Washington Statistical Society

CHAPTER • AMERICAN STATISTICAL ASSOCIATION

NEWSLETTER - JUNE 1973

WASHINGTON STATISTICAL SOCIETY

Invites All Interested Persons To A

METHODOLOGY DISCUSSION

General Subject:

Estimating sampling errors in some specific restricted sample designs, and other related topics.

Moderator: Edward C. Bryant
            President, Washington Statistical Society and
            President, Westat, Inc.

Problem Presentation by: Beulah Mathis
                          Internal Revenue Service

                          and

                          Dwight B. Brock
                          National Center for Health Statistics

Invited Panelists: W. Edward Deming, Consultant

                    and

                    Ralph Woodruff, Bureau of the Census

Other Invited Discussion: Audience

When and Where: Friday, June 22, 1-3 p.m., George S. Boutwell Auditorium
                 7th Floor, IRS Bldg., 1111 Constitution Avenue, N. W.

Comment: This discussion will be taped for reproduction. Therefore, please
          state your name for the recorder before you speak. Also identify
          your office the first time.

The following briefs indicate the problems to be presented for discussion at this Session:

Problem Brief

Beulah Mathis
Internal Revenue Service

In a stratified sample, what are the effects on the estimation of variance of:

1. pre-replication?

2. post-replication?

3. sample selection by Social Security Number with pre-replication? post-replication?

4. sample selection by a systematic device with pre-replication? post-replication?

5. what method of estimating variance should be used on pre-replication? post-replication? Should they be different?

Problem Brief

Dwight B. Brock
National Center for Health Statistics

In large national sample surveys such as the ones carried on NCHS with complex sample designs, and from which hundreds of statistics are produced, there is growing concern about a number of problems encountered in estimating the variance of these statistics. Among them are:

1. Placing emphasis on estimating variances of totals, means, and rates with little regard for position statistics, regression and correlation coefficients, and other "analytical" statistics.

2. Techniques for obtaining "nearly unbiased" estimators of variance which reflect the complex nature of the sample design.

3. The form of presentation of variances in statistical reports.

4. The consistency of the published statistics and variances over time.

5. The feasibility and/or desirability of developing general-purpose computer programs to compute variances for statistics from complex sample designs.

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Methodology Discussion Call For Participants:

As announced in the Washington Statistical Society Newsletter of March 1973, the Methodology Discussions are being produced on a trial basis in response to a need expressed by members of some government agencies for greater communication on problems of mutual interest. Continuation of sponsorship by the Washington Statistical Society depends on active interest and participation of a sufficient number of persons, not only from local government offices, but from private organizations and universities as well.

In the interest of continuing these Discussion sessions it is asked that you write or phone

> Harry M. Rosenblatt
> Bureau of the Census
> Statistical Research Division
> Washington, D. C. 20233
>
> Telephone: 763-5337

if you would like to participate in future sessions as a presenter of problems, or as a member of the panel. Indicate the problem area or subject matter in statistical methodology of particular interest to you.

A list of potential participants will be started, and hopefully will grow. Methodology Discussions will be scheduled as long as the list, which reflects interest in these sessions, is not depleted.

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Job Applicants

Listed below are brief descriptions of the qualifications of individuals
submitting an application seeking employment. Any employer interested
in interviewing the applicant should notify Mrs. Marie D. Eldridge of
their interest by Code Number. The notification should be by mail and
should include the employer's name, organization and telephone number.
The applicant will be notified of the employer's interest and initation
of any further contact will be left to the applicant. All contacts will
be confidential. Mrs. Eldridge's address is: Chief, Mathematical
Analysis Division, National Highway Traffic Safety Administration, U. S.
Department of Transportation, Room 5120, Washington, D. C. 20590.

Code Number

111-5-3
(1) B.S., M.A. in Statistics; (2) Multivariate
analysis applied to evaluation in several areas,
including health care program; (3) 21 years; (4) GS
13-15; (5) Federal Government in Washington or Baltimore
area.

112-5-3
(1) B.A. in Statistics; (2) Statistician-Analytic,
Survey, Operations and Administration, engineering,
reliability; (3) Data collection projects, analysis,
and editing and publication of results; develop
sampling plans, test plans, and reliability assesments
through application of various statistical techniques;
(4) Now GS-13, salary open to discussion; Full/part
time in Washington Metropolitan area.

113-5-3
(1) M.A. (Economics); (2) Statistical and price theory
analysis in the industrial sector; (3) 6 years experience
in analyzing the industrial sector; (4) GS-12; (5)
Government in Washington.

114-513
(1) B.S. (I.E.), M.S. Operations Research; (2) O.R.
systems analysis, statistical analysis, computer
simulation, project management; (3) nine years; (4) GS-13
Washington, D. C.

Code Number

115-5-3 (1) B.A., M.S. Operations Research; (2) Quality control and operations analysis; (3) One year; (4) GS-7; (5) Government in the Washington area.

116-5-3 (1) B.A. Mathematical Statistics; (2) Statistics or research assistant, management trainee program; (3) graduate May 1973; (4) salary range open; Government or private industry in Washington, D. C.

117-5-3 (1) B.A. (Inter'l. Rel. & Econ.), M.A. Economics and Statistics; (2) Financial and quantitative economics, statistical and econometric methods, micro-macro-economics; (3) 15 years; (4) GS-13; (5) Government in the D. C. area.

CODE: (1) Education
       (2) Fields of Competence
       (3) Years of Experience
       (4) Salary or GS level requirement
       (5) Type of employment and geographic area