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# Washington Statistical Society

CHAPTER . AMERICAN STATISTICAL ASSOCIATION



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#### **NEWSLETTER-MAY 1979**

## (Mailed April 26)

May 9:	Health Sector Analysis Techniques
May 15:	Measures of Well-Being
May 16:	Multiple Imputations in Sample Surveys
May 17:	(Lunch meeting at Blackie's House of Beef) Sampling and Bayes' Inferences in the Advancement of Learning
May 23:	On the Economic Distance Between the Two Income Distributions with Applications to the Distribution Between Sexes, Races and Regions
May 23:	Medical Data Banks
May 24:	The Multilateral Trade Negotiations Toward Greater Liberalization
May 25:	(Lunch meeting at Blackie's House of Beef) Evaluation of Civil Service Reform Law
May 30:	Policy Relevance and Integrity of Statistics
June 7:	Annual Dinner Meeting. Speaker: Vincent Barabba

# INTERPROGRAMMATIC

Topic: Health Sector Analysis Techniques

Speakers: Paul I. Ahmed, Office of International Health, HEW

Dr. Kenneth Farr, Office of International Health, HEW Pat Marnane, American Public Health Association

Nick Fusco, Westinghouse Health Systems

Chair: Irving Taylor, USAID

When: Wednesday, May 9, 1979; 12:30-2:30 p.m.

Where: Room 18-57, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland

## SOCIAL AND DEMOGRAPHIC STATISTICS

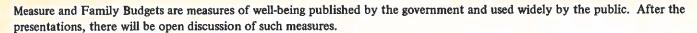
Topic: Measures of Well-Being

Speakers: Mollie Orshansky, Social Security Administration

Harold Watts, Columbia University

Chair: Bette Mahoney, Office of the Assistant Secretary for Planning and Evaluation, HEW

Mollie Orshansky will discuss updating her measure of poverty which is currently the official U.S. government statistical measure of poverty. Harold Watts will discuss the work of the Family Budget Advisory Committee which he chairs. Both the Poverty



When: Tuesday, May 15, 1979, 12:30-2:00 p.m.

Where: IRS Building, 7th Floor Auditorium, 1111 Constitution Avenue, N.W. (Please use entrance at 1111 Constitution

Avenue, and bring a copy of this newsletter to show the building guard)

#### **METHODOLOGY**

Topic: Multiple Imputations in Sample Surveys

Speaker: Donald B. Rubin, Educational Testing Service

Chair: Daniel Kasprzyk, Department of Health, Education, and Welfare

Discussants: Thomas N. Herzog, Department of Housing and Urban Development

Gary Shapiro, U.S. Bureau of Census

A general attack on the problem of nonresponse in sample surveys is outlined from the phenomenological Bayesian perspective. The objective is to develop procedures that are useful in practice. The plan is to impute several values for each missing datum, where the imputed values reflect variation within an imputation model and sensitivity to different imputation models. The analysis of a resultant multi-imputed data set is viewed as simulating predictive distributions of desired summary statistics under imputation models. Three tasks are defined that are needed to create the imputations: the imputation task, the estimation task and the modelling task. The imputation task and estimation task are technical in nature. The modelling task requires the development of new tools appropriate for relating nonrespondents and respondents.

The talk will cover much of the same ground Dr. Rubin discussed at the 1978 San Diego meetings. Application issues will, however, be more prominently featured.

Copies of the paper can be obtained in advance by calling 673-5730. They will also be available at the meeting.

When: Wednesday, May 16, 12:30-2:30 p.m.

Where: IRS Auditorium, IRS Building, 7th Floor. (Please use entrance at 1111 Constitution Avenue, and bring a copy of

this newsletter to show the building guard)

## LUNCH MEETING AT BLACKIE'S HOUSE OF BEEF

(Reservation required)

Topic: Sampling and Bayes' Inference in the Advancement of Learning

Speaker: Professor George E. P. Box, University of Wisconsin

Chair: Beatrice S. Orleans, Naval Sea Systems Command

Scientific method is a process of guided learning in which accelerated acquisition of knowledge relevant to some question under investigation is achieved by a hierarchy of iterations in which induction and deduction are used in alternation.

