

Members of Stanford Nephrology Biostats Team to Present at the [SAS® Global Forum 2017](#)

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Title: A SAS® Macro for Covariate Specification in Linear, Logistic and Survival Regression

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ABSTRACT

Covariate specification is a fundamental part of the process of developing a regression model. The choice to include a variable as continuous, categorical, or as a spline can be determined by model fit. The goal of this paper is to offer an efficient and user-friendly SAS® macro to help analysts determine how best to specify the covariate in linear, logistic, and survival analysis models. For each model, our macro will provide a graphical comparison of the association between the outcome variable and the covariate as a continuous, categorical, and restricted cubic spline variable. The plot will also be annotated with model fit statistics and show the density of the observations for the covariate. While testing for the best functional form for the covariate of interest, the user can also include additional covariates in the model. As for model fit statistics, the output shows the likelihood ratio statistic, root mean squared error (RMSE), the Akaike Information Criterion (AIC), and the Bayesian Information Criterion (BIC) as well as additional model specific statistics such as the R-squared for linear regression and the c-statistic for logistic regression. The macro will be demonstrated using an example dataset. The macro will include the REG, LOGISTIC, PHREG and SGPLOT procedures in SAS® version 9.4.

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Title: An Easy-to-use SAS® Macro for a Descriptive Statistics Table

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ABSTRACT

Are you tired of copying Proc Freq or Proc Means output and pasting it into your tables? Do you need to produce summary tables repeatedly? Are you spending a lot of your time generating the same summary tables for different subpopulations? This paper will introduce an easy-to-use macro to generate a descriptive statistics table. The table reports counts and percentages for categorical variables and means, standard deviations, medians, and quantiles for continuous variables. For variables with missing values, the table also includes the count and percentage missing. Customization options allow for the analysis of stratified data, specification of variable output order, and user-defined formats. Additionally, this macro incorporates the SAS Output Delivery System (ODS) to automatically output a Rich Text Format (RTF) file, which can be further edited by a word processor for the purposes of publication.

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