APRIL 1989

WASHINGTON STATISTICAL SOCIETY

NEWSLETTER

April 17	Monday	Variance Components and Bayes Estimates from the National Hospital Discharge Survey	
April 18	Tuesday	An Introduction to Software for the Analysis of Survey Data	
April 25	Tuesday	Statistical Aspects of the AIDS Epidemic—the U.K. Experience	*WSS Distinguished Speaker Series*
April 26	Wednesday	A Bayesian Analysis of Designed Experiments with Correlated Observations	
April 26	Wednesday	Washington Women in Statistics: Career Paths, Obstacles, Rewards	*ASA-150 Series*
April 28	Friday	Stochastic Modeling of Infectious Diseases	
May 10	Wednesday	The Asymptotic Correlation of the Mantel-Haenszel and Maximum Likelihood Estimators of a Common Odds Ratio in k 2x2 Tables	

ANNOUNCEMENTS

Sir David Cox to Speak

Sir David Cox of Oxford University will address the Washington Statistical Society as this year's Distinguished Invited Lecturer. The presentation will be given on April 25. It will be a mid-afternoon lecture with a social reception following. See Program Abstract section for details. Sir David's topic will be "Statistical Aspects of the AIDS Epidemic—the U.K. Experience."

WSS Elections

Enclosed is your ballot for the 1989-90 election to the WSS Board of Directors. We encourage all members to participate.

BIOGRAPHICAL SKETCHES

President

Edward J. Wegman - Bernard J. Dunn Professor of Information Technology and Applied Statistics and also Director of the Center for Computational Statistics at George Mason University. Formerly Head of the Mathematical Sciences Division at the Office of Naval Research. Fellow of the American Statistical Association, the American Association for the Advancement of Science, the Institute of Mathematical Statistics, the Washington Academy of Sciences; Senior Member of IEEE. Elected member of the International Statistical Institute. *(cont'd on page 6)*

WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

Agriculture & Natural Resources
Ron Bosecker 447-3895
W. Barnes Johnson 249-7388

Social & Demographic Statistics
Harvey Schwartz 535-0634
John Czajka 484-9220

Short Courses
Glenn White 763-4138
Donald Gantz 425-3931
Brad Pafford 447-2129
Sid Schwartz 268-3490
Virginia deWolf 366-5372

Economics
Francis X. Diebold 452-2461
Gerald Schluter 786-1785

Public Health & Biostatistics
Ed Lakatos 496-5905
Jai Choi 436-7047

Methodology
David Marker 251-4398
Myron Katzoff 436-7047

Employment
Evelyn R. Kay 337-8418

Physical Sciences & Engineering
Patricia Abel 883-6490
Refik Soyer 994-6794

Statistical Computing
Khalid Aboura 994-7534
Sylvia Leaver 272-2311

Quality Assurance
Stanley R. Freedman 586-2038
John M. Galvin 272-2385

Newsletter Editor
Michael Cohen 454-6193

PROGRAM ABSTRACTS

TOPIC: **VARIANCE COMPONENTS AND BAYES ESTIMATES FROM THE NATIONAL HOSPITAL DISCHARGE SURVEY**

SPEAKER: Poduri S. R. S. Rao, University of Rochester

DATE & TIME: Monday, April 17, 1989, 1:30 to 3:00 p.m. (Note special time.)

LOCATION: National Center for Health Statistics, Room 1-39 A&B, 3700 East-West Highway, Center Building, Hyattsville, Maryland

SPONSOR: WSS Methodology Section and Office of Research and Methodology, NCHS

ABSTRACT: Estimates from the NHDS of the percentage of discharges having diagnoses such as myocardial infarction have been found to be somewhat correlated from one year to another. The possibility of utilizing these correlations for improving the sample estimates are discussed. In particular, trends, variance components, and empirical Bayes estimates are compared. The assumptions underlying these procedures and topics for further research are discussed.

TOPIC: **AN INTRODUCTION TO SOFTWARE FOR THE ANALYSIS OF SURVEY DATA**

SPEAKER: Lester R. Curtin, National Center for Health Statistics

CHAIR: Sylvia G. Leaver, U.S. Bureau of Labor Statistics

DATE & TIME: Tuesday, April 18, 1989, 1:30 to 3:00 p.m. (Note special time.)

LOCATION: Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C. 20212
(Please call 523-1760 at least one day in advance to assure building entrance.)

