WSS NEWS

WASHINGTON STATISTICAL SOCIETY

September 1992

* * * Congratulations! * * *

The balloting results are in and the following people were elected to the Board of Directors of the Washington Statistical Society:

> **President (1993-94)**
> Michael Cohen, University of Maryland
>
> **Methodology Section Chair**
> Phillip Kott, National Agricultural Statistics Service
>
> **Representatives-at-Large**
> Sue Ahmed, National Center for Education Statistics
> Nancy Flournoy, The American University
>
> **Treasurer**
> Ginny deWolf, Department of Transportation.

Welcome to the new Board!

A round of applause also goes out to four WSS members who were recently elected Fellows of the American Statistical Association. This honored distinction went to:

Daniel Carr, George Mason University   **Gordon Lan**, George Washington University
Nancy Flournoy, The American University   **Richard Valliant**, Bureau of Labor Statistics.

Congratulations!

WSS Seminars	
(All events are open to any interested persons.)	
September	
23 Wed.	Bayesian Assessment of Seasonal Adjustment Uncertainty with Sampling Error
28 Mon.	Methodological Issues in the Estimation of the Distribution of Household Net Worth: Results from the 1989 Survey of Consumer Finances
October	
1 Thur.	Wavelet-Based Visualization of Sequences of Images
7 Wed.	On the Road to Benchmarking with Bob Hogg

Announcements

A New Methodology Seminar Series

The Methodology Section of WSS will soon be launching a new seminar series: Editing, Imputation, and Other Methods of Handling Missing (or Bad) Data. As with its previous two series of survey-related seminars, the Section especially encourages potential speakers who will address the actual methods used by government agencies and others. If you have an idea for a seminar in this series, please contact Phil Kott at (703) 235-5211, ext. 102.

In addition to seminar speakers for the new series, the Section needs new speakers, discussants and chairs to participate in either of the ongoing series -- on Variance Estimation Research and on the Analysis of Data from Complex Surveys -- and in sessions on other methodological topics. We are tired of seeing the same old faces! We are looking for a list of potential volunteers for future duty. Please contact Phil Kott or Tapan Nayak -- at (202) 994-6355 -- if you are interested.

WSS Presidents' Award

Glenn White, a Mathematical Statistician with the Internal Revenue Service, received the WSS Presidents' Award at the Washington Statistical Society Annual Dinner in June. The Presidents' Award is presented by the three current Presidents in recognition of outstanding service and contributions to the Society. White received his award for his exceptional efforts on behalf of the WSS Short Course Committee.

Since joining the Short Course Committee in 1986, Glenn White has actively sought to improve the quality and variety of short courses available to the local statistical community. He has been a guiding force behind the Quality Assurance in Government Symposia, most recently offered for the fifth time this past July. As Chair of the Committee since 1988, White has worked diligently to bring in a wide variety of excellent speakers for one-day short courses. The 1991-92 programs, featuring Edward Tufte, Bob Fay and Per Kragh Andersen, drew record crowds this year. White's innovative leadership and dedicated service have made the short courses a highlight of the WSS program and a model for other Chapters to follow.

Allan Young Receives Shiskin Award

Allan H. Young, Chief Statistician of the Bureau of Economic Analysis (BEA), received the Julius Shiskin Award for Economic Statistics at the Washington Statistical Society Annual Dinner in June. The Shiskin Award, co-sponsored by WSS and the National Association of Business Economists, honors unusually original and important contributions to aid in the measurement and interpretation of the economy or exceptionally sound and innovative research in economic statistics. Young, formerly Director of BEA, was cited for his leadership in forging and refining statistical tools that contribute substantially to the ability to analyze the U.S. economy and for imaginative management of a major statistical agency through critical times.

Allan Young's personal intellectual leadership honed analytic statistical tools, including capital stock measures, indexes that are "true" measures of price changes, and seasonal adjustment techniques. His management of the BEA covered a period of tightening resources, which required that programs be trimmed and resources reallocated to key programs to maintain the integrity of the BEA and its current estimates. More recently, he has overseen a period of setting the course for modernization of the economic accounts that will extend into the next century.

