Washington Statistical Society Roger Herriot Award Seminar

Title: Tree Based Models for Addressing Nonresponse of Bureau of Labor Statistics Surveys
Speakers: Daniell Toth, National Institute of Statistical Sciences
Chair: Avi Feller, Department of Statistics, UC Berkeley
Date: February 10, 2026
Time: 12:00 noon – 1:00 PM ET

Abstract:

Through examples of how tree-based models were used to address survey nonresponse at the BLS, we provide an overview of some of the methodology and functionality behind the CRAN package rpms (Recursive Partitioning for Modeling Survey data). The examples include how BLS used these models to analyze response rates, retention rates, and gauge potential response bias and response burden. We also show how the models are used to adjust for nonresponse through imputation or model-assisted estimation.

About the speaker:

Daniell is a Senior Fellow with the National Institute of Statistical Sciences (NISS), and a former Senior Research Mathematical Statistician in the Office of Survey Methods Research at the U. S. Bureau of Labor Statistics and Chair of the BLS Disclosure Review Board. He is internationally recognized for his research focusing on survey methodology, especially developing tree-based methods for use on data collected from complex-sample designs. His R-package, rpms, allows users to build and do valid inference using design consistent regression trees and forests on survey data. Daniell also works on missing data and formally private disclosure limitation methodology. He is an associate editor of The American Statistician, Survey Methodology, and Journal of the Royal Statistics Society Series A, an active member and fellow of the American Statistical Association, and currently on the Fellows Committee and program chair of the 2026 Joint Statistics Meeting.

For additional information, please contact Pushpal Mukhopadhyay (pushpalm@gmail.com), WSS Methodology Section Chair.

How to join:

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