



WSS NEWS

WASHINGTON
STATISTICAL
SOCIETY

September 1991

NOTES FROM THE PRESIDENT—*Fritz Scheuren*

Welcome to the 1991-92 program year for WSS.... The new Morris Hansen Memorial Lecture series will be kicked off this fall. (See the article below.) Other ideas in the mill include:

- * Increasing the technical sessions offered and broadening their attendance.
- * Improving membership services-- including communication of news; and
- * Expanding our involvement in the quantitative literacy program.

As a part of the process for implementing some of these efforts, WSS will be taking a more quantitative approach and directly seeking input from samples of the membership. Many of you have already responded to the Newsletter Questionnaire which appeared in the May 1991 issue. We will also be soliciting your feedback in other ways-- through telephone follow-ups and direct correspondence.

WSS is a unique Chapter; with the help of an active and involved membership, we hope to see it expand to better serve the statistical community, both locally and nationally. I look forward to working with you towards that goal and hope to see you at many of the excellent events we have planned for the coming year.

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September Dates

Sept. 18	Weds.	Vehicle Use and Fuel Economy: How Big is the Rebound Effect
Sept. 18	Weds.	Graphical Methods for Application-Dependent Model Selection
Sept. 20	Fri.	Finite Mixture Distributions with Covariates in Survival Analysis
Sept. 26	Thurs.	Risks in Banking: Evidence from Ex Post Returns
Sept. 26	Thurs.	Exploratory Analysis of Nonlinear High Dimensional Structure
Sept. 30	Mon.	Plans for the Census in 2000: Alternatives to the Present System

Some October Dates

Oct. 10	Thur.	A Dynamic Model of the U.S. Agricultural Production Sector
Oct. 24	Thur.	Recent Advances in Telephone Survey Sampling Methodology

1ST MORRIS HANSEN MEMORIAL LECTURE-- The Washington Statistical Society is very pleased to announce that the program for the first Morris Hansen Memorial Lecture has been tentatively set. T.M.F. Smith, a world renowned expert in survey sampling, has agreed to give the keynote address at the initial lecture series. His talk will be on "Sample Surveys 1975-1990: An Age of Reconciliation?" Dr. Smith, from the University of South Hampton, is also the incoming president of the Royal Statistical Society.

This lecture series was established last year by a financial grant from WESTAT, Inc., to honor Morris Hansen, who made significant contributions to survey sampling and statistical methods during his long and distinguished career at the Census Bureau and at WESTAT.

The kick-off for the Morris Hansen lecture series will be held at the National Academy of Sciences on Wednesday, November 20, 1991. The afternoon lecture will be followed by a reception. Admission is free but registration is required. Further details in next month's WSS News.

CENSUS BUREAU'S 1992 ANNUAL RESEARCH CONFERENCE

The Census Bureau's 1992 Annual Research Conference (ARC 1992) will be held March 22-25, 1992, at the Holiday Inn Crowne Plaza in Arlington, Virginia, only 1/2 mile from the National Airport and three blocks from the Metro. ARC 1992 will comprise a mix of topics, such as modeling social and economic phenomena, methods for establishment surveys, modeling and measuring nonsampling errors, emerging data processing technologies, longitudinal data weighting issues, planning for national CAPI and CATI surveys, research issues for 2000 Census planning, and more.

SHISKIN AWARD WINNERS

The winners of the 1991 Julius Shiskin Award for Economic Statistics are Carol A. Carson and Stephen P. Taylor. They were presented the awards (along with a \$500 honorarium) on June 11th at the Annual Dinner of the Washington Statistical Society.

Ms. Carson, Deputy Director of the Bureau of Economic Analysis (BEA), was selected for her outstanding leadership role in developing and refining the economic statistical data base of the U.S. and for her contributions to the development of the revised United Nations System of National Accounts (SNA). The BEA will introduce new, improved U.S. national economic accounts in the mid-1990's which will follow the revised SNA guidelines. Ms. Carson has been a major architect of these guidelines which will better meet the needs of policy makers in today's world.

Mr. Taylor is retired from the Federal Reserve Board. He was recognized for his outstanding work in developing and perfecting the U.S. Flow of Funds Accounts and using them to interpret the behavior of financial markets. In addition, his contributions to the development of data management techniques, large scale spreadsheet computer programs and seasonal adjustment techniques for components of Flow of Funds Accounts are of exceptional value to policy makers and other users.

