



FEBRUARY 1990

WASHINGTON
STATISTICAL
SOCIETY

NEWSLETTER

ANNOUNCEMENTS

COPAFS to Host Seminar on Quality of Federal Data

In 1975, the Office of Management and Budget [OMB] organized the Federal Committee on Statistical Methodology. Comprised of individuals selected by OMB for their expertise and interest in statistical methods, the committee has during the past fifteen years determined areas that merit investigation and discussion, and overseen the work of subcommittees organized to study particular issues. Since 1978, fifteen Statistical Policy Working Papers have been published under the auspices of the Committee.

On May 23-24, 1990, the Council of Professional Associations on Federal Statistics will host a "Seminar on the Quality of Federal Data." Developed to capitalize on work undertaken during the past dozen years by the Federal Committee on Statistical Methodology and its subcommittees, the seminar will focus on a variety of topics that have been explored in the Statistical Policy Working Paper series. The subjects to be covered will include:

- Survey Quality Profiles
- Statistical Uses of Administrative Records
- Federal Longitudinal Surveys
- Disclosure-Avoidance Techniques
- Approaches to Developing Questionnaires
- Survey Coverage Evaluation
- Data Editing
- Telephone Data Collection

- Computer Assisted Statistical Surveys
- Cognitive Labs
- Quality in Business Surveys
- The Employer Reporting Unit Match Study

Each of these topics will be considered in a two-hour session that will feature formal papers and discussion, followed by informal dialogue among all speakers and attendees.

Seminar participants will include federal statisticians, economists, and managers, as well as others in the broader statistical community who share an interest in the quality of federal data. Users and producers of federal statistics who participate in the seminar will have the opportunity to share experiences and ideas, discuss technical issues, and consider future policy initiatives.

The cost for the two-day seminar will be \$90 per person. Registration will be limited to 200 participants. For further information, contact Katherine Wallman in the COPAFS' office [703/836-0404].

Reports Available in the Statistical Policy Working Paper Series:

- Report on Statistics for Allocation of Funds
- Report on Statistical Disclosure and Disclosure-Avoidance Techniques
- An Error Profile: Employment as Measured by the Current Population Survey
- Glossary of Nonsampling Error Terms: An Illustration of a Semantic Problem in Statistics (*ctd. on page 3*)

WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

Agriculture & Natural Resources
Cynthia Clark 763-8558
Paul Gargiullo 586-1137

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Newsletter Editor
Michael Cohen 454-6193

Employment
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PROGRAM ABSTRACTS

TOPIC: SAMPLE ALLOCATION IN MULTIVARIATE SURVEYS

SPEAKER: James Bethel, Westat, Inc.

CHAIR: Larry Ernst, Bureau of the Census

DISCUSSANT: Sylvia Leaver, Bureau of Labor Statistics

DATE & TIME: Wednesday, February 14, 1990; 12:30 to 2:00 p.m.

LOCATION: Room 2437, GAO Building, 441 G Street, N.W., Washington, D.C.
(Sign in at guard desk and state purpose and room number of visit.)

SPONSOR: Methodology Section

ABSTRACT: The optimum allocation to strata for multipurpose surveys is often solved in practice by establishing linear variance constraints and then using convex programming to minimize the survey cost. In this talk, I will discuss (i) the general problem and its optimum solution, (ii) some algorithms for obtaining the optimal solution, and (iii) some applications in which I have found these techniques to be useful. One useful result is a simple form for the partial derivative of the cost function, showing the sensitivity of cost to the constraints. Applications include stratified and cluster sampling. Of particular interest is the problem of using a national survey to provide estimates at several hierarchical levels (e.g., national, regional, and metropolitan versus non-metropolitan areas).

TOPIC: THE DESIGN OF A PANEL STUDY UNDER AN ALTERNATING POISSON PROCESS ASSUMPTION

SPEAKER: Paul S. Albert, NINDS, NIH

DISCUSSANT: David M. Zucker, NHLBI, NIH

DATE & TIME: Wednesday, February 21, 1990; 11:30 a.m. (Note special time.)

