

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

FACULTY AND PROFESSIONAL APPOINTMENTS

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
1995-1996	Assistant Director of Major Gifts Development, University of Nebraska Foundation
1994-1995	Assistant Director, Office of Admissions, University of Nebraska

PROFESSIONAL ACTIVITIES

- 2006-present Member, National Research Council, *Promising Practices Initiative Expert Standing Committee*
- 2006-present Member, Editorial Board, *Education Policy Analysis Archives*
- 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
- 2003-2004 Strategic Consultant, Stanford Board of Trustees, Stanford, CA
- 2001-2003 Strategic Consultant, Stanford Management Company, Stanford, CA
- 1999-2000 Consultant, California Public School Accountability Act (PSAA), California Department of Education: Office of Policy and Evaluation

HONORS AND FELLOWSHIPS

- 2006 Appointed to National Research Council Expert Standing Committee: *Promising Practices Initiative*
- 2006 Appointed to Editorial Board, *Education Policy Analysis Archives*
- 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

8. Burris, C., Welner, K. G., & Wiley, E. W. (to appear, March 2008). Closing the achievement gap by detracking. *Teachers College Record*.
7. Burris, C., Welner, K. G., Wiley, E. W., & Murphey, J. (to appear, April 2007). Preparation for College and Beyond: A World Class Curriculum for All Students *Educational Leadership*.
6. Wiley, E. W. (2006). Adequate Yearly Progress and Student Heterogeneity: The *No Child Left Behind* Diversity Penalty. Under review.
5. Wiley, E. W. (2006). Bootstrap strategies for variance component estimation. Under review.
4. 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.

2. 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.
1. 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.

MONOGRAPHS

1. Wiley, E. W. (2006). A practitioners guide to value added assessment. Tempe, AZ: Educational Policy Studies Laboratory, Arizona State University.

CHAPTERS

4. Wiley, E. W. (2007). A framework for model building in social science research. To appear in J. Osborne (Ed.), *Best Practices in Quantitative Social Science Research*. Newbury Park, CA: Sage Publishing
3. Wiley, E. W. (2007). Variance component models for analysis in measurement and assessment. To appear in J. Osborne (Ed.), *Best Practices in Quantitative Social Science Research*. Newbury Park, CA: Sage Publishing
2. 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.
1. 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.

PAPERS AND REPORTS

28. 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.
27. 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.
26. 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.
25. Lehman, T., & Wiley, E. W. (2006). Integrating Systemic School Reform - Denver ProComp. Paper presented at the annual meeting of the Northern Rocky Mountain Educational Research Association (October, 2006): Sun Valley, Idaho.
24. 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.
23. 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.
22. 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.
21. 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.
20. 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.
19. Burris, C., Welner, K. G., & Wiley, E. W. (2005). Opening the gates: Increasing IB and AP access through detracking. Working Paper.
18. 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.

17. 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.
16. 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.
15. 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.
14. 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.
13. 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.
12. 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. & 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.
10. 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.
8. 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.
7. 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.
 6. 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.
 5. 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.
 4. Wiley, E.W. (1998). Indirect and Direct Assessment of Structural Knowledge in Statistics. Stanford, CA: Stanford University School of Education.
 3. 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.
 2. 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.
 1. 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.

PRESENTATIONS

7. (Invited Talk) "Creating Indicators for School Accountability and Accreditation," Association for Colorado Educational Evaluators (November 18, 2005): Aurora, CO.
6. (Invited Talk) "Colorado Senate Bill 05-214: A Coordinated System of Accountability for Colorado," Association for Colorado Educational Evaluators (February 18, 2005): Thornton, CO.
5. (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.
 3. (Invited Talk) "Class size reduction and special education referrals and placements," Temple University (December 1, 2000). Washington, DC.
 2. (Invited Talk) "The California Class-Size Reduction Evaluation: Lessons learned," Temple University (December 7, 1999). Washington, DC.
 1. (Invited Talk) "An examination of alternative methods of assessing knowledge structure," Stanford University (April 15, 1999): Stanford, CA.

