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AMERICAN STATISTICAL ASSOCIATION



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NEWSLETTER - MAY 1978

May 2 Open WSS Board Meeting

May 9 Alternative Methods of Adjusting for Heteroscedasticity in Growth Data

May 11 A Modern Approach to Database System Design for Statistical and Policy Research Applications

Presenting and Communicating Official Statistics May 17

National Ambulatory Medical Care Survey

A Two-Stage Minimax Procedure with Screening May 26 for Selecting the Largest Normal Mean

June 7 WSS Annual Dinner

June 8 -Two Scale-free Goodness-of-fit Tests for the Exponential Distribution Based on the Sample Lorenz Curve

AGRICULTURE

TOPIC:

Alternative Methods of Adjusting for Heteroscedasticity in

Growth Data

SPEAKER:

Gregory Larsen, Statistical Research Division

Economics, Statistics, and Cooperatives Service, USDA

CHAIR:

Wendell W. Wilson, Statistical Research Division

Economics, Statistics, and Cooperatives Service, USDA

This paper discusses some techniques which are useful in adjusting for heteroscedastic disturbances common to growth data. Log transformations and weighted least squares are considered and their influence on forecasting is measured.

WHEN AND WHERE: Tuesday, May 9, 1978. 12:30-2 pm., Tower Building, Basement

Conference Room, 1401 K Street, NW, Washington, DC.

COMPUTER TECHNOLOGY

TOPIC: A Modern Approach To Database System Design for Statistical

and Policy Research Applications

SPEAKER: Robert Teitel, The Urban Institute

CHAIR: Ruth Mellen, HEW

Current statistical systems, though able to perform a wide range of descriptive and statistical procedures, are limited in their ability to process data collections with simple data relationships or data structures—usually only rectangular files. In the future, database systems for statis—tical applications will have to be able to handle large volumes of data with complex data relationships and, simultaneously, make efficient use of available computer resources.

The speaker will discuss the application of the Relational Model of data to the complex data collection now becoming typical—statistical analysis, some elements of a researcher oriented language for complex data manipulation and, time permitting, the basic implementation techniques for a future statistical database system.

WHEN AND WHERE: Thursday, May 11, 1978, 12:30-2 pm. Auditorium A,

Martin Luther King Library, 9th & G Streets, NW.

GENERAL SESSION
(Sponsored Through Methodology Section)

TOPIC: Presenting and Communicating Official Statistics

SPEAKER: Professor A.S.C. Ehrenberg, London Business School

Many tables of data are badly presented. It is as if their producers either did not know what the data were saying or were not letting on. Some precepts for improved data presentation will be discussed, with special reference to the problems of publishing official statistics. Ample time will be left for audience discussion.

WHEN AND WHERE: (Note time change) Wednesday, May 17, 1978

1:00-2:30 pm., Auditorium A, Martin Luther King Library

9th & G Streets, NW. Washington, DC.

PUBLIC HEALTH AND BIOSTATISTICS

TOPIC: National Ambulatory Medical Care Survey

SPEAKER: James E. DeLozier, Division, Health Resources Statistics, NCHS

Beulah K. Cypress, Division, Health Resources Statistics, NCHS

CHAIR: E. Earl Bryant, Statistical Methods Staff, NCHS

The National Ambulatory Medical Care Survey (NAMCS) has been in continuous operation since April 1973. As the first national probability sample survey of physicians' practices, the NAMCS is providing our first statistical profile of the public's use of physicians' services.

The speakers will present the background and methodological development of the NAMCS and discuss selected survey results. Discussion will include major methodological problems, sources of nonsampling error, analytical potential of the data, and future plans for the survey.

WHEN AND WHERE: Thursday, May 25, 1978, 12:30-2 pm. IRS Auditorium 7th floor.

1111 Constitution Avenue, NW, Washington, DC.

PHYSICAL SCIENCES AND ENGINEERING

TOPIC: A Two-Stage Minimax Procedure with Screening for Selecting the

Largest Normal Mean

SPEAKER: Professor Robert Bechhofer, School of Operations Research and

Industrial Engineering, Cornell University, Ithaca, N.Y.

CHAIR: Harry Feingold, David Taylor Naval Ship Research and Development

Center, Bethesda, Maryland

The problem of selecting the normal population with the largest mean when the populations have a common known variance will be considered. A two-stage procedure will be proposed which guarantees the same probability requirement using the indifference-zone approach as does the single-stage procedure of Bechhofer (1954). The two-stage procedure has the highly desirable property that the expected total number of observations required by the procedure is always less than the total number of observations required by the corresponding single-stage procedure, regardless of the configuration of the population means. The saving is accomplished by screening out "non-contending" populations in the first stage, and concentrating sampling only on "contending" populations in the second stage. New and improved constants to implement the procedure are provided. Savings when the two-stage procedure is used in place of the single-stage procedure will be discussed. The trade-offs when single-stage, two-stage, or fully sequential procedures are used for this problem will also be described.

WHEN AND WHERE: Friday, May 26, 1978, 12:30-2 pm. IRS Auditorium 7th floor, 1111 Constitution Avenue, NW, Washington, DC.