The WSS established the award to honor the memory of Julius Shiskin and to encourage others to engage in innovative work and important contributions in the development of economic statistics or in the use of economic statistics in interpreting the economy.

QUANTITATIVE LITERACY NEWS

During the past year, Quantitative Literacy (QL) volunteers for Fairfax County participated in the following projects:

Females Achieving Mathematics Equity (FAME)

project. Two volunteers met with female students who have completed seventh and eighth grades and who had been identified as having high potential but requiring motivation. The QL volunteers learned, among other things, that even in the '90's, some female students have anxiety about excelling in mathematics, because of the fear that they may not be liked by male students.

Science Fairs. Five volunteers served as judges in the math category at Fairfax County Science Fairs. At the Regional Intermediate school level, five of the fourteen projects were concerned with probability and statistics. It was a worthwhile experience to participate and to have a real impact on the distribution of prizes. QL members also judged regional science fair projects at the senior high level.

Career Days for Intermediate School Students. Four local statisticians participated in Career Day at two Fairfax County Intermediate Schools. They presented the video tape "What is Statistics?" for the students and then asked them questions about the video. The QL members received thank you letters from the students stating that the video was very enjoyable. They said they had not known what statistics was about and that now they have some insight.

QL Workshop. The QL volunteers also provided statistical consultation for the QL workshop conducted by the ASA for Fairfax County School teachers.

Special thanks are due to the QL volunteers Amrut Champaneri, Chris Johnson, Diem-Tran Kratzke, Jonathan Kurlander, Terry O'Connor, Sid Schwartz, Andy Spisak and Sandra West. If you are interested in volunteering for any of these projects in Fairfax County, please call Shail Butani at 202-523-1850. For other counties in the Washington area, call Easley Hoy at 301-763-7800.

CHANGE OF ADDRESS??

In order to ensure that you receive all issues of the WSS News, changes of address should be promptly sent to: Stephanie Shipp, 1000 Riva Ridge Road, Great Falls, Virginia 22066.

PROGRAM ABSTRACTS

TOPIC: Vehicle Use and Fuel Economy: How Big Is The Rebound Effect?

SPEAKER: David L. Greene, Oak Ridge National Laboratory

CHAIR: John H. Herbert, Energy Information Administration

DISCUSSANT: Robert Trost, George Washington University

DATE/TIME: Wednesday, September 18, 1991, 12 noon-2:00 pm

LOCATION: Room GS-015, Forrestal Bldg., 1000 Independence Ave., S.W. Washington, D.C.
Government employees need a government ID to enter the building and should allow for time to sign in. Non-government employees should call John H. Herbert (202-586-4360) for escort into the building.

SPONSOR: Agriculture and Natural Resources Section

ABSTRACT: By reducing the fuel costs of travel, motor fuel efficiency improvements will tend to increase the demand for travel, thereby offsetting energy savings from efficiency improvements. The estimated size of this rebound effect is important in determining the relative merits of policies seen as energy taxes versus fuel economy regulations.

The key parameter in analyzing the rebound effect is the percentage change in vehicle miles traveled (VMT) with respect to percentage change in fuel cost per mile driven. Past analyses offer a wide range of estimates depending on model formulation and time period. In this presentation a variety of statistical issues that bear on estimating the size of the rebound effect are examined. These issues include assumptions about functional form, error structure and possible lagged effects. The results show that the 'rebound' effect is small, about 10% - 15% or less.

TOPIC: Graphical Methods for Application-Dependent Model Selection

SPEAKER: David F. Findley, Bureau of the Census

CHAIR: Stuart Scott, Bureau of Labor Statistics

DISCUSSANT: Nancy Kirkendall, Energy Information Administration

DATE/TIME: Wednesday, September 18, 1991; 12:30-2:00 pm

LOCATION: Room 2437, GAO Building, 441 G Street, N.W., Washington, D.C. (Red line -- Judiciary Square)

SPONSOR: Methodology Section

ABSTRACT: We describe and demonstrate some complementary methods for examining the performance of competing models on increasing subsets of the modeled data, in order to select the superior model for the intended application. The methods, which are justified by analogues of uniform laws of large numbers, do not require assumption that the model classes are nested or that one contains the correct model. One scheme involves parameter reestimation and is computationally intensive. The other does not and is quick. A comparison of their graphs can provide information about the applicability of large-sample theory and about the models to adapt to heterogeneities in the data. The methods are easiest to apply when there is a well-defined direction of sample-size increase, as with time series. Both theoretical and empirical analyses concerning short term versus longer term forecasting show that differing performance criteria can have different preferred models.