SPONSOR: Statistical Computing Section

ABSTRACT: The purpose of this seminar is to provide an extremely brief introduction to current statistical software that can be used for the analysis of survey data. The complexities of survey design, including differential weighting, stratification, and clustering yield data which cannot be (generally) treated as if they were from a simple random sample. As such, standard statistical packages are not quite appropriate for survey data. This seminar will discuss short-cut methods for using "standard" software (SAS, SPSS) as well as providing an introduction to software that specifically incorporates methods appropriate for survey data. For the mainframe, software packages to be discussed include OSIRIS, SUPERCARP, and SESUDAAN/SURREGR. For the personal computer (PC): the packages to be discussed include PC-CARP, CPLX, and the new SUDAAN procedures. Statistical topics will include variance estimation, contingency table analysis and regression analysis. The seminar is geared towards the novice user of survey data.

PROGRAM ABSTRACTS (continued)

TOPIC: **STATISTICAL ASPECTS OF THE AIDS EPIDEMIC—THE UK EXPERIENCE**

WSS Distinguished Speaker Series

SPEAKER: David Cox, Warden, Nuffield College, Oxford

CHAIR: Rich Allen, President, Washington Statistical Society

DATE & TIME: Tuesday, April 25, 1989, 3:00 to 6:00 p.m. (Note special time.)

LOCATION: Room 103, Funger Hall, George Washington University, 2201 G Street, N.W. (Foggy Bottom Metro stop.)

SPONSORS: AIDS Program of National Institute of Allergy and Infectious Diseases, GWU Department of Statistics, GWU Department of Operations Research, Washington Statistical Society

ABSTRACT: David Cox is the Editor of Biometrica and is world renowned for his work in many statistical fields. In this presentation, he will discuss data available on the AIDS epidemic in the United Kingdom and present preliminary conclusions based on that data. The lecture will be approximately one hour with a wine and cheese reception following in the same building.

The problems of forecasting the course of the AIDS epidemic are reviewed in light of the author's experience as Chairman of the Working Party set up by the Chief Medical Officers of England and Wales. The emphasis would be on the mixture of approaches that are needed in such a situation. Some of the more technical statistical problems involved will be mentioned.

TOPIC: **A BAYESIAN ANALYSIS OF DESIGNED EXPERIMENTS WITH CORRELATED OBSERVATIONS**

SPEAKER: Lyle D. Broemeling, Virginia Polytechnic Institute

DATE & TIME: Wednesday, April 26, 1989, 12:00 to 1:00 p.m. (Note special time.)

LOCATION: Staughton Hall, 301, 707 22nd Street, N.W., George Washington University

SPONSOR: Physical Sciences and Engineering, WSS, and Department of Operations Research, GWU

ABSTRACT: The experimental layout is represented by embedding the fixed and random effects of a designed experiment in a stochastic process of the ARMA type. Using the Bayesian approach to statistical inference, tests for differences in the fixed effects and estimates of the variance components are found from the appropriate marginal posterior distribution. Prior information is implemented with either a vague Jeffrey's prior or a proper distribution, with parameters estimated from the data. The analysis is illustrated with two examples: (a) a completely randomized design with fixed group effects embedded in an autoregressive process, and (b) a two-fold nested design with fixed group effects and random individual effects (nested) that are embedded in an autoregressive process. The Bayesian approach is compared with alternative analyses.

PROGRAM ABSTRACTS (continued)

TOPIC: **WASHINGTON WOMEN IN STATISTICS: CAREER PATHS, OBSTACLES, REWARDS** **ASA-150 Series**

PANELISTS: Mary Grace Kovar, National Center for Health Statistics
Margaret Martin, Committee on National Statistics
Nancy Mathiowetz, National Center for Health Services Research

CHAIR: Katherine Wallman, Council for Professional Associations on Federal Statistics

DATE & TIME: Wednesday, April 26, 1989, 3:00 to 4:30 p.m. (Note special time.)
Followed by wine and cheese reception at 4:30 p.m.

LOCATION: Room 2736 (Reception, Room 2734) , GAO Bldg., 441 G St., N.W., Washington, D.C. 20212
(Please call 523-1760 no later than April 24 to assure building entrance.)

ABSTRACT: We have assembled a distinguished panel of Washington women statisticians. They share in common that they currently or previously worked for federal agencies, but they represent different career stages and bring different perspectives to the panel. They will:

- Comment on career opportunities for women statisticians in light of their own career paths;
- Indicate key decision points in their careers and whether they believe they made the right choices;
- Consider some of the obstacles to success that women statisticians face and whether these obstacles are diminishing or increasing in importance; and
- Review the rewards they have experienced from working in the field.

There will be time for audience discussion with the panel. We expect to have a number of special guests in attendance, including Janet Norwood, Commissioner of the Bureau of Labor Statistics, and Dorothy Gilford, former Director of the National Center for Education Statistics, who will be available to participate in the discussion during the session and later at the reception.

