

Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION

WSS Newsletter-November 1983

CALENDAR

- TOPIC:** Some Algorithms for the Selection of Variables in Hierarchical Cluster Analysis
SPEAKER: Dr. E. B. Fowlkes, Bell Laboratories, Murray Hill, New Jersey
DATE AND TIME: Tuesday, November 8, 1983; 12:30-2:00 p.m.
LOCATION: Room GJ-015, Forrestal Building, 1000 Independence Avenue, S.W.,

- TOPIC:** Workshop on Federally Funded Surveys
ORGANIZER: Don King, King Research Inc.
DATE AND TIME: Monday, November 14, 1983; 1:00-4:00 p.m.
LOCATION: IRS Auditorium, 1111 Constitution Ave., N.W.
Continued on Nov. 21 and 28. SEE GREEN FLYER FOR DETAILS OR CALL 881-6766

- TOPIC:** Measuring Investors' Perception of the Risk Associated With Investments in Nuclear Power
SPEAKER: James G. Hewlett, EIA, Department of Energy
CHAIR: Ben Klugh, SRS, U.S. Department of Agriculture
DATE AND TIME: Tuesday, November 15, 1983; 12:30-2:00 p.m.
LOCATION: Room GJ-015, Forrestal Building, 1000 Independence Avenue, S.W.

- Shirley Kallek's Contribution to Economic Statistics**
- PARTICIPANTS:** Milton Eisen, Estela Dagum, C. Louis Kincannon
CHAIR: Janet Norwood
DATE AND TIME: Wednesday, November 16, 1983; 12:30-2:00 p.m.
LOCATION: Auditorium, Labor Dept., 200 Constitution Ave., N.W.
CO-SPONSOR: Caucus for Women in Statistics

- TOPIC:** Prediction for a Compound-Poisson-Multinomial Process
SPEAKER: Dr. Sidhartha Dalal, Bell Laboratories, Murray Hill, New Jersey
DATE AND TIME: Tuesday, November 29, 1983; 12:30-2:00 p.m.
LOCATION: Room GJ-105, Forrestal Building, 1000 Independence Avenue, S.W.

- TOPIC:** Statistical Information Systems for Monitoring the Well-Being of Children and Families: Policy Relevance, Current Status, and Prospects
SPEAKER: Donald J. Hernandez, Georgetown University
DATE AND TIME: Wednesday, November 30, 1983; 12:30-2:00 p.m.
LOCATION: IRS Auditorium, 1111 Constitution Avenue, N.W.

- TOPIC:** Nonparametric Multiple Comparisons: The State of the Art
SPEAKER: Dr. G. Campbell, DCRT, NIH
DATE AND TIME: Thursday, December 1, 1983; 12:00-2:00 p.m.
LOCATION: Room E, Landow Building, 7910 Woodmount Avenue, Bethesda, Maryland

- TOPIC:** Modeling Bivariate Data
SPEAKER: Ingram Olkin, Stanford University and National Bureau of Standards
DATE AND TIME: Friday, December 2, 1983; 12:30-2:00 p.m.
LOCATION: Rooms 413-414, George Washington University Marvin Center, 800 21st St., N.W.

- TOPIC:** Birthday/Holiday Program for Morris Hansen
DATE AND TIME: Thursday, December 15, 1983; 5:30-8 ish
LOCATION: GWU Faculty Club, 21st Street, N.W. between H and I
SEE GREEN FLYER FOR DETAILS

PROGRAM ABSTRACTS

TOPIC: Some Algorithms for the Selection of Variables in Hierarchical Cluster Analysis
ABSTRACT: This presentation is concerned with the problem of selecting variables that are important in accounting for cluster structure in multivariate data. It proposes two classes and three types of algorithms for variable selection in hierarchical cluster analysis. The two classes comprise fully automated algorithms, where selection is made using suitably chosen summary statistics, and partially automatic, where the data analyst is allowed to guide the selection. The three types of algorithms are forward selection, backward elimination, and guided selection. The performance of the algorithms on a wide variety of data sets was studied through simulation experiments. An extended example of forward selection is also given.

