

CONTENTS

JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION

MARCH, 1938 \$1.50 PER COPY · \$6.00 PER ANNUM · VOL. 33 · NO. 201

ARTICLES AND ANNUAL MEETING PAPERS

The Statistical Equivalent Gold	W. RANDOLPH BURGESS	1
Changes in Capital Financing	DONALD B. WOODWARD	12
Changes in Secondary Distribution of Equity Securities	H. J. LOMAN	21
Changed Conditions in the Marketing of New Issues	JULES I. BOGEN	31
Tendencies in Consumer Financing	ROLF NUGENT	42
Consumer Financing and Its Relation to the Commercial Bank	DAVID C. BARRY	51
The Economic Function of the Sales Finance Company	MILAN V. AYRES	59
Public Supervision of Consumer Credit	WILLIAM T. FOSTER	71
Expenditure Patterns of Urban Families	A. D. H. KAPLAN	81
Contribution to the Theory of Sampling Human Populations	J. NEYMAN	101
The Problem of Measuring Radio Coverage	L. D. H. WELD	117
Quantitative Methods in Politics	STUART A. RICE	126
Government and the Sampling Referendum	GEORGE GALLUP	131
Statistical Bias in Primary Data and Public Policy	A. F. HINRICH	143
Some Measures of Changing Labor Productivity and Their Analysis	DAVID WEINTRAUB	153
Some Recent Results in Population Analysis	ALFRED J. LOTKA	164

PROCEEDINGS OF THE NINETY-NINTH ANNUAL MEETING

Program of the Annual Meeting	179
Minutes of the Annual Business Meeting	188
Reports	
Board of Directors	190
Committee on Fellows	197
Secretary	197
Treasurer	198
Auditing Committee	202
List of Committees and Representatives for 1937	202
Reports of Committees and Representatives	
Advisory Committee on the Census	205
Committee on Census Enumeration Areas	208
Committee on Statistics of Delinquents and Criminals	209
Committee on Statistics of Institutions for Mental and Physical Disorders	209
Joint Committee on Relief Statistics	211
Committee on Labor Statistics	211
Committee on Industrial Statistics	212
Joint Committee on Income Tax Statistics	213
Committee on the Statistical Evidence Concerning the Causes of the 1929-1932 Business Collapse	214
Committee on Biometrics	220
Committee on an Annual Review of Progress in Mathematical Statistics	222
Representative on the Joint Committee for the Development of Statistical Applica- tions in Engineering and Manufacturing	223
Representative on the Board of Directors of the National Bureau of Economic Research	223
Representative on the National Conference on Nomenclature of Disease	224
Representative on the Sectional Committee on Standards for Graphic Presentation	225
Representative on the Council of the A.A.A.S.	225

NOTES

Mr. W. S. Gosset	J. NEYMAN	226
International Statistical Institute.		229

Continued on next page



NOTES—(Continued)

Institute of Mathematical Statistics	229
Polish Statistical Society	229
Progress of Work in the Census Bureau	JOSEPH A. HILL 230
A Correction	JACOB L. MOSAK 232
Statistical News and Notes	
Dominion Bureau of Statistics, Canada	233
Central Statistical Board	235
Board of Governors of the Federal Reserve System	236
Division of Finance and Research, Farm Credit Administration	236
Securities and Exchange Commission	236
Federal Trade Commission	237
Bureau of Foreign and Domestic Commerce	238
United States Tariff Commission	241
Bureau of Labor Statistics, U. S. Department of Labor	242
Social Security Board	244
Division of Research, Statistics and Records, Works Progress Administration	246
Division of Social Research, Works Progress Administration	248
United States Employment Service	250
Office of Education	251
The National Archives	251
Graduate School of the U. S. Department of Agriculture	251
United States Public Health Service	252
New York State Department of Social Welfare	252
Brookings Institution	252
National Bureau of Economic Research	253
National Industrial Conference Board	254
Research Projects at Dun & Bradstreet, Inc	255
Chapter Activities	257
New Members	265