Curtis Jacobs Memorial Award 1991-92

The winners of the 1991-92 Curtis Jacobs Memorial Award, sponsored jointly by the WSS and the American Statistical Association, were Jonathan Isner, Jason Fox, Zachary Reinitz, and Scott Steiding, who were seventh graders in the Rocky Run Intermediate School in Fairfax County. Their project was a survey of musical preferences among 290 seventh and eighth grade students at their school. They were each awarded $50 U.S. savings bonds and winners certificates at the 1992 WSS Annual Dinner in June. Their mathematics teacher, Rebecca Bartelt, also attended the dinner and received a wall plaque for her school.

The WSS and ASA are soliciting additional contributions to the Jacobs Memorial fund in order to maintain the program at its current level. Your tax deductible contribution may be sent to Penny Young, American Statistical Association, 1429 Duke St., Alexandria, VA 22314-3402.

Announcements (cont'd)

1991-92 Annual Report

The 1991-92 Program year for the Washington Statistical Society was quite a full and active year. Some highlights of the year are summarized, below:

● The 1st Morris Hansen Memorial Lecture was held at the National Academy of Sciences, featuring an invited talk by T.M.F. (Fred) Smith, of the University of Southhampton. This very special event was extremely well-received, and planning is underway for the 2nd Morris Hansen Lecture this year.

● The Short Course Committee sponsored two Quality Assurance in Government Symposia and three one-day short courses, by Edward Tufte, Bob Fay, and Per Kragh Andersen. These events drew record enrollments, helping to fund the Society's growing Quantitative Literacy initiatives.

● The Quantitative Literacy efforts of the Washington Statistical Society concentrated on gaining access to more area schools for presentations to students. WSS is beginning activities in curriculum consultations, as well.

● Among the other events of special note was the regular role WSS has in giving a full range of Science Fair awards. Two very well-attended social events were held, one honoring Janet Norwood, who moved from the Bureau of Labor Statistics to the Urban Institute. Changes were also implemented to improve the quality and (hopefully) timeliness of the Society's newsletter and outreach approaches were pursued, in an effort to increase WSS membership.

● There were 73 regular technical sessions scheduled, which drew over 2,400 attendees -- an average of 33 per session. (See page 4 for a full summary of the session attendance.)

● The Methodology Section initiated two series that focused on recent methodological innovations and their applications. The Variance Estimation series, begun in the fall, and the series on Analysis of Complex Survey Data, started in the late spring, contributed 11 of the 73 technical sessions and accounted for almost 20 percent of the attendees.

All in all, it was quite a successful year, thanks to a very conscientious Board and over 300 session participants who shared their expertise, stimulated discussion and helped us stay abreast of new developments in the local and national statistical community.

Next year is not without challenges. We need to provide better opportunities for greater communication, among ourselves, across agencies, and with those outside our general community. To do so, we want to get you involved -- to speak, to join and attend sessions, to serve on the Board. Most importantly, to give us your feedback. Let someone on the Board know how we can better meet your needs.

It has been a pleasure to serve you. All the best!

Fritz Scheuren
Past-President

THE 1991-92 YEAR IN REVIEW

Washington Statistical Society
Program Summary

Program Section	Number of Sessions	Average Attendance	Total* Attendance
Total	79	46	3,627
Agriculture and National Resources .... (Cynthia Clark/John Herbert)	5	28	141
Economics .... (Linda Atkinson/Art Kennickell)	7	23	158
Methodology .... (Sue Ahmed/Tapan Nayak)	20	36	714
Variance Estimation	7	45	316
Analysis of Data from Complex Surveys	4	36	144
Other	9	28	254
Data Collection Methods .... (Jared Jobe/Clyde Tucker)	10	44	444
Phy. Science and Engineering .... (Telba Irony/John Sjogren)	6	22	129
Public Health and Biostatistics .... (Barry Graubard/Dean Follman)	8	22	174
Quality Assurance .... (Carrol Kindel/Sid Schwartz)	5	25	127
Social and Demographic Statistics .... (Mike Horrigan/Jeff Passel)	7	57	399
Statistical Computing .... (Nancy Flournoy/Sylvia Leaver)	5	25	127
Short Courses .... (Glenn White)	3	213	640
Special Events .... (Mary Garvin/Lorraine McCall) (Nancy Kirkendall and Hansen Committee)	3	191	574