LOCATION: Room 151, Building 1, NIH
(from Medical Center Metro - left on South Dr., right on Center Dr., second building on left)

SPONSOR: Biometry and Field Studies Branch, National Institutes of Neurological Disorders and Stroke, and Biostatistics and Public Health, WSS

ABSTRACT: The design of a panel study for efficient estimation of the average durations in the two states of an alternating Poisson process is discussed. Two types of designs are examined. The first fixes the number of follow-up waves but permits the total length of the follow-up to vary, and the second varies the number of follow-up waves with fixed length. Simple expressions for nearly optimal designs are presented, and we compare these with designs allowing for continuous observation. Both equilibrium and non-equilibrium cases are examined. An example is given using morbidity data to illustrate how these results can be applied.

ANNOUNCEMENTS (continued)

COPAFS to Host Seminar on Quality of Federal Data (continued)

- Report on Exact and Statistical Matching Techniques
- Report on Statistical Uses of Administrative Records
- An Interagency Review of Time-Series Revision Policies
- Statistical Interagency Agreements
- Contracting for Surveys
- Approaches to Developing Questionnaires
- A Review of Industry Coding Systems
- The Role of Telephone Data Collection in Federal Statistics
- Federal Longitudinal Surveys
- Workshop on Statistical Uses of Microcomputers in Federal Agencies
- Quality in Establishment Surveys

Copies of these working papers may be ordered from NTIS Document Sales, 5285 Port Royal Road, Springfield, VA 22161 [703/487-4650].

Voting Clarification

WSS Members who wish to legally vote for District 1 Representatives to the Board of Directors need to have an ASA address which begins with ZIP codes with the following prefixes: 200-209 in Maryland and the District of Columbia, and 220-223 in Virginia. If you are receiving IASA, etc. at your home address and your home address does not satisfy the above requirement, you can change your address to your place of business. Otherwise, you do not belong to District 1.

International Conference on Measurement Errors in Surveys

Nov. 11-14, 1990. International Conference on Measurement Errors in Surveys, Tucson, AZ, U.S.A. To inquire about paper submissions, please contact Paul Biemer, Department of Exp. Statistics, Box 30003, Department 3130, New Mexico State University, Las Cruces, NM 88003-0003, U.S.A.; Phone (505) 646-2937, Fax (505) 646-5975. For

information about registration please contact Lee L. Decker, ASA, 1429 Duke Street, Alexandria, VA 22314-3402, U.S.A.; Phone (703) 684-1221, Fax (703) 684-2037.

Survey Design, Methodology and Analysis Conference

The Institute of Statisticians and the International Association of Survey Statisticians are jointly staging an international conference on survey design, methodology and analysis, from July 4 - 7, 1990, at the University of Essex, Colchester, England. Colchester is within easy travelling distance of London.

The conference will be a combination of invited papers, contributed papers, and poster sessions, covering a variety of aspects of the survey process from planning through to analysis and reporting. There will also be demonstrations of computer software and hardware. Topics to be featured at the conference include:

- Automation of the survey process
- Panels and cohorts
- Opinion poll methodology
- Sampling of minority groups
- Non-sampling errors
- Data fusion
- Post-stratification
- Log-linear analysis of survey data
- Multi-level analysis of survey data
- Teaching of survey research methods
- Computer software for surveys

Anyone interested in presenting a contributed paper or a poster should send a synopsis of about 500 words to the Technical Convenors as soon as possible. Application forms to attend the conference may be obtained from the Administrative Convenor. The address for both the Technical Convenors and Administrative Convenor is IoS/IASS 1990 Summer Conference, Institute of Statisticians, 50 Fitzroy Street, London W1P 5HS, ENGLAND.

