



WASHINGTON  
STATISTICAL  
SOCIETY

September 1986

1986: The 60th Birthday of WSS

# NEWSLETTER

September 23	Tuesday	Dun & Bradstreet Technical Economic Data Set
September 23	Tuesday	Consistency & Plausibility in Epidemiologic Analysis: An Application to Oral Contraceptives and Breast Cancer.
September 25	Thursday	Item-Outlet Sample Design for the 1987 CPI Revision
October 29&30	Wed./Thurs.	Short Course: Analysis of Survival Data (FEE EVENT)

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## This Year's Activities of the Washington Statistical Society by Daniel Kasprzyk, WSS President, 1986-1987

The Washington Statistical Society is an organization of approximately 1600 individuals. Members of the Society are employed by the Federal and Local government private research firms and academic institutions. Our specific technical interests are diverse, but our general interest is the same: to promote the use of statistics and to increase the contributions of statistics in our society. This interest is fostered, for the most part, in the varied programs of seminars and short courses offered by the WSS. This year, as in previous years, I expect no letdown in either of these activities. Even though our program chairs are energetic and industrious in developing their programs, I encourage you to call them if you have an idea for a topic or a speaker. Plans for some of this year's activities of the WSS are discussed below.

1. The WSS will continue and, I hope, expand its participation in awarding prizes at junior high and high school science fairs in the Washington Metropolitan area. Susan Ellenberg will be coordinating this event again this year. Volunteers are needed to judge the science projects on their use of statistical methodology or on an application of statistical methods to a research problem. Call Susan on 496-4836 if you are interested in helping.
2. The Society will reexamine the benefits offered to its membership; for example, while the Society does well in providing the opportunity for technical exchanges of information through short courses and seminars, it offers little in the way of other types of membership benefits, such as group purchasing, for example. The possibility of this as well as other types of membership benefits will be investigated.
3. This year will be a year of transition for the Society as two able and dedicated members will be turning over the responsibility of Secretary and Newsletter editorship to others. The Society should take the opportunity during this period of transition to reevaluate the content, form, and composition of the newsletter, as well as look to ways to further automate the newsletter process. Suggestions from members are always welcome.
4. The Society typically looks for its seminar speakers from within the metropolitan area; however, we ought to consider bringing to the metropolitan area distinguished statisticians, perhaps once a year, to speak on a topic of interest to the statistical community. The Society ought to consider videotaping the presentation and making the tape available to other ASA Chapters.

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## Activities of the Washington Statistical Society (Continued)

5. The Society ought to seriously consider the benefits of purchasing a personal computer to improve the efficiency of the Society's operations, including newsletter preparation.

These are a few of the topics the WSS Board will address this year. Don't forget, of course, to get together with your colleagues at the December Holiday Party and the annual dinner in June. I expect the WSS to have an active and productive year and hope that you can participate in many of the activities of the Society.

### PROGRAM ABSTRACTS

TOPIC: Dun & Bradstreet Technical Economic Data Set  
SPEAKER: David Kresge, Dun & Bradstreet  
CHAIR: Lynda Carlson, Energy Information Administration (EIA)  
DISCUSSANT: John Pearson, EIA  
DATE AND TIME: Tuesday, September 23, 1986; 12:30 - 2:00 p.m.  
LOCATION: Forrestal Building, Room GE-063, 1000 Independence Ave., S.W.  
ABSTRACT: Dun & Bradstreet has developed an ongoing marketing data set which is composed of detailed economic and energy-related data for a sample of over 20,000 industrial establishments. The data set is uniquely geared to modelers and analysts in providing micro level data for analysis of the industrial sector. Although geared primarily for marketing purposes, many useful insights will be available to statisticians and economists.

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TOPIC: Consistency and Plausibility in Epidemiologic Analysis: An Application to Oral Contraceptives and Breast Cancer  
SPEAKER: James Schlesselman, USUHS  
CHAIR: Brenda Edwards, National Cancer Institute  
DATE AND TIME: Tuesday, September 23, 1986; 1:30 - 3:30 p.m.  
LOCATION: Conference Room E, Landow Building, 7900 Woodmont Ave., Bethesda, MD.  
ABSTRACT: Consistency and plausibility are fundamental criteria for judging cause and effect from observation studies. They are applied to a population-based case-control study to show that a four-fold elevation in risk of breast cancer, which appeared in a group of young nulliparous women with long-term use of oral contraceptives, is not the result of cause and effect.

