

### WASHINGTON STATISTICAL SOCIETY

# NEWSLETTER

Feb	. 15	Wednesday	Characteristics of Nonresponse in Consumer Expenditure Surveys				
Feb	o. 16	Thursday	The Collection and Uses of National Economic Statistics  ASA-150				
Fet	o. 21	Tuesday	A Cohort Analysis of Trends in the Labor Force Participation of Men and Women in the United States: 1890 to 1985				

### **ANNOUNCEMENTS**

## Midterm Comments from the President

The end of a calendar year is a traditional time to reflect on both the past and the future. I have been doing so in an effort to identify things that I need to do.

The first part of this program year has passed quickly. We have had many excellent programs and have once again demonstrated the diversity of interests of our members. The special ASA 150 series has been a great success; we have needed "room stretchers" for some of these sessions. There are six other good sessions coming up monthly to complete that series.

Exciting plans are underway for a second symposium on Quality Assurance in the Government. The symposium last May was the most ambitious short course we had ever presented. This year's session will be even more packed with topics and concurrent presentations. Quality assurance is one of the most important current topics in statistics and I am glad to see the Washington Statistical Society play a major role in improvement.

I personally have enjoyed working on the monthly profile series of our Board members that we have included in each Newsletter. Those articles always impress me with the wide diversity of backgrounds of our members. The number of professional and other activities of our Board members also made me feel fortunate that they have been willing to devote a great deal of their time to WSS.

There is much to do in the near future. Many of us have assignments to complete in preparation for the ASA 150 meetings in August. Susan Ellenberg (301/496-0694) probably can use some additional help with upcoming science fairs. Upcoming Newsletters will highlight other volunteer opportunities. There are a lot of good ideas for program sessions which are dormant right now or only about half planned. Now is the time to do something about those good intentions. If you have a session in mind, contact one of the appropriate program people from the list on the front of each Newsletter. Remember, this is our Society and it will be the best when we have the most people contributing.

#### **WASHINGTON STATISTICAL SOCIETY PROGRAM CHAIRS**

Agriculture & Natural Re	esources	Economics		Physical Sciences & Engineering	
Ron Bosecker	447-3895	Francis X. Diebold	452-2461	Patricia Abel	883-6490
W. Barnes Johnson	249-7388	<b>Gerald Schluter</b>	786-1785	Refik Soyer	994-6794
Social & Demographic S	Statistics	Public Health & Biostat	istics	Statistical Computing	
Harvey Schwartz	535-0634	Ed Lakatos	496-5905	Khalid Aboura	994-7534
John Ćzajka	484-9220	Jai Chol	436-7047	Sylvia Leaver	272-2311
Short Courses		Methodology		Quality Assurance	
Glenn White	763-4138	David Marker	251-4398	Stanley R. Freedman	586-2038
Donald Gantz	425-3931	Myron Katzoff	436-7047	John M. Galvin	272-2385
Brad Pafford	447-2129	,			
Sid Schwartz	268-3490	Employment		Newsletter Editor	
Virginia deWolf	366-5372	Evelyn R. Kay	337-8418	Michael Cohen	454-6193

#### PROGRAM ABSTRACTS

TOPIC: CHARACTERISTICS OF NONRESPONSE IN CONSUMER EXPENDITURE SURVEYS

SPEAKERS: Adriana Silberstein and Clyde Tucker, Bureau of Labor Statistics

CHAIR: Myron Katzoff, NCHS

ORGANIZERS: Mary Hama, Human Nutrition Information Service, USDA,

and Harvey Schwartz, Applied Management Sciences

DATE & TIME: Wednesday, February 15, 1989, 12:30 to 2:00 p.m.

LOCATION: Room 2437, GAO Building, 441 G Street, N.W., Washington, D.C. 20212

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

SPONSORS: National Agricultural Statistics Service and Human Nutrition Information Service, U.S.

