



February 1987

WASHINGTON  
STATISTICAL  
SOCIETY

# NEWSLETTER

February 4	Wednesday	Dorfman-Type Hierarchal Group Screening Procedures in Faulty Inspection Models
February 6	Friday	Statistical Problems in the Epidemiology of AIDS
February 17	Tuesday	Environmental Protection Agency's Survey of Underground Storage Tanks

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## ASA Fellows in the WSS

A recent roster of Washington Statistical Society membership showed that 119 WSS members, or more than 1 of every 12, were Fellows of the American Statistical Association. These individuals have been recognized for a wide variety of contributions in the areas of academic pursuits, government research, administration of government statistical programs, and private enterprise.

In some volunteer organizations there might be a tendency for senior members to rest on their laurels and for activities of the organization to be carried on by others. However, this has not been the case in WSS. In the past 5 years, 17 of our ASA Fellows have been active as officers or committee members of the Society.

One special activity of our ASA Fellows has been the organization of a Committee on Fellows. This Committee reviews the membership of WSS to identify members who should be nominated for selection as ASA Fellows. The Committee does not nominate candidates itself but does identify potential candidates, finds sponsors for each candidate, and works to be sure that the nomination process is completed. The Committee works in anonymity and does not report to the WSS Board of Directors or the membership as a whole.

For those of you interested in making nominations of your own, there is a form in the November issue of Amstat News.

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## WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

**Agriculture & Natural Resources**  
Ron Bosecker 447-3895  
Maurice Owens 734-4379

**Economics**  
Lynda Carlson 252-1112

**Physical Sciences & Engineering**  
Donald Gantz 425-3931

**Employment**  
Evelyn Kay 331-1153

**Public Health & Biostatistics**  
Jai Choi 436-7047  
Mary Foulkes 496-6818

**Social & Demographic Statistics**  
Lee-Ann C. Hayek 357-1587  
John Czajka 484-9220

**Statistical Computing**  
Harry Foxwell 872-8058  
Sally Howe 921-3395

**Short Courses**  
Virginia deWolf 366-5361  
Terry Ireland 301-859-6104  
Andrew A. White 436-7022  
Glenn White 763-5248

**Methodology**  
Mary Mulry 763-7140  
Bill Winkler 252-2140

**Newsletter Editor**  
David Judkins 251-1500

## **Program Abstracts**

**TOPIC:** Dorfman-Type Hierarchal Group Screening Procedures in Faulty Inspection Models  
**SPEAKER:** Samuel Kotz, University of Maryland  
**DISCUSSANT:** Nancy Flournoy, National Science Foundation  
**CHAIR:** Arnold Greenland, Washington Consulting Group  
**DATE AND TIME:** Wednesday, February 4, 1987; 12:30 to 2:00 p.m.  
**LOCATION:** Room A-5, Martin Luther King Library, 901 G Street, N.W., Washington, D.C.  
**ABSTRACT:** In view of the current drug-testing euphoria, the so-called "group testing acceptance procedures" introduced by R. Dorfman over 40 years ago may again become of some practical relevance. The main purpose of these procedures is to reduce the expected amount of testing. In this talk results of recent investigations of various hierarchal (multi-stage) group testing procedures in the case of imperfect inspection (with the two possible "types" of errors) will be discussed. Methods for reduction of probabilities of "false positives" are emphasized and some tentative recommendations as to adequacy of various modifications are presented.

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**TOPIC:** Statistical Problems in the Epidemiology of AIDS  
**SPEAKER:** Ron Brookmeyer, Johns Hopkins University  
**CHAIR:** Seth Steinberg, NCI  
**DATE AND TIME:** Friday, February 6, 1987; 10:30 a.m. to 12:30 p.m.  
**LOCATION:** Landow Building, Conference Room A, 7910 Woodmont Avenue, Bethesda, Maryland  
**SPONSOR:** Jointly sponsored by the WSS and the Washington Academy of Sciences  
**ABSTRACT:** Two statistical problems in studies of AIDS epidemiology are discussed. The first concerns projections of the size of the AIDS epidemic in the United States. A methodology is proposed for estimating the minimum size of the epidemic by projecting the number of cases from among those already infected with the AIDS virus.  
  