METHODOLOGY SECTION

TOPIC:

Two Scale-free Goodness-of-fit Tests for the Exponential

Distribution Based on the Sample Lorenz Curve

SPEAKER:

Mitchell Gail, National Institutes of Health

CHAIR:

Joseph Gastwirth, George Washington University

DISCUSSANT:

Frederick Scheuren, Social Security Administration

The mid-point of the Lorenz Curve and the Gini Index are easily computed, scale-free statistics which are shown to have good small-sample power asymptotic relative efficiency for testing the null hypothesis of exponentiality (or randomness on an interval) against alternatives important in life testing. Unlike some competing goodness-of-fit tests, these two statistics are relatively insensitive to rounding or truncation measurement errors, which is a useful robustness property.

WHEN AND WHERE: (Note time change) Thursday, June 8, 1978, 1:00-2:30 pm.

Tower Building, Basement Conference Room

1401 K Street, NW, Washington, DC.

NOTICE OF AAPOR CONFERENCE

The 33rd Annual Conference of the American Association of Public Opinion Researchers will be held in Roanoke, Virginia, June 1 - 4, 1978. Session topics relate primarily to public opinion research, including:

- * Research on social impact of environmental policies
- * Automating the survey process
- * The impact of the mass media on public opinion and public policy

For more information about the conference, call:

Margaret Weidenhamer 202/447-6202 or Chuck Cowan 301/763-5100

EMPLOYMENT COLUMN

Deadline for inserting notices is the 12th of the month preceding the publication date

Send notices and requests to: Evelyn R. Kay National Center for Education Statistics 400 Maryland Avenue SW Washington, DC 20202 202/245-8340

JOB OPENINGS

Mathematical Statistician GS-1529-11/12/13 Law Enforcement Assistance Adm Serves as coordinator of responses to the National Academy of Sciences evaluation of the National Crime Survey; designs and develops questionnaires, survey methods, interviewer training materials, sample

designs, and tabulation specifications; prepares technical assistance materials, such as memoranda, publications, user guides, and special tabulations to instruct State and local users in new applications of survey data for effective criminal justice planning; plans and directs the performance of methodological research required to the development of new surveys in areas for which data are not available; and determines and develops methods for compilation, tabulation, and presentation of statistical data from special surveys or unpublished data from prior operations or surveys.

Statistician (General) GS-1530-12/13 Law Enforcement Assistance Admi Duties include planning, execution, and monitoring of moderately complex data-collection and analysis programs and the conduct of research in statistical data concepts. Plans or helps to plan surveys, depending

upon the magnitude of the project, by proposing survey and questionnaire designs and preparing various supplementary materials which may be used for explanation and justification of the project.

For both of the above positions, send SF 171 to the Law Enforcement Assistance Administration, 633 Indiana Avenue, NW, Washington, DC 20531. Attention: Statistics Division, Dr. Charles Kindermann. 202/376-2622.

Mathematical Statistician GS-1529-12 Fish & Wildlife Service Independent and team research, and advising biologists and biometricians. Position requires strong theoretical background for developing methods of estimating migratory bird population parameters. Interest in migratory birds and

ability to work cooperatively with others are essential. Biological training desirable. Contact Fant Martin, Director, Migratory Bird and Habitat Research Laboratory, U.S. Department of Interior, Fish and Wildlife Service, Laurel, Maryland 20811. 301/776-4880, extension 335.

Statisticians GS-1530-7 through 15 Energy Information Adm Responsibilities include the application of statistical analysis principles to the collection, model development, and validation of multiple energy data-collection and reporting systems. Particular attention will be focused on assessing

the reliability, meaningfulness, and utility of these systems. Send SF 171 to the Office of Management Services, Energy Information Administration of the Department of Energy, 1200 Pennsylvania Avenue, NW, Washington, DC 20461. Room 7420.

Continued on next page

EMPLOYMENT COLUMN (continued)

Statisticians
Pan American Health
Organization

For work in the Washington office. Responsibilities include: Data compilation and analysis for study of health problems. in collaboration with computer scientists; preparation of reports. Qualifications: five years or more experience with

at least two years in health statistics; familiarity with statistical packages. Fortran, and computers; bachelor's degree, preferably in statistics or mathematics. Graduate degree desirable. Knowledge of Spanish an asset. Salary range with dependents from \$15,096 to \$19,452 and single from \$14,149 to \$18,104 annually net of taxes, with excellent fringe benefits. Send resume to Personnel Office/Recruitment, Pan American Health Organization, 525-23rd Street, NW, Washington, DC 20037.

JOB APPLICANT

Listed below is a brief description of the qualifications of an individual seeking employment. Anyone interested in interviewing this applicant should notify Mrs. Kay of his 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 are confidential.

CODE NUMBER 5-11-78

Education: PhD Statistics

Fields of competence: Sample design, survey methodology, design and analysis of

experiments. Sound programmer experienced with statistical

packages.

Experience: 1 year field data-collection; 1 year general data analysis;

4 years design and conduct of all phases of sample surveys

in agriculture and natural resources.

Salary level: GS-13/14

Type of employment: Agriculture or natural resource organization either in

government or private industry.