ANNOUNCEMENTS (continued)

Senior Research Fellowship Program

The American Statistical Association Senior Research Program sponsored by the National Science Foundation seeks senior researchers, advanced graduate students, or recent Ph.D.'s for 1990-91 Fellowships and Associateships at the National Institute of Standards and Technology (NIST). In particular, the Program seeks Fellows with a strong interest in collaborative cross-disciplinary research in process modeling and optimization. Areas of research that fit NIST's research mission and facilities include:

- Statistical approaches in materials processing and bio-processing
- On-line quality control in automated flexible manufacturing
- Statistical methods for robust engineering design
- Analysis of lifetime data from multifactor experiments
- Feedback and feedforward process control
- Sources of variability in physical measurement procedure; calibration for manufacturing process control
- Multivariate modeling and analysis
- Time series analysis
- Variance components modeling and analysis
- Design of experiments
- Errors in variables regression
- Graphical analysis of data
- Statistical computing

The stipend of the Senior Research Fellows and Associates will be commensurate with qualifications and experience. Fringe benefits and a travel allowance will be provided. Appointments will be for four to nine months. Applications are due by January 15, 1990 for Fellow and February 15, 1990 for Associate. For application information, contact Dr. Barbara A. Bailer, ASA/NSF/NIST Research Program, 1429 Duke Street, Alexandria, VA 22314 (703/684-1221). For information on research topics and arrangements, contact Ms. Ruth Varner, Coordinator, ASA/NSF/NIST Research Program, NIST, Admin. Bldg., Room A337, Gaithersburg, MD 20899 (301/975-2839). Interested persons from industry are encouraged to apply.

JOS Call for Papers

The 1990 Special Issue on Quality in Official Statistics

In recent years, statistical process quality control and other quality improvements have attracted much attention in industry. Juran and Deming, among others, have noted that these techniques also apply to service and government organizations, and so to official statistics. For this special issue, JOS is looking for manuscripts on a broad range of quality related topics relevant to the production of official statistics and covering the areas of policy, management, methodology, and applications. Of most interest is how the concepts of statistical process quality control can be applied to the total process of producing official statistics from survey, census, or administrative data sources.

- Quality control and enhancement procedures used in surveys and other data collection activities.
- Developing and maintaining standards for computer software for processing data.
- Methodological development for quality assurance related to data collection and processing.
- Official policies and standards for data collection, processing, and presentation.
- Methods to improve quality awareness in statistical organizations and among users of statistics.
- The trade-offs inherent in meeting different quality goals.
- Experimental and other studies of the effect of quality control or enhancement procedures on the resulting official statistics.
- Analysis and discussion of components of error in data collection and processing systems, considering their relative importance, relationship, and combined effect on the resulting statistics.
- Applications of industrial process control procedures to data processing and analysis.
- Case studies of quality assurance projects in official statistics.

Manuscripts for the special issue should be sent in five copies to the Chief Editor, Lars Lyberg, preferably by February 15, 1990.

The Journal of Official Statistics is a refereed scholarly journal published quarterly. All enquiries should be directed to the Chief Editor at: Journal of Official Statistics, Statistics Sweden, S-11581 Stockholm, Sweden.

ANNOUNCEMENTS (continued)

Tentative Schedule of SIGSTAT Meetings

SIGSTAT is the Special Interest Group in Statistics in the Capital PC User Group. The tentative schedule of events through next May is as follows:

- 2/14/90 Advanced features in Rats 3.0
- 3/14/90 Introductory demo of Systat - powerful, general stat package
- 4/18/90 Advanced features in Systat
- 5/9/90 Demo of BASS - BASS programs "look like" SAS programs. A comparison with the much more comprehensive SAS system will be made.

All meetings are scheduled for Wednesdays from 12:30 to 1:30 p.m. in Room B-14, 1301 New York Avenue, N.W. The building is located midway between the Metro Center and McPherson Square Metro stops. If this is your first SIGSTAT meeting, call Charlie Hallahan, 786-1507, and leave your name in order to gain entry into the building.

Science Fairs 1990

Volunteers are still needed to serve as WSS judges for local area science fairs. If you would like to be a WSS science fair judge, or if you would like additional information about this activity, please contact Susan Ellenberg at (301) 496-0694; or send a note with your name, address, and daytime telephone number to: Susan Ellenberg, AIDS Program, NIAID, 6003 Executive Boulevard, Rockville, Maryland 20892.

