CURRICULUM VITAE

Edward Henry Haertel

School of Education 3942 Duncan Place Stanford University Palo Alto, CA 94306-4550 485 Lasuen Mall Stanford, CA 94305-3096

650-725-1251 (office) 650-494-6432 (home)

650-725-7412 (fax)

EDUCATION:

1971 B.A. (Honors), University of Wisconsin-Madison

Major: Mathematics

1980 Ph.D., University of Chicago

Department of Education

Concentration: Measurement, Evaluation and Statistical Analysis

Dissertation: Determining What Is Measured by Multiple-Choice Tests of

Reading Comprehension

EMPLOYMENT:

1/13 - present	Jacks Family Professor of Education, Emeritus, Stanford University
1/08 - 12/12	Jacks Family Professor of Education, Stanford University
9/05 - 8/11	Associate Dean for Faculty Affairs, School of Education, Stanford University
9/92 - 12/07	Professor, School of Education, Stanford University
9/87 - 8/92	Associate Professor, School of Education, Stanford University
9/80 - 8/87	Assistant Professor, School of Education, Stanford University
9/79 - 8/80	Assistant Professor, College of Education University of Illinois at Chicago Circle
1/77 - 8/79	Senior Research Associate ML-GROUP for Policy Studies in Education, CEMREL, Inc., Chicago
9/76 - 12/76	Research Assistant, University of Chicago
6/76 - 9/76	Consultant, Department of Research and Evaluation Chicago Board of Education
6/71 - 6/75	Technical Specialist, University of Wisconsin-Madison Research and Development Center for Cognitive Learning

PROFESSIONAL SOCIETIES:

American Educational Research Association American Psychological Association, Divisions 5 and 15 National Academy of Education National Council on Measurement in Education Psychometric Society

OFFICES, HONORS AND AWARDS:

1986	Palmer O. Johnson Award from the American Educational Research Association for the paper "Construct Validity and Criterion-Referenced Testing" in the <i>Review of Educational Research</i> .
1987-1989	Research fellowship from the American Statistical Association, for work at the National Center for Education Statistics, Washington, DC (twelve months support, taken at intervals)
1991	Raymond B. Cattell Award from the American Educational Research Association (Early Career Award for Programmatic Research)
1992-94	University Fellow (One of several Fellows chosen annually by the president of Stanford University for two-year terms)
1994-95	Fellow, Center for Advanced Study in the Behavioral Sciences
1997-2000	Vice President (1997-1998), President (1998-1999), and Past-President (1999-2000) of the National Council on Measurement in Education
1997	Elected to the National Academy of Education
1997	Fellow, American Psychological Association, Division 15
2007	California Educational Research Association (CERA) Lifetime Achievement Award
2008	Fellow, American Educational Research Association
2009-2013	Vice President for Programs, National Academy of Education
2011	National Council on Measurement in Education Award for Career Contributions to Educational Measurement
2011	Fellow, American Psychological Association, Division 5
2012	E. F. Lindquist Award (AERA and ACT, Inc.)
2012	R. L. Linn Distinguished Address Award (AERA Division D)

JOURNAL PUBLICATIONS:

- Dinero, T., & Haertel, E. H. (1977). The applicability of the Rasch model with varying item discriminations. *Applied Psychological Measurement*, *1*, 581-592.
- Walberg, H. J., & Haertel, E. H. (1980). Research integration: An introduction and overview. *Evaluation in Education: International Progress*, 4, 5-10.
- Haertel, G. D., Walberg, H. J., & Haertel, E. H. (1981). Social-psychological environments and learning: A quantitative synthesis. *British Educational Research Journal*, *7*, 27-36.
- Williams, P. A., Haertel, E. H., Haertel, G. D., & Walberg, H. J. (1982). The impact of leisure-time television on school learning: A research synthesis. *American Educational Research Journal*, 19, 19-50. Reprinted in R. J. Light (Ed.) (1983). *Evaluation studies review annual* (Vol. 8, pp. 327-358). Beverly Hills, CA: Sage.

JOURNAL PUBLICATIONS (CONTINUED):

Haertel, E. H., & Calfee, R. C. (1983). School achievement: Thinking about what to test. *Journal of Educational Measurement*, 20, 119-132.

- Haertel, E. H. (1984). Detection of a skill dichotomy using standardized achievement test items. *Journal of Educational Measurement*, 21, 59-72.
- Haertel, E. H. (1984). An application of latent class models to assessment data. *Applied Psychological Measurement*, 8, 333-346.
- Haertel, E. H. (1985). Construct validity and criterion-referenced testing. *Review of Educational Research*, 55, 23-46.
- Haertel, E. H. (1986). The valid use of student performance measures for teacher evaluation. *Educational Evaluation and Policy Analysis*, 8, 45-60.
- Haertel, E. H. (1986). Measuring school performance to improve school practice. *Education and Urban Society*, 18, 312-325.
- Haertel, E. H. (1987). Scores and scales for school achievement. *Studies in Educational Evaluation*, 13, 61-71.
- Haertel, E. H., & Thoresen, C. E. (1987). Buyers beware: The deceptively high cost of LISREL. *Counseling Psychologist*, *15*, 316-319.
- Haertel, E. H. (1987). Toward a National Board of Teaching Standards: The Stanford Teacher Assessment Project. *Educational Measurement: Issues and Practice*, 6(1), 23-24.
- Haertel, E. H. (1988). Assessing the teaching function. *Applied Measurement in Education*, 1, 99-107.
- Haertel, E. H. (1988). A technical review of the National Assessment of Educational Progress: Introduction and overview. *International Journal of Educational Research*, 12, 673-677.
- Haertel, E. H. (1990). Using restricted latent class models to map the skill structure of achievement items. *Journal of Educational Measurement*, 26, 301-321.
- Haertel, E. H. (1990). Continuous and discrete latent structure models for item response data. *Psychometrika*, 55, 477-494.
- Haertel, E. H. (1991). Should the National Assessment of Educational Progress be used to compare the states? *Educational Researcher*, 20(3), 17.
- Haertel, E. H. (1991). New forms of teacher assessment. Review of Research in Education, 17, 3-29.
- Martinez, M. E., & Haertel, E. (1991). Components of interesting science experiments. *Science Education*, 75(4), 471-479.
- Bradburn, N., Haertel, E., Schwille, J., & Torney-Purta, J. (1991). A rejoinder to "I never promised you first place". *Phi Delta Kappan*, 72(10), 774-777.
- Cronbach, L. J., Linn, R. L., Brennan, R. L., & Haertel, E. H. (1997). Generalizability analysis for performance assessments of student achievement or school effectiveness. *Educational and Psychological Measurement*, *57*, 373-399.

JOURNAL PUBLICATIONS (CONTINUED):

Klein, S. P., Jovanovic, J., Stecher, B. M., McCaffrey, D., Shavelson, R. J., Haertel, E., Solano-Flores, G., & Comfort, K. (1997). Gender and racial/ethnic differences on performance assessments in science. *Educational Evaluation and Policy Analysis*, 19, 83-97.

- Haertel, E. H. (1999). Performance assessment and education reform. *Phi Delta Kappan*, 80, 662-666.
- Haertel, E. H. (1999). Validity arguments for high-stakes testing: In search of the evidence. *Educational Measurement: Issues and Practice*, 18(4), 5-9.
- Stecher, B. M., Klein, S. P., Solano-Flores, G., McCaffrey, D., Robyn, A., Shavelson, R. J., & Haertel, E. H. (2000). The effects of content, format, and inquiry level on science performance assessment scores. *Applied Measurement in Education*, 13, 139-160.
- Haertel, E. H. (2002). Standard setting as a participatory process: Implications for validation of standards-based accountability programs. *Educational Measurement: Issues and Practice*, 21(1), 16-22.
- Haertel, E. H., & Greeno, J. G. (2003). A situative perspective: Broadening the foundations of assessment. *Measurement: Interdisciplinary Research and Perspectives*, 1(2), 154-162.
- Haertel, E. H. (2004). Interpretive argument and validity argument for certification testing: can we escape the need for psychological theory? *Measurement: Interdisciplinary Research and Perspectives*, 2, 175-178.
- Haertel, E. H., & Lorié, W. A. (2004). Validating standards-based test score interpretations. *Measurement: Interdisciplinary Research and Perspectives*, 2, 61-103.
- Haertel, E. H., & Lorié, W. A. (2004). Rejoinder to commentary. *Measurement: Interdisciplinary Research and Perspectives*, 2, 129-133.
- Moss, P. A., Pullin, D., Gee, J. P., & Haertel, E. H. (2005). The idea of testing: psychometric and sociocultural perspectives. *Measurement: Interdisciplinary Research and Perspectives*, *3*, 63-83.
- Busch, R., Byrne, B., Gandrud, L., Sears, D., Meyer, E., Kattah, M., Kurihara, C., Haertel, E., Parnes, J. R., & Mellins, E. D. (2006). Medicine on a need-to-know basis. *Nature Immunology*, 7, 543-547.
- Newton, X., Darling-Hammond, L., Haertel, E., & Thomas, E. (2010). Value-added modeling of teacher effectiveness: an exploration of stability across models and contexts. *Educational Policy Analysis Archives*, *18* (23). Retrieved September 30, 2010, from http://epaa.asu.edu/ojs/article/view/810
- Wei, X., & Haertel, E. (2011). The effect of ignoring classroom-level variance in estimating the generalizability of school mean scores. *Educational Measurement: Issues and Practice*, 30(1), 13-22.
- Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). Evaluating teacher evaluation. *Phi Delta Kappan*, 93(6), 8-15.
- Cor, M. K., Haertel, E., Krosnick, J. A., & Malhotra, N. (2012). Improving ability measurement in surveys by following the principles of IRT: The Wordsum vocabulary test in the General Social Survey. *Social Science Research*, *41*(5), 1003-1016.

