

CURRICULUM VITAE

EDWARD W. WILEY

PERSONAL INFORMATION

Phone (office): (303) 492-5204

Citizenship: U.S.A.

Email: Ed.Wiley@colorado.edu

Web: <http://www.ed-stat.com>

EDUCATION

Ph.D. Psychological Studies in Education Stanford University 2001

M.S. Statistics Stanford University 2000

M.A. Qualitative and Quantitative Methods in Education University of Nebraska 1996

B.A. Mathematics University of Nebraska 1994

EMPLOYMENT EXPERIENCE

- 2005-present Chair, Research and Evaluation Methodology Program, School of Education, University of Colorado at Boulder
- 2004-present Assistant Professor, School of Education, University of Colorado at Boulder
- 2001-2004 Expert Consultant (from Associate), McKinsey & Company, Inc., San Francisco, CA
- 1999-2001 Senior Research Scientist (from Research Scientist; from Research Associate), American Institutes for Research
- 1999-2000 Adjunct Professor, Psychological Methods, Santa Clara University, Santa Clara, CA
- 1996-1999 Research Assistant to Richard Shavelson, School of Education, Stanford University, Stanford, CA
- 1996-1999 Research Assistant to Kenji Hakuta, School of Education, Stanford University, Stanford, CA
- 1998-1999 Teaching Assistant, Analysis of Variance, School of Education, Stanford University, Stanford, CA
- 1998 Teaching Assistant, Linear Regression, School of Education, Stanford University, Stanford, CA
- 1996-1998 Research Assistant to David Rogosa, School of Education, Stanford University, Stanford, CA
- 1997 Teaching Assistant, Introduction to Statistics, School of Education, Stanford University, Stanford, CA
- 1996-1997 Research Assistant to Richard Snow, School of Education, Stanford University, Stanford, CA
- 1996 Lecturer, Basic Statistics, University of Nebraska
- 1995-1996 Assistant Director of Major Gifts Development, University of Nebraska Foundation
- 1994-1996 Teaching Assistant, Computer Assisted Statistics Instruction Laboratory, University of Nebraska
- 1994-1995 Assistant Director, Office of Admissions, University of Nebraska
- 1994-1995 Research Assistant to Barbara Plake, Buros Institute of Mental Measurements, University of Nebraska
- 1992-1994 Graduate Assistant, Office of Admissions, University of Nebraska

PROFESSIONAL ACTIVITIES

- 2006-present Member, Promising Practices Initiative Expert Committee, National Research Council, National Academy of Sciences
- 2006-present Member, Technical Advisory Committee, Montana Office of Public Instruction
- 2006-present Member, Editorial Board, Educational Measurement: Issues and Practice
- 2006-present Member, Technical Advisory Committee, WASL Alternative Assessment, Washington Office of Superintendent of Public Instruction
- 2005-present Chair, Membership Committee, National Council on Measurement in Education
- 2005-present Member, Technical Advisory Committee, Utah State Office of Education
- 2005-present Fellow, Educational Policy Studies Laboratory, Arizona State University
- 2005-present Member, Adequate Yearly Progress Technical Design Committee, Colorado Department of Education
- 2005-present Fellow, Education in the Public Interest Center, School of Education, University of Colorado at Boulder
- 2005-present Member, Editorial Review Board, Educational Policy Studies Laboratory, Arizona State University
- 2005-present Member, Dean's Advisory Committee, School of Education, University of Colorado at Boulder
- 2005-present Member, Board of Advisors, Empirical Education, Inc., Palo Alto, CA
- 2005-present Faculty Volunteer, Boulder Faculty Assembly Intercollegiate Athletics Committee, University of Colorado at Boulder
- 2005-present Member, Salary Committee, School of Education, University of Colorado at Boulder
- 2005-present Faculty Liaison, Alumni Development Board, School of Education, University of Colorado at Boulder
- 2004-present Member, Membership Committee, National Council on Measurement in Education
- 2004-present Member, Technical Design Committee, Colorado Accountability Project, Colorado Association of School Executives
- 2004-present Member, Educational Technology Advisory Committee, School of Education, University of Colorado at Boulder
- 2003-present Consultant, Nonprofit Management, Stanford University Graduate School of Business, Stanford, CA
- 2001-present Member, District Assessment Evaluation Team, Nebraska School-based Teacher-led Assessment Reporting System (STARS), Nebraska Department of Education
- 2005 Participant, National Center for Educational Statistics Advanced Training Seminar: Use of NAEP Database for Research and Policy Discussion
- 2005 Participant, Introductory Leadership Workshop, Leadership Education for Advancement and Promotion, University of Colorado at Boulder
- 2003-2004 Strategic Consultant, Stanford Board of Trustees, Stanford, CA
- 2001-2003 Strategic Consultant, Stanford Management Company, Stanford, CA

