

### ***Washington Statistical Society Seminar***

**Title:** High Level Overview of Statistical Editing and Imputation in the Annual Integrated Economic Survey (AIES)

**Speakers:** Jenny Thompson and Laura Bechtel, U.S. Census Bureau

**Chair:** Pushpal Mukhopadhyay, U. S. Energy Information Administration

**Date:** May 1, 2025

**Time:** 12:00 noon – 1:00 PM ET

**Abstract:**

The Annual Integrated Economic Survey (AIES) was introduced March 2024 and replaces a suite of seven independently conducted annual surveys. In this seminar, we introduce the statistical editing and imputation procedures implemented in the AIES to ensure coherent data. After sharing key features of the AIES data collection, we give a high-level overview of the cornerstone automatic data validation and correction procedures, grounded in statistical methodology. Finally, we walk through the processing flow in detail. With time permitting, we present lessons learned from our extensive implementation and testing process.

**About the speakers:**

Katherine Jenny Thompson is the Senior Mathematical Statistician in the Economic Directorate of the Census Bureau. Besides being a lead architect of statistical methodology implemented in the AIES, she is an American Statistical Association (ASA) Fellow, an elected member of the International Statistics Institute, and the Vice President of the ASA, and the Survey Statistics Editor-in-Chief of the Journal of Survey Statistics and Methodology until the end of 2024. Her hobbies including running (mostly in circles), analyzing data sets, yoga, deriving complicated formulae, reading fiction, putting together PowerPoint presentations, eating chocolate, drinking wine, and reviewing new and exciting papers in survey research methods.

Laura Bechtel is the Methodology Director for Complex Survey Methods and Analysis in the Economic Statistical Methods Division. She began working for the US Census Bureau as a mathematical statistician immediately following her undergraduate studies in Mathematics in 2001. In addition to her undergraduate studies, she completed a graduate certificate in Survey Design and Data Analysis and a Master's Degree in Applied Statistics at The George Washington University. She is particularly interested in researching and working on imputation, especially hot deck imputation. In her "free" time, she chases her two-year-old around and chauffeurs her two middle schoolers to all their extracurricular activities.

For additional information, please contact Pushpal Mukhopadhyay ([pushpalm@gmail.com](mailto:pushpalm@gmail.com)), WSS Methodology Program Chair.

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