January 22	Friday	Comparing Not Necessarily Nested Models With the Minimum AIC and the Maximum Kullback-Leibler Entropy Criteria: New Properties and Connections
January 27	Wednesday	Presenting Multivariate Survey Data
February 11	Thursday	Statistical Considerations in Constructing Hedonic Indexes
February 18	Thursday	Statistical Considerations in the Design and Analysis of Clinical Trials of Treatments for AIDS

ANNOUNCEMENTS

U. S. Census Bureau's Fourth Annual Research Conference

ARC IV is scheduled to begin Sunday evening, March 20, 1988, and run through 2:00 p.m. on Wednesday, March 23, 1988, at the National Clarion Hotel in Arlington, Virginia, USA.

The program focuses on "Improvements in Technology & Measurement Problems Related to Census and Survey Operations." The program will devote one session to each of 16 topics within the overall theme, and also include the Shirley Kallek Memorial Lecture. Session topics include: counting the hard-to-enumerate population; measurement models in undercount research; improving foreign trade statistics; statistical models for undercount adjustment; disclosure research; automated cartography; computer-assisted telephone interviewing (CATI); methods and software for survey data analysis; computer-assisted personal interviewing (CAPI); expert systems for matching and classifying; microeconomic panel surveys; standard industrial classification (SIC); demographic coverage improvement; seasonal adjustment and related research; issues in survey methodology; and quality control.

For additional information contact Maxine Anderson-Brown, Office of the Director, Bureau of the Census, Washington, D.C. 20233, USA, 301/763-1150.

Washington Academy of Sciences Meeting

The Washington Academy of Sciences will hold its January meeting in the Mary Graydon Center of American University at Massachusetts and Nebraska Avenues, N.W., on Thursday, January 21. Janet Norwood, Commissioner of the Bureau of Labor Statistics, U.S. Department of Labor, will be speaking on *A Statistical View of the Economy.* This talk will be cosponsored by the Washington Statistical Society. The talk will focus on a discussion of prices and employment today and prospects for tomorrow.

There will be a wine and cheese reception at 6:45 p.m. followed by dinner at 7:30. The lecture will begin at 8:30 p.m. It is not necessary to attend the dinner to hear the lecture, and there is no charge for the lecture only. Call (301) 320-3621 for information and make dinner reservations at least three days in advance.

WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

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

Economics
Francis X. Diebold	452-2461
Robert Yuskavage	523-0876

Physical Sciences & Engineering
Thomas Mazzuchi	994-7514
Refik Soyer	994-6794

Employment
Evelyn Kay	331-1153

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

Social & Demographic Statistics
John Czajka	484-9220
Harvey Schwartz	223-5555

Statistical Computing
Khalid Aboura	994-7534
David Grier	546-8231

Short Courses
Virginia de Wolf	366-5361
Donald Gantz	425-3931
Brad Pafford	447-2129
Glenn White	763-5248

Methodology
Bill Winkler	252-2140
David Marker	251-4398

Newsletter Editor
Michael Cohen	454-6193

PROGRAM ABSTRACTS

TOPIC:	**Comparing Not Necessarily Nested Models With the Minimum AIC and the Maximum Kullback-Leibler Entropy Criteria: New Properties and Connections**
SPEAKER:	David Findley, Bureau of the Census
CHAIR:	Joe Fred Gonzalez, Jr., Office of Research and Methodology, NCHS
DISCUSSANT:	Myron Katzoff, Office of Research and Methodology, NCHS
DATE & TIME:	Friday, January 22, 1988; 10:30 a.m. to 12:00 p.m. (Note special time.)
LOCATION:	NCHS, 3700 East West Highway, Hyattsville, Maryland, Room 1-39
SPONSOR:	Office of Research and Methodology, NCHS and WSS
ABSTRACT:	There is much interest in Akaike's AIC-based criterion these days, motivated by its impressive success in certain applications, and also by its simplicity -- being a simple modification of the log maximum likelihood, AIC is readily available whenever maximum likelihood estimation is used. There are also many questions. Some of the important papers on AIC are not in the main statistical journals. Also, the literature on AIC falls mostly into two categories -- papers which are principally heuristic in content and papers whose mathematical depth makes them rather inaccessible to many readers. This circumstance has impeded research on AIC and has made it possible for there to be widespread misconceptions about AIC. Some of these concern such questions as: Can AIC be used with non-Gaussian models? Can AIC be used to compare non-nested models? What quantity or quantities are being estimated when the minimum AIC criterion is used? What, if anything, is being estimated consistently, or without bias? What connections are there between AIC and entropy? What is the role of entropy?