HONORS AND FELLOWSHIPS

- 2006 Appointed to National Research Council Expert Committee: Promising Practices Initiative
- 2006 Appointed to Editorial Board, Educational Measurement: Issues and Practice
- 2002 Brenda Loyd Outstanding Dissertation (National Council on Measurement in Education)
- 2000-2001 Gerald Lieberman Graduate Fellowship, Stanford University
- 1997-2000 Stanford Graduate Fellowship in Science/Engineering
- 1996-1997 Pauline Phillips Honorary Graduate Fellowship, Stanford University
- 1996 Pass with Honors, Master's Degree Comprehensive Exam, Quantitative and Qualitative Methods in Education, University of Nebraska
- 1993-1994 University of Nebraska Innocents Society Senior Honorary
- 1990-1994 Dean and Florine Eastman Mathematics Fellowship
- 1990-1994 University of Nebraska Regents Scholarship

REFEREED PUBLICATIONS

1. Burris, C., Welner, K. G., & Wiley, E. W. (to appear, March 2008). Closing the achievement gap by detracking. *Teachers College Record*.
2. Wiley, E. W., Hakuta, K., & Bialystok, E. (2005). New Approaches to Using Census Data to Test the Critical Period Hypothesis for Second Language Acquisition. *Psychological Science* 16(4).
3. Shavelson, R. J., Ruiz-Primo, M. A., & Wiley, E. W. (2005). Windows into the mind. *Higher Education* 49, 413-430.
4. Hakuta, K., Bialystok, E., & Wiley, E. W. (2003). Critical evidence: A test of the critical period hypothesis for second language acquisition. *Psychological Science* 14(1), 31-38.
5. Shavelson, R. J., Ruiz-Primo, M. A., & Wiley, E. W. (2000). Note on sources of sampling variability in science performance assessments. *Journal of Educational Measurement* 36(1), 6171.

CHAPTERS

1. Wiley, E. W., Bohrnstedt, G. W. & Parrish, T. (2002). Class size reduction and special education referrals and placements. In J. D. Finn, K. K. Wang, & M. C. Wang (Eds.), *Taking Small Classes One Step Further*. Greenwich, CT: Information Age Publishing, Incorporated.
2. Bohrnstedt, G. W. , Stecher, B. M., & Wiley, E. W. (2000). The California Class-Size Reduction Evaluation: Lessons learned. In M. C. Wang & J. D. Finn (Eds.), *How Small Classes Help Teachers Do Their Best*. Philadelphia: Temple University and U.S. Department of Education.

