

# WASHINGTON STATISTICAL SOCIETY

# NEWSLETTER

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### **ANNOUNCEMENTS**

# Preparing for Careers in Government Statistics

In 1982, the American Statistical Association Committee on Training of Statisticians for Government presented a very thorough report entitled, *Preparing Statisticians for Careers in Government*. That report presented profiles of Federal Statisticians as of late 1978 by geographic locations, by employing agency, and by race, sex, and ethnicity. The report also contained information on the types of jobs performed by Federal Statisticians and outlined the education and experience required for meeting Federal entrance requirements. Another helpful feature of the report was a summary of some of the educational opportunities available through major Federal statistical agencies.

The report made six specific recommendations to colleges and universities that offer baccalaureate and master's level programs in statistics. Those recommendations are still timely.

- 1. Institutions should offer one- or twosemester courses in statistical applications.
- 2. Institutions should offer one- or twosemester courses in sampling theory.
- 3. Institutions should require a course in missing/incomplete data techniques.
- Institutions should require demonstrated capabilities in areas of computer programming and statistical software.
- 5. Institutions should require a onesemester course in technical writing.
- Institutions should include at least one course in which students consult with subject matter specialists.

This article updates some of the information from the 1980 report. It also considers if there have been changes in job responsibilities and hiring practices since 1980.

#### WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS

Agriculture & Natural	Resources	Public Health & Biostati	stics	Short Courses	
Ron Bosecker	447-3895	Jai Choi	436-7047	Virginia de Wolf	366-5361
W. Barnes Johnson	249-7388	Mary Foulkes	496-6818	Donald Gantz	425-3931
Foonemies		•		Brad Pafford	447-2129
Economics		Social & Demographic Statistics		Glenn White	763-5248
Francis X. Diebold	452-2461	John Czalka	484-9220		1000210
Robert Yuskavage	523-0876	Harvey Schwartz	223-5555	Methodology	
Physical Sciences &	Engineering	naivey Schwartz	223-0000	Bill Winkler	252-2140
Thomas Mazzuchi	994-7514				
		Statistical Computing		David Marker	251-4398
Refik Soyer	994-6794	Khalid Aboura	994-7534		
Employment		David Grier	546-8231	Newsletter Editor	
Evelyn Kay	331-1153			Michael Cohen	454-6193

U.S. Civil Service Commission data, Tables 1 to 3, indicate that total employment of statisticians in the Federal Government declined somewhat between 1978 and 1985. Most of the change has come about in the general statistician series. The overall employment level of mathematical statisticians has remained the same, although this varies by Department or Agency. Many statistical agencies were forced to curtail some programs during the early 1980's due to Federal budget reductions. In most cases, Federal agencies adapted to the new funding and personnel ceiling levels through normal attrition without reduction-in-force actions, although some early retirement actions were used. Some programs curtailed in the early 1980's have been restored but generally at lower levels of funding and staffing.

It is quite probable that total employment in statistical agencies has declined by a greater percentage than the number of statisticians. Adoption of new technologies for word processing and personal computing has lessened the need for large support staffs in many agencies. For example, the National Agricultural Statistics Service (NASS) of USDA had 46 percent of its employees in statistician positions in 1979 but 52 percent in 1985. There was a slight decline in the number of statistician positions during that period but a 22 percent decline in other positions.

In addition to little change in the total number of mathematical statistician positions, demand has increased for mathematical statisticians in management positions as Agencies and Departments have adopted more advanced statistical procedures. Most management positions are listed in a general statistician job series. Some of the Division Chief and comparable positions at the Census Bureau in the Department of Commerce are currently staffed by individuals formerly classified as mathematical statisticians. In the NASS five of the six Executive Level positions have been filled by present or former mathematical statisticians even though only one of those positions carries a mathematical statistician classification. In early 1987, NASS had 61 persons in mathematical statistician positions plus 24 of the 393 NASS other statistician positions were occupied by former mathematical statisticians. Seventeen of those 24 people received their mathematical statistician credentials through Agency-sponsored training after starting in statistician positions.