Our goal is to provide answers to these questions based on some simply stated results concerning a decomposition of the log maximum likelihood, of a not necessarily correctly specified model, which identifies the Kullback-Leibler entropy as the dominant component. We will describe rather comprehensively the situations in which most statisticians would favor one model over another and will present results about the performance of the minimum AIC and maximum entropy criteria in these situations. Two applications will be discussed, one dealing with regressor selection for the design of a ship autopilot and the other concerning the selection of a binary response curve for associating probabilities of fatality with the results of automobile crash test data.

TOPIC:	**Presenting Multivariate Survey Data**
SPEAKERS:	Mike Brick, Westat, and Chuck Cowan, Center for Education Statistics
DATE & TIME:	Wednesday, January 27, 1988; 12:30 to 2:00 p.m.
LOCATION:	Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C. (Please call 523-1760 at least one day in advance to assure building entrance.)
SPONSOR:	Methodology Section
ABSTRACT:	This talk will discuss some of the issues that arise in the presentation and analysis of data from complex sample surveys conducted for the government. The talk will focus on categorical data; the issues include reporting the multivariate nature of the data, multiple comparisons and significance levels, and the use of adjustments in chi-square statistics.

One issue involves the use of methods for dealing with multivariate data in reports for the public. The concern is that for proper analysis of data in which the classification variables are correlated, some multivariate techniques should be used. However, in many publications this level of analysis is difficult to accomplish within publication time

PROGRAM ABSTRACTS (continued)

schedules and also hard to present to the public. Also these techniques add further complexity to the analysis itself. In particular, adjustments to chi-square statistics are presented for a particular application. Some options for compromises are discussed.

Many techniques exist for adjusting the significance levels to compensate for multiple comparisons. The application of these methods for reports is more complicated than simple textbook examples for experiments. Some approaches and the implications of them are discussed.

TOPIC:	**Statistical Considerations in Constructing Hedonic Indexes**
SPEAKERS:	Jack Triplett, Bureau of Economic Analysis, and B. K. Atrostic, Office of Tax Analysis
CHAIR:	Eva Jacobs, Bureau of Labor Statistics
DISCUSSANT:	Philip Kott, Department of Agriculture
DATE & TIME:	Thursday, February 11, 1988; 12:30 to 2:00 p.m.
LOCATION:	Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C. (Please call 523-1760 no later than Wednesday, February 10, to assure entrance.)
SPONSOR:	Economics Section
ABSTRACT:	Hedonic techniques provide a method for controlling quality changes in price and quantity index numbers. Implementing hedonic techniques requires considering statistical and econometric factors that have not been treated adequately in the hedonic literature. One set of issues concerns the appropriate estimator of the hedonic function. Another set of issues arises because there are alternative methods for constructing price indexes from a *given* hedonic function. Assessing and evaluating both sets of issues is essential in determining when hedonic techniques yield results that are superior to standard, or "traditional" techniques used in most of the indexes available for deflation.