TOPIC: **STOCHASTIC MODELING OF INFECTIOUS DISEASES**

SPEAKERS: Claude Lefevre, Universite Libre de Bruxelles, Belgium
Philippe Picard, Universite Lyon 1, France
Petre Tautu, Institut fur Epidemiologie und Biometrie, Heidelberg

DISCUSSANTS: The panel of discussants includes, from NIH, James Dambrosia, Mitchell Gail, George Weiss, and Barry Graubard, and Ron Brookmeyer from the Johns Hopkins University

CHAIR: Edward Lakatos, Biostatistics Research Branch, NHLBI

DATE & TIME: Friday, April 28, 1989, 1:00 p.m. (Note special time.)

LOCATION: Wilson Hall, Building 1, National Institutes of Health
(a 5 minute walk from Medical Center Metro stop)

ORGANIZERS: Grace Yang, University of Maryland, and Ed Lakatos, NIH and WSS

SPONSORS: Department of Mathematics, University of Maryland, and Biostatistics, WSS

PROGRAM ABSTRACTS (continued)

ABSTRACTS: Claude Lefevre. A Global Approach to the Final Size Distribution in Epidemic Models with Removal. The spread of a number of infectious diseases can be described with epidemic models of the S-I-R (susceptible-infected-removed) type. In these situations, the infection process terminates as soon as there are no more infections in the population. A statistic of practical interest is then the final size of the epidemic, that is the number of initial susceptibles who ultimately contract the disease. In this talk, we first present the standard S-I-R models for homogeneous and heterogeneous populations in a unified framework, and then develop a simple and systematic procedure to derive the final size distribution of such epidemic processes.

Philippe Picard. On the Modeling of Parasitic Diseases. Most parasitic diseases involve two host populations and are modeled by mathematical models of the hybrid type. It means that these models are partly stochastic and partly deterministic. Usually they appear to be rather complicated, since they consist of various stochastic components connected in several ways. Nevertheless, a look at their mathematical structure shows that they may be analyzed in a constructive way, as complex systems built in associating simple standard processes. Such a study gives a deep understanding of the classical models and leads to the building of several new models for the same diseases. The comparison of all these models gives valuable information on the adequacy of each of them with the real world. In particular, the endemicity conditions, although quite similar, are not always the same in the new and in the old models.

Petre Tautu. Spatial Models for General Epidemics.

TOPIC: **THE ASYMPTOTIC CORRELATION OF THE MANTEL-HAENSZEL AND MAXIMUM LIKELIHOOD ESTIMATORS OF A COMMON ODDS RATIO IN K 2X2 TABLES**

SPEAKERS: Samuel Greenhouse and Joseph Gastwirth, George Washington University

DISCUSSANT: Janet Wittes, Biostatistics Research Branch, NHLBI

CHAIR: Gordon Lan, Biostatistics Research Branch, NHLBI

DATE & TIME: Wednesday, May 10, 1989, 1:00 p.m. (Note special time.)

LOCATION: Wilson Hall, Building 1, National Institutes of Health

SPONSORS: Biostatistics Research Branch, NHLBI and Public Health and Biostatistics, WSS

ABSTRACT: In order to find the correlation between any two estimators, one has to have explicit expressions for each. Obviously, the maximum likelihood estimator of a common odds ratio is not obtainable in closed form and an alternative has to be found. This was accomplished by using a surrogate for the maximum likelihood estimator which is asymptotically efficient. Asymptotic representations are presented for both the Mantel-Haenszel estimator and the maximum likelihood surrogate estimator. It then is easy to obtain the joint asymptotic distribution.

ANNOUNCEMENTS (continued)

(WSS Elections: President - continued from p. 1)
Currently on the editorial boards of Journal of Statistical Planning and Inference, the Naval Research Logistics Quarterly, the Journal of Nonparametric Statistics and Computational Statistics and Data Analysis. Research areas: applied and discrete mathematics, such as mathematical models of biological intelligence, mathematical methods for remote sensing, and topological methods in chemistry; systems theory, communication theory, and operations research; statistical computing, such as computational architectures, software development, and optical computing.

Grace L. Yang - Full Professor of Statistics in the Department of Mathematics at the University of Maryland, College Park. Holds a faculty appointment at the National Institute of Standards and Technology. Associate Program Secretary of the Institute of Mathematical Statistics. Research areas: stochastic processes with applications to epidemics, dose-response in radiation experiments, neurophysiology, quality control and engineering; survival analysis; and asymptotic theory.

Representatives-At-Large

Dwight Brock - Chief of the Biometry Office of Epidemiology, Demography, and Biometry Program at the National Institute on Aging. He earned his Ph.D. in Statistics from Southern Methodist University. Currently, Dwight is Co-chair of the WSS Social Committee and is also on the WSS Local Arrangements Committee for ASA 150. In addition, he is a member of ASA's Snedecor Award Committee.

John Czajka - Senior Sociologist at Mathematica Policy Research, Inc. He was awarded his Ph.D. in sociology from the University of Michigan. John has served as Co-chair of WSS's Social and Demographics Program fro the past three years. He is also a member of ASA's Committee on Subnational Statistics.

