



WASHINGTON
STATISTICAL
SOCIETY

WSS NEWS

January 1994

Nonsampling Errors in Surveys Short Course

The Washington Statistical Society is pleased to announce its next short course, Nonsampling Errors in Surveys, by Judith T. Lessler of Battelle, Inc. and William D. Kalsbeek of The University of North Carolina. The course will be held Friday, February 4, 1994, 8:00 AM - 4:30 PM at the Hyatt Regency Bethesda. The objectives of the course are: to indicate where in the survey process various nonsampling errors occur, to establish the importance of understanding and dealing with nonsampling errors in surveys, to define and describe the statistical effects of each type of nonsampling error, and to describe how these effects have motivated the approaches that are used to deal with these errors. The course is designed for producers and users of survey data with at least an introductory level understanding of survey methods and practice, who are interested in better understanding the taxonomy and statistical implications of nonsampling errors in surveys. For complete details, see the enclosed flyer.

WSS Seminars	
(All events are open to any interested persons)	
January	
12 Wed.	The Economy: 1993 in Review--1994 in Prospect
13 Thurs.	Distribution of Poverty in Census Block Groups and Implications for Sample Design (Third Presentation in Methodology Seminar Series on Small Domains)
19 Wed.	Cognitive Issues for Questions Asking Cattle and Cattle on Feed Inventory
20 Thurs.	Alternative Imputation Methods for Labor Type Data (Eighth Presentation in Methodology Seminar Series on Handling Missing or Bad Data)
31 Mon.	Application of Nonparametric Regression to Mapping of Survey Data
February	
4 Fri.	Short Course: Nonsampling Errors in Surveys

Announcements

Science Fairs 1994 Volunteers Needed

Volunteers are now being solicited to represent the Washington Statistical Society as judges in local area science fairs next spring. Since 1986, WSS has provided special awards at these fairs to students whose projects demonstrate excellence in statistical theory or application. Those who have participated in this activity have very much enjoyed the opportunity to interact with these students and to observe the widely diverse projects which are presented. The WSS sponsors awards at fairs in Northern Virginia, suburban Maryland, and the District of Columbia. The fairs are held on a Saturday morning in mid-to-late March and early April. The only time required is one Saturday morning, plus one weekday lunchtime meeting to discuss judging strategy and to distribute the awards to be given out at each fair.

If you would like to be a WSS science fair judge, or if you would like additional information about this activity, please contact Lee Abramson at (301) 492-3949.

Fellowship Announcement

ASA/NSF/Census Research Program and the Census Research Fellow Program is offering a unique opportunity to make major advances in methodological or subject matter research related to Census Bureau operations or data. General areas for research social and demographic studies, economic measurement and analysis, and statistical methodology and computing. Requirements: recognized research record in relevant field (e.g. Anthropology, Statistics, Demography, Sociology, Economics, and Geography). Salaries are commensurate with qualifications and experience; also, fringe benefits and a travel allowance are provided. Length of term and start date are

flexible--usually six months to a year. Assignments may begin as early as June 1, 1994; can split term into two or more parts.

Apply by January 4, 1994. For more information on specific research topics and how to apply, contact Maxine Anderson-Brown, Program Manager, DIR, Room 2270-3, Bureau of the Census, Washington, DC 20233, (301) 763-1150.

The USDA Graduate School

The USDA Graduate School is offering two courses in its Winter Quarter of possible interest to WSS members: Theory of Sample Surveys (Phil Kott, instructor) and Exploratory Data Analysis (Howard Hogan, instructor). For more information, call (202) 720-5885.

Series on Neuroimaging and Statistics

The Biometry and Field Studies Branch (BFSB) of the National Institute of Neurological Disorders and Stroke (NINDS) has launched a series of lectures on Statistical Methods in Neuroimaging. The first lecture "The Analysis of MRI Time Series and Statistical Parametric Mapping" was given by Karl Friston of University College of London on December 8. On January 12, Keith Worsley of the Department of Mathematics and Statistics of McGill University will present the lecture "The Geometry of PET" and on February 2, Nick Lange of the BFSB, NINDS, will speak on "Feature Quantification in Functional MRI: Case Studies". Both Wednesday lectures will be at 10 AM in the Bunim Room (9S235), Building 10, National Institutes of Health (Red Line, Medical Center). For further information, contact Greg Campbell at (301) 496-6818.

Program Abstracts

- Topic:** The Economy: 1993 In Review--1994 In Prospect
- Speaker:** Ralph Monaco, University of Maryland
- Chair:** Michael Horrigan, Bureau of Labor Statistics
- Date/Time:** Wednesday, January 12, 1994, 12:30 - 2:00 PM
- Location:** Postal Square Building, Training Room #8, 2 Massachusetts Avenue NE, Washington DC (Red Line--Union Station). Enter at First Street. Federal government employees show ID; nongovernment employees call Ed Riddick at (202) 606-7376 to add name to visitors' list.
- Sponsor:** Social and Demographic Section
- Abstract:** The current state of the economy and the forecast for the next year will be discussed. The speaker is currently at the Inforum Group at the University of Maryland. He was a Senior Staff Economist during 1990-1991 for Macroeconomics and Forecasting at the Council of Economic Advisers.