JOURNAL PUBLICATIONS (CONTINUED):

- Haertel, E. H. (2013). Getting the help we need. *Journal of Educational Measurement*, 50(1), 84-90.
- Haertel, E. H. (2013). How is testing supposed to improve schooling? *Measurement: Interdisciplinary Research and Perspectives*, 11, 1-18.
- Haertel, E. H. (2013). Expanding views of interpretation/use arguments. *Measurement: Interdisciplinary Research and Perspectives*, 11, 68-70.
- Michaelides, M. P., & Haertel, E. H. (2014). Selection of common items as an unrecognized source of variability in test equating: a bootstrap approximation assuming random sampling of common items. *Applied Measurement in Education*, 27, 46-57.
- Haertel, E. (in press). Reflections on the Gordon Commission. Teachers College Record.

BOOKS AND BOOK CHAPTERS:

- Haertel, E. H., & Wiley, D. E. (1986). Die Schätzungen von Beziehungen auf Individualebene durch Daten auf Aggregatebene: ein Beispiel. [Estimating individual-level relations using aggregate-level data: An example.] In M. v. Saldern (Ed.), Mehrebenenanalyse: Beiträge zur Erfassung hierarchisch strukturierter Realität. [Methods for multi-level analysis of hierarchically structured data.] Weinheim: Psychologie Verlags Union, Beltz.
- Haertel, E. H., James, T., & Levin, H. M. (Eds.) (1987). *Comparing public and private schools. Vol 2: School achievement.* New York: Falmer Press.
- Haertel, E. H. (1987). Comparing public and private schools using longitudinal data from the HSB study. In E. H. Haertel, T. James, & H. M. Levin (Eds.), *Comparing public and private schools. Vol. 2: School achievement*. New York: Falmer Press.
- Haertel, E. H. (1989). Student achievement tests as tools of educational policy: Practices and consequences. In B. R. Gifford (Ed.), *Test policy and test performance: Education, language, and culture* (pp. 35-63). Boston: Kluwer Academic Publishers.
- Haertel, E. H. (1990). Performance tests, simulations, and other methods. In J. Millman & L. Darling-Hammond (Eds.), *The new handbook of teacher evaluation: Assessing elementary and secondary school teachers* (pp. 278-294). Newbury Park, CA: Sage.
- Haertel, E. H. (1990). Teacher performance assessments: A new kind of teacher examination. In J. V. Mitchell, Jr., S. L. Wise, B. S. Plake, & J. C. Conoley (Eds.), *Assessment of teaching: Purposes, practices, and implications for the profession* (pp. 15-35). Hillsdale, NJ: Erlbaum.
- Haertel, E. H. (1990). Form and function in assessing science education. In A. B. Champagne, B. E. Lovitts, & B. J. Calinger (Eds.), *This year in school science 1990: Assessment in the service of instruction* (pp. 15-27). Washington, DC: AAAS. Reprinted in G. Kulm & S. M. Malcolm (Eds.) (1991). *Science assessment in the service of reform* (pp. 233-245). Washington, DC: AAAS.
- Haertel, E. H., & Wiley, D. E. (1993). Representations of ability structures: Implications for testing. In N. Frederiksen, R. Mislevy, & I. Bejar (Eds.), *Test theory for a new generation of tests* (pp. 359-384). Hillsdale, NJ: Erlbaum.
- Haertel, E. H. (1994). Theoretical and practical implications. In T. R. Guskey (Ed.), *High Stakes Performance Assessment: Perspectives on Kentucky's Educational Reform* (pp. 65-75). Thousand Oaks, CA: Corwin Press.

BOOKS AND BOOK CHAPTERS (CONTINUED):

Wiley, D. E., & Haertel, E. H. (1996). Extended assessment tasks: Purposes, definitions, scoring, and accuracy. In M. B. Kane & R. Mitchell (Eds.), *Implementing Performance Assessment: Promises, Problems, and Challenges* (pp. 61-89). Mahwah, NJ: Erlbaum.

- Haertel, E. H., & Linn, R. L. (1996). Comparability. In G. W. Phillips (Ed.), *Technical Issues in Large-Scale Performance Assessment* (Report No. NCES 96-802). Washington, DC: Office of Educational Research and Improvement, U. S. Department of Education.
- Haertel, E. H., & Mullis, I. V. S. (1996). The evolution of the National Assessment of Educational Progress: Coherence with best practice. In J. B. Baron & D. P. Wolf (Eds.), *Performance-Based Student Assessment: Challenges and Possibilities* (Ninety-Fifth Yearbook of the National Society for the Study of Education, Part 1, pp. 287-304). Chicago: National Society for the Study of Education (distributed by the University of Chicago Press).
- Herman, J. L., & Haertel, E. H. (Eds.) (2005). *Uses and misuses of data for educational accountability and improvement* (The 104th yearbook of the National Society for the Study of Education, Part 2). Malden, MA: Blackwell.
- Haertel, E. H., & Herman, J. L. (2005). A historical perspective on validity arguments for accountability testing. In J. L. Herman & E. H. Haertel (Eds.), *Uses and misuses of data for educational accountability and improvement* (The 104th yearbook of the National Society for the Study of Education, Part 2, pp. 1-34). Malden, MA: Blackwell.
- Haertel, E. H. (2006). Reliability. In R. L. Brennan (Ed.), *Educational measurement* (4th ed., pp. 65-110). Westport, CT: American Council on Education/Praeger.
- Webb, N. M., Shavelson, R. J., & Haertel, E. H. (2007). Reliability coefficients and generalizability theory. In C. R. Rao & S. Sinharay (Eds.), *Handbook of Statistics: Psychometrics* (Vol. 26, pp. 81-124). Amsterdam: Elsevier B. V.
- Moss, P. A., Pullin, D. C., Gee, J. P., Haertel, E. H., & Young, L. J. (Eds.) (2008). *Assessment, equity, and opportunity to learn*. New York: Cambridge University Press.
- Haertel, E. H., Moss, P. A., Pullin, D. C., & Gee, J. P. (2008). Introduction. In P. A. Moss, D. C. Pullin, J. P. Gee, E. H. Haertel, & L. J. Young (Eds.), *Assessment, equity, and opportunity to learn* (pp. 1-16). New York: Cambridge University Press.
- Pullin, D. C., & Haertel, E. H. (2008). Assessment Through the Lens of "Opportunity to Learn." In P. A. Moss, D. C. Pullin, J. P. Gee, E. H. Haertel, & L. J. Young (Eds.), *Assessment, equity, and opportunity to learn* (pp. 17-41). New York: Cambridge University Press.
- Haertel, E. H. (2008). Standard setting. In K. E. Ryan & L. A. Shepard (Eds.), *The Future of Test-Based Educational Accountability* (Festschrift in honor of Robert L. Linn) (pp. 139-154). New York: Routledge.
- Haertel, E. H., Beimers, J., & Miles, J. (2012). The briefing book method. In G. J. Cizek (Ed.), *Setting performance standards: foundations, methods, and innovations* (2nd ed., pp. 283-299). New York: Routledge.

REVIEWS:

Haertel, E. H. (1979). Review of *Data analysis and regression: A second course*, by Frederick Mosteller and John W. Tukey. *Journal of Educational Measurement*, 16, 60-61.

- Haertel, E. H. (1985). Review of *Statistical models in psychological and educational testing*, by D. N. M. de Gruijter and L. J. Th. van der Kamp. *Journal of Educational Measurement*, 22, 246-248.
- Haertel, E. H. (1985). How simple can measurement be? Review of *Educational Testing and Measurement: Classroom Application and Practice*, by Tom Kubiszyn and Gary Borich. *Contemporary Psychology*, 30, 310.
- Haertel, E. H. (1985). Review of *Metropolitan Achievement Tests, 5th Edition* (1978). In J. V. Mitchell, Jr. (Ed.), *The Ninth Mental Measurements Yearbook* (Vol. 1, pp. 963-965). Lincoln, NE: University of Nebraska-Lincoln, Buros Institute of Mental Measurements.
- Haertel, E. H. (1986). Review of *The uses and misuses of tests*, by Charles W. Daves (Ed.), *Educational Studies*, 17, 256-260.
- Haertel, E. H. (1987). A positivist foundation for behavioral research. Review of *Foundations of behavioral research* (3rd ed.), by Fred N. Kerlinger. *Contemporary Psychology*, 32, 249-250.
- Haertel, E. H. (1990). Showing that teacher tests are free from bias. Review of *Bias issues in teacher certification testing*, by Richard G. Allan, Paula M. Nassif, & Scott M. Elliott (Eds.), *Contemporary Psychology*, 35, 283-284.
- Haertel, E. H. (1995). Review of *In Teachers' Hands*, by Richard J. Stiggins and Nancy Faires Conklin. *Journal of Curriculum Studies*, 27, 97-100.
- Haertel, E. (2009). What's wrong with inferences from test scores? Review of *Measuring up*, by Daniel Koretz. *Science*, 323, 42.

