



WASHINGTON  
STATISTICAL  
SOCIETY

# WSS NEWS

November 1995

## Joe Waksberg Receives The 1995 Roger Herriot Award For Innovation in Federal Statistics

Joe Waksberg, Senior Vice-President and Chair of the Board of Directors for Westat, Inc., was honored at the annual meetings of the American Statistical Association in Orlanda as the first recipient of the Roger Herriot Award for Innovation in Federal Statistics.

The award, sponsored by the Social Statistics Section and Government Statistics Section of the American Statistical Association and the Washington Statistical Society, is intended to honor Roger Herriot's memory by recognizing individuals who develop unique approaches to the solution of statistical problems in federal data collection programs.

As the first recipient of the Roger Herriot Award, the award was given to him for several recent contributions to federal statistics: (1) improving procedures for sampling rare populations; (2) random digit dialing methods; and (3) understanding of recall error.

Joe's contribution to the profession and the federal statistical system continue through his strong and active involvement at the annual meetings of the American Statistical Association and his substantial generosity of his time to the profession through his work with the ASA Board, to the federal statistical system through his participation in a number of advisory panels, and to his colleagues in their various collaborations. His role as the originator and energy behind the distinguished Morris Hansen Lecture Series is just a recent example.

The Social Statistics and Government Statistics Sections and the Washington Statistical Society are proud to honor Joseph Waksberg as the first recipient of the Roger Herriot Award.

<b>WSS Seminars</b> (All events are open to any interested persons)		
<b>Novmeber</b>		
7	Tues.	Common Statistical Issues Arising in Law and Biostatistics
15	Wed.	Marginal Regression Models for Ordered Categorical Item Responses
17	Fri.	Statistical Methods for Detecting and Characterizing Departures from Additivity in Multi-Dimensional Drug/Chemical Mixtures
29	Wed.	The Norm of Reciprocity in Self-Administered Surveys: Replicated Results from Several Studies

## Announcements

### **Nominations Sought for the 1996 Roger Herriot Award for Innovation in Federal Statistics**

After the unexpected death in May 1994 of Roger Herriot, an Associate Commissioner for Statistical Standards and Methodology at the National Center for Education Statistics, the Washington Statistical Society, the Social Statistics and Government Statistics Sections of the American Statistical Association established an award in his memory to recognize individuals who develop unique approaches to the solution of statistical problems in federal data collection programs.

The award is intended to reflect the special characteristics that marked Roger Herriot's career:

- dedication to the issues of measurement;
- improvement in the efficiency of data collection programs; and
- improvement and use of statistical data for policy analysis.

The award is not restricted to "senior" members of an organization; nor is it to be considered as a culmination of a long period of service. Individuals at all levels, from entry to senior, federal employees, private sector employees, or employees of the academic community, may be nominated on the basis of the significance of the specific contribution.

The recipient of the 1996 Roger Herriot Award will be chosen by a committee composed of representatives of the Social Statistics Section and Government Statistics Section of the American Statistical Association and a representative of the Washington Statistical Society. Mr. Herriot was associated with and strongly supportive of these organizations during his career. The Award consists of an honorarium of \$500 and a framed citation.

A nomination form can be obtained by contacting Daniel Kasprzyk at 202-219-1588, 202-219-1728 (fax), or e-mail: Daniel\_Kasprzyk@ed.gov. All nomination forms should be returned to the Roger Herriot Award Committee, c/o Daniel Kasprzyk, 4906 Colonel Contee Place, Upper Marlboro, Maryland 20772-2875.

Completed nomination forms must be received by May 17, 1996.

### **"Who Parties the Hardest?"**

We are pleased to announce a challenge for the 1995 WSS Holiday Party: Which firm, agency, university, etc., can attract the largest number of Holiday Party attendees? The winners receive the coveted "Who Parties the Hardest?" award, to be presented at the party.

The party will be held Wednesday, December 13, 1995, at Bombay Palace Restaurant in Washington, D.C. All are invited to join in the fun at this year's Holiday Party! Please see the enclosed flyer for more details.

### **SIGSTAT Meetings**

SIGSTAT, the special interest group in statistics for the Capital PC User Group and Washington Operations Research and Management Science Council, will have its November meeting on the 8th from 12:30 to 1:30 in Room B-14, 1301 New York Ave, NW. The topic is RATS for Windows. RATS, Regression Analysis for Time Series, has recently released a Windows version. We'll also look at the supplemental package CATS which implements the Johansen-Juselius cointegration methodology. If you are attending a SIGSTAT meeting for the first time, please contact Charlie Hallahan at hallahan.ers or call 219-1291 and leave your name.