There has always been somewhat of a cyclic pattern to total Federal statistician employment. The Bureau of the Census normally increases hiring of statisticians during the latter years of each decade in preparation for the upcoming decennial Census of Population. Thus, some of the hiring for the 1980 Census may have been represented in the 1978 figures but any increased Census hiring for 1990 would not be reflected in the 1984 or 1985 numbers.

In the following tables job series 1529 refers to mathematical statisticians while 1530 refers to the statistician job series. Tables 1 and 2 present demographic profiles of Federal statisticians. Table 3 presents a summary by employing Agency. Please note that Table 1 is based on 1984 data but Tables 2 and 3 include 1985 data.

The data for 1978 have been corrected from those presented in the 1982 report. When compiling data for this article it became apparent that extensive misclassification of individuals into the mathematical statistician series was present in the 1978 data for one Agency.

Table 1

Profile of Federal Statisticians as of Nov. 30, 1978 and Sept. 30, 1984: by Race/Ethnicity and Sex

Race/Ethnicity and Job Series	1978 Male	1978 Female	1984 <b>Male</b>	1984 Female
NEGRO/BLACK				
1529 <u>1</u> /	38	28	32	26
1530	128	146	119	173
TOTAL	166	174	151	199
HISPANIC				
1529 1/	8	5	7	8
1530	37	17	41	24
TOTAL	45	22	48	32
NATIVE AMERICAN				
1529	0	1	1	1
1530	2	1	4	3
TOTAL	2	2	5	4
ORIENTAL				
1529	33	5	53	16
1530	32	21	42	30
TOTAL	65	26	95	46
OTHER				
1529 <b>1</b> /	695	169	660	189
1530	1874	503	1661	630
TOTAL	2569	672	2321	819

<sup>1/ 1978</sup> data corrected from earlier publication

Table 2
Geographic Profile of Federal Statisticians as of Oct. 31, 1978
and Oct. 31, 1985: by Sex

Location and Job Series	1978 Male	1978 Female	1985 Male	1985 Female
WASHINGTON, D.C.				
1529	427	122	471	154
1530	1287	556	1055	616
TOTAL	1714	678	1526	770
OTHER U.S.				
1529 <u>1</u> /	371	88	281	88
1530	807	140	711	187
TOTAL	1178	228	992	275
OVERSEAS				
1529	2	0	3	0
1530	12	0	15	0
TOTAL	14	0	18	0

<sup>1/ 1978</sup> data corrected from earlier publication

Table 3
Profile of Federal Statisticians as of Oct. 31, 1978 and Oct. 31, 1985: by Employing Agency

Department or Agency	<b>1978</b> (1529)	<b>1978</b> (1530)	<b>1985</b> (1529)	<b>1985</b> (1530)
Commerce	204	1102	275	1018
HEW 1/	195	520		
HHS <b>1</b> /			186	393
Education 1/			14	63
Energy 2/			26	54
Agriculture	130	478	132	447
Army	114	81	66	86
Labor	61	115	78	83
Navy	98	61	67	64
Treasury	34	84	21	63
Other DOD	47	44	35	35
Other Departmental	48	123	31	90
TVA	143/	12	11	17
VA	15	60	20	49
EPA	22	22	19	42
ALL OTHER	28	100	16	80
TOTAL	1010	2802	997	2584

<sup>1/</sup> The Department of Health, Education, and Welfare was divided into the Department of Health and Human Services and the Department of Education. The appropriate split of 1978 data is not available.

Table 1 illustrates that the percentage of minority employees increased between 1978 and 1984 for each category except Negro/Black males. These changes probably represent a larger pool of individuals trained in statistics plus a concentrated effort on the part of Federal Agencies to hire minority candidates. There was a significant increase in the overall percentage of women statisticians, from 23.9 percent in 1978 to 29.6 percent in 1984.