*Roster estimates, adjusted for incompleteness, projected through June 1992, and imputed for missing data.   (Updated 6-30-92)

Program Abstracts

Topic: Bayesian Assessment of Seasonal Adjustment Uncertainty with Sampling Error

Speaker: William Bell, Bureau of the Census

Chair: Phillip S. Kott, National Agricultural Statistics Service

Discussant: Charles Perry, National Agricultural Statistics Service

Date/Time: Wednesday, September 23, 1992, 12:30-2:00 PM

Location: Room 5152, South Agricultural Building, 12th and Independence Avenue, SW
             Washington, DC (Blue/Orange Line -- Smithsonian Station)

Sponsor: Methodology Section

Abstract: Seasonal adjustment of economic time series is subject to the following sources of error:
             nonsampling survey errors, sampling error, model uncertainty, parameter uncertainty,
             seasonal decomposition uncertainty, and inherent signal extraction error. While
             nonsampling errors and model uncertainty are difficult to assess, we develop Bayesian
             methods to assess the contributions of the other four error sources to uncertainty in
             seasonal adjustment, and apply these methods to Census Bureau time series. We do this
             by (1) developing ARIMA time series models for the signal (true, unobserved series) and
             sampling error components of a time series, (2) using the Burman-Hillmer-Tiao model-
             based framework for decomposition of the signal into seasonal and nonseasonal
             components, and (3) combining these features with a Bayesian approach to obtain
             posterior means and variances of the seasonal and nonseasonal components. Comparing
             these variances to those obtained by holding some of the uncertain quantities constant
             provides an assessment of the contributions to seasonal adjustment error of decomposi-
             tion error, sampling error, parameter uncertainty, and inherent signal extraction error.

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* * * Note from*WSS NEWS* Editors * * *

Items for publication in the *WSS NEWS* should be submitted no
later than the **last Tuesday** of the month. For the October 1992 *WSS
NEWS*, items should be submitted no later than **Tuesday, September
29, 1992.** Fax items to:

Bettye Jamerson or Wendy Alvey
Fax: (202) 874-0922

Program Abstracts (cont'd)

Topic: Methodological Issues in the Estimation of the Distribution of Household Net Worth: Results from the 1989 Survey of Consumer Finances

Speakers: Arthur B. Kennickell, Federal Reserve Board, and R. Louise Woodburn, Internal Revenue Service

Chair: Linda Atkinson, Economic Research Service

Date/Time: Monday, September 28, 1992, 1:30-3:00 PM **(Note different time)**

Location: Waugh Auditorium (in basement), 1301 New York Ave., NW, Washington, DC. (Blue/Orange Line -- between Metro Center and McPherson Square) Call Linda Atkinson on (202) 219-0505 to place your name on the guard's list for entry.

Sponsor: Economics Section

Abstract: In this paper we provide an overview of some of the interesting methodological problems of measuring household wealth using survey data. While we address some theoretical issues, our main focus is on the practical problems we have encountered in the 1989 Survey of Consumer Finances, a household wealth survey sponsored by the Federal Reserve Board in cooperation with the Statistics of Income Division of the IRS. In particular, we will examine problems of estimation in the presence of significant levels of item and unit nonresponse.

Program Abstracts (cont'd)

Topic: Wavelet-Based Visualization of Sequences of Images

Speaker: Andrew G. Bruce, Statistical Sciences, Inc.

Chair: Catherine Hurley, George Washington University

Date/Time: Thursday, October 1, 1992, 12:30 - 2:00 PM

Location: Staughton Hall, Room 301, George Washington University, 707 22nd Street, NW, Washington, DC (Blue/Orange Line -- Foggy Bottom)

Sponsor: Methodology Section and George Washington University

Abstract: The volume of digital image data available for analysis is rapidly exploding in a variety of areas, such as remote sensing, HDTVand medical imaging. There is a lack of software for effective analysis of these huge volumes of image data. To meet this need, a wavelet-based "image browser" for visualization of sequences of images is being developed.

The 2D-wavelet transform decomposes an image into an orthonormal basis, providing a natural framework for "multiresolution" image analysis. The low-frequency 2D-wavelet representations allow a sequence of images to be scanned at a coarse resolution. An image which appears interesting can then be viewed at full resolution. The high-frequency components of the wavelet transform provide the capability to visualize the edges of an image.