Program Abstracts (Cont'd)

- Topic:** Distribution of Poverty in Census Block Groups and Implications for Sample Design (Third Presentation in Methodology Seminar Series on Small Domains)
- Speaker:** Joseph Waksberg, Westat, Inc.
- Chair:** Phillip S. Kott, National Agricultural Statistics Service
- Date/Time:** Thursday, January 13, 1994, 12:30 - 2:00 PM
- Location:** BLS Training Center, Postal Square Building, Suite G-440, Room 1, 2 Massachusetts Avenue NE, Washington, DC (Red Line -- Union Station). Enter at First Street. Federal government employees show ID; nongovernment employees call Ed Riddick at (202) 606-7376 to add name to visitors' list.
- Sponsor:** Methodology Section
- Abstract:** Low-income persons, either as defined in the official poverty definition or with income only slightly above poverty, are frequent target populations in Federal Government surveys. Disproportionate sampling, with increased sampling rates in geographic areas with high concentrations of poverty, is a plausible method of reducing the number of households that need to be screened to identify the number of low-income persons that satisfy precision requirements. As part of a research project for sample designs for the National Center for Health Statistics, Westat tabulated the distribution of the 1990 Census block groups by concentration of poverty. The results will be presented together with implications for sample design. Conditions under which disproportionate sampling is useful will be discussed, and subgroups will be described for which it is particularly efficient.

Program Abstracts (Cont'd)

- Topic:** Cognitive Issues for Questions Asking Cattle and Cattle on Feed Inventory
- Speakers:** Terry O'Connor, National Agricultural Statistics Service
Jaki Stanley, National Agricultural Statistics Service
- Discussant:** Karen Goldenberg, Bureau of Labor Statistics
- Chair:** Fred Conrad, Bureau of Labor Statistics
- Date/Time:** Wednesday, January 19, 1993, 12:30 - 2:00 PM
- Location:** USDA, South Building, Room 4302, 1400 Independence Avenue, SW
Washington, DC (Blue/Orange Line--Smithsonian, Independence Avenue Exit).
Enter building at corner of 12th and Independence. Call Carol House if additional
information is needed (202-720-3895).
- Sponsor:** Agriculture & Natural Resources
- Abstract:** The National Agricultural Statistics Service (NASS) conducts monthly surveys to obtain current inventories of cattle and cattle on feed. This seminar will present the results of a quality assessment reinterview survey designed to gauge respondents' understanding of these inventory questions, along with the results of cognitive interviews examining response processes. The authors will address the effects of this research on a redesign of the survey instrument.

Program Abstracts (Cont'd)

Topic: Alternative Imputation Methods for Labor Type Data (Eighth Presentation in Methodology Seminar Series on Handling Missing or Bad Data)

Speaker: Sandra A. West, Bureau of Labor Statistics

Chair: Michael P. Cohen, National Center for Education Statistics

Date/Time: Thursday, January 20, 1994, 12:30 - 2:00 PM

Location: BLS Cognitive Lab, Postal Square Building, Room 2990, 2 Massachusetts Avenue NE, Washington, DC (Red Line -- Union Station). Enter at Massachusetts Avenue and North Capitol Street. Federal government employees show ID; nongovernment employees call Ed Riddick at (202) 606-7376 to add name to visitors' list.

Sponsor: Methodology Section

Abstract: In this talk the results of theoretical and empirical investigations of different imputation methods for labor type data are presented. The methods include regression modeling and distribution modeling with maximum likelihood estimators for the parameters, as well as standard procedures such as ratio adjustment and hot deck. Eight regression models for imputing are presented. However, one problem with a "best" regression-based prediction method is that all imputed values will fall on the estimated regression line and, therefore, will lead to biases in estimates that involve the residual variance for nonrespondents. Simple methods are considered that attend to this problem by drawing random residuals that are added to the model predictions. Imputations are also created under explicit Bayesian models and multiple imputation procedures are developed and examined. The effectiveness of the various imputation methods is measured both at the micro and macro levels.

This talk is based on joint work with Shail Butani and Michael Witt of the Bureau of Labor Statistics.