REPORTS

1. Wiley, E. W. (2006). Final Report: External audit of survey sampling and weighting procedures used for the National Assessment of Educational Progress. Submitted February, 2006 to U.S. Department of Education.
2. Wiley, E. W. (2006). The failure of retention studies: A review of Getting Ahead by Staying Behind: An Evaluation of Florida's Program to End Social Promotion Tempe, AZ: Educational Policy Studies Laboratory, Arizona State University.
3. Wiley, E. W., Mathis, W. J., & Garcia, D. R. (2005). The Impact of the Adequate Yearly Progress Requirement of the Federal No Child Left Behind Act on Schools in the Great Lakes Region. East Lansing, MI: Great Lakes Center for Education Research and Practice.
4. Wiley, E. W., & Allen, J. (2005). The Impact of the Adequate Yearly Progress Requirement of the Federal No Child Left Behind Act on Schools in the Great Lakes Region: Technical Appendix. East Lansing, MI: Great Lakes Center for Education Research and Practice.
5. McLaughlin, D. H., & Wiley, E. W. (2001). Full population gain estimates for 1996 to 2000 state scores on the National Assessment for Educational Progress: Report to National Center for Educational Statistics on the impact of exclusion on NAEP trends. Submitted February 21, 2001 to NCES. Palo Alto, CA: American Institutes for Research.
6. Bohrnstedt, G. W., Wiley, E. W., & Stecher, B. M. (2000). Introduction to the year 2 evaluation of class size reduction in California. In B. M. Stecher & G. W. Bohrnstedt (Eds.), *Class size reduction in California: The 1998-99 evaluation findings*. Sacramento, CA: California Department of Education.
7. Bohrnstedt, G. W. & Wiley, E. W. (2000). Implementation of class size reduction in California. In B. M. Stecher & G. W. Bohrnstedt (Eds.), *Class size reduction in California: The 1998-99 evaluation findings*. Sacramento, CA: California Department of Education.
8. Stecher, B. M., McCaffrey, D. F., Burroughs, D., Bohrnstedt, G. W. & Wiley, E. W. (2000). Class size reduction and student achievement. In B. M. Stecher & G. W. Bohrnstedt (Eds.), *Class size reduction in California: The 1998-99 evaluation findings*. Sacramento, CA: California Department of Education.
9. Parrish, T., Studier, C., Bohrnstedt, G. W., & Wiley, E. W. (2000). Effects of class size reduction on special education students and English learners. In B. M. Stecher & G. W. Bohrnstedt (Eds.), *Class size reduction in California: The 1998-99 evaluation findings*. Sacramento, CA: California Department of Education.

10. Ruiz-Primo, M. A., Wiley, E. W., Rosenquist, A., Schultz, S. E., Shavelson, R. J., Klein, S., & Hamilton, L. (1998). Performance assessment in the service of evaluating science education reform. Eric Clearinghouse on Assessment and Evaluation, TM028966.
11. Solano-Flores, G., Shavelson, R.J., Ruiz-Primo, M.A., Schultz, S.E. & Wiley, E. (1997). Conceptual underpinnings for the design of performance assessments and concept-map representations of knowledge structures. National Center for Research on Evaluation, Standards, and Student Testing, Center for the Study of Evaluation, Graduate School of Education & Information Studies, UCLA, Los Angeles, CA.

PRESENTATIONS

1. (Invited Talk) "Creating Indicators for School Accountability and Accreditation," Association for Colorado Educational Evaluators (November 18, 2005): Aurora, CO.
2. (Invited Talk) "Colorado Senate Bill 05-214: A Coordinated System of Accountability for Colorado," Association for Colorado Educational Evaluators (February 18, 2005): Thornton, CO.
3. (Invited Talk) "Adequate Yearly Progress and Student Heterogeneity: The *No Child Left Behind* Diversity Penalty."
 - (a) Stanford University (July 11, 2004): Stanford, CA.
 - (b) American Institutes for Research (June 22, 2004): Palo Alto, CA.
 - (c) University of California - Davis (February 27, 2004): Davis, CA.
 - (d) University of Colorado - Boulder (February 25, 2004): Boulder, CO.
4. (Invited Talk) "Simulation and Resampling in Measurement and HLM: Modern Approaches to Improving Inquiry in Social Science."
 - (a) University of Massachusetts (February 16, 2004): Amherst, MA.
 - (b) Indiana University (February 12, 2004): Bloomington, IN.
5. (Invited Talk) "Class size reduction and special education referrals and placements," Temple University (December 1, 2000). Washington, DC.
6. (Invited Talk) "The California Class-Size Reduction Evaluation: Lessons learned," Temple University (December 7, 1999). Washington, DC.
7. (Invited Talk) "An examination of alternative methods of assessing knowledge structure," Stanford University (April 15, 1999): Stanford, CA.