TOPIC:	**Statistical Considerations in the Design and Analysis of Clinical Trials of Treatments for AIDS**
SPEAKER:	Lawrence Hauptman, FDA
CHAIR:	Robert O'Neill, FDA
DATE & TIME:	Thursday, February 18, 1988; 1:30 to 3:30 p.m. (Note special time.)
LOCATION:	Parklawn Building, Conference Room G & H, 5600 Fishers Lane, Rockville, Maryland (Twinbrook Metro Station)
SPONSOR:	Public Health and Biostatistics
ABSTRACT:	Recent experience with the evaluation of several completed clinical trials of drugs for the treatment of AIDS and with the design of trials to evaluate the only FDA approved drug, AZT, in other AIDS subpopulations provides the background for discussing the various approaches to studying treatment for AIDS. Because of the public health importance and visibility of the need for effective AIDS treatments, it is very important to design trials which will meet scientific and regulatory standards of evidence. The issues that must be addressed concern the confirmation of a successful trial, the role of interim data analysis, the multiple endpoints as well as the multi-phasic aspect of HIV infection, the numbers and types of control groups, the various censoring mechanisms, and the statistical methodology for analysis and sample size determination for study planning.

OTHER ANNOUNCEMENTS

Press Release on the 20th Interface Symposium

The Twentieth Symposium on the Interface of Computing Science and Statistics will be held at the Sheraton International Conference Center in Reston, Virginia on April 21-23, 1988. The Symposium is a long-standing interdisciplinary forum focusing on the interface between computing science and statistics. The focus of the 20th Symposium will be on computationally intensive methods in statistics. Professor Brad Efron of Stanford University will give the keynote address on this theme and sessions are organized with this theme in mind.

Sessions will include invited talks, contributed papers and exhibits. An opening night reception is planned as well as a banquet. An extensive exhibit area is also planned. Contributed presentations will be selected by the Program Committee and will last for 20 minutes. Authors who wish to contribute a paper should submit a written abstract no later than January 15, 1988. The abstract should be no longer than one page. Abstracts of invited and contributed papers will be available at the Symposium. Abstract and inquiries should be sent to: Professor Edward J. Wegman, Interface Symposium, P.O. Box 7460, Fairfax Station, VA 22039-7460, 703/323-2723.

Conference Proceedings will be published. Camera-ready copy of the contributed and invited papers will be due on June 1, 1988. The Proceedings will include both invited and contributed papers.

The Conference will be held at the Sheraton International Conference Center in Reston, VA (suburban Washington, D.C.) on the 21st through 23rd of April. April is an extremely attractive time in Washington coinciding with the blooming of the famous cherry blossoms. Free shuttle service is provided by the Sheraton to and from nearby Dulles Airport. A commercial airport bus service is available from Washington National Airport. Hotel rates are quite reasonable for the peak of the tourist season ($79 for a single on Wednesday and Thursday and $45 for a single on Friday and Saturday). A block of rooms has been reserved and attendees are expected to make their own reservations. Because this is a peak tourist season, early reservations are strongly encouraged. Reservations can be made by calling (800) 325-3535 or (703) 620-9000. Make sure to identify yourself as being associated with the Interface Symposium. Registration and welcoming reception will take place on Wednesday, April 22.

The regular registration fee for members of the cooperating societies (ASA, IMS, SIAM, and ORSA) is $105 and for non-members is $130. A preregistration discount is being offered to those who register early. For registrations received before January 15, 1988, the registration fee will be $95 for members of cooperating societies and $120 for non-members. The registration fee will include a copy of the proceedings and the opening night reception. For further information, to be put on the INFA mailing list and/or to register, please contact Ed Wegman at the above address.

Science Fairs 1988

The Washington Statistical Society sponsors awards in six Washington metropolitan area science fairs. These fairs are held on Saturday mornings during the months of March and April at locations in Northern Virginia, Prince George's County, Montgomery County, and the District of Columbia. Volunteers are needed to review projects and determine the WSS award winners. This is the third year of WSS participation in area science fairs. It has been a very successful activity which promotes awareness of statistical concepts in scientific research as well as statistics as a professional discipline among mathematically and scientifically oriented secondary school students. Volunteer judges in the past two years have enjoyed the opportunity to interact with these students and represent the statistical profession in this setting. The only time required is one Saturday morning in the Spring, plus one weekday lunchtime organizational meeting in early March.

If you would like to serve as a judge or would like more information about this project, please call Susan Ellenberg (office: 496-4836; home: 299-9039) within the next few weeks.

