

# Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION

W.S.S. Newsletter—November 1980

## Calendar

**W.S.S. Sponsored:**

**Topic:** Randomization Analysis of Experimental Data: The Fisher Randomization Test  
**Speaker:** Professor D. Basu, Department of Statistics, Florida State University  
**Date and Time:** Friday, November 14, 1980, 11:45 - 1:15 p.m.  
**Location:** G.W. University, Marvin Center, Room 413-414, 21st Street Between H & I Sts., N.W.

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**Topic:** The Global 2000 Report to the President  
**Speaker:** Ned W. Dearborn, Special Projects Officer, U.S. Department of Energy  
**Date and Time:** Friday, November 14, 1980, 12:30 - 2:00 p.m.  
**Location:** Federal Building, Room 3000-A, 12th & Pennsylvania Ave., N.W.

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**Topic:** Issues Regarding Undercount Adjustment of the 1980 Census  
**Speaker:** Vincent P. Barabba, Director, Bureau of the Census  
**Date and Time:** Monday, November 17, 1980, 11:30 - 1:30 (Cash bar, 11:30; Lunch, 12:00)  
**Location:** Blackie's House of Beef, 22nd & M Street, N.W. (Metro Blue/Orange Line, GWU/Foggy Bottom)  
**RESERVATIONS NEEDED.**

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**Topic:** Analyzing Complex Survey Data—Examples Involving Variance Estimation and Chi-square Adjustment  
**Speakers:** Dwight Brock, Gordon Bonham, and Jai Choi of the National Center for Health Statistics  
**Date and Time:** Tuesday, November 25, 1980, 12:30 - 2:00 p.m.  
**Location:** I.R.S. Auditorium, 1111 Constitution Avenue, N.W.

### Seminars—Other Sponsors

**Topic:** Preliminary Report, Statistics of Income—1978, Business Income Tax Returns  
**Speakers:** Bill Mudd and Ray Wolfe, Statistics Division, Internal Revenue Service  
**Date and Time:** Wednesday, November 12, 1980, 1:00 p.m.  
**Location:** 1201 E Street, N.W., Room 806B, Washington, D.C.

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**Topic:** Preliminary Report, Statistics of Income—1977, Corporation Income Tax Returns  
**Speaker:** William T. Powell, Statistics Division, Internal Revenue Service  
**Date and Time:** Friday, November 21, 1980, 1:00 p.m. - 2:00 p.m.  
**Location:** 1201 E Street, N.W., Room 806B, Washington, D.C.

DETAILED INFORMATION ON THE MEETINGS

**Topic:** Randomization Analysis of Experimental Data: The Fisher Randomization Test  
**Speaker:** Professor D. Basu, Department of Statistics, Florida State University  
**Chair:** Professor Nozer D. Singpurwalla, George Washington University  
**Co-Sponsor:** The George Washington University Departments of Operations Research and Statistics  
**Abstract:** In the current issue of JASA, Professor Basu presents a controversial and thought-provoking article on randomization analysis of data, utilizing amusing dialogues between the Scientist, the Statistician and the Author. Comments on this stimulating presentation by prominent statisticians further enliven this JASA issue. Professor Basu will elaborate on this and related matters. The audience is invited to participate in a free dialogue and expression of views.

**Topic:** The Global 2000 Report to the President  
**Speaker:** Ned W. Dearborn, Special Projects Officer, U.S. Department of Energy  
**Discussants:** John Agosta, Environmental Protection Agency; Cheryl Christensen, International Economic Division, Economics and Statistical Service, U.S.D.A.; and Paul Werbos, Office of Energy Information Validation, U.S. Department of Energy  
**Abstract:** The Global 2000 Report is the product of a three-year interagency study of probable changes in the world's population, natural resources and environment through the end of this century. It is generally concluded that, if present trends continue, the world in 2000 will be more crowded, more polluted, less ecologically stable and more vulnerable to disruption than it is now. It also found that Federal agencies are incapable of producing internally consistent projections of future events as a basis for policy decisions. Mr. Dearborn, who was closely involved in virtually all aspects of the study with particular emphasis on methodology, will discuss these conclusions, suggested improvements and needs for improvement in methodology, and some possible implications.

