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### EDUCATION

Stanford University (Stanford, CA), Ph.D., 1997, Educational Psychology, specialization in psychometrics  
Stanford University (Stanford, CA), M.S., 1996, Statistics  
University of Pennsylvania (Philadelphia, PA), M.S., 1991, Psychology in Education  
Duquesne University (Pittsburgh, PA), B.S., 1990, Music Education, Summa Cum Laude

### PROFESSIONAL EXPERIENCE

2003-present Senior Behavioral Scientist and Research Quality Assurance Manager, RAND Corporation, Pittsburgh, PA  
2007-present Adjunct Associate Professor of Education (Learning Sciences and Policy Program), University of Pittsburgh  
2001-2003 Behavioral Scientist, RAND Corporation, Santa Monica, CA  
1997-2001 Associate Behavioral Scientist, RAND Corporation, Santa Monica, CA  
1999-2000 Associate Group Manager for Health, Education, and Welfare, RAND Corporation, Santa Monica, CA  
1992-1997 Research Assistant, Stanford University, Stanford, CA  
1994-1996 Teaching Assistant, Department of Psychology and School of Education, Stanford, CA  
1995-1996 Statistical Consultant, Stanford University, Stanford, CA  
1993 Summer Research Associate, RAND Corporation, Santa Monica, CA  
1991-1992 Program Specialist, Northern-Southwest Mental Health/Mental Retardation Agency, Pittsburgh, PA  
1990-1991 Research Assistant, University of Pennsylvania, Philadelphia, PA  
1986-1990 Private and Group Music Instructor, Pittsburgh, PA

### RESEARCH AREAS

Measurement of educational outcomes  
Test-based accountability  
Education reform implementation  
Effects of teachers and teaching on student achievement  
Alternative governance of K-12 schooling

## PUBLICATIONS

- Hamilton, L.S., Stecher, B.M., & Yuan, K. (forthcoming). *Standards-based reform in the United States: History, research, and future directions*. Washington, DC: Center on Education Policy.
- Gill, B., Hamilton, L.S., & Zimmer, R. (forthcoming). Perspectives on educational management organizations. Chapter to be included in the *Handbook of Research on School Choice*.
- Stecher, B.M., Epstein, S., Hamilton, L.S., Marsh, J.A., Robyn, A., McCombs, J.S., Russell, J.L., & Naftel, S. (2008). *Pain and gain: Implementing No Child Left Behind in California, Georgia, and Pennsylvania, 2004 to 2006*. Santa Monica, CA: RAND.
- Hamilton, L.S., Stecher, B.M., Russell, J.L., Marsh, J.A., & Miles, J. (2008). Accountability and teaching practices: School-level actions and teacher responses. *Research in the Sociology of Education*, 16, 31-66.
- Hannaway, J., & Hamilton, L.S. (2008). *Accountability policies: Implications for school and classroom practices*. Washington, DC: Urban Institute.
- Kiplinger, V.L., & Hamilton, L.S. (2008). Equating and linking of educational assessment in high-stakes accountability systems. In K.E. Ryan & L.A. Shepard (Eds.), *The Future of Test-Based Educational Accountability* (pp.115-137). New York: Routledge.
- Marsh, J., Gill, B., & Hamilton, L.S. (2008). Assistance and accountability in externally managed schools: The case of Edison Schools, Inc. *Peabody Journal of Education*, 83, 423-458..
- Hamilton, L.S. (2008). High-stakes testing. In Salkind, N.J. (Ed.), *Encyclopedia of Educational Psychology, Vol. 1* (pp. 465-470). Thousand Oaks, CA: Sage.
- Hamilton, L.S., & Martinez, J.F. (2007). What can TIMSS surveys tell us about mathematics reforms of the 1990s? In T. Loveless (Ed.), *Lessons learned: What international assessments tell us about math achievement* (pp.127-174). Washington, DC: Brookings.
- Hamilton, L.S., Stecher, B.M., Marsh, J., McCombs, J.S., Robyn, A., Russell, J., Naftel, S., & Barney, H. (2007). *Implementing standards-based accountability under No Child Left Behind: Responses of superintendents, principals, and teachers in three states*. Santa Monica, CA: RAND.
- McCaffrey, D.F., & Hamilton, L.S. (2007). *Value-added assessment in practice: Lessons from the Pennsylvania Value-Added Assessment System pilot project*. Santa Monica, CA: RAND.
- Lockwood, J.R., McCaffrey, D.F., Hamilton, L.S., Stecher, B.M., Le, V., & Martinez, F. (2007). The sensitivity of value-added teacher effect estimates to different mathematics achievement measures. *Journal of Educational Measurement*, 44(1), 47-67.
- Hamilton, L.S., & Stecher, B.M. (2006). A better way: Measuring charter school success and failure. In R.J. Lake & P.T. Hill (Eds.), *Hopes, fears, and reality: A balanced look at American Charter*

*Schools in 2006* (pp.61-71). Seattle: University of Washington, National Charter School Research Project.