This process employs a developing model (or series of models implicit or explicit) against which data can be viewed. Ideally at any given stage of an investigation, such a model approximates relevant aspects of the studied system and motivates the acquisition of further data as well as its analysis. By the use of a prior distribution it is possible to represent some aspects of such a model as completely known and others as more or less unknown.

Now parsimony requires that, at any given stage, the model is no more complex than is necessary to achieve a desirable degree of approximation and since each investigation is unique, we cannot be sure in advance that any model we postulate will meet this goal. Therefore, at the various points in our investigation where data analysis is required, two types of inference are involved: model criticism and parameter estimation. To effect the latter, conditional on the plausibility of the model, and given the data, we can, using Bayes' Theorem, deduce posterior distributions for unknown parameters and so make inferences about them. But, before we can rely on such conditional deduction, we ought logically to check whether the model postulated accords with the data at all and, if not, consider how it should be modified. In practice, this question is usually investigated by inspecting residuals, by other informal tests of fit. In any case model criticism, the inferential procedure whereby the need for model modification is induced, is ultimately dependent on sampling theory argument. These principles are formalized by an appropriate analysis of Bayes' formula, and implications for robust estimation are considered.

When:

Thursday, May 17, 1979, Cash Bar: 11:30 a.m., Lunch: 12:15 p.m.

Where:

Blackie's House of Beef, 22nd & M Streets, N.W.

Reservations are \$5.95 per person and must be made by May 15. Because space is limited, reservations will be accepted in order of receipt.

Print name(s) Name tag(s) Address			
Telephone number	Number of persons	Send \$5.95 per person to:	Jim

## METHODOLOGY AND ECONOMICS

Topic:

On the Economic Distance Between Two Income Distributions with Applications to the Distribution Between Sexes,

Races and Regions

Speaker:

Dr. Camilo Dagum, University of Ottawa and Guest Scholar, The Brookings Institution

Chair:

Dr. Dorothy Projector, Former Director, Division of Economic and Long Range Studies, Office of Research and

Statistics, Social Security Administration

Discussant: Dr. Sherman Robinson, Economics and Industry Division, The World Bank

The purpose of this study is to introduce a measure of inter-income inequality that complements the traditional ones proposed by Gini, Theil and others. The latter are measures that account for the degree of income inequality within a given population of economic units (called here intra-income inequality ratios) while the former is intended to measure the degree of inequality between income distributions, which is called here economic distance ratio. The generalized mathematical form of this ratio is provided and two particular forms of economic distance ratios are identified. They are presented under both the discrete form, which is distribution-free, for a direct application to observed income distributions and, the parametric form corresponding to a given model of income distribution. Applications are made to the five economic regions of Canada and to white and black family income distributions of the U.S.A.

When:

Wednesday, May 23, 1979, 12:30-2:00 p.m.

Where:

IRS Auditorium, IRS Building, 7th Floor (Please use entrance at 1111 Constitution Avenue, and bring a copy of

this newsletter to show the building guard)

## PUBLIC HEALTH AND BIOSTATISTICS

Topic:

**Medical Data Banks** 

Speakers:

Dr. James Dambrosia, Mathematical Statistician, National Institute of Neurological Diseases, Communicative

Disorders and Stroke

Ms. Selma Kunitz, Head, Section on Systems Design and Data Processing, National Institute of Neurological

Diseases, Communicative Disorders and Stroke

Chair:

Dr. Earl Pollack, National Cancer Institute

Medical data banks have been established in the areas of stroke and traumatic coma. The statistical and computer systems problems in applying those data banks to the study of disease will be discussed.

When:

Wednesday, May 23, 1979, 3:00-4:30 p.m.

Where:

Conference Room 9, Building 31, National Institutes of Health Visitors' parking adjacent to Wisconsin Avenue, near

Cedar Lane

#### **ECONOMICS**

Topic:

The Multilateral Trade Negotiations: Toward Greater Liberalization?