The 1982 report cited above recommended a strengthening of the employment standards for the statistician series (the major requirement being 15 semester hours of mathematics and statistics with at least 6 of those hours in statistics). The Office of Personnel Management has not made any changes in the requirements. However, individual agencies may be adopting a critical view in making hiring decisions. For example, the standards allow for the consideration of courses in which 50 percent of the material is statistical in meeting the 6 semester hour requirement. If individuals who only qualified through this alternative have not performed well, agencies may not utilize this provision for future hiring.

There has sometimes been a problem in hiring applicants who have excellent potential and have completed two to four statistics courses. If an individual has taken enough mathematics in high school so no additional courses are required but the college or university only waives the mathematical requirement without granting any college credit for mathematics, the individual may not be eligible to be hired for a Federal position. This normally is not a problem for the mathematical statistician series but it can be for the statistician series.

A major change in the work of Federal statisticians has been the use of microcomputers for improved data analysis, data manipulation, and word processing capabilities. Any candidate in today's job market who does not have some microcomputer literacy is now at a disadvantage. This knowledge has replaced to some extent the 1982 recommendation of computer programming knowledge although there is now wider use of common statistical software packages.

Most persons in the statistician (1530) job series have not majored in statistics (or even completed minors in statistics). They complete a degree in some other discipline which is helpful to the employing agency and have completed at least the minimum statistics requirements at the same time. With this in mind, it is important for colleges and universities to focus on the statistical training for all disciplines, not only for the statistics and mathematics majors.

Many Federal Government agencies offer some type of summer student assistant or trainee positions when funding permits. These programs are particularly helpful in developing student interest in statistics as a career. It also allows Government agencies to perform an earlier evaluation of the abilities of prospective employees and especially is helpful in encouraging individuals to take enough statistics courses to be qualified for future positions. A recent review of the student assistant program in the NASS shows that at least 27 of the 110 statisticians hired in 1982-86 were former student assistants. Furthermore, some 35 percent of all statisticians with NASS in March 1987 were formerly student assistants.

# Washington Academy of Sciences Meeting

The Washington Academy of Sciences will hold its November meeting in the Mary Graydon Center of American University at Massachusetts and Nebraska Avenues, N.W. on Thursday, November 19. Raymond Wilmotte, Technical Analyst and award winner for stimulating new technology, Federal Communications Commission, will be speaking on Obstacles to Solving Problems by Regulation.

There will be a wine and cheese reception at 6:45 p.m. followed by dinner at 7:30. The lecture will begin at 8:30 p.m. It is not necessary to attend the dinner to hear the lecture, and there is no charge for the lecture only. Call (301) 320-3621 for information and make dinner reservations at least a week in advance.

<sup>2/</sup> Separate figures for Department of Energy not available for 1978.

<sup>3/ 1978</sup> data corrected from earlier publication.

### PROGRAM ABSTRACTS

TOPIC:

A Weibull Model for Dependent Censoring

SPEAKERS:

Sherrie Emoto, NINCDS, and Peter Matthews, University of Maryland Baltimore County

CHAIR:

Sylvan Green, NCI

DATE & TIME: Monday, November 9, 1987; 1:30 to 3:30 p.m.

LOCATION:

Landow Building, Conference Room E, 7910 Woodmont Avenue, Bethesda, Maryland

(3 blocks north of Bethesda Metro)

SPONSOR:

Public Health and Biostatistics

ABSTRACT:

In many survival analysis situations an assumption of independence between the survival and censoring variables cannot be justified. However, generally in such problems, the survival distribution becomes

nonidentifiable.

A bivariate Weibull model is proposed in which the survival and censoring variables have marginal Weibull distributions with different shape parameters. Only weak "nonparametric" restrictions on the form of dependence between the two variables are assumed. The model is based on marginal transformations of the Pickands class of bivariate exponential distributions.

Assuming the model to hold, the joint distribution of survival and censoring times is shown to be identifiable. The maximum likelihood estimator of the parameters is also shown to be consistent.