**Topic:** Issues Regarding Undercount Adjustment of the 1980 Census  
**Speaker:** Vincent P. Barabba, Director, Bureau of the Census  
**Abstract:** Mr. Barabba will discuss the assumptions made that provide the basis for decisions about the 1980 Census Undercount Adjustments. Also, he will highlight the complexities of the adjustment issue and the possible ramifications of the pending litigation on the Census results.  
**Reservations:** Reservations are \$6.75/person and must be received by November 14, 1980. Because space is limited, reservations will be accepted in order of receipt. Checks should be made payable to WSS.

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Name: \_\_\_\_\_ Send \$6.75/person to:  
 Address: \_\_\_\_\_ Charles Roberts  
 \_\_\_\_\_ 4501 Cheltenham Drive  
 \_\_\_\_\_ Telephone: \_\_\_\_\_ Bethesda, MD 20014

Choice of Lunch:	Steamship Round of Beef	Top Sirloin (5 oz.)	Fried Flounder
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No. of Persons: \_\_\_\_\_

For inquiries, phone: Charles Roberts Home: 654-6730  
 Work: 357-1678

**Topic:** Analyzing Complex Survey Data—Examples Involving Variance Estimation and Chi-square Adjustment  
**Speakers:** Dwight Brock, Gordon Bonham, and Jai Choi of the National Center for Health Statistics  
**Chair:** Andrew White, Survey Design Staff, National Center for Health Statistics  
**Discussant:** Frederick Scheuren, Director, Statistics Division, Internal Revenue Service  
**Abstract:** This three-part presentation demonstrates several approaches to the analysis of data from complex survey designs, using advanced statistical methods, taken by the National Center for Health Statistics. Dwight Brock of the Statistical Methods Staff will present: An Application of Weighted Least Squares to Regular Dentist Percentage Estimates from the National Health and Nutrition Examination Survey. Data from NHANES are analyzed to demonstrate the development of a factor-response model using weighted least squares with variances estimated by the method of balanced repeated replications. The modeling process is emphasized.

(Continued)

**Abstract (Continued):** Gordon Bonham of the Division of Health Interview Statistics will present: Regression Analysis using OSIRIS BRRP and SAS SURREGR—A Comparison. Data from the National Survey of Family Growth are analyzed with regression techniques using linearized Taylor series estimates of variance. The analysis is repeated using balanced replication estimates of variance. The results of the analyses are compared emphasizing the differences due to variance estimation techniques.

Jai Choi of the Statistical Methods Staff will present: Analysis of Categorical Data in Weighted Cluster Sample Surveys. A recent extension of a procedure for adjusting the usual Chi-square statistic to accommodate unadjusted data from weighted cluster sample surveys is presented. A numerical example of conducting hypothesis tests with this method is included.

#### Seminars—Other Sponsors

**Topic:** Preliminary Report, Statistics of Income—1978, Business Income Tax Returns  
**Speakers:** Bill Mudd and Ray Wolfe, Statistics Division, Internal Revenue Service  
**Sponsor:** Internal Revenue Service, Statistics Division  
**Abstract:** The Internal Revenue Service, Statistics Division, is sponsoring a seminar on the next in the series of "Preliminary Reports, Statistics of Income—1978, Business Income Tax Returns," and Bill Mudd and Ray Wolfe will present highlights of this statistical report on sole proprietorships and partnerships. Interested persons are invited to attend whether they are WSS or ASA members or not. Further information on this report may be obtained by contacting Ray Wolfe on sole proprietorships and Bill Mudd on partnerships on 376-0151. Published copies of the report will be available from the Superintendent of Documents in January of 1981.

**Topic:** Preliminary Report, Statistics of Income—1977, Corporation Income Tax Returns  
**Speaker:** William T. Powell, Statistics Division, Internal Revenue Service  
**Sponsor:** Statistics Division, Internal Revenue Service  
**Abstract:** The Internal Revenue Service, Statistics Division, is sponsoring a seminar on the Preliminary Report, Statistics of Income—1977, Corporation Income Tax Returns. William Powell will describe the time period coverage and the basis for the statistics as well as changes in law that affected the data in comparison to the year before. A major focus of the discussion will be on the statistics for the new jobs credit, which are being presented for the first time. Interested persons are invited to attend whether or not they are WSS or ASA members. Data extracts from this preliminary report may be obtained by contacting William T. Powell on 376-0170.

