



JANUARY 1986

1986: The 60th Birthday of WSS

WASHINGTON
STATISTICAL
SOCIETY

NEWSLETTER

CALENDAR

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EDITORS NOTE: This is the second in a series of articles on the statistical activities of various Federal agencies. Rich Allen is the Director of the Estimates Division, SRS, USDA.

ACTIVITIES OF THE STATISTICAL REPORTING SERVICE, U.S. DEPARTMENT OF AGRICULTURE--BY Rich Allen, Statistical Reporting Service

It might be best to start by clarifying that this article does not cover all statistical work of the U.S. Department of Agriculture (USDA). There are good statisticians and statistical programs in other USDA agencies such as the Agricultural Marketing Service, Food and Nutrition Service, Soil Conservation Service, and Forest Service.

The Statistical Reporting Service (SRS) is the Agency responsible for official domestic statistics on livestock production and inventories; acreage, yield and production of crops; agricultural prices; farm labor; and production expenditures. The Agency also conducts special surveys on a number of subjects.

Some of the SRS reports which receive the most attention are the monthly Crop Report with yield forecasts, quarterly hog inventory and pig crop estimates, stocks of grain on hand five times a year and the monthly report on prices paid and received by farmers. The reports on prices have particularly attracted attention as the ratio of prices received to paid indexes has recently been at record low levels.

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ACTIVIES OF THE STATISTICAL REPORTING SERVICE, USDA (CONTINUED)

SRS, and its predecessor organizations, have changed methodology considerably over the 123-year history of statistics in USDA. In the late 1940's, research began with area frame sampling and techniques for objective estimates of crop yields. Operational area frame techniques were implemented in all State Offices in the early 60's. The area frame procedures were more applicable to crop acreage estimates than livestock inventories so the Agency moved to multiple (list and area) frame survey techniques for hog and cattle estimates in the early 70's. In the late 70's, the emphasis was on creating improved list procedures for reformatting lists from external sources, duplication removal, record linkage, exact matching, etc. During the 70's, SRS also became a leader in the statistical development and utilization of satellite remote sensing technology. Much of the current emphasis in the Agency is on Computer Assisted Telephone Interviewing and development of an Integrated Survey Program for most major crop and livestock surveys. An integrated approach has already been implemented to combine the annual production expenditure survey with cost of production surveys which rotate annually by commodity.

One aspect of SRS which differs from most statistical organizations in Washington, D.C., is its geographic dispersion and personnel policies. About two-thirds of SRS's 555 professional employees are located in the 44 State Statistical Offices (there is only one office in New England and Maryland and Delaware are combined). Staff members gain experience and progress through mobility assignments and over 90 percent of the statisticians in current Headquarter's assignments have had State Statistical Office experience. All Statisticians-in-Charge of State Offices have had Headquarter's experience, as have their assistants in all but the smallest offices. About 75 percent of professional staff members are classified as agricultural statisticians with another 10 percent of the staff being mathematical statisticians. The bulk of the rest of the professional staff are in data processing specialities, including a number of individuals who are qualified for statistician positions.

Each State Statistical Office operates with one or more cooperative agreements with the State Department of Agriculture or land grant universities or both. These agreements vary from providing cooperator funding for only a few special State projects and publications to providing the major portion of funding and employees for office operations in some States. The cooperative agreements ensure that only one set of official estimates will be released for each State.

A number of different survey procedures are employed by SRS. A midyear area frame survey is conducted for planted acreages of crops and livestock numbers. This survey also identifies operations which do not overlap the current list sampling frames and serves as the sampling base for objective yield surveys of corn, soybeans, cotton, wheat, rice, grain sorghum, potatoes and sunflower. In conjunction with the midyear area frame survey, probability list frame surveys are conducted for hogs and cattle to complete the multiple frame methodology and a large nonprobability acreage survey is conducted in each State. Monthly panel surveys are utilized for providing additional crop yield estimators, milk and egg production indications, and cattle on feed counts. Probability samples are conducted each month for grain and livestock prices which measure transactions in terms of actual volume and dollars.

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ACTIVITIES OF THE STATISTICAL REPORTING SERVICE, USDA (CONTINUED)

Multiple frame survey techniques are also used for farm labor, farm production expenditures and sheep surveys. Objective yield surveys sponsored by State cooperators are conducted in some States for citrus fruit, tart cherries, tobacco, papayas, and onions.

The midyear area frame survey also provides the sample of known field boundaries and cover types needed for matching with satellite imagery. This remote sensing approach creates estimates of major crop acreages with improved precision in the seven States where it is currently being used.

Most data processing for SRS is accomplished on a commercial network obtained through competitive procurement. Each State Office conducts surveys and processes its own edits and summaries. Agency developed generalized edit and summary systems are used for processing most surveys. Edit specifications and parameters for most national probability surveys are controlled by Headquarters for all States.