REPORTS:

- Haertel, E. H., Harnischfeger, A., Wiley, D. E., & Woods, E. M. (1977, May). *Achievement measures as Title I eligibility criteria: The test data file (A report on file usage)*. Chicago: ML-GROUP for Policy Studies in Education, CEMREL, Inc.
- Haertel, E. H., Harnischfeger, A., Pifer, R. E., Wiley, D. E., & Woods, E., M. (1977, September). Achievement measures as Title I eligibility criteria: Concepts, methods, and eligibility estimation. Chicago: ML-GROUP for Policy Studies in Education, CEMREL, Inc.
- Haertel, E. H., & Wiley, D. E. (1977, November). *Achievement and poverty as Title I eligibility criteria: Statistical comparisons and findings*. Chicago: ML-GROUP for Policy Studies in Education, CEMREL, Inc.
- Glass, G., Haertel, E., Hesbol, D., Peters, N., & Wiley, D. E. (1978, March). A systematic treatment of event file data from the BTES fifth grade reading quadrant, class 12. Chicago: University of Chicago and ML-GROUP for Policy Studies in Education, CEMREL, Inc.
- Haertel, E. H., Thrash, W. A., & Wiley, D. E. (1978, June). *Metric-free distributional comparisons*. Chicago: ML-GROUP for Policy Studies in Education, CEMREL, Inc. (Available from ERIC Document Reproduction Service, No. ED 177 173)

REPORTS (CONTINUED):

ML-GROUP for Policy Studies in Education. (1978). *Minority education 1960-1978: Grounds, gains, and gaps, vols. 1 and 2*, Chicago: ML-GROUP for Policy Studies in Education, CEMREL, Inc., 460 pp. (Co-author).

- Haertel, E. H., & Wiley, D. E. (1979, January). Social and economic differences in elementary school achievement. In R. H. Hinckley (Ed.), *Report #4: Student home environment, educational achievement, and compensatory education*. Santa Monica, CA: System Development Corporation (Technical Report #4 from the Study of the Sustaining Effects of Compensatory Education on Basic Skills).
- Haertel, E. H. (1980, September). *Testing for minimal competency and curriculum evaluation: Theoretical issues*. Chicago: ML-GROUP for Policy Studies in Education. (Studies of Educative Processes, Report No. 15).
- Wiley, D. E., Haertel, E., & Harnischfeger, A. (1981, May). *Test validity and the national assessment: A conception, a method, and an example*. Chicago: ML-GROUP for Policy Studies in Education. (Studies of Educative Processes, Report No. 17.)
- Haertel, E. H. (1981, December). *Developing a discrete ability profile model for mathematics attainment*. Denver: National Assessment of Educational Progress, Educational Commission of the States. (Final report, Grant No. NIE-G-80-0003) (Available from ERIC Document Reproduction Service, No. ED 222 556)
- Haertel, E. H., & Olkin, I. (1987). *Indicators of effectiveness in precollege mathematics projects* (Paper prepared for the "Assessment of Initiatives Available to NSF to Address Problems and Opportunities in Precollege Science Education," SRI International). Unpublished manuscript.
- Calfee, R. C., Haertel, E. H., et al. (1987, July). Who's in charge here? Testing, teaching, and learning. In R. Calfee (Ed.), *The Study of Stanford and the Schools: Views from the Inside. Part II: The research.* Report submitted to the William and Flora Hewlett Foundation.
- Shulman, L. S., Haertel, E. H., & Bird, T. (1988, April). *Toward alternative assessments of teaching: A report of work in progress*. Report of Work in Progress on the Teacher Assessment Project, Stanford University.
- Haertel, E. H., & Schneider, B. R. (1988, June). *Tests of divergent thinking in high school English classes*. Final Report to the Spencer Foundation.
- Raizen, S. A., Baron, J. B., Champagne, A. B., Haertel, E., Mullis, I. V. S., & Oakes, J. (1989). Assessment in elementary school science education (A Report of the National Center for Improving Science Education). Amherst, MA: The NETWORK.
- Haertel, E. H. (Chair) (1989). Report of the NAEP Technical Review Panel on the 1986 reading anomaly, the accuracy of NAEP trends, and issues raised by state-level NAEP comparisons. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Report No. CS 89-499. (250 pp.)
- Raizen, S. A., Baron, J. B., Champagne, A. B., Haertel, E., Mullis, I. V. S., & Oakes, J. (1990). Assessment in science education: The middle years (A Report of the National Center for Improving Science Education). Amherst, MA: The NETWORK.
- Bradburn, N. M., & Gilford, D. M. (Eds.) (1990). A framework and principles for international comparative studies in education (Board on International Comparative Studies in Education, National Research Council). Washington, DC: National Academy Press. (Co-author with other Board members)

REPORTS (CONTINUED):

Haertel, E. H. (1991, October). Report on TRP analyses of issues concerning within-age versus cross-age scales for the National Assessment of Educational Progress. (Report to the National Assessment Governing Board on behalf of the NAEP Validity Studies Technical Review Panel.)

- Haertel, E. H. (1992). *Issues of validity and reliability in assessment center exercises and portfolios* (Report No. S-1). Teacher Assessment Project, School of Education, Stanford University.
- Haertel, E. H., Jones, C., & Li, M-Y. (1993). *Tables on the history component of the Teacher Assessment Project* (Report No. S-2). Teacher Assessment Project, School of Education, Stanford University.
- Haertel, E. H., Jones, C., & Li, M-Y. (1993). *Tables on the mathematics component of the Teacher Assessment Project* (Report No. S-3). Teacher Assessment Project, School of Education, Stanford University.
- Michaelides, M. P., & Haertel, E. H. (2004). Sampling of common items: An unrecognized source of error in test equating (CSE Report No. 636). Technical Report for the National Center for Research on Evaluation, Standards, and Student Testing, UCLA.
- Haertel, E., & Herman, J. (2005). A historical perspective on validity arguments for accountability testing (CSE Report No. 654). Technical Report for the National Center for Research on Evaluation, Standards, and Student Testing, UCLA.
- Haertel, E. H. (2005). *Using a longitudinal student tracking system to improve the design for public school accountability in California*. Discussion paper prepared for the California Department of Education.
- Williams, T., Kirst, M., Haertel, E., et al. (2005). Similar students, different results: Why do some schools do better? A large-scale survey of California elementary schools serving low-income students. Mountain View, CA: EdSource. (Available at https://www.edsource.org/pdf/SimStu05.pdf)
- Williams, T., Kirst, M., Haertel, E., et al. (2006, June). *Summary report. Similar students, different results: Why do some schools do better?* (EdSource Report). Mountain View, CA: EdSource. (Available at https://www.edsource.org/pdf/simstusumm06.pdf)
- Ho, A. D., & Haertel, E. H. (2006). *Metric-free measures of test score trends and gaps with policy-relevant examples* (CSE Report No. 665). Technical Report for the National Center for Research on Evaluation, Standards, and Student Testing, UCLA.
- Ho, A., & Haertel, E. (2007, June). (Over)-interpreting mappings of state performance standards onto the NAEP scale. Briefing paper prepared for the Education Information Management Advisory Consortium, Council of Chief State School Officers (CCSSO). Available at http://www.ccsso.org/content/PDFs/Ho%20Haertel%20CCSSO%20Brief1%20Final.pdf.
- Ho, A., & Haertel, E. (2007, June). *Apples to apples? The underlying assumptions of state-NAEP comparisons*. Briefing paper prepared for the Education Information Management Advisory Consortium, Council of Chief State School Officers (CCSSO). Available at http://www.ccsso.org/content/PDFs/Ho%20Haertel%20CCSSO%20Brief2%20Final.pdf.

REPORTS (CONTINUED):

Linn, R. L., & Welner, K. G. (Eds.) (2007). Race-conscious policies for assigning students to schools: social science research and the supreme court cases. National Academy of Education. Committee on Social Science Research Evidence on Racial Diversity in Schools. Washington, DC: Author. (Member of seven-person committee of the National Academy of Education that wrote the report.)

- Williams, T., Hakuta, K., Haertel, E., et al. (2007). Similar English learner students, different results: Why do some schools do better? A follow-up analysis, based on a large-scale survey of California elementary schools serving low-income and EL students. Mountain View, CA: EdSource. Available at https://www.edsource.org/pdf/SimELreportcomplete.pdf.
- Erickson, V., Ho, A., Holtzman, D., Jaciw, A., Lukoff, B., Shen, X., Wei, X., & Haertel, E. (2007). Closing the gap? a comparison of changes over time in white-black and white-Hispanic achievement gaps on state assessments versus state NAEP (CSE Report 721). Los Angeles, CA: National Center for Research on Evaluation, Standards, and Student Testing (CRESST), Center for the Study of Evaluation, University of California, Los Angeles.
- Williams, T., Kirst, M.W., Haertel, E., et al. (2010). *Gaining ground in the middle grades: Why some schools do better*. Mountain View, CA: EdSource. (Available at http://www.edsource.org/middle-grades-study.html)
- Baker, E. L., Barton, P. E., Darling-Hammond, L., Haertel, E., Ladd, H. F., Linn, R. L., Ravitch, D., Rothstein, R., Shavelson, R. J., & Shepard, L. A. (2010, August 29). *Problems with the use of student test scores to evaluate teachers* (Economic Policy Institute Briefing Paper #278). Retrieved September 1, 2010 from http://www.epi.org/publications/entry/bp278.
- Williams, T., Haertel, E., Kirst, M.W., et al. (2011). *Improving middle grades math performance: a closer look at district and school policies and practices, course placements, and student outcomes in California*. Mountain View, CA: EdSource. Retrieved March 3, 2011 from http://www.edsource.org/assets/files/studies/mg-math/study11-mg-math-full.pdf.
- Williams, T., Haertel, E., Kirst, M.W., Rosin, M., Perry, M. (2011). *Preparation, placement, proficiency: improving middle grades math performance* (Policy and Practice Brief). Mountain View, CA: EdSource. Retrieved March 3, 2011 from http://www.edsource.org/pub11-middle-grades-math.html.
- National Research Council. (2011). Allocating federal funds for state programs for English language learners. Panel to Review Alternative Data Sources for the Limited-English Proficiency Allocation Formula under Title III, Part A, Elementary and Secondary Education Act, Committee on National Statistics and Board on Testing and Assessment, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. (Panel member)
- Expert Panel on the Future of NAEP. (2012, May). *NAEP: Looking ahead, leading assessment into the future* (Recommendations to the Commissioner). NCES Initiative on the Future of NAEP. (Panel Chair). Retrieved July 7, 2012 from http://nces.ed.gov/nationsreportcard/about/future_of_naep.asp.