TOPIC: Measuring Investors' Perception of the Risk Associated With Investments in Nuclear Power
ABSTRACT: The economic and statistical problems in measuring both the financial risk of an investment and the relationship between risk and the level of returns required by investors will be discussed. The context of estimating investors' perception of the risk associated with investments in nuclear power will be discussed. It will also include how investors' risk perceptions were affected by the accident at Three Mile Island and how investor risk perceptions will affect the cost of capital for investments in nuclear power and thus the relative cost of the nuclear power technology.

TOPIC: Shirley Kallek's Contribution to Economic Statistics
ABSTRACT: Shirley Kallek died last May after a long and distinguished career in economic statistics. Her last position was Associate Director for Economic Fields at the Census Bureau. Three colleagues who knew her well through the years will talk on the contributions she made to the development and administration of statistical programs.

TOPIC: Prediction for a Compound-Poisson-Multinomial Process
ABSTRACT: Prediction of random events on observed data is the primary objective in a wide variety of applications of stochastic models. This presentation is concerned with prediction problems for a process where each individual in a population gets n opportunities and at each opportunity one of k distinct events occur. The process is modeled as a two-stage Poisson-multinomial process where the number of opportunities is assumed to be Poisson and the vector of outcomes is assumed to be multinomial. An application to accident data is discussed.

TOPIC: Statistical Information Systems for Monitoring the Well-Being of Children and Families: Policy Relevance, Current Status, and Prospects
ABSTRACT: Fundamental changes in American society and in the policies of the government during recent decades have had major effects on the well-being of children and their families. This presentation describes (1) major statistical systems and important knowledge which they have provided about the well-being of children and families; (2) federal policies to which these systems and the resulting knowledge are particularly relevant; (3) implications of actual and proposed changes in the federal budget for these systems and for the scientific infrastructure for research on children and families; and (4) recommendations for maintaining and improving these systems.

TOPIC: Nonparametric Multiple Comparisons: The State of the Art
ABSTRACT: The area of multiple comparisons is explored in the context of the special problems that nonparametric statistics introduce. Particular attention is focussed on stepwise procedures in the one-way layout. Control of the various types of errors as well as power comparisons are investigated for a variety of nonparametric procedures using Monte Carlo simulations.

TOPIC: Modeling Bivariate Data
ABSTRACT: Regardless of the criterion used, the standard multivariate distribution is the natural extension of the univariate normal distribution. However, this is not the case for non-normal distributions, and indeed, there are many ways to build dependencies into a model. The present talk provides a survey of methods for generating bivariate distributions with given marginals. Some new results dealing with the bivariate binomial, Poisson, and Gamma distributions will be mentioned.

WASHINGTON STATISTICAL SOCIETY
STATEMENT OF INCOME AND EXPENDITURES
FOR SEPTEMBER 17, 1982 to AUGUST 17, 1983

On Hand September 16, 1982..... \$ 5,632.35

Receipts

1.	Dues collected.....	\$ 5,571.00	
	a. through ASA.....	\$ 5,383.00	
	b. through local associates.....	188.00	
2.	Interest.....	270.89	
3.	WSS Tutorial.....	760.00	
4.	Dinners.....	2,834.75	
	Total Receipts.....	9,436.64	
	Total Operating Funds.....		\$15,068.99

Expenses

1.	Newsletter.....	\$ 6,240.63	
	a. Graham Letter Service.....	\$ 4,462.36	
	b. Postage.....	1,186.27	
	c. ASA addressing charge.....	486.00	
	d. Typing.....	106.00	
2.	Graduate Student Scholarship Awards.....	84.00	
3.	Society letterhead.....	81.23	
4.	WSS Tutorial.....	127.20	
5.	Stamps, box rent.....	302.70	
6.	Dinners.....	2,734.47	
	Total Expenses.....	9,570.23	
	Difference, operating funds minus expenses.....		\$ 5,498.76