The use of the 3D-wavelet transform of sequences of images is also being explored. In sequences with temporal redundancy, the 3D representation allows more efficient representation of a signal.   In addition, the 3D-wavelet temporal high-frequency component yields a visualization tool for change detection in sequence of images.

The image browser is being developed in the X-Windows environment on top of the Khoros system for image analysis and visualization. As a companion to the image browser, an interface is provided to the S-PLUS statistical system. This allows one to manipulate the wavelet transform of a signal or image using standard data analysis and statistical tools.

LATE ANNOUNCEMENT:

Bob Hogg will present a paper on benchmarking on Wednesday, October 7, 1992, 12:30 - 2:00 PM at 2 Massachusetts Avenue, NE, Room G-440, Meeting Room 1, Washington, DC. (Red Line -- Union Station). Look for full details in the October *WSS NEWS*.

Announcements (cont'd)

SOI Electronic Bulletin Board

The Statistics of Income (SOI) Division of the Internal Revenue Service announces the debut of its electronic bulletin board system. Using a personal computer, users can now access some of the latest SOI statistical tables by dialing one of the following phone numbers:

Analog: (202) 874-9574
Digital: (202) 874-0408.

Data currently available include aggregate information on:

● Individual income and taxes for 1990, by state and size of adjusted gross income;

● Personal wealth for 1986: top wealthholders with gross assets of $500,000 or more by net worth, age and sex; and

● Estate tax returns filed in 1989-90: gross estate by type of property, deductions, estate tax and credits by size of gross estate.

For information on how to access the system, call Jim Willis at (202) 874-0408.

Census Bureau's 1993 Annual Research Conference

The Census Bureau's 1993 Annual Research Conference (ARC 1993) will be held March 21-24, 1993, at the Doubletree Hotel in Arlington, Virginia, only 1/2 mile from National Airport and three blocks from Metro. ARC 1993 will comprise a mix of topics, such as design of survey questionnaires, quality measurement for automated surveys, effects of automation on the survey workforce, estimation techniques for small subdomains, behavioral research on contextual effects, modeling social and economic phenomena, nonresponse in surveys and censuses, coverage issues in censuses and surveys, research issues for 2000 census planning, and more. For more information, contact:

Maxine Anderson-Brown
Conference Coordinator
DIR Room 2270-3
Bureau of the Census
Washington, DC 20233.

Fellowship Announcement

ASA/NSF/Census Research Program and the Census Bureau Research Fellow Program.-- Unique opportunity to make major advances in methodological or subject matter research related to Census Bureau operations or data. General areas for research are social and demographic studies, economic measurement and analysis, and statistical methodology and computing. Requirements: recognized research record in relevant field (e.g., anthropology, statistics, demography, sociology, economics, and geography). Salaries are commensurate with qualifications and experience; also, fringe benefits and a travel allowance are provided. Length of term and start date are flexible -- usually six months to a year. Assignments may begin as early as June 1, 1993; can split term into two or more parts.

Apply by January 4, 1993. For more information on specific research topics and how to apply, contact Maxine Anderson-Brown, Program Manager, DIR, Room 2270-3, Bureau of the Census, Washington, DC 20233, (301) 763-1150.

Science Fair Winners 1992

The Washington Statistical Society presented awards to 39 Washington-area students at regional science fairs this spring. Awards were made to students whose projects demonstrated excellence in investigation of statistical methods or in application of statistical methods to a particular scientific problem. First award winners received a book -- *Statistics: A Guide to the Unknown,* by Tanur et al., or *Statistics: Concepts and Controversies,* by Moore. Others received certificates of

Announcements (cont'd)

honorable mention. As you can see from the project titles, awards were given in virtually all categories of projects, from Behavioral Science to Zoology.

Awardees and their schools and project titles are as follows.

Arlington-Alexandria-Falls Church

First Awards:
Matthew P. Carter, 10th grade, Woodlawn High School
"The Convergence of Probabilistic Series Related to Random Walks of Various Dimensionality"
Jacqueline I. Cisneros, 8th grade, St. Agnes School
"Are Surveys Really Accurate?"