EXPERT TESTIMONY:

Koretz, D. M., Madaus, G. F., Haertel, E. H., & Beaton, A. E. (1992, February 19). National educational standards and testing: A response to the recommendations of the National Council on Education Standards and Testing (Invited joint testimony presented by Daniel M. Koretz before the Subcommittee on Elementary, Secondary, and Vocational Education, Committee on Education and Labor, U.S. House of Representatives). (Available as Report no. CT-100 from The RAND Corporation, Washington, DC.)

- Haertel, E. H. (1995, May). The need for the CBEST in assuring the quality of public school teachers for the State of California. Expert Report of Dr. Edward H. Haertel in the United States District Court for the Northern District of California, Case No. C92 3874 WHO (Civil Rights Class Action), The Association of Mexican-American Educators ("AMAE") et al., Plaintiffs, v. The State of California and The California Commission on Teacher Credentialing, Defendants.
- Haertel, E. H. (1995, July). Response to "Response to Reports of Haertel and Jew" by William A. Mehrens and to "Expert Report of Dr. David Wright". Expert Report of Dr. Edward H. Haertel in the United States District Court for the Northern District of California, Case No. C92 3874 WHO (Civil Rights Class Action), The Association of Mexican-American Educators ("AMAE") et al., Plaintiffs, v. The State of California and The California Commission on Teacher Credentialing, Defendants.
- Haertel, E. H. (1995, August). *Direct Testimony of Plaintiff's Expert Dr. Edward H. Haertel*. Written Direct Testimony in the United States District Court for the Northern District of California, Case No. C92 3874 WHO (Civil Rights Class Action), The Association of Mexican-American Educators ("AMAE") et al., Plaintiffs, v. The State of California and The California Commission on Teacher Credentialing, Defendants.
- Haertel, E. H., & Baker, E. (1999, November 22). Invited joint testimony concerning technical issues related to the California Assessment of Applied Academic Skills, presented to a joint meeting of the Senate and Assembly Education Committees of the State of California, Sacramento.
- Haertel, E. H. (2001, February). *Declaration of Edward H. Haertel PhD. in support of respondents' opposition to petition for writ of mandate and complaint for declaratory relief.* Written declaration in the Superior Court of the State of California for the County of Sacramento, Case No. 01CS00136 Patricia A. Boyd, et al., Plaintiffs, v. The State of California, State Board of Education, and Delaine Eastin, Superintendent of Public Instruction, Defendants.
- Haertel, E. H. (2001, April). *Declaration of Edward H. Haertel PhD. in support of resps.' oppos. to motion to strike portions of oppos. and in support of suppl. oppos. to petition for writ of mandate and complaint for declaratory relief.* Written declaration in the Superior Court of the State of California for the County of Sacramento, Case No. 01CS00136 Patricia A. Boyd, et al., Plaintiffs, v. The State of California, State Board of Education, and Delaine Eastin, Superintendent of Public Instruction, Defendants.
- Haertel, E. H. (2004, October). *Declaration of Edward Haertel*. Written deposition regarding a policy implemented and later rescinded for the use of STAR test results to determine students' eligibility for CP, AP, and IB classes in the Modesto City School District.
- Haertel, E. H. (2007, April). *Declaration of Edward Haertel in Support of Plaintiffs' Motion for Issuance of Writ of Mandate*. Written declaration in the Superior Court of California for the City and County of San Francisco, Case No. CPF-05-505334 Coachella Valley Unified School District, et al., Plaintiffs, v. State of California, Arnold Schwarzenegger, et al., Respondents/Defendants.

EXPERT TESTIMONY (CONTINUED):

Haertel, E. H. (2013, September). *Expert Report of Edward Henry Haertel*. Expert Report of Dr. Edward H. Haertel in the United States District Court for the Northern District of Florida, Gainesville Division, Case No. 1:13-cv-72-MW/GRJ, Kim Cook, et al., Plaintiffs, v. Pam Stewart, in her official capacity as Interim Florida Commissioner of Education, et al., Defendants.

OTHER PUBLICATIONS:

- Walberg, H. J., & Haertel, E. H. (Eds.) (1980). Research integration: The state of the art. Guest-edited issue of *Evaluation in Education: An International Review Series*, 4, 1-135.
- Haertel, E. H. (1984). Problems in measuring school reform. In J. W. Guthrie & M. W. Kirst (Eds.), Data-based accountability in education. Berkeley, CA: Policy Analysis for California Education (PACE), University of California at Berkeley and Stanford University.
- Haertel, E. H. (1986). *Domain definition and exercise generation as functions of the National Assessment of Educational Progress*. Paper commissioned by the Study Group on National Assessment, Working Group on State and Federal Roles and Responsibilities, September 1986. (Available from ERIC Document Reproduction Service, No. ED 279 679)
- Haertel, E. H. (1988, May). Validity of teacher tests. *Newsletter for Educational Psychologists* (*NEP*), 11(2), pp. 4, 10.
- Haertel, E.H. (Ed.) (1988). National Assessment of Educational Progress in the U.S.A.: Achievement, changes in achievement, and between-state comparisons. Guest-edited issue of *International Journal of Educational Research*, 12, 667-789.
- Haertel, E. H. (1988). *Validity of teacher licensure and teacher education admissions tests*. Report prepared for the National Education Association and the Council of Chief State School Officers.
- Fetterman, D. M., & Haertel, E. H. (1988). *A school-based evaluation model for accelerating the education of students at risk*. Paper prepared for a conference on Accelerated Schools, held at the Stanford University School of Education, Spring 1988. Eric Document No. ED 313 495 (Clearinghouse on Urban Education).
- Haertel, E. H. (1989). Within-state comparisons: Suitability of state models for national comparisons. In E. H. Haertel (Chair), *Report of the NAEP Technical Review Panel on the 1986 reading anomaly, the accuracy of NAEP trends, and issues raised by state-level NAEP comparisons*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Report No. CS 89-499.
- Haertel, E. H. (1990). Achievement tests. In H. J. Walberg & Geneva D. Haertel (Eds.), *International encyclopedia of educational evaluation*. Oxford: Pergamon.
- Haertel, E. H. (1990). *Policy and programmatic purposes for linking NAEP scales to other tests*. Report prepared for the Council of Chief State School Officers.
- Haertel, E. H. (1991). Reasonable inferences for the Trial State NAEP given the current design: Inferences that can and cannot be made. Report prepared for the National Academy of Education and American Institutes for Research.
- Haertel, E. H. (1992). Performance measurement. In M. C. Alkin (Ed.), *Encyclopedia of educational research* (6th ed., pp. 984-989). New York: Macmillan.

OTHER PUBLICATIONS (CONTINUED):

Haertel, E. H. (1996). Software for the Application of Discrete Latent Structure Models to Item Response Data. Unpublished FORTRAN and Mathematica routines. Available from ERIC Document Reproduction Service, No. ED 403 310.

- Bol, L., & Haertel, E. (1992, October). New directions toward the development of a national accountability component in Chapter 1 evaluation (Paper prepared for the Advisory Committee on Testing in Chapter 1, Office of Elementary and Secondary Education, United States Department of Education)
- Haertel, E. H. (1993). Comparability. Paper prepared for the Pew Forum on Educational Reform.
- Cronbach, L. J., Linn, R., L., Brennan, R. L., & Haertel, E. H. (1995, Summer). Generalizability analysis for educational assessments. *Evaluation Comment* report of the UCLA Center for the Study of Evaluation and the National Center for Research on Evaluation, Standards, and Student Testing.
- Haertel, E. H. (1995). *Technical, practical and political issues surrounding the state's role in developing and administering performance-based teacher licensing assessment systems*. Paper prepared for the National Council for Accreditation of Teacher Education.
- Haertel, E. H. (2009). *Reflections on Educational Testing: Problems and Opportunities* (Paper Prepared for the Carnegie Corporation of New York-Institute for Advanced Study Commission on Mathematics and Science Education). New York: Carnegie Corporation of New York. (Available at http://www.csai-online.org/sites/default/files/resource/imported/b9ca12a8-9d04-404d-87ae-1e0013ff1bcb.pdf)
- Haertel, E. H. (2010). *Student Growth Data for Productivity Indicator Systems*. Paper Commissioned by the K-12 Assessment and Performance Management Center, Educational Testing Service.
- Haertel, E. H. (2013). *Reliability and Validity of Inferences About Teachers Based on Student Test Scores* (14th William H. Angoff Memorial Lecture). Princeton, NJ: Educational Testing Service. (Available at http://www.ets.org/Media/Research/pdf/PICANG14.pdf)

SELECTED PRESENTATIONS:

- Haertel, E. H., & Wiley, D. E. (1995). Response to the OEA Panel report, "Review of the measurement quality of the Kentucky Instructional Results Information System, 1991-1994". Paper prepared for the Kentucky Department of Education and Advanced Systems in Measurement and Evaluation.
- Haertel, E. H. (2001). Comment by Edward Haertel (Discussion of "The controversy over the National Assessment Governing Board standards" by Mark D. Reckase). In D. Ravitch (Ed.), *Brookings Papers on Education Policy: 2001* (pp. 255-262). Washington, DC: Brookings Institution Press.
- Haertel, E. H. (2003, December). *Including students with disabilities and English language learners in NAEP: Effects of differential inclusion rates on accuracy and interpretability of findings* (Paper prepared for the National Assessment Governing Board). Available online at http://www.nagb.org/pubs/conf_papers.html.
- Marshall, J. L., & Haertel, E. H. (1975, April). A single-administration reliability index for criterion-referenced tests: The mean split-half coefficient of agreement. Paper presented at the meeting of the American Educational Research Association, Washington, D. C.