National Permanent Federal Savings & Loan..... \$ 5,498.76

WSS SHISKIN AWARD

On Hand September 16, 1982..... \$ 3,866.55

Receipts

1.	Contributions.....	\$ 200.00	
2.	Interest		
	First Variable Rate Fund.....	327.31	
	Total Receipts.....	527.31	
	Total Operating Funds.....		\$ 4,393.86

Expenses

1.	1983 Award to Beatrice Vaccara Fund.....	\$ 250.00	
2.	Annual dinner (4 persons).....	59.00	
	Total Expenses.....	309.00	
	Difference, operating funds minus expenses.....		\$ 4,084.86

First Variable Rate Money Market Fund..... \$ 4,084.86

Bennie A. Clemmer
Treasurer

I have examined the Treasurer's Report of the Washington Statistical Society for the period September 17, 1982 to August 17, 1983. The examination was made in accordance with generally accepted auditing standards. In my opinion, the report presents fairly the cash receipts and disbursements of the Washington Statistical Society for the period September 17, 1982 to August 17, 1983.

Ron Fecso
Chair, Audit Committee

SPECIAL PRESENTATION WORKSHOPS ON FEDERALLY FUNDED SURVEYS

Professional statisticians and survey researchers have been greatly concerned in recent years about the deteriorating quality of surveys conducted under Federal sponsorship. One of the key points of failure has been a lack of understanding and appreciation by Federal contract officers and project monitors concerning the intricacies of conducting high quality surveys. Last year the Washington Statistical Society sponsored a highly successful three-half-day workshop for Federal project monitors and contract officers, in order to help them conduct their difficult task better. The workshops are being repeated for those who could not attend last year or who missed one or two of the meetings. The purpose of the workshops is not to make these persons qualified statisticians and survey researchers, but rather to help them understand the details of survey research better and to point out things they should look for in monitoring survey projects.

These free workshops will be held in the Internal Revenue Service Auditorium, 12th & Constitution Avenue, N.W., Washington, D. C. The schedule is as follows:

Monday, November 14 (1-4 p.m.) - A workshop on the design of surveys (research design, sample design and questionnaire design) and fieldwork (personal interviews, telephone interviews and self-administered questionnaires).

Monday, November 21 (1-4 p.m.) - A workshop on data processing (receipt, coding and editing, input and computer tabulation) and analysis of results (statistical analysis and modelling, interpretation of results, and presentation of results).

Monday, November 28 (1-4 p.m.) - A workshop on preparing study requirements and writing a Request for Proposal.

This notice serves two purposes:

- (1) Members of the Washington Statistical Society are invited to attend the Workshops.
- (2) Members of the WSS are asked to distribute this notice to non-members who are known to be interested in Federally-sponsored survey research projects.

The workshop is considered to be vital to all those involved with Federally-funded survey research. For further details, contact Mr. Donald W. King or Ms. Helen Kurtz, King Research Inc., (881-6766) 6000 Executive Boulevard, Rockville, Maryland 20852.

CALL TO GOVERNMENT AGENCIES FOR PROBLEM FOR COMPETITION IN DATA ANALYSIS

The Methodology Section of the Washington Statistical Society is planning a competition in data analysis. If a suitable problem can be identified, it will be made available to interested analysts in the Washington area. Upon submission, given an adequate response, the analyses will be judged and the winners announced and given the opportunity of presenting their results at a joint meeting of the WSS.

We are asking government agencies to provide the suitable problem. This problem must be typified by the analysis of a data set with fewer than 250 observations and six variables per observation so that the data set can be entered by hand into a computer system.

As a result, we expect that a government agency will receive a well-thought-out answer to an interesting problem and some analysts will receive recognition for their efforts in solving the problem. For additional information contact Michael Cohen (301) 585-8181.

CORRECTION

Professor Thomas Banchoff of Brown University will speak on the Fourth Dimension, computer animated geometry and multidimensional statistics at George Washington University Marion Center, Rooms 410-415, 800 21st Street, N.W., Washington, D.C. The time was inadvertently listed in last month's newsletter as 12:30. The correct time is 1:00 p.m. The meeting is cosponsored with the GWU Department of Operations Research.