## Program Abstracts

### Second in Series on Non-traditional Applications of Biostatistical Methods

- Topic:** Common Statistical Issues Arising in Law and Biostatistics
- Speaker:** Joseph Gastwirth, Ph.D.  
George Washington University
- Chair:** Julia L. Bienias, Sc.D.  
Bureau of the Census
- Discussant:** Rebecca Klemm, Ph.D.  
Klemm Analysis Group
- Sponsors:** Methodology Section and Public Health and Biostatistics Section
- Date/Time:** Tuesday, November 7, 1995, 12:30-1:30 p.m.
- 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.
- Abstract:** Biostatistical concepts and methods apply to various problems arising in Equal Employment cases. In particular, the proper choice of measure of association, conditions under which Fisher's exact test is appropriate for comparing proportions, assessment of the potential impact of omitted variables and the Peters-Belson regression methodology are topics common to both areas of application. These issues will be discussed and illustrated on data in actual Equal Employment cases.

### \*\*\* Notice from the WSS Editors \*\*\*

Items for publication in the January 1996 WSS NEWS should be submitted no later than November 28, 1995. Fax items to Mike Feil at (301) 443-4045 or e-mail items to [mfeil@helix.nih.gov](mailto:mfeil@helix.nih.gov).

## Program Abstracts (Cont'd)

- Topic: Marginal Regression Models for Ordered Categorical Item Responses
- Speaker: Scott L. Zeger, Ph.D.  
Johns Hopkins University
- Chair: Julia L. Bienias, Sc.D.  
Bureau of the Census
- Discussant: Stuart Baker, Sc.D.  
National Cancer Institute
- Sponsor: Methodology Section
- Date/Time: Wednesday, November 15, 1995, 12:30-1:30 p.m.
- 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.
- Abstract: In an investigation of the natural history of disease and disability among elderly women, we attempt to assess physical and mental functioning through a relatively large number of questions and performance-based measures. While the response, *physical function*, is easily conceived of, it can only be measured in terms of high dimensional observation.

There are at least three distinct strategies for regression analysis with high-dimensional responses. In the first, we derive summary variables and characterize their change as a function of covariates using standard regression methods. In the second, we posit the existence of underlying, unobservable *function variables* that satisfy a regression model. Our observed items are assumed to be imperfect measures of subsets of these latent variables. In the third approach, the focus of this paper, we simultaneously regress each of the many responses on explanatory variables while also modeling the interdependence among the multivariate responses. The regression coefficients are then summarized to indicate the overall relationship with covariates. This third approach allows us to identify items whose relationship deviates from the majority with respect to dependence on covariates.

This paper will present the third approach which we refer to as *marginal modelling* (Dale, 1986). We simultaneously specify two sets of regression models: (i) for the mean response of each ordinal item response on; and (ii) for each pair-wise association. We first consider maximum likelihood estimation but because it is computationally impractical except in very small problems, an estimating equation alternative is proposed. The methods will be illustrated with analysis of high-dimensional cross-sectional data from the first round of the Johns Hopkins University-NIH Women's Health and Aging Study (WHAS).

## Program Abstracts (Cont'd)

**Topic:** Statistical Methods for Detecting and Characterizing Departures from Additivity in Multi-Dimensional Drug/Chemical Mixtures

**Speaker:** Dr. Kathy Dawson  
Medical College of Virginia  
Virginia Commonwealth University

**Chair:** Dr. Michael Fay  
National Cancer Institute

**Date/Time:** Friday, November 17, 1995, 1:30-3:00 p.m.

**Location:** Executive Plaza North  
6130 Executive Plaza Boulevard  
Rockville, MD

Directions--take Old Georgetown Road North to Executive Plaza Boulevard. Turn left onto Executive Plaza Boulevard.

**Sponsor:** Public Health and Biostatistics

**Abstract:** In studies of the effects of multiple drug or chemical combinations, one goal may be to detect and characterize the interactions between the agents. The techniques currently applied to this problem have limitations when the experiments involve more than 2 agents. Certain response-surface techniques require an unrealistic number of observations for studies involving a large number of agents. Current graphical methods are impossible to use in studies of 3 or more agents. In this talk two statistical techniques will be described that can be applied to studies with an unlimited number of agents. In the first approach, dose combinations are collected along rays or at fixed ratios. Using properties of this experimental design, an additive model is derived. Comparing the fitted dose-response curve along each ray to the curve predicted under additivity, synergistic and antagonistic interactions between the agents can be detected. Statistical testing procedures are given to determine if these are significant interactions, not due to random fluctuations in the data. Graphical techniques that enhance the interpretation of the results are described. The second approach is a point-wise test which determines if the agents interact in a nonadditive manner. This test can be applied to each dose combination of interest. After applying a multiple comparison adjustment to the resulting p-values, departures from additivity can then be characterized. These approaches are likely to be more economical than current techniques, implying that a larger number of agents can be studied in combination for the same experimental effort.