SELECTED PRESENTATIONS (CONTINUED):

Dinero, T., & Haertel, E. H. (1976, April). *The applicability of the Rasch model with varying item discriminations*. Paper presented at the meeting of the American Educational Research Association, San Francisco.

- Haertel, E. H., & Prescott, S. (1977, April). *Observation of teacher behavior: A problem of two random effects*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H., Pifer, R. E., & Wiley, D. E. (1977, April). *Procedures for achievement-based estimation of Title I eligibility rates*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H., Pifer, R. E., & Wiley, D. E. (1977, April). *Technical issues in the allocation of Title I funds using achievement test scores*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H., & Wiley, D. E. (1978, March). *The participation study and the Title I achievement eligibility study: Complementarity of data and findings*. Paper presented at the meeting of the American Educational Research Association, Toronto.
- Haertel, E. H., & Wiley, D. E. (1978, December). *Rebalancing the test battery for high school and beyond: Analyses and recommendations*. Paper presented at the Joint Meeting of the National Planning Committee and the Test Advisory Panel of the Project "High School and Beyond."
- Haertel, E. H., & Wiley, D. E. (1979, April). *Out-of-school determinants of elementary school achievement*. Paper presented at the meeting of the American Educational Research Association, Toronto.
- Haertel, G. D., Walberg, H. J., & Haertel, E. H. (1979, April). *Social-psychological environments and learning: A quantitative synthesis*. Paper presented at the meeting of the American Educational Research Association, San Francisco.
- Haertel, E. H., (1980, April). *Modeling multiple discrete skills invoked by test items*. Paper presented at the meeting of the American Educational Research Association, Boston.
- Haertel, E. H. (1981, April). A theoretical framework for defining what is measured by criterion-referenced tests. Paper presented at the meeting of the American Educational Research Association, Los Angeles.
- Haertel, E. H. (1982, March). *The application of latent class models to assessment data*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H., Korpi, M., & Capell, F. (1982, March). *Detection of distinct skills required by reading comprehension test items*. Paper presented at the meeting of the American Educational Research Association, New York.
- Korpi, M., & Haertel, E. H. (1982, March). *Cognitive skills required to solve reading comprehension test items*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H. (1984, April). *Criterion-referenced testing: Strategies for construct validation*. Paper presented at the meeting of the American Educational Research Association, New Orleans.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H., Ferrara, S., Korpi, M., & Prescott, B. (1984, April). *Testing in secondary schools: Student perspectives.* Paper presented at the meeting of the American Educational Research Association, New Orleans.

- Haertel, E. H., & Wiley, D. E. (1984, April). *Estimating subpopulation means from aggregate data in the presence of ecological effects*. Paper presented at the meeting of the American Educational Research Association, New Orleans.
- Korpi, M., & Haertel, E. H. (1984, April). *Locating reading test items in multidimensional space: An alternative analysis of test structure.* Paper presented at the meeting of the American Educational Research Association, New Orleans.
- School reform: Setting standards for the schools. (1984, June). Panel discussion of strategies for reforming and improving California's schools. Stanford University, Stanford, California. (With State Superintendent Honig and Professors Kirst, Cuban and Dornbusch.)
- Haertel, E. H. (1984, October). Evaluating teachers by evaluating students: Problems and solutions in implementing some mandates of California's SB 813. Paper presented at the joint meeting of the Evaluation Research Society and the Evaluation Network, San Francisco.
- Haertel, E. H., & Ryan, P. J. (1985, April). *Construct validity and achievement testing: Looking beyond the right answer*. Paper presented at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H. (1985, April). A comparison of latent structure models for reading comprehension *items*. Paper presented at the meeting of the National Council on Measurement in Education, Chicago.
- Haertel, E. H. (1985, June). *Continuous and discrete latent structure models for item response data*. Paper presented at the meeting of the Psychometric Society, Nashville.
- Haertel, E. H. (1986, April). *Choosing and using classroom tests: Teachers' perspectives on assessment*. Paper presented at the meetings of the American Educational Research Association and the National Council on Measurement in Education, San Francisco.
- Haertel, E. H. (1986, April). *The valid use of student performance measures for teacher evaluation*. Paper presented at the meeting of the American Educational Research Association, San Francisco.
- Haertel, E. H. (1986, April). *Using restricted latent class models to map the skill structure of achievement items*. Paper presented at the meeting of the National Council on Measurement in Education, San Francisco.
- Haertel, E. H. (1986, April). *Balance in assessment*. Address presented at the Stanford Conference on Education, Stanford.
- Haertel, E. H. (1986, May). Presenter, conference on *Education in the Year 2000*, sponsored by Friends of the Stanford University School of Education. Stanford, CA.
- Haertel, E. H. (1987). The Teacher Assessment Project and the National Teacher Certification Test. In National Evaluation Systems, *Trends in teacher certification* (pp. 17-23). Amherst, MA: Author. (Address delivered at conference on *New Directions in Teacher Certification Testing*, sponsored by National Evaluation Systems, Chicago, November 1986.)

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (1987, April). *Structuring item domains to map the school curriculum*. Paper presented at the meeting of the American Educational Research Association, Washington, DC.

- Haertel, E. H. (1987, May). *Teacher competency: Thinking about how to test*. Keynote address at the Conference on Teacher Competency Testing, Center for Excellence in Education, Northern Arizona University.
- Haertel, E. H., Wilson, S., & Aburto, S. (1987, June). *The Carnegie Forum Project on teacher assessment: Beyond multiple-choice tests*. Presentation at the ECS/CDE Assessment Conference on "Assessment and Educational Quality," Boulder, CO.
- Haertel, E. H., & Green, D. R. (1987, June). *Using IRT to measure achievement: Assumptions, limits, and possibilities.* Presentation at the ECS/CDE Assessment Conference on "Assessment and Educational Quality," Boulder, CO.
- Haertel, E. H. (1987, October). Assessment of teaching: Purposes, practices, and implications for the profession. Paper presented at the 1987 Buros-Nebraska Symposium on Testing, Lincoln, NE.
- Haertel, E. H. (1988, April). *Quantifying the wisdom of practice*. Paper presented at the meetings of the American Educational Research Association and the National Council on Measurement in Education, New Orleans.
- Haertel, E. H., & Bayless, D. (1988, June). *Fair reporting of state comparisons*. Presentation at the ECS/CDE Assessment Conference on "Assessment and Curricular Reform," Boulder, CO.
- Haertel, E. H., Collins, A., & Vavrus, L. (1988, June). *How do performance assessments perform?*An update on Stanford University's Teacher Assessment Project. Presentation at the ECS/CDE Assessment Conference on "Assessment and Curricular Reform," Boulder, CO.
- Haertel, E. H., Burstein, L., Phillips, G., & Schmidt, W. (1988, June). *The NAEP Technical Review Panel: Investigating anomalies, maintaining trends and comparing states.* Presentation at the ECS/CDE Assessment Conference on "Assessment and Curricular Reform," Boulder, CO.
- Haertel, E. H. (1988, June). *Using student achievement data for assessing teacher competence*. Presentation at a Seminar of the New Interstate Teacher Assessment and Support Consortium, Boulder CO.
- Fetterman, D.M., & Haertel, E.H. (1988, November). A School-based evaluation model for accelerating the education of students at-risk. Presentation at the Accelerated Schools Conference, Stanford University. Available from ERIC Document Reproduction Service, No. ED 313 495.
- Haertel, G. D., Katzenmeyer, C. G., & Haertel, E. H. (1989, March). *Capturing the quality of schools: Approaches to Evaluation*. Paper presented at the meeting of the American Educational Research Association, San Francisco.
- Haertel, E. H. (1989, April). Finding out what people think: Strategies for systematic data collection. Presentation at the General Accounting Office (GAO) Annual Technical Conference, College Park, Maryland.
- Haertel, E. H., & Wiley, D. E. (1989, July). *Psychometrics for performance assessment*. Presentation at the CAP Summer Technical Seminar, Berkeley, CA.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (1990, April). From expert opinions to reliable scores: Psychometrics for judgment-based teacher assessment. Paper presented at the meeting of the American Educational Research Association, Boston.