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TOPIC: Item-Outlet Sample Design for the 1987 Consumer Price Index Revision  
SPEAKER: Sylvia Leaver, Bureau of Labor Statistics (BLS)  
CHAIR: Curtis Jacobs, BLS  
DISCUSSANT: David Morganstein, Westat, Inc.  
DATE AND TIME: Thursday, September 25, 1986; 12:30 - 2:00 p.m.  
LOCATION: Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C.  
ABSTRACT: This talk presents models relating data collection costs and associated variance of average price change to item and outlet sample sizes for the Commodities and Services component of the Consumer Price Index (CPI). Given these models, one can regard the optimal allocation of data collection resources to minimize the overall variance of price change, subject to various budgetary constraints, as an integer nonlinear programming problem. Simplifying assumptions are given which render the problem tractable and solution methods computationally feasible. Solutions to the design problem posed under varying assumptions of annual price change and cost constraints will be discussed.

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## OTHER ANNOUNCEMENTS

### Survey Research Methods Section Symposium on Panel Surveys

The American Statistical Association Section on Survey Research Methods in cooperation with the International Association of Survey Statisticians will sponsor a Symposium on Panel Surveys at the Shoreham Hotel, Washington, D.C., on November 20-22, 1986.

Papers will cover issues of design, collection, and analysis of panel survey data; relationships between panel survey designs and survey objectives; non-sampling error issues; the treatment of nonresponse in panel surveys; statistical design and estimation; data base management for panel data; estimation of cross-sectional and change parameters; and modelling approaches to estimation and analysis.

The Organizing Committee has developed a program of invited papers covering the topics listed above. Featured participants include B. Bailar (U.S. Census Bureau), R. Folsom (Research Triangle Institute), M. David (University of Wisconsin), J.N.K. Rao (Carleton University), D. Horvitz (Research Triangle Institute), R. Fay (U.S. Census Bureau), R. Little (UCLA), J. Hoem (University of Stockholm), L. Lillard (Rand Corporation), W. Fuller (Iowa State University), and F. Scheuren (Internal Revenue Service).

The Organizing Committee is soliciting abstracts for contributed papers on topics related to panel surveys. Abstracts are due by September 15, 1986. Abstract & registration forms may be obtained by writing to: International Symposium on Panel Surveys, c/o American Statistical Association, 806 15th Street, N.W., Washington, D.C. 20005.

### Dr. W. Edward Deming to Speak to National Quality Month Reception

Dr. W. Edward Deming will speak on "Management's Role in Quality" and his new book, Out of the Crisis, at a reception sponsored by the Northern Virginia, Washington, and Baltimore sections of the American Society for Quality Control on Saturday, October 4, 1986 at the J. W. Marriott Hotel's Grand Ballroom in Washington, D.C. The Economic Minister from the Embassy of Japan will give the introduction. The reception will begin at 6:00 p.m. with Dr. Deming's presentation beginning at 7:30 p.m., followed by a question/answer period from 8:30 to 9:00 p.m. The \$40.00 per person registration fee covers Steamship round of beef, pasta, international cheese board, vegetables hors d'oeuvres, chocolate and caramel fruit fondue, and an open bar. Reservations and payment are required by September 15. Please contact Rozanne Swartz at (703) 276-2195 for reservations.

### WSS Information for Visiting ASA Members

Short-term job assignments in the field of statistics often bring visiting statisticians, economists and social-scientists to the Washington, D.C. metropolitan area. WSS would like to invite these visitors to participate in the activities of our chapter. Contact Edith McArthur at (301) 763-7958 if you are aware of visitors to our area that might like to participate in WSS activities and receive the monthly newsletter.

### WSS Members Elected AAAS Fellows

Two of members of the Washington Statistical Society were among the six members of AAAS Section U, Statistics, elected as Fellows of the American Association for the Advancement of Science by the AAAS Council at their meeting in Philadelphia on May 29, 1986. The WSS members are Frederick C. Sheuren and R. Clifton Bailey.