TOPIC:

A Few Secrets From a Survey Sampler

SPEAKER:

Robert Santos, Temple University, Institute for Survey Research

CHAIR:

Joe Fred Gonzalez, Jr., Office of Research and Methodology, NCHS

DATE & TIME:

Friday, November 13, 1987; 10:30 a.m. to 12:00 p.m.

LOCATION:

NCHS, 3700 East West Highway, Hyattsville, Maryland, Room 1-23

SPONSOR:

Office of Research and Methodology, NCHS and WSS

ABSTRACT:

The survey objectives of the 1985 National Household Survey of Drugs (NHSD) called for an area probability sample yielding 8,000 interviews. An approximately equal allocation of interviews was desired across four age groups: 12-17 years old; 18-25 years old; 26-34 years old; and 35 years old and over. Moreover, the following racial/ethnic distribution was desired: 2,000 Blacks; 2,000 Hispanics; and 4,000 Whites and Others.

The purpose of this presentation is threefold. First, the sampling strategy will be delineated. Secondly, problems of sampling rate specifications are presented, and solutions are given. The presentation closes with a review of survey results.

It is hoped that these strategies and techniques presented here will be useful to sampling statisticians and others in survey operations.

TOPIC:

**Estimates of Weekly Money Stock Components Using Staggered Reports** 

SPEAKERS:

W. P. Cleveland, C. A. Corrado, M. A. Post, and P. von zur Muehilen, Board of Governors of the Federal Reserve System

CHAIR:

Stuart Scott, BLS

DISCUSSANT: Bill Davis, Bureau of the Census

DATE & TIME: Monday, November 16, 1987; 12:30 to 2:00 p.m.

LOCATION:

Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C.

(Please call (202) 523-1760 at least one day in advance to assure entrance.)

SPONSOR:

**Economics Section** 

ABSTRACT:

The Federal Reserve needs current information on money stocks in order to properly direct open market operations. Money stock data arrive weekly, but they apply to different components in varying lags. Data

for the previous week is from a sample of institutions and does not include all series of interest. At a lag of

two weeks, preliminary data is available from most institutions on most series. Data for periods three and four weeks previous to the current week represent revisions to earlier reports for the same periods. At present, projections for the current and future weeks are made by judgmentally weighting incoming data reports and data patterns for previous years. A Kalman filter approach is adopted in this paper to incorporate new data information as it arrives into a multivariate ARIMA seasonal time series model for weekly data. This produces a result roughly equivalent to judgmental methods with much less work and is superior to a random walk plus seasonal forecast using the most recent reports, as measured by mean squared deviation from final values. All computations are done in SAS.

TOPIC: System Reliability and the Union of Products Model

SPEAKER: Michael Ball, College of Business and Management, University of Maryland

CHAIR: Thomas Mazzuchi, Department of Operations Research, George Washington University

DATE & TIME: Thursday, November 19, 1987; 12:30 to 2:00 p.m.

LOCATION: Staughton Hall, Room 301, George Washington University, 707 22nd St., N.W., Washington, D.C. 20052

ABSTRACT: In this talk we address the problem of computing system reliability in the context of union products model. Here the system is defined by a set of paths, sets, or cut sets. A path set is a minimal component set which

causes the system to operate and a cut set is a minimal component set that causes the system to fail. This model is appropriate in settings such as fault-tree analysis where no other compact representation of the

system exists. We present several computational approaches to the problem.

TOPIC: Estimating the Conditional Variance of a Generalized Regression Estimator

SPEAKER: Philip Kott, National Agricultural Stat. Service

DISCUSSANT: Charles Alexander, Bureau of the Census

DATE & TIME: Thursday, November 19, 1987; 12:30 to 2:00 p.m.

LOCATION: Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C.

(Please call 523-1760 at least one day in advance to assure building entrance.)