PROGRAM ABSTRACTS (cont.)

TOPIC: Finite Mixture Distributions with Covariates in Survival Analysis: An Alternative to the Cox Model with an Example in Breast Cancer

SPEAKER: Nahida H. Gordon, Department of Biostatistics, Case Western Reserve University

CHAIR: Sally Hunsberger, Biostatistics Research Branch, NHLBI

DATE/TIME: Friday, September 20, 1991; 1:30 pm

LOCATION: Conference Room 9, Building 31, NIH (Shuttle every 15 minutes from the Medical Center Metro Station.)

SPONSOR: National Heart, Blood, and Lung Institute and WSS, Public Health & Biostatistics Section

ABSTRACT: Survival outcome in cancer patient populations is frequently determined by important prognostic variables as well as treatment. Frequently, in long term follow-up studies of survival, a large proportion of observed deaths are due to competing risks. This phenomenon causes difficulty when one considers survival in one or more levels of a prognostic variable that is related to the patient's age. To allow for different 'cure' rates within the levels of such a prognostic variable, the survival function of treated cancer patients is assumed to be a mixture of two subpopulations: those patients who will die of other causes, and will be modeled by the Gompertz distribution, conditioned on age of the patient at the time of treatment; and those who die of their disease and will be modeled by the exponential distribution. Using census data, the parameters of the survival distribution of those patients dying of other causes are estimated; and then follow-up data are used to determine the maximum likelihood estimates of the proportion dying of other causes and the coefficients for the hazard function of those dying of the disease.

TOPIC: Risks in Banking: Evidence from Ex Post Returns

SPEAKER: Douglas McManus, Federal Reserve Board

CHAIR: Arthur Kennickell, Federal Reserve Board

DISCUSSANT: Professor Gregory Udell, NYU & Federal Reserve Board

DATE/TIME: Thursday, September 26, 1991; 2:00-3:30 pm

LOCATION: Federal Reserve Board, Eccles Building, Room B-3234, 20th & C Street, N.W., Washington, DC. (Call Sheila Griffin at 202-452-2992 at least two days in advance to ensure admission to the building.)

ABSTRACT: This paper uses nonparametric functional estimation to assess the portfolio risk in U.S. banks over the 1984-87 period. Based on returns data from over 10,000 banks, we find that the variance of the portfolio returns decreases with the size of the institution and increases with an asset risk variable. These findings provide evidence of increasing returns to scale in risk mitigation in banking and the mispricing of deposit insurance. The policy implications of these results for the international risk-based capital requirements are considered.

PROGRAM ABSTRACTS (cont.)

TOPIC: Exploratory Analysis of Nonlinear High Dimensional Structure

SPEAKER: Edward Wegman, Center for Computational Statistics, George Mason University

CHAIR: Rick Valiant, BLS

DISCUSSANT: Andy White, NCHS

DATE/TIME: Thursday, September 26, 1991; 12:30-2:00 pm

LOCATION: GAO Building, Room 2437, 441 G Street, N.W., Washington, DC (Red Line-- Judiciary Square).

SPONSOR: Methodology Section

ABSTRACT: A fundamental problem in statistics is relating the behavior of two or more variables. Traditionally this is done in an analytical way using linear regression models. This method is highly successful when appropriate, but graphical tools are needed to assure model assumptions are accurate. When linear assumptions are inaccurate, this methodology essentially fails. Our interest is to view this problem of estimating relationships as essentially geometric and to attempt to visualize these relationships. This talk will be heavily illustrated with video and 35mm slides.

In our talk, we explore a geometric generalization of nonlinear regression. We introduce the idea of a κ -ridge and a κ -skeleton which are κ -dimensional features. The κ -ridge is a maximal κ -dimensional feature on a d -dimensional density, $d > \kappa$. The 0-ridge is the mode and a 1-ridge corresponds to the ordinary ridge as understood in colloquial language. The κ -skeleton is the support of the κ -ridge. The κ -skeleton is the κ -dimensional summarizing feature for a d -dimensional data set. We illustrate two algorithms for estimating the κ -ridges and κ -skeletons. These are the orthogonal slicing algorithm and the gradient tracing algorithm. We will illustrate with a stereoscopic, dynamic graphics implementation in both two and three dimensions. We illustrate with some complex nonlinear structures including self-intersecting structures of mixed dimension. These methods also have application to image processing.