Ron Fecso - the Supervisory Mathematical Statistician in the Nonsampling Errors Research Section of the National Agricultural Statistics Section of the U.S. Department of Agriculture. He holds an M.A. in Mathematical Statistics from the University of Rochester. He is currently the Chair of the WSS Audit Committee and is also a member of the organizing committee for WSS's Quality Assurance in the Government Symposium. Ron spoke at the 1988 Symposium and will again speak at the 1989 Symposium. In addition, he also is an instructor at the USDA Graduate School and serves on its Mathematics and Statistics Curriculum Committee.

Mary Garvin - Manager at Price Waterhouse's Office of Government Services, Management Sciences and Economics Division, Quantitative Methods Group. She obtained her M.S. in Data Analysis and Statistical Computing from Stanford University. Mary is currently a member of WSS's Local Arrangements Committee for ASA 150. She will be a speaker at WSS's 1989 Quality Assurance in the Government Symposium.

Methodology Program Chair

Hertz Huang - Supervisory Mathematical Statistician, Statistical Methods Division, U.S. Census Bureau. He holds M.S. and Ph.D. degrees from Iowa State University. His major areas of experience are design and estimation for sample surveys, and nonsampling error research. This includes applications to the American Housing Survey, Survey of Income and Program Participation and the Schools and Staffing Survey.

Rajendra P. Singh - Chief, Mathematical Statistician, Survey of Income and Program Evaluation Branch, U.S. Census Bureau. He earned his M.S. and Ph.D. degrees from Case Western Reserve University, and an M.S. from Agra (India). His major areas of experience are survey design and estimation, consultation on survey design, nonsampling error research on recall bias and time-in - sample effects and data analysis. This includes applications to the Current Population Survey, Income Survey Development Program, Survey of Income and Program Participation, National Crime Survey, Long Term Care Survey and The 1980 Decennial Census sample design for the census on housing and population.

Andrew A. White - Chief, Mathematical Statistician, Statistical Technology Staff, Office of Research and Methodology, NCHS. He obtained his M.P.H. and Ph.D. degrees from Michigan. His major areas of experience are design and estimation for sample surveys, exploratory data analysis, statistical graphics, statistical computing and statistical cartography. This includes applications to the National Health Interview Survey and the National Health and Nutrition Examination Survey. Other ASA/WSS activities include serving on the Short Course Committee for two years.

ANNOUNCEMENTS (continued)

Stephen Stigler to Speak at George Washington University

Stephen Stigler, of the University of Chicago, will be speaking on the campus of George Washington University on April 5, 1989 at 4 p.m.

His talk, entitled "The Limits of Axiomatization: Historical Reflections on the Relationship Between Mathematical Reasoning and Statistical Inference," is organized by the Department of Mathematics at George Washington University and the Division of Mathematical Sciences of the National Science Foundation.

All members of the Washington area statistical and scientific community are cordially invited to attend the lecture.

For further information (e.g., specific room) please contact the Department of Mathematics (994-6235) or Peter Arzberger or Mary Ellen Bock of NSF (357-3693).

Call for Volunteers

The 150th anniversary of the founding of the American Statistical Association (ASA) is in 1989. The celebration of the Sesquicentennial will culminate in the 1989 Joint Statistical Meetings which will be held in Washington, D.C. from August 6 through August 10 at the Washington Sheraton and Omni Shorham hotels.

The Local Arrangements Committee is a special Washington Statistical Society Committee which has been active throughout 1988-1989. Committee members (listed below) have been busy preparing articles for the AMSTAT News, preparing restaurant and city highlights guides, and coordinating with ASA on publicity requirements. They are also organizing the Information Desk, which must be staffed by volunteers throughout the meetings.

The committee needs volunteers for several tasks: assembling notebooks prior to the meetings, helping with publicity during the meetings, and most importantly, staffing the Information Desk. Volunteers who work at the Information desk will be scheduled in two-hour shifts.

Volunteering is a good way to meet other statisticians. Any WSS member is welcome to volunteer. As an enticement, any full-time student (WSS membership not required) will receive FREE REGISTRATION in exchange for volunteering to work at the Information Desk.

Those who want to volunteer should call Leslie Christovich at 547-0741 and leave your name, phone number, and area of interest (publicity, information desk, or general) on her answering machine.