Census Bureau's 1990 Annual Research Conference Announced

The Census Bureau's 1990 Annual Research Conference (ARC 1990) will be held March 18-21, 1990, at the Holiday Inn Crowne Plaza in Arlington, Virginia, only 1/2 mile from National Airport and three blocks from Metro. ARC 1990 will comprise a mix of topics such as reconciling

foreign trade estimates between countries, disclosure avoidance, imputation methodology, behavioral research on the census undercount and more. For further information contact Ms. Maxine Anderson-Brown, ARC Conference Coordinator, Office of the Director, Bureau of the Census, Washington, D.C. 20233, 301/763-1150.

AAAS to Meet in New Orleans, February 15-20, 1990

Washington, D.C. ... Today's headlines—global change, fraud and misconduct in science, substance abuse, perestroika, AIDS, scientific literacy, computer viruses—will be featured subjects at the 1990 Annual Meeting of the American Association for the Advancement of Science (AAAS).

The meeting will take place at the New Orleans Hilton Hotel and the Rivergate Exhibition Center February 15-20, 1990. Several thousand scientists, engineers, science policymakers, educators, science journalists, and others interested in science will attend.

Among some 250 meeting symposia will be those on oil contamination in Prudhoe Bay; recent developments in high temperature superconductors; effects of substance abuse on women; perestroika and scientific freedom in the Soviet Union; scientific and public perceptions of global change; the use of animals in biomedical research; verification of threshold test ban limits; assessing scientific literacy; the law and misconduct in science; progress in AIDS treatment; chlorofluorocarbons and atmospheric chemistry; ethics and politics in the cold fusion case; scientific competition; emotions and the developing brain; and the threat of computer viruses.

Further information about the meeting is available from the AAAS Meetings Office, 1333 H Street, N.W., Washington, D.C. 20005, telephone (202) 326-6448. The preliminary program for the Meeting will appear in the November 10 issue of *Science*, the weekly journal of the AAAS.

ANNOUNCEMENTS (continued)

Shiskin Award for Economic Statistics

Nominations are still invited for the eleventh annual Julius Shiskin Award in recognition of outstanding achievement in the field of economic statistics.

The Award is designed to honor an unusually original and important contribution in the development of economic statistics or in the use of economic statistics in interpreting the economy. The contribution could be in statistical research, in the development of statistical tools, in the application of computer techniques, in the use of economic

statistical programs, or in developing public understanding of measurement issues, to all of which Mr. Shiskin contributed. Either individuals or groups can be nominated.

The Award will be presented with an honorarium of \$500 at the Washington Statistical Society Annual Dinner in June 1990. A nomination form may be obtained by writing to the Julius Shiskin Award Committee, c/o American Statistical Association, 1429 Duke Street, Alexandria, VA 22314-3402. Completed nomination forms must be received by April 1, 1990.

EMPLOYMENT COLUMN

The Washington Statistical Society Newsletter provides a service of notification of employment opportunities and descriptions of those seeking employment here in Washington. Readers are encouraged to take advantage of this feature of the newsletter. Deadline for inserting notices is 5 (five) weeks before the publication date. Those interested should write to: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, D.C. 20250-2000, Phone 447-6812.

JOB OPENINGS

BIOSTATISTICIAN

The Division of Biostatistics and Epidemiology, Department of Community and Family Medicine, Georgetown University School of Medicine is seeking a Masters level (MS, MSPH, MPH) Biostatistician at the research associate level. Primary responsibility will be to provide biostatistical support for the Division's consulting service in the School of Medicine. Masters in biostatistics/statistics, a minimum of two years of experience, and knowledge of micro-computers and SAS are required. Prior participation in collaborative clinical research and ability to interact with clinical investigators highly desirable. The position is to be filled at the earliest possible date. Please send letter of intent, C.V. and names of three references to: Leonard Chiazze, Jr., ScD, Professor and Director, Division of Biostatistics and Epidemiology, Room 402 Kober-Cogan Hall, Georgetown University School of Medicine, Washington, D.C. 20007. Georgetown University is an affirmative action/equal opportunity employer.