EMPLOYMENT COLUMN

Deadline for inserting notices is 5 (five) 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

BIOSTATISTICIAN
Ph.D. in biostatistics or statistics for challenging opportunity in management and analysis of large clinical trials and medical research studies. Excellent computer and communications skills expected. Proven experience in survival analysis, multivariate techniques and exploratory data analysis is required. A strong commitment to quality is essential. Compensation commensurate with experience. Send resume to James Cash, Maryland Medical Research Institute, Inc., 600 Wyndhurst Avenue, Baltimore, Maryland 21210. E.O.E.

STATISTICIAN (GS 9, 11 or 12 with promotion potential to 13)
Position at the Environmental Protection Agency (EPA) in the Office of Water Regulations and Standards for an individual interested in the application of statistics to multidisciplinary projects directed at protecting and enhancing the Nation's waters. The substance of these projects includes development of industrial water pollution control regulations, development of water quality criteria, and monitoring ambient water quality. Responsibilities also include supporting EPA in matters arising in law suits. This position offers the opportunity to apply statistics to important and visible problems. Applicants with computer skills and experience and/or training in engineering, science, economics and litigation support are preferred. Send SF-171 or resume to Dr. Henry D. Kahn, Environmental Protection Agency, Office of Water Regulations and Standards (WH-586), 401 M Street, S.W., Washington, D.C. 20460.

STATISTICIAN
Applied statisticians with interest in public health are invited to apply for an unusual position with a well-established nonprofit research group with a stable funding base. The successful candidate will play an integral role in the work of a multidisciplinary team of high-level research professionals (including engineers, psychologists, epidemiologists, and attorneys). As internal consultant, working statistician, and manager of contract research, you will need excellent written and oral communication skills, including the ability to interpret results for nonstatisticians and to formulate practical approaches to complex problems, computer skills, and a good working familiarity with the methodological issues of quasi-experimental design, categorical data analysis, generalized linear modeling, and time series analysis. Qualifications must include an advanced degree (M.S. or Ph.D.) in either Statistics or Social Science/Public Health and a proven record in applied research including publications in professional journals. Highly competitive salary, excellent benefits, and generous technical support for the right person. Apply to: VP, Research, Insurance Institute for Highway Safety, Watergate 600, Suite 300, Washington, D.C. 20037.

JOB OPENINGS (continued)

The George Washington University's Department of Statistics/Computer & Information Systems has several openings beginning Fall 1988, as follows:

1.   Two **Assistant Professors**, tenure accruing, in the computer science area. The positions require a Ph.D. in computer science or a closely related area. Applicants should have a strong commitment to both teaching and research in computer science or statistical computing.

2. One **Assistant** or **Associate** level, tenure-track position in **Statistics**. The position requires a Ph.D. in statistics with strong potential for research at the assistant level or an excellent research record at the senior level. Applicants should have an interest in both theoretical and applied statistics. The major areas of research interest in the Department currently include biostatistics, nonparametric inference, statistics in public policy, multivariate analysis, and statistical computing.

Candidates for any of these positions should send applications including curriculum vitae, relevant reprints, and three letters of reference to Professor Robert Smythe, Chairman, Department of Statistics/Computer & Information Systems, The George Washington University, Washington, D.C. 20052. Applications must be received by February 15, 1988. EOAA

STATISTICAL PROGRAMMER
Will be responsible for programming procedures to compute sampling errors for multi-stage sample designs. Degree in statistics helpful. Must have experience writing SAS procedures, *not* just running SAS. Send resume to Westat, Inc., Dept. DM, 1650 Research Boulevard, Rockville, MD 20850.

STATISTICIANS (GS 5 through 12)
The Office of Personnel Management is recruiting for these positions to use government-wide personnel data bases to present and analyze Federal Civilian Employment Statistics. At the entry levels, computing skills and familiarity with computer software (SAS, SPSS) and microcomputers is expected. Experience with quality assurance-related activities of large data files is desired at the higher grades. For information, call 202/632-4527.
Send SF-171 application forms to: U.S. Office of Personnel Management, Office of Workforce Information, Personnel Systems and Oversight Group, Room 7303, 1900 E Street, N.W., Washington, D.C. 20415, ATTN: John Curnow.