Members of the 1989 Local Arrangements Committee:

Nancy Kirkendall	(Chair)
Dwight Brock	(ENAR Co-representative and restaurant guide)
Sherrie Emoto	(ENAR co-representative)
Nancy Flourney	(IMS representative)
Mary Garvin	(*Newsletter articles)
Mary Batcher	(Newsletter articles)
Virginia deWolf	(*Highlights guide)
Stan Freedman	(Highlights guide)
Stephanie Shipp	(Highlights guide and publicity)
Carolee Bush	(Highlights guide)
Julia Oliver	(*Restaurant guide)
Evelyn Kay	(Restaurant guide)
Yahia Ahmed	(Restaurant guide)
Pankaj Ghosh	(*Information desk)
Terri Shelton	(Information desk)
Robert Parker	(*Publicity)
Leslie Christovich	(Volunteer coordinator)

(*Indicates subcommittee chair)

WSS Annual Dinner June 14

Please mark your calendars now for the Washington Statistical Society annual dinner Wednesday, June 14 from 5:30 to 7:30 p.m. The theme of the annual dinner is a focus on the WSS history and future. The dinner will be held at the George Washington University club which is located at 21st Street, N.W. between H and I, and the Foggy Bottom Metro stop is the closest. This year's activities will be a little more informal in an effort to appeal to a wider audience. There will be light buffet dinner provided and a cash bar. Following dinner there will be a presentation of the Washington Statistical Society annual awards. In addition various speakers will provide historic reminiscences. There will also be door prized. For information, call Julia Oliver at 586-5744.

ANNOUNCEMENTS (continued)

NASS Open House

The National Agricultural Statistics Service invites WSS members and associates to an open house on Friday, April 14 at the offices of the Area Frame Section in Fairfax, Virginia. Cartographers at this site use maps, aerial photography, satellite data, and other information to build and sample area frames for agricultural surveys.

Tours of the facility will be given from 9:00 a.m. to 3:00 p.m. Activities covered include land-use stratification, digitizing frames, selecting samples, and preparing selected units for field enumeration. A demonstration of Computer Assisted Stratification using digital satellite data, currently being researched, will also be included. The tour will last approximately 90 minutes.

The office is located at 3251 Old Lee Highway, Room 504 (5th floor). The building is in the Bradlees parking lot at Fairfax Circle. Ample parking is available. Metrorail together with the Fairfax City CUE bus can also be used. From the Vienna Station, take a Green #1 or Gold #1 CUE bus to Fairfax Circle (about a 10 minute ride). Buses leave the Vienna Station about every half hour and make a loop, returning to the station. Fare is 25 cents. Exact change is required.

There are several restaurants in the area. ARTIES across the street is recommended but there are also several fast food and pizza places nearby.

IASS Short Course on Variance Estimation in Complex Surveys

Wayne Fuller and Kirk Wolter will give a short course on Variance Estimation in Complex Surveys in Paris on August 28, 1989. This one-day short course will take place immediately prior to the ISI Session in Paris. Its purpose is to provide training in variance estimation in complex surveys for IASS members and other survey statisticians, especially for those from developing countries. The instruction will be in English, and no translation facilities will be available.

The course will be restricted to a maximum of 50 participants. Places will mostly be assigned on a first-come first-served basis. However, priority will be given to applicants from developing countries for a substantial number of places. The course will not be offered unless there are at least 10 participants.

Content: The course will cover methods of estimating variances for statistics such as means, proportions, ratios, regression coefficients and statistics arising in the analysis of two-way contingency tables. The use of the program PC CARP for computing variances of statistics from complex sample designs on a personal computer will be demonstrated, and instruction will be given in the use of the program. The texts for the course will be:

K.M. Wolter (1985). *Introduction to Variance Estimation*, Springer-Verlag, New York.
W.A. Fuller et al. (1986). *PC CARP*. Statistical Laboratory, Iowa State University.

On request, statisticians from developing countries will be exempted from the registration fee and will receive a copy of PC CARP and the texts at no cost.

Inquiries should be directed to Mr. Bernard Grais, INSEE, 18 Boulevard Adolphe-Pinard, 75675 Paris, Cedex 14, France.

New USDA Graduate School Course Offered

A new course, **Advanced Topics in Survey Theory** (ESTAT 525), is being offered by the USDA Graduate School in the Spring of 1989 and every other spring thereafter (alternating with Advanced Topics in Survey Methods - ESTAT 570).

This series of lectures and discussions is intended for anyone interested in the latest developments in survey sampling theory and in advanced topics not often covered by the standard sampling textbooks. Guest speakers from government will address topics such as: raking, analysis of data from complex samples, replication methods, composite estimation, capture-recapture, model-based sampling theory, and adjustments for nonresponse. The tuition is $209 and includes reading materials, which will be distributed at the first session. Prerequisite is knowledge of sampling survey at the level of Cochran's Sampling Techniques. For more information contact Phil Kott (475-3492) or Ron Fecso (475-3486).

ANNOUNCEMENTS (continued)

Spotlight on WSS Board Members

This month we feature individuals who are in two of the lesser known Washington Statistical Society Board positions. Both of these are positions important to the overall success and smooth operation of the society.

