CURRICULUM VITAE

DOUGLAS G. BONETT

Education

1974	B.A.	Psychology	California State University, Fresno
1978	M.A.	Applied Statistics	California State University, Long Beach
1980	M.A.	Psychology — Psychometrics	University of California, Los Angeles
1983	Ph.D.	Psychology — Psychometrics	University of California, Los Angeles
		with Biostatistics minor	(Co-advisors: PM Bentler and JA Woodward)

Professional Experience

6/81 – 9/84	Statistician – Blue Cross Plans of California
9/84 - 8/86	Assistant Professor - Department of Psychology, University of Southern California
9/86 - 7/88	Assistant Professor - Department of Statistics, University of Wyoming
7/88 - 7/93	Associate Professor - Departments of Statistics and Management, University of Wyoming
6/91 - 9/92	Interim Associate Dean - College of Business, University of Wyoming
7/93 - 7/98	Professor - Departments of Statistics and Management, University of Wyoming
8/98 - 1/13	Professor - Departments of Statistics and Psychology, Iowa State University
8/05 - 6/09	Chair - Department of Psychology, Iowa State University
1/07 - 8/09	Interim Director - Communication Studies Program, Iowa State University
7/10 - 7/12	Director - Survey and Behavioral Research Services, Iowa State University
1/13 - 6/21	Professor - Department of Psychology, UC Santa Cruz
1/13 - 6/23	Director - Center for Statistical Analysis in the Social Sciences, UC Santa Cruz
7/21 –	Distinguished Professor - Department of Psychology, UC Santa Cruz

Awards

Outstanding Dissertation Award in Psychology, UCLA, 1983

Outstanding Teacher Award, Department of Psychology, University of Southern California, 1986

Outstanding Junior Teacher Award, College of Business, University of Wyoming, 1988

Mortar Board Teaching Award, University of Wyoming, 1989

Outstanding Senior Teacher Award, College of Business, University of Wyoming, 1990

J.P. Ellbogen Meritorious Teacher Award, University of Wyoming, 1990

Outstanding Senior Researcher Award, College of Business, University of Wyoming, 1991

Outstanding Service Award, College of Business, University of Wyoming, 1991

Fellow, Association for Psychological Science, 2004

Master Teacher, College of Liberal Arts and Sciences, Iowa State University, 2005

Research Excellence Award, College of Liberal Arts and Sciences, Iowa State University, 2007

Excellence in Leadership Award, Department of Psychology, Iowa State University, 2008

ISU Award for Departmental Leadership, Iowa State University, 2009

Excellence in Graduate Curriculum Development, Department of Psychology, Iowa State University, 2012

AERA Outstanding Reviewer Award, 2012, 2014, 2015

Excellence in Teaching Award, 2016, UC Santa Cruz

Publications

- Bentler, PM & Bonett, DG (1980) Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin 88, 588-606. [Science Citation Classic]
- Bonett, DG (1982) On post-hoc blocking. Educational and Psychological Measurement 42, 35-39.
- Bonett, DG (1982) A weighted harmonic means analysis for the proportional unbalanced design. *Educational* and *Psychological Measurement* 42, 401-407.
- Bonett, DG & Bentler, PM (1983) Goodness-of-fit procedures for the evaluation and selection of log-linear models. *Psychological Bulletin 93*, 149-166.
- Bonett, DG, Woodward, JA & Bentler, PM (1985) Some extensions of a linear model for categorical variables. Biometrics 41, 745-750.
- Bonett, DG (1985) The negative multinomial logit model. Communications in Statistics Theory and Methods 14, 1713-1717.
- Bonett, DG, Brecht, ML & Woodward, JA (1985) GENLOG II: A general log-linear model program for the personal computer. *Educational and Psychological Measurement* 45, 617-621.
- Bonett, DG (1985) A linear negative multinomial model. Statistics and Probability Letters 3, 27-29.
- Bonett, DG, Bentler, PM & Woodward, JA (1985) Minimum chi-square estimation of log-linear model parameters subject to exact and stochastic linear constraints. *Computational Statistics Quarterly 3*, 207-213.
- Bonett, DG, Woodward, JA & Bentler, PM (1986) Closed form estimators of latent cell frequencies. *Biometrical Journal 28*, 719-727.
- Bonett, DG (1986) Mixed estimation in covariance structure models. Statistics and Probability Letters 4, 157-159.
- Anglin, MD, Brecht, ML, Woodward, JA & Bonett, DG (1986) An empirical study of maturing out: Conditional factors. *International Journal of the Addictions 21*, 233-246.
- Bonett, DG, Smalley, SI & Woodward, JA (1986) A general statistical model for multifactorial inheritance of discontinuous traits. *Biometrical Journal* 28, 985-992.
- Bonett, DG & Woodward, JA (1986) Minimum chi-square estimator and test for incomplete multidimensional contingency tables. *Communications in Statistics Theory and Methods 15*, 1201-1207.
- Bonett, DG, Woodward, JA & Bentler, PM (1986) A linear model for estimating the size of a closed population. British Journal of Mathematical and Statistical Psychology 39, 28-40.
- Bonett, DG, Bentler, PM & Woodward, JA (1986) The asymptotic covariance matrix of the maximum likelihood estimator for conditional Poisson log-linear models. *Biometrical Journal* 28, 759-762.
- Bonett, DG, Woodward, JA & Bentler, PM (1987) Estimating the size of a closed population with inverse multiple recapture sampling. *Biometrics* 43, 985-991.
- Gustavson, AR, Dawson, ME & Bonett, DG (1987) Androstenal, a putative human pheromone, affects male choice behavior. *Journal of Comparative Psychology 101*, 210-212.

