



WSS President's Invited Seminar 2018

Karen Kafadar, American Statistical Association's President-Elect

The Critical Role of Statistics in Evaluating Forensic Evidence

May 3, 2018, 2:30-4:00 pm, Reception to Follow

Bureau of Labor Statistics Conference Center, Rooms 9 and 10

2 Massachusetts Ave NE, Washington DC

Metro Stop: Union Station on the Red Line



Dr. Karen Kafadar is President-Elect of the American Statistical Association and will serve as President in 2019. She is a Commonwealth Professor and the Chair of Statistics at the University of Virginia, Charlottesville. She received her BS in mathematics and MS in statistics at Stanford University, and her PhD in statistics from Princeton University. Her research focuses on robust methods; exploratory data analysis; characterization of uncertainty in the physical, chemical, biological and engineering sciences; and methodology for the analysis of screening trials, which includes awards from the Centers for Disease Control and Prevention, American Statistical Association (ASA), and American Society for Quality. She currently serves on the Forensic Science Standards Board and chairs the ASA's Advisory Committee on Forensic Science.

Abstract

Statisticians have been important contributors to many areas of science, including chemistry (chemometrics), biology (genomics), medicine (clinical trials), and agriculture (crop yield), leading to valuable advances in statistical research that have benefitted multiple fields (e.g., spectral analysis, penalized regression, sequential analysis, experimental design). Yet the involvement of statistics specifically in forensic science has not been nearly as extensive, given the importance of the field (ensuring proper administration of justice) and the value it has demonstrated thus far (e.g., forensic DNA, assessment of bullet lead evidence, significance of findings in the U.S. anthrax investigations, reliability of eyewitness identification). Forensic methods in many areas remain unvalidated, as recent investigations have highlighted (notably, bite marks and hair analysis). In this talk, I will provide three examples where statistics played a vital role in the evaluating forensic evidence. I then will propose ways in which statisticians can enhance its involvement in forensic science with the ultimate goal of strengthening forensic evidence to achieve its mission in achieving low error rates (false positives and false negatives), and thereby helping to raise the level of confidence in the reliability of evidence presented in the criminal justice system.



Location: Bureau of Labor Statistics Janet Norwood Conference Center, Rooms 9 & 10

To be placed on the seminar attendance list at the Bureau of Labor Statistics, you need to e-mail your name, affiliation, and seminar name to wss_seminar@bls.gov (underscore after 'wss') by noon at least two days in advance of the seminar. Please bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Use the Red Line to Union Station. Parking in the area of BLS is available at Union Station. For parking information see <http://www.unionstationdc.com/parking>. No validation is available from BLS for reduced parking rates.

NOTE: BLS is now following enhanced security protocols and screenings for access to the facility. All personnel need to remove all items from their pockets/person (to include belts) and electronic devices from their person or clothing and place the items in the designated bin to be screened through the x-ray machine. Please allow extra time to get through security.

WebEx: WebEx event address:

<https://dol.webex.com/dol/j.php?MTID=m818ae76d51207aed2c1fe908857bd764>

For audio:

Call-in toll-free number (Verizon): 1-866-865-9536 (US)

Call-in number (Verizon): 1-517-966-0857 (US)

Attendee access code: 744 124 3

Note: Particular computer configurations might not be compatible with WebEx.