Mary Foulkes is currently the Representative to the ASA Council of Chapters. Since WSS, by itself, constitutes one of the seven districts of the Council, Mary also serves as the Governor of District 1 and is thereby a member of the executive committee of the Council. She was formerly a member of our Public Health and Biostatistics Program Committee. She is a mathematical statistician in the Biometry and Field Studies Branch, National Institute of Neurological Disorders and Stroke. In that position, she is responsible for the administration, conduct, analysis, and publications of two prospective, longitudinal, multicenter observational studies in stroke and traumatic head injury. Nearly all of Mary's professional experience has been in the field of biometry. She was formerly Senior Staff Fellow in her present Institute; Assistant Research Professor, Statistics/Information Systems Department, George Washington University; and Assistant Professor and Assistant Biometrician, Biometric Section, Biomathematics Department, University of Texas System Cancer Center. Her present position enables her to concentrate on her primary research interests of longitudinal data analysis, clinical trials methodology, and sample size estimation. Her educational background includes a Bachelor of Science in Mathematics from Siena Heights College; a Masters of Public Health in Biostatistics, University of Michigan, and a Ph.D. in biostatistics from North Carolina. Mary has published a number of articles relating to her research interests. They have appeared in such publications as Biometrics, Controlled Clinical Trials, Stroke, the British Medical Journal, Journal of Clinical Oncology, and Journal of Surgical Oncology.

Besides her active role on the Washington Statistical Society Board and the Council, Mary has found time to help WSS in the judging of local high school science fairs. Another major current activity is the coordination of more than 55 displays for the Biopharmaceutical Section of ASA which will be presented at a special reception during the ASA150 meetings this August. She is presently a member of the American Statistical Association Membership Committee and a member of the Biometric Society ENAR Regional Advisory Board. Before coming to the Washington area, Mary served as vice-president of the Houston area chapter of ASA.

Bill McCarthy, in his first Washington Statistical Society Board experience, is serving this year as the Arrangements Chair. He works with the various program committees to provide a clearing house of upcoming dates and plans in order to minimize the number of conflicts of multiple sessions on the same day. Bill has very recently changed positions and is now a statistical advisor for the Department of Transportation, Office of Inspector General. In that position, he provides mathematical and statistical advice to the OIG staff with respect to auditing activities relating to programs and operations within the Department of Transportation. Before moving to his present job, Bill was a special assistant at the Bureau of the Census and he also serves as an adjunct professor at the University of Maryland teaching graduate courses in research methodology and applied statistics. His major fields of professional interests are mathematical statistics, mathematical programming, and cost analysis. Publications include numerous articles on cost analysis, sample design, and mathematical programming in such publications as the Springer-Verlag Proceedings, Operations Research Society of America, Journal of the American Statistical Association, the Journal of the International Statistical Institute, and an upcoming article in the Journal of Official Statistics.

Before leaving the Census Bureau, Bill had conducted research on possible redesign of the decennial census of population which is now being evaluated by the Bureau. In addition to Bill's interest in WSS and ASA activities, he is also a member of the Operations Research Society of America.

ANNOUNCEMENTS (continued)

Meeting of the Washington Academy of Sciences

A panel discussion on the topic ***"The Science in Science Fiction: Good, Bad, or Indifferent?"*** will be given at the Thursday, April 27 meeting of the Washington Academy of Sciences (WAS). Panelists include author Roger MacBride Allen, astrophysicist/author Yoji Kondo, Ph.D., physicist/author Charles Sheffield, Ph.D., and author Lawrence Watt-Evans. The moderator will be training consultant/author Deborah A. Marshall. There will be a reception at 6:30 p.m. and a dinner at 7:00 p.m., followed by the panel discussion at 8:00 p.m. The location is the Mary Graydon Center of the American University (Massachusetts and Nebraska Avenues, N.W., Washington, D.C.) The cost of the reception and dinner is $15.00. There is no cost for attending the panel discussion only. Please make dinner reservations by April 23. Call Bob McCracken at 301/320-3621 for reservations, information, and directions. Make your check payable to "WAS Dinner" and mail to 5120 Newport Avenue, Bethesda, MD 20816.

WSS President Rich Allen was the speak at the recent February 16th meeting of WAS. He presented a talk on "Careers in Statistics." It was one of the better attended meetings this year. WAS thanks Rich for his presentation and for being willing to speak on relatively short notice, and is pleased in general with the support that it has received from WSS in the last two years.

ASA Constitution

The ASA Board will vote April 14 on the proposed new ASA Constitution. This is an extremely important vote for the Association. The major features of that Constitution were outlined in the May 1988 issue of Amstat News. You can obtain a copy of the proposal from the ASA office (684-1221), if you wish.