- Bonett, DG & Woodward, JA (1987) Application of the Kronecker product and Wald test in log-linear models. *Computational Statistics Quarterly 3*, 235-243.
- Bonett, DG (1987) New product sales forecasts using a growth curve model. *Journal of Applied Business Research 3*, 119-123.
- Brecht, ML, Anglin, MD, Woodward, JA & Bonett, DG (1987) Conditional factors of maturing out: Personal resources and pre-addiction sociopathy. *International Journal of the Addictions* 22, 55-69.
- Bonett, DG & Woodward, JA (1988) Parameter estimation in the linear multinomial model. *Computational Statistics & Data Analysis* 17, 179-187.
- Bonett, DG (1988) Exact and stochastic nonlinear constrained estimation in the conditional Poisson log-linear model. *Communications in Statistics Theory and Methods 17*, 3301-3311.
- Mednick, SA, Machone, RA, Huttunen, MO & Bonett, DG (1988) Adult schizophrenia following prenatal exposure to an influenza epidemic. *Archives of General Psychiatry* 45, 189-192.
- Bonett, DG (1988) Estimating the number of defects under imperfect inspection. *Journal of Applied Statistics* 15, 61-65.
- Bonett, DG (1988) Small sample bias and variance of the Lincoln-Petersen and Bailey estimators. *Biometrical Journal* 30, 723-727.
- Bonett, DG, Bentler, PM & Woodward, JA (1989) Asymptotic results for a conditional Poisson log-linear model. *Statistics and Probability Letters* 6, 267-270.
- Bonett, DG & Clute, RC (1989) Audit sampling with nonsampling errors of the first type. *Contemporary Accounting Research* 6, 432-445.
- Bonett, DG (1989) Applications of multiple recapture sampling in market research. *International Journal of Research in Marketing 6*, 259-266.
- Bonett, DG (1989) Pearson chi-square estimator and test for log-linear models with expected cell frequencies subject to linear constraints. *Probability and Statistics Letters 8*, 175-177.
- Evans, MA & Bonett, DG (1989) Maximum likelihood estimation in the negative multinomial log-linear model. Communications in Statistics – Theory and Methods 18, 4059-4065.
- Bonett, DG & Woodward, JA (1990) Testing residual normality in the ANOVA model. *Journal of Applied Statistics* 17, 383-387.
- Woodward, JA & Bonett, DG (1991) The analysis of simple effects in factorial designs. *Journal of Applied Statistics* 18, 255-264.
- Wright, TA & Bonett, DG (1991) Growth coping, work satisfaction, and turnover: A longitudinal study. *Journal of Business and Psychology* 6, 133-145.
- Evans, MA & Bonett, DG (1992) Multiple recapture sampling methods without replacement in the last occasion. *Communications in Statistics Theory and Methods 21*, 2609-2624.