Department of Agriculture, and Methodology and Social and Demographic Statistics

Sections, WSS

ABSTRACT: This is the second in a series of seminars that will review the response experience of

several major household surveys and examine efforts to improve respondent cooperation. The goal is to generate dialog among speakers and seminar attendants regarding

alternative strategies and methodologies. The abstract for this seminar follows:

General characteristics of nonresponse in the Consumer Expenditure Survey (CE) Program sponsored by the Bureau of Labor Statistics are discussed. The discussion examines nonresponse in both the CE Diary and the Quarterly Interview. New methodologies for measuring particular types of nonresponse are presented. These methodologies include a measure of recall bias and an indicator of survey nonresponse which takes account of both unit and item nonresponse. In the latter case, the decision to respond to the survey is actually viewed as a series of decisions producing different patterns of nonresponse. The

causal mechanisms leading to nonresponse in the CE are also discussed.

TOPIC: THE COLLECTION AND USES OF NATIONAL ECONOMIC STATISTICS

ASA-150

SPEAKERS: Charles Waite, Bureau of the Census

Charles Schultze, Brookings Institution Arnold Zellner, University of Chicago

CHAIR: William Bell, Bureau of the Census

DATE & TIME: Thursday, February 16, 1989, 3:00 to 5:00 p.m. (Note special time.)

Refreshments will be served following the seminar.

LOCATION: 7th Floor Auditorium, GAO Building, 441 G Street, N.W., Washington, D.C. 20212

(Please call 523-1760 no later than February 14 to assure building entrance.)

ABSTRACT: Charles Waite, Associate Director for Economic Fields at the Bureau of the Census, directs

the collection, processing, and publication of numerous important U.S. economic statistics. He will speak on recent developments and current problems in the collection of economic

statistics, including new developments in the collection of foreign trade statistics.

Charles Schultze was chairman of the Council of Economic Advisors in the Carter administration, and is now Director of the Economic Studies Program at the Brookings Institution. He will consider the question, "Should policy users have a major voice in

setting economic data requirements?"

#### PROGRAM ABSTRACTS (continued)

Arnold Zellner is H.G.B. Alexander Distinguished Service Professor in the Graduate School of Business at the University of Chicago. He will emphasize the importance of good measurements in business and economic statistics, illustrating this with examples. He will also discuss the roles of statistical and subject matter theories in applied work, and to illustrate the general principles, will present an example of the modeling and forecasting of 18 countries' growth rates of real output and turning points.

TOPIC: A COHORT ANALYSIS OF TRENDS IN THE LABOR FORCE PARTICIPATION OF MEN

AND WOMEN IN THE UNITED STATES: 1890 TO 1985

SPEAKER: J. Gregory Robinson, U.S. Bureau of the Census Graduate Group in Demography,

University of Pennsylvania

CHAIR: Harvey Schwartz, Applied Management Sciences

DISCUSSANT: Howard Fullerton, U.S. Bureau of Labor Statistics

DATE & TIME: Tuesday, February 21, 1989, 1:30 to 3:00 p.m. (Note special time.)

LOCATION: Room 2736, GAO Building, 441 G St., N.W., Washington, D.C. 20212

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

SPONSORS: U.S. Bureau of Labor Statistics Seminar Committee

WSS Social and Demographic Section

ABSTRACT: This talk will summarize the principal results of my recently completed Ph.D.

dissertation at the University of Pennsylvania. The dissertation accomplishes four objectives: (1) the construction of labor force participation histories of cohorts of men and women in the United States, classified in 5-year age groups, covering all quinquennial periods between 1890 and 1985, (2) the analysis of changes in the age patterns of participation of cohorts and the comparison of cohort participation trends with those displayed by traditional "period" analyses, (3) the examination of variations in cohort patterns of participation by race, marital status, and educational attainment, and (4) the identification of age, period, and cohort components affecting labor force trends. Drawing on the rich historical series of cohort participation rates developed in the dissertation, the analysis demonstrates how the cohort approach can lend a new perspective to the

study of labor force trends.

TOPIC: BAYESIAN SURVIVAL ANALYSIS WITH NONPROPORTIONAL HAZARDS MODELS

SPEAKER: Mike West, Duke University

DATE & TIME: Thursday, February 23, 1989, 12:00 to 1:00 p.m. (Note special time.)