Koretz, D., & Hamilton, L.S. (2006). Testing for accountability in K-12. In R.L. Brennan (Ed.), *Educational Measurement* (4<sup>th</sup> ed., pp.531-578). Westport, CT: American Council on Education/Praeger.

Le, V., Stecher, B.M., Lockwood, J.R., Hamilton, L.S., Robyn, A., Williams, V., Ryan, G., Kerr, K., Martinez, F., & Klein, S. (2006). *Improving mathematics and science education: A longitudinal investigation of the relationship between reform-oriented instruction and student achievement*. Santa Monica, CA: RAND.

Hamilton, L.S., McCaffrey, D.F., & Koretz, D.M. (2006). Validating achievement gains in cohort-to-cohort and individual growth-based modeling contexts. In R. Lissitz (Ed.), *Longitudinal and value added models of student performance* (pp.407-435). Maple Grove, MN: JAM Press.

Stecher, B.M., Le, V., Hamilton, L.S., Ryan, G., Robyn, A., & Lockwood, J.R. (2006). Using structured classroom vignettes to measure instructional practices in mathematics. *Educational Evaluation and Policy Analysis*, 28, 101-130.

Le, V., Perlman, M., Zellman, G., & Hamilton, L. (2006). Measuring child-staff ratios in child care centers: Balancing effort and representativeness. *Early Childhood Research Quarterly*, 21(3), 267-279.

Marsh, J.A., Pane, J.F., & Hamilton, L.S. (2006). *Making sense of data-driven decision making in education: Evidence from recent RAND research* (Occasional Paper Series). Santa Monica, CA: RAND.

Guarino, C.M., Hamilton, L.S., Lockwood, J.R., & Rathbun, A.H. (2006). *Teacher qualifications, instructional practices, and reading and mathematics gains of kindergartners*. National Center for Education Statistics Research and Development Report (NCES 2006-031). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Hamilton, L.S., & Guin, K. (2005). Understanding how families choose schools. In J. R. Betts & T. Loveless (Eds.), *Getting choice right: Ensuring equity and efficiency in education policy* (pp.40-60). Washington, DC: Brookings.

Gill, B.P., Hamilton, L.S., Lockwood, J.R., Marsh, J., Zimmer, R., Hill, D., & Pribesh, S. (2005). *Inspiration, perspiration, and time: Operations and achievement in Edison Schools*. Santa Monica, CA: RAND.

Hamilton, L.S. (2005). Lessons from performance measurement in education. In R. Klitgaard & P. Light (Eds.), *High-performance government: Structure, leadership, and incentives* (pp.381-405). Santa Monica, CA: RAND.

- Klein, S.P., Kuh, G., Chun, M., Hamilton, L.S., & Shavelson, R.J. (2005). An approach to measuring cognitive outcomes across higher-education institutions. *Research in Higher Education, 46*, 251-276.
- Hamilton, L.S., & Guarino, C.M. (2005). *Measuring the practices, philosophies, and characteristics of kindergarten teachers*. Santa Monica, CA: RAND.
- Hamilton, L.S., Berends, M., & Stecher, B. M. (2005). *Teachers' responses to standards-based accountability*. Santa Monica, CA: RAND.
- Hamilton, L.S. (2004). Improving inferences about student achievement: A multi-dimensional perspective. In S. J. Paik (Ed.), *Advancing educational productivity: Policy implications from national databases* (pp. 175-201). Greenwich, CT: Information Age Publishing.
- Hamilton, L.S., & Stecher, B.M. (2004). Responding effectively to test-based accountability. *Phi Delta Kappan, 85*(8), 578-583.
- Hamilton, L.S., & Stecher, B.M. (2004). *External audiences for test-based accountability: The perspectives of journalists and foundations*. Santa Monica, CA: RAND.
- McCaffrey, D.F., Lockwood, J.R., Koretz, D., Louis, T.A., & Hamilton, L.S. (2004). Models for value-added modeling of teacher effects. *Journal of Educational and Behavioral Statistics, 29*, 67-102.
- Hamilton, L.S. (2003). Assessment as a policy tool. *Review of Research in Education, 27*, 25-68.
- McCaffrey, D.F., Lockwood, J.R., Koretz, D.M., & Hamilton, L.S. (2003). *Evaluating value-added models for teacher accountability*. Santa Monica, CA: RAND.
- Stecher, B.M., Hamilton, L.S., & Gonzalez, G. (2003). *Working smarter to leave no child behind*. Santa Monica, CA: RAND.
- Hamilton, L.S., McCaffrey, D., Klein, S.P., Stecher, B.M., Robyn, A., & Bugliari, D. (2003). Studying large-scale reforms of instructional practice: An example from mathematics and science. *Educational Evaluation and Policy Analysis, 25*, 1-29.
- Koretz, D.M., & Hamilton, L.S. (2003). *Teachers' responses to high-stakes testing and the validity of gains: A pilot study* (CSE Technical Report 610). Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- Hamilton, L.S. (2003). Academic environments of charter and conventional public schools. In Zimmer, R. et al. (Eds.), *Charter school operations and performance: Evidence from California*. Santa Monica, CA: RAND.