TOPIC: Plans for the Census in 2000: Alternatives to the Present System

SPEAKER: Robert Groves & Susan Miskura, Bureau of the Census

DATE/TIME: Monday, September 30, 1991; 12:00 - 2:00 pm

LOCATION: Library of Congress, Montpelier Room
Luncheon will be served -- about \$10.00/person. For reservations, Call Rebecca Quarles at 703-273-7007

SPONSOR: Washington, DC Chapter of the American Association of Public Opinion Research and
WSS, Social & Demographic Statistics Section

SCIENCE FAIR WINNERS 1991

The Washington Statistical Society presented awards to 51 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; others received certificates of 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:

Trip DeForrest, 8th grade, St. Mary's Int. School, "Probability Curve."
Jonathan Thessin, 8th grade, Williamsburg Int. School, "The Effect of Age on ESP."
Jenny Vargas, 11th grade, Washington-Lee H.S., "How does Ultraviolet Light Affect Bacteria?"

Honorable Mention:

Kimberly Costello, 9th grade, Yorktown H.S., "Mealworm Preference."
Erin Pfontz, 8th grade, Swanson Int. School, "The Effects of Different Types of Music on Wandering Jew Plants' Growth."
Gregory Ponds & Ted Findler, 7th grade, Washington-Lee Int. School, "The Effects of Acids and Bases on Bean Plants."
William Shear, 10th grade, Yorktown H.S., "Exploratory Patterns in Formica Rufa."
Ardath White, 11th grade, Yorktown H.S., "Does Music Memorization Affect Memory Retention?"

District of Columbia

First Awards:

Sarah Hoffman, 7th grade, Holy Trinity Int. School, "Probability of Rolling Two Dice."
Maureen Nelsomarschaln, 8th grade, Hardy Int. School, "Creating a Normal Curve."
Peter J. Riehm, 12th grade, Gonzaga College H.S., "PC Random Number Generators."

Honorable Mention:

Nageer Ahmed, 12th grade, Bell H.S., "Change in Mean Cholesterol Levels."
Steven Schoenecker, 12th grade, Gonzaga College H.S., "Coefficients of Friction in Ski Wax."
Claire Tilton, 9th grade, Alice Deal J.H.S., "Effects of Caffeine on the Immune Response."

Fairfax County, 9-12

First Awards:

Adrienne Huston, 12th grade, McLean H.S., "The Effects of Decreased Light Availability on the Physical Structure of Hydrilla Verticillata."
Mark Saholski, 10th grade, Lee H.S., "Does Color Affect the Breaking Strength of Thread?"
Luat Vuong, 9th grade Marshall H.S., "Monte Carlo's Pi."

Honorable Mention:

Jennifer Ellis, 10th grade, Annandale H.S., "A Statistical Analysis of 33 Months of Precipitation in Fairfax."
Jenny Hagel, 9th grade, Paul VI, "The Effectiveness of Household

Detergents."

Karen Lau, 11th grade, West Potomac H.S., "The Effect of Color on Phototropism of Plant Coleoptiles."

David Paul, 9th grade, W. T. Woodson H.S., "Could Mankind Survive Accidental Release of a Harmful Biological Agent?"

Ramana Sadanada, 12th grade, Jefferson H.S., "Chaotic Cardiac Arrhythmias and Bone Fracture."

Tatiana Schnur, 12th grade, Jefferson H.S., "Lexical Access of Ambiguities During Sentence Comprehension: Exhaustive or Terminating Search?"

Fairfax County, 7-8

First Awards:

Caroline Brown, 7th grade, Sandburg Int. School, "Is There a Bias at the Racetrack at Laurel?"

Paul Thomas, 8th grade, Frost Int. School, "A Test of Bilateral Transfer."

Jesse Wiens, 8th grade, Longfellow Int. School, "The Effects of Linguistic and Cultural Background on Pitch."

Honorable Mentions:

Jonathan Betz, 8th grade Rocky Run Int. School, "What is the Relationship between Altitude and Weight in a Model Rocket?"

Erin Neuschler, 7th grade, Herndon Int. School, "Acid Rain and its Effect on the Growth of Plants."

