



The Washington Statistical Society (WSS) and  
the National Agricultural Statistics Service (NASS)  
jointly invite you to

**The WSS Presidents' Invited Lecture  
and NASS Research and Development Division Seminar Series**

Thursday, June 24, 2021  
Noon – 1:00 pm

**Entity Resolution with Societal Impacts in Statistical Survey Methodology,  
Statistical Science, and Machine Learning**

**Dr. Rebecca Steorts**

Duke University and US Census Bureau

**Abstract:** Very often information about social entities is scattered across multiple databases. Combining that information into one database can result in enormous benefits for analysis, resulting in richer and more reliable conclusions. Among the types of questions that have been, and can be, addressed by combining information include: How accurate are census enumerations? How many people were victims of war crimes in human rights conflicts? In most practical applications, however, analysts cannot simply link records across databases based on unique identifiers, such as social security numbers, either because they are not a part of some databases or are not available due to privacy concerns. In such cases, analysts need to use methods from statistical and computational science known as entity resolution (record linkage or de-duplication) to proceed with analysis. Entity resolution is not only a crucial task for social science and industrial applications, but is a challenging statistical and computational problem itself. In this talk, I provide an overview and introduction to entity resolution. I discuss collaborations throughout my career, highlighting case studies, impactful insights, and future areas of development.

**About speaker:** Dr. Rebecca Steorts is an Assistant Professor in the Department of Statistical Science at Duke University. She is affiliated faculty in the Departments of Computer Science and Biostatistics and Bioinformatics, the information initiative at Duke (iiD), and the Social Science Research Institute. Rebecca also serves as a Principal Statistician in the United States Census Bureau. Her research interests are in large scale clustering, record linkage (entity resolution or de-duplication), privacy, network analysis, and machine learning for computational social science applications. Detail for her short bio (<https://reosteorts.github.io/bio.html>) and her webpage: (<https://reosteorts.github.io/>).

**Contact persons:** If you have any question, please feel free to contact WSS President Jill Dever ([jdever@rti.org](mailto:jdever@rti.org)) or Yang Cheng ([yang.cheng@usda.gov](mailto:yang.cheng@usda.gov)).

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