- Ruiz-Primo, A., Shavelson, R., Hamilton, L.S., & Klein, S.P. (2002). On the evaluation of systemic science education reform: Searching for instructional sensitivity. *Journal for Research in Science Teaching*, 39, 369-393.
- Hamilton, L.S., Stecher, B.M., & Klein, S.P. (Eds., 2002). *Making sense of test-based accountability in education* (MR-1554-EDU). Santa Monica, CA: RAND.
- Chapters include:  
Hamilton, L.S., Stecher, B.M., & Klein, S.P. *Introduction*.  
Hamilton, L.S., & Koretz, D.M. *Use of tests in accountability systems*.  
Hamilton, L.S., & Stecher, B.M. *Improving test-based accountability*.
- Koretz, D.M., McCaffrey, D.F., & Hamilton, L.S. (2001). *Toward a framework for validating gains under high-stakes conditions* (CSE Technical Report 551). Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- Koretz, D.M., & Hamilton, L.S. (2001). *The performance of students with disabilities on New York's new English/Language Arts Regents Examination* (CSE Technical Report 540). Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- McCaffrey, D., Hamilton, L.S., Stecher, B.M., Klein, S.P., Bugliari, D., & Robyn, A. (2001). Relationships among teaching practices, curriculum, and student achievement in high school mathematics. *Journal for Research in Mathematics Education*, 32, 493-517.
- Hamilton, L.S., Klein, S.P., & Lorie, W. (2000). *Using web-based testing for large-scale assessments* (RAND IP-196). Santa Monica, CA: RAND.
- Klein, S.P., Hamilton, L.S., McCaffrey, D.F., Stecher, B.M., Robyn, A., & Burroughs, D. (2000). *Teaching practices and student achievement: Report of first-year results from the Mosaic study of Systemic Initiatives in mathematics and science* (MR-1233-EDU). Santa Monica, CA: RAND.
- Klein, S.P., Hamilton, L.S., McCaffrey, D., & Stecher, B.M. (2000). What do test scores in Texas tell us? *Education Policy Analysis Archives*, 8 (49). Also published as IP-202, RAND, Santa Monica, CA.
- Koretz, D., & Hamilton, L.S. (2000). Assessment of students with disabilities in Kentucky: Inclusion, student performance, and validity. *Educational Evaluation and Policy Analysis*, 22, 255-272.
- Le, V., Hamilton, L., & Robyn, A. (2000). Alignment among secondary and post-secondary assessments in California. In Burr, E., Hayward, G. C., Fuller, B., & Kirst, M. W. (Eds.), *Crucial issues in California education 2000: Are the reform pieces fitting together?* Berkeley, CA: Policy Analysis for California Education.
- Le, V., Suttrop, M., McCaffrey, D., Hamilton, L., & Klein, S. (2000). Relationship of classroom practices to student mathematics achievement. In Holtzman, D. (Ed.), *Mathematics implementation study: Final report*. San Francisco, WestEd.

- Hamilton, L.S. (1999). Detecting gender-based differential item functioning on a constructed-response science test. *Applied Measurement in Education, 12*, 211-235.
- Klein, S.P., & Hamilton, L.S. (1999). *Large-scale testing: Current practices and new directions* (IP-182). Santa Monica, CA: RAND.
- Koretz, D., & Hamilton, L. (1999). *Assessing students with disabilities in Kentucky: The effects for accommodations, format, and subject* (CSE Technical Report No. 498). Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- Hamilton, L.S. (1998). Gender differences on high school science achievement tests: Do format and content matter? *Educational Evaluation and Policy Analysis, 20*, 179-195.
- Hamilton, L.S., & Snow, R.E. (1998). *Exploring differential item functioning on science achievement tests* (CSE Technical Report No. 483). Los Angeles: Center for Research on Evaluation, Standards, and Student Testing.
- Klein, S.P., & Hamilton, L.S. (1998). *Moving toward a national test*. Paper commissioned by the Consortium on Renewing Education (CORE), Peabody Center for Education Policy, Peabody College, Vanderbilt University, under a grant from the Ball Foundation.
- Klein, S.P., & Hamilton, L.S. (1998). *The validity of the U.S. News and World Report ranking of ABA law schools*. Report commissioned by the Association of American Law Schools.
- Hamilton, L.S., Nussbaum, E.M., & Snow, R.E. (1997). Interview procedures for validating science assessments. *Applied Measurement in Education, 10*, 181-200.
- Hamilton, L.S., & Klein, S.P. (1997). *The utility of different ways of assessing student achievement*. Invited report prepared for the National Research Council, Commission on Behavioral and Social Sciences in Education.
- Nussbaum, E.M., Hamilton, L.S., & Snow, R.E. (1997). Enhancing the validity and usefulness of large-scale educational assessments: IV. NELS:88 science performance through the twelfth grade. *American Educational Research Journal, 34*, 151-173.
- Hamilton, L.S., Nussbaum, E.M., Kupermintz, H., Kerkhoven, J.I.M., & Snow, R.E. (1995). Enhancing the validity and usefulness of large-scale educational assessments: II. NELS:88 science achievement. *American Educational Research Journal, 32*, 555-581.
- Kupermintz, H., Ennis, M.M., Hamilton, L.S., Talbert, J.E., & Snow, R.E. (1995). Enhancing the validity and usefulness of large-scale educational assessments: I. NELS:88 mathematics achievement. *American Educational Research Journal, 32*, 525-554.