SPONSOR: Methodology Section

ABSTRACT: The generalized regression (GREG) estimator for a finite population mean is both conditionally unbiased under a model and nearly design unbiased (Sarndal 1980). Its design mean squared error can (in many

cases) be estimated by applying the Yates-Grundy formula to the regression residuals. A modification of this approach is proposed which results in a model unbiased conditional variance estimator (Royall and Cumberland 1978, 1981) that retains the asymptotic design-biased properties of the original. Thus, although the primary focus is on conditional variance estimation (as reason suggests it should be), the proposed variance estimator is robust to more severe model failure than generally allowed by model-dependent theory. The most commonly used GREG estimator is the (probability weighted) ratio which is

discussed in some detail.

TOPIC: Toward a Theory of Leading Indicators

SPEAKER: Frank de Leeuw, Bureau of Economic Analysis

CHAIR: Gaylord Worden, Census Bureau

DISCUSSANT: Glenn Rudebusch, Federal Reserve Board
DATE & TIME: Tuesday, December 8, 1987; 12:30 to 2:00 p.m.

LOCATION: Room 2736, GAO Building, 441 G Street, N.W., Washington, D.C.

(Please call 523-1760 at least one day in advance to assure building entrance.)

SPONSOR: Economics Section

ABSTRACT: The first part of this study discusses five theoretical rationales that could underlie one or more of the time-

series in BEA's index of leading indicators. The second part develops a model of a cost-minimizing firm that embodies several of the rationales, and finds that "shocks" to the model produce some results that accord with the time-series behavior of leading indicators but some that do not. The third part uses the same model to develop a "theory-based" set of leading indicators — an alternative to the current set.

Preliminary empirical tests of the theory-based indicators are promising.

### PROGRAM ABSTRACTS (continued)

TOPIC:

Cognition and Survey Measurement Research in Federal Statistical Agencies

SPEAKERS:

Elizabeth Martin, Census Bureau, Deborah Bercini, National Center for Health Statistics, Mark Palmisano,

Bureau of Labor Statistics

CHAIR:

Monroe Sirken, NCHS

DISCUSSANT: Tom Jabine, Statistical Consultant

DATE & TIME: Thursday, December 10, 1987; 1:30 to 3:30 p.m.

LOCATION:

Room 1-39, Center Building 2, National Center for Health Statistics, 3700 East West Highway, Hyattsville,

Maryland (Numbers are limited, so please call the Office of Research and Methodology at (301)436-7111 if

you will be attending.)

SPONSOR:

Interagency Committee on Cognition and Survey Measurement

ABSTRACT:

Recently, NCHS, BLS, and the Census Bureau have begun programs that apply the theories and methods of cognitive psychology to the design of survey instruments. This colloquium will describe these innovative

approaches to the reduction of non-sampling error in Federal statistics, and attempt to evaluate their

effectiveness.

### OTHER ANNOUNCEMENTS

Press Release on the 20th Interface Symposium

The Twentieth Symposium on the Interface of Computing Science and Statistics will be held at the Sheraton International Conference Center in Reston, Virginia on April 21-23, 1988. The Symposium is a long-standing interdisciplinary forum focusing on the interface between computing science and statistics. The focus of the 20th Symposium will be on computationally intensive methods in statistics. Professor Brad Efron of Stanford University will give the keynote address on this theme and sessions are organized with this theme in mind.

Sessions will include invited talks, contributed papers and exhibits. An opening night reception is planned as well as a banquet. An extensive exhibit area is also planned. Contributed presentations will be selected by the Program Committee and will last for 20 minutes. Authors who wish to contribute a paper should submit a written abstract no later than January 15, 1988. The abstract should be no longer than one page. Abstracts of invited and contributed papers will be available at the Symposium. Abstract and inquiries should be sent to: Professor Edward J. Wegman, Interface Symposium, P.O. Box 7460, Fairfax Station, VA 22039-7460, (703) 323-2723.

Conference Proceedings will be published. Camera-ready copy of the contributed and invited papers will be due on June 1, 1988. The Proceedings will include both invited and contributed papers.

