

Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION

WSS Newsletter -- November 1981

WSS Sponsored:

CALENDAR

Topic: The Role of Probability Models in Finite Population Inference
Speaker: Richard Royall, Johns Hopkins University
Location: Forestall Building, 1000 Independence Ave., S.W., Washington, D.C.
Room GJ015
Date and Time: Wednesday, November 4, 1981, 12:30-2:00 P.M.

Topic: Smoothing, Roughing and Twicing: EDA on Standard Calls
Speaker: Karan Kafadar, NBS
Location: Department of Commerce Building, 14th and Constitution Ave., N.W.
Washington, D.C., Conference Room D (on the First Floor)
Date and Time: Tuesday, November 17, 1981, 12:30-2:00 P.M.

Topic: The Application of the Principles of Model Based Sampling to Department of Energy Surveys
Speakers: Craig Sherbrooke, Larry Thibodeau, Applied Management Sciences
Location: Federal Building, 12th & Penn. Ave., N.W., Washington, D.C., Room 3000B
Date and Time: Tuesday, November 10, 1981, 12:30-2:00 P.M.

Topic: Maximum Likelihood Procedures for Model Selection: A Variety of Applications
Speaker: David F. Findlay, Principal Researcher, Mathematical Statistics Research Staff, Census Bureau
Location: Forestall Building Building, 1000 Independence Ave., Washington, D.C.
Room GJ015
Date and Time: Wednesday, December 9, 1981, 12:30-2:30 P.M.

Other Sponsored:

Sponsored: Internal Revenue Service, Statistics Division
Topic: Supplemental Report, Statistics of Income--1974, 1978, International Income and Taxes, U.S. Corporations and Their Controlled Foreign Corporations: Methodology and Findings.
Speaker: Cindy Snyder, Statistics Division, IRS
Location: 1201 E Street, N.W., Room 806, Washington, D.C.
Date and Time: Tuesday, November 10, 1981, 1:00 p.m.--2:00 p.m.

NATIONAL CENTER FOR HEALTH STATISTICS METHODOLOGY SEMINAR

November 12, 1981 -- 9:30 a.m. -- 10:30 a.m.

Center Building, Room 7-32, 3700 East-West Highway, Hyattsville, Maryland

Topic: Analysis of Data From Complex Sample Surveys--A methodology for the analysis of complex sample survey data involving adjustment factors based on generalized design effects will be presented. The methodology will be illustrated within the context of the Canadian Health Survey.

Speaker: J. N. K. Rao, Ph.D., Professor of Statistics, Carleton University, Ottawa, Canada

For further information, call (301) 436-7111

(for the first two--see October News)

Topic: The Application of the Principles of Model Based Sampling to Department of Energy Surveys

Speakers: Craig Sherbrooke, Applied Management Sciences (AMS), Larry Thibodeau (AMS)

Chair: Yvonne Bishop, Energy Information Administration (EIA)

Discussant: Hal Nisselson, Westat, Inc.

Abstract: As the result of deregulation of the oil industry, some information that the Energy Information Administration (EIA) has gathered as a census in the past must now be estimated from samples.

Under contract to EIA, AMS conducted a literature review of sampling theory relevant to EIA surveys. Sampling methods identified in the review were then evaluated with EIA data.

In this study, Sherbrooke and Thibodeau compared randomization sampling methods to the model-based design approach. The model-based design specifies surveying only the largest oil companies in order to estimate total product deliveries (including the smaller companies). Six sampling algorithms were evaluated using EIA data for eight months in three States. Estimates were compared by percent average absolute error and maximum error for total deliveries of motor gasoline. Some investigation was made of this applicability of empirical Base techniques to multiple products and implications for Census frequency.

The tentative conclusion reached by AMS is that model-based design provides estimates with smaller error for a fixed sample size. However, these results depend upon the population not undergoing any fundamental or significant changes.

Topic: Maximum Likelihood Procedures for Model Selection: A Variety of Applications

Speaker: David F. Findlay, Principal Researcher, Mathematical Statistics Research Staff, Census Bureau

Chairman: William P. Cleveland, Federal Reserve System

Discussant: Will Gersch, ASA Research Fellow, Census Bureau; and the University of Hawaii.

Abstract: A maximum estimated expected log likelihood procedure developed by Akaike will be discussed and illustrated by applications to: selection of the number of factors in factor analysis; selection of the number of independent variables in regression analysis; estimation of density functions; detection of outliers; and the evaluation of different dependencies in contingency table analysis.

Speaker: Cindy Snyder, Statistics Division, IRS

Abstract: The major focus of the discussion will be the classification of the earnings, taxes, and transactions of foreign subsidiaries of U.S. corporations by country and the principal business activity of the foreign subsidiaries. Selected data on the U.S. parent corporations of the foreign subsidiaries for 1976 and 1978 will also be included. A copy of this report may be obtained by contacting Cindy Snyder on 376-0177.

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806 Fifteenth Street, N. W., Washington, D. C. 20005

