

STATISTICS IN THE INTERNATIONAL ENCYCLOPEDIA OF THE SOCIAL SCIENCES

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A number of interesting problems have been faced in planning the sixty-odd statistical articles for the forthcoming International Encyclopedia of the Social Sciences. An encyclopedia has many functions, and users approach it in many ways. Should articles be primarily essays about parts of statistics, without attempt at full coverage? Should articles be handbook-like terse summaries? How should controversial areas, and widely differing viewpoints towards statistics be treated? What about level of exposition? Following discussion of such issues, brief descriptions were given of the intensive work on accuracy, clarity of exposition, etc., and of the structure of the statistical topics to be treated.

PRELIMINARY LIST OF STATISTICS AND
STATISTICS-RELATED ARTICLES IN THE
INTERNATIONAL ENCYCLOPEDIA OF THE
SOCIAL SCIENCES

Topical Articles

BAYESIAN INFERENCE (Harry V. Roberts)
CAUSATION (Herbert A. Simon)
CENSUS (Conrad Taeuber)
CLUSTERING (David Wallace)
COHORT ANALYSIS (Norman B. Ryder)
COMPUTATION (Robert L. Ashenurst)
CONCENTRATION CURVES (P. C. Mahalanobis)
CONTENT ANALYSIS (Matilda W. Riley &
Clarice S. Stoll)
COUNTED DATA (Douglas G. Chapman)
CROSS-SECTION ANALYSIS (Yair Mundlak)
CYBERNETICS (M. E. Maron)
DECISION THEORY (Herman Chernoff)
DISTRIBUTIONS, STATISTICAL
 I Special discrete distributions
 (Frank A. Haight)
 II Special continuous distributions
 (Donald B. Owen)
 III Approximations to distributions
 (N. L. Johnson)
 IV Mixtures of distributions
 (Wallace R. Blischke)
ERRORS
 I Nonsampling errors
 (Frederick Mosteller)
 II Effects of errors in statistical
 assumptions (Robert M. Elashoff)

ESTIMATION

- I Point estimation
(D. L. Burkholder)
- II Confidence intervals and regions
(J. Pfanzagl)

EVIDENCE, STATISTICS AS LEGAL

(Hans Zeisel)

EXPERIMENTAL DESIGN

- I The design of experiments
(William G. Cochran)
- II Response surfaces (George E. P. Box)
- III Quasi-experimental design
(Donald T. Campbell)
- IV Social experiments (Fred L. Strodbeck)

EXPLANATION (Sidney Morgenbesser)

FACTOR ANALYSIS

- I Statistical aspects
(A. E. Maxwell)
- II Psychological applications
(Lloyd G. Humphreys)

FALLACIES, STATISTICAL (Irving John Good)

FIDUCIAL INFERENCE (R. A. Fisher)

GEOGRAPHY: Statistical Geography

(Brian J. L. Berry)

GOODNESS OF FIT (Herbert T. David)

GOVERNMENT STATISTICS (Nathan Keyfitz)

GRAPHICS (Calvin F. Schmid)

HYPOTHESIS TESTING (E. L. Lehmann)

IDENTIFIABILITY, STATISTICAL

(Olav Reiersøl)

INDEX NUMBERS

- I Theoretical aspects (Erik Ruist)
 - II Practical applications (Ethel D. Hoover)
 - III Sampling (Philip J. McCarthy)
- LATENT STRUCTURE (Albert Madansky)
LIFE TABLES (Mortimer Spiegelman)
LIKELIHOOD (Allan Birnbaum)

LINEAR HYPOTHESES

- I Regression (E. J. Williams)
- II Analysis of variance
(Julian C. Stanley)
- III Multiple comparisons (Peter Nemenyi)

MARKOV CHAINS (Patrick Billingsley)

MATHEMATICS (R. Duncan Luce &

Patrick Suppes)

MULTIVARIATE ANALYSIS

- I Overview (Ralph A. Bradley)
- II Correlation (Harold Hotelling)
- III Discriminant functions
(T. W. Anderson)

NONPARAMETRIC STATISTICS

- I The field (I. Richard Savage)
- II Order statistics (Bernard G. Greenberg)
- III Runs (P. G. Moore)
- IV Ranking methods (Herbert A. David)

PREDICTION (Karl F. Schuessler)

PROBABILITY

- I Formal probability (Gottfried E. Noether)
- II Interpretations (Bruno de Finetti)

PROGRAMMING (Richard E. Quandt)

PSYCHOMETRICS (Edward E. Cureton)

QUALITY CONTROL, STATISTICAL

- I Acceptance sampling (H. C. Hamaker)
- II Control charts (E. S. Page)
- III Reliability and life testing (Marvin Zelen)

QUANTAL RESPONSE (Byron W. Brown, Jr.)