The Conference will be held at the Sheraton International Conference Center in Reston, VA

(suburban Washington, D.C.) on the 21st through 23rd of April. April is an extremely attractive time in Washington coinciding with the blooming of the famous cherry blossoms. Free shuttle service is provided by the Sheraton to and from nearby Dulles Airport. A commercial airport bus service is available from Washington National Airport. Hotel rates are quite reasonable for the peak of the tourist season (\$79 for a single on Wednesday and Thursday and \$45 for a single on Friday and Saturday). A block of rooms has been reserved and attendees are expected to make their own reservations. Because this is a peak tourist season, early reservations are strongly encouraged. Reservations can be made by calling (800) 325-3535 or (703) 620-9000. Make sure to identify yourself as being associated with the Interface Symposium. Registration and welcoming reception will take place on Wednesday, April 22.

The regular registration fee for members of the cooperating societies (ASA, IMS, SIAM, and ORSA) is \$105 and for non-members is \$130. A preregistration discount is being offered to those who register early. For registrations received before January 15, 1988 the registration fee will be \$95 for members of cooperating societies and \$120 for non-members. The registration fee will include a copy of the proceedings and the opening night reception. For further information, to be put on the INFA mailing list and/or to register, please contact Ed Wegman at the above address.

### **OTHER ANNOUNCEMENTS (continued)**

# Probability-Statistics Day at American University

The Chesapeake Bay - Delaware Bay Regional Probability-Statistics Day Fall meeting will be held on Saturday, November 14, 1987 at The American University. For luncheon reservations or additional information, call the Department of Mathematics and Statistics (202) 885-3120.

# Census Bureau's Fourth Annual Research Conference Announced

The Census Bureau's Fourth Annual Research Conference (ARC IV) will be held March 20-23, 1988, at the National Clarion Hotel in Arlington, Virginia, only 1/2 mile from National Airport and three blocks from the Metro. ARC IV will comprise a mix of topics ranging from new survey techniques and census survey automation to measurement problems with foreign trade statistics. For further information contact Ms. Maxine Anderson-Brown, ARC Conference Coordinator, Office of the Director, Bureau of the Census, Washington, D.C. 20233, 301/763-1150.

### Science Fairs 1988

The Washington Statistical Society sponsors awards in six Washington metropolitan area science fairs. These fairs are held on Saturday mornings during the months of March and April at locations in Northern Virginia, Prince George's County, Montgomery County, and the District of Columbia. Volunteers are needed to review projects and determine the WSS award winners. This is the third year of WSS participation in area science fairs. It has been a very successful activity which promotes awareness of statistical concepts in scientific research as well as statistics as a professional discipline among mathematically and scientifically oriented secondary school students. Volunteer judges in the past two years have enjoyed the opportunity to interact with these students and represent the statistical profession in this setting. The only time required is one Saturday morning in the Spring, plus one weekday lunchtime organizational meeting in early March.

If you would like to serve as a judge or would like more information about this project, please call Susan Ellenberg (office: 496-4836; home: 299-9039) within the next few weeks.

## Fellowship Announcement

American Statistical Association/NSF/Census Bureau Research Fellowships and Associateships,

beginning around September 1, 1988, represent a unique opportunity to make major advances in methodological or subject matter research related to Census Bureau operations or data. These positions are at the Census Bureau for one year or shorter periods. 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., Statistics, Demography, Sociology, Economics, Geography); for Associates, at least two years graduate study in relevant field plus computer experience. Salaries are commensurate with qualifications and experience; also, fringe benefits and a travel allowance are provided. Length of term and start data are flexible -usually six months to a year beginning September 1. Positions start as early as June 1, 1988; and the term can be split into two or more parts. Apply by January 8, 1988 for Fellows and February 15, 1988 for Associates. For information on specific research topics and on how to apply, contact Dr. William Bell, ASA/NSF/Census Research Program, Room 3228-4, SRD, Bureau of the Census, Washington, D.C. 20233 (301-763-3957).