PAPERS

1. Briggs, D., & Wiley, E. W. (2006). Vertical Scaling in Value-Added Models for Student Learning. Paper presented at the annual meeting of the American Educational Research Association (April, 2006): San Francisco, California.
2. Diaz-Bilello, E. K., Wiley, E. W., Welner, K. G., & Howe, K. R., (2006). Choice and Segregation in Colorado. Paper presented at the annual meeting of the American Educational Research Association (April, 2006): San Francisco, California.
3. Burris, C., Welner, K. G., & Wiley, E. W. (2006). Closing the achievement gap in the earning of New York State Regents diplomas by detracking high school classes. Paper presented at the annual meeting of the American Educational Research Association (April, 2006): San Francisco, California.
4. Welner, K. G., Howe, K. R., Diaz-Bilello, E. K., & Wiley, E. W. (2005). Identifying Integrative and Segregative Effects of School Choice. Paper presented at the annual meeting of the American Educational Research Association (April, 2005): Montreal, Canada.
5. Burris, C., Welner, K. G., & Wiley, E. W. (2005). Opening the gates: Increasing IB and AP access through detracking. Working Paper.
6. Davis, N., Snyder, L., & Wiley, E. W. (2005). Computerized Measurement of Phonological Sensitivity in Preschool Age Children. Poster presented at the Fifth Annual Coleman Institute Conference, "Pioneering Cognitive Technologies" (October, 2005): Boulder, Colorado.
7. Davis, N., Snyder, L., Wise, B., Olson, R., Wiley, E. W., & Finan, D. (2005). Evaluating Phonological Sensitivity in Preschoolers - A Study of Methodology. Poster presented at the November at the annual meeting of the International Dyslexia Association (October, 2005): Denver, Colorado.
8. Wiley, E. W., Bohrnstedt, G. W. & Parrish, T. (2001). Class size reduction and special education referrals and placements. *The National Center on Education in the Inner Cities Review* 10(9): 12-14.
9. Wiley, E. W. (2000). The California Class Size Reduction Initiative: Expectations and outcomes for at-risk students. Paper presented at the Association for Public Policy Analysis and Management conference, *Doing and Using Public Policy Analysis and Management Research*. November 2-4, 2000. Seattle, WA.
10. Wiley, E. W., Bohrnstedt, G. W. & Parrish, T. (2000). Class size reduction and special education referrals and placements. Invited paper presented at U.S. Department of Education and Temple University invitational conference, *Taking Small Classes One Step Further*. November 30-December 1, 2002. Washington, DC.

11. Bohrnstedt, G. W. , Stecher, B. M., & Wiley, E. W., (2000). The California Class-Size Reduction Evaluation: Lessons learned. Invited paper presented at U.S. Department of Education and Temple University invitational conference, *What Do We Know About How to Make Small Classes Work?*. December 6-7, 1999. Washington, DC.
12. Bohrnstedt, G. W. , Stecher, B. M., & Wiley, E. W., (2000). The California Class-Size Reduction Evaluation: Lessons learned. *The National Center on Education in the Inner Cities Review* 9(2): 11-12.
13. Wiley, E. W. (1999). An examination of alternative methods of assessing knowledge structure. Paper presented at Inaugural Stanford Graduate Fellowships Research Symposium (April, 1999): Stanford, CA.
14. Wiley, E. W., Sectish, T. C., & Kaleba, D. R. (1999). Exit survey of senior residents: A method of evaluation for curricular change in a residency training program. Paper presented at the annual meeting of the Pediatric Academic Societies (May, 1999): San Francisco, CA.
15. Wiley, E.W. (1998). Indirect and Direct Assessment of Structural Knowledge in Statistics. Stanford, CA: Stanford University School of Education.
16. Ruiz-Primo, M. A., Wiley, E. W., Rosenquist, A., Schultz, S. E., Shavelson, R. J., Klein, S., & Hamilton, L. (1998). Performance assessment in the service of evaluating science education reform. Paper presented at the annual meeting of the National Council on Measurement in Education (March, 1998): San Diego, CA.
17. Solano-Flores, G., Shavelson, R. J., Ruiz-Primo, M. A., Schultz, S., Wiley, E. W., & Brown, J. (1997). On the development and scoring of classification and observation science performance assessments. Paper presented at the annual meeting of the American Educational Research Association (April, 1997): Chicago, IL.

