

# ESTADISTICA

*Journal of the Inter American Statistical Institute*

Vol. X, No. 36

September 1952

## • Contents

Estadística No. 36 is an experimental "subject issue," devoted almost in its entirety to:

### STATISTICAL TEACHING AND TRAINING METHODS AND MATERIALS

This number was developed primarily to provide a collection of useful viewpoints and important reference materials which would be of particular value to statistical teaching and training activities in the Western Hemisphere—whether conducted in universities, in government statistical operating agencies, or elsewhere. The contents fall roughly into five categories: (1) Problems and needs in statistical education; (2) how the needs can be met; (3) examples of curricula and operational methods; (4) reports and other documentary material; and (5) bibliography.

The material is published under three separate covers—the main *Journal*, consisting of approximately 170 pages, in which articles in their original text appear; *Supplement No. 1*, consisting of approximately 120 pages of translations of articles or reports, and of other documentary material; and *Supplement No. 2*, containing a 50-page Bibliography of Statistical Textbooks and Other Teaching Material, prepared under the auspices of the Committee on Statistical Education of IASI.

Among contributors to issue No. 36 are the following: FRANCISCO DE ABRISQUETA, CARLOS E. DIEULEFAIT, HALBERT L. DUNN, FORREST E. LINDER, M. PEREZ GUERRERO, STUART A. RICE, LUIS THORIN CASAS, SAMUEL S. WILKS, and others.

Published quarterly; annual subscription price \$3.00 (U.S.); single copies \$1.00 (U.S.)

Inter American Statistical Institute, % Pan American Union, Washington 6, D.C., U. S. A.

## JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION

June 1952

Vol. 47 No. 258

1108 16th Street, N. W., Washington 6, D. C.

- An Analysis of Some Failure Data.....D. J. DAVIS  
Classification and Analysis of Partially Balanced Incomplete Block Designs with Two Associate Classes.....R. C. BOSE AND T. SHIMANOTO  
Replacing Variables in Correlation Problems.....VINCENT I. WEST  
Operating Characteristics for Tests of the Stability of a Normal Population...JOHN E. WALSH  
Multiple Sampling of Attributes.....D. S. ROBSON AND A. J. KING  
Estimating the Product of Several Random Variables.....G. D. SHELLARD  
Some Principles of Processing Census and Survey Data  
ROBERT B. VOIGHT AND MARTIN KRIESBERG  
Short-cut Methods of Estimating County Population.....ROBERT C. SCHMITT  
Sampling Surveys in Central Africa.....J. R. H. SHAUL  
Factors in the Accumulation of Social Statistics.....SOLOMON FABRICANT  
Comparison of Selected Measures of Ability of Communities to Bear Tax Burdens  
LORIN A. THOMPSON  
A Critical Evaluation of Available Agricultural Statistics.....IVAN M. LEE  
Prepaid Medical Care as a Source of Morbidity Data.....NEVA R. DEARDORFF  
Some Cases in Which Yates' Correction Should not be Applied.....EDWIN L. CROW

The American Statistical Association invites as members all persons interested in:

1. development of new theory and method
2. improvement of basic statistical data
3. application of statistical methods to practical problems.

