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V i r g i n i a C o m m o n w e a l t h U n i v e r s i t y

Norman Matloff, Ph.D.
Editor-in-Chief
R Journal

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Dear Dr. Matloff,

We are submitting our manuscript titled “miWQS: Multiple Imputation Using Weighted Quantile Sum Regression” for consideration as an add-on package in the *R Journal*. The miWQS package is designed to analyze chemical mixtures by executing the weighted quantile sum regression while accounting for missing data within a multiple imputation framework. Beyond a traditional R vignette, we describe a data structure that would intrigue many R users. The data used in the miWQS package include a set of continuous, positive, and correlated components that share a common outcome as well as potential confounders and covariates. Each component is interval-censored between zero and an upper threshold that differs across components. The shared outcome can be continuous, binary, or a count. With these data, the miWQS package can answer the research aim of whether the set of components is associated with an outcome and if so, which components are important. Lastly, the miWQS package establishes a computational foundation that can be built upon from other researchers in order to find components that impact human health. In addition to chemical mixture analysis, the package could be used to analyze correlated socioeconomic variables or correlated genetic data and an outcome.

There are no conflicts of interest or financial disclosures. The manuscript is an original work; it is not under consideration for publication elsewhere and has not been previously published whole or in part. All authors have contributed to writing the manuscript, have read the manuscript, agree that the work is ready for submission to a journal, and accept responsibility for its contents.

Sincerely,

Paul M. Hargarten