Program Abstracts (Cont'd)

- Topic:** Application of Nonparametric Regression to Mapping of Survey Data
- Speaker:** Gerald Whittaker, Department of Agriculture
- Discussant:** David Scott, Rice University
- Chair:** J. Jeffery Goebel, Department of Agriculture
- Day/Time:** Monday, January 31, 1994, 12:30 - 2:00 PM
- Location:** 1301 New York Ave., NW, Washington, DC (13th & New York Avenue), Waugh Auditorium, in basement (Blue/Orange Line -- between Metro Center and McPherson Square). Call Linda Atkinson on (202) 219-0505 to place your name on the guard's list for entry.
- Sponsor:** Economics Section
- Abstract:** It is current practice for the U.S. Department of Agriculture to present the results of surveys in tables by region, crop or some other cross-tabulation of interest. Some publications feature dozens of these tables, and a reader faces some difficulty getting an overall sense of the data. Maps appear to be an attractive addition to presentation of survey results. Although a few maps of data at the county level appear in USDA publications, their use is limited by considerations of confidentiality (due to sparse observations), and difficulty of interpretation (due to high variability). This seminar reports on current work using nonparametric regression to map variables of interest. The discussion will include the use of survey weights in nonparametric regression, practical experience with choice of smoothing parameters, and implementation using S-Plus on Intel based platforms.

Announcements Cont'd

Science and Engineering in a New World Order

On January 11, 1994, the Washington Academy of Sciences and the Association for Science, Technology & Innovation are sponsoring a panel discussion concerning *Science and Engineering in a New World Order*. American governments and businesses are scrambling to remain competitive in the rapidly changing, but stagnant, global economy. As organizations down-size, right-size, re-engineer, and restructure, we nervously wonder what is in store for us? Where do engineers and scientists fit during and after this transition to wherever we are going? What is the short- and long-range outlook for our professions?

These are some of the questions that will be grappled with during this panel discussion by knowledgeable individuals. Panelists are: Joseph Coates, Coates & Jarrett, Inc.; Phyllis Eisen, Senior Policy Director of Education and Workforce Readiness, National Association of Manufacturers; Stan Settles, Program Director, Design & Integration Engineering, National Science Foundation; and April Young, Director, Virginia Department of Economic Development. For reservations at the dinner meeting beginning at 6:00 pm. at the Crystal City Marriott, contact John Baer (703) 323-6952 or Neil Schmeidler (703) 827-8976.

Conference on Statistics and Public Policy

co-sponsored by
the Department of Mathematics and Statistics of the American University
and the American Statistical Association
May 12-14, 1994 in Washington, DC

Examining the impact of statistical methods on problems and debates in public policy. Sessions will include Governmental Policy, Environmental Policy, Medical Policy, and Linkage to Policy Makers. Speakers include:
Dr. John Bailar (Ph. D. AU 1973) and Dr. Barbara Bailar (Ph.D. AU 1972)

Submit abstracts to be considered for contributed paper sessions by March 1, 1994.

For more information contact:
Dr. Nancy Flournoy
Department of Mathematics & Statistics
The American University
Washington, DC 20016-8050

Announcements Cont'd

SIGSTAT Meetings

SIGSTAT is the Joint Special Interest Group in Statistics for the Capital PC User Group and WORMSC (Washington Operations Research/Management Science Council). SIGSTAT is sponsoring the following meetings: on January 12, 1994, "LogXact", exact inference for logistic regression using Cox's method for exact p-values and confidence intervals - no matter how small or imbalanced the sample; on February 9, 1994, "MathCad 4.0", the new 32-bit application includes SmartMath (a rules processor) and symbolic/numeric optimization to increase solution speed.

All meetings are scheduled for Wednesdays from 12:30-1:30 p.m. in Room B-14, 1301 New York Avenue NW, Washington, DC. The building is located midway between Metro Center and McPherson Square Metro stops. If this is your first SIGSTAT meeting, call Charlie Hallahan, (202) 219-0507, and leave your name in order to gain entry into the building.

Call for Monograph Papers: International Conference on Survey Measurement and Process Quality

As part of a continuing effort to promote quality in all kinds of surveys, an International Conference on Survey Measurement and Process Quality will be held on April 1-4, 1995, in Bristol, United Kingdom. This is the 5th in a series of the ASA conferences on survey methodology. A goal for the conference is to produce an edited monograph that provides a comprehensive and current review of methodology for survey measurement and process quality. Monograph authors will present

their papers at the conference and then revise them for publication in the edited volume. The organizing committee is now seeking papers on the following topics: design and specification; data collection; post survey processing and operations; quality assessment and control; and error effects on estimation, analyses, and interpretation.

To have a paper considered for the monograph, authors should send a 500-700 word abstract no later than February 1, 1994 to: Dr. Lars Lyberg, R&D Department, Statistics Sweden, 115 81 Stockholm, Sweden. Include name, address, telephone number, and work affiliation of the author(s) and the person to contact for communicating the organizing committee's decision. For more information, call Lars Lyberg at 46-8-783 4300 (fax 783 4288), or Lee Decker at ASA at (703) 684-1221.

