

# **WSS NEWS**

October 2010

WASHINGTON STATISTICAL SOCIETY

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## **LECTURES AND SEMINARS**

Title: Simultaneous Calibration and Nonresponse Adjustment
Speaker: Eric Slud, University of Maryland and U.S. Census Bureau
Chair: Adam Safir, BLS, WSS Methodology Program Chair

Organizer: David Judkins, Westat, WSS Methodology Section Chair

Date/Time: Tuesday, October 26, 2010, 12:30-2:00 p.m.

Location:

Bureau of Labor Statistics Conference Center

To be placed on the seminar list attendance list at the Bureau of Labor Statistics you need to e-mail your name, affiliation, and seminar name to <a href="wss">wss\_seminar@bls.gov</a> (underscore after 'wss') by noon at least 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2

Massachusetts Avenue, NE. Use the Red Line to Union Station.

Sponsor:

Methodology Section, WSS

Abstract:

Single and joint inclusion probabilities are generally known for complex survey designs up to the point where survey weights are modified due to nonresponse and population controls. Best practice by sophisticated survey practitioners generally includes weight modifications, first by calibration, ratio adjustment or raking to correct for nonresponse, next by further steps to impose population survey controls; and often, by final steps involving weight truncation or cell-collapsing to constrain the modified weights, usually so that the largest and smallest weights do not differ by more than a designated multiplicative factor. This talk presents a method for generalized-raking calibration in which all of these adjustments are accomplished in a single stage. Some large-sample super-population theory is described, which allows estimated or incorrect control totals, and which leads to linearization-based variance formulas for the resulting estimators. The method and estimators are illustrated in a moderate-sized hypothetical design and in the setting of the (Survey of Income and Program Participation)

SIPP 1996 (Wave 1). This talk is based on joint work with Yves Thibaudeau at the Statistical Research Division, of the Census Bureau.

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Title: Linear Regression Diagnostics for Survey Data

Speaker: Dr. Richard Valliant, Professor, and U.MARYLAND/JPSM

Discussant:

James R. Knaub, Jr., Lead Mathematical Statistician, U.S. Energy Information

Administration

Date/Time: Wednesday, November 3, 2010 / 12:30 - 2:00 p.m.

Location:

Bureau of Labor Statistics Conference Center. 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 <a href="wss\_seminar@bls.gov">wss\_seminar@bls.gov</a> (underscore after `wss') by noon at least 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Take the Red Line to Union Station.

Point of Contact:

Linette Lanclos at <u>Linette\_Lanclos@nass.usda.gov</u> (underscore after 'Linette') or

(202) 720-2641

Sponsor: Economics Section, WSS

Abstract:

Diagnostics for linear regression models have been developed primarily for nonsurvey data. The models and sampling plans used for finite populations often entail stratification, clustering, and survey weights. I adapt some diagnostics for ordinary or weighted least squares for use with survey data. Statistics considered here include leverages, DFBETAS, DFFITS, and Cook's D. Differences in the performance of ordinary least squares and survey-weighted diagnostics are compared in an empirical study where values of weights, response variables, and covariates vary substantially. Another set of diagnostics are needed to identify collinearity among predictor variables. These also require some modification to be appropriate for survey data, which will be sketched in this talk. I also review how the forward search method for identifying groups of influential points may be applied to survey data.

Title: A Discussion of Nonresponse Bias Studies

Speaker: J. Michael Brick, Westat and JPSM

Date/Time: Wednesday, November 10, 2010 / 12:30 - 2:00 p.m.

Location:

Bureau of Labor Statistics Conference Center. 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 <a href="wss\_seminar@bls.gov">wss\_seminar@bls.gov</a> (underscore after `wss') by noon at least 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2 Massachusetts Avenue, NE. Take the

Red Line to Union Station.

Contact: Grace O'Neill at Grace.O'Neill@eia.doe.gov or (202) 586-6485

Sponsors: WSS Data Collection Methods and DC-AAPOR

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#### Abstract:

Nonresponse bias studies have been done for both household and establishment surveys over the years, but the number of these studies has greatly increased recently due to the 2006 OMB initiative requiring them when the response rate is too low. This session will begin by briefly reviewing methods used to conduct nonresponse bias. This review will describe some of the strengths and weaknesses of these methods, and the utility of using multiple methods in the same survey. Following this summary, the floor will be open for a moderated discussion of topics of nonresponse bias studies of interest to the audience. Come prepared with questions, comments, and points of interest to share!