Speaker:

Robert Baldwin, University of Wisconsin and the World Bank

Chair:

Michael Aho, U.S. Department of Labor, Bureau of International Labor Affairs

#### Abstract:

As the Multilateral Trade Negotiations (also known as the Tokyo Round) draw to a conclusion, the U.S. Congress faces a significant all-or-none choice; it can either accept or reject without amendment a proposed set of new international rules of "good" behavior in commercial relations that will shape the conduct of international trade for at least the rest of this century. The results of the current Tokyo Round will be evaluated with particular emphasis on the proposed new nontariff trade agreements. These agreements cover subsidies and countervailing duties, safeguards against injurious imports, government procurement, valuation and licensing, standards, commercial counterfeiting, differential treatment for developing countries, export restrictions, and dispute settlement procedures under the GATT. After appraising the mechanisms established to secure compliance with the different nontariff codes, the various other agreements concluded will be examined more closely, including the tariff cutting formula that has been adopted. Finally, it will be considered whether the Tokyo Round has in fact initiated a period of greater trade liberalization or one of greater control over world trade.

Time:

Thursday, May 24, 1979, 12:30-2:00 p.m.

Place:

Conference Room N-5437 A,B,C,D (fifth floor, north corridor), New Department of Labor Building

200 Constitution Avenue, N.W.

(Metro Red Line, Judiciary Square Stop, 4th & D Street exit, one block southeast)

#### INTERPROGRAMMATIC

## LUNCH MEETING AT BLACKIE'S HOUSE OF BEEF

(Reservation required)

Topic:

Evaluation of Civil Service Reform Law

Speaker:

Julius Sugarman, Deputy Director, Office of Personnel Management

Chair:

Paul I. Ahmed, Office of International Health

When:

Friday, May 25, 1979 Cash Bar: 11:30 a.m., Lunch: 12:15 p.m.

Where:

Blackie's House of Beef, 22nd & M Streets, N.W.

Reservations are \$6.00 per person and must be made by May 23. Because space is limited, reservations will be accepted in order of receipt.

Print name(s) Name tag(s) Address			
Telephone number	Number of persons	Send \$6.00 per person to:	Jim Carpenter,
Route 1, Box 410, Jefferson, Maryland 21755. (Check	payable to Washington Sta	itistical Society)	

## **METHODOLOGY**

Topic:

Policy Relevance and Integrity of Statistics

Speaker:

Joseph W. Duncan, Director, Office of Federal Statistical Policy and Standards, U.S. Department of Commerce

Harold Goldstein, Former Assistant Commissioner for Manpower and Employment Statistics, Bureau of Labor

Statistics

Robert L. Hagan, Former Deputy Director, U.S. Bureau of the Census

Chair:

James T. Bonnen, Director, Statistical Systems Project, President's Reorganization Project

When:

Wednesday, May 30, 1979, 12:30-2:00 p.m.

Where:

Martin Luther King Library, Meeting Room A-5, 901 G Street, N.W., Metro Center Stop, 11th Street Exit

#### ANNUAL DINNER MEETING

We are pleased to announce that the speaker for our annual dinner meeting will be Vincent Barabba, Director of Marketing Research, Xerox Corporation and formerly Director of the Census Bureau (1973-76). He has also served on the Advisory Committee to the Federal Statistical System Reorganization Project and is currently a Vice President of ASA. Mr. Barabba will talk about the utilization of information, with special emphasis on the need for data providers in the Federal Statistical System to place more emphasis on designing their data systems to meet the critical needs of policymakers in the Federal Government.

When:

Thursday, June 7, 1979, Cocktails (cash bar) 6:00-7:30 p.m., Dinner 7:30 p.m., Speaker 8:30 p.m.

Where:

Fort Lesley J. McNair, Fourth & P Streets, S.W., Crystal Ballroom at the Officers' Club

Cost:

\$9.75 per person (including tips, etc.)