LOCATION: Rm. 301, Staughton Hall, George Washington University, 707 22nd Street, N.W.,

Washington, D.C. 20052

SPONSORS: Physical Sciences and Engineering and Statistical Computing Sections,

and Department of Operations Research, George Washington University

ABSTRACT: Many problems of survival analysis involve nonproportionality of hazards and time

variation in the effects of covariates on survival distributions. The talk will describe a Bayesian approach to such problems using concepts and techniques from Bayesian time series analysis to model changes over time in survival function parameters. The talk will discuss posterior inference and survival prediction, software, and applications to medical

and economic problems.

#### **OTHER ANNOUNCEMENTS**

### Symposium on Linear Models

The Department of Mathematics and Statistics of the University of Maryland Baltimore County (UMBC) is organizing a one-day symposium on Linear Models on Saturday, April 29, 1989. Sponsored by the National Security Agency (NSA), the symposium will feature five internationally reputed statisticians: Professor David Harville of Iowa State University, Professor Arthur Cohen of Rutgers University, Professor Michael Perlman of the University of Washington, Professor C. R. Rao of Penn State University, and Professor P. K. Sen of the University of North Carolina at Chapel Hill. For further information contact Professor Bimal K. Sinha, Department of Mathematics and Statistics, University of Maryland Baltimore County, Baltimore, MD 21228, Phone: 301/455-2347.

## Shiskin Award for Economic Statistics

Nominations are invited for the tenth annual Julius Shiskin Award in recognition of outstanding achievement in the field of economic statistics.

The Award is designed to honor an unusually original and important contribution in the development of economic statistics or in the use of economic statistics in interpreting the economy. The contribution could be in statistical research, in the development of statistical tools, in the application of computer techniques, in the use of economic statistical programs, or in developing public understanding of measurement issues, to all of which Mr. Shiskin contributed. Either individuals or groups can be nominated.

The Award will be presented with an honorarium of \$500 at the Washington Statistical Society Annual Dinner in June 1989. A nomination form may be obtained by writing to the Julius Shiskin Award Committee, c/o American Statistical Association, 1429 Duke Street, Alexandria, VA 22314-3402. Completed nomination forms must be received by April 1, 1989.

Previous winners of the Award have been Estella Dagum of Statistics Canada for her work in seasonal adjustment, James Bonnen for his performance chairing the President's Reorganization Project for the Federal Statistical System, Edward Denison for his work at the

Bureau of Economic Analysis and the Brookings Institution, Beatrice Vaccara for her contributions at the Bureau of Industrial Economics, Geoffrey Moore for his research in measurement and analysis of business cycles, David Pierce for his use of modern statistical techniques at the Federal Reserve Board, Janet Norwood for her direction of the statistical program of the Bureau of Labor Statistics, Irving Kravis for his work in comparative studies of national income and prices, Roger Herriot for his work in improving income statistics in the United States, and Charles Waite for his contributions to the Bureau of Economic Analysis and the Census Bureau.

## Gertrude Cox Scholarship Race at the 1989 ASA Meetings

The Caucus for Women in Statistics and Council of Chapters is sponsoring the first annual Gertrude Cox Scholarship race in Washington, D.C. during the 1989 ASA meetings. A 5K run and 1 mile fun run are being planned for Sunday, the first day of the meetings. (Remember the meetings start a day early to allow for the ASA-150 sessions.) Look for more details in future issues. Please let Stephanie Shipp know if you would like to help before the race, and/or on race day.

We are seeking a corporate sponsor who will pay for the race expenses so that all entry fees can be given directly to the scholarship fund. Please contact Stephanie Shipp, 1000 Riva Ridge Drive, Great Falls, VA 22066, 703/759-4273 or 202/272-5060 for details.

## Short Course: Analysis of Binary Data

Sheila Edwards, ASA Manager of Continuing Education-Grants and Contracts, is pleased to announce that Sir David R. Cox and Joyce Snell will present a two-day short course on the "Analysis of Binary Data" at the August 1989 Sesquicentennial Annual Joint Statistical Meeting in Washington, D.C. The course will be based on the revised edition of Professor Cox's book which will be published in July 1989. Contact the ASA Continuing Education Program for registration details.

