

# Biology of Aging Resources Library

<http://www.uab.edu/shockcenter/resources>

The UAB Nathan Shock Center Biology of Aging Library has been divided by topic. To access other topics in the library, visit us online. You will be able to browse each page or download other topics.

## Quantitative Methods Library

Allison, D. B., Gorman, B. S., & Primavera, L. H. (1993). [The Most Common Questions Asked of Statistical Consultants: Our Favorite Responses and Recommended Readings](http://doi.apa.org/psycinfo/1994-24046-001). *Genetic, Social, and General Psychology Monographs*, 119, 153-185.  
  
Allison, D. B., & Gorman, B. S. (1993). [Calculating and Estimating Effect Sizes for Meta-Analysis: The Case of the Single Case](http://www.sciencedirect.com/science/article/pii/000579679390115B). *Behaviour Research and Therapy*, 31, 621-631.  
  
Allison, D. B., & Gorman, B. S. (1993). [POWCOR: A Power Analysis and Sample Size Program for Testing Differences Between Dependent and Independent Correlations](http://epm.sagepub.com/content/53/1/133.short). *Educational & Psychological Measurement*, 53, 133-137.  
  
Allison, D. B. (1993). Limitations of the Coefficient of Variation as an Index of Reliability. *Nutrition*, 9, 559-561.  
  
Allison, D. B. (1993). [A Note on the Selection of Control Groups and Control Variables in Comorbidity Research](http://www.sciencedirect.com/science/article/pii/0010440X93900205). *Comprehensive Psychiatry*, 34, 336-339.  
  
Allison, D. B. (1995). [When is it Worth Measuring a Covariate in a Randomized Clinical Trial?](http://psycnet.apa.org/journals/ccp/63/3/339/) *Journal of Consulting and Clinical Psychology*, 63, 339-343.  
  
Allison, D. B., Faith, M. S., Heo, M., Townsend-Butterworth, D., & Williamson, D. F. (1999). [Meta-Analysis of the Effect of Excluding Early Deaths on the Estimated Relationship Between Body Mass Index and Mortality](http://onlinelibrary.wiley.com/doi/10.1002/j.1550-8528.1999.tb00417.x/abstract). *Obesity Research*, 7, 342-354.  
  
Allison, D. B., Gorman, B. S., & Kucera, E. M. (1995). [UNICORN: A computer program for transforming data to normality](http://epm.sagepub.com/content/55/4/625.short). *Educational & Psychological Measurement*, 55, 625-629.  
  
Gorman, B. S., Primavera, L. H., & Allison, D. B. (1995). PowPal: Software for generalized power analysis. *Educational and Psychological Measurement*, 55, 773-776.   
  
Allison, D. B., Paultre, F., Maggio, C., Mezzitis, N., & Pi-Sunyer, F. X. (1995). [The Use of Areas Under Curves in Diabetes Research](http://care.diabetesjournals.org/content/18/2/245.short). *Diabetes Care*, 18, 245-250.  
  
Allison, D. B., Paultre, F., Goran, M. I., Poehlman, E. T., & Heymsfield, S. B. (1995). [Statistical considerations regarding the use of ratios to adjust data](http://europepmc.org/abstract/med/8574275). *International Journal of Obesity*, 19, 644-652.  
  
Allison, D. B., Heo, M., Flanders, D. W., Faith, M. S., & Williamson, D. F. (1997). [Examination of ‘early mortality exclusion’ as an approach to control for confounding by occult disease in epidemiologic studies of mortality risk factors](http://aje.oxfordjournals.org/content/146/8/672.short). *American Journal of Epidemiology*, 146, 672-680.  
  
Allison, D. B., Allison, R. L., Faith, M. S., Paultre, F., & Pi-Sunyer, F. X. (1997). [Power and Money: Designing Statistically Powerful Studies while Minimizing Financial Costs](http://psycnet.apa.org/journals/met/2/1/20/). *Psychological Methods*, 2, 20-33.  
  
Gadbury, G. L., Iyer, H. K., & Allison, D. B. (2002). Evaluating subject-treatment interaction when comparing two treatments. *Journal of Biopharmaceutical Statistics*, 11, 313-333.  
  
Redden, D. T., Fernández, J. R., & Allison, D. B. (2004). [A Simple Significance Test for Quantile Regression](http://onlinelibrary.wiley.com/doi/10.1002/sim.1839/full). *Statistics in Medicine*, 23, 2587-2597.  
  