STATISTICIAN (GS 7/9/11)
The Bureau of Justice Statistics, Department of Justice is seeking a Statistician in the National Crime Survey Unit. Specific duties will include preparing yearly reports presenting preliminary and final NCS rate data in BJS Bulletins; preparing a yearly detailed report on *Criminal Victimization in the United States* using a detailed tabulation package; performing significance testing of NCS data; preparing special NCS data runs using computer software packages and developing other NCS reports. The pay range is $18,358-$35,326 depending on prior pay and experience. Please call Randi Mendelsohn (202/724-7725) for additional information and application. Mail applications to Office of Justice Programs, Personnel Division, 633 Indiana Avenue, N.W., Room 603A, Washington, D.C. 20531.

JOB OPENINGS (continued)

MATHEMATICAL STATISTICIANS

The Census Bureau has openings in the Statistical Support Division for entry level, career ladder, technical and computer programming positions. The work is related to sample design, survey research, estimation and inference, evaluation and data analysis, statistical modeling, missing data, response error, imputation procedures, administrative records, matching techniques, quality assurance, and application of Deming techniques.

The Census Bureau offers special higher salary rates for mathematical statisticians. Salaries start at $21,388 for a Bachelors degree or equivalent, $26,169 for a Masters degree or equivalent, and $29,897 for a Ph.D. or equivalent. Salary depends on qualifications and experience. Equal opportunity employer;

U.S. citizenship is required. Please send your resume to John Thompson, Statistical Support Division, Room 3783-3, Census Bureau, Washington, D.C. 20233.

MATHEMATICAL STATISTICIAN (GS 12/13)

Position available for a Ph.D. or an M.S. with experience in sample design, survey methods, and data analysis. A knowledge of SAS and the application of transformation methods to limited dependent variable models would be desirable. Incumbent will act as technical consultant in studies of the decline in value and the physical mortality of business plant and equipment to be conducted by the Office of Depreciation Analysis, as well as participate in the general research and policy analysis activities of that office. Send resume/SF-171 to: Tom Neubig, Director, Office of Tax Analysis, Room 4217, Main Treasury, Washington, D.C. 20220.

MATHEMATICAL STATISTICS

Excellent opportunity with a small, but growing, high quality, internal consulting group of Ph.D. mathematicians and statisticians at the Central Intelligence Agency. Position involves development of statistical and operations research techniques and their application to a wide variety of intelligence problems, such as analysis of weapons systems characteristics, arms control monitoring issues, strategic capabilities of major nations, agricultural crop production estimates, and political instability. Many applications require the development of novel methods in such areas as sampling theory, econometric techniques, non-linear and integer optimization techniques, applied probability and multivariate analysis. Candidates should have or be within one year of completing a Ph.D. in operations research, mathematical statistics or related field, less than three years experience, a working knowledge of FORTRAN or equivalent computer languages, and the ability to present ideas well in oral and written form for both technical and non-technical clients. EOE - U.S. citizenship is required. Washington based post with some travel. Starting salary range $35,000-$40,000 commensurate with training and experience. Forward resume and graduate transcript to: Recruitment Activity Officer, Department S (AL11), P.O. Box 1925, Washington, D.C. 20013.

JOB APPLICANTS

Listed below is a brief description of the qualifications of an applicant seeking employment. Employers interested in interviewing this applicant should notify Mrs. Kay of their interest by CODE NUMBER. The request should be by mail and should include the employer's name, organization, and telephone number. The applicant will be notified of the employer's interest and initiation of any further contact will be left to the applicant. All contacts will be confidential.

CODE #88-02

Position wanted:	**SURVEY STATISTICIAN (GS 14) in Federal government, Washington, D.C. area**
Education:	**Yale, Master of Science Public Health; Harvard, BA Social Science**
Experience:	**10 years Federal government survey research planning and design; expertise in telephone, CATI, and automated personal methodologies**
Areas of interest:	**Survey research, public administration**

WASHINGTON STATISTICAL SOCIETY

P.O. Box 70843
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