

# Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION

W.S.S. Newsletter—March 1981

## Calendar

### W.S.S.-Sponsored:

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**Topic:** Outliers in Discriminant Analysis: Influence Function  
**Speaker:** Dr. Alfredo Aliaga, Westinghouse Health Systems  
**Date and Time:** Monday, March 16, 1981, 12:30 - 2:00 p.m.  
**Location:** Room 2-20, Building C, George Washington University  
2201 G Street, N.W., Washington, D.C.

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**Topic:** Stationary Reliability Characteristics of Complex Systems with Repair  
**Speaker:** Professor Peter Franken, Humboldt University, East Berlin, Germany (Visiting Professor, VPI and SU). Professor Franken received his doctorate from Moscow State University under Professor Gnedenko. He is internationally known for his work in stochastic point processes, queueing theory, and reliability.  
**Date and Time:** Wednesday, March 18, 1981, 12:30 p.m.  
**Location:** The George Washington University, Marvin Center, Room 413-414, 21st Street between H and I Streets, N.W.

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**Topic:** Report on Exact and Statistical Matching Techniques  
**Speakers:** Rich Allen—Economics, Statistics, and Cooperatives Service, Department of Agriculture; Thomas Jabine, Consultant; and Daniel Radner—Office of Research and Statistics, Social Security Administration, Department of Health and Human Services  
**Discussant:** Professor Richard Ruggles, Yale University  
**Date and Time:** Tuesday, March 24, 1981, 12:30 - 2:00 p.m.  
**Location:** Department of Labor Building, Auditorium, 200 Constitution Avenue, N.W. Wash., D.C.

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**Topic:** The Impact of Decontrol on EIA Data Activities  
**Speaker:** Diane W. Lique, Director, Office of Petroleum and Natural Gas Data Development, Energy Information Administration  
**Date and Time:** Thursday, March 26, 1981, 12:30 - 2:00 p.m.  
**Location:** Federal Building, Room 3000-A, 12th & Pennsylvania Ave., N.W. (Federal Triangle Station, Metro Blue/Orange lines; parking available on the Mall, 2 blocks away)

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## OPEN PARTY

for area statisticians and friends, sponsored by the Washington Alliance of Statisticians on Friday, March 20, 1981, 7:30 - 10:30(+) p.m., at the River House Apartments—Party Room (in the basement), 1111 Army-Navy Drive, South Arlington. For further details, see inside. **RESERVATIONS ARE NECESSARY!!**

## DETAILED INFORMATION ON THE MEETINGS

- Topic:** Outliers in Discriminant Analysis: Influence Function  
**Speaker:** Dr. Alfredo Aliaga, Westinghouse Health Systems  
**Chair:** Andrew A. White, National Center for Health Statistics  
**Abstract:** Outliers in discriminant analyses are often taken to be indicative of an incorrect measurement or an incorrect allocation of the observation. Although originally designed to improve estimator robustness, the influence function was used by Campbell (1978) as an aid to detect outliers. Under the assumption of a multivariate normal distribution within each of two populations with a common covariance matrix, influence functions are evaluated for the Mahalanobis distance and the norm of the linear discriminant function coefficient vector respectively to evaluate the degree of group separation and the relative order of importance of the discriminating variables. This paper presents a generalization without the equal covariance requirement and introduces a parameter called divergence to reflect group separation. Approximate distributions are found so that asymptotic variances may be computed when the parameters of the influence function are replaced by their estimates.
- Topic:** Stationary Reliability Characteristics of Complex Systems with Repair  
**Sponsored by:** Physical Sciences and Engineering Section, co-sponsored with the George Washington University Operations Research Department  
**Speaker:** Professor Peter Franken, Humboldt University, East Berlin, Germany (Visiting Professor, VPI and SU)  
**Chair:** Nozer D. Singpurwalla, The George Washington University  
**Abstract:** Professor Franken received his doctorate from Moscow State University under Professor Gnedenko. He is internationally known for his work in stochastic point processes, queueing theory, and reliability.
- Topic:** Report on Exact and Statistical Matching Techniques  
**Speakers:** Rich Allen—Economics, Statistics, and Cooperatives Service, Department of Agriculture; Thomas Jabine—Consultant; and Daniel Radner—Office of Research and Statistics, Social Security Administration, Department of Health and Human Services  
**Chair:** Maria Gonzalez, Office of Federal Statistical Policy and Standards  
**Discussant:** Professor Richard Ruggles, Yale University  
**Abstract:** This report discusses matching of data files for research and statistical purposes. Matching for other purposes, for example, administrative purposes, is not considered. Two basic types of matching, exact matching and statistical matching, are discussed. The report summarizes what is known about exact and statistical matching, gives examples of applications of both types of matching, makes some limited comparisons of exact and statistical matching, and suggests directions for future research. The report was prepared by the Subcommittee on Matching Techniques of the Federal Committee on Statistical Methodology and will be described by the members of the Subcommittee.