Menu:

Fruit juice

London broil

Molded salad

Escalloped potatoes

Rolls and butter Rainbow parfait

Peas with onions

Coffee or tea

Please make checks payable to the Washington Statistical Society and mail to Jim Carpenter before June 1, 1979.

Print name(s) for Name Tag(s) Address		
Telephone number	Number of persons	Mail to: Jim Carpenter, Route 1, Box 410
Jefferson, Maryland 21755.		

## W.S.S. SUMMER PROGRAM FOR STUDENT INTERNS AND

## **NEW EMPLOYEES OF STATISTICAL AGENCIES:**

## WHAT'S NEW IN STATISTICS?

In an effort to acquaint college students and recent graduates with the statistical profession, W.S.S. is planning some sessions for June and July. In mid to late June, there will be two sessions, each with two speakers, describing innovations in the fields of bio-statistics, survey statistics, engineering/physical sciences statistics, and mathematical statistics. Particular projects will be used to illustrate the changes in the tools available to statisticians; the impact of computer technology on statisticians will be features.

During July, William C. Shelton will chair four sessions, each with different speakers, on the theme, "Revolution in U.S. Government Statistics." The sessions include the topics: historical overview, probability sampling, statistical analysis, national income and product accounts, mechanization of statistics, and building a statistical system.

In addition to our regular publicity a notice providing names of speakers, dates, and location of the meetings will be sent in late May to heads of statistical agencies and personnel officers responsible for hiring college students for the summer. Members are urged to help publicize the meetings by notifying summer employees and others who may be interested in learning more about what statisticians do and how they do it. The series "Revolution in U.S. Government Statistics" will be of interest to all statisticians who want to know more about the development of their profession.

## GROUP FARES TO THE ISI MEETING IN MANILA

Anyone planning to attend the ISI meeting in Manila this December and interested in group fare arrangements, may call Mr. Albert Allen of Phillipine Airlines at (202) 331-8950. A minimum of ten persons is required to form a group. Special benefits are available to anyone willing to serve as a group organizer.

## **ELIJAH AND MARY WHITE**

We note with deep sorrow the deaths of Mr. and Mrs. Elijah L. White in an automobile accident in Poland on April 12. Elijah had a long and distinguished career with the National Center for Health Statistics and at the time of his death was Associate Director for Data Systems.

#### **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 202/245-8340

## **Job Openings**

Statistical consultant

Well established equal employment opportunity consulting firm seeks MS or MA in Mathematical Statistics, with interest in regression, sampling problems, and computer application to analyze and develop affirmative action efforts for client companies. Strong communication skills essential. Salary open and negotiable. Call Teri T.

Swanson at (212) 725-0154. EEOServices, 501 Madison Avenue, New York, N.Y. 10022.

## **Job Applicants**

Listed below are brief descriptions of the qualifications of applicants seeking employment. Employers interested in interviewing these applicants should notify Mrs. Kay of their interest by CODE NUMBER. The request 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 initiation of any further contact will be left to the applicant. All contacts will be confidential.

## CODE NUMBER 5-11-79

Education:

MA mathematical statistics

Fields of Competence:

Regression, analysis of variance, nonparametric statistics, experimental design, statistical computing. A paper on nonparametric analysis of variance was accepted for publication by

JASA.

Experience:

2 years experience of management project for government and consulting firm. Statistical

study of pension/welfare, revenue sharing, and education technology.

Salary:

GS-11

Type of Employment:

Government or private industry in Washington metro area.

CODE NUMBER 5-12-79

Education:

PhD Sociology (Cornell)

Fields of Competence:

Research methods, statistical analysis, mathematical modeling, and computer programming.

Substantive interest in issues involving bilingualism-biculturalism.

Experience:

Currently serving in government as a survey statistician (sampling, evaluation of proposed research, design and analysis of special studies). Previously employed as a methodological

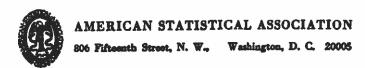
consultant and as a computer programmer.

Salary:

GS 12 or equivalent

Type of Employment:

Washington metro area. Public preferred, but will consider private.



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