# International Association of Survey Statisticians (IASS)

IASS is a subsection of the International Statistical Institute (ISI). Its main objective is to foster worldwide interest in the use of surveys to collect information and this is accomplished through a range of activities. One area of interest relates to the quality of survey research: IASS endeavours to draw attention to methodological problems, encouraging research leading to the development of sound methods. Workshops and seminars sponsored by IASS (in collaboration with other organizations) include the recent conference on Panel Surveys held in Washington and the forthcoming conference on Telephone Survey Methods. The biennial meetings of the ISI (Tokyo 1987, Paris, 1989) also feature programs organized by IASS.

Elected membership of ISI is not a prerequisite of membership of IASS. Members receive copies of a biannual newsletter -- The Survey Statistician (providing news of forthcoming meetings and other information), and may subscribe to Survey Methodology (published by Statistics Canada) at a special reduced rate.

Anyone interested in joining IASS should write to: IASS Secretariate, c/o INSEE, 18 Boulevard Pinard, 75675 Paris, Cedex 14, France.

### **OTHER ANNOUNCEMENTS (continued)**

# Announcement of Continuing Education

On Monday, December 14, there will be a Conference on Missing Data, Imputation, and Repeated Measures. Donald Rubin of Harvard University and Roderick Little of UCLA will present an overview of their recent work, including material from the short course which they gave at the ASA 1987 annual meetings. Cosponsoring this conference are the Washington OR/MS Council and the Center for Education Statistics. Call Doug Samuelson at 703-478-9808 for further information.

# Summary of ASA Board Meeting August 15-16, 1987

(complete report will appear in AMSTAT News)

1. The Committee on Publications reported on restructuring Journals and providing journal options. (a) A motion was approved to restructure JASA within page allocations and financial resources. A special topics section will become a regular feature of JASA. (b) A new monthly publication, Statistics Today, would combine AMSTAT News and the American Statistician. This recommendation was approved in principle but more information was requested on the practical and financial implications. (c) Consideration of providing Journal options

was postponed until the proposed changes could be evaluated. (d) Member rate for JBES subscription was increased to \$22.

- 2. A preliminary report on the proposed Office of Scientific and Public Affairs was presented. The report proposed an organization which consisted of a director and a distinguished fellow, the latter to perform promotion and publicity. There was considerable discussion on the effect on ASA of taking policy positions, the trade off between public education and improving the image of the profession, the relationship among the parts of the proposed organization and the ASA director and funding. No action was required at the present time.
- 3. The budget and financial situation, which is not satisfactory, was discussed. Included were discussions of other activities with financial implications, including the building move and operations, the funding of the proposed Center for Statistical Education, and the restructuring of ASA office staff.
- 4. An update on Sesquicentennial planning was presented. Various invited paper sessions for the 1989 meetings are being arranged. None of the proposed logos was found acceptable.

Comments and opinions are welcome: Eva Jacobs, Representative, District 1 (202) 272-5156.

### **EMPLOYMENT COLUMN**

Deadline for inserting notices is 5 (five) 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

#### **STATISTICIAN**

Applied statisticians with interest in public health are invited to apply for an unusual position with a well-established nonprofit research group with a stable funding base. The successful candidate will play an integral role in the work of a multidisciplinary team of high-level research professionals (including engineers, psychologists, epidemiologists, and attorneys). As internal consultant, working statistician, and manager of contract research, you will need excellent written and oral communication skills, including the ability to interpret results for nonstatisticians and to formulate practical approaches to complex problems, computer skills, and a good working familiarity with the methodological issues of quasi-experimental design, categorical data analysis, generalized linear modeling, and time series analysis. Qualifications must include an advanced degree (M.S. or Ph.D.) in either Statistics or Social Science/Public Health and a proven record in applied research including publications in professional journals. Highly competitive salary, excellent benefits, and generous technical support for the right person. Apply to: VP, Research, Insurance Institute for Highway Safety, Watergate 600, Suite 300, Washington, D.C. 20037.