Microcomputers are utilized in each State Office and most Headquarters' units. The Agency is presently acquiring "supermicro" based data entry equipment for State offices which will be able to drive Computer Assisted Telephone Interviewing software. Some of the remote sensing processing is done on a CRAY supercomputer.

Publication of nearly all SRS surveys involves a two-stage process. The State Office makes recommendations based on its analysis of the survey summaries and submits the recommendations to Headquarters. The survey indications and recommendations for all States are reviewed in Headquarters and final estimates or forecasts are set and published on a previously announced schedule. A national review process is used for most probability based reports whereby the national figure is first set, then regional figures, before completing the review of State recommendations. Some estimates such as the monthly yield forecasts are completed under special "Lockup" conditions in which indications from major States cannot be reviewed until the day of the release and then only in a secured area from which no exit is possible until the 3:00 p.m. release time.

HAPPY 60th BIRTHDAY, WSS!!!

WSS is celebrating its 60th Anniversary in 1986. A special birthday party will be held at the WSS Annual Dinner In June at Hogate"s. Nancy Kirkendall is compiling a history of WSS which will be used in conjunction with the Annual dinner. If you have an interesting and/or noteworthy items which should be included, call her at 252-2276.

NOVEMBER BOARD MEETING

The major new topic of discussion at the November 26th meeting of the WSS Board of Directors was membership. Total WSS membership (Regular plus Local Associates) has declined by approximately 250 from the peak level reached in 1980/81 (from 1800 to 1550). One point made during the discussion was that the drop in membership parallels the decline in positions for Government statisticians since 1981. The Board plans to continue efforts to contact new ASA members in the metropolitan area who do not join WSS at the same time and to contact all non-WSS participants in our programs and short courses. There is also an important role for individual members to play in encouraging coworkers to join WSS.

PROGRAM ABSTRACTS

TOPIC: Statistical Metaphors in the Computer Medium
SPEAKER: Joseph Deken, National Science Foundation
CHAIR: Terrence Ireland, Department of Defense
DISCUSSANT: Robert Teitel, Teitel Data Systems
DATE AND TIME: Tuesday, January 14, 1986; 12:30 - 2:00 p.m.
LOCATION: GAO Auditorium, 441 G Street, N.W. (Call 523-1760 to assure building entrance)
ABSTRACT: Science itself, which relies upon statistics as an essential component, is defined as "the development of communicable, empirically accurate models." From this viewpoint, the goal of "statistics" is to achieve effective, quantitative communication about data. In the modern world where the computer represents the medium of choice for communication, statistical methods should be seen as frameworks for the (computerized) interface between interacting human scientists and their data. The aim in this talk is to present some ideas for new statistical and scientific metaphors which can be developed and flourish, now that advanced computing environments are available to support them. New statistical systems built around these metaphors can enhance human understanding of and communication about data, by appealing in new ways to the sensory and linguistic experience and natural abilities of people. In this "third generation" statistics, the denominate geometric metaphor introduced so successfully by R. A. Fisher can be reduced to its rightful role as only one of many productive and illuminating viewpoints. In third generation statistics, the rigid motions of geometry will make way for the fluid motions of metaphors based on actors and agents.

TOPIC: Is Certificate-of-Need Regulation of Entry into Home Health Care Markets Necessary: A Multi-Product Cost Function Analysis.
SPEAKER: Keith Anderson, Federal Trade Commission
CHAIR: Joan Turek-Brezina, Department of Health and Human Services
DISCUSSANT: William Scanlon, Georgetown University
DATE AND TIME: Wednesday, January 22, 1986; 12:30 - 2:00 p.m.
LOCATION: Room 403A, Hubert H. Humphrey Building, 3rd and Independence Avenue, S.W. (Non-government attendees must sign in at Guard desk)
ABSTRACT: This paper estimates a multi-product cost function for home health firms and uses this estimated function to examine the estimate of unrealized economies of scale and economies of scope.

TOPIC: Methodological Changes in Population Estimates
SPEAKER: Jeffrey Passel, Bureau of the Census
CHAIR: Donald Hernandez, Bureau of the Census
DATE AND TIME: Wednesday, January 29, 1986; 12:00 - 1:30 p.m.
LOCATION: Martin Luther King Memorial Library, Room 315, 901 G Street, N.W.
ABSTRACT: Between January 1985 and January 1986, the Bureau of the Census will have implemented five important changes in the methods used to produce annual and monthly postcensus estimates of the national population. These population estimates are used as controls for the Current Population Survey and other Census Bureau surveys. The five changes involve: (1) a return to the production of separate estimates for three major race groups -- Whites, Blacks, and all others; (2) production for the first time of postcensus analytic estimates of the Hispanic population; (3) a return to the inflation-deflation methodology used in the 1970s to produce detailed age estimates, (4) an allowance for a higher level of emigration than was used previously, and (5) an allowance for a minimal level of undocumented migration.