## Program Abstracts (Cont'd)

- Topic:** The Norm of Reciprocity in Self-Administered Surveys: Replicated Results from Several Studies
- Speaker:** Roberta L. Sangster, Bureau of Labor Statistics
- Chair:** Sandra A. West, Bureau of Labor Statistics
- Date/Time:** Wednesday, November 29, 1995, 12:30-2:00 p.m.
- 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. Non BLS employees, please call Pam Douglas at (202) 606-7375 to add name to visitors' list.
- Sponsor:** Methodology Section
- Abstract:** The norm of reciprocity describes the tendency for people to respond in a fair or even-handed manner during a social exchange. Survey researchers have found that answers to symmetrical questions (e.g. trade relations between America and Japan) can be influenced by the norm as well. The outcome in this instance is that people tend to be more lenient or less lenient about the topic dependent on which question is asked first. This seminar will briefly review the research on the norm of reciprocity and draw some conclusions based on the review in relation to the results of the studies conducted by the authors (with Lorenz and Saltiel). Four major points will be made: first the symmetrical shift in the marginals found for the well noted reporter questions is difficult to replicate, second the norm of reciprocity seems to appear fairly consistently in the self-administered format, third the shift not only occurs in attitude questions but can also occur in behavior questions, and fourth it may be that the reciprocity norm is an internalized standard for behavior that is further motivated by the cognitive need to provide consistent answers.

## Announcements Cont'd

### **Kullback Memorial Research Conference, Washington, DC, May 24-25, 1996**

A two-day research conference will be held in May, 1996 in memory of the late Solomon Kullback, Professor Emeritus and long-time chair of the Department of Statistics at George Washington University. Professor Kullback died in August 1994.

Kullback had a highly distinguished career both at the National Security Agency, where he played an important role in deciphering codes in World War II, and in academia. He is best known for the development of Kullback-Leibler (K-L) information measures, which have found application in many areas of statistics, and for his work in analyzing multidimensional discrete data in contingency tables.

The conference will take place on May 24-25, 1996, at the Washington Marriott Hotel in downtown Washington, DC, and will be hosted by George Washington University as part of the University's 175th Anniversary celebration. A major theme of the conference will be the use of K-L information measures in statistical research today. Among the speakers at the conference will be Alan Agresti, Andrew Barron, Herman Chernoff, Tom Cover, Samuel Greenhouse, C. Terrence Ireland, Wesley Johnson, and Robert Shumway.

Contributed papers are invited in all areas influenced by Kullback's work. The organizers hope to be able to offer travel support for a number of presenters, with priority given to new researchers. Abstracts should be submitted no later than February 29, 1996, to: Kullback Memorial Research Conference, Department of Statistics, George Washington University, Washington DC 20052, or by e-mail to [statp1@gwuvvm.gwu.edu](mailto:statp1@gwuvvm.gwu.edu). For more information, contact the Department of Statistics (202) 994-6356, (202)994-6917 (fax).

### **Annual Spring Meeting: Biometric Society Eastern North American Region**

More details on the annual meeting of the Eastern North American Region (ENAR) of the International Biometric Society on March 17-20, 1996, in Richmond, Virginia at the Omni Hotel will be forthcoming in the January WSS NEWS.

Remember that abstracts for contributed papers are due December 1st. Members of ENAR will receive abstract forms in the mail. Others may contact the ENAR office at 11250 Roger Bacon Dr., Suite 8, Reston, VA 22090.

### **Joint Program on Survey Methodology Course Offerings**

The following courses are offered by the Joint Program on Survey Methodology.

**Statistical Disclosure and Disclosure Limitation** will be offered on November 6-7, 1995 with a cost of \$350 for nonstudents and \$200 for students. The instructor will be Lawrence H. Cox and the location is The Residence Inn by Marriott in Bethesda, Maryland. The registration deadline for this course is October 23, 1995.

**Compensating for Missing Survey Data** is sponsored by the WSS, with cosponsorship by JPSM. It will be offered on December 4-5, 1995 with a cost of \$250 for nonstudents and \$100 for students. The instructor will be Graham Kalton and the location is the Hyatt Regency, Capitol Hill. For registration information and other details about the course, please see the enclosed flyer or contact Glenn White at 202-874-1114.

To request a registration form, or to be added to the JPSM mailing list call 800-937-9320 or send e-mail to [jpsm@umich.edu](mailto:jpsm@umich.edu).

## Announcements Cont'd

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Washington Statistical Society  
President's Invited Session  
December 7, 1995  
BLS Cognitive Lab Conference Room  
1:00 - 2:30 p.m.