## ANALYSIS OF SURVIVAL DATA

Video Short Course  
Wednesday and Thursday, October 29-30, 1986

Survival data arise in many fields, especially in medical contexts and in connection with industrial life-testing and reliability. On Wednesday and Thursday, October 29-30, 1986, the Washington Statistical Society will sponsor a two-day video short course on the ANALYSIS OF SURVIVAL DATA. This is a videotape of the two-day short course presented at the 1984 annual meeting of the American Statistical Association by Dr. D. R. Cox and Dr. David Oakes. David Oakes, Associate Professor of Statistics and Biostatistics at the University of Rochester, will be present to introduce each of the course modules and to answer questions on the material. A more detailed course description is contained on the second page of this announcement.

**DATES:** Wednesday and Thursday, October 29-30, 1986

**TIME:** 9:00 a.m. to 5:00 p.m. Each day there will be a 1-1/2 hour break for lunch (on your own) and several short breaks for refreshments.

**LOCATION:** National Center for Health Statistics  
Room 1 - 39  
3700 East-West Highway  
Hyattsville, Maryland  
(about 20 minutes from downtown or Bethesda)

**FEES:** Fees include handouts and coffee breaks.

- \* WSS and ASA members.....\$ 90
- \* Nonmembers.....\$110

**REGISTRATION:** Please make check or purchase order payable to the WASHINGTON STATISTICAL SOCIETY and mail with the attached registration form to:

WSS Short Course Committee  
c/o Virginia de Wolf  
1229 Noyes Drive  
Silver Spring, MD 20910

All registration materials, including purchase order, must be received by October 23, 1986.

To receive confirmation of your registration, please enclose a self-addressed, stamped envelope with your registration material. For further information about the course content call Andrew A. White at (W) 436-7111. For questions about registration or billing call Virginia de Wolf at (W) 366-5361 or (H) 588-8812.

## TOPIC:

Survival data arise often in medical contexts and in connection with industrial life-testing and reliability. They occur in other fields, ranging from econometrics (duration of periods of unemployment) to physics (length of particle tracks). The essential feature is a response variable that is positive (usually a duration in time) and frequently subject to right censoring. The duration time can be of interest in itself; or, more commonly, analysis can focus on the effect on survival time of assigned treatment and/or uncontrolled covariates.

The presenters of this two-day course give a connected account of methods for the analysis of survival data, including discussion of recent developments. The videotaped format will be greatly enhanced by the presence of David Oakes who will amplify and clarify material as necessary, and will be available to answer questions.

The course is intended primarily for applied statisticians in research organizations and others conducting advanced applied statistical work. No detailed previous knowledge of the subject will be assumed. Some familiarity with multiple regression, the analysis of contingency tables and the method of maximum likelihood would be useful. While the underlying concepts and assumptions will be discussed, the emphasis will be on specific statistical techniques for analyzing data, not on mathematical theory.

## COURSE OUTLINE:

1. Introduction
2. Distributions of Survival Time
3. Parametric Analyses of a Single Sample
4. Life Table Methods
5. Models of Dependence: Accelerated Life, Proportional Hazards, Transient Effects, and Time-dependent Explanatory Variables
6. Parametric Analysis of Dependence
7. Nonparametric Analysis of Dependence in the Proportional Hazards Model and Logrank Test
8. Multivariate Response Times
9. Other Schemes of Observations
10. Discussion and Questions

Please enroll me in the WSS Short Course entitled ANALYSIS OF SURVIVAL DATA to be held on Wednesday and Thursday, October 29-30, 1986.

NAME: -----

ADDRESS: -----

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DAYTIME PHONE: -----

The course fee is \$90 if you are a member of either the Washington Statistical Society (WSS) or the American Statistical Association and \$110 otherwise. Please indicate your affiliation(s) and method of payment:

I am a member of:    ☐ WSS        ☐ ASA.

☐ A check in the amount of \$\_\_\_\_\_ is enclosed.

☐ A purchase order in the amount of \$\_\_\_\_\_ is enclosed.

