Differential Privacy Technical Bootcamp

Date & Time: Monday, September 23, 2019, 8:00 AM to 4:00 PM

Location: Janet Norwood Conference Center

Bureau of Labor Statistics 2 Massachusetts Avenue, NE Washington, DC 20212

Sponsored by: Washington Statistical Society,

ASA Business and Economic Statistics Section, and the FCSM Confidentiality and Data Access Committee (CDAC)

Faculty: Michael Hay (Colgate University)

Daniel Kifer (Pennsylvania State University) Ashwin Machanavajjhala (Duke University)

Gerome Miklau (University of Massachusetts, Amherst)

The Washington Statistical Society, the Business and Economic Statistics Section of the American Statistical Association, and the Confidentiality and Data Access Committee of the Federal Committee on Statistical Methodology are pleased to announce that they will be hosting a technical workshop on the theory and application of differential privacy. Differential privacy is a mathematically rigorous framework for quantifying the privacy loss associated with the public release of statistical data, and for providing data subjects with provable guarantees regarding confidentiality protections.

This full-day, free workshop will introduce participants to key concepts in differential privacy, including theoretical definitions and desiderata for formal privacy, calculation of estimate sensitivity, optimization of query/workload structures, noise injection mechanisms, and privacy-loss budgets (epsilon). Throughout the workshop, participants will have the opportunity to apply these concepts and techniques through concrete exercises and activities.

Participants will require basic familiarity with the Python programming language, and will need to bring a laptop with Python installed. A good Python primer is available from William Sexton (U.S. Census Bureau) at https://github.com/sextonw/teach_python. Bootcamp materials will be distributed using Google Colaboratory (https://colab.research.google.com/). To use the Colaboratory, participants must have a Google Drive account. Further setup instructions will be provided to registered participants.

Space is limited, and the Bureau of Labor Statistics is a secure facility, so only registered participants will be allowed to attend. This workshop will be recorded; individuals who are not able to attend will be able to view the workshop online after the event.

Registration Information:

No-cost registration for <u>Federal Employees and members of the sponsoring organizations</u> (WSS and ASA-B&ES Section) will open on Monday, August 19th, 2019.

No-cost registration for the General Public will open on Wednesday, August 28th, 2019.

To register, please send an email with subject line "DP Bootcamp Registration" to Michael Hawes at michael.b.hawes@census.gov. If you are a member of one of the sponsoring organizations, please indicate that in your message.