### Agriculture and Natural Resources

- Topic:** The Impact of Decontrol on EIA Data Activities  
**Speaker:** Diane W. Lique, Director, Office of Petroleum and Natural Gas Data Development, Energy Information Administration  
**Discussant:** Jerry Coffey, Office of Federal Statistical Policy and Standards  
**Abstract:** Ms. Lique will discuss the changes in energy data collection, maintenance and use which will take place in the Department of Energy because of decontrol. Some data will be collected only on a sampling basis; other data will no longer be collected at all. However, this transition also offers an opportunity to review ways to collect some information more effectively while reducing the burden of reporting.

### OTHER MEETINGS IN MARCH

- March 24:** Washington Operations Research/Management Science Council—"The Evolution and Creation of the Institute for Program Evaluation at GAO," Keith Marvin, General Accounting Office, at System Planning Corporation, 17th Floor, 1500 Wilson Boulevard, Rosslyn, at 8:00 p.m. Optional dinner before. For dinner reservations, call Cathy Gerdon, 893-5900. For information, call Eloise Brooks, 426-8637.
- March 25:** Washington Operations Research/Management Science Council—"Water Supply Issues/Analysis in the Washington D.C. Area," Dan Sheer, Director, Cooperative Water Supply Operation on the Potomac, International Commission on Potomac River Basin. Luncheon meeting at 11:30 a.m. at the University Club, the George Washington University. For further information, call Don Gantzer, 633-8494; for reservations, call Cathy Gerdon, 893-5900.

**ENVIRONMETRICS 81 CONFERENCE IN ALEXANDRIA, VIRGINIA**  
**April 8-10, 1981**

The detection of ozone trends in the stratosphere, the toxicological testing of chemicals, and the transition to new air quality standards are among the topics to be addressed by the 18 invited speakers at Environmetrics 81. This special conference will stress innovative applications of statistics and mathematics to problems of environmental quality, emphasizing new methodologies or significant applications of existing quantitative techniques. More than 200 expository presentations and contributed papers are on the program. Conference sponsors are SIAM, the SIAM Institute for Mathematics and Society (SIMS), and the U.S. Environmental Protection Agency, with co-sponsorship of the Air Pollution Control Association, American Meteorological Society, the Environmental Technical Committee of the American Society for Quality Control, and the Committee on Statistics and the Environment of the American Statistical Association.

Contributed papers at Environmetrics 81 will span 10 topic areas: Environmental media, health and ecological effects, source monitoring, measurement systems, standards, models of pollutant transport and fate, interfact problems, prediction and trend analysis, and relevant computer "packages." A Proceedings of Environmetrics 81 will be published following the conference. For details write to SIAM, Suite 1405, Architects Building, 117 South 17th Street, Philadelphia, PA 19103.

**CALL FOR PARTICIPATION FOR THE  
FIFTH ANNUAL SYMPOSIUM ON COMPUTER APPLICATIONS IN MEDICAL CARE**

Papers and other forms of participation are invited from the medical and information sciences perspectives for presentation at the Fifth Annual Symposium on Computer Applications in Medical Care, November 1-4, 1981, at the Sheraton Washington Hotel, Washington, D.C. Topics areas will include all aspects of medical applications, computer and communications systems, and problem areas and new opportunities in medical information systems.

Inquiries regarding submissions of papers, reports and short papers, demonstrations, and panel and workshop proposals are to be directed to: Henry G. Heffernan, Office of Continuing Medical Education, 2300 K Street, N.W., Washington, D.C. 20037, 202/789-1880. For other information, contact Jan Eldridge, Office of Continuing Medical Education, George Washington University Medical Center, 2300 K Street, N.W., Washington, D.C. 20037, 202/676-4285.

