



NOVEMBER 1985

WASHINGTON
STATISTICAL
SOCIETY

NEWSLETTER

Calendar

October 30	Wednesday	A Markov Chain Model for Illinois Corn Yields
November 6	Wednesday	The Job Applicant Flow Problem: A Systematic Approach
November 8	Friday	Statistical Methods for Longitudinal Studies
November 12	Tuesday	Trends in Racial Occupational Inequality in the United States, 1940-1980
November 14	Thursday	Recent Developments in Modeling the Structure of Multiple Time Series
November 15	Friday	FEE EVENT: Short Course on Generalized Linear Models
November 20	Wednesday	Latent Class Models for Measurement
November 21	Thursday	Prevalence and Incidence of Psychiatric Disorders--The Epidemiologic Catchment Area Program
November 22	Friday	Epidemiologic Surveys of Cancer in High Risk Areas
December 3	Tuesday	Revenue Estimating by Treasury: The Art and Science
December 11	Wednesday	FEE EVENT: WSS Holiday Party
December 19	Thursday	FEE EVENT: Shortcourse: A 'Hands-on' Review of Statistical Software for Micro Computers

September Board Meeting Notes

One of the special topics at the September meeting of the WSS Board of Directors was whether to continue our affiliation with NCAPS (National Council of Associations for Policy Sciences). NCAPS publishes a combined calendar of member organization professional meetings and strives to hold one or two workshops a year of interest to members. The Board agreed to maintain our affiliation and try and provide publicity on programs of other societies when we are informed in time.

The Board decided also to participate in science fairs at local county and District of Columbia high schools. Volunteers from the Society will be needed to act as judges. Our prize will probably be a statistics book relevant to high school age students.

Another item of discussion was the possibility of renting selected ASA Distinguished Professor video tapes for multiple showings to our members.

WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

Agriculture & Natural Resources

Fred A. Vogel 447-3638
Gary Liberson 363-7140

Economics

Bette S. Mahoney 697-5655
Wray Smith 528-2772

Physical Sciences and Engineering

Seymour Selig 334-3522
Nozer Singpurwalla 676-7515

Public Health & Biostatistics

Jai Choi 436-7047
GooLoo Wunderlich 245-2100

Social & Demographic Statistics

Lee-Ann C. Hayek 357-1587
Donald J. Hernandez 763-7950

Statistical Computing

Harry Foxwell 872-8058
Ron Steele 475-3483

Short Courses

Virginia deWolf 275-5801
Josefina Lago 251-1500
Andrew A. White 436-7022

Methodology

Cathryn Dippe 523-1874
Mary Mulry-Liggan 763-7140

Newsletter Editor

Julia Oliver 252-5744

Employment

Evelyn Kay 331-1153

PROGRAM ABSTRACTS

TOPIC: A Markov Chain Model for Illinois Corn Yields
SPEAKER: Thomas R. Birkett, U.S. Department of Agriculture
DATE AND TIME: Wednesday, October 30, 1985; 12:00-2:30 p.m.
LOCATION: Room 5152 South Agriculture Bldg., 12th and Independence Ave., S.W.
ABSTRACT: An irreversible absorbing Markov chain is fit to USDA corn objective yield data. The variables normally used as the predictor variables in a regression model are used to define the transient states of the Markov chain. The absorbing states are discrete classes of gross yield.

TOPIC: The Job Applicant Flow Problem: A Systematic Approach
SPEAKER: Chap Gleason, Department of Justice
CHAIR: Arthur Kirsch, George Washington University
DISCUSSANT: Stephan Michaelson, Econometric Research, Inc.
DATE AND TIME: Wednesday, November 6, 1985; 1:15-2:30 p.m.
LOCATION: West End Library (small conference room) 24th and L Streets, N.W.
ABSTRACT: In studies of employer practices in selecting employees, the statistician is often given some historical data on job applicants (selected and not selected) and asked "Is there adverse impact against members of a minority group or against women?" The lack of suitable models for the employment practices of firms has led to a host of ad hoc studies in the employment discrimination field. In contrast, a step-by-step procedure, in flow diagram form, is proposed to aid in the choice of appropriate statistical models for employer hiring practices and analysis of the applicant flow problem. A flow diagram and available computer programs will be reviewed.

TOPIC: Statistical Methods for Longitudinal Studies
SPEAKER: Scott Zeger, Johns Hopkins University
CHAIR: Dan Kasprzyk, Bureau of the Census
DISCUSSANT: L. J. Wei, George Washington University
DATE AND TIME: Friday, November 8, 1985; 12:30 - 2:00 p.m.
LOCATION: GAO Auditorium, 441 G Street, N.W., (Please call 523-1874 if you plan to attend in order to assure building entrance.)
ABSTRACT: This talk focuses on two complementary approaches to the analysis of longitudinal studies. First, random effects models for Gaussian and categorical data are useful in studies of time patterns such as growth (Laird and Ware, 1982; Stiratelli, Laird and Ware, 1984). Alternatively, when the correlation across time is viewed as a nuisance, for example in the study of chronic disease, a recent extension of generalized linear models (McCullagh and Nelder, 1983) to the longitudinal data setting is available (Liang and Zeger, 1985; Zeger and Liang, 1985).