Title: Estimating the Distribution of Usual Daily Energy Expenditure

Speaker: Nick Beyler, Mathematica Policy Research, Inc.

Chair: Brian Meekins, BLS

Organizer: David Judkins, Westat, WSS Methodology Section Chair

Date/Time: Thursday, December 9, 2010, 12:30-2:00pm

Location:

Bureau of Labor Statistics, Conference Center

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 2 days in advance of the seminar or call 202-691-7524 and leave a message. Bring a photo ID to the seminar. BLS is located at 2

Massachusetts Avenue, NE. Use the Red Line to Union Station.

Sponsor: Abstract:

Methodology Section, WSS

When making inferences about physical activity, public health researchers are often interested in the distribution of usual (long-term average) daily energy expenditure for individuals in population groups, such as groups defined by gender and age. Because usual daily energy expenditure cannot be directly measured, self-reported activity data are collected from a sample of individuals and converted to energy expenditure. Daily energy expenditure measurements from self-report instruments contain measurement errors that lead to biased estimates of usual daily energy expenditure parameters. Activity monitors give more accurate measures of energy expenditure, but are expensive to administer. If monitors are used on a subsample of respondents, the reference monitor data can be used in a measurement error model framework to adjust estimates for the presence of errors. We propose a method for estimating usual daily energy expenditure parameters for multiple population groups. The research extends an existing method for estimating usual dietary intake distributions using 24-hour recall data (without a reference measure) for a single subpopulation. The new method involves transforming daily energy expenditure values to normality. The distribution of individuals' mean daily energy expenditure in the transformed scale is estimated using measurement error models

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to characterize sources of bias and random error for population groups. An estimated distribution of usual daily energy expenditure is generated in the original scale for each of the groups and parameters of usual daily energy expenditure are estimated from the estimated distributions. We illustrate our method with preliminary data from the Physical Activity Measurement Survey (PAMS).

Additional seminars may be posted on <a href="http://scs.gmu.edu/~wss/seminar.html">http://scs.gmu.edu/~wss/seminar.html</a>.

## **CONFERENCES AND SYMPOSIUMS**

**Event:** Federal Committee on Statistical Methodology Statistical Policy Seminar

Beyond Our Traditions: Innovative Approaches to Longstanding and Emerging

**Challenges** 

Host: The Council of Professional Associations on Federal Statistics (COPAFS)

Speakers: John Thompson, President, National Opinion Research Center

Date: December 14-15, 2010

Location: Washington Convention Center, 801 Mount Vernon Place, Washington D.C. 20001

Cost: \$195.00 per person

Sponsors:

Agency for Healthcare Research and Quality \* Bureau of Economic Analysis \* Bureau of Justice Statistics \* Bureau of Labor Statistics \* Economic Research Service \* Energy Information Administration \* Environmental Protection Agency \* National Agricultural Statistics Service \* National Center for Education Statistics \* National Center for Health Statistics \* Office of Research, Evaluation, and Statistics of the Social Security Administration \* Statistics of Income Division of the Internal Revenue Service \* Science Resources Statistics/National Science Foundation \* U.S. Census

Bureau

Information and registration:

COPAFS Office, Phone 703-836-0404, Fax: 703-836-0406, <a href="mailto:copafs@aol.com">copafs@aol.com</a> www.copafs.org

Description:

This event is the 10<sup>th</sup> in a Series of Seminars Hosted by COPAFS. Participants will include statisticians, economists, and managers, as well as other professionals in the broader statistical community who share an interest in keeping current on issues related to federal data.

#### Topics Will Include:

- \* Examining the Costs of Federal Surveys
- \* External Peer Reviews of Major Statistical Programs
- \* Future Directions in Questionnaire Testing

- \* Data Quality of Administrative Records
- \* Addressing Cultural and Linguistic Diversity in Surveys
- \* Gaining and Tracking Participation in the 2010 Decennial Census
- \* Emerging Issues in Disclosure Avoidance
- \* Emerging Challenges in Federal Statistics
- \* Issues in Online Panel Surveys

#### **Event: International Spatial Statistics 2011 conference**

Speakers: Martin Schlather (Universität Göttingen, Germany), Noel Cressie (Ohio State

University, USA) and Yong Ge (State Key Laboratory of Resources and

Environmental Information System, China

Date: March 23 - 25, 2011

Location: Enschede, The Netherlands

Description:

Please see conference website (http://www.spatialstatisticsconference.com/).