## **PUBLICATIONS IN PROGRESS**

Hamilton, L.S., & Stecher, B.M. (forthcoming). *Expanding what counts when measuring charter school effectiveness*. In P.T. Hill & J.R. Betts (Eds.), *Taking measure of charter schools*. Lanham, MD: R&L Education.

Hamilton, L.S. Student test results in school accountability. Article to be included in the 3<sup>rd</sup> Edition of the *International Encyclopedia of Education*.

Zimmer, R., Hamilton, L.S., & Christina, R. After-school tutoring in the context of No Child Left Behind: Effectiveness of two programs in the Pittsburgh Public Schools. Journal article under review.

## **OP-EDS, POLICY BRIEFS, AND INVITED BOOK REVIEWS**

Passing or failing? A midterm report card for No Child Left Behind (with Brian Stecher, Georges Vernez, and Ron Zimmer). *RAND Review*, 31 (3), 16-25 (2007, winter).

Review of L.F. Deretchin & C.J. Craig (Eds.), *International research on the impact of accountability systems: Teacher Education Yearbook XV*. *Teachers College Record* (2007, August).

Looking at schools' average test scores only tells part of story. Guest column, *Pittsburgh Business Times' Guide to Western Pennsylvania Schools* (2007, May 11).

Think it through on tests. Op-ed, *Philadelphia Inquirer* (2007, March 27).

*Key issues in studying charter schools and achievement: A review and suggestions for national guidelines* (with members of the Charter School Achievement Consensus Panel). NCRSP White Paper Series No. 2. Seattle: Center for Reinventing Public Education.

Parents of schoolchildren: Start your engines (with Brian Gill). Op-ed, *Pittsburgh Post-Gazette* (2004, October 10).

Review of H. Mintrop, *Schools on probation: How accountability works (and doesn't work)*. *Teachers College Record* (2004, March).

*School choice: Doing it the right way makes a difference* (with members of the Brookings National Commission on Choice in K-12 Education). Washington, DC: Brookings Institution Press (2003).

*California's student data system: In need of improvement*. Palo Alto, CA: EdSource (2002, May).

*Benefits of a statewide student identifier system for California*. Testimony presented before the California State Senate Education Committee (RAND CT-197, 2002, April).

Putting theory to the test: Systems of “educational accountability” should be held accountable (with Brian Stecher). *RAND Review*, 26 (1), 16-23 (2002, spring).

Making test-based accountability work better (with Brian Stecher). Commentary, *Education Week* (2002, February 20).

## **SELECTED PRESENTATIONS**

*Standards-based reform in the United States: Past, present, and future* (with B. Stecher). Paper to be presented at congressional forum on the federal role in education, sponsored by Center on Education Policy (2008, November).

*Developing measures of principal performance: Evidence from Pittsburgh’s Teacher Incentive Fund Program* (with J. Engberg). Association for Public Policy and Management Fall Research Conference, Los Angeles (2008, November).

*Private Management of Public Schools* (with B. Gill and R. Zimmer). Association for Public Policy and Management Fall Research Conference, Los Angeles (2008, November).

*Standards-based accountability and data use: Implementation in the classroom*. EdVoice Legislative Symposium, Lake Tahoe, CA (2008, July).

*Value-added assessment in practice: Lessons from the Pennsylvania Value-Added Assessment System pilot project* (with D. McCaffrey). National Conference on Value-Added Modeling, Madison, WI (2008, April).

*Educational assistance and supplemental services in the Pittsburgh Public Schools* (with R. Zimmer & R. Christina). Annual Meeting of the American Educational Research Association, New York (2008, March).

*Student achievement in districts scaling up mathematics* (with K. Yuan, J.R. Lockwood, B. Gill, & M.K. Stein). Annual Meeting of the American Educational Research Association, New York (2008, March).

*No Child Left Behind: What have we learned and what does it tell us?* Congressional Briefing, Washington, DC (2008, January).

*Pay for performance: Here to stay?* Education Writers Association meeting, Houston, TX (2007, December).

*Value-added assessment in practice: Lessons from the Pennsylvania Value-Added Assessment System pilot project* (with D. McCaffrey). Presentation to members of the Pennsylvania State Education Association (2007, December).

*Pursuing proficiency for all: School improvement efforts in three states* (with J. McCombs, J. Marsh, B. Stecher, J. Miles, H. Barney, & S. Naftel). Association for Public Policy Analysis and Management Fall Research Conference, Washington, DC (2007, November).

*Expanding what counts: Toward a more comprehensive evaluation of charter school effectiveness.* Annual Conference of the National Association of Charter School Authorizers, Savannah, GA (2007, October).