BIOSTATISTICIAN

The Division of Biostatistics and Epidemiology, Department of Community and Family Medicine, Georgetown University School of Medicine is seeking a masters level biostatistician at the Research Associate level to fill a full-time, non-tenure track position. This person will provide statistical expertise for the research activities of the Lombardi Cancer Research Center. Masters degree in Statistics or Biostatistics and experience with statistical computing (e.g., SAS, SYSTAT) are required. Relevant prior work experience highly desirable. Position to be filled at the earliest possible date. Please send letter of intent, c.v., and names of three references to: Linda W. Pickle, Ph.D., Director, Biostatistics Unit, Lombardi Cancer Research Center, LCRC-Podium, Georgetown University School of Medicine, 3800 Reservoir Road, N.W., Washington, D.C. 20007. No phone calls please. AA/EOE.

JOB OPENINGS (continued)

FACULTY VACANCIES IN MATHEMATICS AND STATISTICS

The American University anticipates Assistant Professor positions available for 1990-1991. One is a tenure-track position in mathematics. A Ph.D. in mathematics and evidence of strong scholarship are required. The second is a tenure-track position in statistics with preferred areas being experimental design or statistical computing. A Ph.D. in statistics with evidence of strong scholarship and an interest in applied statistics are required.

Responsibilities: Undergraduate and graduate teaching, advising scholarship and University service.

Competitive salary will be commensurate with qualifications and experience. Positions are subject to final budgetary approval. Preference will be given to applications received by March 1, 1990.

Send C.V. and names of three references to: **Professor Basil P. Korin, Department of Mathematics and Statistics, The American University, 4400 Massachusetts Avenue, N.W., Washington, D.C. 20016.** An EOE/AA University; minorities and women candidates are encouraged to apply.

STATISTICIAN/HEALTH ECONOMIST

The Veterans Administration, Washington, D.C., in early 1990, expects to be recruiting for an experienced statistician with an emphasis on individuals with some background in health economics. To inquire about this opportunity, contact Esther Greenfield at (202) 233-3279.

SUPERVISORY STATISTICIAN

The Agriculture Division of the Census Bureau is currently recruiting for chief of the Program Research and Development Branch, GH14/1529 (\$48,592 - \$68,172). The incumbent supervises a staff of eleven senior mathematical and survey statisticians and subordinate staff. The branch is responsible for developing a list frame of all agricultural operations, evaluating census coverage, and designing and conducting evaluation surveys, test censuses, and survey processing research for the programs of the division. Demonstrated ability and/or training in sample design, experimental design, analysis of variance, and survey research methods is mandatory. Knowledge of agricultural statistics is desirable, but not necessary. Interested applicants should contact: **Cynthia Clark, Assistant Division Chief for Research and Methodology at (301) 763-8558** or by mail to Agriculture Division, Bureau of the Census, Washington, D.C. 20233.

STATISTICIAN

Excellent opportunity for candidate with superior statistical and communication skills in the Department of Clinical Investigation at Walter Reed Hospital. Applicant will supervise the acquisition and application of statistical/computing resources and staff, and direct the design, review, and analysis of research addressing current problems in clinical medicine. Position is at the GS-13 level (salary range, \$41,121 to \$53,460) and offers great flexibility and a unique opportunity for career advancement. Candidate must have an advanced degree in statistics (Ph.D. or equivalent experience), extensive knowledge of statistical software, and superior communication skills. Send resume and/or SF-171 to: **Dr. S. Derderian, Department of Clinical Investigation, WRAMC, Washington, D.C. 20307-5001,** or call (301) 576-1389 for additional information.

JOB OPENINGS (continued)

SAMPLING SPECIALIST

(Consultant/Part-Time/Full-Time/Temporary)

We are seeking individuals with strong backgrounds in sampling design and implementation to develop detailed sampling procedures for unusual large scale sampling problems. Diverse experience in the practical problems of physical selection of unwieldy sample elements from extremely large populations is of primary importance. The ability to write for a nontechnical audience is also a requirement. This is neither a number crunching nor a formula manipulating project.

Charles R. Mann Associates is a small expanding firm specializing in providing statistical, data processing and quantitative management consulting services.

Please send a resume and salary or consulting fee requirements to: **Charles R. Mann, Ph.D., Charles R. Mann Associates, Inc., 1828 L Street, N.W., Suite 950, Washington, D.C. 20036-5104.**



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