The Executive Committee of the ASA Council of Chapters recently considered the new Constitution at length and prepared a statement of endorsement. The key points that the Executive Committee noted were:

1. The reduction in board size from 30 to 16 will result in a more manageable, flexible governing body as well as reduce cost to the Association.
2. Sections will benefit by having their own governing body, the Council of Sections, which can address specific section issues.
3. New sections can easily be created or inactive sections disbanded, thus representing shifts in the interest of the Association over time.
4. Chapters, which represent all ASA members, both geographically and across all special interest groups, will have a greater and fairer representation on the Board of Directors from the current 1 in 30 to 3 in 16.

Individual ASA members should review the proposed Constitution and provide their ASA Board representatives with recommendations to approve or not approve the Constitution. Keep in mind that you in Washington, D.C. are represented on the ASA Board by our Council of Chapters Governor Mary Foulkes and our District representative David Morganstein plus the representative of each Section to which you belong.

Gertrude Cox Scholarship Race at the 1989 ASA Meetings

The Caucus for Women in Statistics and Council of Chapters is sponsoring the first annual Gertrude Cox Scholarship race in Washington, D.C. during the 1989 ASA meetings. A 5K run and 1 mile fun run are being planned for Sunday, the first day of the meetings. (Remember the meetings start a day early to allow for the ASA-150 sessions.) Look for more details in future issues. Please let Stephanie Shipp know if you would like to help before the race, and/or on race day.

We are seeking a corporate sponsor who will pay for the race expenses so that all entry fees can be given directly to the scholarship fund. Please contact Stephanie Shipp, 1000 Riva Ridge Drive, Great Falls, VA 22066, 703/759-4273 or 202/272-5060 for details.

ANNOUNCEMENTS (continued)

Symposium on Linear Models

The Department of Mathematics and Statistics of the University of Maryland Baltimore County (UMBC) is organizing a one-day symposium on ***Linear Models*** on Saturday, April 29, 1989. Sponsored by the *National Security Agency* (NSA), the symposium will feature five internationally reputed statisticians: Professor David Harville of Iowa State University, Professor Arthur Cohen of Rutgers University, Professor Michael Perlman of the University of Washington, Professor C. R. Rao of Penn State University, and Professor P. K. Sen of the University of North Carolina at Chapel Hill. For further information contact Professor Bimal K. Sinha, Department of Mathematics and Statistics, University of Maryland Baltimore County, Baltimore, MD 21228, Phone: 301/455-2347.

Open Board Meeting

The Washington Statistical Society will hold an open meeting for participation by any WSS members, May 30, 1989, 12:30 p.m., Room 3000, 400 Maryland Avenue, S.W. A special feature of this year's meeting will be a short presentation by Kathryn Rowe, American Statistical Association Quantitative Literacy Project Coordinator, on the ASA efforts to improve QL. Anyone without a government identification card should bring a copy of this Newsletter to aid in gaining entrance to the building. More information on this meeting will be provided in the May Newsletter.

Short Course: Analysis of Binary Data

Sheila Edwards, ASA Manager of Continuing Education-Grants and Contracts, is pleased to announce that Sir David R. Cox and Joyce Snell will present a two-day short course on the "Analysis of Binary Data" at the August 1989 Sesquicentennial Annual Joint Statistical Meeting in Washington, D.C. The course will be based on the revised edition of Professor Cox's book which will be published in July 1989. Contact the ASA Continuing Education Program for registration details.

EMPLOYMENT COLUMN

The Washington Statistical Society Newsletter provides a service of notification of employment opportunities and descriptions of those seeking employment here in Washington. Evelyn Kay, who is in charge of this service, has achieved a high success rate. 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: Evelyn R. Kay, 2510 Virginia Avenue, N.W., #709, Washington, D.C. 20037, Phone 337-8418.

JOB OPENINGS

MATHEMATICAL STATISTICIAN — GS-12 or GS-13

Position anticipated in the Bureau of Labor Statistics' Office of Employment and Unemployment Statistics for a qualified individual with experience in survey methods, sample design, estimation, and time series applications. Position requires a thorough knowledge of sampling techniques and the ability to work independently as well as to coordinate the work of junior level staff. Knowledge of SAS and use of a mainframe computer system and language is desirable. Incumbent will act as a team leader conducting research into establishment survey sample redesign, evaluating alternative estimation methodologies, and developing time series structural models for use in estimation. Duties will also include developing statistical procedures for new surveys. Salary depends on qualifications and experience. U.S. citizenship is required. Equal opportunity employer. Send SF-171 to: **Tom Grzesiak, 441 G St., N.W., Rm. 2821, Washington, D.C. 20212.**

JOB OPENINGS (continued)