The second area involves statistical problems in natural history studies of AIDS. Several recent natural history studies have been based on follow-up time of individuals infected with the AIDS virus prior to enrollment. The natural time scale for studying the preclinical course of AIDS is the time since first infection; however the time at first infection was an unknown quantity. The biases inherent in using follow-up time instead of time from infection are investigated for estimation of both the cumulative distribution function and the hazard ratio for proportional hazards models with both fixed and time dependent covariates.

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## **Program Abstracts (continued)**

**TOPIC:** Environmental Protection Agency's Survey of Underground Storage Tanks

**SPEAKER:** Joseph Carra, Environmental Protection Agency

**DISCUSSANT:** Jerry Coffey, Office of Management and Budget

**CHAIRMAN:** Lynda T. Carlson, Energy Information Administration

**DATE AND TIME:** Tuesday, February 17, 1987; 12:30 to 2:30 p.m.

**LOCATION:** Room 6E-069, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585

**ABSTRACT:** This talk will deal with the innovative procedures and development by the Environmental Protection Agency (EPA) to minimize response problems in the survey as well as measurement errors. The survey results have produced the first national estimates of tank leakages for upcoming EPA regulations. The survey procedures utilized were fascinating and should be of interest to a wide range of Washington Statistical Society members.

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## **Other Announcements**

### **National Meeting of the AAAS**

The 153rd National Meeting of the American Association for the Advancement of Science (AAAS) will be held in Chicago on February 14-19, 1987. Sessions of interest to members of the Washington Statistical Society include:

- High Quality for High Technology;
- Risk of Teratologic and Other Adverse Developmental Effects: Assessment and Policy;
- Cognitive Psychology and Survey Research: Recall, Judgement, and Generalization;
- Collegiate Mathematics in the Year 2000: Assessment for Revitalization;
- Imprecision in Expert Systems;
- Improving U.S. School Mathematics: Translating Recommendations into Reality;
- Open Communication of Government-Sponsored Research: A Five-Nation Survey;
- Some Mathematical Questions in Biology: Population Models;
- Demographic, Epidemiological and Medical Perspective on Cause of Death;
- Climatic Variability and Impacts on U.S. Water Resources; and
- Whatever Happened to the Melting Pot?

For more information see the December 12 Preconvention Program issue of Science or contact the AAAS Meetings Office at 202-326-6448.

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## **Other Announcements (continued)**

### **Washington Academy of Sciences Seminar**

On Thursday, February 19, Raymond Seeger from the National Science Foundation (retired) will speak on "Einstein's Attitude Toward the Universe." The talk will be held at the Mary Grayden Center, American University, at 8:30 p.m. Preceding Dr. Seeger's presentation, there is a social hour at 6:45 and a dinner at 7:30. There is a charge for the social hour and dinner. Reservations must be made one week in advance by calling 320-3621. There is no fee for attendance of only the lecture.

### **Workshop on the Design and Use of the National Crime Survey**

The Bureau of Justice Statistics and the Committee on Law and Justice Statistics of the American Statistical Association announce a 1987 summer workshop on the Design and Use of the National Crime Survey (NCS).

To be held July 6-17, 1987, at the University of Maryland in College Park, the workshop will feature:

- Lectures by a distinguished faculty of fourteen statisticians and social scientists;
- The latest technical information on the design, collection and analysis of the NCS;
- Hands-on instruction in the analysis of NCS data; and
- A stipend of \$1,000 plus travel and subsistence expenses.

The program for the workshop will introduce participants to both the methodology of the NCS and its substantive use. Topics to be covered include conceptual issues in measuring victimization, the design of the NCS (past, present and future), data collection procedures, file structure and software, estimation procedures, error properties, risk-assessment, longitudinal analysis, multi-level analysis and typology construction.

The workshop is designed to stimulate the use of the NCS by providing the necessary technical information and an opportunity for the exchange of ideas among users of the survey. Computing facilities and instruction will be available so that participants can use the data during the workshop.

Applicants should have a Ph.D. or comparable degree in statistics or one of the social sciences, and offer a professional commitment to examine the NCS data in future research. An intensive small group environment is planned so that the number of openings is limited. To insure consideration, resumes and a letter describing interest in the survey should be sent as soon as possible to Colin Loftin, Institute of Criminal Justice and Criminology, University of Maryland, College Park, Maryland 20742; (301) 454-5129. Deadline for applications is March 1, 1987.