*What do we know about the effects of NCLB?* No Child Left Behind Reauthorization Briefing, sponsored by Public Education Network and Public Interest Projects, Washington, DC (2007, July).

*Accountability under No Child Left Behind: Effects on districts, schools, and classrooms.* Policy forum for educational organizations and legislative staff, with Center on Education Policy and American Institutes for Research, Washington, DC (2007, June).

*Testing for Accountability in K-12* (with D. Koretz). Annual Meeting of the National Council on Measurement in Education (2007, April).

*International Experiences in Teacher Evaluation* (invited discussant). Presidential Session, Annual Meeting of the American Educational Research Association, Chicago (2007, April).

*Accountability and classroom practices* (with B. Stecher & F. Martinez). Annual Meeting of the American Educational Research Association, Chicago (2007, April).

*The intended and unintended consequences of NCLB accountability, autonomy, and choice mechanisms on achievement* (invited discussant). Annual Meeting of the American Educational Research Association, Chicago (2007, April).

*A test of the systemic validity of a value-added assessment system* (with D. McCaffrey). Annual Meeting of the American Educational Research Association, Chicago (2007, April).

*Graduate Student Council Division D Fireside Chat: The partnership between research and policy in educational testing* (invited participant). Annual Meeting of the American Educational Research Association, Chicago (2007, April).

*Conversations at RAND: No Child Left Behind.* Policy Forum, Pittsburgh, PA (2007, February).

*The future of measuring progress* (invited discussant). Center for Research on Evaluation, Standards, and Student Testing (CRESSST) Conference: The future of test-based educational accountability, Los Angeles (2007, January).

*Using TIMSS surveys to evaluate 1990's Mathematics Reforms in the U.S.* (with F. Martinez). 2<sup>nd</sup> IEA International Research Conference, Washington, DC (2006, November).

- Consequential validity of NCLB: Research and practice* (with B. Stecher and J. Russell). 36<sup>th</sup> Annual National Conference on Large-Scale Assessment, Council of Chief State School Officers, San Francisco (2006, June).
- Using test-score data in the classroom* (with B. Stecher). Annual Meeting of the National Council on Measurement in Education, San Francisco (2006, April).
- Measuring instructional responses to standards-based accountability* (with B. Stecher). Annual Meeting of the American Educational Research Association, San Francisco (2006, April).
- Instructional practices related to standards and accountability* (with M. Berends). Annual Meeting of the American Educational Research Association, San Francisco (2006, April).
- Using cognitive interviews to examine the validity of vignette-based measures of reform-oriented instruction* (with V. Le, K. Kerr, A. Robyn, & B. Stecher). Annual Meeting of the American Educational Research Association, San Francisco (2006, April).
- Teacher qualifications, instructional practices, and reading and mathematics gains of kindergartners* (with C. Guarino & J.R. Lockwood). Annual Meeting of American Education Finance Association, Denver (2006, March).
- Implementation of No Child Left Behind in Pennsylvania—An update*. Presentation to Pennsylvania Legislators and Congressional District Office Directors, Pittsburgh, PA (2006, February).
- Understanding how parents choose schools*. Brookings Institution Brown Center on Education Policy Forum, New Perspectives on Choice in K-12 Education. Washington, DC (2006, January).
- Using school-level data in program evaluation*. National Academy of Sciences Symposium on School-Level Data for Evaluating Federal Education Programs, Washington, DC (2005, December).
- Measuring learning when stakes are high*. Keynote presentation at the Annual Conference of the Association for Educational Assessment in Europe, Dublin, Ireland (2005, November).
- Value-added modeling: Promise and peril*. Aspen Institute Seminar for Senior Congressional Staff, Washington, DC (2005, November).
- Measuring achievement gains in cohort-to-cohort and individual growth-based modeling contexts*. University of Maryland Conference on Longitudinal Modeling, Baltimore, MD (2005, November).
- Entrepreneurship in Education: Edison Schools' strategies and their effects on student achievement* (with B. Gill). Meeting of the RAND Corporation Board of Trustees, Santa Monica, CA (2005, November).
- The consequences of NCLB: District, school, and classroom responses in three states* (with B. Stecher). Council of Chief State School Officers, State Collaborative on Assessment and Student Standards Meeting, Omaha, NE (2005, September).