SPONSORED RESEARCH

13. The Piton Foundation. *Denver Public Schools ProComp Evaluation: Year 2*. \$ 60,000.00 (Principal Investigator: 15% AY; 33% Summer) (01/06 - 11/06)
12. U.S. Department of Education, Institute for Educational Sciences. *Evaluation of Denver Public Schools Teacher Incentive Fund Grant*. \$ 1.2M (Co-Principal Investigator: 15% AY; 33% Summer) (1/07-12/11)

11. St. Vrain Public Schools. *Teacher Induction Program Evaluation*. \$ 21,000.00 (September, 2006)
10. Charter School Growth Fund. *Identification of Exemplary Charter Schools*. \$ 20,000.00 (August, 2006)
9. National Science Foundation. *Classroom Assessment of Controls Laboratory*. \$ 25,000.00 (Co-Principal Investigator: 33% Summer) (07/06-06/08)
8. The Piton Foundation. *Denver Public Schools ProComp Evaluation: Year 1*. \$ 75,000.00 (Principal Investigator: 15% AY; 33% Summer) (01/06 - 11/06)
7. Denver Public Schools. *Year 2 Evaluation of ProComp Teacher Compensation Program*. \$ 15,000.00 (January, 2006)
6. 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)
4. The Carnegie Corporation. *Vertical Scaling and Value-Added Modeling*. \$ 50,000.00 (Co-Principal Investigator) (07/05 - 06/06)
3. Denver Public Schools. *Year 1 Evaluation of ProComp Teacher Compensation Program*. \$ 15,000.00 (August, 2005)
2. U.S. Department of Education (subcontract to BUROS Institute). *Audit of NAEP Sampling Strategies*. \$ 25,000.00 (June, 2005)
1. 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)
0. 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).

RESEARCH AND TEACHING ASSISTANTSHIPS

- 1996-1999 Research Assistant to Richard Shavelson, Stanford University
- 1996-1999 Research Assistant to Kenji Hakuta, Stanford University
- 1998-1999 Teaching Assistant, Analysis of Variance, Stanford University
- 1998 Teaching Assistant, Linear Regression, Stanford University
- 1996-1998 Research Assistant to David Rogosa, Stanford University
- 1997 Teaching Assistant, Introduction to Statistics, Stanford University
- 1996-1997 Research Assistant to Richard Snow, Stanford University
- 1996 Lecturer, Basic Statistics, University of Nebraska
- 1994-1996 Teaching Assistant, Computer Assisted Statistics Instruction Laboratory, University of Nebraska
- 1994-1995 Research Assistant to Barbara Plake, Buros Institute of Mental Measurements, University of Nebraska

COURSES TAUGHT

1. Introduction to Research Design
2. Basic Statistics
3. Intermediate Statistics
4. Multivariate Statistics
5. Logistic Regression
6. Longitudinal Data Analysis
7. Multi-Level (Hierarchical) Statistical Modeling
8. Structural Equation Modeling

PROFESSIONAL AFFILIATIONS

1. Psychometric Society
2. American Statistical Association
3. American Educational Research Association
 - (a) Division D, Measurement and Research Methodology
 - (b) 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)
7. American Psychological Society

PROFESSIONAL REVIEWING

1. Educational Measurement: Issues & Practice
2. Educational Assessment
3. Educational and Psychological Measurement
4. William and Flora Hewlett Foundation
5. Multilevel Analysis of Educational Research

6. Review of Educational Research
7. Journal of Teacher Education
8. International Journal of Testing
9. Sage Publications
10. National Council for Measurement in Education Annual Meeting
11. American Educational Research Association Annual Meeting
 - (a) Division D, Measurement and Research Methodology
 - (b) Division L, Politics and Policy in Education
 - (c) Research Using NAEP Data SIG
12. American Psychological Association Annual Meeting (Division 5, Evaluation, Measurement and Statistics)

November 3, 2006