Gadbury, G. L., Page, G. P., Edwards, J., Kayo, T., Prolla, T. A., Weindruch, R., Permana, P. A., Mountz, J., & Allison, D. B. (2004). [Power and Sample Size Estimation in High Dimensional Biology](http://smm.sagepub.com/content/13/4/325.short). Statistical Methods in Medical Research, 13: 325-338.  
  
Mehta, T., Tanik, M. & Allison, D. B. (2004). [Toward Sound Epistemological Foundations of Statistical Methods for High Dimensional Biology](http://www.nature.com/ng/journal/v36/n9/abs/ng1422.html). *Nature Genetics*, 36, 943-947.  
  
Redden, D. T., Divers, J., Vaughan, L. K., Tiwari, H. K., Beasley, T. M., Fernandez, J. R., Kimberly, R. P., Feng, R., Padilla, M., Liu, N., Miller, M. B., Allison, D. B. (2006). [Regional admixture mapping and structured association testing: conceptual unification and an extensible general linear model](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1557785/). *PloS Genetics*, Aug 25;2(8):e137.  
  
Elobeid, M., Padilla, M., McVie, T., Thomas, O., Brock, D., Musser, B., Lu, K., Coffey, C., Desmond, R., St-Onge, M-P, Gadde, K., Heymsfield, S., Allison, D. (2009). [Missing data in randomized clinical trials for weight loss: scope of the problem, state of the field, and performance of statistical methods](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2720539/). *PLoS One*. Aug; 13;4(8):e6624. PMCID: PMC2720539.  
  
Hu, X., Gadbury, G. L., Xiang, Q., & Allison, D. B. (2009). Illustrations on Using the Distribution of a P-Value in High Dimensional Data Analyses. *Advances and Applications in Statistical Sciences*, 1(2),191-213.  
  
Cope, M., Allison, D.B. (2010). [White Hat Bias: A Threat to the Integrity of Scientific Reporting](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815336/). *Acta Paediatrica*, Nov;99(11):1615-7.  
  
Makowsky, R., Beasley, T. M., Gadbury, G. L., Albert, J. M., Kennedy, R. E., & Allison, D. B. (2011). [Validity and power of missing data imputation for extreme sampling and terminal measures designs in mediation analysis](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3268628/). *Frontiers in Genetics*, 2:75. doi: 10.3389/fgene.2011.00075.  
  
Gadbury, G. L., & Allison, D. B. (2012). [Inappropriate Fiddling with Statistical Analyses to Obtain a Desirable P-value: Tests to Detect its Presence in Published Literature](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3466248/). *PLoS One*, 7(10):e46363. doi: 10.1371/journal.pone.0046363.  
  
Robertson, H. T., de los Campos, & Allison, D. B. (2013). [Turning the Analysis of Risk Factor Mortality Associations Upside Down: Modeling Years of Life Lost Through Conditional Distributions](http://onlinelibrary.wiley.com/doi/10.1002/oby.20019/pdf). *Obesity*, Feb;21(2):398-404.  
  
Brown, A. & Allison, D. B. (2014). [Using crowdsourcing to evaluate published scientific literature: Methods and example](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4079692/). *PLoS One*, 2014 Jul 2;9(7):e100647. doi: 10.1371/journal.pone.0100647.  
  
Keith SW and Allison DB (2014) [A free-knot spline modeling framework for piecewise linear logistic regression in complex samples with body mass index and mortality as an example](http://journal.frontiersin.org/Journal/10.3389/fnut.2014.00016/abstract). *Frontiers in Nutrition*, 1:16. doi: 10.3389/fnut.2014.00016. [Also accessible here.](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4297674/)   
  
Capers, P. L., Brown, A. W., Dawson, J., & Allison, D. B. (2015). [Double sampling with multiple imputation to answer large sample meta-research questions: Introduction and illustration by evaluating adherence to two simple CONSORT guidelines](http://journal.frontiersin.org/article/10.3389/fnut.2015.00006/abstract). *Frontiers in Nutrition*, 09 March 2015. doi: 10.3389/fnut.2015.00006. [Also accesible here.](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4304908/)   
  
Brown, A. W. Li, P. B., Bohan Brown, M. M., Kaiser, K. A., Keith, S. W., Oakes, J. M., & Allison, D. B. (2015). [Best (but oft forgotten) practices: designing, analyzing, and reporting cluster randomized controlled trials](http://ajcn.nutrition.org/content/early/2015/05/27/ajcn.114.105072.abstract). *American Journal of Clinical Nutrition*, Aug; 102(2):241-8.