WSS Newsletter – March 1982

CALENDAR

WSS Sponsored:

Topic: A Perspective on the Hodges-Lehman Location Estimator
Speaker: Professor Robert J. Serfling, Johns Hopkins University
Location: The George Washington University, Cloyd Heck Marvin Center, Room 402, 800 Twenty-First Street, NW (between H&I on 21st), Washington, D.C.
Date and Time: Thursday, 11 March 1982, 12:30–2:00 p.m.

*********************************************************************

Poisson Bicentennial Commemoration
Monday, March 15, 1982

Topic: Renewal Process Approach to Continuous Sampling Plans in Quality Control
Speaker: Grace L. Yang, Department of Mathematics, University of Maryland
Location: Forrestal Building, 1000 Independence Ave., S.W., Room GJ-015, Wash., D.C.
Date and Time: Wednesday, March 24, 1982, 12:30–2:00 p.m.

*********************************************************************

Topic: Comparing Statistical Packages: BMDP, SAS, SPSS
Speaker: John Miller, Dept. of Math. Sciences, George Mason University
Location: IRS Auditorium (Rm. 7132), 1111 Constitution Ave., NW, Washington, D.C.
Date and Time: Wednesday, March 31, 1982, 12:30–2:00 p.m.

*********************************************************************

Other Sponsor:

Special Presentation by Persi Diaconis, Professor, Storden University and Visiting Professor, Harvard University on “Card Shuffling and Group Representations”, Room 426, The Marvin Center, George Washington University, 21st between H&I, NW, 5:30–7:00 p.m.
Wednesday, March 10, 1982

*********************************************************************

NATIONAL CENTER FOR HEALTH STATISTICS SEMINAR

Tuesday, March 11, 1982 – 1:30 p.m. – 2:30 p.m.
Center Building, Room G-20, 3700 East-West Highway
Hyattsville, Maryland

Topic: Estimation of Simple Regression Coefficient in Samples Arising from a Sub-sampling Procedure

Situations occasionally arise in epidemiological studies wherein a subsample of the entire study group is selected in an other than a simple random manner and one or more specified measurements are made only on members of the subsample. Such selections can make it inappropriate to apply usual analysis procedures.

The usual regression coefficient estimate is shown to be biased, asymptotically unbiased estimates are developed along with their asymptotic variances and small sample behavior is investigated via some Monte Carlo studies.

Speaker: David BeMets, Ph.D., Chief, Mathematical and Applied Statistics Branch, National Heart, Lung and Blood Institute, NIH, Bethesda, Maryland

For further information, call the Office of Research and Methodology at (301) 436-7111

(mailed 2/26/82)
Detailed Information on the Meetings

**Topic:** A Perspective on the Hodges-Lehman Location Estimator

**Chair:** Edward J. Wegman, Office of Naval Research

**Abstract:** For estimating the center of a symmetric distribution of unknown shape, an estimator having good properties is the median of the pairwise averages formed from the sample (known as the Hodges-Lehman Location Estimator). Its ARE relative to the mean is high; it has a bounded influence curve, and an exact distribution-free confidence interval can be formed using the order statistics of the pairwise averages. Now consider taking the median of the m-wise averages for a choice of m other than 2. Is this better or worse than the case m = 2? A current investigation which sheds light on this question will be discussed.

**Topic:** Renewal Process Approach to Continuous Sampling Plans in Quality Control

**Chair:** Harry H. Ku, Chief of Statistical Engineering Division, Center for Applied Mathematics, National Bureau of Standards

**Discussant:** Robert Elder, Senior Statistician, Radian Corporation

**Abstract:** The continuous sampling plan (CSP) is a quality control procedure installed in a production line for continuous production inspection. Its primary purpose is to control the level of defectives in the production, consequently providing quality assurances for the manufacturer and the buyer. The effectiveness of the CSP is usually measured by AOQ (Average Outgoing Quality) which is calculated analytically under the assumption of an infinite production run. A well recognized shortcoming of AOQ is that it does not adequately reflect the quality of the product in a short run production. The problem of calculating AOQ in the short run is formulated in terms of a renewal process. The stochastic process formulation is general enough to address the problem for a general class of CSPs including Dodge's sampling plan, CSP-1. A brief review of various CSPs will be made. Approximation formulas for AOQ in short runs, their accuracies and some numerical illustrations will be presented.

**Topic:** Comparing Statistical Packages: BMDP, SAS, SPSS

**Chair:** David Morganstein, WESTAT, Inc.

**Discussant:** Phillip Wirtz, George Washington University

**Abstract:** General criteria for evaluating statistical packages will be discussed. An overview of the capabilities of each package will be given and the packages will be compared using the criteria.

---

CIRCLE THIS DATE—June 16, 1982, Washington Statistical Society Annual Dinner (Evening) at Fort McNair. Dinner Speaker will be Dr. Jerry L. Jordan, Council of Economic Advisors.

WSS Program Chairs

For information on upcoming Washington Statistical Society Presentations or to suggest topics and speakers contact the appropriate program coordinators or contact Rich Allen, WSS Secretary, 447-4896. Currently, the contacts are:

- **Methodology**
  - Nancy J. Kirkendall 252-9594
  - Julia D. Oliver 633-9688
  - Rich Allen 447-4896

- **Agriculture and Natural Resources**
  - Seymour Selig 696-4314

- **Economics**
  - Mary C. White 523-7157

- **Physical Sciences and Engineering**
  - Jim Wetzel 763-5167

- **Public Health and Biostatistics**

- **Social and Demographic**

---

Employment Column

Deadline for inserting Notices is the 12th of the month preceding the publication date

Send notices and requests to:
Evelyn R. Kay
National Center for Education Statistics
400 Maryland Avenue, S.W.
Washington, D.C. 20202 (301/436-6791)
(Note new number)
POISSON BICENTENNIAL COMMEMORATION

S. D. Poisson first published the cumulative distribution now referred to by his name in the book, "Recherches sur la Probabilité des Judgements en Matiere Criminelle et en Matiere Civile," in the year 1937. His work has had profound influence not only in the development of quantitative thinking regarding the occurrence of rare events, but in many areas of science and engineering. Simeon Denise Poisson was born on June 21, 1781.

The Washington Statistical Society Chapter, American Statistical Association joins The George Washington University, the Office of Naval Research, and the Embassy of France in honoring the 200th anniversary of the birth of Simeon Denise Poisson.

Members of the scientific community and the public are invited to attend morning and afternoon sessions discussing the contributions of Poisson and the advances that were realized from his work. Distinguished speakers will address particular aspects of these contributions in a series of invited perspectives.

MONDAY, 15 MARCH 1982

Morning Program
9:15 a.m. Opening
Harold F. Bright
Provost, The George Washington University

Bernard Bru
Professor, Universite de Paris,
Academie de Paris

Herbert F. Solomon
Professor, Department of Statistics, Stanford University

Lunch recess

Afternoon Program
1:15 p.m.

Irving J. Good
University Distinguished Institute and State University

Max A. Woodbury
Professor of Biomathematics Duke University

Raymond D. Mindlen
Professor of Applied Sciences, Emeritus, Columbia University

To be held at the Dorothy Betts Marvin University Theatre, 2nd floor, The Cloyd Heck Marvin Center of The George Washington University, 800 21st Street, N.W. (between H&I), Washington, D.C.