Mark Ramos, 8th grade, Lanier Int. School, "How Strong is Hair?"

Cathleen Tefft, 8th grade, Irving Int. School, "Paint Brushes: Can Hair Width Affect Brushstroke Appearance?"

Jon Urso, 8th grade, Centreville Int. School, "Does Music Affect Heartrate?"

Jimmy Vellis, Irving Int. School, "Do Heavier Baseball Players Hit More Homeruns on Average?"

Montgomery Area

First Awards:

Daniel Chen, 8th grade, Herbert Hoover Mid. School, "When Does the Central Limit Theorem Hold?"

Geoffrey Christoph, 7th grade, Redland Mid. School, "The Value of Absolute Zero is -273.15°C."

Daryl Makowsky, 11th grade, Montgomery Blair H.S., "The Rate of Respiration of Germinating and Dry, Earth & Space."

Prince George's County

First Awards:

Amanda Blair, 8th grade, Walker Mill Mid. School, "The Cat's Meow"

Heather L. Schmidt, 12th grade, Eleanor Roosevelt H.S., "The Effectiveness of Videotaped Formats."

Ken S. Wong, 10th grade, Eleanor Roosevelt H.S., "Chemical Regulation of Plant Growth."

Honorable Mentions:

Reisha L. Rainey, 12th grade, Oxon Hill H.S., "Personality and Performance."

Aaron D. Rosenweig, 10th grade, Bowie H.S., "Correlation of Atmospheric Conditions and Crime."

Georgina R. Valera, 12th Grade, Eleanor Roosevelt H.S., "The Effects of Tamoxifen on Cancer Cells."

Thanks to all those who volunteered as judges. They are: Lee Abramson, Aroona Borpujari, Eugene Burns, Bill Cleveland, Bob Clickner, Paul Cook, Frank Dorsey, Brenda Edwards, Susan Ellenberg, Eric Feuer, Teri Gardenier, Pankaj Ghosh, Scott Grimshaw, Tom Harahush, Gene Heyman, John Irvine, David Kao, Jim Knaub, Carolyn Lichtenstein, John Rogers, Chad Russel, Sid Schwartz, and Brian Taylor.

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. Deadline for inserting notices is 5 (five) weeks before the publication date. Those interested should write to: Bill Arends, USDA-NASS, Room 4133 South Building, Washington, D.C. 20250-2000. Contact Mr. Arends at 202-447-6812.

STATISTICIANS

Westat is an employee-owned corporation headquartered in the suburbs of Washington, DC (Rockville, MD). We provide statistical consulting and survey research to the agencies of the U.S. Government and to a broad range of business and institutional clients. With a strong technical and managerial staff and a long record of quality research, our company has become one of the leading survey research and statistical consulting organizations in the United States.

Our company was founded 30 years ago by three statisticians. The current staff of more than 550 includes statisticians, survey researchers, psychologists, medical researchers, sociologists, economists, market research and behavioral analysts, computer systems analysts, programmers and support staff. The professional staff is supported by survey field supervisors, coders and interviewers. The atmosphere is open, progressive and highly conducive to professional growth.

Our statistical efforts continue to expand in areas such as the environment, energy, health education, human resources, and teaching courses in statistical methods. Several positions are currently available which require a graduate degree in statistics:

*Biostatistician. Work in Clinical Trials, their design, analysis and management. Also work in survival analysis models and longitudinal studies. Substantial (but not exclusive) focus on HIV related issues. Ph.D. in Biostatistics and relevant experience required.

*Environmental Statistics. Experience with environmental or energy problems essential. Skills in sample design, analysis, survey operations and project direction helpful.

*Survey Sampling. Experience required in sample design and selection, frames development, weighting and variance estimation. Must have Master's degree or Ph.D. in statistics program.

*Industrial Consulting. Teach statistical process control and consult with clients in industry. Must have consulting and teaching experience, willingness to travel.

To insure proper consideration, interested applicants should indicate one of the above areas and send resume with current salary requirements to: Personnel Director, Westat, Inc., Dept. DRM-2, 1550 Research Boulevard, Rockville, MD 20850. A Equal Opportunity Employer M/F/V/H.

SURVEY STATISTICIAN

POSITION DESCRIPTION: The position is located in the Questionnaire Design Research Laboratory, a part of the National Laboratory for Collaborative Research in Cognition and Survey Measurement, National Center for Health Statistics, Hyattsville, MD. The incumbent will develop and test NCHS questionnaires, conduct applied research on a variety of questionnaire design and survey research issues, and consult with Public Health Service programs and survey planners on questionnaire design problems.