### **1987 Sino-American Meeting: Call for Papers**

The Joint Sino-American Statistical Meeting will be held August 31 - September 2, 1987, in Beijing. See the November issue of Amstat News for details and a registration form.

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## **Other Announcements (continued)**

### **Census Bureau's Third Annual Research Conference (ARC III)**

The program for the Census Bureau's Third Annual Research Conference has been set. Response to the Bureau's first "Call for Papers" was overwhelming. More than 115 abstracts were received from which only 30 could be selected. The choices were very difficult; many fine papers and ideas had to be turned away.

ARC III is scheduled to begin Sunday evening, March 29, 1987, and run through 2 p.m. on Wednesday, April 1, 1987, at the Omni International Hotel in Baltimore, Maryland.

The overall theme is "Improving the Quality of Survey Results." The program will devote one session to each of 14 topics within the overall theme, and also include the Shirley Kallek Memorial Lecture. Session topics include historical perspectives on quality, quality issues in economic data, questionnaire design for automated interviewing, automating the survey process, designing automated data editing systems, effects of confidentiality protection methods on data use, issues in response error, quality improvements in statistical programs in Mexico, modeling survey estimates, quality of housing statistics, evaluation of imputation procedures, designing quality into censuses and surveys, management issues in surveys and censuses, and quality issues in income statistics.

For additional information contact Carolee Bush, Office of the Director, Bureau of the Census, Washington, D.C. 20233; (301) 763-4900.

### **New Lecture Format**

The Washington Statistical Society is considering initiating a topic-contributed paper seminar series. The format would be similar to the contributed paper sessions at the annual meeting of the American Statistical Association. Each seminar would include 3 to 4 speakers with a discussant, each speaking for 15 minutes about some aspect of a single topic.

Anyone interested in presenting a contributed paper in such a series should contact the appropriate program chair in writing, with a title and brief abstract. Please keep in mind that sessions will be organized only when there is a sufficient number of papers concerning a single topic. Anyone interested in organizing a contributed paper seminar should contact the appropriate program chair by telephone.

### **Science Fair Reminder**

Volunteers are still needed to judge science fairs in Northern Virginia, D.C., and Maryland on behalf of the WSS. The WSS provides special awards for students whose projects show excellence in investigation of statistical theory or in application of statistical methodology. Please call Susan Ellenberg at 496-4836 to volunteer or to obtain more information.

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## **Employment Column**

Deadline for inserting notices is five (5) weeks before the publication date. Send notices and requests to:

Evelyn R. Kay  
520 - 22nd Street, N.W.  
Washington, D.C. 20037  
(202) 331-1153

### **Job Openings**

U.S. Postal Service has an opening for a **Senior Mathematical Statistician** at its L'Enfant Plaza Headquarters. Salary Range: \$36K - \$48K.

**DUTIES:** Serves as a team leader for projects involving the application of microcomputer technology to the automation of statistical information systems. Applies principles of mathematical statistics to develop methods for testing the validity of automated methods of data collection. Designs and directs statistical evaluations of errors associated with alternative approaches of data collection.

**QUALIFICATIONS:** Applicants must demonstrate through education and experience an extensive knowledge of mathematical statistics, with emphasis on sampling theory. Experience in applied statistics should include sampling, survey design, and modeling. Work experience should demonstrate program management skills and accomplishments, with emphasis on program planning, problem solving, and large systems design. Understanding of DOS, microcomputer technology, telecommunications is desirable. Well developed human relations and communications skills are very important.

Send application to: U.S. Postal Service, Headquarters Personnel Division, Room 1813, 475 L'Enfant Plaza, S.W., Washington, D.C. 20260-4264, ATTN: Team D, 87-13.

**Statistician:** The Washington Consulting Group is seeking a statistician with strong computer skills to work on environmental, energy, and other projects. The ideal candidate will have a Master's or B.S. degree in statistics with some work experience, and preferably background in survey research and data analysis. Proficiency in SAS and FORTRAN or some other relevant language is necessary. Strong oral and written communication skills a definite plus. For more information, please send a resume to Brad Schultz at The Washington Consulting Group, Inc., 1625 Eye Street, N.W., Suite 214, Washington, D.C. 20006.



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