- Haertel, E. H., & Wiley, D. E. (1990, April). *Poset and lattice representations of ability structures: Implications for test theory*. Paper presented at the meeting of the American Educational Research Association, Boston.
- Haertel, E. H. (1992, April). *Latent traits or latent states? The role of discrete models for ability and performance*. Raymond B. Cattell Invited Address presented at the meeting of the American Educational Research Association, San Francisco.
- Haertel, E.H. (1992, June). *Panel discussion of NSF-sponsored research in science assessment* (participant). Symposium presented at the Education Commission of the States Conference on Assessment, Boulder, CO.
- Haertel, E. H. (1993, March). *Issues and questions about portfolios and portfolio systems*. Invited address presented to the California Portfolio Task Force, San Francisco, CA.
- Haertel, E. H. (1993, April). Research as a base for reform in assessment of student learning practices in precollege science and mathematics. Invited symposium presented at the meeting of the National Association for Research in Science Teaching, Atlanta, GA.
- Haertel, E. H. (1993, August 26). What to do when the chunks are too big to chew? Psychometrics for performance assessments. Joseph Mayer Rice Memorial Lecture, University of North Carolina at Greensboro.
- Haertel, E. H. (1995, March 15). What are educational tests good for? Presentation to Fellows and guests at the Center for Advanced Study in the Behavioral Sciences, Stanford, California.
- Haertel, E. H. (1995, March 30). *Teacher assessment*. Kellogg Series Invited Lecture at Michigan State University, East Lansing, MI.
- Haertel, E. H., Hamilton, L. S., Jones, C., Nussbaum, E. M., O'Connell, M. P., & Reese, J. (1995, April). *Assessment versus instruction: Can one task serve two masters?* Paper presented at the meeting of the American Educational Research Association, San Francisco.
- Traub, R. E., Haertel, E. H., & Shavelson, R. J. (1996, April). *The effects of measurement error on the trustworthiness of examinee classifications*. Paper presented at the meeting of the American Educational Research Association, New York.
- Haertel, E. H. (1996, April). *Estimating decision consistency from a single administration of a performance assessment battery: The NBPTS MC-Gen Assessment*. Paper presented at the meeting of the Technical Analysis Group, National Board for Professional Teaching Standards, Charlotte, NC.
- Haertel, E. H. (1996, October). *Test linking and comparability*. Paper presented at Comparability Symposium sponsored by the California Department of Education and the Los Angeles County Office of Education, Burlingame, CA.
- Haertel, E. H. (1997, February). *Exploring and explaining U.S. TIMSS performance*. Paper presented at the National Academy of Sciences Symposium on the Third International Mathematics and Science Study (TIMSS), Washington, DC.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (1997, April). *Perspectives on standard setting: A statistician's view*. Symposium presentation at the meetings of the National Council on Measurement in Education and the American Educational Research Association, Chicago.

- Haertel, E. H. (1997, April). Legal standards for certification tests: Implications of the federal court's rulings in the class action challenge to California's basic skills test for educators (Panel Participant). Panel discussion at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H. (1997, April). *Balancing acts: Life in the academy*. Symposium presentation at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H. (1998, April). *The CBEST Saga: Implications for teacher certification testing*. Panel participant at the meeting of the National Council on Measurement in Education, San Diego, California.
- Haertel, E. H. (1998, April). Why is it so hard to agree on professional testing standards: An academic/scientific perspective. Symposium presentation at the meeting of the American Educational Research Association, San Diego, California.
- Stecher, B. M., Klein, S. P., Solano-Flores, G., McCaffrey, D., Robyn, A., Shavelson, R. J., & Haertel, E. H. (1998, April). *Do content, format, and level of inquiry affect scores on openended science tasks?* Paper presented at the meeting of the American Educational Research Association, San Diego, California.
- Haertel, E. H. (1999, April). *Validity arguments for high-stakes testing: In search of the evidence*. Presidential Address to the National Council on Measurement in Education, Montréal, Canada.
- Haertel, E. H. (1999, September). *Issues in school comparability*. Presentation at the 1999 Conference on "Benchmarks for Accountability: Are we There Yet?" Sponsored by the Center for Research on Evaluation, Standards, and Student Testing, University of California, Los Angeles.
- Haertel, E. H. (1999, October). *Reliability*. Presentation at the Edward Reidy Memorial Conference sponsored by National Center for Improvement of Educational Assessments, Providence, RI.
- Haertel, E. H. (2000, January). *Testing and standards-based reform*. Presentation to the Pew Network Council, Stanford, CA.
- Haertel, E. H., & Lorié, W. A. (2000, April). Standards for student work versus standards for students: Conceptual confusions in standards-based reporting. Paper presented at the meeting of the American Educational Research Association, New Orleans.
- Haertel, E. H. (2000, May). Discussion of "The controversy over the national standards set by the National Assessment Governing Board" by Mark D. Reckase. Brookings Papers on Education Policy: Conference on National Standards, Washington, DC.
- Haertel, E. H. (2000, July). *The Design of the Academic Performance Index used for ranking schools in California*. Lecture presented by invitation at the National Center for University Entrance Examinations, Tokyo, Japan.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (2000, July). *How the SAT is used in undergraduate admissions at Stanford University*. Lecture presented by invitation at the National Center for University Entrance Examinations, Tokyo, Japan.

- Haertel, E. H. (2001, April). *Standard setting as a participatory process: Implications for validation of standards-based accountability programs*. Paper presented at the meeting of the American Educational Research Association, Seattle.
- Haertel, E. H. (2001, April). "High stakes testing" and the <u>Standards for educational and psychological testing</u>. Keynote address to the National Association of Test Directors, Seattle.
- Haertel, E. H. (2001, June). *Seminar session on California's Academic Performance Index (API)*. Extended invited presentation to the State Board of Education, Sacramento, CA.
- Haertel, E. H. (2001, December). *Looking at NAEP 2001 mathematics results*. Major address at the annual meeting of the California Mathematics Council, Asilomar, CA.
- Haertel, E. H. (2002, April). *Technical issues in the use of NAEP to confirm states' achievement gains*. Paper presented at the meeting of the American Educational Research Association, New Orleans.
- Haertel, E. H. (2002, October). Educational testing and reform: Is the No Child Left Behind Act "scientifically based"? William E. Coffman Lecture, University of Iowa.
- Haertel, E. H. (2003, January). *The What Works Clearinghouse and scientifically based research*. Presentation at the 2003 Reading Faculty Forum, Sacramento. (Cosponsored by the California State University Center for the Advancement of Reading, California Department of Education, and California Commission on Teacher Credentialing.)
- Haertel, E. H. (2003, April). *Differential prediction and opportunity to learn*. Poster presentation at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H. (2003, April). Evidentiary argument and the comparability of scores from standard versus nonstandard test administrations. Paper presented at the meeting of the American Educational Research Association, Chicago.
- Ho, A. D., & Haertel, E. H. (2003, April). *Criterion-referenced testing: An idea in need of a theory*. Paper presented at the meeting of the American Educational Research Association, Chicago.
- Pullin, D., & Haertel, E. H. (2003, April). *The idea of an "opportunity to learn": Historical and methodological perspectives on policy challenges and research inquiries.* Paper presented at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H., & Wiley, D. E. (2003, August). *Comparability issues when scores are produced under varying testing conditions*. Paper presented at the Psychometric Conference on Validity and Accommodations, University of Maryland.
- Michaelides, M. P., & Haertel, E. H. (2004, April). Sampling of common items: An ignored source of error in test equating. Paper presented at the meeting of the National Council on Measurement in Education, San Diego.
- Haertel, E. H. (2004, September). *California's API: Recent developments and future prospects*. Paper presented at the annual conference of the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), Los Angeles.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (2005, February). *California's API: Recent developments and future prospects*. Invited presentation at the American Institutes for Research, Palo Alto.

- Haertel, E. H. (2005, April). *High stakes tests as policy tools: Dilemmas of theory and practice*. Paper presented at the meeting of the National Council on Measurement in Education, Montréal, Canada.
- Ho, A. D., & Haertel, E. H. (2005, April). *Metric-free methods for evaluating and interpreting gaps between test-score distributions*. Paper presented at the meeting of the American Educational Research Association, Montréal, Canada.
- Haertel, E. H. (2005, April). Assessment, equity, and opportunity to learn: Toward new views of knowing, teaching, and testing. Paper presented at the meeting of the American Educational Research Association, Montréal, Canada.
- Haertel, E. H. (2005, September). *The many ways of using tests for educational improvement*. Paper presented at the annual conference of the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), Los Angeles.
- Wei, X., Shen, X., Lukoff, B., Ho, A. D., & Haertel, E. H. (2006, April). *Using test content to address trend discrepancies between NAEP and California state tests*. Paper presented at the meeting of the American Educational Research Association, San Francisco.
- Williams, T., Kirst, M. W., & Haertel, E. H. (2006, November). *Similar students, different results:* Why do some schools do better? Keynote address at the meeting of the California Educational Research Association, Monterey.
- Haertel, E. H. (2007, January). *Standard setting*. Paper presented at the 2007 CRESST Conference, The Future of Test-Based Accountability: Festschrift in Honor of Robert L. Linn. National Center for Research on Evaluation, Standards, and Student Testing (CRESST), Los Angeles.
- Haertel, E. H. (2007, April). *Reliability*. Paper presented at the meeting of the National Council on Measurement in Education, Chicago.
- Shen, X., & Haertel, E. H. (2007, April). *Comparing item response trends for validating score gains on a state high-stakes test*. Paper presented at the meeting of the American Educational Research Association, Chicago.
- Haertel, E. H. (2007, May). *Psychometric audit of the GBX and FLYX*. Invited presentation to the Committee of Bar Examiners of the State of California, San Diego.
- Haertel, E. H. (2007, November). *The crafting of an accountability system: many actors, many parts*. Invited address at the meeting of the California Educational Research Association, Dana Point, California, on occasion of receipt of 2007 CERA Lifetime Achievement Award.
- Williams, T., & Haertel, E. H. (2007, November). Similar EL students, different results: Why do some schools do better? Paper presented at the meeting of the California Educational Research Association, Dana Point, California.
- Shen, X., & Haertel, E. H. (2008, April). *Stability of school academic performances across subject areas and grade levels*. Paper presented at the meeting of the American Educational Research Association, New York.

SELECTED PRESENTATIONS (CONTINUED):

Newton, X. A., Darling-Hammond, L., Haertel, E. H., & Thomas, E. A. C. (2008, April). *Exploring value-added methods: how models matter*. Paper presented at the meeting of the American Educational Research Association, New York.