MATHEMATICAL STATISTICIAN — GS-11

Position is at the Bureau of Labor Statistics' Office of Employment and Unemployment Statistics. Position requires application of mathematical statistical theory to economic surveys. Incumbent will be required to actively participate in the development and implementation of survey design, and in quality control and measurement research projects. Knowledge of SAS and use of mainframe computer systems is desirable. Abilities to communicate effectively and to work with others are essential. Salary depends on qualifications and experience. U.S. citizenship is required. Equal opportunity employer. Send SF-171 to: **Ms. Shail Butani, U.S. Bureau of Labor Statistics, 441 G Street, N.W., Rm. 2821, Washington, D.C. 20212.**

STATISTICIAN IN AN INTERNAL CONSULTING ORGANIZATION

Hughes Aircraft Company in the greater Los Angeles area has openings for two statisticians: no later than the end of June. The positions offer challenge and a broad variety of work in such areas as regression, design of experiments, analysis of satellite data, Monte Carlo simulations, trouble-shooting, cost analysis including analysis of cost uncertainty, and the design and conduct of employee surveys. Experience with consulting and SAS are required. Applicants must have an M.S. or Ph.D. in statistics. Other desired attributes include good communication skills, interest in working as a team member with statisticians and/or engineers, teaching ability, and an interest in engineering problems.

The positions are in the Systems Engineering and Operations Division of the Space and Communications Group located in El Segundo, California. Hughes, a subsidiary of General Motors Corporation, has salaries and benefits which are competitive with other aerospace companies.

Qualified applicants should send a resume and a letter indicating areas of interest and date available for employment. A transcript would also be appreciated. U.S. citizenship is required. Please direct this information to: **Joe Engleman, Hughes Aircraft Company, Building S40, M.S. T318, Post Office Box 92919, Los Angeles, CA 90009.**

STATISTICIAN (Service Fellow-equivalent to GS11/12/13)

The National Center for Health Services Research is seeking a statistician to join the statistical staff of the National Medical Expenditure Study. The position is available for a Ph.D. in statistics/biostatistics or an M.S. with experience in sample design, survey research, sampling weights development, data analysis for complex surveys, imputation procedures, and matching techniques. Familiarity with statistical software packages (SAS, SPSS) is required. Send SF-171 application forms and resume to: **Dr. Steven B. Cohen, Senior Research Manager, National Center for Health Services Research and Health Care Technology Assessment, Room 18 A-55, 5600 Fishers Lane, Rockville, MD 20857**; or call 301/443-4836 for additional information.

JOB OPENINGS (continued)

SENIOR MATHEMATICAL STATISTICIAN

The U.S. Postal Service has openings for three Senior Mathematical Statisticians to work on the design, development, and implementation of statistical surveys and systems, specializing in one of the following three areas: attribution of costs to produce lines, estimation of revenues and volumes, and measurement of service performance. Candidates should have graduate training in mathematical statistics, with emphasis on sampling theory, and other elements of survey design. Work experience should program management skills. Working knowledge of SAS, personal computers, and an IBM operating environment are desirable. Good human relations and communications skills are very important. Starting salary will be $38,615 - $51,777, plus $936 COLA. Please send resume and salary history to: **United States Postal Service, Headquarters Personnel Division, 475 L'Enfant Plaza West, S.W., Room 1813, Washington, D.C. 20260-4261, ATTN: Team D - 89-14.**

STATISTICIANS

Westat is an employee-owned corporation headquartered in the suburbs of Washington D.C. (Rockville, Maryland). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, our company has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded 25 years ago by three statisticians. The current staff of more than 500 includes statisticians, survey researchers, psychologists, medical researchers, sociologists, economists, market research and behavioral analysts, computer systems analysts, programmers, and support staff. The professional staff is supported by survey field supervisors, coders and interviewers. The atmosphere is open, progressive, and highly conducive to professional growth.

Our statistical efforts continue to expand in areas such as the environment, energy, health, education, human resources, and teaching courses in statistical methods. Several positions are currently available which require a graduate degree in statistics:

Biostatistician. Work on clinical trials and longitudinal studies. Involvement in design, analysis and study management. Should have good knowledge of experimental design and survival analysis. Substantial (but not exclusive) focus on HIV related issues. Ph.D. in Biostatistics and relevant experience required.

Environmental Statistics. Experience with environmental or energy problems essential. Skills in sample design, analysis, survey operations, and project direction helpful.

Survey Sampling. Experience or course work required in sample design, frames development, weighting, or variance estimation.

Industrial Consulting. Teach statistical process control and consult with clients in industry. Must have consulting and teaching experience, willingness to travel.

To insure proper consideration, interested applicants should indicate one of the above areas and send resume with current salary to: **Personnel Director, Westat, Inc., Dept. DM, 1650 Research Boulevard, Rockville, Maryland 20850**, An Equal Opportunity Employer M/F/V/H.

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JOB OPENINGS (continued)

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