Scientist, Learning Mathematics for Teaching project

October 2002-August 2005.

Assistant Research Scientist, University of Michigan, Study of Instructional Improvement May 2001-October 2002.

Working on project intended to identify factors which contribute to improved instruction and student achievement in high-poverty schools. Responsibilities include writing and piloting survey measures of teachers' content knowledge for teaching, instructional methods, and opportunity to learn.

Senior Research Associate, Study of Instructional Improvement

February 1999-May 2001.

Visiting Instructor, Michigan State University Department of Political Science

Taught PLS807, a graduate class in education politics and policy. Designed syllabus, assignments and led seminar-format discussion. Fall 2000.

Analyst, Education Policy and Practice Study

Conducted analysis of results from survey of California elementary school teachers covering relationship between California instructional policy, teacher classroom practice, and student performance. Developed results into written publications with David K. Cohen. May 1995-February 2000.

COLLABORATORS

Deborah L. Ball, University of Michigan
Mary Beisiegel, Oregon State University
Charalambos Charalambous, University of Cyprus
David K. Cohen, University of Michigan
Laura Kapitula, Calvin College
Matt Kraft, Harvard Graduate School of Education
Dan McGinn, Harvard Graduate School of Education
Rebecca Mitchell, Boston College
Brian Rowan, University of Michigan
Stephen G. Schilling, University of Michigan
Jeffrey Shih, University of Nevada, Las Vegas
Kristin Umland, University of New Mexico

AWARDS

University of Michigan Bicentennial Alumni Award, December 2017

AERA Outstanding Reviewer Award, 2008.

SERVICE

AERA Division L/Section 7 chair (Policymaking, Implementation, & Evaluation) (2004-2005).

Journal for Research in Mathematics Education. Editorial board member, 2006-2009.

American Educational Research Journal: Teaching, Learning and Human Development.
Editorial board member, 2007-2009.

Teaching Teachers: Professional Development to Improve Student Achievement. *Research Points* (AERA Bulletin). “Issue researcher” on professional development (with David K. Cohen). Summer 2005.

External reviewer, National Math Panel. 2008.

Mathematics and science section chair, Society for Research on Educational Effectiveness Annual Conference, March 2010.

Reviewer for: *Educational Assessment, Educational Evaluation and Policy Analysis, Education Finance and Policy, Educational Policy, Educational Researcher, Journal of Public Administration Research and Theory, Journal for Research in Mathematics Education, Review of Educational Research.*