NATIONAL CENTER FOR HEALTH STATISTICS SEMINARS

TOPIC: Integration of Sample Design for National Survey of Family Growth with Health Interview Survey
SPEAKER: Joseph Waksberg, Vice President, WESTAT
DATE & TIME: Thursday, November 17, 1983; 1:30 - 2:30 p.m.
LOCATION: Center Building, Room 7-32, 3700 East-West Highway, Hyattsville, Maryland
ABSTRACT: Sampling methods for the health interview survey are about to be revised to permit its use as a sampling frame for other NHCS surveys. Research into alternate methods of application to national survey of family growth will be described, including the effects on sample size, field procedures, cost, response rates, time schedule and potential administrative problems.

TOPIC: Designing an Integrated Multi-Purpose Sample Survey
SPEAKER: Fred A. Vogel, Chief, Methods Staff, Estimates Division, USDA
DATE & TIME: Wednesday, November 30, 1983; 1:30 - 2:30 p.m.
LOCATION: Center Building, Room 7-32, 3700 East-West Highway, Hyattsville, Maryland
ABSTRACT: A proposed plan to integrate several single purpose sample surveys into a multi-purpose multiple frame survey design will be discussed. Difficulties encountered—both practical and theoretical—will be evaluated.

For further information, call the Office of Research and Methodology (301) 436-7111

BUREAU OF LABOR STATISTICS SEMINARS

TOPIC: Is Victimization Catching? A Bayesian Analysis of Multinomial Missing Data
SPEAKER: Joseph B. Kadane, Carnegie Mellon University
DATE & TIME: Friday, November 4, 1983; 2:00 - 3:00 p.m.
LOCATION: GAO Auditorium, 7th Floor, 441 "G" Street, N.W., Washington, D. C.
ABSTRACT: This seminar will discuss a paper which analyzes, using Bayesian methods, a simple data set concerning successive criminal victimizations drawn from the National Crime Survey. Missing interview data is explicitly taken into account in the analysis, leading to substantial computational difficulties.

TOPIC: Conditional Coverage Properties of Finite Population Confidence Intervals
SPEAKER: Richard Royall, Johns Hopkins University
DATE & TIME: Thursday, December 1, 1983; 2:00 - 3:00 p.m.
LOCATION: GAO Auditorium, 7th Floor, 441 "G" Street, N.W., Washington, D. C.
ABSTRACT: Empirical studies reveal disturbing properties of confidence intervals for ratio and regression estimators.

Please contact Al Tupek at 523-1850, if you plan to attend either seminar.

FELLOWSHIP ANNOUNCEMENT

American Statistical Association/Census Bureau Research Fellowships and Traineeships beginning September 1, 1984. Positions at Census Bureau for one year or shorter period. Unique opportunity to make major advances in methodology and applications in such areas as (1) decennial census undercount adjustment, (2) survey of income and program participation (SIPP), (3) statistical quality control for censuses and surveys, (4) statistical computing, (5) survey methodology, (6) social and demographic studies, (7) economic data and methodology, (8) development of time series methods, or (9) special studies. Requirements: for Fellows, PH.D. and research record in relevant field (e.g., Stat., Demography, Sociology, Econ., Bus., Comp. Sci.); for Trainees, at least two years graduate study in relevant field. Salary commensurate with qualifications and experience; also, fringe benefits and travel allowance. Apply by January 1, 1984 for Fellows and March 15, 1984 for Trainees. For application information contact Dr. William Bell, Coordinator, ASA/Census Research Program, Room 3524-3, Statistical Research Division, Bureau of the Census, Washington, D. C. 20233 ((301) 763-3848).