QUALIFICATIONS: Degree in statistics, Psychology, or other social science, with strong survey research experience.

G.S. LEVEL: 11/12/13 (\$31,100-\$44,300), depending upon qualifications and experience.

TO APPLY: Send C.V. or SF -171 to: Deborah Trunzo, Office of Research and Methodology, National Center for Health Statistics, 6525 Belcrest Road, Room 915, Hyattsville, MD 20782.

EMPLOYMENT COLUMN

STUDY DIRECTOR AND RESEARCH ASSOCIATE

The Committee on National Statistics, National Research Council, National Academy of Sciences, is seeking a Study Director and a Research Associate to assist the Committee and its panels of experts in advising Federal government agencies on how to improve statistical information and methods for public policy decisions. The Study Director will work with panels of experts to review methods for and needs for data from the decennial census in the year 2000. The Research Associate may work on this study, as well as studies on alternative measures of poverty, the Survey of Income and Program Participation, foreign trade statistics, national economic accounts, confidentiality and data access, quality control of student financial aid programs and disability statistics.

Candidates require a Ph.D. or equivalent in economics, statistics, or another relevant discipline and at least two years of relevant experience beyond the Ph.D. level (four years for the Study Director), preferably with experience or training in quantitative methods and in one or more of statistics, economics, demography, policy analysis, survey design and methodology, large-scale data collection and national statistics. All positions require demonstrated organizational skills, and the ability to interact effectively with senior scientists in a team effort. Part-time availability and faculty on leave also will be considered. Salary commensurate with experience; exceptional benefits package. Send resume with name of three references and salary requirement. An equal opportunity employer. Contact: Director, Committee on National Statistics, National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, DC 20418.

STATISTICIANS/MATHEMATICAL STATISTICIANS GS 12/13

The National Institute on Drug Abuse (NIDA) is recruiting statisticians to join its Division of Epidemiology and Prevention Research. These positions will involve work on NIDA's national sample surveys of households and hospital emergency rooms. Positions are available for persons with expertise in one or more of the following areas: statistical programming (primarily SAS), analysis of complex survey data, sample selection and maintenance, development of weights, survey management, questionnaire design, design and conduct of methodological studies, and drug abuse epidemiology. Send SF-171 to: Joseph Gfroerer, Chief, Statistical Analysis and Population Survey Section, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse, 5600 Fisher's Lane, Rockwall II, Suite 615, Rockville, MD 20857.

DATABASE MANAGER/ANALYST

Opportunity for key team player to take lead role in statistical analyses in epidemiologic study of AIDS. This position is based in Anglophone, East Africa. RESPONSIBILITIES include (1) database management: form design, database construction, maintenance, validation, verification and analyses, (2) formulation and performance of univariate and multivariate analyses, (3) supervision of staff, (4) development and preparation of manuscripts and presentations. QUALIFICATIONS: include MS and research experience requirements, knowledge of PC-SAS and database management and supervisory experience. Please send resume to: Judy Sutherland, The Johns Hopkins University, Office of Personnel Service, 615 North Wolfe Street, Baltimore, MD 21205

STATISTICIANS

Price Waterhouse is seeking statisticians for our consulting practice in the Washington, DC area. Qualifications include: advanced degree in statistics; at least three years relevant experience, preferably in a consulting environment; excellent oral and written communication skills, with proposal writing experience preferred; experience in surveys, sampling and experimental design; experience in data analysis and modeling; proficiency in SAS; experience in PC database applications, such as dBase, Foxbase, etc. are desirable; quality control and operations research experience a plus.

Statisticians in our Downtown Washington, DC offices support a variety of projects for a client base that includes Federal and state government agencies, industry associations, and Fortune 500 companies. Statisticians in our Springfield, VA office provide statistical analysis and programming support for measuring the performance of first-class mail delivery for the US Postal Service.

We offer a competitive compensation and benefit package and exceptional opportunities for career growth. For immediate consideration, please forward your resume (no phone calls, please) salary requirements and three references to: Price Waterhouse, Office of Government Services, Human Resources Dept., SRC, 1801 K Street, N.W., Suite 700, Washington DC 20006. An equal opportunity employer.



P.O. Box 752
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