**SUMMARY REPORT ON MEMBERSHIP SURVEY**

Three-hundred-twelve responses were received before December 19; this summary is based on those responses, although approximately 30 additional questionnaires have arrived since. Mathematics and mathematical statistics was the most popular application area, followed closely by computer science. Economics, demography, and information systems rounded out the "top five" with more than 200 "very interested" or "somewhat interested" responses. The "second five," in descending order, were energy, health sciences, environmental sciences, public health, and biological and life sciences; sociology placed eleventh, and education placed twelfth, all with more than 150 "very interested" or "somewhat interested." Results on the techniques question were similar, with general methodology, data collection, and data analysis/processing leading. Twelve thirty-to-two o'clock was the most popular meeting time; in general, midday times were most preferred, with 7:30 - 9:00 p.m. emerging as the preferred evening time. Federal Triangle-Farragut West-Foggy Bottom area was the most preferred location. Cross-tabulations of meeting times and locations for specific areas of interest showed the popularity of 12:30 - 2:00 and the same general area holding consistently for various topics; even demography, for which a concentration might have been expected in Suitland, and health sciences and public health, for which the Bethesda-Rockville area might have been expected to be popular, seemed to focus around the Federal Triangle-Foggy Bottom area. Not all cross-tabulations were possible in the time and resources we had; individual analyses will be performed as requested by program co-chairmen or others who may be interested. Comments indicated that information concerning parking and proximity to Metro is important; this information is now being included in the newsletter announcements. Short courses and joint meetings with other professional societies were indicated to be in demand; computing/information science, operations research and economics organizations were most frequently mentioned by members favoring more joint sessions. What emerged most clearly is the diversity of membership and its preferences. Clearly some members do strongly prefer evening meetings, although the majority do not; clearly there are 50 or 60 members who would like health science sessions in the Bethesda area, although there are many more who prefer downtown. Some members asked for more theoretical sessions; others asked for more applied sessions. Some wanted only technical sessions; others favored social events and programs on career development. One member suggested—and, from other comments it seems highly desirable—that the technical level of programs be clearly indicated in the abstract. WSS members are invited to address further comments and questions to me or to the Board. I will submit a more detailed report to the Board and make copies available on request to the membership.

Respectfully submitted,  
Douglas A. Samuelson



OPEN PARTY for area statisticians and friends  
Sponsored by the Washington Alliance of Statisticians

FRIDAY, MARCH 20  
7:30 - 10:30(+) p.m.

**RIVER HOUSE APARTMENTS—PARTY ROOM (in the basement)**

1111 Army-Navy Drive, South Arlington—the building nearest the Pentagon at the corner of Army-Navy Drive and S. Joyce St. 1111 is a short walk from the Pentagon City Metro stop on S. Hays St. For arranging rides, call Marsha Glauberman at 632-9797.

*In addition to a party fee of \$3.00 per person, or \$5.00 per couple:*

- You should bring either \_\_\_\_\_ wine (2 bottles or 1.5 liters), or
- (per person) \_\_\_\_\_ 2 six-packs of beer, or
- \_\_\_\_\_ finger food for 6-8, such as hors d'oeuvres, appetizers, cheese'n'crackers, chips'n'dip, or ?????
- \_\_\_\_\_ contribute an additional \$5.00 in lieu of food or drink.

**Reservations are necessary—please RSVP on the form below prior to March 16.**

**RESPONSE FORM**

\_\_\_\_\_ I/We are coming and bringing \_\_\_\_\_ as food/wine.

I have enclosed my check for \$ \_\_\_\_\_ as the total party fee due. (Checks payable to Dick Taeuber or to WSS)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

*Mail to: Dick Taeuber, 3100(225) Connecticut Avenue, Washington, D.C. 20008*

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**SHISKIN AWARD FOR ECONOMIC STATISTICS**

Nominations are invited for the second annual Julius Shiskin Award in recognition of outstanding achievement in the field of economic statistics. The Award has been established by the Washington Statistical Society Chapter of the American Statistical Association and will be presented, with an honorarium of \$250, at the WSS Annual Dinner in June 1981. 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 computers, 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. 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, 1981.

**EMPLOYMENT COLUMN**

**Job Openings**

The General Accounting Office is seeking two individuals for the following two positions. If interested, submit an SF 171 to the General Accounting Office, 441 G Street, N.W., Washington, D.C. 20548, ATTN: Melvin Gaines, Personnel, Room 7536. Or call Melvin Gaines on 202/275-2573 for further information.

**Operations Research Analyst  
GS-1515-12**

Experience in operations research to work with the GAO Evaluators in developing models and analyzing data on large systems affecting management of the Federal government's civilian and military work force.

**Statistician  
GS-1530-13**

Experience in designing and conducting surveys and performing statistical analyses on existing data bases in order to develop recommendations for improving management of the Federal Government's civilian and military work force.

**Consulting Economist**

Capable of providing courtroom testimony in wrongful death actions, preferably with experience as an Expert Witness. Send resume, including hourly rate, to Charles Mann at Charles R. Mann Associates, Inc., 818 Eighteenth Street, N.W., Suite 540, Washington, D.C. 20006.

*Mailed 2/27/81*



**AMERICAN STATISTICAL ASSOCIATION**

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