SPONSORED RESEARCH

1. National Science Foundation. *Classroom Assessment of Controls Laboratory*. \$ 25,000.00 (July, 2006)
2. The Piton Foundation. *Denver Public Schools ProComp Evaluation*. \$ 75,000.00 (January, 2006)
3. Denver Public Schools. *Year 2 Evaluation of ProComp Teacher Compensation Program*. \$ 15,000.00 (January, 2006)
4. U.S. Department of Education, National Center for Educational Statistics, NAEP Secondary Analysis Contract #NCES-04-01 (subcontract to Midcontinent Regional Educational Laboratory). *A Contextual Examination of the Relationships Between Teacher Quality Factors and Student Achievement* \$ 5,000.00 (June, 2005)

5. National Education Association. *Value-Added Modeling: A Primer*. \$ 6,000.00 (October, 2005)
6. The Carnegie Corporation. *Vertical Scaling and Value-Added Modeling*. \$ 50,000.00 (Co-Principal Investigator) (August, 2005)
7. Denver Public Schools. *Year 1 Evaluation of ProComp Teacher Compensation Program*. \$ 15,000.00 (August, 2005)
8. U.S. Department of Education (subcontract to BUROS Institute). *Audit of NAEP Sampling Strategies*. \$ 25,000.00 (June, 2005)
9. U.S. Department of Education, Institute for Educational Sciences, Contract #ED-01-CO-0006 (subcontract to Midcontinent Regional Educational Laboratory). *High-Performing High-Needs Schools: Phase II*. \$ 7,000.00 (June, 2005)
10. The Great Lakes Center for Education Research and Practice. *Adequate Yearly Progress and School Outcomes*. \$ 10,000.00 (January, 2005)

DISSERTATION RESEARCH

Bootstrap strategies for variance component estimation: Theoretical and empirical results

Random effects models and their associated variance component estimates are widely used in social science research and measurement contexts (e.g., generalizability studies, multilevel designs, and longitudinal analyses). Data typical of these contexts often fail to meet parametric assumptions; even when these assumptions are tenable, no exact form exists to calculate variance component sampling distributions. Nonparametric alternatives (based on the bootstrap and other simulation-based methods) have been pursued with little success (e.g., Brennan et al., 1987); point and interval estimates have failed to converge to unbiased values. This problem is solved through analytical demonstration of bias in bootstrap variance component estimates. Unbiased estimates are provided as part of a general framework for applying bootstrap methods to random effects models. Unbiasedness is demonstrated through (a) recalculation of estimates published in prior studies, and (b) original simulation study. Study received a national dissertation award from the National Council on Measurement in Education; unbiased estimates are detailed in seminal text on generalizability theory (Brennan, R. (2001). *Generalizability Theory*. Springer-Verlag: New York).

PROFESSIONAL AFFILIATIONS

1. Psychometric Society
2. American Statistical Association
3. American Educational Research Association (Division D, Measurement and Research Methodology; Division L, Politics and Policy in Education)

4. National Council on Measurement in Education
5. Phi Delta Kappa, Boulder, Colorado Chapter (52)
6. American Psychological Association (Division 5, Evaluation, Measurement and Statistics; Division 15, Educational Psychology)
7. American Psychological Society

PROFESSIONAL REVIEWING

1. Educational and Psychological Measurement
2. William and Flora Hewlett Foundation
3. Multilevel Analysis of Educational Research
4. Review of Educational Research
5. Journal of Teacher Education
6. International Journal of Testing
7. Sage Publications
8. National Council for Measurement in Education Annual Meeting
9. American Educational Research Association Annual Meeting (Division D, Measurement and Research Methodology; Division L, Politics and Policy in Education; Research Using NAEP Data SIG)
10. American Psychological Association Annual Meeting (Division 5, Evaluation, Measurement and Statistics)

August 24, 2006