REVIEWS

BENEY, M. ADA. <i>Cost of Living in the United States, 1914-1936.</i> Faith M. Williams	
BURDICK, EDWARD DOUGLASS. <i>Corporate Interest Payments 1921-1932.</i> J. Ellwood Amos	302
DAUGHERTY, CARROLL R., DE CHAZEAU, MELVIN G., and STRATTON, SAMUEL S. <i>The Economics of the Iron and Steel Industry.</i> J. Frederic Dewhurst	284
DAVENPORT, DONALD H., and SCOTT, FRANCES V. <i>An Index to Business Indices.</i> Frederick E. Croxton	278
DE CHAZEAU, MELVIN G., see Daugherty, Carroll R.	
ENSLOW, ELMER R. <i>Statistics in Education and Psychology.</i> Henry A. Robinson	280
FELDMAN, HERMAN. <i>Problems in Labor Relations.</i> Royal E. Montgomery	288
HEBERLE, RUDOLF, and MEYER, FRITZ. <i>Die Grossstädte im Strome der Binnenwanderung.</i> Conrad Taeuber	293
HOOVER, EDGAR M., JR. <i>Location Theory and the Shoe and Leather Industries.</i> Glenn E. McLaughlin	287
KENDRICK, M. SLADE. <i>The Undistributed Profits Tax.</i> Mabel Newcomer	298
KINDLEBERGER, CHARLES POOR. <i>International Short-Term Capital Movements.</i> Emile Despres	296
KOOPMANS, T. <i>Linear Regression Analysis of Economic Time Series.</i> S. S. Wilks	273
MAXWELL, JAMES A. <i>Federal Subsidies to the Provincial Governments in Canada.</i> K. W. Taylor	300
MEYER, FRITZ, see Heberle, Rudolf.	
OAKES, EUGENE E. <i>Studies in Massachusetts Town Finance.</i> A. M. Hillhouse	299
PALMER, GLADYS L., and WOOD, KATHERINE D. <i>Urban Workers on Relief.</i> Ralph Carr Fletcher	289
SCOTT, FRANCES V., see Davenport, Donald H.	
SNEDECOR, GEORGE W. <i>Statistical Methods.</i> A. E. Treloar	271
SOCIAL SCIENCE RESEARCH COUNCIL. <i>Government Statistics.</i> Willard L. Thorp	269
STRATTON, SAMUEL S., see Daugherty, Carroll R.	
TRIVANOVITCH, VASO. <i>Economic Developments of Germany under National Socialism.</i> Calvin B. Hoover	282
THE TWENTIETH CENTURY FUND. <i>Studies in Current Tax Problems.</i> Alfred G. Buehler	294
WATSON, J. P. <i>Economic Backgrounds of the Relief Problem.</i> John N. Webb	291
WOOD, KATHERINE D., see Palmer, Gladys L.	
WYAND, CHARLES S. <i>The Economics of Consumption.</i> John H. Cover	282
YOUNG, AGNES BROOKS. <i>Recurring Cycles of Fashions, 1760-1937.</i> Lillian Freidman	280

(All Rights Reserved)

CONTENTS

BIOMETRIKA. Vol. XXIX, Parts I and II

	PAGE
A contribution to Eskimo craniology based on previously published measurements. By G. M. MORANT. With one Figure in the Text	1—20
On the z -test in randomized blocks and Latin squares. By B. L. WELCH. With six Figures in the Text	21—52
Some aspects of the problem of randomization. By E. S. PEARSON	53—64
The distribution of the ratio of covariance estimates in two samples drawn from normal bivariate populations. By H. O. HIRSCHFELD	65—79
A contribution to the biometric study of the human mandible. By FRANK H. CLEAVER. With five Plates and one Figure in the Text	80—112
A biometric study of the human malar bone. By T. L. WOO. With four Figures in the Text	113—123
The sampling distribution of the criterion λ_{H_1} when the hypothesis tested is not true. EDITORIAL NOTE	124
I. Note on the general sampling moments of λ_{H_1} . By S. S. WILKS.	124—127
II. An investigation into the adequacy of Dr. Wilks's curves. By CATHERINE M. THOMPSON. With two Figures in the Text	127—132
The exact value of the moments of the distribution of χ^2 , used as a test of goodness of fit, when expectations are small. By J. B. S. HALDANE	133—143
Tests of goodness of fit applied to records of Mendelian segregation in mice. By HANS GRÜNEBERG and J. B. S. HALDANE	144—153
MISCELLANEA:	
(i) An application of the method of maximum likelihood. By WALTER A. HENDRICKS	154—155
(ii) Maximum likelihood and methods of estimation. By E. S. PEARSON	155—156
(iii) A note on unbiased limits for the correlation coefficient. By F. N. DAVID. With one Figure in the Text	157—160

TABLE OF CONTENTS

Combined Expansions of Products of Symmetric Power Sums and of Sums of Symmetric Power Products with Application to Sampling. PAUL S. DWYER	1
On the Independence of Certain Estimates of Variance. ALLEN T. CRAIG	48
Variance of a General Matching Problem. JOSEPH A. GREENWOOD	56
The Large-sample Distribution of the Likelihood Ratio for Testing Composite Hypotheses. S. S. WILKS	60
On Differential Operators Developed by O'Toole. M. ZIAUD-DIN.	63
Graduation by a Truncated Normal. NATHAN KEYFITZ.....	66
Report of the Annual Meeting of the Institute of Mathematical Statistics	68