#### OTHER ANNOUNCEMENTS (continued)

### Sesquicentennial Souvenirs

Several souvenir items commemorating the ASA-150 celebration were available at the New Orleans annual meetings and a few more are planned for 1989. The Biopharmaceutical Section had very impressive canvas portfolios and gym bags for a donation of \$10 each which are expected to be repeated next year. The Council of Chapters had a nice looking Shaeffer ballpoint pen for \$3 and foam beverage can holders (Koozies). A supply of these two items has been procured for WSS and will be offered at the annual holiday party in December. A new WSS mug commemorating the ASA-150 celebration will also be available at that party.

Some souvenir items for next year are pending and may depend upon having enough preorders. An appropriately inscribed striped tie (in both men's and women's versions) is being pursued along with an inscribed clipboard which has a calculator built in. These items would probably need to sell for about \$17 each so you can see the reason for judging interest through presell activities.

A prototype of an extremely handsome lapel pin was presented to the ASA Board at New Orleans. Something of that nature may be included in the registration next year as a permanent momento.

## U.S. Census Bureau's Fifth Annual Research Conference (ARC V)

ARC V is scheduled to begin Sunday evening, March 19, 1989, and run through 2 p.m. on Wednesday, March 22, 1989, at the Holiday Inn Crowne Plaza (formerly The National Clarion Hotel) in Arlington, Virginia.

ARC V will address a wide variety of topics such as nonsampling errors, new techniques in questionnaire design, and analysis of longitudinal survey data. The sessions will address: New Directions for Some Household Surveys and Associated Research Needs; Administrative Records in Censuses; Edit and Imputation; Coverage Measurement; Disclosure Avoidance; Implications of Cognitive Research for Census Questionnaire Design; Longitudinal Household Survey Methodology; Cognitive Research of Survey

Questionnaires; Analysis of Longitudinal and Cross-Sectional Data; Nonsampling Error; Panel Studies of the Elderly Population; Agricultural Statistical Issues; Management's Contribution to Innovation in Statistical Agencies; Field Operation Issues; and Databases and Software.

For additional information contact Maxine Anderson-Brown, Office of the Director, Bureau of the Census, Washington, D.C. 20233, 301/763-1150.

#### Science Fairs 1989

Volunteers are still needed to represent the Washington Statistical Society as judges in local area science fairs this spring.

If you would like to be a WSS science fair judge, or if you would like additional information about this activity, please contact Susan Ellenberg at 301/496-0694; or send a note with your name, address and daytime telephone number to Susan Ellenberg, AIDS Program, NIAID, 6003 Executive Boulevard, Rockville, MD 20892.

### Spotlight on WSS Board Members

This month's column includes profiles of three gentlemen whose current work with WSS is mostly behind the scenes. Each of them provides valuable service to the Society with their contributions.

Dwight B. Brock is the cochair of the WSS Social Committee and is also serving as a member of the WSS Local Arrangements Committee for ASA 150. In the Social Committee Role, Dwight particularly focuses on the arrangements for the WSS Annual Dinner in June, the December Holiday Party, and any other special Society-wide social events. The Social Committee is a natural theme for Dwight's talents and interests in social and entertainment events. He is engaged much of the time in one singing performance after another and he teamed up with others to provide afterdinner musical entertainment at one WSS Annual Dinner. The entertainment included statistical parodies of some familiar tunes. During workday hours, Dwight is the Chief of the Biometry Office of the Epidemiology, Demography, and Biometry Program, National Institute on Aging. He directs his unit in its research in biometry, its statistical

#### OTHER ANNOUNCEMENTS (continued)

### Spotlight on WSS Board Members (continued)

consulting for epidemiologic analysis, and its data management and statistical computing for the EDB Program. Dwight was formerly the Acting Chief of the Statistical Research Branch at the National Center for Health Statistics. All of Dwight's degree work was at Southern Methodist University, completing a B.S. in Mathematics and an M.S. and a Ph.D. in Statistics. His present position allows him to work on many of his major statistical interests such as analysis of complex survey data, nonresponse and missing data problems, and statistical methods in the epidemiology of aging. Many of his publications have reflected accomplishments in the pursuit of those statistical interests and he was the coauthor of "Health Trends in the Last Year of Life." Besides his assistance to the WSS, Dwight has served as a statistical reviewer for several professional journals, is a member of the Public Health Service ad hoc committee on statistical software, and is a member of the ASA Snedecor Award Committee.