- Haertel, E. H. (2008, June 18). *Evidence and opportunity to learn*. Presentation to Stanford Principal Fellows Summer Retreat, Stanford, CA.
- Haertel, E. H. (2008, October 6). *Instability of teacher effects estimates from value-added models*. Presentation at the Value-Added Methodology Seminar co-sponsored by Policy Analysis for California Education (PACE) and the Commission on Teacher Credentialing (CTC), Sacramento, California.
- Haertel, E. H. (2009, June 23). *Evidence, equity, and opportunity to learn*. Presentation to Stanford Principal Fellows Summer Retreat, Stanford, CA.
- Haertel, E. H. (2009, December 1). *Designing an assessment system for the Race to the Top*. Invited Expert Presentation, U. S. Department of Education Public Meeting, Denver, Colorado.
- Haertel, E. H. (2009, December 7). *Student growth data for productivity indicator systems*. Exploratory Seminar: Next Generation K-12 Assessment Systems, Educational Testing Service, Princeton, NJ.
- Haertel, E. H. (2010, March 18). A dozen theories of action for testing as an educational policy tool. CTB Research Seminar Series, CTB/McGraw-Hill, Monterey, CA.
- Biancarosa, G., Bryk, A. S., Greenberg, S., Cor, K. M., Haertel, E. H., Fountas, I., Pinnell, G. S., Scharer, P. L., & Dexter, E. (2010, May). *Piloting a performance-based assessment of literacy coaching*. Paper presented at the meeting of the American Educational Research Association, Denver.
- Haertel, E. H., & Levin, J. L. (2010, May). *Design and analysis of a large-scale middle-grades survey*. Paper presented at the meeting of the American Educational Research Association, Denver.
- Williams, T., Kirst, M. W., Haertel, E. H., Padia, W., Perry, M., Rosin, M., & Levin, J. L. (2010, May). *Gaining ground in the middle grades: findings and significance of a large-scale survey of middle-grades practices*. Paper presented at the meeting of the American Educational Research Association, Denver.
- Haertel, E. H. (2010, May 14). *Examining the evidence*. Speaker's Forum presentation at the annual meeting of the Education Writer's Association, San Francisco.
- Haertel, E. H. (2010, September 24). *Using standardized tests to define the quality of teachers and schools*. Presentation to Stanford Principal Fellows Summer Retreat, Stanford, CA.
- Darling-Hammond, L., Haertel, E. H., & Thomas, E. (2010, October). Podcast discussing paper by Newton, Darling-Hammond, Haertel, & Thomas on Value-Added Modeling of Teacher Effectiveness, published in *Educational Policy Analysis Archives*. (Podcast available at http://player.vimeo.com/video/16903499)
- Williams, T., & Haertel, E. H. (2010, November 18). *Gaining ground in the middle grades: why some schools do better*. Paper presented at the meeting of the California Educational Research Association, San Diego, CA.

SELECTED PRESENTATIONS (CONTINUED):

Haertel, E. H. (2011, April). *Using student test scores to distinguish good teachers from bad*. Paper presented as part of AERA Presidential Session on "Measuring and Developing Teacher Effectiveness: An Assessment of Research, Policy, and Practice." New Orleans, LA.

- Haertel, E. H. (2011, September). *Using student test scores to identify good versus poor teachers*. Paper presented as part of a briefing co-sponsored by AERA and NAEd on "Getting Teacher Evaluation Right: A Challenge for Policy Makers," Washington, DC.
- Haertel, E. H. (2011, December). *Problems with the use of student test scores to evaluate teachers*. Keynote Address at the meeting of the California Educational Research Association, Anaheim, CA.
- Rosin, M., & Haertel, E. H. (2011, December). *Preparation, placement, proficiency: clarifying the challenge of grade 8 Algebra I placement in California*. Paper presented at the meeting of the California Educational Research Association, Anaheim, CA.
- Haertel, E. H. (2012, March). *NCES Initiative on the Future of NAEP*. Presentation to the National Assessment Governing Board, New Orleans, LA.
- Darling-Hammond, L., & Haertel, E. H. (2012, March). Legislative staff briefing on teacher evaluation. Sacramento, CA.
- Haertel, E. H. (2012, April). *How is testing supposed to improve schooling?* (NCME Career Award Address). Paper presented at the meeting of the National Council on Measurement in Education, Vancouver, British Columbia.
- Haertel, E. H. (2012, April). *NCES initiative on the future of NAEP*. (Panel discussion at NAEP SIG.) Paper presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia.
- Haertel, E. H. (2013, March 21). *Reliability and validity of inferences about teachers based on student test scores* (14th William H. Angoff Memorial Lecture). Princeton, NJ: Educational Testing Service.
- Haertel, E. H. (2013, March 22). *Inferences about teachers based on student test scores* (14th William H. Angoff Memorial Lecture). Washington, DC: National Press Club (sponsored by Educational Testing Service).
- Haertel, E. H. (2013, April). *The roles of the testing profession in addressing problems of education policy and practice* (Robert L. Linn Distinguished Address). Invited Address presented at the meeting of the American Educational Research Association, San Francisco, CA.
- Moss, P., & Haertel, E. (2013, April). *Methodology* (overview of chapter for forthcoming 5th edition of the *Handbook of Research on Teaching*). Presentation at the meeting of the American Educational Research Association, San Francisco, CA.
- Goldenberg, C., Coleman, R., Haertel, E., Reese, L., & Rodriguez-Mojica, C. (2013, April). *Classroom Qualities for English Language Learners (CQELL)*. Presentation at the meeting of the American Educational Research Association, San Francisco, CA.
- Haertel, E. H. (2013, June). *A vision for the future*. Paper presented at the Symposium on the Reports of the Gordon Commission on the Future of Assessment in Education. Los Angeles, CA, University of California at Los Angeles. (Available at http://www.cse.ucla.edu/colloquium/Haertel-Remarks-GC.pdf)

PROFESSIONAL SERVICE:

Proposal review for the National Science Foundation

Proposal and document review for the National Center for Education Statistics

Report review for the National Research Council

Reviewer, Applied Measurement in Education.

Reviewer, Journal of Educational Measurement.

Reviewer, Educational Measurement: Issues and Practice.

Reviewer, Journal of Educational Psychology.

Reviewer, Journal of Educational and Behavioral Statistics.

Editorial Board, Stanford Series on Education and Public Policy, Falmer Press, 1984-1992.

Editorial Board, Journal of Educational Measurement, 1985-1988.

Editorial Board, New Directions for Program Evaluation, 1988-1990.

Associate Editor, Journal of Educational Statistics, 1988-1991.

Editorial Board, Educational Assessment, 1994-present.

Management Committee, Journal of Educational and Behavioral Statistics, 1995-2005.

Editorial Board, Applied Measurement in Education, 2001-present.

Editorial Board, Measurement: Interdisciplinary Research and Perspectives, 2001-present.

Editorial Board, Journal of Educational and Behavioral Statistics, 2011-present.

Editorial Board, NCME Applications of Educational Measurement and Assessment Book Series, 2011-present.

- Chair, Research Using National Assessment of Educational Progress Data, a Special Interest Group of the American Educational Research Association. April 1985-March 1987.
- Co-Chair, Division D Section 2 (Theoretical Measurement), 1987 Program Committee of the American Educational Research Association. April 1986-March 1987.
- Member (1987) and chair (1988), Palmer O. Johnson Award Committee, American Educational Research Association, 1987-88.
- Chair, Selection Committee for the AERA Award for Distinguished Contributions to Educational Research, 1992-1994.
- Program Committee Co-Chair (1992-93) and Program Committee Chair (1993-94), AERA Special Interest Group on Lesbian and Gay Studies.
- Member, Leadership Group, AERA Special Interest Group on Lesbian and Gay Studies, 1993-1996.
- Member at Large, AERA General Council, 1993-1996; Member, AERA Executive Board, 1994-1996.
- Chair, NCME Task Force on Policy and Technical Issues in Performance Assessment, 1990-1991.
- Member, NCME Board of Directors, 1992-1995, 1997-2000; Executive Committee, 1997-2000.
- Member, National Faculty, UCLA Center for Research on Evaluation, Standards, and Student Testing, 1986-1990.
- CRESST Partner (National Center for Research on Evaluation, Standards, and Student Testing), 1996-2005.
- Member, Advisory Panel for the Synthesis of reported evaluation and research evidence on the effectiveness of bilingual education basic projects, National Center for Bilingual Research, Los Alamitos, California, 1982.
- Member, Assessment Panel, National Center for Improving Science Education, 1988-1990.

PROFESSIONAL SERVICE (CONTINUED):

- Member, Focus Group on Testing (convened by the National Academy of Education), 1989.
- Member, Technical Advisory Group, California Assessment Program (1989-1993) and California Learning Assessment System (1993-1995).
- Member, State of California Advisory Committee on Rewards and Interventions, 1997.
- Member, State of California Advisory Committee on CAAAS Matrix Test, 1999.
- Member, Proposal Review Committee for the CAAAS Matrix Test, 1999.
- Member, State of California Advisory Committee for the Public Schools Accountability Act of 1999 and Co-Chair, Subcommittee on the Academic Performance Index, 1999-3; Subcommittee Chair, 2003-present.
- Member, Technical Design Group for the Public Schools Accountability Act of 1999; Co-Chair 1999-2003; Chair, 2003-present.
- Member, Technical Advisory Group on Standards, National Assessment Governing Board, 1990-1991.
- Member, National Academy of Education Panel on the Evaluation of the NAEP Trail State Assessment and Standard Setting, 1992-1994.
- Member, Technical Review Panel for NAEP Validity Studies, Center for Research on Evaluation, Standards, and Student Testing and the RAND Corporation, 1990-1994.
- Consultant to the National Academy of Education and American Institutes for Research on the evaluation of the Trial State Assessment, National Assessment of Educational Progress, 1990-1991.
- Member, Technical Planning Subgroup, Goal 4, for National Education Goals Panel, National Governors Association, 1991-1992.
- Member, Technical Analysis Group, National Board for Professional Teaching Standards, 1991-1996.
- Member, Technical Advisory Group, Kentucky Instructional Results Information System [KIRIS], 1992-1995.
- Member, Technical Advisory Committee, Advanced Systems in Measurement and Evaluation, 1995-2000.
- Member, Technical Advisory Committee, Measured Progress, 2000-2012.
- Member, National Technical Working Group, Kentucky Department of Education, 1995-1997. (Technical advisory committee for the KIRIS)
- Member, Joint Committee on the Standards for Educational and Psychological Testing, 1993-1999. (A Joint Committee of the American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education.)
- Member, Board on International Comparative Studies in Education, National Research Council, 1988-1994.