- Wright, TA & Bonett, DG (1992) The effect of turnover on work satisfaction and mental health: Support for a situational perspective. *Journal of Organizational Behavior 13*, 603-615.
- Bonett, DG & Deckro, RF (1993) A multinomial PERT for information systems analysis and design. Management & Information 25, 51-55.
- Wright, TA & Bonett, DG (1993) The role of employee coping and performance in voluntary employee withdrawal: A research refinement and elaboration. *Journal of Management 19*, 147-161.
- Bonett, DG (1993) Sample size determination for p-charts. Journal of Applied Statistics 20, 375-379.
- Evans, MA & Bonett, DG (1993) Constrained parameter estimation for the Cook-Jacobson model of visibility bias. *Biometrics* 49, 853-859.
- Bonett, DG & Woodward, JA (1993) Analysis of simple effects in fractional factorial experimental designs of resolution V. *Communications in Statistics Theory and Methods 22*, 1585-1593.
- Wright, TA, Bonett, DG & Sweeney, DA (1993) Mental health and work performance: Results of a longitudinal field study. *Journal of Occupational and Organizational Psychology 66*, 277-284.
- Bonett, DG & Woolsey, RD (1993) Load distance analysis with variable loads. *Production and Inventory Control Journal 34*, 32-34.
- Evans, MA & Bonett, DG (1994) Bias reduction in multiple recapture estimators of closed population size. *Biometrics* 50, 388-395.
- Evans, MA, Bonett, DG & McDonald, L (1994) A general theory for analyzing capture-recapture data in a closed population. *Biometrics* 50, 396-405.
- Bonett, DG & Woodward, JA (1994) Sequential defect removal sampling. Management Science 40, 898-902.
- Bonett, DG & Al-Sunduqchi, MS (1994) Approximating sample size requirements for s² charts. *Journal of Applied Statistics 21*, 433-437.
- Liu, W-C, Woodward, JA & Bonett, DG (1996) A generalized likelihood ratio test for the Pearson correlation. Communications in Statistics – Simulation and Computation 25, 507-520.
- Wright, TA & Bonett, DG (1997) The contribution of burnout to work performance. *Journal of Organizational Behavior 18*, 491-499.
- Wright, TA & Bonett, DG (1997) The role of pleasantness and activation-based well being in performance prediction. *Journal of Occupational Health Psychology* 2, 212-219.
- Woodward, JA, Liu, W-C & Bonett, DG (1997) Shortest two-tailed confidence intervals. *Applied Mathematics and Computation 84*, 65-77.
- Randall, RL, Woodward, JA & Bonett, DG (1997) Critical values for the multivariate Wald test. *Communications in Statistics Computation and Simulation 26*, 1275-1299.

- Cooper, MG, Bonett, DG & El-Saidi, MA (1998) A general log-linear model of band recovery sampling. *Environmetrics* 9, 377-391.
- Bonett, DG & Wright, TA (2000) Sample size requirements for estimating Pearson, Kendall, and Spearman correlations. *Psychometrika* 65, 23-28.
- Price, RM & Bonett, DG (2000) Estimating a ratio of two Poisson rates. *Computational Statistics & Data Analysis* 34, 345-356.
- Price, RM & Bonett, DG (2001) Estimating the variance of the sample median. *Journal of Statistical Computation and Simulation 68*, 295-305.
- Bonett, DG, Woodward, JA & Randall, R (2002) Estimating *p*-values for Mardia's measures of multivariate skewness and kurtosis. *Computational Statistics* 17, 117-122.
- Bonett, DG (2002) Sample size requirements for estimating intraclass correlations with desired precision. Statistics in Medicine 21, 1331-1335.
- Price, RM & Bonett, DG (2002) Distribution-free confidence intervals for difference and ratio of medians. Journal of Statistical Computation and Simulation 72, 119-124.
- Bonett, DG & Seier, E (2002) A test of normality with high uniform power. *Computational Statistics & Data Analysis* 40, 435-445.
- Bonett, DG (2002) A simple approximation to the percentiles of the *t* distribution. *Computational Statistics* 17, 265-268.
- Bonett, DG & Price, RM (2002) Statistical inference for linear functions of medians: Confidence intervals, hypothesis testing, and sample size requirements. *Psychological Methods* 7, 370-383.
- Bonett, DG (2002) Sample size requirements for testing and estimating coefficient alpha. *Journal of Educational and Behavioral Statistics* 27, 235-240.
- Wright, TA & Bonett, DG (2002) The moderating effect of tenure on the relation between job performance and commitment: A meta-analysis. *Journal of Applied Psychology 87*, 1183-1190.
- Bonett, DG (2003) Sample size requirements for comparing two alpha reliability coefficients. *Applied Psychological Measurement* 27, 72-74.
- Bonett, DG & Seier, E (2003) Statistical inference for a ratio of dispersions using paired-samples. *Journal of Educational and Behavioral Statistics 28*, 21-30.
- Seier, E & Bonett, DG (2003) Two families of kurtosis measures. Metrika 58, 59-70.
- Bonett, DG & Seier, E (2003) Confidence intervals for mean absolute deviations. *The American Statistician* 57, 233-236.
- Price, RM & Bonett, DG (2004) Improved confidence interval for a linear function of binomial proportions. Computational Statistics & Data Analysis 45, 449-456.