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PROGRAM ABSTRACTS (CONTINUED)

TOPIC: Issues in Counting the Homeless
SPEAKER: Charles Cowan
CHAIR: Michael Cohen, University of Maryland
DISCUSSANT: David Marker, Westat, Inc.
DATE AND TIME: Wednesday, January 29, 1986; 12:30 - 2:00 p.m.
LOCATION: Room 2736 GAO Building, 441 G Street, N.W., (Call 523-1760 to assure building entrance)
ABSTRACT: No one really seems to know how many homeless there are in the United States. In fact, there is a wide variation on the range of estimates available for the number of homeless. The reason for this variation is that the homeless population is extremely difficult to count. Definitional issues, such as exactly who should be counted as homeless, and methodological issues, such as the sampling of a population with no fixed location, both cause problems in defining and executing a research study on the homeless. This paper attempts to catalog issues related to counting the homeless and presents some preliminary work on the research study which attempts to deal with these issues.

TOPIC: A Historian's View of the U.S. Statistical System's Turbulent Era: The 20's - 40's
SPEAKER: Margo Conk, Mather Visiting Professor Case Western Reserve University
CHAIR: Lynda T. Carlson, Department of Energy
DISCUSSANT: Ted Clements, Bureau of the Census
DATE AND TIME: Tuesday, February 4, 1986; 12:30 - 2:00 p.m.
LOCATION: Room BE-069, Forrestal Building, 1000 Independence Avenue, S.W.
(Non-government employees must sign in at Guard desk)
ABSTRACT: Professor Conk has studied the role of the Census Bureau in the formation and evolution of the American government and society. Of special importance is the "golden age" of the 20's and 40's when the Bureau was rapidly expanding to meet substantial changes in the role and scope of the government in the U.S. economy. This should be a very exciting and unique talk.

HIGHLIGHTS OF ASA BOARD MEETING, NOVEMBER 22-23, 1985—
BY Eva E. Jacobs, Representative to the Board, District 1

1. There was a presentation of the results of the survey of members concerning Journal options. One major finding was that 83 percent of the respondents considered Journals and Publications a very important activity of ASA, by far the largest proportion of any activity. However, there was no overwhelming preference for the status quo of the availability of journals or separating them various ways. The Board approved a motion that the Committee be directed to assess the fiscal impact of various journal options, to evaluate the need for further survey measurement and to review the procedures for creating new publications. A report will be presented to the Board in April.

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HIGHLIGHTS OF ASA BOARD MEETING, NOVEMBER 22-23, 1985 (CONTINUED)

2. The Budget was discussed at some length. It became clear that additional revenue would be needed if ASA was to continue to maintain the level of services to its members. Comparisons with dues of other professional societies were presented. The Board moved to increase dues, the major ones being the increase for regular members from \$51 to \$58 and increases in page charges for journals from \$40 to \$50.
3. The Building and Development fund was discussed. The Board reiterated its support for the fund which now totals about \$900,000. The Board voted to continue a modest level of financial support (\$25,000) for the campaign for corporate contributions and to hire a consultant to investigate the feasibility of acquiring a building through arrangements other than immediate direct purchase.
4. The Board voted to increase JASA pages by 10 percent in order to reduce the backlog. It is hoped that this will assist the new editors by providing room for changes. The Board voted that a report be prepared for the August meeting about the procedure to be used to establish future page allocations.
5. ASA management: The in-house computer is in place and an information systems manager has also been hired; an associate director for business affairs has been hired. A new organizational chart has been developed and an employee evaluation system is being reviewed. This is in accordance with recommendations of a management consultant.
6. Planning will begin for the ASA sesquicentennial in 1989!

WSS MEMBERSHIP NEWS

Have you changed jobs or received an honor or an award? WSS members are invited to submit these announcements to Julia Oliver, P.O.Box 23502, Washington, D.C. 20026. Each submission should include a daytime telephone number for verification purposes. Deadline for inserting notice is five (5) weeks before the publication date.

Arthur Salomon, formerly of the Bureau of Labor Statistics and most recently with the Mitre Corporation, is now a senior statistician with the Science Applications International Corporation.

ANNOUNCEMENTS

Science Fairs

As mentioned in the December Newsletter, WSS would like to become active in promoting statistical awareness and excellence among high school students through local science fairs. If you are interested in being a judge or obtaining more information contact Susan Ellenberg at 496-4836 (daytime) or 299-9039 (evenings).