QUEUES (D. R. Cox)

RANDOM NUMBERS (Mervin E. Muller)

RANK--SIZE RELATIONS (Anatol Rapoport)

RESPONSE SETS (Samuel Messick)

SAMPLE SURVEYS

- I The field (W. Edwards Deming)
- II Nonprobability sampling (Alan Stuart)

SCALING (Warren S. Torgerson)

SCREENING AND SELECTION (C. W. Dunnett)

SEQUENTIAL ANALYSIS (P. Armitage)

SIMULTANEOUS EQUATION ESTIMATION (Lawrence Klein)

STATISTICAL ANALYSIS, SPECIAL PROBLEMS OF

- I Outliers (F. J. Anscombe)
- II Transformation of data (F. J. Anscombe)
- III Grouped observations (N. F. Gjeddeback)
- IV Truncation and censorship (Lincoln E. Moses)

STATISTICS

- I The field (William H. Kruskal)
- II The history of statistical method (M. G. Kendall)

STATISTICS, DESCRIPTIVE

- I Location and dispersion (Hans Kellerer)
- II Association (Robert H. Somers)

SUFFICIENCY (J. L. Hodges, Jr.)

SURVEY ANALYSIS

- I Methods of survey analysis (Hanan C. Selvin)
- II The analysis of attribute data (Paul F. Lazarsfeld)

III Concepts and indices

(Allen H. Barton)

IV Panel analysis (Lee M. Wiggins)

V Reasons analysis (Charles Kadushin)

VI Facet analysis (Louis Guttman)

VII Applications in economics (James N. Morgan)

TABULAR PRESENTATION (James A. Davis)

TIME SERIES

- I General (Gerhard Tintner)
- II Advanced problems (P. Whittle)
- III Cycles (Herman Wold)
- IV Seasonal adjustment (Julius Shiskin)

VARIANCES, STATISTICAL STUDY OF (H. R. Van der Vaart)

Biographical Articles

Babbage, Charles, 1792-1871 (Philip Morrison & Emily Morrison)

Bayes, Thomas, 1701 or 1702-1761 (G. A. Barnard)

Benini, Rodolfo, 1862-1956 (Klaus-Peter Heiss)

Bernoulli Family, The (Joachim Otto Fleckenstein)

Bienaymé, Jules, 1796-1878 (Daniel Dugué)

Bortkiewicz, Ladislaus von, 1868-1931 (E. J. Gumbel)

De Moivre, Abraham, 1667-1754 (Hilary L. Seal)

Fisher, R. A., 1890-1962 (Maurice Bartlett)

Galton, Francis, 1822-1911 (Florence N. David)

Gauss, Karl Friedrich, 1777-1855 (Churchill Eisenhart)

Gini, Corrado, 1884- (Tommaso Salvemini)

Girshick, Meyer A., 1908-1955 (Albert H. Bowker)

Gosset, William Sealy, 1876-1937 (J. O. Irwin)

Graunt, John, 1620-1674 (B. Benjamin)

Kelley, Truman L., 1884-1961 (David V. Tiedeman)

Keynes, John Maynard, 1883-1946 (Roy Harrod)

II Contributions to statistics (Dennis V. Lindley)

Körösi, József, 1844-1906 (D. L. Thirring)

Laplace, Pierre Simon de, 1749-1827 (Maurice Fréchet)

- Lexis, Wilhelm, 1837-1914 (R. K. Bauer)
 Lotka, Alfred J., 1880-1949
 (Joseph J. Spengler)
 Pearson, Karl, 1857-1936 (Helen M.
 Walker)
 Petty, William, 1623-1687
 (Phyllis Deane)
 Poisson, Siméon Denis, 1781-1840
 (Robert Féron)
 Quetelet, Adolphe, 1796-1874
 (Paul F. Lazarsfeld)
 Spearman, C. E., 1863-1945 (Raymond B.
 Cattell)
 Stouffer, Samuel A., 1900-1960
 (M. Brewster Smith)
- Süssmilch, Johann Peter, 1707-1767
 (I. Esenwein-Rothe)
 Von Mises, Richard, 1883-1953
 (Hilda Geiringer)
 Von Neumann, John, 1903-1957
 (Oskar Morgenstern)
 Wald, Abraham, 1902-1950
 (Harold A. Freeman)
 Wiener, Norbert, 1894-1964 (M. E. Maron)
 Wilks, S. S., 1907-1964
 (Frederick Mosteller)
 Willcox, Walter F., 1861-1964
 (Frank Notestein)
 Yule, G. Udny, 1871-1951
 (M. G. Kendall)