Honorable Mention:
David R. Dirkits, 12th grade, Yorktown High School
"The Development and Assessment of X-Radio Lasticity as a Technique for Experimental Stress Analysis"
Brian M. Green, 8th grade, Williamsburg Intermediate School
"Green Gold from Leaf Mold"
Gerard T. Hopkins, 12th grade, Yorktown High School
"Coefficient of Restitution"
Meghan J. Kline, 12th grade, Yorktown High School
"The Effect of Acid Mine Runoff on Primary Productivity"
Chelsea B. Owens, 8th grade, Swanson Intermediate School
"Effect of Different Percentages of a Caffeinated Coffee Solution on Heartrate"
Ardath A. White, 12th grade, Yorktown High School
"The Adverse Effects of Urban Pollutants: A Toxicological Evaluation"

District of Columbia

First Awards:
Hannah Breul, 8th grade, Deal Junior High School
"Time Flies"
Damien Denwiddie, 7th grade, St. Peters School
"Probability and the Common Cold"

Honorable Mention:
Jacob Harris, 11th grade, Wilson High School
"Investigating Goldbach's Conjecture"
Nikki Jackson, 9th grade, Johnson Junior High School
"Amazing"
Jessica Roney, 8th grade, Deal Junior High School
"The Effect of JRA on Kids' Lives"
Claire Tilton, 10th grade, Wilson High School
"Studies in Hovercraft Design"

Fairfax County Senior Division

First Awards:
Jeff Aitken, 12th grade, Robinson High School
"Computer Assisted Curve Fitting"
Ari Bixhorn, 11th grade, Edison High School
"Relationship Between Academic Performance and Socio-economic Status"

Honorable Mention:
Martine Alisaug, 10th grade, Paul VI High School
"The Teenaged Diet: Healthy or Not"
Nicholas Dechman, 12th grade, Jefferson High School
"An Evaluation of Matching Strategies for DNA Identification Matcher"
Amanda McDermott, 10th grade, Fairfax High School
"Empirical Evidence of a Warming Trend in Washington, DC"
Andrea Padgitt, 9th grade, Marshall High School
"Home Field Advantage"
Heather Proeschel, 12th grade, Oakton High School
" 'Ponder This?' The Growth of a Duck Weed Population"
Cindy Yoon, 9th grade, West Springfield High School
"Photosynthetic Rate of Elodea"

Fairfax County Intermediate Division

First Awards:
Mark Culyba, 8th grade, Lake Braddock Intermediate School
"Random Order: Testing Normal Distribution"
Gayle Horn, 8th grade, Frost Intermediate School
"Does Muscle Contraction Strength Affect Jump Height? (Ice Skating)"

Honorable Mention:
Craig O'Neil, 7th grade, Lake Braddock Intermediate School
"Searching for Submarines"
Justin Howard, 7th grade, Lanier Intermediate School
"Proof of Pascal's Triangle"
Claire Edwards, 8th grade, Frost Intermediate School
"Does Red or Blue Get More Attention?"
Elizabeth Brown, 7th grade, Whitman Intermediate School
"To Be Or Not To Be Me"
Kartik Srinivas, 8th grade, Hughes Intermediate School
(Title unavailable)
Patrick McGrath, 7th grade, Hughes Intermediate School
(Title unavailable)
Matthew Levy, 8th grade, Longfellow Intermediate School
"Effectiveness of Erosion Barriers When Struck By Waves"
Jason Bogner, 7th grade, Franklin Intermediate School (Title unavailable)

Announcements (cont'd)

Science Fair Winners 1992 (cont'd)

Montgomery County

First Awards:
Benjamin Jun, 12th grade, Montgomery Blair High School
"Computer Assisted Space Mapping"
Lauren Willer, 7th grade, Redland Middle School
"Hair Strength Analysis"

Honorable Mention:
Jared Mudge, 8th grade, Herbert Hoover Middle School
"Why Do People Go to Baseball Games?"
Becky Pellett, 11th grade, Magruder High School
"Weather Forecasting and Observations"
Jennifer Sushinsky, 10th grade, Connely School of the Holy Child "Oil Retainment in Washclothes After Laundering"
Alejandra Velez, 9th grade, Walt Whitman High School
"The Effect of Detergent on Pond Snail Weight"
Hsien Yean Wong, 12th grade, Montgomery Blair High School
"Monte Carlo Simulation of Planetismal Collisions"