EMPLOYMENT COLUMN

Deadline for inserting notices is the first of the month preceding 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

Operations Research/Mathematical Statistician Excellent opportunity for professional growth with a small, high-quality internal consulting group in the CIA. Position involves the development of advanced operations research/statistical techniques and their application to a wide variety of intelligence problems--military, economic, political, scientific/technical. Applicants should be knowledgeable in sampling theory, econometric techniques, non-linear and integer optimization techniques and "impressionistic" multivariate techniques. Projects involve research at the state-of-the-art. Candidates should be US citizens, have a Ph.D in operations research, statistics, or related field (undergraduate degree in engineering a plus), zero to ten years experience, a working knowledge of at least one high-level computer language and the ability to present ideas well in oral and written form for both technical and non-technical clients. Some travel required. Salary range \$29,000-\$40,000 commensurate with training and experience. Forward resume, graduate transcript, and samples of writing to: Personnel Representative, Department A, Room 821 (LQ), P. O. Box 1925, Washington, D. C. 20013.

Mathematical Statistician GS-9/11 Incumbent performs statistical analysis including sampling theory and estimation procedures on a broad range of problem definitions and develops and executes mathematical statistical studies for solution of problem areas investigated. Knowledge of sampling and survey methods required; computer programming and software packages highly desired. Applicants should contact Andrew P. Klugh (202) 632-4804, Work Force Analysis and Statistics Division, Compliance and Investigations Group, Office of Personnel Management, Washington, D. C. 20415

Risk Assessment Specialist/Biostatistician GS 1530-13. Salary range \$34,930-\$45,406. Join statistical group supporting Toxicology Branch, Office of Pesticide Programs, Hazard Evaluation Division, for evaluation of carcinogenicity, mutagenicity, and/or reproductive hazards reported in toxicological studies with emphasis on the QUANTITATIVE ASSESSMENT OF IMPLIED RISK TO HUMANS. Announcement # EPA 3-OPP-208. Current Federal employment not required, Closing 12/31/83. Send 171 to Lucy Tanner, PM 226, Room 3020, Office of Personnel, EPA, 401 M Street, S. W., Washington, D. C. 20460.

JOB APPLICANTS

Listed below is a brief description of the qualifications of applicants seeking employment. Employers interested in interviewing these applicants 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 NUMBER: 83-11-01

Position wanted: Mathematical Statistician GS 1530-12/13 in Washington, D. C. area.

Education: Masters degree, GWU 1981

Experience: 15 years Federal Government: (physical) systems reliability; acceptance sampling and quality control; large-scale computerized database; reports; precise time and time interval.

Objective: Applied math/stat in R & D environment.

Area of interest: Multivariate analysis and multiple time series analysis.

CODE NUMBER: 83-11-02

Position wanted: Statistician GS 12/13, or equivalent in private industry in Washington, D. C. area.

Education: MS applied statistics, 3-1/2 years experience as mathematical statistician.

Experience: Involvement in all phases from project design to final report. Background in General Linear Models, regression, ANOVA, multivariate analysis, non-parametrics, questionnaire design. Experience with Fortran and major statistical packages.

Area of interest: Modelling and multivariate analysis.

INTERNAL REVENUE SERVICE - STATISTICS OF INCOME SEMINAR

TOPIC: Highlights on the 1981 SOI--Individual Income Tax Returns Publication
SPEAKERS: Terry M. Smith and Richard Thompson
CHAIR: Richard Hillelson
DATE & TIME: Monday, November 7, 1983; 1:00 - 2:00 p.m.
LOCATION: 1201 E Street, N.W., Room 806B
ABSTRACT: This seminar highlights information contained in the annual report of the SOI-Individual Income Tax returns Publication for Tax Year 1981.

American Statistical Association/Census Bureau Fellows and Trainees for 1983-84

The 1983-84 American Statistical Association/Census Bureau Fellows are Robert Miller, Associate Professor of Business and Statistics at the U. of Wisconsin-Madison; Peter Zdrozny, Assistant Professor of Economics at the U. of Houston; and Colm O'Muircheartaigh, Lecturer in Statistics at the London School of Economics and Consultant to the International Statistical Institute (World Fertility Survey).

The announcement for the 1984-85 program is located elsewhere in the Newsletter.



AMERICAN STATISTICAL ASSOCIATION
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