TOPIC: Trends in Racial Occupational Inequality in the United States, 1940-1980
SPEAKERS: Omer Galle and Mark Fossett, ASA Special Projects, Bureau of the Census
CHAIR: Donald Hernandez, Bureau of the Census
DATE AND TIME: Tuesday, November 12, 1985; 1:00 - 2:30 p.m.
LOCATION: Martin Luther King Memorial Library, Room A-5, 901 G Street, N.W.
ABSTRACT: Trends in occupational inequality between black and white males are explored at the national, regional, and metropolitan area level. Migration is a major factor in the national decline in inequality between 1940 and 1980. For metropolitan areas, economic growth does not appear to have a mitigating effect on inequality.

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PROGRAM ABSTRACTS (CONTINUED)

TOPIC: Recent Developments in Modeling the Structure of Multiple Time Series
SPEAKER: George Tiao, University of Chicago
CHAIR: William Bell, Bureau of the Census
DATE AND TIME: Thursday, November 14, 1985; 6:30 - 8:00 p.m. (NOTE TIME!)
LOCATION: Cocheran Hall, Room 101, George Washington University, 725 21st St., N.W.
ABSTRACT: This talk presents recent work in the analysis of multiple time series. Methods are presented which address two issues: 1) a test for specifying the order of a vector ARMA process; and 2) the use of canonical correlations to find simple structures hidden in the vector process. The main results of the theory apply to homogeneously nonstationary processes, so the differencing problem in multiple time series modeling is resolved.

TOPIC: Latent Class Models for Measurement
SPEAKER: Clifford Clogg, Pennsylvania State University
CHAIR: Clyde Tucker, Bureau of Labor Statistics
DISCUSSANT: C. Mitchell Dayton, University of Maryland
DATE AND TIME: Wednesday, November 20, 1985; 10:00 - 11:30 a.m. (NOTE SPECIAL TIME)
LOCATION: GAO Auditorium, 441 G Street, N.W., (Please call 523-1874 if you plan to attend in order to assure building entrance.)
ABSTRACT: Latent class models of various kinds can be used not only to group observations into homogeneous categories, but also to assign numerical scores to response patterns in the data. Scaling methods that can be applied in latent class analysis will be presented. Some of these models and methods can be considered with a modified version of the MLLSA (Maximum Likelihood Latent Structure Analysis) computer program. Several examples are analyzed for illustrative purposes.

TOPIC: Prevalence and Incidence of Psychiatric Disorders--The Epidemiologic Catchment Area Program
SPEAKERS: Darrel Regier, National Institute of Mental Health; William Eaton, Johns Hopkins University, and Jerome Myers, Yale University.
CHAIR: Ben Locke, National Institute of Mental Health
DISCUSSANT: Earl Pollack, Pollack Associates Ltd.
DATE AND TIME: Thursday, November 21, 1985; 12:30 - 2:00 p.m.
LOCATION: Conference Room 503A, Humphrey Building, 200 Independence Ave., S.W.
ABSTRACT: The Epidemiologic Catchment Area (ECA) program sponsored by the National Institute of Mental Health is the largest psychiatric epidemiologic study ever conducted in the United States. Five sites are involved and the total sample size is about 20,000. Following a brief overview of the ECA program, problems in the definition and measurement of prevalence and incidence of psychiatric disorders will be presented. Preliminary prevalence data for specific psychiatric disorders (schizophrenia, depression, anxiety, alcoholism, antisocial personality, etc.) by age, sex, and race will be presented and discussed.

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PROGRAM ABSTRACTS (CONTINUED)

TOPIC: Epidemiologic Surveys of Cancer in High Risk Areas
SPEAKER: William Blot, National Cancer Institute
CHAIR: Joel Kleinman, National Center for Health Statistics (NCHS)
DISCUSSANT: Catherine Woteki, NCHS
DATE AND TIME: Friday, November 22, 1985; 1:30 - 3:30 p.m.
LOCATION: Room 1-23, Center Building, 3700 East West Highway, Hyattsville, MD
ABSTRACT: The National Cancer Institute has launched a series of epidemiologic investigations in areas of the United States and abroad at high risk of cancer. This presentation will describe the step-wise approach in which routinely or specially collected mortality data are used to generate leads concerning potential environmental risk factors, correlation studies using aggregate data help to narrow and refine these hypothesis, and case-control or cohort studies then test them in detailed studies in areas at unusual cancer risk. Examples will highlight investigations of lung, esophageal, and other cancers in the United States and China.