Ron Fecso is the Chair (and only member) of the WSS Audit Committee. Our bylaws specify that the Treasurer's records be audited and the results of this audit be communicated to the membership as was done with the November Newsletter this year. Ron also served on the organizing committee for the Quality Assurance in the Government Symposium last spring and was one of the speakers at that Symposium. He is the Supervisory Mathematical Statistician in charge of the Nonsampling Errors Research Section of the National Agricultural Statistics Service (NASS) of USDA. His unit employs a wide variety of survey quality research methodologies including statistical process control, survey error modelling, and imbedded studies to assess nonsampling errors. Ron has also been one of the main recruiters of mathematical statisticians for NASS. He has spent his entire career with NASS with such widespread assignments as list and area frame research, tree crops, objective measurement survey designs, international technical assistance, and statistical consulting with a number of USDA

agencies. Ron has a B.A. in Mathematics from Rider College and came to NASS after completing an M.A. in Mathematical Statistics from the University of Rochester. He has published a large number of Agency research reports and has recently published in Survey Methodology, Journal of Official Statistics, and Forum for Applied Research and Public Policy. Besides the Symposium mentioned above, Ron has presented other WSS technical sessions. He is an instructor in the USDA Graduate School on Sampling and Multivariate Methods and serves on the Mathematics and Statistics Curriculum Committee. In addition to the professional interests enumerated above, Ron is known to play a "few" games of slow pitch softball each year (50, 60, or more).

Carl E. Pierchala is also with the USDA but from the Agricultural Marketing Service (AMS). He is a mathematical statistician in the Statistics Branch which performs a number of consulting and statistical computing functions for other branches and divisions. Most of the work is development and evaluation of sampling plans for the grading and inspection of agricultural products and evaluation of laboratory tests. Carl is the WSS Representative to the Washington Academy of Sciences (WAS). He is in a good position to strengthen ties between the two organizations since he was elected as a representative to the WAS Board of Directors. Carl's academic training was at UCLA where he completed a B.A. in Mathematics and an M.S. and a Ph.D. in Biostatistics. Before joining AMS this past year, he served as an assistant professor at the Texas Tech School of Medicine and was a Senior Staff Fellow at the Food and Drug Administration Center for Drug Evaluation. His work experiences and his interests in discriminant analysis and statistical computing have led to contributions to such diverse publications as the Journal of Perinatology, Computers in Biology and Medicine, Critical Care Medicine, and the 20th Interface of Computing Science and Statistics. He is a man for all seasons away from work with interests in natural history and outdoor sports from canoeing to skiing to birdwatching.

#### **EMPLOYMENT COLUMN**

The Washington Statistical Society Newsletter provides a service of notification of employment opportunities and descriptions of those seeking employment here in Washington. Evelyn Kay, who is in charge of this service, has achieved a high success rate. Readers are encouraged to take advantage of this feature of the newsletter. Deadline for inserting notices is 5 (five) weeks before the publication date. Those interested should write to: Evelyn R. Kay, 2510 Virginia Avenue, N.W., #709, Washington, D.C. 20037, Phone 337-8418.

#### JOB OPENINGS

#### STATISTICIANS/ BIOSTATISTICIANS

SAIC, an employee-owned company, has immediate openings for Ph.D. and M.S. statisticians to apply skills on challenging studies in environmental and epidemiologic areas. We are looking for self-starting individuals who want to make substantial contributions. Successful candidates must have strong written and verbal communication skills and experience with statistical software packages (e.g., SAS, BMDP, SYSTAT). Salary commensurate with experience. SAIC offers an excellent competitive benefits package. Send your resume and salary requirements in confidence to SAIC, Attention Dr. Russell H. Roegner, 8400 Westpark Drive, McLean, VA 22102.

#### STATISTICIANS, ALL LEVELS

Price Waterhouse Office of Government Services provides Management Consulting Services to industry and government, both domestically and abroad.

We are currently seeking statisticians for our Washington-based consulting practice. Practice areas include sampling, modeling, and survey research applied for a diverse client base.