**Title:** "The Federal Committee on Statistical Methodology (FCSM): Responding to the Needs of the Federal Statistical Community, 1975 to the Future"

**Chair:** Ron Fecso, President, Washington Statistical Society

**Organizer:** M. Denice McCormick Myers, Secretary, FCSM

**Abstract:** The objectives are to show the Federal Committee on Statistical Methodology (FCSM) is a fundamental part of the Federal Statistical System; its responsiveness to its clients: the Federal Statistical Agencies; and its interactions with academic and professional arenas. The history and evolution of the committee, selected contributions, and future needs of the statistical community will be discussed.

President's Invited Session Topics

Presenter

Committee Origins and Function

Maria Gonzalez  
Office of Management and Budget

FCSM Role in the Federal Statistical System

Monroe Sirken  
National Center for Health Statistics

Partnership with Academia

Robert Groves  
Joint Program in Survey Methodology  
Universities of Michigan and Maryland

The Professional Profile of Federal Committee on Statistical Methodology

Stephen Fienberg  
Carnegie Mellon University

Meeting Future Needs

Norman Bradburn  
National Opinion Research Center

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For more information contact M. Denice McCormick Myers by phone at 202-690-0922, or by email at [DMMYERS@AG.GOV](mailto:DMMYERS@AG.GOV).

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## 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 5801 South Building, Washington, DC 20250-2000, e-mail: [warends@ag.gov](mailto:warends@ag.gov), Voice: (202) 720-6812, Fax: (202) 690-1311.

### Statistician

There is a job opening in a statistical modeling group at Freddie Mac. The group applies state of the art statistical techniques (both parametric and nonparametric) to modeling aspects of the housing market and mortgage portfolios. The candidate would ideally be experienced with Mainframe, PC, and UNIX environments, working with large data sets, and using statistical software packages that include SAS and Splus. Masters in statistics desirable. Salary negotiable.

Contact (reference "Request to recruit #617," Collateral Assessment): Raysha Picerno, Mailstop HR/A32, 8250 Jones Branch Drive, McLean, VA 22102. Telephone: (703) 918-5761. Fax: (703) 918-5796.

### Biostatistician/Epidemiologist

National not-for-profit organization dedicated to conducting research and disseminating information on the health status of racial and ethnic minority populations seeks epidemiologist/biostatistician to conduct analyses of public databases that reflect the health status of at-risk populations.

This position will require extensive knowledge and experience in aggregating and disaggregating unrelated databases in both health and non-health related fields. Innovation must be evidenced through ability to perform multivariate analyses of disparate databases. Successful candidates will possess an advanced degree in biostatistics with 5 years of demonstrated experience in epidemiology.

Salary commensurate with experience. For immediate

consideration, please send resume with cover letter describing your interests minority health advocacy to: National Center for Minority Health, 1700 Research Boulevard, Suite 400C, Rockville, MD 20850. No phone calls please.

### Analysts/Statistical Programmers

Klemm Analysis Group, Inc., DC-headquartered professional services firm is recruiting for Analysts/Statistical Programmers. Position duties include data analysis and modeling for commercial and government studies and working with analysts to write code for new statistical procedures.

Position requires extensive SAS programming experience; SUDAAN experience desirable. PhD or MS with at least 2 years experience creating SAS databases and performing complex, in-depth survey data analysis required. Must be able to investigate data in a self-directed manner.

Please fax cover letter, writing sample, current salary, and examples of SAS code to (202) 667-5793: ATTN: Sally.

### Job Applicant

Listed below is a brief description of the qualifications of an applicant seeking employment. Employers interested in interviewing an applicant should contact Bill Arends as shown above. All requests should include the code number from the applicant's ad and employer's name, organization, telephone number, etc. 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 #96-01

Looking for an entry level position in the field of statistics. Strong aptitude in mathematics; innate love for numbers, facts, and figures. BS in Applied Statistics from the University of Iowa (1995). Extensive computer skills including Microsoft, SAS, Minitab, Systat, Lotus, Filepro, WordPerfect, IBM, Macintosh, Pascal, and Basic. Reads and writes Spanish well. Varied work experience including data entry and general office tasks.

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(703) 235-5213

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(202) 219-1781

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Robert Latta (202) 586-1385

**Economics**

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Art Kennickell (202) 452-2247

**Methodology**

Sandra West (202) 606-7384  
Julia L. Bienias (301) 457-4934

**Physical Sciences &  
Engineering**

Paul L. Zador (301) 294-2825

**Public Health and  
Biostatistics**

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Julie Legler (301) 493-6832

**Quality Assurance**

Harold Johnson (202) 606-7758  
Amrut Champaneri (202) 268-2299

**Short Courses**

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

**Social & Demographic  
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Theresa DeMaio (301) 763-7331  
Mary Grace Kovar (202) 223-6040

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Bill Arends (202) 720-6812

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**Quantitative Literacy**

Shail Butani (202) 606-6347

**Local Arrangement**

Robie Sangster (202) 606-7517



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