- Implementing standards-based accountability: Results from classrooms, schools, and districts in three states* (with B. Stecher, H. Barney, M. Berends, A. Brown, M. Hanson, J. Marsh, J. McCombs, S. Naftel, A. Robyn, & J. Russell). Annual Meeting of the American Educational Research Association, Montreal (2005, April).
- A value-added approach for examining the relationship between reform-oriented teaching and mathematics achievement* (with V. Le, J.R. Lockwood, & B. Stecher). Annual Meeting of the American Educational Research Association, Montreal (2005, April).
- Measuring child-staff ratios: How representative are ratios observed during a 2-Hour period?* (with V. Le, M. Perlman, & G. Zellman). Biennial Meeting of the Society for Research on Child Development, Atlanta (2005, April).
- Accountability and school reform* (with B. Stecher). Volcker Initiative Education Workshop, Santa Monica, CA (2005, March).
- Implementation of No Child Left Behind in Pennsylvania*. Presentation to Pennsylvania Legislators and Congressional District Office Directors, Pittsburgh, PA (2005, January).
- The association of teaching practices with the reading proficiency gains of kindergartners* (with C. Guarino). Association for Public Policy Analysis and Management Annual Conference, Atlanta (2004, November).
- Performance measurement in government: An example in education*. Conference on Creating High-performance Public Service. RAND, Santa Monica, CA (2004, March).
- Measuring instructional practices in ECLS-K*. Conference on the Measurement of Instruction: Technical Challenges and Implications for Research, Policy, and Practice. Consortium for Policy Research in Education, Washington, DC (2004, January).
- Models for value-added modeling of teacher effects* (with D. McCaffrey, J.R. Lockwood, D. Koretz, & T. Louis). Conference on the Measurement of Instruction: Technical Challenges and Implications for Research, Policy, and Practice. Consortium for Policy Research in Education, Washington, DC (2004, January).
- Student assessment and educational improvement in Qatar* (with G. Gonzalez, V. Le, L. Mariano, D. Prine, J. Reyes, C. Goldman, G. Ryan, J. DaVanzo, & E. Eide). Annual conference of the Comparative and International Education Society, Salt Lake City, UT (2004).
- Teaching to the test*. Seminar on Testing and No Child Left Behind. Hechinger Institute on Education and the Media, Kansas City, MO (2003).
- Test-based accountability: Asking the right questions*. Workshop on Covering Education: Key Issues for Journalists in the Wake of No Child Left Behind. Western Knight Center for Specialized Journalism, Los Angeles (2003).

- Vignette-based surveys and the Mosaic II project* (with V. Le, B. Stecher, G. Ryan, V. Williams, A. Robyn, & A. Alonzo). Annual meeting of the American Educational Research Association, Chicago (2003, April).
- Testing and the No Child Left Behind Act: Covering the story*. Seminar on Standards, Assessment, and Accountability, Hechinger Institute on Education and the Media, Nashville (2002).
- Enhancing the Implementation of No Child Left Behind* (with B. Stecher). Annual Meeting of the California Business Roundtable, Los Angeles (2002).
- Linking policy and research* (part of symposium entitled “New World, Big Horizons: Bridging Research and Policy Agendas”). Education Commission of the States, National Forum on Education Policy, Los Angeles (2002).
- Measuring reform-oriented instructional practices in mathematics and science* (with B. Stecher, G. Ryan, V. Williams, A. Robyn, & A. Alonzo). Annual Meeting of the American Educational Research Association, New Orleans (2002).
- Assessing students with disabilities: Evidence from state data*. Board on Testing and Assessment, National Research Council, Washington, DC (2001).
- Validating large-scale science assessments*. National Center for Education Statistics/American Educational Research Association Doctoral Conference, Washington, DC (2001).
- Exploring claims about student achievement on statewide tests* (with S. Klein, D. McCaffrey, & B. Stecher). Annual Meeting of the National Council on Measurement in Education, Seattle (2001).
- On the evaluation of systemic science education reform: Searching for instructional sensitivity* (with M. Ruiz-Primo, R. Shavelson, & S. Klein). Annual Meeting of the American Educational Research Association, Seattle (2001).
- High-stakes testing: How much is too much?* Annual Conference of the California School Boards Association, Long Beach, CA (2000).
- Systemic reforms: Evidence from a multi-site study* (with S. Klein, D. McCaffrey, B. Stecher, A. Robyn, & D. Burroughs). Annual Meeting of the Association for Public Policy Analysis and Management, Seattle (2000).
- Inclusion and performance of students with disabilities on New York's English Language Arts Regents Exam*. Annual conference of the Center for Research on Evaluation, Standards, and Student Testing, Los Angeles (2000).
- Assessing students with disabilities in statewide testing programs* (with D. Koretz). Annual Meeting of the American Educational Research Association, New Orleans (2000).