PROFESSIONAL SERVICE (CONTINUED):

Member, National Assessment Governing Board, 1997-2003.

Chair, Achievement Levels Committee; Member, Executive Committee of the National Assessment Governing Board, 1998-2000.

Chair, Committee on Standards, Design and Methodology; Member, Executive Committee of the National Assessment Governing Board, 2000-2003.

Member, National Test Panel convened by the CCSSO to oversee specifications for the National Tests in Reading (Grade 4) and Mathematics (Grade 8), 1997.

Member, Technical Advisory Committee, GreatSchools.net., 1999-2004.

Member, Technical Advisory Group, What Works Clearinghouse, 2002-2004.

Member, Board of Directors, National Center for the Improvement of Educational Assessment, 2001-2010.

Member, Board of Directors, National Academy of Education, 2001-2003.

Member, ETS Visiting Panel on Research, 2003-2009.

Senior Technical Advisor to *EdSource* study on "Improving achievement for low-income students: What makes a difference?" 2004-2006.

Senior Technical Consultant to *EdSource* study on "Gaining Ground in the Middle Grades" and followup study on "Preparation, Placement, Proficiency: Improving Middle-Grades Math Performance" 2008-2011.

Member, Accountability Working Group appointed by California Secretary of Education Alan Bersin, State Board of Education President Ruth Green, and California Superintendent of Public Instruction Jack O'Connell, to consider redesign of California's Academic Performance Index in response to the No Child Left Behind legislation, 2005-2006.

Member, Government Accountability Office Expert Panel on Assessing Students With Limited English Proficiency, January 20, 2006, University of California at Davis.

Member, Committee on Social Science Research Evidence on Racial Diversity in Schools, National Academy of Education, 2007.

Member, Spencer Exemplary Dissertation Award Selection Committee, 2007-2009.

Member, Spencer Dissertation Fellowship Selection Committee, 2009-2011.

Member, National Research Council Panel to Review Alternative Data Sources for the Limited-English Proficiency Allocation Formula under Title III, Part A, Elementary and Secondary Education Act, 2008-2011.

Member, Strategic Education Research Partnership (SERP) San Francisco Design Team, 2007-2010.

Chair, Board on Testing and Assessment (BOTA), National Research Council, 2008-2014.

Member, NCME Newsletter Advisory Board, 2009-2012.

PROFESSIONAL SERVICE (CONTINUED):

- Vice-President for Programs and member, Board of Directors, National Academy of Education, 2009-2013.
- Member, Technical Advisory Council, National Center on Education and the Economy (NCEE) State Consortium on Board Examination Systems, 2009-present.
- Member, Advisory Panel for the Evaluation of the California High School Exit Examination (CAHSEE), 2010-2012.
- Member, Technical Advisory Committee, SMARTER Balanced Assessment Consortium, 2010-present.
- Member, National Research Council *Committee on Developing Assessments of Science Proficiency in K-12*, 2012-2013.
- Chair, National Center for Education Statistics (NCES) Initiative on the Future of the National Assessment of Educational Progress (NAEP), 2011-2012.

UNIVERSITY SERVICE:

- Member, Committee on Academic Appraisal and Achievement, Subcommittee on Evaluation and Improvement of Teaching, 1984-1985.
- Member, Committee on Academic Appraisal and Achievement, 1988-1992. (Co-chair, 1989-1990, Chair, 1990-1991, Co-chair, 1991-1992)
- Member, Administrative Panel on Human Subjects in Nonmedical Research, 1987-1993.
- Acting Chair, Committee on Research and Evaluation Methods, School of Education, Autumn 1990.
- Acting Chair, Committee on Psychological Studies in Education, School of Education, Winter-Spring 1990-1991; Fall 1996; Spring 1997.
- Chair, Committee on Psychological Studies in Education, School of Education, 1997-1999; 2003-2005.
- Member, Committee on Educational Policy, School of Education, 1992-1994, 1997-1998, 2000-2004
- Member, Search Committee for University Registrar, 1993.
- Member, Student Conduct Legislative Council, 1993-1994.
- Freshman Advisor, 1993-2006.
- Representative to Faculty Senate, 1993-1994, 1999-2000.
- Chair, Ad Hoc Committee to Explore Quantitative Methods Course Offerings in the School of Education, 1995-1996.
- Member, Committee on Undergraduate Admissions and Financial Aid (CUAFA), 1995-1999; Chair, 1998-1999.
- Member, Dean's Advisory Committee, 1997-2000.

UNIVERSITY SERVICE (CONTINUED):

Member, Spencer Research Training Grant Coordinating Committee, 1997-2000; Chair, 1998-2000.

- Member, Search Committee for Director of Lesbian, Gay, and Bisexual Community Center, 1998.
- Faculty Sponsor, SchoolsOut (Gay, Lesbian, and Bisexual student organization for the Stanford University School of Education), 1998-present.
- Member, Queer Awareness Days (QuAD) Advisory Committee for the Lesbian, Gay, and Bisexual Community Center (LGBCC), 1999-2000.

Member, Search Committee for the Dean of the School of Education, 1999-2000.

Member, Advisory Board of the Academic Council, 2003-2006; Chair, 2005-2006.

Associate Dean for Faculty Affairs, 2005-2010.

Member, WASC Reaccreditation Steering Committee, 2007-2011.

Member, Provost's Standing Panel of Fact-Finders, 2011-present.

GRANTS AND CONTRACTS:

- Wiley, D. E. *Testing for Minimal Competency and Curriculum Evaluation: Technical and Policy Issues*. Grant received by the *ML-GROUP for Policy Studies in Education* from the National Institute of Education (David E. Wiley was Principal Investigator; Haertel co-authored proposal with Wiley and Annegret Harnischfeger, and was named among key personnel.) 1977-1979.
- Haertel, E. *Discrete Ability Profile Models of Mathematics Attainment: Development and Application*. Grant received from the Education Commission of the States. 1981-1982.
- Haertel, E. Developing Mathematical Models for Describing Test Response Data. Grant received from the Spencer Foundation. 1983.
- Haertel, E. Construct Validity and Classroom Testing. Grant received from the Spencer Foundation. 1984.
- Haertel, E. H., & Rogosa, D. R. (listed alphabetically). Equipment grant for instructional uses of microcomputers under Stanford/IBM Ramus project. 1985.
- Haertel, E. H. *Tests of Divergent Thinking in High School English*. Grant received from the Spencer Foundation. 1986.
- Haertel, E. H. *Evaluation of the Monterey County Science Implementation Project*. Grant received from The David and Lucile Packard Foundation. 1987-1989.
- Applebee, A., Langer, J., & Haertel, E. *Policy and Practice in the Teaching of Writing*. Grant received from the Spencer Foundation. 1987.
- Applebee, A., Langer, J., & Haertel, E. *Policy and Practice in the Teaching of Reading*. Grant received from the Office of Educational Research and Improvement, U.S. Department of Education. 1988.

GRANTS AND CONTRACTS (CONTINUED):

Shulman, L. S. *California Center for the Development of Candidate Based New Teacher Assessment*. Grant received by Stanford University from the State of California. (One of three Associate Directors assisting Lee S. Shulman, Principal Investigator) 1989.

- Haertel, E. H. Alternative performance assessment systems: An evaluation of cost, technical quality, feasibility and acceptability. (Subcontract to Stanford University under National Science Foundation grant to the RAND Corporation, Stephen Klein, Principal Investigator.) 1992-1996.
- Haertel, E. H. Achievement and assessment in school science: Modeling and mapping ability and performance. Grant from the National Science Foundation, 1992-1996.
- Haertel, E. H. *Evaluating communities of learners*. Grant from the Andrew W. Mellon Foundation, 1994-2001.
- Haertel, E. H. *Evaluation of Schools for Thought Diffusion Project*. Subcontract to Vanderbilt University (funded by Mellon Foundation), 1997-2001.
- Haertel, E. H. *Spencer Mentor Award* (Spencer Foundation award to support mentoring of doctoral students), 2000-2003.
- Haertel, E. H. Judgmental Standard Setting for Educational Tests: Toward Rational Foundations and Defensible Methods (Major Research Grant from the Spencer Foundation), 2000-2003.
- Haertel, E. H. *The Behavior of Linking Items in Test Equating* (Subcontract to the National Center for Research on Evaluation, Standards, and Student Testing [CRESST], UCLA), 2002-2004.
- Haertel, E. H. *Differential Prediction and Opportunity to Learn* (Subcontract to the National Center for Research on Evaluation, Standards, and Student Testing [CRESST], UCLA), 2003-2006.
- Haertel, E. H. Refine an Experimental Methodology that School Districts Can Use to Measure the Effectiveness of Instructional Programs (Subcontract to Empirical Education, Inc.) 2004-2008.
- Haertel, E. H. *Performance-based Assessment of Literacy Coaching: A Measurement Development Project* (Major Research Grant from the Spencer Foundation), 2008-2009. (Anthony Bryk was the original principal investigator. I had been involved from the beginning, and assumed the role of PI when Bryk resigned from his faculty position at Stanford.)
- Goldenberg, C., & Haertel, E. Conceptualizing, Measuring, and Validating Effective Instruction for English Language Learners. W. T. Grant Foundation and The Spencer Foundation. 2009-2012.