



SESUG Speaker Sharing Program

To arrange for a SESUG speaker, contact Marje Fecht at Marje.Fecht@prowerk.com

Speaker:

Maribeth Johnson
Medical College of Georgia

Bio:

Maribeth Johnson has been an Assistant Professor in the newly formed Department of Biostatistics at the Medical College of Georgia for two years. For 11 years prior to that she was a consulting research statistician in the Office of Biostatistics at the same institution. She previously worked in the University of Georgia's Department of Animal and Dairy Science for 11 years as a statistical programmer. She has MS degrees in Animal Breeding from VA Tech and in Statistics from UGA. She has been using SAS since 1980. Maribeth serves on the Executive Council of the SouthEast SAS Users Group where she is currently the Vice President.

Presentation Topics:

- Individual Growth Analysis Using PROC MIXED
- Analysis of Longitudinal Data: Comparison between PROC GLM and PROC MIXED



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Abstracts:

Individual Growth Analysis Using PROC MIXED

Individual growth models are designed for exploring longitudinal data on individuals over time. PROC MIXED allows the growth parameters for each individual to be examined as random effects in the model. Individual-level covariates can be entered into the model as fixed effects to determine their impact on the dependent variable alone and in interaction with the growth parameters. The structure of the variance-covariance matrix of the repeated measurements can also be examined and entered into the model. A model building exercise will be demonstrated using up to eight systolic blood pressure measurements of youths aged 7-22

Analysis of Longitudinal Data: Comparison between PROC GLM and PROC MIXED

Longitudinal data refers to datasets with multiple measurements of a response variable on the same experimental unit made over a period of time. These types of data require special attention because they involve correlated data. The relationships between repeated measurements are important in assessing reliability and tracking of those measurements. The proper variance-covariance structure in the analysis model is essential to the understanding and interpretation of those relationships. The assumption of compound symmetry necessary for correctly using the intraclass correlation as a measure of tracking can be tested against other variance structures using PROC MIXED. This paper compares the variance, covariance and correlation estimates obtained from the GLM and MIXED procedures of SAS/STAT® on two sets of data, one of which has missing data.