Qualifications include:

#### **MANAGERS:**

- Advanced degree in statistics
- 5-7 years experience, preferably in a consulting environment
- Project manager experience
- Proposal writing experience
- Excellent oral and written communication skills

#### **CONSULTANTS:**

- Advanced degree in statistics
- Up to 4 years experience
- Experience with SAS, SPSS, and dBASE III a plus
- Excellent oral and written communication skills

We offer exceptional opportunities for career growth, diverse and challenging project work, and a competitive compensation and benefit package.

For immediate consideration, please forward your resume (no phone calls, please), salary requirements, and three references, in confidence, to: Price Waterhouse, Office of Government Services, Dept. 479-S, 1801 K St., N.W., Sulte 700, Washington, D.C. 20006, Attn: John Jeffries. An equal opportunity employer.

### JOB OPENINGS (continued)

#### **FACULTY POSITIONS**

The Department of Statistics/Computer & Information Systems at the George Washington University has an opening for an Assistant Professor, tenure accruing, in the area of computer science or statistical computing, beginning Fall 1989. The position requires a Ph.D. in the relevant area. Applicants should have a strong commitment to both teaching and research in computer science or statistical computing. Applicants from all areas of computer science are invited; an interest in the interface between computer science and statistics is desirable.

The Department has approximately 70 undergraduate majors, the majority in Computer & Information Systems. In addition, the Department offers a masters degree in statistical computing and masters and doctoral degrees in Statistics.

Candidates should send applications including curriculum vitae, relevant reprints and three letters of reference to Professor R. Smythe, Chairman, Department of Statistics/Computer & Information Systems, The George Washington University, Washington, D.C. 20052. Applications must be received by February 15, 1989. EO/AA

#### SENIOR RESEARCH ASSOCIATE

Application Deadline: December 31, 1988; Position to be filled by: March 15, 1989

A research and managerial position on the Panel Study of Income Dynamics, Survey Research Center, Institute for Social Research, University of Michigan, to (1) perform responsible administrative work, including supervision of data processing support staff, planning and implementing procedures and timetables for the performance of work, assisting in the recruitment and evaluation of support staff; (2) plan, develop and implement experimental methodological projects on survey research techniques and procedures; (3) create statistical programs to prepare survey data and documentation for analysis, and collaborate with staff in analyzing and reporting on the data.

Required Qualifications: Master's degree in sociology, economics, or a related social science, or an equivalent combination of graduate study and work experience; two or more years of progressively responsible experience in the conduct and management of social science research; two or more years' experience in supervising and evaluating research support staff; knowledge of and experience with OSIRIS preferred; knowledge of and experience with survey data coding, editing, tape and documentation production.

#### RESEARCH INVESTIGATOR

Application Deadline: March 15, 1989; Position to be filled by: Summer 1989

A non tenure-track position on the Panel Study of Income Dynamics, Survey Research Center, Institute for Social Research, University of Michigan, to perform primary research functions including (1) develop and write research proposals; (2) develop and oversee procedures for coding, programming, and publishing complex data on family histories, relationships and economic events: (3) collaborate with PSID staff to analyze data and write-up results for publication in articles and reports.

Required Qualifications: Two or more years' work experience with large, longitudinal data sets, such as SIPP, PSID, National Longitudinal Studies, etc.; a Ph.D. in sociology, economics or a related social science, or an equivalent combination of graduate study and work experience; knowledge of the literature in economics or other social science field, and in demography; two or more years' experience in programming and statistical analysis of survey research data.

To apply for either position, send application letter, resume, and three references to: Mary Wreford, 3205 ISR, P. O. Box 1248, Ann Arbor, MI 48106. EO/AA

#### **EMPLOYMENT COLUMN (continued)**

#### 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 #89-01

Position wanted: MATHEMATICAL STATISTICIAN or O.R. ANALYST (temporary or part-time)

Education: Master's degree in Statistics

Experience: Multivariate analysis; regression analysis; survey design; system reliability;

SQC, SPC, ORSA, CMS, XEDIT, SAS, PC-DOS; secret clearance. Experience in

oral and written presentations.

Contact directly: 703/578-1354



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