- Bonett, DG & Price, RM (2005) Inferential methods for the tetrachoric correlation coefficient. *Journal of Educational and Behavioral Statistics* 30, 213-225.
- Bonett, DG (2005) Confidence interval for residual mean absolute deviations in regression models. *Journal of Computational Statistics and Simulation* 75, 673-678.
- Bonett, DG (2005) Robust confidence interval for a residual standard deviation. *Journal of Applied Statistics 32*, 95-100.
- Bonett, DG (2006) Approximate confidence interval for standard deviation of nonnormal distributions. Computational Statistics & Data Analysis 50, 775-782.
- Bonett, DG & Seier, E (2006) Confidence interval for a coefficient of dispersion in nonnormal distributions. Biometrical Journal 48, 144-148.
- Bonett, DG (2006) Confidence interval for a ratio of variances in bivariate nonnormal distributions. *Journal of Statistical Computation and Simulation* 76, 637-644.
- Bonett, DG (2006) Confidence interval for a coefficient of quartile variation. *Computational Statistics & Data Analysis 50*, 2953-2957.
- Bonett, DG (2006) Robust confidence interval for a ratio of standard deviations. *Applied Psychological Measurement* 30, 432-439.
- Bonett, DG & Price, RM (2006) Confidence intervals for a ratio of binomial proportions based on paired data. *Statistics in Medicine 25*, 3039-3047.
- Bonett, DG (2006) A new algorithm for the tetrachoric correlation. *Journal of Statistical Computation and Simulation* 76, 737-739.
- Bonett, DG & Price RM (2007) Statistical inference for generalized Yule coefficients in 2x2 contingency tables. Sociological Methods and Research 35, 429-446.
- Wright, TA & Bonett. DG (2007) Job satisfaction and psychological well-being as non-additive predictors of workplace turnover. *Journal of Management 33*, 141-160.
- Bonett, DG (2007) Transforming odds ratios into correlations for meta-analytic research. *American Psychologist* 62, 254-255.
- Wright, TA, Cropanzano, R & Bonett, DG (2007) The moderating role of employee positive well-being on the relation between job satisfaction and job performance. *Journal of Occupational Health Psychology* 12, 93-104.
- Bonett, DG & Wright, TA (2007) Comments and recommendations regarding the hypothesis testing controversy. *Journal of Organizational Behavior 28*, 647-659.
- Bonett, DG (2008) Confidence intervals for standardized linear contrasts of means. *Psychological Methods 13*, 99-109.
- Bonett, DG (2008) Meta-analytic interval estimation for bivariate correlations. Psychological Methods 13, 173-189.