- Systemic reform and student achievement: A mosaic of evidence* (with S. Klein, D. McCaffrey, B. Stecher, A. Robyn, & D. Burroughs). Annual Meeting of the American Educational Research Association, New Orleans (2000).
- Does format matter for students with disabilities?* (with D. Koretz). Annual conference of the Center for Research on Evaluation, Standards, and Student Testing, Los Angeles (1998).
- Technical issues in performance assessments* (with S. Klein, B. Stecher, & S. Agruso). Council of Chief State School Officers Conference on Large-Scale Assessment, Colorado Springs (1998).
- The effects of exposure to hands-on science tasks* (with S. Klein, B. Stecher, D. McCaffrey, & K. Comfort). Annual Meeting of the American Educational Research Association and National Council on Measurement in Education, San Diego (1998).
- Performance assessment in the service of evaluating science education reform* (with M. Ruiz-Primo, E. Wiley, A. Rosenquist, S. Schultz, R. Shavelson, & S. Klein). Annual Meeting of the National Council on Measurement in Education, San Diego (1998).
- Identifying cognitive abilities in math and science achievement* (with R. Snow & H. Kupermintz). 7th European Conference for Research on Learning and Instruction, Athens, Greece (1997).
- Identifying differential item functioning on science achievement tests*. Annual Meeting of the National Council on Measurement in Education, Chicago (1997).
- Sources of gender differences on the NELS:88 constructed-response science test*. Annual Meeting of the American Educational Research Association, Chicago (1997).
- Cognitive abilities identified in national surveys of math and science achievement* (with R. Snow & H. Kupermintz). Annual Meeting of the American Psychological Society, San Francisco (1996).
- Cognitive and affective relations between mathematics and science achievement*. Annual Meeting of the American Educational Research Association, San Francisco (1995).
- Alternative interview procedures for validating science assessments* (with E. Nussbaum & R. Snow). Annual Meeting of the American Educational Research Association, San Francisco (1995).
- Assessment versus instruction: Can one task serve two masters?* (with E. Haertel, C. Jones, E. Nussbaum, M. O'Connell, J. Reese, & J. Shaw). Annual Meeting of the American Educational Research Association, San Francisco (1995).
- Dimensionality of a science achievement test*. UCLA/CRESST symposium: Methodological Problems in Hierarchical Cognitive Modeling (1994).
- Validating hands-on science assessments through an investigation of response processes*. Annual Meeting of the American Educational Research Association, New Orleans (1994).

*An investigation of students' affective responses to alternative assessment formats.* Annual Meeting of the National Council on Measurement in Education, New Orleans (1994).

*Opportunities to learn different components of mathematics achievement* (with R. Snow, H. Kupermintz, M. Ennis, & J. Talbert). Annual Meeting of the American Educational Research Association, New Orleans (1994).

## **EXTERNAL COMMITTEE AND ADVISORY PANEL ACTIVITIES**

Member, Joint Committee for the Revision of the APA/AERA/NCME Standards for Educational and Psychological Testing, 2008-2011.  
Chair, What Works Clearinghouse Practice Guide Panel on Data-Driven Decision Making, 2008-2009  
Member, Technical Working Group for National Charter Management Organization Study, New Schools Venture Fund, 2008-present  
Review Panelist, National Evaluation of Comprehensive Technical Assistance Centers, U.S. Department of Education, 2007-present  
Member, Research Advisory Board for the School Choice Demonstration Project, 2005-present  
Content Expert for the Education Resources Information Center (U.S. Department of Education), 2004-present  
Member, Advisory Panel on Student Achievement Under No Child Left Behind, Center for Education Policy, 2005-2008  
Member, Charter School Achievement Consensus Panel, National Center on Charter Schools, University of Washington, 2005-2007  
Member, Technical Working Group for National Charter Schools Evaluation, Mathematica Policy Research, 2004-present  
Member, NCES Math and Science Expert Panel for the High School Longitudinal Study (HSL:09), 2007  
Member, Advisory Board for the "Optimizing Arts Education at the Local Level" Systems Synthesis Team, H. John Heinz III School of Public Policy and Management at Carnegie Mellon University, 2007  
Member, Panel on High School Exit Exams and Student Achievement, Center for Education Policy, 2004.  
Member, Brookings Commission on Choice in K-12 Education, 2001-2003  
Member, Scientific Review Panel, Evidence-based Information on Effective Educational Programs Project, 2003-2004  
Member, California Data Systems Panel, Public Forum on School Accountability, 2002  
Member, National Technical Advisory Group for Comprehensive School Reform Models Catalog, 2001

## **OTHER PROFESSIONAL SERVICE AND AWARDS**

RAND Merit Bonus Award, 2007  
RAND President's Award, 2006  
Outstanding Reviewer Award for *Educational Evaluation and Policy Analysis*, 2006  
RAND Education Mentor Award, 2006 and 2007  
Section Chair, American Educational Research Association Division L, Section 4 (Curriculum, Testing, and Instructional Practice), 2006-07