# ASA

# BIOMETRIKA

*A Journal for the Statistical Study of Biological Problems*

Volume 39

Contents Parts 3 and 4, December 1952

1. Estimation of population parameters from data obtained by means of capture-recapture method. Part II. By P. H. LESLIE. 2. Tensor notation and the sampling cumulants of  $k$ -statistics. By E. L. KAPLAN. 3. Estimation in double sampling. By D. R. COX. 4. Sampling from bivariate, non-normal universes. By H. HYRENIUS. 5. The truncated Poisson distribution. By P. G. MOORE. 6. Upper 5% and 1% points of the ratio  $s^2_{\max}/s^2_{\min}$ . By H. DAVID. 7. Conditions under which Gram-Charlier and Edgeworth curves are positive definite and unimodal. By D. E. BARTON and K. E. DENNIS. 8. On a two-sided sequential  $t$ -test. By S. RUSHTON. 9. Properties of distribution based on certain simple transformation of the normal curve. By J. DRAPER. 10. Estimation of the mean and standard deviation of a normal population from a censored sample. By A. K. GUPTA. 11. The rank analysis of incomplete block designs. By R. A. BRADLEY and M. E. TERRY. 12. The statistical structure of ecological communities. By J. G. SKELLAM. 13. The growth, survival, wandering and variation of the long-tailed field mouse. Part III—Wandering and recapture. By H. P. and H. S. HACKER. 14. Use of scores for the analysis of association in contingency tables. By E. J. WILLIAMS. 15. Statistical significance of odd bits of information. By M. S. BARTLETT. 16. Tests of fit in time series. By P. WHITTLE. 17. The fitting of grouped truncated and grouped censored normal distributions. By P. M. GRUNDY. 18. MISCELLANEA: Samples with the same number in each stratum. By W. L. STEVENS. Comparison of analysis of variance power functions in the parametric and random models. By N. L. JOHNSON. Approximation to the probability integral of the distribution of range. By N. L. JOHNSON. Discrimination in time series analysis. By A. RUDRA. Statistical control of counting experiments. By H. O. LANCASTER. Exact grouping corrections to moments and cumulants. By M. KUPPERMAN.

The subscription price, payable in advance, is 45s. inland, 54s. export (per volume including postage). Cheques should be drawn to Biometrika and sent to "The Secretary, Biometrika Office, Department of Statistics, University College, London, W.C. 1." All foreign cheques must be in sterling and drawn on a bank having a London agency.

# ECONOMETRICA

*Journal of the Econometric Society*  
*Contents of Vol. 20, July, 1952, include:*

JAN TINBERGEN

Four Alternative Policies to Restore Balance of Payments Equilibrium

T. M. BROWN.....Habit Persistence and Lags in Consumer Behavior

A. D. ROY.....Safety First and the Holding of Assets

WALTER ISARD.....A General Location Principle of an Optimum Space-Economy

RENÉ ROY.....Les Elasticités

de la Demande relative aux biens de Consommation et aux groupes de biens

A. DVORETZKY, J. KIEFER, AND J. WOLFOWITZ

The Inventory Problem: II. Case of Unknown Distributions of Demand

Reports of the Boston and Tokyo Meetings

Review Articles, Book Reviews, and Notes

Published Quarterly

Subscription rates available on request

The Econometric Society is an international society for the advancement of economic theory in its relation to statistics and mathematics.

Subscriptions to *Econometrica* and inquiries about the work of the Society and the procedure in applying for membership should be addressed to William B. Simpson, Secretary, The Econometric Society, The University of Chicago, Chicago 37, Illinois, U. S. A.

# MATHEMATICAL REVIEWS

*A journal containing reviews of the mathematical literature of the world, with full subject and author indices*

Publication of this journal is sponsored by the American Mathematical Society, Mathematical Association of America, Institute of Mathematical Statistics, London Mathematical Society, Edinburgh Mathematical Society, Union Matematica Argentina, and others.

Subscriptions accepted to cover the calendar year only.  
Issues appear monthly except July. \$20.00 per year.

*Send subscription order or request for sample copy to*

AMERICAN MATHEMATICAL SOCIETY  
80 Waterman Street, Providence 6, Rhode Island

## JOURNAL OF THE ROYAL STATISTICAL SOCIETY

*Series B (Methodological)*

*Contents of Volume 13, No. 2, 1951*

DAVID G. KENDALL	Some Problems in the Theory of Queues
H. E. DANIELS	The Theory of Position Finding. (With Discussion)
W. R. BUCKLAND	A Review of the Literature of Systematic Sampling
V. P. GODAMBE	On Two-stage Sampling
B. V. SUKHATME	On Certain Probability Distributions Arising from Points on a Line
P. G. GUEST	The Estimation of Standard Error from Successive Finite Differences
E. H. SIMPSON	The Interpretation of Interaction in Contingency Tables
H. O. PATTERSON	Complex Contingency Tables Treated by the Partition of $\chi^2$
S. ROSENBAUM	The Variance of Least-Square Estimates under Linear Restraint
H. D. PATTERSON	Change-over Trials
P. M. GRUNDY	A General Technique for the Analysis of Experiments with Incorrectly Treated Plots
D. J. FINNEY	Subjective Judgment in Statistical Analysis: An Experimental Study
G. H. JOWETT	The Expression of the Complementary Outputs of Two Products in Terms of a Common Unit of Production Effort
J. DURBIN AND A. STUART	Inversions and Rank Correlation Coefficients
H. E. DANIELS	Note on Durbin and Stuart's Formula for $E(r_s)$

The Royal Statistical Society, 4, Portugal Street, London, W.C.2.