☐ A purchase order in the amount of \$\_\_\_\_\_ has been approved and is being prepared by my organization:

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All registration materials, including purchase orders, must be received by October 23, 1986. Please make check or purchase order payable to the WASHINGTON STATISTICAL SOCIETY.

If you would like written acknowledgement of your enrollment, please enclose a stamped, self-addressed envelope. Please mail check/purchase order and this registration form to:

WSS Short Course Committee  
c/o Virginia de Wolf  
1229 Noyes Drive  
Silver Spring, MD 20910

For further information about the course content call Andrew A. White at (W) 436-7111. For questions about registration or billing call Virginia de Wolf at (W) 366-5361 or (H) 588-8812.

## EMPLOYMENT COLUMN

Deadline for inserting notices  
is 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 Mathematical Statistician: Designs and implements projects to evaluate postal human resource systems, and serves as a consultant to officials and senior staff. Applicants must demonstrate through education and experience: an extensive knowledge of statistical theory and its applications, research design and methodology, and sampling techniques; knowledge of regression analysis and multivariate procedures; ability to conduct statistical analyses with computer software packages, especially with SAS; well-developed human relations and communications skills. Desirable qualification factors include the ability to design and develop surveys and questionnaires; knowledge of IBM OS/MVS facilities as they pertain to data management and execution of statistical analysis programs; ability to write computer programs; knowledge of human resource data systems; knowledge of mathematical modeling techniques. Graduate degree preferred. Salary \$34,324 - 46,440 plus \$728 cost of living adjustment. Mail resume, SF-171 or PS 2591 to: U.S. Postal Service, Headquarters Personnel Division, 475 L'Enfant Plaza West, S.W., Washington, D.C. 20260-4264.

Operations Research/Mathematical Statistics: Position requires the development of statistical and operations research techniques and their application to a wide variety of intelligence problems--military, economic, political, scientific/technical. Many applications involve state-of-the-art research and 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, 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. U.S. citizenship is required. Washington based post with some travel. Starting salary range \$32,000 - \$38,000 commensurate with training and experience. EOE. Forward resume and graduate transcript to: Analytic Support Group, STAT/OR, Central Intelligence Agency, Department S (W40), Washington, D.C. 20505.

Cost Systems Analyst: An economist/statistician is needed to perform or assist with studies related to the analysis of revenues, volumes, and costs by class of mail. Applicants must demonstrate through education and/or experience an understanding of microeconomics and/or statistics. Experience should include analytic work incorporating computer usage and data drawn from statistical sampling systems. Experience with SAS and with IBM compatible microcomputers would be competitively advantageous. Salary range: \$30,112 - \$39,656 (+ COLA). Mail resume, SF-171, or PS 2591 to: U.S. Postal Service Headquarters, HQ Personnel Division - Room 1801, 475 L'Enfant Plaza West, S.W., Washington, D.C. 20260-4261.

Statistician: An experienced statistician is needed to perform analyses on data obtained from statistical sampling systems that estimate revenues, volumes and cost by class of mail. Applicants should have advanced training in statistics as well as a thorough knowledge of economics and computer science. Applicants should have extensive experience in performing statistical analyses using computers. An understanding of statistical sampling techniques is essential. Experience with SAS, SAS/Graph and with IBM compatible microcomputers would be competitively advantageous. Salary range: \$32,209 to \$43,442 (+ COLA). Mail resume, SF-171, or PS 2591 to: U.S. Postal Service Headquarters, HQ Personnel Division - Room 1801, 475 L'Enfant Plaza West, S.W., Washington, D.C. 20260-4261.

EMPLOYMENT COLUMN (Continued)

JOB APPLICANT

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. This 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: 87-01

Position wanted: Statistical position with diverse applications involving considerable data analysis.

Experience:

- Six years with environmental research firm analyzing aquatic field data, examining power plant impacts in marine environments; linear models, regression, nonparametrics, time series, multivariate.
- One year with hospital shock trauma research group, managing and analyzing medical data to relate physiological and anatomical parameters to mortality; multivariate methods, logistic regression
- Experience with SAS, BMDP and FORTRAN

Education: - M.Sc. in Biostatistics



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