### **JOB OPENINGS (continued)**

### STATISTICIANS (GS 5 through 12)

The Office of Personnel Management is recruiting for these positions to use government-wide personnel data bases to present and analyze Federal Civilian Employment Statistics. At the entry levels, computing skills and familiarity with computer software (SAS, SPSS) and microcomputers is expected. Experience with quality assurance-related activities of large data files is desired at the higher grades. For information, call 202/632-4527.

Send SF-171 application forms to: U.S. Office of Personnel Management, Office of Workforce Information, Personnel Systems and Oversight Group, Room 7303, 1900 E Street, N.W., Washington, D.C. 20415, ATTN: John Curnow.

### STATISTICIAN (GS 7/9/11)

The Bureau of Justice Statistics, Department of Justice is seeking a Statistician in the National Crime Survey Unit. Specific duties will include preparing yearly reports presenting preliminary and final NCS rate data in BJS Bulletins; preparing a yearly detailed report on *Criminal Victimization in the United States* using a detailed tabulation package; performing significance testing of NCS data; preparing special NCS data runs using computer software packages and developing other NCS reports. The pay range is \$18,358-\$35,326 depending on prior pay and experience. Please call Randi Mendelsohn (202/724-7725) for additional information and application. Mail applications to Office of Justice Programs, Personnel Division, 633 Indiana Avenue, N.W., Room 603A, Washington, D.C. 20531.

#### **MATHEMATICAL STATISTICIANS**

The Census Bureau has openings in the Statistical Support Division for entry level, career ladder, technical and computer programming positions. The work is related to sample design, survey research, estimation and inference, evaluation and data analysis, statistical modeling, missing data, response error, imputation procedures, administrative records, matching techniques, quality assurance, and application of Deming techniques.

The Census Bureau offers special higher salary rates for mathematical statisticians. Salaries start at \$21,388 for a Bachelors degree or equivalent, \$26,169 for a Masters degree or equivalent, and \$29,897 for a Ph.D. or equivalent. Salary depends on qualifications and experience. Equal opportunity employer; U.S. citizenship is required. Please send your resume to John Thompson, Statistical Support Division, Room 3783-3, Census Bureau, Washington, D.C. 20233.

### **MATHEMATICAL STATISTICIAN (GS 12/13)**

Position available for a Ph.D. or an M.S. with experience in sample design, survey methods, and data analysis. A knowledge of SAS and the application of transformation methods to limited dependent variable models would be desirable. Incumbent will act as technical consultant in studies of the decline in value and the physical mortality of business plant and equipment to be conducted by the Office of Depreciation Analysis, as well as participate in the general research and policy analysis activities of that office. Send resume/SF-171 to: Tom Neubig, Director, Office of Tax Analysis, Room 4217, Main Treasury, Washington, D.C. 20220.

### **JOB OPENINGS (continued)**

#### **MATHEMATICAL STATISTICS**

Excellent opportunity with a small, but growing, high quality, internal consulting group of Ph.D. mathematicians and statisticians at the Central Intelligence Agency. Position involves development of statistical and operations research techniques and their application to a wide variety of intelligence problems, such as analysis of weapons systems characteristics, arms control monitoring issues, strategic capabilities of major nations, agricultural crop production estimates, and political instability. Many applications 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, less than three years experience, 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. EOE - U.S. citizenship is required. Washington based post with some travel. Starting salary range \$35,000-\$40,000 commensurate with training and experience. Forward resume and graduate transcript to: Recruitment Activity Officer, Department S (AL11), P.O. Box 1925, Washington, D.C. 20013.

### JOB APPLICANTS

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. 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 #88-1

MATHEMATICAL STATISTICIAN 1529 (GS 12/13) Position wanted in Washington, D.C. area; or private industry.

**Education:** 

Masters degree, GWU 1981.

Experience:

20 years federal government: (physical) systems reliability, acceptance sampling and statistical quality control, large-scale computerized databases, SAS/SAS graph, regression analysis (GLM), operations research. Experience in oral and written presentations.

Objective:

Applied mathematical statistics. Statistical quality control/process control/reliability.

Area of interest:

Multivariate control charts.



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