# SKANDINAVISK AKTUARIETIDSKRIFT

1951 - Parts 3 - 4

## Contents

G. ARFWEDSON

A Probability

Distribution Connected with Stirling's Second Class Numbers

T. DALENIUS AND M. GURNEY.....The Problem of Optimum Stratification. II.

HERMAN WOLD.....Demand Functions and the Integrability Condition

G. HARBITZ.....Post-war Mortality among Industrial Insured Lives in Norway

S. VAJDA.....Analytical Studies in Stop-Loss Insurance

KNUT MEDIN

The Sickness Experience of the Valkyrian Insurance Company, 1929-1948

PER OTTESTAD

On the Test of the Hypothesis

that the Probability of an Event Is Contained within Given Limits

Annual subscription: 10 Swedish Crowns (Approx. \$2.00).

Inquiries and orders may be addressed to the Editor.

SKÄRVIKSVAGEN 7, DJURSHOLM (SWEDEN)

# SANKHYĀ

*The Indian Journal of Statistics*

*Edited by P. C. Mahalanobis*

Vol. 11, Part 2, 1951

The Estimation of Parameters in Certain Stochastic Processes... HENRY B. MANN

Statistical Inference Applied to Classificatory Problems... C. RADHAKRISHNA RAO

Multivariate Binomial and Poisson Distributions... A. S. KRISHNAMOORTHY

On Errors of Estimates in Various Types of Double Sampling Procedure... K. C. SEAL

Estimation of Parameters from Incomplete Data with Application to Design of

Sample Surveys... ABRAHAM MATTHAI

Confluent Hypergeometric Function... PRAN NATH

A Study of Recent Trend in Infantile Mortality Rates in Calcutta by Longitudinal

Survey... K. N. MITRA, B. BHATTACHARYA, K. DEY, C. S. DAWN,

M. OBADIAH, AND A. K. GAYEN

On the Non-Existence of Certain Difference Sets for Incomplete Group Designs

S. S. SHRIKHANDE

On the Non-Existence of Affine Resolvable Balanced Incomplete Block Designs

S. S. SHRIKHANDE

A Note on the Power of the Best Critical Region for Increasing Sample Size

D. BASU

Some Further Results on Errors in Double Sampling Technique... CHAMELI BOSE

A Note on Price-Wage Variations in Cottage and Factory Economy... G. C. MANDAL

Annual subscription: 30 rupees

Inquiries and orders may be addressed to the  
Editor, Sankhyā, Presidency College, Calcutta, India.

# THE INSTITUTE OF MATHEMATICAL STATISTICS

(Organized September 12, 1935)

## OFFICERS FOR 1952

*President:*

M. A. GIRSHICK, Stanford University, Stanford, California

*President-Elect:*

M. H. HANSEN, Bureau of the Census, Washington, D. C.

*Secretary-Treasurer:*

K. J. ARNOLD, Michigan State College, East Lansing, Michigan

*Editor:*

T. W. ANDERSON, Columbia University, New York, New York

The purpose of the Institute of Mathematical Statistics is to stimulate research in the mathematical theory of statistics and to promote cooperation between the field of pure research and the fields of application.

Membership dues including subscription to the ANNALS OF MATHEMATICAL STATISTICS are \$10.00 per year within the United States and Canada and \$7.00 per year elsewhere. Dues and inquiries regarding membership in the Institute should be sent to the Secretary-Treasurer of the Institute.

## MEETINGS OF THE INSTITUTE

ANNUAL MEETING—CHICAGO, ILLINOIS—December 27-29, 1952.

To be held in conjunction with the American Statistical Association and the Econometric Society. Abstracts of contributed papers must be in the hands of Associate Secretary William Kruskal, Eckhart Hall, University of Chicago, Chicago 37, Illinois, not later than November 14, 1952.