

JPSM Distinguished Lecture Series



Statistical Analysis Using Combined Data Sources **Ray Chambers**

Information is required to understand, monitor and improve any social, economic, commercial or industrial process, and there are many potential sources of auxiliary data that can be used in conjunction with specially designed data collections, of which sample surveys are a major example, to provide this information. In this context, statistical analysis that combines individual data from a number of data sources offers the prospect of substantial improvements in efficiency compared to the traditional approach of carrying out separate analyses on the data obtained from each source. The need for such data integration has increased dramatically in recent times, fuelled by continuing demand for high quality data through the integration of available sources (i.e. surveys, administrative records, census) as well as pressure for combining available data sources in order to produce improved sub-population level estimates at minimal cost. Data integration is seen as a solution to these issues. However, in spite of extensive theoretical development, statistical analysis based on integrated data still faces considerable methodological challenges. This presentation will address some of these issues, focusing on analysis of data obtained via data linking and data pooling. Ray Chambers is Professor of Statistical Methodology at the Centre for Statistical and Survey Methodology, University of Wollongong, Australia.

Thursday, April 7 at 3:00 PM

1524 Van Munching Hall, University of Maryland, College Park

Discussants: [Mike Elliot](#), University of Michigan and [Nathaniel Schenker](#), NCHS

Please join us for a reception afterwards