#### EMPLOYMENT COLUMN

Deadline for inserting notices is the 10th of the month preceding the publication date

Send notices and requests to:  
 Evelyn R. Kay—Presidential Building  
 National Center for Education Statistics  
 400 Maryland Avenue, S.W.  
 Washington, D.C. 20202 301/436-6791

#### Job Openings

**Programmer/  
 Statistician**

A small consulting firm specializing in providing litigation support has two job openings. The first is a unique position for a full-time programmer to work closely with statistical consultants and clients. Applicant should know statistical packages, JCL, and time sharing. Position requires unusual responsibility and commitment to quality work.

**Statistical Litigation  
 Consultant**

The second opening of this small consulting firm specializing in providing litigation support is for a Ph.D. in Statistics, Mathematics, or Operations Research, to provide consulting and project management services on a part-time basis for litigation support. Must be willing to provide courtroom testimony. For above two positions, send resume to Charles Mann at Charles Mann Associates, Inc., 818 Eighteenth Street, N.W., Suite 540, Washington, D.C. 20006, or call 202/466-6161.

Job Openings (Continued)

**Biostatistician/  
Environmental Statistician**

Needed for the Environmental Protection Agency's Central Statistical Analysis Staff. One year temporary GS-12 through 14 position with potential for permanent status. Ph.D. desirable. Job would entail consulting, review and evaluation of statistical issues pertaining to EPA regulations, standards and guidelines. Please call Amy Borenstein on 202/755-9010 for information and appointment.

**Advanced Statistics/  
Mathematics/Operations  
Research**

Development and application of advanced statistical techniques to a wide variety of intelligence problems. Knowledge of sampling theory, econometric regression models, non-linear optimization and "impressionistic" multivariate techniques is required. Projects involve research at state-of-the-art. Requires Ph.D. in statistics or related field and working knowledge of a high level computer language. Washington assignment with some travel required. U.S. citizenship required. Salary range \$25 - \$40,000 commensurate with training and experience. Forward curriculum vitae, graduate transcript, letters of recommendation and samples of writing to: Central Intelligence Agency, Department A, Room 821-S, P.O. Box 1925, Washington, D.C. 20013.

**Statistician GS-11  
Programmer GS-9/11/12**

The Data Management and Analysis Section of the mobile source portion of EPA's Office of Enforcement is seeking applicants for two openings, one for a mathematical statistician and one for a programmer. The statistician position requires a background in sequential sampling, survey sampling, and inference from complex sample designs. Some programming and statistical package experience is required. The programmer position requires some knowledge and/or experience in data base management procedures. We prefer a background in COBOL and FORTRAN, but will consider other combinations. Some statistical programming, including work with statistical packages would be an advantage. For either of these positions, send SF-171 or recent resume to Dr. John Holley, Field Operations and Support Division (EN-397), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C., 20460. For further information, call Dr. John Holley or Dr. Barry Nussbaum at 202/472-9356.

**Mathematical Statistician**

A large federal agency is recruiting for a senior level position in mathematical statistics located in Washington, D.C. The incumbent will participate in the development of statistical systems for a broad area of agency operations. Activities include the design of sampling plans, estimation procedures and measures of precision. Professionals with graduate training in mathematical statistics, extensive experience in sampling, experimental design and methods of statistical estimation are invited to apply. Starting salary will be from \$25,733 up, depending on qualifications and experience. To apply, forward resume with salary history to: Mrs. Peg Watson, 475 L'Enfant Plaza West, SW, Room 1727, Washington, D.C., 20260.

**Job Applicants**

Listed below are brief descriptions 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 11-2-80**

**Education:** Ph.D. in Mathematical Statistics.

**Expertise:** Multivariate analysis, regression analysis, design of experiments, sample surveys, health statistics, and their use to real-world problems. Enjoys working under pressure.

**Experience:** About 20 years' experience in the use of Mathematical and Applied Statistics in many diversified fields. For the last nine years in U.S. Government.

**Position:** Looking for a challenging and progressively more responsible position within U.S. Government, GS-15/14 level.

Mailed 10/24/80



**AMERICAN STATISTICAL ASSOCIATION**

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