ANNOUNCEMENTS (CONTINUED)

Shiskin Award For Economic Statistics

Nominations are invited for the seventh 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 statistics to analyze and interpret the economy, in the management of 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 \$250, at the Washington Statistical Society Annual Dinner in June 1986. A nomination form may be obtained by writing to the Julius Shiskin Award Committee, c/o American Statistical Association, 806 - 15th Street, N.W., Washington, D.C. 20005. Completed nomination forms must be received by April 1, 1986.

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 Dension 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, and David A. Pierce for his use of modern statistical techniques at the Federal Reserve Board.

Second Annual Census Research Conference Scheduled for March 23-26, 1986

Planning for the Census Bureau's Second Annual Research Conference (ARC II) at the Sheraton International Conference Center, Reston, Virginia is well underway. The theme for ARC II will be nonsampling error. Invited paper sessions include discussions on causes, measurement, and reducing the effects of nonsampling error; quality issues; nonsampling error considerations for longitudinal data; and public attitudes and survey response issues. Research in specific program areas will be discussed in sessions devoted to the 1990 Decennial Census, international economic input/output analysis, new methods of estimating household and population characteristics, economic census and survey evaluation studies, and research on the Survey of Income and Program Participation and the services sector of our economy. The program will also contain a track of four sessions on undercoverage which will include discussions of census undercount research and research into problems caused by undocumented immigration.

This year's Shirley Kallek Memorial Lecture will feature Professor James Durbin from the London School of Economics and Political Science, and dinner presentations by John G. Keane, Director of the Bureau of the Census, and Mr. Vincent P. Barabba, Executive Director of Market Research and Planning at General Motors (and former Director of the Bureau of the Census).

For additional information, write the Center for Survey Methods Research, Bureau of the Census, Washington, D.C. 20233. A limited supply of the Proceedings from ARC I are available on a first come/first served basis.

EMPLOYMENT COLUMN

Deadline for inserting notices
is five (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

Mathematical Statistician: (\$17,824/\$26,381) in statistical survey work for the collection of establishment or household data. Knowledge and/or experience required in one or more of the following: survey design; variance estimation; regression analysis; multivariate statistics; computer programming; statistical packages (SAS or equivalent). Mail SF-171 or resume to Ronny Schaul, Bureau of Labor Statistics, GAO Bldg., Room 2838, 441 G Street, N.W., Washington, D.C. 20212.

Statistician (Demography) GS-1530-14: The United States Army Recruiting Command, Fort Sheridan, Illinois has an opening for a Statistician (Demography). The incumbent will function as the U.S. Army Recruiting Command's expert and technical advisor to the Director in the area of demographics and how these factors affect the recruitment market. For forms and information on how to apply, contact Lenore D. Bernardi, Department of Army, Civilian Personnel Office, Bldg. 35, Fort Sheridan, IL 60037-5000, (312) 926-2672 or 3169.

Mathematical and Survey Statistician (GS-5 through 12): The Energy Information Administration (EIA) has several positions and anticipates future positions for mathematical statisticians and survey statisticians for the GS-5 through GS-12 level. EIA's Office of Statistical Standards is particularly interested in a GS-7/9/11 survey statistician with both a statistical and computer programming background, and a GS-11/12 Ph.D level mathematical statistician, also with computer programming experience. Send completed SF-171 to Nancy Kirkendall, Senior Mathematical Statistician, Office of Statistical Standards (EI-70), 1000 Independence Avenue, S.W., Washington, D.C. 20585.

JOB APPLICANTS

Listed below are brief descriptions of the qualifications of applicants seeking employment. Employers interested in interviewing any of 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.

<u>CODE NUMBER:</u>	86-06
<u>Position Wanted:</u>	Senior Statistician/Biostatistician in Research and Development Environment
<u>Education:</u>	Ph.D in Statistics, 1970
<u>Experience:</u>	Ten (10) years experience which includes applied statistics, survey research sample designs, toxicological research data evaluation, and statistical analysis for technical publications. Four (4) years university teaching and three (3) years post doctorate research in statistical methodology. Have familiarity with BASIC programming, the IBM-PC and SAS computer packages.
<u>Area of Interest:</u>	Survival analysis, sample surveys, linear models, multivariate parametric and nonparametric statistics, analysis of binary data.

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JOB APPLICANTS (CONTINUED)

CODE NUMBER: 86-07

Position Wanted: Part-time consulting statistician position.

Education: Ph.D. in math stat in 1974

Experience: Teaching. Project planning and management. Data analysis in every field of application including toxicological, clinical trials, pre-clinical studies, infectious disease, psychology, surveys, among other topics. Numerous publications in statistics and biomedical fields. Expert in SAS and BMDP.



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