Proposal Reviewer, Spencer Foundation, 2005-present  
Proposal Reviewer, Carnegie Corporation, 2005-present  
Member, Dissertation Committees for RAND Graduate School students, 2001-present  
Consultant, Evaluation of Texas Educator Excellence Grants Program, 2007-present  
Advisor, Qatar Secondary Certification Project, 2007  
Content Advisor to the National Longitudinal Study of No Child Left Behind, 2004-06  
Member, University of Pittsburgh Learning Policy Center Search Committee, 2005-06  
Member, American Educational Research Association Division L Nominating Committee, 2005  
Training Director, RAND/Spencer Postdoctoral Fellowship Program in Education Policy, 2001-2005  
Advisor, Qatar Student Assessment Program, 2002-2004  
Member, RAND Diversity Advisory Committee, 2001-2003  
Member, RAND HSPC Membership Committee, 2001-2003  
Member, RAND Education Research Council, 1998-2003  
Chair, RAND Education Recruiting Committee, 2000-2002  
Member, RAND Communications Plan Advisory Committee, 2000  
Review Panelist, Institute for Education Sciences, National Science Foundation  
Reviewer: *Educational Research; Educational Evaluation and Policy Analysis; Educational Assessment; Educational Measurement: Issues and Practice; Teachers College Record; Education Policy; Journal for Research in Mathematics Education; Journal of Teacher Education; Teaching and Teacher Education; Assessment in Education*; American Educational Research Association and National Council on Measurement in Education meetings; Center for Research on Evaluation, Standards, and Student Testing; National Center for Education Statistics; Institute of Education Sciences; Guilford Press; Center on Reinventing Public Education; School Choice Demonstration Project  
External Evaluator, Michigan Educational Assessment Program (MEAP) High School Writing Proficiency Test, 1998  
Spencer Foundation Dissertation Fellowship, 1996-97  
American Educational Research Association (AERA) Dissertation Grant (sponsored by the National Science Foundation and the National Center for Education Statistics), 1996-97  
Graduate Research Opportunities Grant, Stanford University School of Humanities and Sciences, 1996  
Chair and Member, National Council on Measurement in Education Graduate Student Issues Committee, 1994-96  
Member, National Council on Measurement in Education Annual Meeting Program Committee, 1995-96  
School of Education Fellowship, Stanford University, 1992-93  
Dean's Fellowship, University of Pennsylvania, 1990-91  
Outstanding Music Education Student Award, Duquesne University, 1990  
University Scholars Award, Duquesne University, 1986-90

## **FUNDED RESEARCH**

Measuring Instruction at Scale (with Richard Correnti and Lindsay Clare Matsumura). Spencer Foundation and William T. Grant Foundation, \$600,000, 9/2008 – 8/2011.

- Evaluation of Pittsburgh's Principal Incentive Program (with John Engberg). U.S. Department of Education, Teacher Incentive Funds program (subcontracted to Pittsburgh Public Schools), \$1,153,541, 10/2007 – 7/2012.
- Implementation of Instructional Improvement Initiatives in the Pittsburgh Public Schools (with Shannah Tharp-Taylor). Fund for Excellence (consortium of Pittsburgh-based foundations), \$200,000, 9/2007 – 12/2008.
- New Leaders for New Schools Evaluation (with Susan Gates). New Leaders for New Schools, \$1,693,433, 7/2006 – 6/2010.
- Experimental Field Study of Cognitive Tutor Geometry Curriculum (with John Pane). U.S. Department of Education, \$1,255,961, 6/2005 – 5/2008.
- Evaluation of Pathways/Pittsburgh Public Schools Initiatives (with Brian Gill). Heinz Endowments, \$58,000, 10/2006 – 10/2007.
- Scaling up Standards-Based Accountability (with Brian Stecher). National Science Foundation, Interagency Educational Research Initiative, \$5,534,731, 12/2002 – 11/2007.
- Enhancing the Utility of Test-Based Accountability (with Brian Stecher). Ford Foundation, \$75,000, 11/2002 – 5/2004.
- Mosaic II: A Longitudinal Investigation of the Effects of Systemic Reform on Student Achievement (with Stephen Klein). National Science Foundation, \$4,391,000, 5/2000 – 6/2005.
- Edison Schools Evaluation (with Brian Gill). Edison Schools, Inc., \$1,030,201, 6/2000 – 6/2005.
- Impact of Kindergarten Teachers on the Development of Young Children (with Cassie Guarino). National Center for Education Statistics, \$60,000, 5/2003 – 9/2004.
- Developing a Conceptual Framework for Test-Based Accountability (with Brian Stecher). Hewlett Foundation, \$150,000, 4/2002-4/2003.
- Evaluating the Practice and Potential of Value-Added Modeling of Educational Achievement (with Daniel Koretz). Carnegie Corporation, \$476,500, 4/2001 – 9/2002.
- Conceptualization and Measurement of the Characteristics, Practices, and Philosophies of the Teachers and Classrooms of Young Children (with Cassie Guarino). National Center for Education Statistics, \$86,000, 6/2001 – 12/2001.
- Research in Standards-Based Science Assessment. National Science Foundation (subcontract to WestEd), \$46,000, 1/2001 – 12/2002.
- Technical, Analytic, and Policy Support for the U.S. Department of Education, Planning and Evaluation Service. \$149,000, 10/2000 – 4/2002.

Arts and Prosocial Impact Study (with Melissa Rowe). California Arts Council and Los Angeles Cultural Affairs Department, \$230,000, 3/2001 – 9/2002.

Evaluation of Core Knowledge. Core Knowledge Foundation, \$50,000, 6/2000 – 3/2001.

Education of Probationers (with George Tita). LA Department of Probation, \$96,000, 5/2000 – 3/2001.

Alignment Among K-16 Assessments. Pew Charitable Trusts (subcontract to Stanford University), \$135,000, 7/1998 – 7/2000.

Evaluation of Foundations After-School Enrichment Program. Foundations, Inc., \$97,000, 2/1998 - 10/1999.