TOPIC: Revenue Estimating by Treasury: The Art and Science
SPEAKER: Howard Nestor, Office of Tax Analysis, U.S. Treasury
CHAIR: Lynda T. Carlson, Energy Information Administration
DISCUSSANT: Rosemary Marcus, Congressional Budget Office
DATE AND TIME: Tuesday, December 3, 1985; 12:30 - 2:00 p.m.
LOCATION: Forrestal Building, Room 1E-245, 1000 Independence Ave., S.W.
ABSTRACT: The Treasury Department is responsible for developing estimates of revenue impacts of various budget and tax proposals. This year with the various tax reform proposals, Treasury's estimates have come under scrutiny. Alternative revenue estimates for the same tax proposals have been developed by various groups such as the Congressional Budget Office. Mr. Nestor will describe how Treasury develops its estimates.

OTHER ANNOUNCEMENTS

Fellowship Announcement

American Statistical Association/NSF/Census Bureau Research Fellowships and Associateships beginning around September 1, 1986. Positions at Census Bureau for one year or shorter period. General areas for research are social and demographic studies, economic measurement and analysis, and statistical methodology and computing. Requirements: for Fellows, Ph.D. and research record in relevant field (e.g. Demography, Sociology, Statistics, Economics); for Associates, at least two years graduate study in relevant field. Salaries are commensurate with qualifications and experience; also fringe benefits and a travel allowance are provided. Apply by January 1, 1986 for Fellows and February 15, 1986 for Associates. For information, contact Dr. Daniel Kasprzyk, Special Assistant for SIPP Research, Room 2024-3, Population Division, Bureau of the Census, Washington, D.C. 20233 (301-763-5784).

Washington Modelers' Invitational

The Washington Modelers' Invitational will be held Saturday, February 22, 1986 at Virginia Tech's Falls Church campus. Prizes will be awarded for best modeling talk, best unsolved modeling problem, best simulate-off solution and best student entry. For details, call or write Pete Malpass, Contel, 12015 Lee-Jackson Highway Fairfax, Va 22033-3346. (703) 359-7568.

WANTED: Information on the History of WSS

As mentioned in the last newsletter, 1986 is the 60th anniversary of the Washington Statistical Society. Nancy Kirkendall is compiling a history of the Society. She has received the history prepared in 1972 by Albert Mindlin which will be an excellent starting point. If you have interesting and/or noteworthy items which should be included, please call her at 252-2276.

EMPLOYMENT COLUMN

Deadline for inserting notices is five (5) weeks before the publication date

Send notices and requests to:
Evelyn R. Kay
520 22nd Street, N.W.
Washington, D.C. 20037 202/331-1153

JOB OPENINGS

Senior Statistical Analyst

Potomac Electric Power Company has a position available for a Senior Load Research Analyst in the Load Research Department. This department conducts studies of our customers' electricity usage patterns. The requirements for the position are as follows: a graduate degree or equivalent experience in Statistics, Economics, or Business Administration; several years of relevant experience, demonstrating project management capabilities; strong background in sampling theory and/or econometrics; and a working knowledge of statistical software packages.

To apply, please send your resume and salary requirements to: Ms. Pam Myrick, Personnel Department, Box JB, Potomac Electric Power Company, Washington, D.C. 20068.

Mathematical Statistician GS-1529/12/13

MS or Ph.D. in statistics with extensive knowledge and experience in the application of probability theory, statistical theory, and theory of experimental design. Requires knowledge of advanced univariate and multivariate statistical methods, nonparametric methods, FORTRAN programming, and use of statistical analysis software packages. Send SF-171 to: Ms. Patricia A. Reissig, Administrative Support Division, U.S. Army Concepts Analysis Agency, 8120 Woodmont Avenue, Bethesda, Maryland 20814-2797, or call (202) 295-1630.

Faculty Position--George Washington University

The Department of Statistics/Computer and Information Systems at the George Washington University has an opening for an Assistant Professor, tenure accruing, in the computer and information systems area. The position requires a Ph.D in Computer Science or a closely related area. Applicants for this position should show evidence of excellence in teaching and research in computer science, with an interest in the interface between computer science and statistics desirable. Interested candidates should apply to: The Chairman, Search Committee, c/o Professor S. W. Greenhouse, Department of Statistics/Computer and Information Systems, George Washington University, Washington, D.C. 20052.

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EMPLOYMENT COLUMN (CONTINUED)

JOB APPLICANTS

Listed below are 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: 86-04

Position wanted: Mathematical Statistician GS 12/13, in DC area.

Education: Masters degree, GWU 1981

Experience: 20 years with Federal Government: (physical) systems reliability, acceptance sampling and statistical quality control, large-scale computerized data bases, SAS/SAS/Graph, reports, precise time and time interval, math stat models for risk assessment, regression analysis (GLM).

Objective: Applied math stat in R&D environment.

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



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