Abstracts are now invited on these topics

Event: GDRR 2011 - Second Symposium on GAMES AND DECISIONS IN

RELIABILITY AND RISK

Host: CNR IMATI and Institute for Integrating Statistics in Decision Sciences,

George Washington University

(Confirmed) Speakers:

Simon French, Miguel Lejeune, Massimo Marinacci, Jorge Mateu, Robert

Nau, Nicholas Polson, David Rios Insua, Renata Rotondi, Marco Scarcini, Nozer Singpurwalla, Jim Q. Smith, Fabio Spizzichino, Fabio Trojani and Robert Wolpert

Date: May 19-21, 2011

Location: Hotel Villa Carlotta, Belgirate (VB), Lake Maggiore, Italy

Description:

The symposium follows the one held in Washington at George Washington

University in 2009.

The objective of the symposium is to present novel use of game and decision theory in reliability and risk analysis and to bring together researchers from disciplines such as economics, engineering, finance, mathematics, medical sciences, probability and statistics who have a lot to contribute to this theme.

#### **CALL FOR PAPERS**

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People interested in presenting a paper at the symposium are kindly invited to send an abstract by DECEMBER 1, 2010, to fabrizio@mi.imati.cnr.it. Details on registration fees, lodging, location and travel can be found on the web site (www.mi.imati.cnr.it/conferences/gdrr11.html).

## **CLASSES AND WORKSHOPS**

#### JPSM Short Courses

JPSM Home Page: www.jpsm.org

Short Courses: <a href="https://www.jpsm.org/shortcourses">www.jpsm.org/shortcourses</a>

Sponsor Affiliate List: projects.isr.umich.edu/jpsm/info.cfm#sponsors

#### October 28-29, 2010

#### **Introduction to Project Management for Surveys**

Michael F. Weeks

Registration Deadline: October 14, 2010

#### November 9-10, 2010

## Creating and Updating Price Indexes: Theory and Practice

Dennis J. Fixler and Richard L. Valliant Registration Deadline: October 26, 2010

#### November 22, 2010 1-Day Course

#### **Practical Tools for Nonresponse Bias Studies**

Jill Montaquila and Kristen Olson

Registration Deadline: November 8, 2010

#### **December 15-16, 2010**

#### **Introduction to Survey Sampling**

Colm O'Muircheartaigh and James M. Lepkowski

Registration Deadline: December 1, 2010

#### **January 12-13, 2011**

#### Web Survey Design

Mick P. Couper

Registration Deadline: December 29, 2010

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#### February 24-25, 2011

#### The Use of Paradata and Process Data in Social Surveys

Frauke Kreuter

Registration Deadline: February 10, 2011

#### March 3-4, 2011

#### **Introduction to Survey Estimation**

David Morganstein and Richard L. Valliant Registration Deadline: February 17, 2011

#### March 23, 2011

#### **Telephone Surveys in the Era of Cell Phones**

Scott Keeter and J. Michael Brick Registration Deadline: March 9, 2011

#### April 18-19, 2011

#### Writing Questions for Surveys: A Workshop

Nora Cate Schaeffer

Registration Deadline: April 4, 2011

## April 28-29, 2011

#### The Psychology of Survey Responses

Roger Tourangeau and Frederick Conrad Registration Deadline: April 14, 2011

#### May 2011 Dates to be determined

#### **Analysis and Presentation of Economic Data**

Katharine G. Abraham and Deborah P. Klein

#### June 13-14, 2011

## Methods for Longitudinal Surveys

Peter Lynn

Registration Deadline: May 30, 2011

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## **SIGSTAT Topics for Fall/Winter 2010-2011**

http://www.cpcug.org/user/sigstat/

**SIGSTAT** is the Special Interest Group in Statistics for the **CPCUG**, the Capital PC User Group, and **WINFORMS**, the Washington Institute for Operations Research Service and Management Science.