- Price, RM & Bonett, DG (2008) Confidence intervals for a ratio of two binomial proportions. *Statistics in Medicine* 27, 5497-5508.
- Bonett, DG & Wright, TA (2009) Using confidence intervals in supply chain and operations research. *Journal of Supply Chain Management* 45, 26-33. [*Invited article*]
- Wright, TA, Cropanzano, R, Bonett, DG, & Diamond, WJ (2009) The role of employee psychological wellbeing On cardiovascular health. *Journal of Organizational Behavior 30*, 193-208.
- Bonett, DG (2009) Estimating standardized linear contrasts of means with desired precision. *Psychological Methods* 14, 1-5.
- Bonett, DG (2009) Meta-analytic interval estimation for standardized and unstandardized mean differences. *Psychological Methods* 14, 225-238.
- Wei, M, Alvarez, AN, Ku, T-Y, Russell, DW, & Bonett, DG (2010) Development and validation of a coping with discrimination scale: Factor structure, reliability, and validity. *Journal of Counseling Psychology* 57, 328-344.
- Bonett, DG (2010) Varying coefficient meta-analytic methods for alpha reliability. *Psychological Methods* 15, 368-385.
- Bonett, DG & Wright, TA (2011) Sample size requirements for multiple regression interval estimation. *Journal of Organizational Behavior 31*, 822-830.
- Seier, E & Bonett, DG (2011) A polyplot for visualizing location, spread, skewness and kurtosis. *The American Statistician 65*, 258-261.
- Bonett, DG & Price, RM (2012) Adjusted Wald interval for a difference of binomial proportions based on paired data. *Journal of Educational and Behavioral Statistics* 37, 479-488.
- Bonett, DG (2012) Replication-extension studies. Current Directions in Psychology 21, 409-412.
- Bonett, DG & Price RM (2014) Meta-analysis methods for risk differences. *British Journal of Mathematical and Statistical Psychology 67*, 371-389.
- Bonett, DG & Wright, TA (2014) Sample size planning for multiple correlation: Reply to Shieh (2013). *Psycotherma 26*, 391-394.
- Price, RM & Bonett, DG (2014) A comparison of two varying coefficient meta-analysis methods for an average risk difference. *Journal of Statistical Computation and Simulation 84*, 381-387.
- Bonett, DG & Wright, TA (2015) Cronbach's alpha reliability: Interval estimation, hypothesis testing and sample size planning. *Journal of Organizational Behavior 36*, 3-15.
- Savalei, V, Bonett, DG & Bentler, PM (2015) CFA with binary variables in small samples: A comparison of two methods. *Frontiers in Psychology*, doi: 10.3389/fpsyg.2014.01515.
- Bonett, DG & Price, RM (2015) Varying coefficient meta-analysis methods for odds ratios and risk ratios. *Psychological Methods* 20, 394-406.

- Bonett, DG (2015) Interval estimation of standardized mean differences in paired-samples designs. *Journal of Educational and Behavioral Statistics* 40, 366-376.
- Bonett, DG & Price, RM (2020) Interval estimation for linear functions of medians in within-subjects and mixed designs. *British Journal of Mathematical and Statistical Psychology* 72, 333-346.
- Bonett, DG (2020) Point-biserial correlation: Confidence intervals, hypothesis testing, meta-analysis, and sample size planning. *British Journal of Mathematical and Statistical Psychology 73*, https://doi.org/10.1111/bmsp.12189.
- Bonett, DG & Price, RM (2020) Confidence intervals for ratios of means and medians. *Journal of Educational and Behavioral Statistics* 45, 750-770.
- Chopik, WJ, Kelley, WL, Vie, LL, Bonett, DG, Lucas, RE, & Seligman, MEP (2021) Development of character strengths across the deployment cycle among U.S. Army soldiers. *Journal of Personality* 89, 23-24.
- Bonett, DG (2021) Design and analysis of replication studies. Organizational Research Methods 24, 513-529.
- Chopik, WJ, Kelley, WL, Vie, LL, Lester, PB, Bonett, DG, Lucas, RE, & Seligman, MEP (2021) Individual and experiential predictors of character development across the deployment cycle. *European Journal of Personality* 89, 23-34.
- Lester, P., Vie, L. Bonett, DG, Stewart, E., Seligman, M. Diener, E. (2022) Happy soldiers are highest performers. *Journal of Happiness Research 23*, 1099-1120.
- Bonett, DG (2022) Statistical inference for G-indices of agreement. Journal of Educational and Behavioral Statistics 47, 438-458.