Prince George's County

First Awards:
Kennita Johnson, 12th grade, Eleanor Roosevelt High School
"Luminol vs. Time in Luminescence"
David Mattingly, 12th grade, Eleanor Roosevelt High School
"Critical Points of Patterns"

Honorable Mention:
Nicole Gavlok, 7th grade, Archbishop Neale School "Does Time Really Fly?"
Nisha Gilra, 12th grade, Eleanor Roosevelt High School
"The Origin of Tektites"
Nason Kowalski, 12th grade, Oxon Hill High School
"Sleep Phase Delay in Students"
Andres Leming, 11th grade, Northern High School
"Effects of Acid Rain on Bean Plants"
Kevin Murphy, 9th grade, Eleanor Roosevelt High School
"Effects of Serum on Cell Growth"
Chris Smith, 12th grade, La Plata High School
"RSA Crytosecurity Amelioration"
Aastha Verma, 12th grade, Eleanor Roosevelt High School
"Light Transmission in Fiber Optics"
Ken Wang, 11th grade, Eleanor Roosevelt High School
"Omega - 3 Fatty Acids in Algae"

Thanks to all of those who volunteered as judges. They are: Lee Abramson, Aroona Borpujari, John Bartko, Eugene Burns, Jo Burns, Bob Clickner, Paul Cook, Brenda Edwards, Tony Eleftherakis, Susan Ellenberg, Teri Gardenier, Pankaj Ghosh, Scott Grimshaw, Tom Harahush, Gene Heyman, John Irvine, Jim Knaub, David Kao, Michael Moll, Fred Olson, Dan Ramey, John Rogers, Sid Schwartz, Stuart Scott, Roger Smith, Michael Stoto, Brian Taylor, Dan Weinberg, and Glenn White.

Employment Column

As a service to local statisticians, the **Washington Statistical Society News** provides notification of employment opportunities and descriptions of those seeking employment here in the Washington, DC, area. Readers are encouraged to take advantage of this feature of the newsletter. The deadline for inserting notices is five (5) weeks before the publication date. Those interested should write to: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, DC 20250-2000. Contact Mr. Arends at (202) 720-6812.

Vacancies

Survey Sampling Statisticians

National Analysts, a growing market research and consulting firm, has two openings in its Survey Sampling department. Principal department activities include: developing sampling frames, designing sampling plans, selecting samples, reviewing data collection materials & procedures, providing appropriate weights for respondents, specifying point & variance estimation formulas, and writing thorough documentation of sampling & estimation methods used. For both positions, candidates must have strong statistical training (Ph.D. desired; M.S. statisticans with sufficient experience also invited), computer skills and strong oral & written communication skills.

- **Director of Survey Sampling** -- Manages department & supervises subordinate staff; provides planning & overall leadership for above activities. Minimum of 5 years prior survey sampling experience required; commercial experience preferred. Salary depends on experience.

- **Sampling Statistician** -- Entry level position. Reports to Director. Experience not necessary, but at least 1 course in sampling techniques required. Salary in $40K's for new Ph.D.

Employment Column (cont'd)

Survey Sampling Statisticians (cont'd)

Send vita and salary requirements for either position to Dr. Carl Finkbeiner, Director of Methods, National Analysts, Inc., 1700 Market Street, Philadelphia, PA 19103.

Operations Research/Mathematical Statistics/Applied Mathematics

The Directorate of Intelligence in the Central Intelligence Agency studies foreign policy and national security issues for senior policymakers in the U.S. government. A small internal consulting group performs quantitative analyses for the Directorate of Intelligence. Members of this group devise novel statistical, operations research, and mathematical techniques to apply to the analysis of a variety of intelligence problems, such as arms control monitoring issues, agricultural crop production estimation, weapons proliferation, and technology transfer issues. This group currently has one or more openings. Successful candidates will have, or be near completion of, a Ph.D. in statistics, operations research, applied mathematics, or a related field; possess a working knowledge of FORTRAN or an equivalent language; and demonstrate the ability to present mathematical ideas clearly to nontechnical clients. Strong candidates with all degree requirements except for the completion of a dissertation and those with a master's degree will be considered. Internships for graduate students are also available. If the candidate desires, opportunities exist for travel and continuing education. U.S. citizenship is required. Applicants must successfully complete a medical examination and security background investigation, including a polygraph interview. Starting salary up to $50,000, depending on education and experience. Forward resume and graduate transcript to: Office of Information Resources, STAT/OR, Central Intelligence Agency, Washington, DC 20505.

