

Charles Henderson

Web Bio

Information

Biography

Biographical Statement

My primary research interests and expertise are in statistical methods, evaluation research, statistical computing, medical applications, and the ecology of human development. I have developed statistical and computational methods for a wide range of problems, with an emphasis on methods for the analysis of complex models involving fixed and random factors, missing data, selection bias, semiparametric specifications, and other complications typically present in ecological, sociological, medical, biological, and evaluation research. Much of my research has involved multilevel sampling designs, with analysis of complex mixed models including covariates at multiple levels, random regressions, and longitudinal data. Several of the projects for which I have been a statistician and investigator are nationally recognized, with significant impact on public policy. I have had a focus on statistical computing for this same time period, including writing of statistical software to carry out analyses not able to be done by packaged programs.

Teaching

Professional

Research

Current Research Activities

Development of statistical methods, evaluation strategies, computational algorithms, and computer programs; data analysis and interpretation; publication of results.

Extension

Education

Courses

Websites

Administration

Publications

Selected Publications

- Henderson, C. (1971). Comment on "The use of error components models in combining cross section with time series data." *Econometrica* 39, 397-401.
- Henderson, C. and Henderson, C. R. (1979). Analysis of covariance in mixed models with unequal subclass numbers. *Communications in Statistics—Theory and Methods* A8(8), 751-787.
- Henderson, C. (1982). Analysis of covariance in the mixed model: higher-level, nonhomogeneous, and random regressions. *Biometrics* 38 (3), 623-640. (Invited paper for special issue on analysis covariance.)
- Olds, D., Henderson, C., Tatelbaum, R., and Chamberlin, R. (1986). Improving the delivery of prenatal care and outcomes of pregnancy: a randomized trial of nurse home visitation. *Pediatrics* 77 (1), 16-28.
- Olds, D., Henderson, C., Chamberlin, R., and Tatelbaum, R. (1986). Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics* 78 (1), 65-78.
- Henderson, C. and Ceci, S. (1992). Is it better to be born rich or smart: a bioecological analysis of the contributions of IQ and socioeconomic status to adult income. In *Scientific Excellence in Supercomputing: The IBM 1990 Contest Prize Papers*, K. R. Billingsley, H. U. Brown, and E. Derohanes (eds.). Athens, Ga.: The Baldwin Press, University of Georgia.
- Canfield, R., Henderson, C., Cory-Slechta, D., Cox, C., et al. (2003) Intellectual impairment in children with blood lead levels below 10 mg/dL: The Rochester Cohort Study. *The New England Journal of Medicine*, 348(16), 1517-1526.
- Pillemer, K., Suitor, J., Pardo, S. Henderson, C. (2010) Mothers' differentiation and depressive symptoms among adult children. *Journal of Marriage and Family*, 72(2), 333-345.
- Papaleontiou, M., Henderson, C., Moore, A., Turner, B., Olkhovskaya, Y., Amanfo, L., Reid, M.C. (2010) Outcomes associated with opioid use in the treatment of chronic non-malignant pain among older persons: a systematic review and meta-analysis. *Journal of the American Geriatrics Society*, 58(7), 1353-69.
- Pillemer, K., Meador, R., Teresi, J., Henderson, C., Chen, E., Lachs, M., et al. (2011) Effects of electronic health information technology implementation on nursing home resident outcomes. *Journal of Aging and Health*, 24. 92-112.
- Lewis, G., Henderson, C., Langer, M., Ortiz, R. Design and evaluation of a wearable self-applied Therapeutic ultrasound device for chronic myofascial pain. *Journal of Ultrasound in Medicine and Biology*, 39(8), 1429-1439.
- Guillory, J., Chang, P., Henderson, C., Shengelia, R., Lama, S.,

Warmington, M., Jowza, M., Gay, G., Reid, M.C. (2015) Piloting a text message-based social support intervention for patients with chronic pain: establishing feasibility and preliminary efficacy. *The Clinical Journal of Pain*, in press.

Lust, B., Sherman, J., Flynn, S. Gair, J., Henderson, C., et al. (2015) Reversing Ribot: Does regression hold in language of prodromal Alzheimer's disease? *Brain and Language*, in press.