Citation Information: Count > 38,500; h-index = 41; i10-index = 75 (source: Google Scholar)

Other Publications

- Smalley, SL, Williams, BJ, Woodward, JA, Bonett, DG, & Ritenbaugh, C (1985) A covariance structure model for quantitative genetic research. In R Chakraborty, & EJE Szathmary (Eds.), *Diseases of Complex Etiology in Small Populations* (pp. 67-96). Liss: New York.
- Woodward, JA, Bonett, DG, & Brecht, ML (1985) Estimating the size of a heroine-abusing population using a multiple recapture census. In *Self Report Methods of Estimating Drug Use: Meeting Current Challenges to V alidity*. Ruse, Kozel, and Richards (Eds.) 158-171, National Institute of Drug Abuse Research Monograph 57. US Government Printing Office: Washington, DC.
- Woodward, JA, Bonett, DG & Brecht, ML (1990) Introduction to Linear Models and Experimental Design. Harcourt-Brace-Jovanovich: New York.

Online Book

Bonett, DG (2021) Statistical methods for psychologists (Volumes 1-5). https://dgbonett.sites.ucsc.edu

Funded Research

- A longitudinal analysis of cost and utilization of Wyoming family services. Wyoming Department of Family Services, Co-PI, 1994 1995.
- A multiple recapture analysis of Wyoming substance abusers. U.S. Center for Substance Abuse and Treatment, Co-PI, 1996 2000.
- Using prior kurtosis information to improve confidence intervals for standard deviations. *National Science Foundation*, PI, 2003 2004.
- Physiological effects of marital conflict. *National Institute of Mental Health*, Co-PI, 2003 2005.
- An online support group intervention for Asian American lesbians. Wayne F. Placek Small Grant, American Psychological Foundation, Co-PI, 2006.
- Developing a comprehensive regional data integration approach to support data-intensive educational research in Silicon Valley. *National Science Foundation*, Co-PI, 2013 2014.

Ph.D. Students

- Evans, MA (1989) Professor Emeritus Department of Statistics, Washington State University. Estimation of population size from capture-recapture data using log-linear models.
- Fox, DR (1989) Professor Department of Infrastructure Engineering, Melbourne University. Statistical calibration: Theory and applications.
- Morsy, MAF (1990) Statistician Cairo, Egypt. Multivariate sampling models.
- Cooper, MG (1992) Professor Department of Management Science, Ferris State University. A log-linear model for the analysis of band-recovery data.
- Petrakos, G (1993) Professor Department of Public Administration, Panteion University. Combining information: Statistical theory and applications.
- Price, RM (1996) *Professor and Chair* Department of Mathematics and Statistics, East Tennessee State University. *Estimating a ratio of medians*.
- Seier, E (1998) *Professor Emerita* Department of Mathematics and Statistics, East Tennessee State University. *A family of skewness and kurtosis measures.*
- Kraemer, KA (2012) Statistician American College of Surgeons. Confidence intervals for variance components and functions of variance components in a random effects model under nonnormality.

UCSC Presentations

Design and analysis of replication studies. April 29, 2013.

Analyzing extremely large social science datasets. January 28, 2014.

Sample size planning for behavioral research. March 3, 2014.

Combining and comparing results from multiple studies. October 24, 2014.

Analyzing longitudinal data. March 4, 2015.

Panel Discussion: Null hypothesis testing in the social sciences. November 2, 2015.

Introduction to distribution-free statistical methods. May 4, 2016.

Introduction to meta-analysis. October 24, 2018 (online)

Statistics Q&A - Part 1. January 23, 2019.

Power and precision analysis. April 22, 2019.

Statistics Q&A - Part 2. April 24, 2019.

Teaching Experience

Undergraduate

Research Design and Methodology (ISU) Introductory Statistics (USC/UW) Introduction to Statistical Theory (UW) Computational Statistics (USC/UW) Experimental Design (USC/UW/ISU) Regression Analysis (USC/UW) Psychological Measurement (UCS, ISU) Business Statistics I & II (UW) Statistical Quality Control (UW) Psychological Data Analysis (UCSC)

Graduate

Categorical Data Analysis (USC/UW/ISU/UCSC)
Statistical Methods (UW/ISU/UCSC)
Multivariate Analysis (UW/UCSC)
Advanced Categorical Data Analysis (UW)
Psychometric Theory (ISU)
Survey Research Methods (ISU)
Advanced Business Research Methods (UW)
Advanced Experimental Design (UW)
Structural Equation Models (UCSC)