Biostatistician

The Biostatistics Branch of the National Heart, Lung and Blood Institute has a vacancy for a mathematical statistician Ph.D. (GS 1529-12/13/14). The position involves use of biostatistical methods and the design and implementation of large randomized clinical trials in cardiovascular, lung, and blood diseases. Good opportunities for collaborative research. U.S. citizenship required.

Send CV and/or Application for Federal Employment (SF 171), including three references, to: Dr. Nancy Geller, Chief, Biostatistics Research Branch, National Heart, Lung, and Blood Institute, Federal Bldg., Rm. 2A11, 7550 Wisconsin Ave., Bethesda, MD 20892, FAX (301) 402-6562.

Mathematical Statistician

The Forest Service, U.S. Department of Agriculture, is seeking a GS-1529-11/12/13 mathematical statistician for its Northeastern Forest Experiment Station in Radnor, PA. The person in this position provides expert advice in mathematics and statistical methodology, research data management, and computer applications to over 50 subject matter specialists in forestry research, including but not limited to: global change, forest health monitoring, and resources inventory.

Interested applicants should contact Nancy C. Ahrendtsen, (215) 975-4242, for a complete copy of the position announcement and listing of evaluation criteria. The mailing address is: USDA-Forest Service, 5 Radnor Corporate Center, P.O. Box 6775, Radnor, PA 19087, Attn: Personnel Management.

Statisticians/Economists/Social Scientists

The National Science Foundation, Division of Science Resources Studies, has openings in the fields of statistics, economics, or social science. Strong sampling, survey, and estimation skills are required for conduct of surveys and analyses of science and engineering activities and personnel in American industry, universities, and government. Also required is the ability to write clearly. Initial salary will be at the GS-11—GS-13 levels ($32K— 46K), depending on education and experience. Write to Karen King at NSF, Division of Science Resources Studies, 1800 G Street, NW, Room L-609, Washington, DC 20550; or call (202) 357-7811 to request information about the positions and how to apply. The vacancies close September 9, 1992.

President	**Past President**	**President-Elect**
Marie Argana (301) 763-4595	Fritz Scheuren (202) 874-0700	Michael L. Cohen (301) 405-6330

Secretary	**Treasurer**
Ruth Ann Killion (301) 763-8558	Ginny deWolf (202) 366-5372

WSS Program Chairs

Agriculture & Natural Resources
Carol House   (202) 690-4655
John Herbert   (202) 586-4360

Economics
Linda Atkinson   (202) 219-0505
Art Kennickell   (202) 452-2247

Methodology
Phillip Kott   (202) 720-2751
Tapan Nayak   (202) 994-6355

Physical Sciences & Engineering
Refik Soyer   (202) 994-6445
Tom Mazzuchi   (202) 994-7528

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Ken Riccini   (301) 763-5734
Sid Schwartz   (202) 268-3490

Social & Demographic Statistics
Mike Horrigan   (202) 523-1327
Michael Greene (202) 626-8551

Statistical Computing
Dan Carr   (703) 993-1671
Franklin Winters (301) 763-8571

Short Courses
Glenn White   (202) 874-1114

Public Health & Biostatistics
Barry Graubard (301) 496-8547
Dean Follmann (301) 496-5905

Data Collection Methods
Jared Jobe   (301) 436-7111
Clyde Tucker   (202) 272-2280

Employment
Bill Arends   (202) 720-6812

Quantitative Literacy
Ron Fecso   (202) 334-2295

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Bettye Jamerson (202) 874-0453

Membership
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Renee Miller   (202) 254-5507
Michael P. Cohen (202) 219-1917

P.O. Box 752
Suitland, MD 20752

WASHINGTON STATISTICAL SOCIETY