Joint University of Maryland - University of Michigan Program in Survey Methodology

The Joint University of Maryland - University of Michigan Program in Survey Methodology (JPSM) announces two short courses to be held in Winter, 1994 in the Washington, D.C. area, including:

"Measurement Errors in Surveys," January 25-26, 1994, at the University of Maryland Conference Center taught by Paul Biemer;

"Self-Administered/Mail Surveys," February 23-24, 1994 at the Capital Hyatt taught by Don Dillman.

Call the JPSM at 1-800-937-9320 for more information about the courses and registration.

Announcements Cont'd

George Mason University Course Offerings for Spring 1994

The Department of Applied and Engineering Statistics at George Mason University offers a graduate certificate program and a Masters Degree program in Federal Statistics. All courses are offered in late afternoon or evening. The following certificate courses will be offered in Spring, 1994, which begins January 24. Registration for new students is January 11-14.

STAT 612: Use of Computer Statistical Packages, Gantz, Mondays 4:30-7:10 pm.

STAT 654: Applied Statistics, Sutton, Wednesdays 7:20-10:00 pm.

STAT 665: Categorical Data Analysis, Bolstein, Tuesdays 4:30-7:10 pm.

STAT 673: Statistical Methods for Longitudinal Data Analysis, Fecso, Mondays 7:20-10:00 pm.

For more information on these and other statistics courses and programs offered, call (703) 993-1680 or fax your request to (703) 993-1700.

The American University Schedule of Spring Classes

The Department of Mathematics and Statistics of The American University announces its Spring 1994 Schedule of Graduate Classes. The following courses will be offered: Introduction to Mathematical Statistics, Statistical Methods, Design of Experiment, Analysis of Frequency Data, Numerical Analysis, Introduction to Stochastic Processes, Statistical Computing, and Advanced Probability and Stochastic Processes. For additional information, please call (202) 885-3120.

Obituaries

Ernest Blanche

Ernest Blanche, 81, a mathematician and statistician, died of a heart attack Nov 24, 1993 at his home in Rockville, MD. He was the President of WSS in 1962-63.

He was born in Passaic, NJ. He graduated from Bucknell University, where he received a master's degree in mathematics. He received a doctorate in mathematics and statistics from the University of Illinois.

Blanche worked for the Army as a civilian and became chief statistician. He then opened a marketing research business which he subsequently sold. Then, he started Blanche Consultants, a statistical consulting firm. In addition, Blanche taught mathematics and statistics at The American University for 20 years.

His interest in gambling was analytical, and his books on the subject included "Off the Races", "You Can't Win", and "The Mathematics of Gambling".

Paul Clifford

Paul Clifford, 82, a mathematician who was an authority on the application of statistics to industrial quality control, died October 6, 1993 at a hospital in Newark. He had Alzheimer's disease.

He was a former mathematics department chairman at Montclair State College in New Jersey, where he taught for more than 40 years. He was a consultant to various government groups, as well as American automakers.

Clifford lectured on quality control with the noted management theorist W. Edwards Deming. In 1961-62, Clifford taught a college level math class on the NBC-TV series "Continental Classroom".

Employment Column

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 write or call: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, DC 20250-2000, (202) 720-6812.

Vacancies

Statistician

Research Triangle Institute seeks a statistician in its Rockville, Maryland office. Qualifications include an M.S. or Ph.D. in statistics, good communications skills, and ability to work as part of a multidisciplinary team. Demonstrated experience in the design of studies and community based intervention trials preferred. Send resume to Research Triangle Institute, Office of Human Resources, P.O. Box 12194, Research Triangle Park, NC 27709. An Affirmative Action/Equal Opportunity Employer.

Job Applicant

Listed below is a brief description of the qualifications of an applicant seeking employment. Employers interested in interviewing an applicant should write or call: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, DC 20250-2000; (202) 720-6812. All requests should include the code number from the applicant's ad and employer's name, organization, and telephone number. The applicant will be notified of the employer's interest and initiation of any further contact will be left to the applicant. All contacts will be kept confidential.

Applicant #94-05

Experience: 15 years with the U.S. Government applying sampling, modeling, and survey research techniques to economic and household surveys. Experience in project management and proposal writing. Solid written and verbal communication skills.

Education: B.S. in Mathematics; M.S. in Statistics.

* * * Note from the WSS NEWS Editors * * *

Items for publication in the March 1994 WSS NEWS should be submitted no later than January 25, 1994. FAX items to:

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FAX: (202) 586-0018

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Michael Greene (202) 885-3123

Statistical Computing

Dan Carr (703) 993-1671
Franklin Winters (301) 763-8571

Short Courses

Glenn White (202) 874-1114
Jeri Mulrow (202) 874-0434

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