All meetings are in Room S3031, 1800 M St, NW from 12:00 to 1:00 p.m. Enter the South Tower & take the elevator to the 3<sup>rd</sup> floor to check in at the guard's desk.

First-time attendees should contact Charlie Hallahan, 202-694-5051, <u>hallahan@ers.usda.gov</u>, and leave their name. Directions to the building & many links of statistical interest can be found at the **SIGSTAT** website.

\*\*Due to unforeseen circumstances, the SIGSTAT schedule will be **moved ahead by one month**. In other words, the meeting scheduled in October has been cancelled. The October topic will be covered in November, the November topic in December, etc.

\*\*The *original* schedule is posted on <a href="http://www.cpcug.org/user/sigstat/Schedule.htm">http://www.cpcug.org/user/sigstat/Schedule.htm</a> that does *not* reflect changes noted above (i.e., discussions for each topic will be held in the following month that is actually posted).

## STUDENT COLUMN

From Parisa Meisami, Student Representative:

For many of us, summertime is equal to internship. Somehow, this unique opportunity gives us a taste from our future job.

Xu Dihua a PhD student at UMBC tells us about her experience at NHLBI: "By the end of last year I knew I had to gain some work experience out there in the real world. I am so glad I have chosen and been chosen by NHLBI. It is a great place to work. Everyone in the Office was extremely knowledgeable and always willing to help. They treat us as one of them. I really enjoy the environment there. I got tons of help from my mentor Dr. Tian. She basically guided me step-by-step into this biostatistics world. She took me to all the meetings with investigators, made me realize how important to have good understanding of the medical backgrounds. I really learned a lot from everyone in the group, both statistical and non-statistical aspects. Oh, almost forgot to mention there is a nice summer intern T-shirt at the end."

We have just begun the academic year. Continue your great job and inform us about your activities. We need your expertise to improve the society.

## **EMPLOYMENT**

As a service to local statisticians, *WSS News* provides notification of employment opportunities and description of those seeking employment here in the Washington, DC, area. Readers are encouraged to take advantage of this feature of the newsletter. The deadline for inserting notices is five (5) weeks before the publication date. Those interested should email or call Anne Peterson, at apeterson@insightpolicyresearch.com or (703) 373-6645.

Additional employment opportunities are available at: <a href="http://scs.gmu.edu/~wss/employ.html">http://scs.gmu.edu/~wss/employ.html</a>.

#### The Henry M. Jackson Foundation (HJF)

HJF is seeking a Senior Biostatistician to support the Infectious Disease Clinical Research Program (IDCRP) at the Uniformed Services University of the Health Sciences (USUHS) in Bethesda, Maryland. HJF provides scientific, technical and programmatic support services to IDCRP.

The IDCRP is a collaborative research effort with the National Institute of Allergy and Infectious Diseases (NIAID). Established at USUHS in 2005, this unique program aims to strengthen infectious disease clinical research in the U.S. It brings together a network of clinical scientists at military treatment facilities who are focused on conducting patient-based research on a wide range of infectious diseases relevant to the military and the broader medical communities.

Responsibilities of the position are to provide biostatistical consulting for clinical and/or laboratory research, to perform statistical analysis on data collected from clinical trials, observational studies and/or laboratory assays, to conduct independent methodological research, to supervise the work of junior biostatisticians, and to take part in the IDCRP's teaching activities.

The requirements of the position are: a Ph.D. in Statistics or Biostatistics, a strong research background, a minimum of 5 years' experience in biostatistical consulting and teaching as well as excellent verbal, written and interpersonal skills

Please apply on-line at <a href="www.hjf.org/careers">www.hjf.org/careers</a> Click "Advanced Search" and enter job number 205719 in the Job Opening ID box.

The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (HJF)

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is a congressionally authorized, not-for-profit corporation that provides unparalleled scientific and management services to military medical research and education programs worldwide. Our mission is to advance military medical research. AA/EEO

For a comprehensive list of our benefits, please visit: http://www.hjf.org/careers/benefits.html

## FROM WSS NEWS EDITOR

Items for publication in the **November 2010** issue of the WSS NEWS will be accepted until **October 31, 2010**. Email items to Colleen S. Choi.

Please note NEW email address: wss.editor@gmail.com.

Please submit all materials in MS WORD or plain text.



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